

BEAVER CREEK COAL COMPANY

1989 ANNUAL REPORT

C.V. SPUR

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



March 29, 1990

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

RE: 1989 Annual Report
C.V. Spur Loadout Facility
ACT/007/022
Carbon County, Utah

Dear Mr. Braxton:

Enclosed is the Annual Report for Coal Mining and Reclamation Operations for 1989 for the C.V. Spur.

If you have any questions or need any further information, please let me know.

Respectfully,

Dan W. Guy,
Manager, Permitting & Compliance

DWG/pd

cc: Johnny Coffey
File 4-P-5-1-1

RECEIVED
MAR 29 1990
DIVISION OF OIL
GAS & MINING
PRICE, UTAH

BEAVER CREEK COAL COMPANY

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C.V. SPUR

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DIVISION OF OIL
GAS & MINING
PRICE, UTAH

COAL MINING AND RECLAMATION OPERATIONS FOR 1989
(Authority UMC 784)

(Must be submitted to the Division by March 31, 1990)

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

(801) 538-5340

Operator:	<u>Beaver Creek Coal Company</u>
Mine Name:	<u>C. V. Spur Processing and Loadout Facility</u>
Mailing Address:	<u>P.O. Box 1378, Price, Utah 84501</u>
Company Representative:	<u>Dan W. Guy</u>
Permit Number:	<u>ACT/007/022</u>
Date of Most Recent Permanent Program Permit:	<u>8/7/89</u>
Quantity of Coal Mined (tonnage) 1989:	<u>850,488 Tons Shipped</u>

Attach Updated Mine Sequence Map.

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

- A. Summarized Water Monitoring Data (Included)
- B. Precipitation or Other Climatological Data (Included)
- C. Subsidence Monitoring Report (N/A)
- D. Vegetation Data (test plots) or Revegetation Success Monitoring (includes interim and final) (Included)
- E. Permit Stipulation Status (Included)

CERTIFICATES OF INSURANCE

ARCO Coal Company
555 Seventeenth Street
Denver, Colorado 80202
Telephone 303 293 4000



August 17, 1987

Pamela Grubaugh-Littig
State of Utah
Natural Resources
Oil, Gas & Mining
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Bond No. U-629894

Dear Ms. Littig:

As we discussed by telephone, enclosed is a rider increasing the bond on CV Spur to \$2,017,669.00.

Please contact me if you need anything further in this regard.

Sincerely,

Mickey L. Love
Senior Lease Administrator

MLL:mjb
enclosure
cc: Dan Guy

UNITED PACIFIC INSURANCE COMPANY

HOME OFFICE, FEDERAL WAY, WASHINGTON

POWER OF ATTORNEY

NOW ALL MEN BY THESE PRESENTS, That the UNITED PACIFIC INSURANCE COMPANY, a corporation duly organized under the laws of the State of Washington, does hereby make, constitute and appoint

W. C. DOYLE of LOS ANGELES, CALIFORNIA-----

its true and lawful Attorney-in-Fact, to make, execute, seal and deliver for and on its behalf, and as its act and deed

ANY AND ALL BONDS AND UNDERTAKINGS OF SURETYSHIP-----

and to bind the UNITED PACIFIC INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the UNITED PACIFIC INSURANCE COMPANY and sealed and attested by one other of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-Fact may do in pursuance hereof.

This Power of Attorney is granted under and by authority of Article VII of the By-Laws of UNITED PACIFIC INSURANCE COMPANY which became effective September 7, 1978, which provisions are now in full force and effect, reading as follows:

ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKINGS

1. The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and authority to (a) appoint Attorneys-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney-in-Fact at any time and revoke the power and authority given to him.

2. Attorneys-in-Fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.

3. Attorneys-in-Fact shall have power and authority to execute affidavits required to be attached to bonds, recognizances, contracts of indemnity or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statement of the Company and copies of the By-Laws of the Company or any article or section thereof.

This power of attorney is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of UNITED PACIFIC INSURANCE COMPANY at a meeting held on the 5th day of June, 1979, at which a quorum was present, and said Resolution has not been amended or repealed:

"Resolved, that the signatures of such directors and officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its Vice President, and its corporate seal to be hereto affixed, this 1st day of March 19 82.



UNITED PACIFIC INSURANCE COMPANY

Charles B. Schmalz
Vice President

STATE OF Washington }
COUNTY OF King } ss.

On this 1st day of March, 19 82, personally appeared Charles B. Schmalz

to me known to be the Vice-President of the UNITED PACIFIC INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that Article VII, Section 1, 2, and 3 of the By-Laws of said Company, and the Resolution, set forth therein, are still in full force.

My Commission Expires:

June 12, 1982



Nancy Starnes
Notary Public in and for State of Washington
Residing at Tacoma

Charles J. Falskow

Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by said UNITED PACIFIC INSURANCE COMPANY, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this 4TH day of AUGUST 19 87



Assistant Secretary Charles J. Falskow

BOND RIDER

RIDER to be attached to and form a part of Bond Number U-629894

on behalf of BEAVER CREEK COAL COMPANY
(Name)
P.O. Box AU, Price, Utah 84501 (Principal),
(Address)

and in favor of State of Utah (Obligee),

executed by UNITED PACIFIC INSURANCE COMPANY as Surety, in

the amount of FIVE HUNDRED FIFTY THOUSAND AND NO/100

Dollars (\$ 550,000.00--) effective April 22 19 87.

It is hereby understood and agree that, effective as of April 22, 1987, the Bond Amount on said bond has been increased as follows:

FROM: FIVE HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS (\$550,000.00)

TO: TWO MILLION SEVENTEEN THOUSAND SIX HUNDRED SIXTY-NINE AND NO/100 DOLLARS (\$2,017,669.00)

Nothing herein contained shall vary, alter or extend any provisions or conditions of the bond other than as above stated.

SIGNED, SEALED AND DATED this 4TH day of AUGUST 19 87.

CALIFORNIA
ACKNOWLEDGEMENT BY SURETY

STATE OF CALIFORNIA

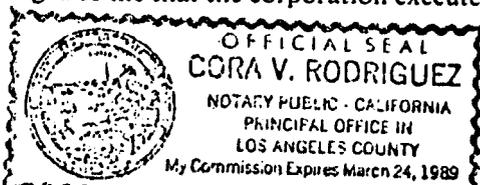
COUNTY OF LOS ANGELES

ss.

On this 4TH day of AUGUST in the year 19 87, before me CORA V. RODRIGUEZ personally

appeared W. C. DOYLE,
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the within

document as attorney-in-fact of UNITED PACIFIC INSURANCE COMPANY
and acknowledged to me that the corporation executed it.



Cora V. Rodriguez
Notary Public

Revised November, 1987.

CERTIFICATE OF LIABILITY INSURANCE

Issued to:
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
--oo00oo--

THIS IS TO CERTIFY THAT:

Insurance Company of North America

(Name of Insurance Company)

1600 Arch Street, Philadelphia, PA 19101

(Home Office Address of Insurance Company)

HAS ISSUED TO:

BEAVER CREEK COAL CO.

(Name of Permit Applicant)

C.V. SPUR PROCESSING/LOADOUT FACILITY

(Mine Name)

ACT/007/022

(Permit Number)

CERTIFICATE OF INSURANCE:

HDO GO 969065-7

(Policy Number)

1-1-88

(Effective Date)

UNDER THE FOLLOWING TERMS AND CONDITIONS:

As Per UMC/SMC Part 800.60 Terms and Conditions for Liability Insurance;

- A. The Division shall require the applicant to submit as part of its permit application a certificate issued by an insurance company authorized to do business in the state of Utah certifying that the applicant has a public liability insurance policy in force for the surface coal mining and reclamation operations for which the permit is sought. Such policy shall provide for personal injury and property damage protection in an amount adequate to compensate any persons injured or property damaged as a result of the surface coal mining and reclamation operations, including the use of explosives and who are entitled to compensation under the applicable provisions of state law. Minimum insurance coverage for bodily injury and property damage shall be \$300,000 for each occurrence and \$500,000 aggregate.
- B. The policy shall be maintained in full force during the life of the permit or any renewal thereof, including the liability period necessary to complete all reclamation operations under this chapter.

Page 2.
CERTIFICATE OF LIABILITY INSURANCE

C. The policy shall include a rider requiring that the insurer notify the Division whenever substantive changes are made in the policy including any termination or failure to renew.

IN ACCORDANCE WITH THE ABOVE TERMS AND CONDITIONS, and the Utah Code Annotated 40-10-1 et seq., the Insurance Company hereby attests to the fact that coverage for said Permit Applicant is in accordance with the requirements of the State of Utah and agrees to notify the Division of Oil, Gas and Mining in writing of any substantive change, including cancellation, failure to renew, or other material change. No change shall be effective until at least thirty (30) days after such notice is received by the Division.

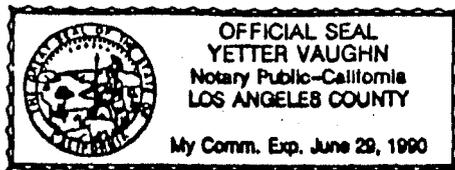
UNDERWRITING AGENT:

<u>M. J. Morehouse</u>	<u>213-739-4630</u>
(Agent's Name)	(Phone)
<u>Insurance Company of North America</u>	
(Company Name)	
<u>3333 Wilshire Blvd</u>	<u>Los Angeles, CA 90010</u>
(Mailing Address)	(City, State, Zip Code)

The undersigned affirms that the above information is true and complete to the best of his or her knowlege and belief, and that he or she is an authorized representative of the above-named insurance company.

1-27-88 M.J. Morehouse - Account Manager
(Date, Signature and Title of Authorized Agent of Insurance Company)

Signed and sworn before me by M. J. MOREHOUSE
(Name)
this 27th day of January, 1988



Yetter Vaughn
(Signature)

June 29, 1990
(Date)

My Commission Expires:

CERTIFICATE OF INSURANCE 11-28-89 mjt
 (This Certificate of Insurance neither affirmatively nor negatively amends, extends or alters the coverage, limits, terms or conditions of the policies it certifies.)

CIGNA Property and Casualty Companies



RECEIVED
 DEC 05 1989

DIVISION OF
 OIL, GAS & MINING

To Certify to
 State of Utah
 Division of Oil, Gas and Mining
 Utah Department of Natural Resources
 4241 State Office Building
 Salt Lake City, UT 84114

- COMPANY CODES
- CIGNA INSURANCE COMPANY
 - CIGNA INS. CO. OF TEXAS
 - PACIFIC EMPLOYERS INS. CO.
 - INSURANCE COMPANY OF NORTH AMERICA
 - CIGNA INS. CO. OF ILLINOIS
 - CIGNA INS. CO. OF OHIO
 - (OTHER; — SPECIFY)

FOLD

that the following described policy or policies, issued by The Company as coded below, providing insurance only for hazards checked by "X" below, have been issued to:

NAME AND ADDRESS OF INSURED: **Atlantic Richfield Company, its Subsidiaries and subsidiaries thereof as now or hereinafter constituted, Atlantic Richfield Plaza, 515 So. Flower Street, Los Angeles, CA 90071**
 covering in accordance with the terms thereof, at the following location(s):

Including Beaver Creek Coal Company

TYPE OF POLICY	HAZARDS	CO. CODE	POLICY NUMBER	POLICY PERIOD	LIMITS OF LIABILITY		
(a) Standard Workmen's Compensation & Employers' Liability	<input type="checkbox"/>	<input type="checkbox"/>			Statutory W. C. One Accident and Aggregate Disease		
Bodily Injury, General Liability Premises—Operations (including "Incidental Contracts" as defined below)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISL G1 077856-6	01-01-90 to 01-01-93	\$ *See Below		
	Independent Contractors	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence
	Completed Operations/Products	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	Contractual, (Specific type as described in footnote below)	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
Property Damage, General Liability Premises—Operations (including "Incidental Contracts" as defined below)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISL G1 077856-6	01-01-90 to 01-01-93	\$ *See Below		
	Independent Contractors	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	Aggregate—Prem./Oper. Aggregate—Protective Aggregate—Completed Operations/Products Aggregate—Contractual
	Completed Operations/Products	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
	Contractual, (Specific type as described in footnote below)	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
Bodily Injury, Automobile Liability Owned Automobiles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISA 001903	01-01-90 to 01-01-93	\$ *See Below		
	Hired Automobiles	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence
	Non-owned Automobiles	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
Property Damage, Automobile Liability Owned Automobiles	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ISA 001903	01-01-90 to 01-01-93	\$ *See Below		
	Hired Automobiles	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	Each { <input type="checkbox"/> Accident <input type="checkbox"/> Occurrence
	Non-owned Automobiles	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
(d) SEE REVERSE					*2,000,000 Combined Single Limit per occurrence subject to aggregate of \$2,000,000, where applicable.		

Contractual Footnote: Subject to all the policy terms applicable, specific contractual coverage is provided as respects

- (Check) a contract
 (Applicable) purchase order agreements
 (Block) all contracts
- between the Insured and:

It is the intention of the company that in the event of cancellation of the policy or policies by the company, ten (10) days' written notice of such cancellation will be given to you at the address stated above.

NAME OF OTHER PARTY

DATE (if applicable)

CONTRACT NO. (if any)

DESCRIPTION (OR JOB)

Definitions: "Incidental contract" means any written (1) lease of premises (2) easement agreement, except in connection with construction or demolition operations on or adjacent to a railroad, (3) undertaking to indemnify a municipality required by municipal ordinance, except in connection with work by the municipality, (4) sidetrack agreement, or (5) elevator maintenance agreement.

[Signature]
 Authorized Representative

1989

WATER MONITORING DATA

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-O-W
 Location: NW Corner of Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]
TDS
TSS
O & G
Al CaCO3
Hd CaCO3
Ac CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
Cat/An
Fe
Mn

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-1-W
 Location: NE Corner of Property
 Type: French Drain
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
Flow [gpm]	19	22	20
PH	7.9	7.9	7.9
Sp. Cond. [ohms]	1800	1837	1818
Temp. [C]	6	6	6
Diss. O [ppm]	N/A	N/A	N/A

Lab. Meas. [mg/l]

TDS	17846	13962	15904
TSS	29	38	34
O & G	NA	NA	NA
Al CaCO3	435	420	428
Hd CaCO3	3464	2436	2550
Ac CaCO3	<1	<1	<1
HCO3	530	493	512
CO3	0	9.5	9.5
Cl	266	206	236
SO4	11,884	9609	10,747
Ca	478	434	456
Mg	553	329	491
K	35	25	30
Na	4210	3696	3953
Cat/An	2.03%	1.01	1.52
Fe	.84	.05	.45
Mn	<.002	<.002	.002

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-3-W
 Location: South Truckyard
 Type: Well
 Frequency: Bi-Annual

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
DFS [ft]	1.5'	6'	3.75
PH	7.3	7.9	7.6
Sp. Cond: [ohms]	4000	10500	7250
Temp. [C]	6	6	6
Diss. O [ppm]	N/A	N/A	N/A

Lab. Meas. [mg/l]			
TDS	3495	9275	6385
TSS	351	352	351.5
O & G	N/A	N/A	N/A
Al CaCO3	293	345	319
Hd CaCO3	1763	2202	1983
Ac CaCO3	<1	<1	<1
HCO3	357	420	389
CO3	0	0	0
Cl	40	131	85
SO4	2262	6118	4190
Ca	451	455	453
Mg	155	260	207
K	14	19	16.5
Na	398	2086	1242
Cat/An	1.09%	1.02	1.05
Fe	3.26	10.52	6.89
Mn	.16	1.38	.77

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-4-W
 Location: NE Corner of Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]
TDS
TSS
O & G
Al CaCO3
Hd CaCO3
Ac CaCO3
HCO3
CO3
Cl
SO4
Ca
Mg
K
Na
Cat/An
Fe
Mn

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-5-W
 Location: N Central Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
Flow [gpm]	DRY	DRY	DRY
PH			
Sp. Cond. [ohms]			
Temp. [C]			
Diss. O [ppm]			

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-6-W
 Location: East Central Property
 Type: Well
 Frequency: Bi-Annual

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
DFS [ft]	4.5'	8.5'	6.5
PH	8.3	8.4	8.4
Sp. Cond. [ohms]	30000	3630	16815
Temp. [C]	6	6	6
Diss. O [ppm]	N/A	N/A	N/A

Lab. Meas. [mg/l]			
TDS	34840	2245	18543
TSS	26	310	168
O & G	N/A	N/A	N/A
Al CaCO3	528	147	338
Hd CaCO3	5985	1184	3585
Ac CaCO3	<1	<1	<1
HCO3	644	179	412
CO3	0	0	0
Cl	463	131	297
SO4	23674	1359	12034
Ca	611	337	474
Mg	1085	84	585
K	63	13	38
Na	8630	234	4432
Cat/An	1.99	1.07	1.53
Fe	.55	.55	.55
Mn	.06	.07	.06

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-10-W
 Location: SE Adj. to Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
Flow [gpm]	DRY	18'	18'
PH		7.7	7.7
Sp. Cond. [ohms]		4500	4500
Temp. [C]		6	6
Diss. O [ppm]		N/A	N/A

Lab. Meas. [mg/l]			
TDS		3992	3992
TSS		636	636
O & G		N/A	N/A
Al CaCO3		313	313
Hd CaCO3		2021	2021
Ac CaCO3		0	0
HCO3		381.66	381.66
CO3		0	0
Cl		45.5	45.5
SO4		2605.62	2605.62
Ca		505.32	505.32
Mg		184.88	184.88
K		17.04	17.04
Na		445.8	445.8
Cat/An		1.29	1.29
Fe		10.12	10.12
Mn		1.06	1.06

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-11-W
 Location: NE Adj to Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	
DFS [ft]	11'	9	10
PH	8.1	7.9	8
Sp. Cond. [ohms]	34000	20000	27000
Temp. [C]	5	6	5.5
Diss. O [ppm]	N/A	N/A	N/A

Lab. Meas. [mg/l]			
TDS	43073	44837	44000
TSS	50	176	113
O & G	N/A	N/A	N/A
Al CaCO3	236	982	609
Hd CaCO3	11888	11368	11628
Ac CaCO3	<1	<1	<1
HCO3	287	1198	743
CO3	0	0	0
Cl	479	426	453
SO4	30221	31080	30700
Ca	418	425	422
Mg	2637	2506	2572
K	17	83.5	50
Na	9160	9725	9442
Cat/An	.87	2.	1.44
Fe	5.04	1.44	3.24
Mn	.47	1.11	.73

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-12-W
 Location: North Adj. To Property
 Type: Well
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	

Flow [gpm]	DRY	DRY	DRY
------------	-----	-----	-----

PH

Sp. Cond. [ohms]

Temp. [C]

Diss. O [ppm]

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-14-W
 Location: NE Property
 Type: Ditch
 Frequency: Bi-Annually

Field Measurements	Date Sampled		Mean
	06/27/89	11/28/89	

Flow [gpm]	DRY	DRY	DRY
------------	-----	-----	-----

PH

Sp. Cond. [ohms]

Temp. [C]

Diss. O [ppm]

Lab. Meas. [mg/l]

TDS

TSS

O & G

Al CaCO3

Hd CaCO3

Ac CaCO3

HCO3

CO3

Cl

SO4

Ca

Mg

K

Na

Cat/An

Fe

Mn

WATER MONITORING REPORT

Property: CV Spur
 Station: CV-16-W
 Location: West [Central]
 Type: Ditch
 Frequency: Quarterly [Baseline]

Field Measurements	Date Sampled				Mean
	03/15/89	06/27/89	09/15/89	11/28/89	
Flow [gpm]	New Site	4.2	DRY	DRY	4.2
PH		8.0			8.0
Sp. Cond. [ohms]		3000			3000
Temp. [C]		7			7
Diss. O [ppm]		N/A			N/A

Lab. Meas. [mg/l]

TDS		3102		3102
TSS		104		104
O & G		N/A		N/A
Al CaCO3		171		171
Hd CaCO3		1886		1886
Ac CaCO3		<1		<1
HCO3		208		208
CO3		0		0
Cl		27		27
SO4		2006		2006
Ca		521		521
Mg		143		143
K		10		10
Na		162		162
Cat/An		1.01		1.01
Fe		<.02		<.02
Mn		<.02		<.02

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



C. V.

January 31, 1990

Donald A. Hilden, Ph.D., Chief
Permits and Compliance Section
Bureau of Water Pollution Control
Utah Division of Environmental Health
288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the fourth quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Mgr. Permitting/Compliance

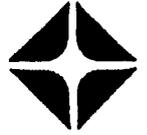
DWG/nc

Enclosures

cc: Donna Franklin, E.P.A.
Lowell Braxton, UDGOM
File

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



January 31, 1990

Ms. Donna Franklin
U.S.E.P.A., Region VIII
999 18th Street
Denver Place - Suite 500 WM-C
Denver, CO 80202-2405

Dear Ms. Franklin:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the fourth quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in cursive script that reads "Dan W. Guy".

Dan W. Guy
Mgr. Permitting/Compliance

DWG/nc

Enclosures

File 4-E-2-1

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



January 31, 1990

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

Dear Mr. Braxton:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the fourth quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Mgr. Permitting/Compliance

DWG/nc

Enclosures

PERMITTEE NAME/ADDRESS (Include Facility Name/Location) (If different)
 NAME BEAV CREEK COAL--CV SPUR
 ADDRESS P.O. BOX 1378
PRICE UT 24501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
UT304000 001 A
 PERMIT NUMBER DISCHARGE NUMBER

F - FINAL
 SED PND DPFL-DRNG DTCH, PRC RVB

FACILITY _____
 LOCATION _____
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD
 FROM YEAR 89 MO 10 DAY 31 TO YEAR 89 MO 10 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (38-40)	AVERAGE (41-42)	MAXIMUM (43-44)			
FLOW RATE		NO DISCHARGE			*****	*****	*****			
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	***	ONCE/MONTH	MEASRD
PH	SAMPLE MEASUREMENT	*****	*****			*****				
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	5.5 DAILY MN	*****	9.0 DAILY MX	SU	TWICE/MONTH	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****					
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	25 30 DA AV	70 DAILY MX	MG/L	ONCE/MONTH	GRAB
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****				
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.5 DAILY MX	ML/L	ONCE/MONTH	GRAB
OIL AND GREASE FROM EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****		*****	*****				
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	10 DAILY MX	MG/L	ONCE/MONTH	GRAB
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****				
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	2.0 DAILY MX	MG/L	ONCE/MONTH	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****			
45513 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		TSS=1	*****	*****	*****	***	ONCE/MONTH	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
DAN W. GUY
Mgr. Permitting/Compliance
 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.)

Dan W. Guy
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 801 637-5050 DATE 90 01 15
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
 NAME BEAV CREEK COAL--CV SPUR
 ADDRESS, CITY 1378
 PRICE UT 84501
 FACILITY
 LOCATION

FEDERAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 DTG04000 PERMIT NUMBER
 001 A DISCHARGE NUMBER

F - FINAL
 SED PFD DTFL-DRNG DISC. PRO RVR

MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 89 10 01 TO 89 10 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	X	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (46-53)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
SEWAGE TREATMENT PLANT EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****				
45614 1 0 0	PERMIT REQUIREMENT	*****		YES=1 NO=0	*****	*****	*****	***	ONCE/MONTH	VISUAL	
SOLIDS, TOTAL DISSOLVED	SAMPLE MEASUREMENT	*****			*****	*****					
70295 0 0 0	PERMIT REQUIREMENT	*****	2000	DAILY MK LBS/DY	*****	*****	REPORT DAILY MK MG/L		ONCE/MONTH	GRAB	
SEE COMMENTS BELOW											
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 DAN W. GUY
 Mgr. Permits/Compliance
 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.)
 TELEPHONE 801 637-5050
 DATE 90 01 15
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME / ADDRESS (Include Facility Name/Location) (Permit)
 NAME BEAV BRECK COAL--CV SPUR
 ADDRESS P.O. BOX 1378
 PRICE UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) MONITORING REPORT (DMR) (17-19)
 UTS040005 PERMIT NUMBER
 001 DISCHARGE NUMBER

F - FINAL
 SED PND DTPL-DRNG DTCH/PRC RVR

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
89	11	01		89	11	30
(20-21)		(22-23)		(24-25)		(26-27)
				(28-29)		(30-31)

MINOR
 NOTE: Read instructions before completing this form.

FACILITY
 LOCATION
 ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****	*****	*****			
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	***	ONCE/MONTH	EASRD
PH	SAMPLE MEASUREMENT	*****	*****			*****				
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	6.5	*****	9.0	***	TWICE/MONTH	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****					
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	25	70	***	ONCE/MONTH	GRAB
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	30 DA AV	DAILY MX	MG/L		
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.5	***	ONCE/MONTH	GRAB
OIL AND GREASE FREQN EXTR-GRAB METH	SAMPLE MEASUREMENT	*****	*****		*****	*****				
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	10	***	ONCE/MONTH	GRAB
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****				
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	2.0	***	ONCE/MONTH	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****			
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		YES=1 NO=0	*****	*****	*****	***	ONCE/MONTH	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 Dan W. Guy
 Mngr. Permitting/Compliance
 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]
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 601 637-5600
 DATE: 90 01 15
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME AND ADDRESS (Include Facility Name/Location) (Permit)
 NAME EPAN CREEK GOAL--TV SPUR
 ADDRESS P.O. BOX 1378
PRICE HT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
UTG040005 001 A
 PERMIT NUMBER DISCHARGE NUMBER

F - FINAL
 SED PND DTFL-DRNG DTCN, PRC RVR

FACILITY _____
 LOCATION _____
 ATTN: DAN W. GUY, MANAGER

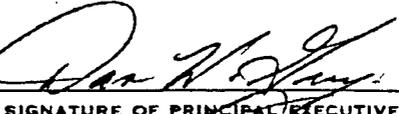
MONITORING PERIOD
 FROM YEAR 89 MO 11 DAY 01 TO YEAR 89 MO 11 DAY 30
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (46-47)	AVERAGE (48-49)	MAXIMUM (50-51)			
SANITARY WASTE DISCHARGED-ASSESSMNT	*****				*****	*****	*****			
45514 1 0 0	PERMIT REQUIREMENT	*****		YES=1	*****	*****	*****	***	ONCE/	VISUAL
EFFLUENT GROSS VALUE			DAILY MX	NO=0				***	MONTH	
SOLIDS, TOTAL DISSOLVED	*****				*****	*****				
70295 0 0 0	PERMIT REQUIREMENT	*****	2000		*****	*****	REPORT		ONCE/	GRAB
SEE COMMENTS BELOW			DAILY MX	LBS/DY			DAILY MX	MG/L	MONTH	
	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
Dan W. Guy
Mngr. Permitting/Compliance
 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
801 637-5050
 AREA CODE NUMBER
 DATE
90 01 15
 YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Local different)
 NAME BEA COPEX COAL--CV SPUR
 ADDRESS C. BOX 1378
PRICE UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-1) (17-19)
01G34000 001 A
 PERMIT NUMBER DISCHARGE NUMBER

F - FINAL
 SED PND OFFL-DENG DICR PRC RVR

FACILITY _____
 LOCATION _____
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD
 FROM YEAR 89 MO 12 DAY 01 TO YEAR 89 MO 12 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS	
FLOW RATE		NO DISCHARGE			*****	*****	*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	***	ONCE/ MONTH	SEASON		
PH	SAMPLE MEASUREMENT	*****	*****			*****						
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	6.5 DAILY MX	*****	9.0 DAILY MX	SU	TWICE/ MONTH	GRAB		
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	*****	*****		*****							
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	25 30 DA AV	70 DAILY MX	MG/L	ONCE/ MONTH	GRAB		
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****	*****		*****	*****						
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.5 DAILY MX	ML/L	ONCE/ MONTH	GRAB		
OIL AND GREASE FREDN EXTR-GRAV METH	SAMPLE MEASUREMENT	*****	*****		*****	*****						
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	10 DAILY MX	MG/L	ONCE/ MONTH	GRAB		
IRON, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****	*****		*****	*****						
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	2.0 DAILY MX	MG/L	ONCE/ MONTH	GRAB		
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****	*****	*****					
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0	YES=1 NO=0	*****	*****	*****	***	ONCE/ MONTH	VISUAL		
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	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 3 years.				SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			TELEPHONE		DATE		
Dan W. Guy Mngr. Permitting/Compliance TYPED OR PRINTED								801	637-5050	90	01	15
COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)				OFFICER OR AUTHORIZED AGENT			AREA CODE	NUMBER	YEAR	MO	DAY	

TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF ISS. REPORT "DOPS NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
 NAME BEAT CREEK COAL--CV SPUR
 ADDRESS P.O. BOX 1378
PRICE UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (17-19)
 UTG040005
 PERMIT NUMBER
 001 A
 DISCHARGE NUMBER

F - FINAL
 SED PND DTFL-DRNG DTCH/PRC RVR

FACILITY _____
 LOCATION _____
 ATTN: DAN W. GUY, MANAGER

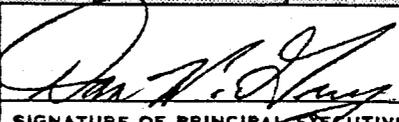
MONITORING PERIOD
 FROM YEAR 89 MO 12 DAY 01 TO YEAR 89 MO 12 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (46-47)	AVERAGE (48-49)	MAXIMUM (50-51)			
SANITARY WASTE DISCHARGED-ASSESSMENT 45614 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****			*****	*****	*****			
	PERMIT REQUIREMENT	*****		YES=1 NO=0	*****	*****	*****	***	ONCE/MONTH	VISUAL
SOLIDS, TOTAL DISSOLVED 70295 2 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000	DAILY MX LBS/DY	*****	*****	REPORT DAILY MX MG/L		ONCE/MONTH	GRAB
	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
Dan W. Guy
Mngr. Permitting/Compliance
 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
 801 637-5050
 AREA CODE NUMBER
 DATE
 90 01 15
 YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



October 26, 1989

Donald A. Hilden, Ph.D., Chief
Permits and Compliance Section
Bureau of Water Pollution Control
Utah Division of Environmental Health
288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116-0690

Dear Mr. Hilden:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and ~~UTG040005~~. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the third quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Mgr. Permitting/Compliance

DWG/cr

Enclosures

cc: Donna Franklin, E.P.A.
Lowell Braxton, UDGOM
File

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



October 26, 1989

Ms. Donna Franklin
U.S.E.P.A., Region VIII
999 18th Street
Denver Place - Suite 500
Denver, CO 80202-2405

WM-C
we-c

Dear Ms. Franklin:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the third quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Mgr. Permitting/Compliance

DWG/cr

Enclosures

File 4-E-2-1

BEAVER CREEK Coal Company

WTRMON
Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



October 26, 1989

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

Dear Mr. Braxton:

Enclosed Please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's UPDES Permit Numbers UTG040003, UTG040004, and UTG040005. These were formally NPDES Permits UT-0023728, UT-0023124 and UT-0023949, respectively. Former permit numbers UT-0023116 and UT-0023060 have now been cancelled. These reports are on the preprinted DMRs provided by the State of Utah, and cover the third quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Mgr. Permitting/Compliance

DWG/cr

Enclosures

NAME BEAVER CREEK COLL--CV SPUR
 ADDRESS 0. 1379
 PRICE DT 84501

DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 015040001
 PERMIT NUMBER
 001 A
 DISCHARGE NUMBER

P -- FINAL
 SED PND OTPL-DRNG DT PRC RVR

FACILITY
 LOCATION
 ATTN: DAN W. SOY, MANAGER

MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 89 09 01 TO 89 09 30
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

(Note: Preprinted Form Missing)
 MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (46-53)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW RATE		NO DISCHARGE			*****					
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****			ONCE/ MONTH	BASED	
PH	SAMPLE MEASUREMENT	*****			*****					
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****			6.5 DAILY MX	*****	9.0 DAILY MX	TRICE/ GRAB	MONTH	
SOLIDS, TOTAL DISPENDED	SAMPLE MEASUREMENT	*****			*****					
00530 P. 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****			*****	25	70	ONCE/ GRAB	MONTH	
SOLIDS, SETTLEABLE	SAMPLE MEASUREMENT	*****			*****					
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****			*****	*****	0.5 DAILY MX	ONCE/ GRAB	MONTH	
OIL AND GREASE FROM EXTR-GRAV METH	SAMPLE MEASUREMENT	*****			*****					
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****			*****	*****	10 DAILY MX	ONCE/ GRAB	MONTH	
BROWN, TOTAL (AS FE)	SAMPLE MEASUREMENT	*****			*****					
1045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****			*****	*****	2.0 DAILY MX	ONCE/ GRAB	MONTH	
LOADING SOLIDS OR VISIBLE FOAM-VISUAL	SAMPLE MEASUREMENT	*****			*****					
05613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****			*****	*****	*****	ONCE/ VISUAL	MONTH	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 Dan W. Soy
 Mgr. Permitting/Compliance
 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
 Dan W. Soy

TELEPHONE DATE
 801 637-5050 89 10 26
 AREA CODE NUMBER YEAR MO DAY

DISCHARGE IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME: BEAV CREEK COAL--CV SPU
 ADDRESS: P.O. BOX 1378
 PRICE: UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) MONITORING REPORT (DMR)
 DISCHARGE PERMIT NUMBER: UTG040005
 DISCHARGE NUMBER: 001 A

F - FINAL
 SED PND DTFL-DRNG DTCH/PRC-RVR

FACILITY: _____
 LOCATION: _____
 ATTN: DAN W. GUY, MANAGER

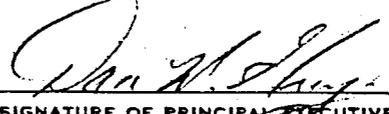
MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	89	09	01		89	09	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
SANITARY WASTE DISCHARGED-ASSESSMT	*****				*****	*****	*****				
45614 1 0 0	PERMIT REQUIREMENT	*****		YES=1 NO=0	*****	*****	*****	***		ONCE/MONTH	VISUAL
EFFLUENT GROSS VALUE	*****				*****	*****					
SOLIDS, TOTAL DISSOLVED	*****				*****	*****					
70295 0 0 0	PERMIT REQUIREMENT	*****	2000	DAILY MX LBS/DY	*****	*****	REPORT DAILY MX MG/L			ONCE/MONTH	YEAR
SEE COMMENTS BELOW	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:
DAN W. GUY
Mgr. Permitting/Compliance
 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: 801 137-5050
 DATE: 89 10 26

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME: ADDRESS (Include Facility Name/Location) (different)
 NAME: PFAV CREEK COAL--CV SPUF
 ADDRESS: P.O. BOX 1378
 PRICE: UT 84501

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 UFG04000
 PERMIT NUMBER
 001 A
 DISCHARGE NUMBER

F - FINAL
 SED PND DTFL-DRNG DICH, PRO SVR

FACILITY:
 LOCATION:
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD
 FROM YEAR 89 MO 05 DAY 01 TO YEAR 89 MO 05 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (46-53)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (60-61)	AVERAGE (62-63)	MAXIMUM (64-65)			
FLOW RATE		NO DISCHARGE			*****	*****	*****			
00056 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	****	ONCE/ MONTH	WELSPD
PH		*****	*****			*****				
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	6.5 DAILY MX	*****	0.0 DAILY MX	SU	TWICE/ MONTH	GRAB
SOLIDS, TOTAL SUSPENDED		*****	*****		*****					
00530 P 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25 30 DA AV	70 DAILY MX	MG/L	ONCE/ MONTH	GRAB
SOLIDS, SETTLEABLE		*****	*****		*****	*****				
00545 R 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5 DAILY MX	ML/L	ONCE/ MONTH	GRAB
OIL AND GREASE FREQ EXTR-GRAB METH		*****	*****		*****	*****				
00556 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10 DAILY MX	MG/L	ONCE/ MONTH	GRAB
IRON, TOTAL (AS FE)		*****	*****		*****	*****				
01045 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0 DAILY MX	MG/L	ONCE/ MONTH	GRAB
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL		*****			*****	*****	*****			
45613 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****		YES=1 DAILY MX NO=0	*****	*****	*****	****	ONCE/ MONTH	VISUAL

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 DAN W. GUY
 Mgr. Permitting/Compliance
 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
 Dan W. Guy

TELEPHONE: 801 639-5000
 DATE: 89 10 26
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME BEA ADDRESS (Include Facility Name/Location) BEA SPECK COAL--CV SPUR
 ADDRESS P.O. BOX 1378
PRICE UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) MONITORING REPORT (DMR)
 (2-1) (17-19)
 UTG040005 DISCHARGE NUMBER 001 A

5 - FINAL
 SED PND DTFL-DENG DTCH/PRC RVP

FACILITY _____
 LOCATION _____
 PTTN: DAN W. GUY, MANAGER

MONITORING PERIOD
 FROM YEAR 89 MO 03 DAY 01 TO YEAR 89 MO 05 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMENT 45614 1 0 0	SAMPLE MEASUREMENT	*****			*****	*****	*****			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	DAILY MX	YES=1 NO=0	*****	*****	*****	***	ONCE/MONTH	VISUAL
SOLIDS, TOTAL DISSOLVED 70295 0 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****			*****	*****				
	PERMIT REQUIREMENT	*****	2000 DAILY MX	LBS/DY	*****	*****	REPORT DAILY MX	MC/L	ONCE/MONTH	GRAB
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
DAN W. GUY
Mgr. Permitting Compliance
 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.)

Dan W. Guy
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE DATE
801 637-5050 89 10 26
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
 NAME **EPAV CREEK COAL--CV SPUR**
 ADDRESS P.O. BOX 1378
 PRICE UT 84501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 UT604000
 PERMIT NUMBER
 001 A
 DISCHARGE NUMBER

F - FINAL
 SED PND OTFL-DRNG BTCH, PRC RVR

FACILITY
 LOCATION
 ATTN: DAN W. GUY, MANAGER

MONITORING PERIOD
 FROM YEAR 89 MO 07 DAY 31 TO YEAR 89 MO 07 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MINOR
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			(5 Card Only) QUALITY OR CONCENTRATION (46-53)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE (54-55)	MAXIMUM (56-57)	UNITS (58-59)	MINIMUM (38-40)	AVERAGE (41-42)	MAXIMUM (43-44)	UNITS (45)	MINIMUM (46-48)	AVERAGE (49-50)			
FLOW RATE 00056 1 0 0	SAMPLE MEASUREMENT	4.5 gpm	* 67,200		*****	*****	*****						
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPORT 30 DA AV	REPORT DAILY MX	GPD	*****	*****	*****	****				ONCE/ MONTH	WEASRD
PH 00400 1 0 0	SAMPLE MEASUREMENT	*****	*****			7.78		*****		7.78			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	6.5	*****	9.0	****		DAILY MX	SU		TRICE/ GRAB MONTH
SOLIDS, TOTAL SUSPENDED 00530 P 0 0	SAMPLE MEASUREMENT	*****	*****		*****	* 39 mg/L	39 mg/L						
SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	25	70	****		30 DA AV	DAILY MX	MG/L	ONCE/ GRAB MONTH
SOLIDS, SETTLEABLE 00545 R 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	0.25 ml/L						
SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	*****	*****	0.5	****		DAILY MX	ML/L		ONCE/ GRAB MONTH
OIL AND GREASE FROM EXTR-GRAV METH 00556 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	0.5						
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	10	****		DAILY MX	MG/L		ONCE/ GRAB MONTH
IRON, TOTAL (AS FE) 01045 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	*****	0.05						
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	2.0	****		DAILY MX	MG/L		ONCE/ GRAB MONTH
FLOATING SOLIDS OR VISIBLE FOAM-VISUAL 45613 1 0 0	SAMPLE MEASUREMENT	*****			*****	*****	*****						
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	0	YES=1 NO=0	*****	*****	*****	****					ONCE/ VISUAL MONTH

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
DAN W. GUY
 Mgr. Permitting/Compliance
 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.)

Dan W. Guy
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
 801 637-5650
 DATE
 89 10 26
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location) (Permit)
 NAME BEAV CREEK COAL--CV SPUR
 ADDRESS P.O. BOX 1378
 PRICE UT 24501

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
 DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 UT0040005 PERMIT NUMBER
 001 A DISCHARGE NUMBER

F - FINAL
 SED PND DTFL-DRNG DTCH/PPC RVR

MONITORING PERIOD

FROM YEAR 89 MO 07 DAY 31 TO YEAR 89 MO 07 DAY 31
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

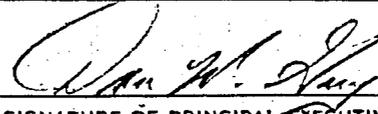
MINOR NOTE: Read instructions before completing this form.

FACILITY
 LOCATION
 ATTN: DAN W. GUY, MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (38-45)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
SANITARY WASTE DISCHARGED-ASSESSMNT 45614 1 0 0		*****	0		*****	*****	*****			
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	DAILY MX	ES=1 NO=0	*****	*****	*****	***	ONCE/ MONTH	VISUAL
SOLIDS, TOTAL DISSOLVED 70295 0 0 0		*****			*****	*****	880mg/l			
SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	2000 DAILY MX	LBS/DY	*****	*****	REPORT DAILY MX MG/L	***	ONCE/ MONTH	GRAB
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
* Note: Discharge resulted from a 1.86" Precipitation event, which exceeded the 10yr.-24 hr. design of 0.71".	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 DAN W. GUY
 MGR, Permitting/Compliance
 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.)

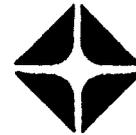
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT


TELEPHONE 801 657-5050
 DATE 89 10 26
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 TDS IS LIMITED TO ONE TON PER DAY FROM ALL OUTFALLS. DURING PRECIPITATION EVENTS, SETTLEABLE SOLIDS SHALL BE LIMITED INSTEAD OF TSS. REPORT "DOES NOT APPLY" IN THE APPROPRIATE ROW.

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



July 31, 1989

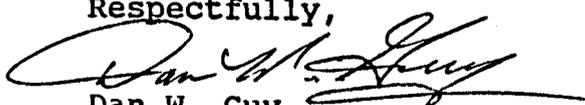
Ms. Donna Franklin
U.S.E.P.A., Region VIII
999 18th Street
Denver Place - Suite 500 WM-C
Denver, CO 80202-2405

Dear Ms. Franklin:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the second quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,


Dan W. Guy
Manager of Permits and Compliance

DWG/cr

Enclosures

File 4-E-2-1
WTRMON

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



July 31, 1989

Mr. Fred Pehrson
Utah Division of Environmental Health
Water Quality Section
P.O. Box 2500, Suite 350
150 West North Temple
Salt Lake City, Utah 84110-2500

Dear Mr. Pehrson:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the second quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Manager of Permits and Compliance

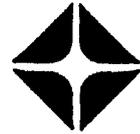
DWG/cr

Enclosures

File 4-E-2-1
WTRMON

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



July 31, 1989

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

Dear Mr. Braxton:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the second quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

A handwritten signature in black ink, appearing to read "Dan W. Guy". The signature is fluid and cursive, with a large initial "D" and "G".

Dan W. Guy
Manager of Permits and Compliance

DWG/cr

Enclosures

File 4-E-2-1
WTRMON

PERMITTEE / Facility Name ADDRESS (Include if different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) MONITORING REPORT (DMR) (17-19)

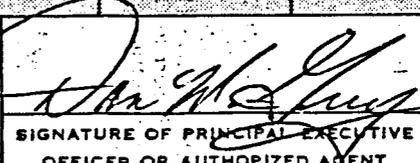
Form Approved MB No. 158-R0

NAME Bever Creek Coal Company
 ADDRESS P.O. Box 1378
Price, Utah 84501
 FACILITY C.V. Spur
 LOCATION Carbon County

UT 0023949					
PERMIT NUMBER			DISCHARGE NUMBER		
MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
89	04	01	89	06	31
(20-21)	(22-23)	(24-25)	(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

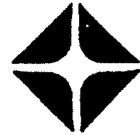
PARAMETER (32-37)	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPL TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
FLOW	SAMPLE MEASUREMENT	NO DISCHARGE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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Dan W. Guy Mngr. Permitting/Compliance	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.)	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE			
			801 537-5050	89	07	22	
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DA

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

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



May 3, 1989

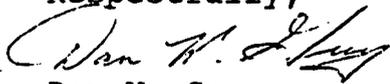
Ms. Donna Franklin
U.S.E.P.A., Region VIII
999 18th Street
Denver Place - Suite 500 WM-C
Denver, CO 80202-2405

Dear Ms. Franklin:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the first quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,


Dan W. Guy
Manager of Permits and Compliance

DWG/cr

Enclosures

File 4-E-2-1
WTRMON

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



May 3, 1989

Mr. Fred Pehrson
Utah Division of Environmental Health
Water Quality Section
P.O. Box 2500, Suite 350
150 West North Temple
Salt Lake City, Utah 84110-2500

Dear Mr. Pehrson:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the first quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Manager of Permits and Compliance

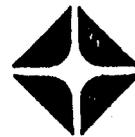
DWG/cr

Enclosures

File 4-E-2-1
WTRMON

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



May 3, 1989

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

Dear Mr. Braxton:

Enclosed please find Quarterly Discharge Monitoring Reports for Beaver Creek Coal Company's NPDES Discharge Permit Numbers UT-0023949, UT-023116, UT-0023124, UT-0023060 and UT-0023728. These reports cover the first quarter of 1989.

If you have any questions or need any additional information, please contact me.

Respectfully,

Dan W. Guy
Manager of Permits and Compliance

DWG/cr

Enclosures

File 4-E-2-1
WTRMON

NAME BEAR CREEK COAL COMPANY
 ADDRESS P.O. BOX 1378
PRICE, UTAH 84501

UT0023949
 PERMIT NUMBER

001
 DISCHARGE NUMBER

FACILITY C.V. SPUR
 LOCATION CARBON COUNTY

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
89	01	01		89	03	31
(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Dan W. Guy
Manager Permitting/Compliance
 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.)

Dan W. Guy
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 801 637-5050
 DATE: 89 04 17
 AREA CODE NUMBER YEAR MO DAY

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

POND: W-15W-#6

LOCATION: W. Farm

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

Pond clean
is good to go
No change

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]
2/12/20

POND: PV-15 (Pond #6)

LOCATION: W. Lane

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

Good Program
No Discharge

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

7/2/90

POND INSPECTION REPORT

POND: 4,2,3,4

LOCATION: CV Spare

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

No Discharge

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

4/20/09
Date

POND INSPECTION REPORT

POND: #15

LOCATION: Alfons

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Pond 7/3 repaired

(5) Recommendations/Comments

Paul Plam
no discharge

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

11/25/89

POND INSPECTION REPORT

POND: # 6

LOCATION: CV Spur

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None</u>
(2) Slope Stability	<u>Stable</u>
(3) Erosion	<u>None</u>
(4) Construction and Maintenance Performance Standards	<u>Good - Soil Remediation on S.W. End</u>
(5) Recommendations/Comments	<u>None - other than clean</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

11/25/99
Date

POND INSPECTION REPORT

#: PV-15 (see Pond 6)

LOCATION: PV Farm

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

No Discharge -
Red Lake - water
4/3

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

10/30/89

POND INSPECTION REPORT

POND: 1-2-354

LOCATION: CU Spure

ITEM
(1) Potential Safety Hazards

REMARKS
None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good - # 4 Pond
Discharging to # 6 Pond

(5) Recommendations/Comments

All Ponds full -

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

8/22/89
Date

POND INSPECTION REPORT

POND: 25

LOCATION: W. Spine

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good - 10+2 full
Subsided +3
From surface

(5) Recommendations/Comments

No Discharge

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

9/23/89
Date

POND INSPECTION REPORT

POND: #6

LOCATION: CV Spur

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good - Pond with in
8" of discharge.
Water level appears
to be dropping

(5) Recommendations/Comments

Pond - 80+² full.
Water - Set back at - 3'

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

9/22/89

POND INSPECTION REPORT

NO: # /

LOCATION: W. Spure

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>None</u>
(2) Slope Stability	<u>Good</u>
(3) Erosion	<u>None</u>
(4) Construction and Maintenance Performance Standards	<u>Good</u>
(5) Recommendations/Comments	<u>No Discharge is noted</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]
6/26/89

POND INSPECTION REPORT

POND: # 2

LOCATION: ev. Spine

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

None

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

6/26/89

POND INSPECTION REPORT

POND: 43

LOCATION: CV Spurs

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

By

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

W. L. Bond

12/20/89

POND INSPECTION REPORT

NO:

4 (Thickener overflow)

LOCATION:

CD Green

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

None

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

6/26/89
Date

POND INSPECTION REPORT

NO: # 5

LOCATION: W-Spire

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

Low Riparian side eroded
mudstone

(4) Construction and Maintenance Performance Standards

Good

(5) Recommendations/Comments

Pond - at approx 3' depth
No debris

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

J. A. Lawrence
8/26/99

POND INSPECTION REPORT

NO: # 6

LOCATION: Old Lane - 15

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good - Seal in upper
Cell - #2 Cell 1/2 water
#3 Cell Dry

(5) Recommendations/Comments

None - No Discharge

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]

[Signature]

POND INSPECTION REPORT

OND: 1, 2, 3, 4

LOCATION: Spur

ITEM
(1) Potential Safety Hazards

REMARKS:
None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Good - only 1:4
hair water 3:2 dry

(5) Recommendations/Comments

No work required
Sediment level - 20%

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

John P. Bourne
3/30/99

POND INSPECTION REPORT

POND: PV-5

LOCATION: Spur

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

Minor on east Bank
3 1/2' roller

(4) Construction and Maintenance Performance Standards

Good
small sediment deposit
on West end

(5) Recommendations/Comments

Pond 60% water level (3)
sediment less than 20%
removed

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[Signature]
8/20/09

POND INSPECTION REPORT

POND: PV-6

LOCATION: Home

ITEM

REMARKS

(1) Potential Safety Hazards

None

(2) Slope Stability

Stable

(3) Erosion

None

(4) Construction and Maintenance Performance Standards

Replaced Grass Run on out let

(5) Recommendations/Comments

None - Sediment level measured less than 10%

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

John P. Lamon
5/20/04

1989

PERMIT / STIPULATION STATUS



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

August 7, 1989

Mr. Richard D. Pick, President
Mountain Coal Operations
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

Dear Mr.  Pick:

Re: State Permit and Decision Package, Five-Year Permit
Renewal, Beaver Creek Coal Company, C. V. Spur Coal
Processing and Loadout Facility, ACT/007/022, Folder
#3, Carbon County, Utah

Enclosed are two State Permits and a Decision Package for the C. V. Spur Coal Processing and Loadout Facility Five-Year Permit Renewal. Please read the Stipulations in Attachment A of the State Permit, then sign both State Permits and return one to the Division.

Your staff's cooperation during the permitting process has been appreciated.

Best regards,


Dianne R. Nielson
Director

RVS/djh
Enclosure
cc: P. Rutledge, OSM-Denver
R. Hagen, OSMRE-Albq.
AT8/68

FEDERAL

Permit Number ACT/007/022, August 7, 1989

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/007/022, is issued for the state of Utah by the Utah Division of Oil, Gas and Mining (DOGM) to:

Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501
(801) 637-5050

for the C.V. Spur Coal Processing and Loadout Facility. Beaver Creek Coal Company is the owner of certain fee-owned parcels. A performance bond is filed with the DOGM in the amount of \$2,441,745.00, payable to the state of Utah, Division of Oil, Gas and Mining and the Office of Surface Mining Reclamation and Enforcement (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 underground coal mining activities on the following described lands (as shown on the map appended as C.V. Spur Coal Processing and Loadout Facility, Attachment B) within the permit area at the C. V. Spur Coal Processing and Loadout Facility, situated in the state of Utah, Carbon County, and located:

Township 15 South, Range 10 East, Section 11, SLBM

W1/2 SW1/4 except 0.24 acres in the northwest corner, NE1/4 SW1/4 except East 100 ft., SE1/4 SW1/4, except East 100 ft.

This legal description is for the permit area (as shown on Attachment B) of the C.V. Spur Coal Processing and Loadout Facility. The permittee is authorized to conduct underground coal mining operations and related surface activities on the foregoing described property subject to the conditions of applicable conditions, laws and regulations.

- Sec. 3 PERMIT TERM - This permit becomes effective on August 7, 1989 and expires on August 7, 1994.
- 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 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 underground coal mining activities 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 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 and 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** - The permittee shall comply with the special 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: 8-7-89

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

Richard J. Pelt
Authorized Representative of
the Permittee

Date: 8-7-89

APPROVED AS TO FORM:

By: David Christensen

Assistant Attorney General

Date: 8/7/89

Attachment A

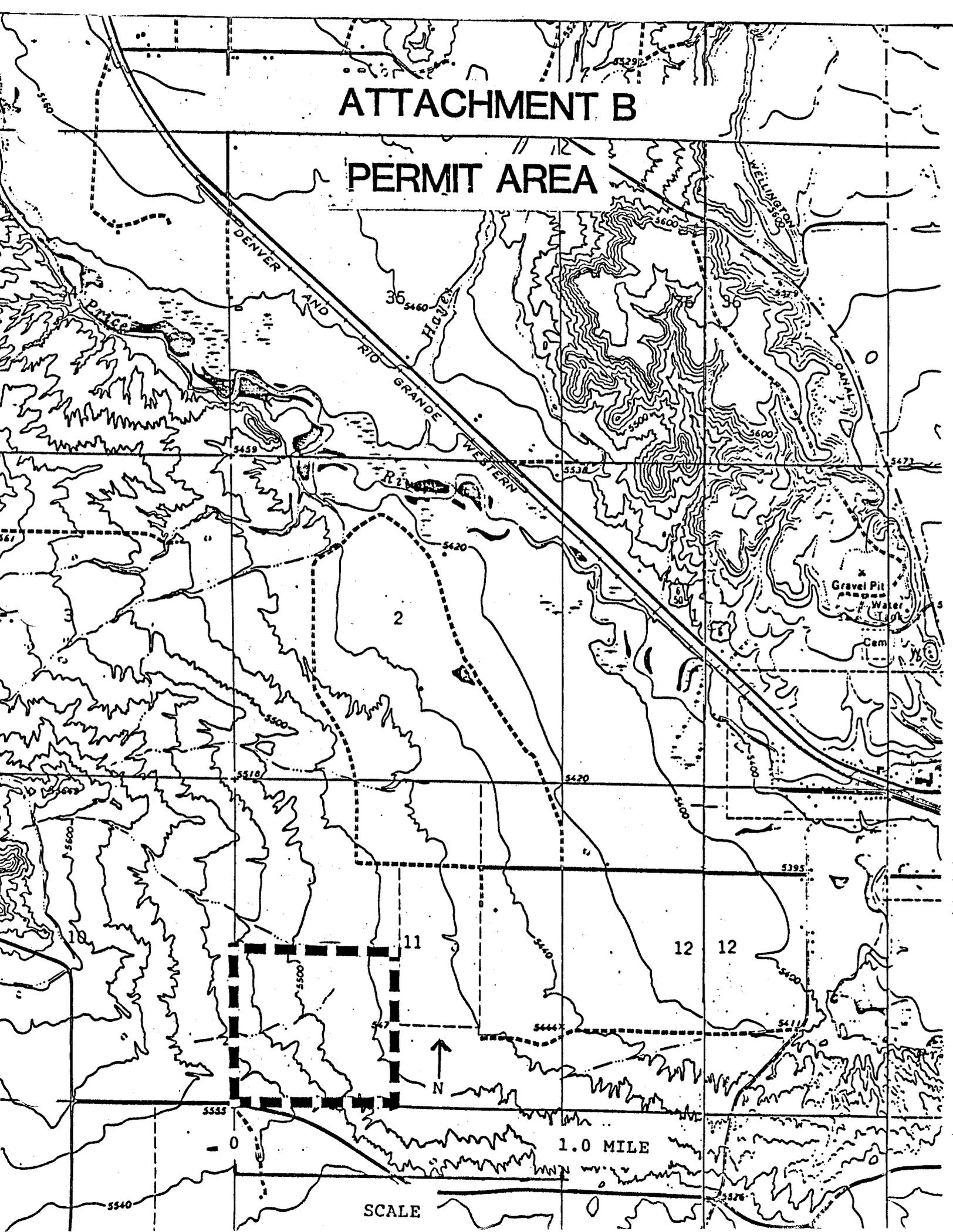
**Utah Division of Oil, Gas and Mining
Five-Year Permit Renewal
C.V. Spur Coal Processing and Loadout Facility
ACT/007/022
August 7, 1989**

Stipulation UMC 817.23-(HS)-(1)

1. Within 30 days of permit approval, the applicant must submit an as-built survey of the soil stockpiles. This survey must include the volume of topsoil stored, maximum and minimum heights, slopes, and all other pertinent dimensions.

ATTACHMENT B

PERMIT AREA





State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangert
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 6, 1989

Mr. Dan Guy, Manager
Permitting and Compliance
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

Dear Mr. Guy:

Re: Approval of Response to Stipulation UMC
817.23-(1)-(HS). Five-Year Permit Renewal, Beaver
Creek Coal Company, C. V. Spur Coal Processing and
Loadout Facility, ACT/007/022, Folder #3, Carbon
County, Utah

This letter will inform you that the above-identified stipulation response was approved on September 6, 1989.

Sincerely,

Richard V. Smith
Richard V. Smith
Permit Supervisor

djh
cc: H. Sauer, DOGM
AT8/77



State of Utah
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

Norman H. Hangerter
Governor

Suzanne Dandoy, M.D., M.P.H.
Executive Director

Kenneth L. Alkema
Director

288 North 1460 West

P.O. Box 16690

Salt Lake City, Utah 84116-0690

(801) 538-6121

May 1, 1989

Dan W. Guy
Manager of Permitting/Compliance
Beaver Creek Coal Company
P.O. Box 1378
Price, Utah 84501

Re: Issuance of General Permits for Coal
Mining UTG040003, UTG040004 and
UTG040005

Dear Mr. Guy:

We hereby acknowledge receipt by EPA and the State of five Notices of Intent (NOIs) for coverage under the Utah General Permit for Coal Mining. The NOI's for Beaver Creek Coal Company's Trail Mountain No. 9 Mine, Gordon Creek No. 2 Mine, Huntington Canyon No. 4 Mine, Gordon Creek No. 3 & 6 Mines and the CV Spur Processing/Loadout Facility are considered adequate. Three of the facilities will be issued a general permit and two of the existing facility permits will be inactivated because of completion of reclamation activities. Trail Mountain No. 9 Mine has been reassigned a new permit number UTG040003, Gordon Creek No. 2 Mine has been reassigned a new permit number UTG040004 and the CV Spur Processing/Loadout Facility has been assigned a new permit number UTG040005. Any future correspondence regarding these three facilities should refer to these numbers. The permits for Huntington Canyon No. 4 Mine UT0023116 and Gordon Creek No. 3 & 6 Mines UT0023060 will be inactivated.

A copy of the final signed permits are enclosed. Coverage shall begin June 1, 1989 and all requirements and conditions of the permits will be in full force and effect at that time.

Preprinted Discharge Monitoring Report forms (EPA form 3320-1) for self monitoring and reporting requirements as specified in the permits will be sent to Beaver Creek Coal by June 1st.

Dan Guy
Page Two

Also enclosed is the billing information for the issuance of your Utah Pollutant Discharge Elimination System (UPDES) permits. A fee schedule was included in the Utah Department of Health budget appropriation request at the direction of the Legislature and in accordance with Utah Code Annotated 26-1-6. The fee schedule as approved by the Legislature includes a \$100.00 filing fee and a charge equal to the Bureau of Water Pollution Control's actual costs for writing and issuance of a UPDES permit. It is Division policy to charge either the filing fee or the actual cost plus 7% whichever is greater. Please remit \$300.00 to the Utah Department of Health, Bureau of Water Pollution Control, P.O. Box 16690, Salt Lake City, Utah 84116-0690.

If you have any questions please contact Mike Herkimer at 538-6146.

Sincerely,

Utah Water Pollution Control Committee



Don A. Ostler, P.E.
Executive Secretary

Enclosure

MDH:st

cc: Janet Fujita, EPA Region VIII, w/enclosure
Joel Helfrich, DOGM, w/enclosure

1571-28

Permit No.: UTG040005

STATE OF UTAH
DEPARTMENT OF HEALTH
BUREAU OF WATER POLLUTION CONTROL
P.O. BOX - 16690
SALT LAKE CITY, UTAH 84116-0690

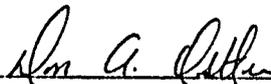
*Authorization to Discharge Under the
Utah Pollutant Discharge Elimination System
Utah General Permit for Coal Mining*

In compliance with provisions of the Utah Water Pollution Control Act, Title 26 Chapter 11 Utah Code Annotated, 1953 as amended, the Act. The coal company identified in the application is authorized to discharge to Waters of the State as identified in the application in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This general permit shall become effective on May 4, 1989.

This general permit and the authorization to discharge shall expire at midnight, April 30, 1993.

Signed this *4th* day of *May 1989*



Authorized Permitting Official
Executive Secretary
Water Pollution Control Committee

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7. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or improper operation.

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Definitions.

1. The "30-day (and monthly) average", is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "7-day (and weekly) average", is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.
3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.
4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
6. An "instantaneous" measurement, for monitoring requirements, is defined as a

Fill an Imhoff cone to the one-liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. Where a separation of settleable and floating material occurs, do not include the floating material in the reading.

18. Mine drainage means any drainage, and any water pumped or syphoned, from an active mining area or a post mining area.
19. Alkaline mine drainage means mine drainage which before any treatment has a pH equal to or greater than 6.0 and total iron concentration less than 10 mg/l.
20. Post mining areas means: 1) a reclamation area or 2) the underground workings of an underground coal mine after extraction removal or recovery of coal from its natural deposit has ceased and prior to bond release.

B. Criteria for Inclusion in The General Permit for Coal Mining.

This General permit shall apply only to the discharge of treated wastewater from:

Coal mining operations either new or existing in Utah which include or will include in part or in whole alkaline mine water drainage, storm water runoff from coal preparation plant associated areas, active mining areas, and post mining areas. The total amount of total dissolved solids discharged from all mine water and decant operations is limited to one ton per day.

C. Notice of Intent for a General Permit for Coal Mining.

1. Any facility which desires a general permit for coal mining and meets the requirement of B. above can be issued a general permit only by following the procedures listed below.

Submit a Notice of Intent (NOI) to obtain a general permit for coal mining. The NOI shall include the following items:

- a. Name of the facility.
- b. Facility contact person and phone number for that person.
- c. The facility mailing address (include zip code).
- d. Complete items e through q of the NOI if the information contained in those items has not already been submitted in a previous NOI or individual UPDES application, or if circumstances have changed such that the information previously submitted would be out of date or incorrect.
- e. Facility location such as street address, county, city or town, state and zip code. Include the latitude and longitude of the facility to the nearest 15 seconds.

- f. Name of the operator if other than the owner. Indicate here if the owner will be the operator and the phone number where the operator can be reached during normal and off work hours, and the address of the operator.
- g. Statement as to whether the facility or any existing or proposed discharge points are located on Indian lands or within National Forest boundaries.
- h. List of any other permits (including other UPDES permits) that the facility has or is attempting to obtain such as UIC or RCRA.
- i. Statements as to whether the facility has any hazardous waste treatment storage or disposal areas.
- j. List location and identification number (such as 001, 002, etc.) of each existing discharge and/or proposed discharge point(s). This includes the latitude and longitude to the nearest 15 seconds and the name of the receiving water(s).
- k. A description of the source of the wastewater for each discharge point.
- l. A description of the treatment given or proposed for the wastewater at each discharge point and if necessary a justification of why no treatment is required.
- m. Indicate for each discharge point flow characteristics such as whether flow is or will be continuous or intermittent and indicate projected and/or actual average and maximum flows in gpd.
- n. For each discharge point submit data for the following parameters:
 - 1) Biochemical oxygen demand (BOD)
 - 2) Chemical oxygen demand (COD)
 - 3) Total organic carbon (TOC)
 - 4) Total suspended solids (TSS)
 - 5) Flow
 - 6) Ammonia (as N)
 - 7) Oil and grease
 - 8) Temperature
 - 9) pH
 - 10) Total dissolved solids (TDS)
 - 11) Total iron
 - 12) Date and time of sampling for each parameter
 - 13) Date and time of analysis for each parameter
 - 14) Laboratory which has completed the analysis for each parameter

If no data is available, indicate why the data is not available.

The Executive Secretary may waive the reporting requirements for any of these pollutants and parameters if the applicant submits a request for such a waiver before or with the NOI which demonstrates that information adequate to support issuance of the permit can be obtained through less stringent reporting requirements.

0. Indicate for each discharge point the presence or absence of any toxic and/or priority pollutants as listed by EPA in 40 CFR Part 403.

p. Area Maps (Active Mining Operations)

Facilities are required to submit an Area Map in the form specified hereafter.

The Area Map(s) and any necessary revised Area Map(s) shall be submitted in the form specified below and shall be made from USGS topographical maps (7.5 or 15-minute series) or other appropriate sources as approved by the Executive Secretary or his designee. Each revised area map shall be 8 1/2 inches by 11 inches and shall be in black and white, suitable to produce readable copies by rapid printing methods. (Xerox, Dennison, Offset printing, etc.) or as approved by the Executive Secretary. Where additional 8 1/2 inch by 11 inch maps are required to show the area of operation, they shall be numbered and a key shall be shown on the first map. The first map section shall have the company name, mine/job name, address, and UPDES number clearly printed thereon. Also, one line of latitude and one line of longitude shall be marked on each map section. The Area Map(s) shall delineate the following, using the graphics as indicated:

1. Existing area of operation shall be outlined by a solid line and the map shall show areas at least one mile beyond the existing areas of operation. _____
 2. Existing point source(s) (Solid Triangle)
 3. The projected area of operation for the next five years
----- (Dashed Outline)
 4. Projected point source(s) for the next five years
(Opened Triangle)
 5. The active-inactive status of all discharge points which are listed in the application. These discharge points shall be assigned numbers 001, 002, 003, etc.
 6. The location of springs, rivers and other surface water bodies.
 7. The location of any hazardous waste treatment, storage and disposal areas, and where any fluids are injected into the ground.
- q. If there are any changes corrections, or other modifications or adjustments of the location of the point source discharges, the permittee shall submit a revised Area Map(s) as described in p. above. Such maps must be submitted 30 days prior to commencement of the discharge.

- r. The NOI must be signed by a responsible official of the company with the following format:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in the application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the NOI application, I believe the information is true, accurate and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name and Official Title Signature

Date

2. Additional information or clarification of information submitted in the NOI may be requested by the Executive Secretary.
3. The NOI to obtain a General Permit for Coal Mining shall be submitted 180 days before expiration of the general permit or an individual permit, for all facilities desiring to continue or obtain a general permit; with the exception of those facilities that have submitted an NOI within one year of the expiration date of the general permit need not resubmit another NOI.
4. New facilities must submit a NOI at least 180 days before the beginning date of discharge.
5. The Executive Secretary will respond to the submission of the NOI by reviewing the NOI within 30 days for a UPDES new source or discharger and 60 days for an existing source and notifying the permittee whether more information is needed or if the NOI is complete, issue the general permit.

D. Specific Limitations and Self-Monitoring Requirements.

1. During the period beginning immediately and lasting through the duration of this permit, the permittee is authorized to discharge from all point sources associated with active mining operations indicated on the Area Maps submitted and approved pursuant to Part I. C. 1p. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristics</u>	<u>Discharge Limitations a/</u>		<u>Monitoring Requirements</u>		
	<u>Average 30-day</u>	<u>7-Day</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, gpd	N/A	N/A	N/A	Monthly	Measured b/
Suspended Solids, mg/L	25	35	70	Monthly	Grab
Total Iron, mg/L	N/A	N/A	2.0	Monthly	Grab
Dissolved Solids, lbs/day	N/A	N/A	N/A c/	Monthly	Grab
Oil Grease, mg/L	N/A	N/A	10	Monthly	Grab

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored twice per month by a grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes or any process water from coal preparation plants.

- a/ See Definitions, Part I. A. for definition of terms.
 - b/ For the intermittent discharges, the duration of the discharge shall be reported along with the flow.
 - c/ The total amount of Total Dissolved Solids (TDS) discharged from all mine water and decant operations is limited to one ton (2,000 pounds) per day.
2. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at any point which is representative of each discharge prior to its mixing with the receiving stream and as indicated by the solid triangles on the current Area Maps submitted pursuant to part I. C. 1p.
 3. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within a 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at any outfall may comply with the following limitation instead of the Total Suspended Solids limitations contained in Part I. D. 1. provided the facility has been designed, constructed and operated to adequately treat up to a 10 year 24 hour storm event:

Effluent Characteristic

Daily Maximum

Settleable Solids

0.5 ml/L

In addition to the monitoring requirements specified under Part I. D. 1., all effluent samples collected during storm water discharge events shall also be analyzed for settleable solids. Such analyses shall be conducted on grab samples.

4. Any overflow, increase in volume of a discharge or discharge from a bypass system caused by precipitation within a 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) at any outfall may comply with the following limitations instead of the otherwise applicable limitations:

The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units. However, as stated under Part I. D. 3., all effluent samples collected at any outfall during storm water discharge events shall be analyzed for settleable solids and the parameters identified under Part I. D. 1.

5. The operator shall have the burden of proof that the discharge or increase in discharge was caused by the applicable precipitation event described in Parts I. D. 3. and D. 4. The alternate limitations in Parts I. D. 3. and D. 4. shall not apply to treatment systems that treat underground mine water only.
6. **Best Management Practices.** The company shall implement and maintain best management practices for the control of road salt storage and dust suppressent runoff and for the prevention of the discharge of process water from coal preparation plants. In addition the facility must minimize the discharge of salt by using the largest practical amount of saline water for process and dust control.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code (UAC) Section R448-2-10, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during the previous calendar quarter shall be summarized for each calendar month on separate Discharge Monitoring Report Forms (DMR, EPA No. 3320-1). All three DMRs for the calendar quarter shall be postmarked no later than the 28th day of the calendar month following the completed reporting period. If no discharge occurs during the reporting period, "no discharge" shall be reported. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the requirements of Signatory Requirements (see Part IV), and submitted to the Utah Bureau of Water Pollution Control and to EPA at the following addresses:

Original to: Utah Department of Health
Bureau of Water Pollution Control
288 North 1460 West
P.O. Box 16690
Salt Lake City, Utah 84116-0690
Attention: Compliance and Monitoring Program

Copy to: United States Environmental Protection Agency
Region VIII
Denver Place
999 18th Street, Suite 500
Denver, Colorado 80202-2405
Attention: Water Management Division
Compliance Branch (8WM-C)

- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under UAC Section R448-2-10 as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated.

- G. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,
 6. The results of such analyses.
- H. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the Executive Secretary at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location.
- I. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance which may seriously endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Utah Bureau of Water Pollution Control, (801) 538-6146, or 24 hour answering service (801) 538-6333.
 2. The following occurrences of noncompliance shall be reported by telephone to the Utah Bureau of Water Pollution Control, Compliance and Monitoring Branch at (801) 538-6146 by the first workday (8:00 a.m. - 5:00 p.m. Mountain Time) following the day the permittee became aware of the circumstances:
 - a. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III. G., Bypass of Treatment Facilities.);
 - b. Any upset which exceeds any effluent limitation in the permit (See Part III. H., Upset Conditions.); or,
 - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
 3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and,

- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
4. The Executive Secretary may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Compliance and Monitoring Branch, Utah Bureau of Water Pollution Control, (801) 538-6146.
5. Reports shall be submitted to the addresses in Part II. D., Reporting of Monitoring Results.
- J. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II. D. are submitted. The reports shall contain the information listed in Part II. I. 3.
- K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, or EPA upon the presentation of credentials and other documents as may be required by law, to:
- 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
 - 4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

III. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Executive Secretary of the Water Pollution Control Committee of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The Act provides that any person who violates a permit condition implementing provisions of the Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under Section 26-11-16(2) of the Act a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided in permit conditions on Part III. G., Bypass of Treatment Facilities and Part III. H., Upset Conditions, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state.

G. Bypass of Treatment Facilities.

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this section. Return of removed substances, as described in Part III. F., to the discharge stream shall not be considered a bypass under the provisions of this paragraph.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 60 days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II. I. Twenty-four Hour Reporting.
3. Prohibition of bypass.
 - a. Bypass is prohibited and the Executive Secretary may take enforcement action against a permittee for a bypass, unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage ;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
 - (3) The permittee submitted notices as required under paragraph 2 of this section.
 - b. The Executive Secretary may approve an anticipated bypass, after considering its adverse effects, if the Executive Secretary determines that it will meet the three conditions listed above in paragraph 3.a. of this section.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2 of this section are met. The Executive Secretary's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is taken for noncompliance.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under Part II. J., Twenty-four Hour Notice of Noncompliance Reporting; and,
 - d. The permittee complied with any remedial measures required under Part III. D., Duty to Mitigate.
 3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Federal Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
 - J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe: --
 1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 ug/L);
 - b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with UAC Section R448-8-3.4 (7) or (10); or,
 - d. The level established by the Executive Secretary in accordance with UAC Section R448-8-4.2 (6).
 2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- a. Five hundred micrograms per liter (500 ug/L);
- b. One milligram per liter (1 mg/L) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with UAC Section R448-8-3.4(9); or,
- d. The level established by the Executive Secretary in accordance with UAC Section R448-8-4.2(6).

IV. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in UAC Section R448-8-1.5.; or,
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Part IV. A. 2.
- B. Anticipated Noncompliance. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application should be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Executive Secretary shall be signed and certified.
1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;

- c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Executive Secretary shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Executive Secretary, and,
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
 3. Changes to authorization. If an authorization under paragraph IV. G. 2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph IV. G. 2. must be submitted to the Executive Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.
 4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- H. Penalties for Falsification of Reports. The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

- I. Availability of Reports. Except for data determined to be confidential under UAC Section R448-8-3.2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Executive Secretary. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Federal Clean Water Act or the Utah Water Pollution Control Act.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Executive Secretary at least 30 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 26-11-19 of the Act.
- O. Water Quality Standard Requirement - Reopener Provision
This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
3. A revision to the current 208 plan is approved and adopted which calls for different effluent limitations than contained in this permit.

1989
VEGETATION DATA

VEGETATION MONITORING
OF THE
BEAVER CREEK C.V. SPUR TEST PLOT: 1989

Prepared by

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Dean Collins

Date: February 1990

SCOPE

The following is a report to describe the results from initial monitoring of a reclamation test plot at the C.V. Spur site that was established by Beaver Creek Coal Company, Price Utah. Monitoring methodologies were performed in accordance with the guidelines supplied by the State of Utah, Division of Oil, Gas and Mining (DOGM).

Within the INTRODUCTION of the report, a General Site Description section is provided to give a brief descriptive overview of the area. A METHODS section is included in this report to provide the reviewers with all methodologies and standards used to obtain the data. The RESULTS section outlines the sampling results of the test plot.

VEGETATION MONITORING
OF THE
BEAVER CREEK C.V. SPUR TEST PLOT: 1989

INTRODUCTION

General Site Description

The Beaver Creek C.V. Spur area is located approximately 4 miles southeast of Price in Carbon County, Utah. The area is comprised of nearly 120 acres of potential disturbance land associated with coal cleaning activities. This disturbance area lies within a salt desert community on soils derived from Mancos Shale.

Revegetation test plots investigating different treatments were established in the fall of 1987 by Beaver Creek Coal Company. The plot size is approximately 120 ft by 140 ft. This area was divided into sixteen 25 ft by 25 ft "subplots" to test different reclamation treatments. The treatments consisted of comparing controls, topsoil depths, coarse refuse mixtures and mulches. More specifically, the treatments investigated with their respective subplot numbers are listed below.

SUBPLOT

NUMBER	TREATMENT
1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

METHODS

Quantitative and qualitative data were taken on each of the subplots of the C.V. Spur test site. Vegetation sampling was accomplished September 12-13, 1989.

Cover and Composition

Bi-directional random placement of sampling plots were designed to provide unbiased accuracy of the data compiled. This was accomplished by placing surveying tapes perpendicularly on two sides of each

subplot, forming X and Y axes. The intersection of random numbers along each axis dictated the sample point locations within the subplots. Six of these samples were placed in each of the 25 ft X 25 ft subplots.

Cover estimates were made (to the nearest percentage point) using ocular methods with meter square quadrats in each of the subplots (with the exception of the "strip-planted" areas). Species composition by lifeform and relative frequencies were also assessed from the quadrats. Additional information recorded on data sheets were: estimated precipitation, slope, exposure, grazing use, animal disturbance and other appropriate notes.

Sample means, standard deviations, and sample sizes were included in this report to enable the reviewers to apply further statistical tests if desired. Plant nomenclature follows Welch et al. (1987).

In the two "strip-planted subplots", individual species were planted in rows or strips when the test plot was established. These subplots had a total of 17 species planted in individual rows, thus forming 17 rows. Because meter square quadrats would have been inappropriate to sample these rows, the line-intercept method was employed. In this method, the relative cover by species was measured along a tape line.

RESULTS

Summaries and results from all sampling are given on Tables 1 - 32. Comparisons of much of the information from the tables can easily be made by examining the graphs that are also included in this report (Figs. 1 - 9).

Figures 1 - 4 show the total cover and composition for each subplot taken from the data listed in the summary tables. However, the cover graphs can be somewhat misleading when predicting revegetation success because much of the cover consists of weedy, annual forbs. Therefore, graphs were also prepared showing total cover of shrub and grass species, excluding forbs. Justification for excluding the forbs as a method for comparing treatments and predicting revegetation success comes from the fact that over 95% of the forbs in the plot were annual, weedy species. For comparison of treatments shown graphically of non-weedy plant species, refer to Figures 5 - 9.

TABLE 1: Subplot 1 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	20.00	5.77	6.00
Litter	4.33	0.94	6.00
Bareground	73.00	7.66	6.00
Rock	2.67	1.70	6.00
COMPOSITION			
Trees/Shrubs	9.61	7.87	6.00
Forbs	90.38	7.87	6.00
Grasses	0.00	0.00	6.00

TABLE 2: Subplot 1 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	2.00	1.53	6.0	66.67
Atriplex canescens	--	--	6.0	--
FORBS				
Halogeton glomeratus	10.17	5.96	6.0	100.00
Kochia scoparia	.83	1.86	6.0	16.67
Salsola iberica	6.83	1.95	6.0	100.00
Sphaeralcea grossulariifolia	.17	.37	6.0	16.67
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	--	--	--	--
Stipa hymenoides	--	--	--	--
Hilaria jamesii	--	--	--	--

TABLE 3: Subplot 2 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	19.00	6.56	6.0
Litter	8.33	3.73	6.0
Bareground	65.83	10.16	6.0
Rock	6.83	2.54	6.0
COMPOSITION			
Shrubs	23.31	17.79	6.0
Forbs	72.80	16.99	6.0
Grasses	3.89	8.70	6.0

TABLE 4: Subplot 2 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	2.33	2.36	6.0	66.67
Atriplex canescens	1.33	2.56	6.0	33.33
FORBS				
Halogeton glomeratus	9.50	4.57	6.0	100.00
Kochia scoparia	--	--	--	--
Salsola iberica	4.50	3.10	6.0	83.33
Sphaeralcea grossulariifolia	.17	.37	6.0	16.67
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	1.17	2.61	6.0	16.67
Stipa hymenoides	--	--	--	--
Hilaria jamesii	--	--	--	--

TABLE 5: Subplot 3 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	25.67	3.73	6.0
Litter	16.67	7.45	6.0
Bareground	49.17	9.75	6.0
Rock	8.50	5.28	6.0
COMPOSITION			
Trees/Shrubs	24.06	9.27	6.0
Forbs	37.17	12.42	6.0
Grasses	38.77	20.31	6.0

TABLE 6: Subplot 3 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	1.50	1.26	6.0	66.67
Atriplex canescens	4.67	3.77	6.0	83.33
FORBS				
Halogeton glomeratus	7.17	1.95	6.0	100.00
Kochia scoparia	--	--	--	--
Salsola iberica	2.33	2.75	6.0	50.00
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	.33	.75	6.0	16.67
Agropyron cristatum	4.83	5.01	6.0	66.67
Stipa hymenoides	4.83	3.53	6.0	83.33
Hilaria jamesii	--	--	--	--

TABLE 7: Subplot 4 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	50.00	9.57	6.0
Litter	17.83	7.75	6.0
Bareground	16.67	12.13	6.0
Rock	15.50	6.55	6.0
COMPOSITION			
Trees/Shrubs	9.88	10.35	6.0
Forbs	69.56	16.09	6.0
Grasses	20.56	9.84	6.0

TABLE 8: Subplot 4 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	1.33	1.97	6.0	33.33
Atriplex canescens	3.33	3.73	6.0	50.00
FORBS				
Halogeton glomeratus	27.50	10.31	6.0	100.00
Kochia scoparia	2.50	3.82	6.0	33.33
Salsola iberica	5.00	7.07	6.0	50.00
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	5.33	3.73	6.0	83.33
Stipa hymenoides	5.00	2.89	6.0	83.33
Hilaria jamesii	--	--	--	--

14.99% desirable

TABLE 9: Subplot 5 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover*	8.57	3.05	17
Litter	--	--	--
Bareground	--	--	--
Rock	--	--	--
COMPOSITION			
Trees/Shrubs	2.33	--	17
Forbs	93.44	--	17
Grasses	4.23	--	17

* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 10: Subplot 5 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	.20	.74	17	5.58
Atriplex canescens	--	--	--	--
FORBS				
Halogeton glomeratus	5.27	3.97	17	94.12
Kochia scoparia	--	--	--	--
Salsola iberica	2.78	3.21	17	58.82
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	.37	1.04	17	5.58
Stipa hymenoides	--	--	--	--
Hilaria jamesii	--	--	--	--

.57

* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS)

TABLE 11: Subplot 6 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	18.33	5.53	6.0
Litter	13.33	5.53	6.0
Bareground	65.00	10.79	6.0
Rock	3.33	1.89	6.0
COMPOSITION			
Trees/Shrubs	36.22	14.23	6.0
Forbs	46.06	24.65	6.0
Grasses	17.72	10.92	6.0

TABLE 12: Subplot 6 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	2.83	2.27	6.0	66.67
Atriplex canescens	3.50	1.80	6.0	100.00
FORBS				
Halogeton glomeratus	6.67	4.96	6.0	100.00
Kochia scoparia	2.33	5.22	6.0	16.67
Salsola iberica	--	--	--	--
Sphaeralcea grossulariifolia	.17	.37	6.0	16.67
GRASSES				
Elymus lanceolatus	.50	.76	6.0	33.33
Agropyron cristatum	.33	.75	6.0	16.67
Stipa hymenoides	2.00	1.00	6.0	83.33
Hilaria jamesii	--	--	--	--

TABLE 13: Subplot 7 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	26.67	2.36	6.0
Litter	8.33	5.53	6.0
Bareground	55.83	8.86	6.0
Rock	9.17	5.34	6.0
COMPOSITION			
Trees/Shrubs	20.22	17.90	6.0
Forbs	61.78	29.47	6.0
Grasses	18.00	13.31	6.0

TABLE 14: Subplot 7 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
<i>Ceratoides lanata</i>	1.83	2.27	6.0	50.00
<i>Atriplex canescens</i>	3.83	3.44	6.0	66.67
FORBS				
<i>Halogeton glomeratus</i>	13.50	6.70	6.0	100.00
<i>Kochia scoparia</i>	--	--	--	--
<i>Salsola iberica</i>	2.50	2.50	6.0	50.00
<i>Sphaeralcea grossulariifolia</i>	--	--	--	--
GRASSES				
<i>Elymus lanceolatus</i>	--	--	--	--
<i>Agropyron cristatum</i>	1.67	2.36	6.0	33.33
<i>Stipa hymenoides</i>	3.33	2.92	6.0	66.67
<i>Hilaria jamesii</i>	--	--	--	--

TABLE 15: Subplot 8 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	40.00	8.66	6.0
Litter	20.83	8.86	6.0
Bareground	23.33	8.98	6.0
Rock	15.83	1.86	6.0
COMPOSITION			
Trees/Shrubs	3.52	4.99	6.0
Forbs	67.14	14.82	6.0
Grasses	29.34	11.69	6.0

TABLE 16: Subplot 8 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	--	--	--	--
Atriplex canescens	1.67	2.36	6.0	33.33
FORBS				
Halogeton glomeratus	24.17	9.75	6.0	100.00
Kochia scoparia	--	--	--	--
Salsola iberica	2.67	2.05	6.0	66.67
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	2.50	3.55	6.0	33.33
Agropyron cristatum	3.83	2.91	6.0	66.67
Stipa hymenoides	5.17	2.41	6.0	100.00
Hilaria jamesii	--	--	--	--

TABLE 17: Subplot 9 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	26.67	6.24	6.0
Litter	6.67	2.36	6.0
Bareground	61.67	7.99	6.0
Rock	5.00	--	6.0
COMPOSITION			
Trees/Shrubs	3.11	4.66	6.0
Forbs	96.89	4.66	6.0
Grasses	--	--	--

TABLE 18: Subplot 9 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
<i>Ceratoides lanata</i>	.50	.76	6.0	33.33
<i>Atriplex canescens</i>	.33	.75	6.0	16.67
FORBS				
<i>Halogeton glomeratus</i>	18.33	2.92	6.0	100.00
<i>Kochia scoparia</i>	1.67	3.73	6.0	16.67
<i>Salsola iberica</i>	5.83	3.44	6.0	83.33
<i>Sphaeralcea grossulariifolia</i>	--	--	--	--
GRASSES				
<i>Elymus lanceolatus</i>	--	--	--	--
<i>Agropyron cristatum</i>	--	--	--	--
<i>Stipa hymenoides</i>	--	--	--	--
<i>Hilaria jamesii</i>	--	--	--	--

TABLE 19: Subplot 10 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	34.17	12.05	6.0
Litter	8.33	2.36	6.0
Bareground	52.50	12.83	6.0
Rock	5.00	--	6.0
COMPOSITION			
Trees/Shrubs	10.44	8.37	6.0
Forbs	86.79	9.84	6.0
Grasses	2.78	6.21	6.0

TABLE 20: Subplot 10 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	--	--	--	--
Atriplex canescens	3.33	2.36	6.0	66.67
FORBS				
Halogeton glomeratus	23.33	3.73	6.0	100.00
Kochia scoparia	3.33	7.45	6.0	16.67
Salsola iberica	2.50	3.82	6.0	33.33
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	--	--	--	--
Stipa hymenoides	1.67	3.73	6.0	16.67
Hilaria jamesii	--	--	--	--

TABLE 21: Subplot 11 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	37.50	11.81	6.0
Litter	18.33	7.45	6.0
Bareground	33.33	9.86	6.0
Rock	10.83	6.72	6.0
COMPOSITION			
Trees/Shrubs	26.34	11.89	6.0
Forbs	50.14	13.87	6.0
Grasses	23.52	16.25	6.0

TABLE 22: Subplot 11 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
<i>Ceratoides lanata</i>	1.67	2.36	6.0	33.33
<i>Atriplex canescens</i>	7.83	3.67	6.0	100.00
FORBS				
<i>Halogeton glomeratus</i>	10.83	4.81	6.0	100.00
<i>Kochia scoparia</i>	6.17	7.31	6.0	50.00
<i>Salsola iberica</i>	3.00	3.65	6.0	50.00
<i>Sphaeralcea grossulariifolia</i>	--	--	--	--
GRASSES				
<i>Elymus lanceolatus</i>	--	--	--	--
<i>Agropyron cristatum</i>	3.83	3.44	6.0	66.67
<i>Stipa hymenoides</i>	4.17	4.49	6.0	50.00
<i>Hilaria jamesii</i>	--	--	--	--

TABLE 23: Subplot 12 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	39.17	13.04	6.0
Litter	15.00	9.57	6.0
Bareground	23.33	8.98	6.0
Rock	22.50	9.46	6.0
COMPOSITION			
Trees/Shrubs	5.56	12.42	6.0
Forbs	73.50	13.66	6.0
Grasses	20.94	13.82	6.0

TABLE 24: Subplot 12 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	--	--	--	--
Atriplex canescens	.83	1.86	6.0	16.67
FORBS				
Halogeton glomeratus	24.00	13.60	6.0	100.00
Kochia scoparia	1.67	3.73	6.0	16.67
Salsola iberica	3.33	2.36	6.0	66.67
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	1.67	2.36	6.0	33.33
Stipa hymenoides	7.67	6.10	6.0	100.00
Hilaria jamesii	--	--	--	--

TABLE 25: Subplot 13 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover*	10.17	5.54	17
Litter	--	--	--
Bareground	--	--	--
Rock	--	--	--
COMPOSITION			
Trees/Shrubs	25.17	--	17
Forbs	58.98	--	17
Grasses	14.85	--	17

* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 26: Subplot 13 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	.29	1.18	17	3.46
Atriplex canescens	.29	1.18	17	3.46
FORBS				
Halogeton glomeratus	6.25	2.34	17	100.00
Helanthus annuus	.08	.34	17	3.46
Kochia scoparia	--	--	--	--
Salsola iberica	1.47	1.87	17	47.06
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	--	--	--	--
Stipa hymenoides	1.51	6.23	17	3.46
Hilaria jamesii	--	--	--	--

* Subplots 5 and 13 planting techniques were different than the other subplots, therefore sampling methods varied (see METHODS).

TABLE 27: Subplot 14 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	25.00	5.77	6.0
Litter	9.17	1.86	6.0
Bareground	60.83	6.07	6.0
Rock	5.00	--	6.0
COMPOSITION			
Trees/Shrubs	10.28	10.56	6.0
Forbs	80.83	15.33	6.0
Grasses	8.89	8.96	6.0

TABLE 28: Subplot 14 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	--	--	--	--
Atriplex canescens	2.50	2.50	6.0	50.00
FORBS				
Halogeton glomeratus	19.17	6.72	6.0	100.00
Kochia scoparia	--	--	--	--
Salsola iberica	.83	1.86	6.0	16.67
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	--	--	--	--
Stipa hymenoides	2.50	2.50	6.0	50.00
Hilaria jamesii	--	--	--	--

TABLE 29: Subplot 15 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	21.67	5.53	6.0
Litter	15.00	9.13	6.0
Bareground	53.33	17.48	6.0
Rock	10.00	7.64	6.0
COMPOSITION			
Trees/Shrubs	13.17	11.47	6.0
Forbs	84.06	13.77	6.0
Grasses	2.78	6.21	6.0

TABLE 30: Subplot 15 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
Ceratoides lanata	.50	.76	6.0	33.33
Atriplex canescens	2.33	2.14	6.0	66.67
FORBS				
Halogeton glomeratus	12.67	2.73	6.0	100.00
Kochia scoparia	3.33	4.71	6.0	33.33
Salsola iberica	2.00	2.08	6.0	50.00
Sphaeralcea grossulariifolia	--	--	--	--
GRASSES				
Elymus lanceolatus	--	--	--	--
Agropyron cristatum	.83	1.86	6.0	16.67
Stipa hymenoides	--	--	--	--
Hilaria jamesii	--	--	--	--

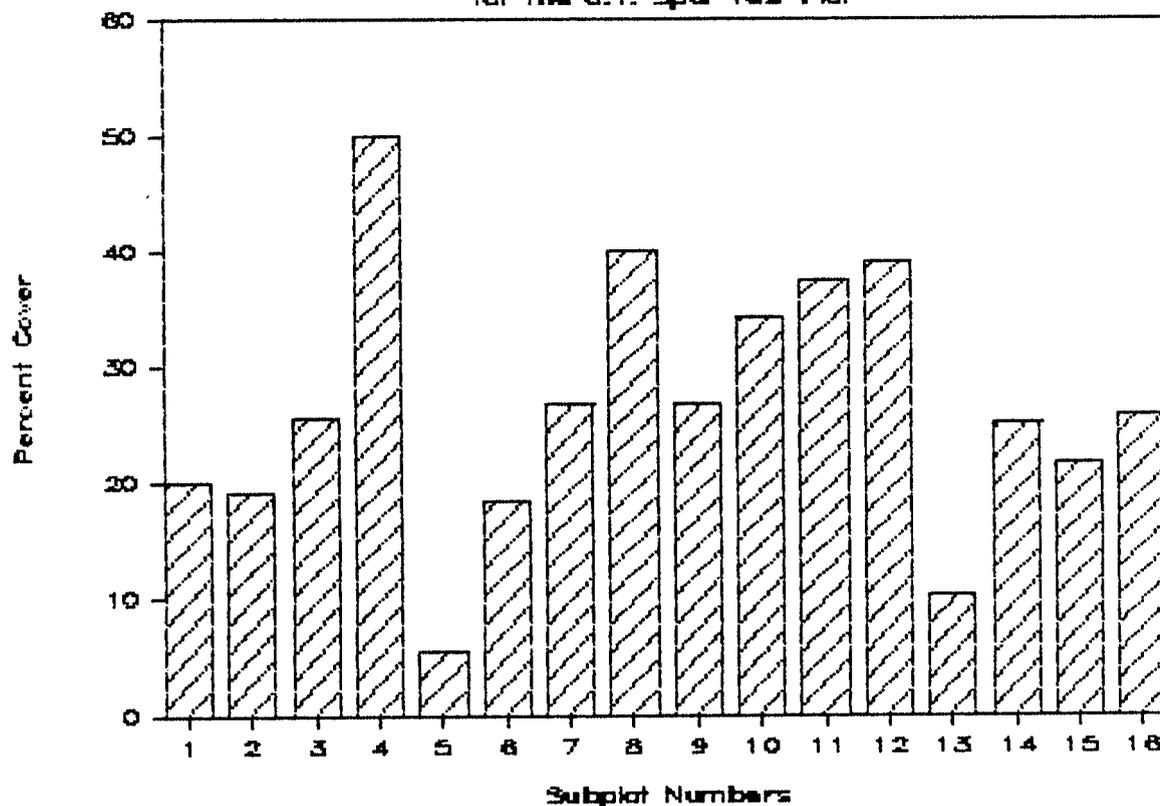
TABLE 31: Subplot 16 - Total cover and composition summary for the C.V. Spur Test Plot. The table shows the mean percent cover and composition with standard deviations and sample sizes.

TOTAL COVER	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZES
Total Living Cover	25.83	8.86	6.0
Litter	12.50	8.54	6.0
Bareground	17.50	3.82	6.0
Rock	44.17	19.88	6.0
COMPOSITION			
Trees/Shrubs	22.92	24.26	6.0
Forbs	60.10	18.06	6.0
Grasses	16.98	15.57	6.0

TABLE 32: Subplot 16 - Species cover and frequency summary for the C.V. Spur Test Plot. The table shows the mean percent cover, standard deviation, sample size and relative frequency by species.

SPECIES	% MEAN COVER	STANDARD DEVIATION	SAMPLE SIZE	RELATIVE FREQUENCY
TREES & SHRUBS				
<i>Ceratoides lanata</i>	.83	1.86	6.0	16.67
<i>Atriplex canescens</i>	4.83	3.24	6.0	83.33
FORBS				
<i>Halogeton glomeratus</i>	15.33	7.34	6.0	100.00
<i>Kochia scoparia</i>	--	--	--	--
<i>Salsola iberica</i>	.83	1.86	6.0	16.67
<i>Sphaeralcea grossulariifolia</i>	--	--	--	--
GRASSES				
<i>Elymus lanceolatus</i>	--	--	--	--
<i>Agropyron cristatum</i>	--	--	--	--
<i>Stipa hymenoides</i>	4.00	3.32	6.0	66.67
<i>Hilaria jamesii</i>	--	--	--	--

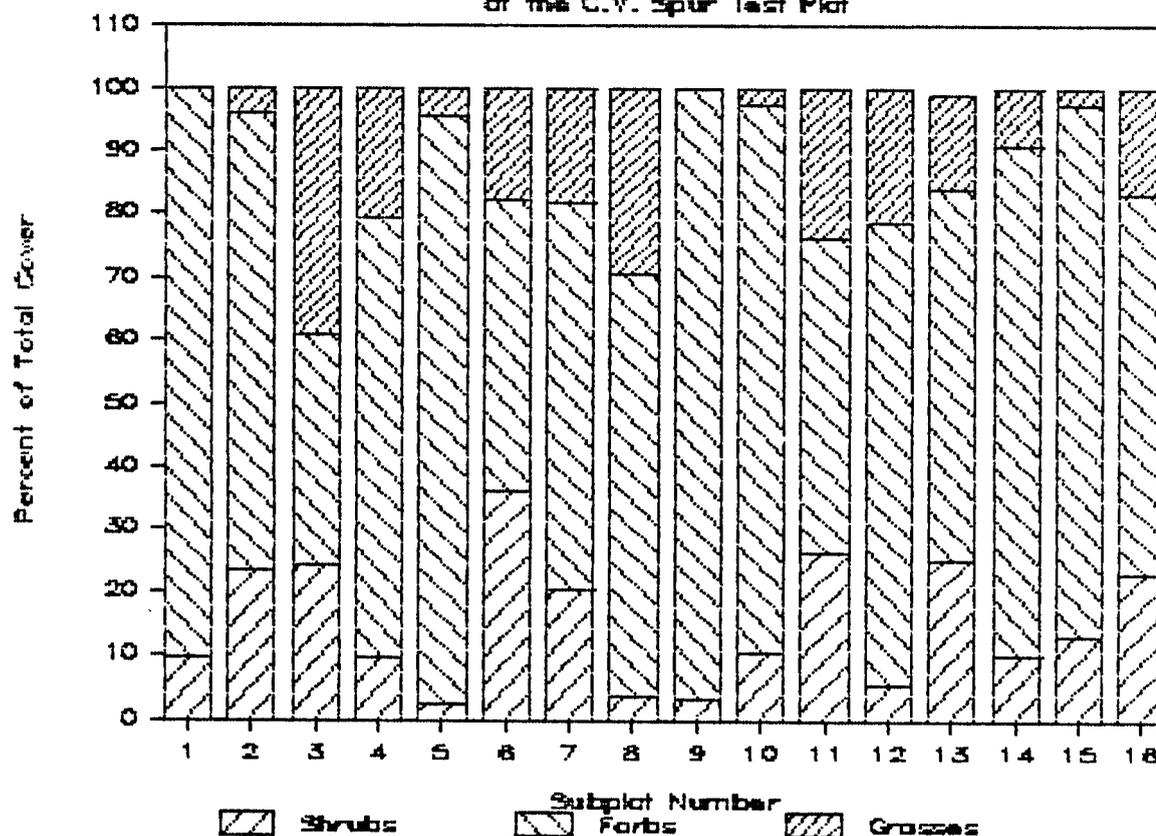
Fig. 1: 1989 – Total Living Cover
for the C.V. Spur Test Plot



TREATMENT KEY

<u>Subplot Number</u>	<u>Treatment</u>
1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

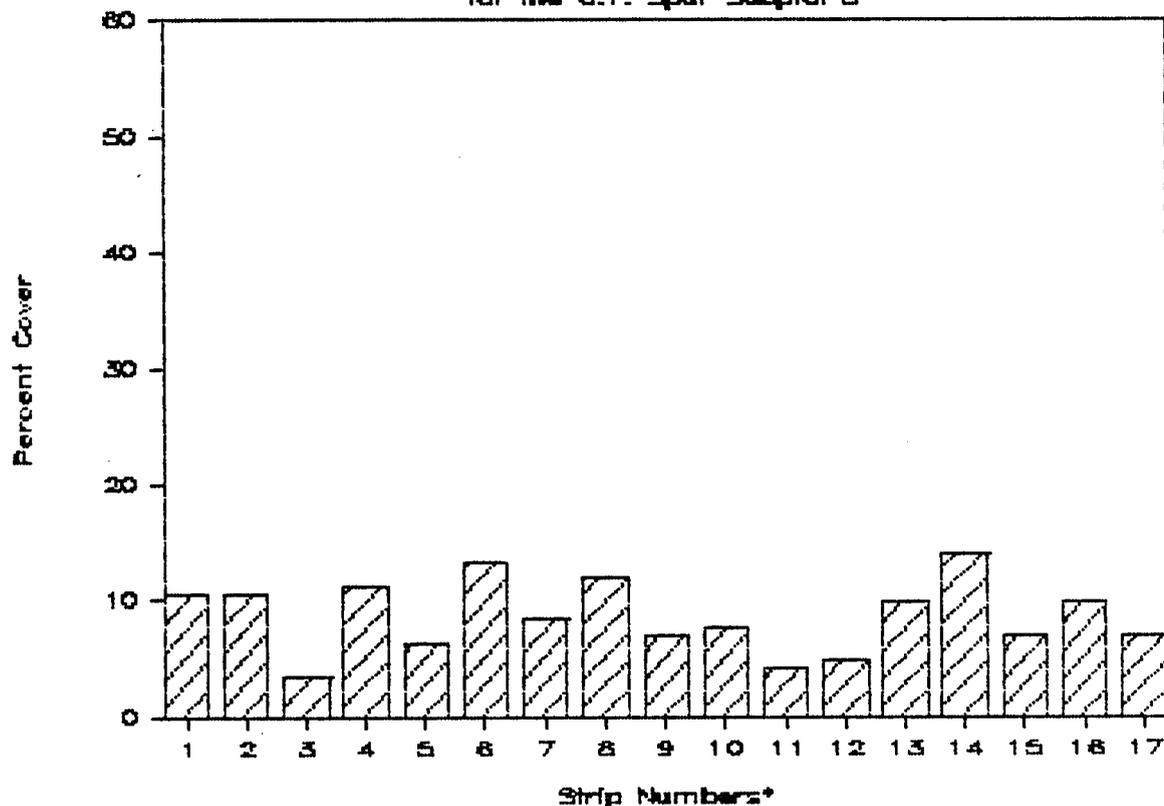
Fig. 2: 1989 — Composition
of the C.V. Spur Test Plot



TREATMENT KEY

Subplot Number	Treatment
1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

Fig. 3: 1989 - Strip Planting Cover
for the C.V. Spur Subplot 5

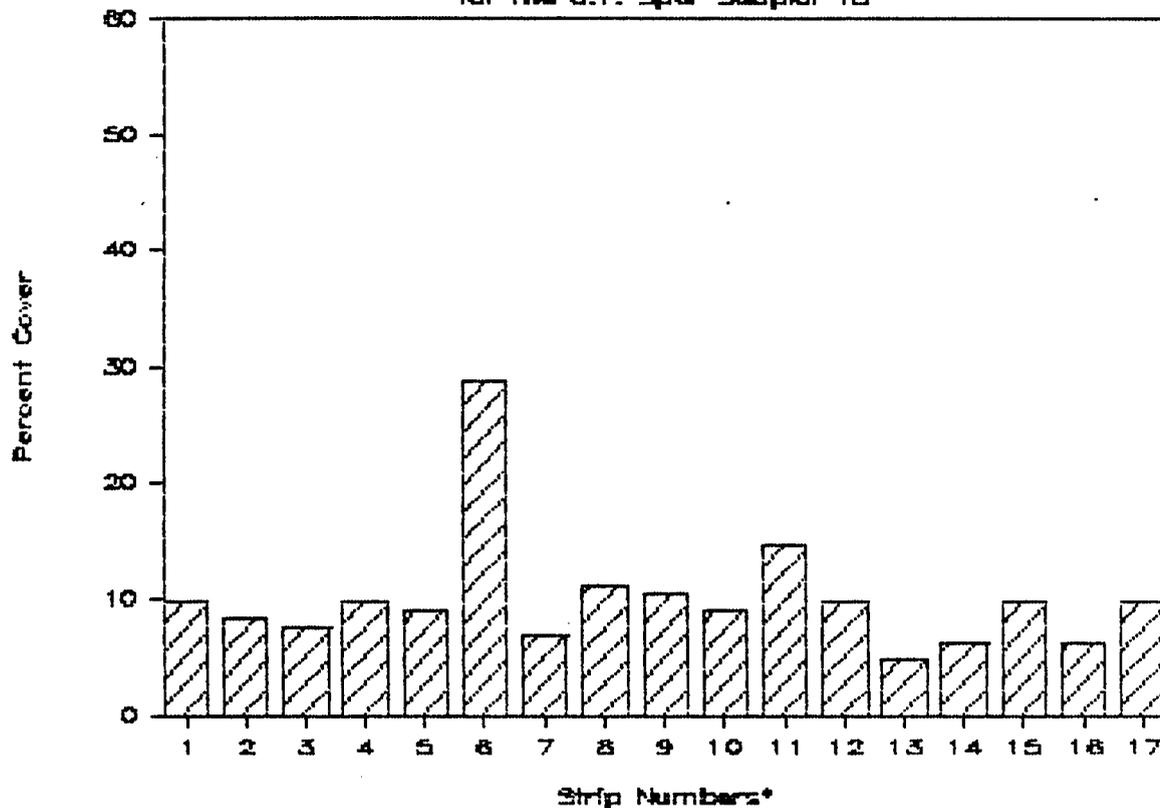


* The bars represent total cover by strip, not cover of the species planted below. For total subplot cover and a list of cover by species of Subplot 5, refer to Tables 9 & 10.

Species Planted in Strips

- | | |
|-----------------------------------|------------------------------------------|
| 1 - <u>Atriplex corrugata</u> | 2 - <u>Elymus hispidus</u> |
| 3 - <u>Atriplex confertifolia</u> | 4 - <u>Atriplex canescens</u> |
| 5 - <u>Elymus lanceolatus</u> | 6 - <u>Stipa hymenoides</u> |
| 7 - <u>Hilaria jamesii</u> | 8 - <u>Melilotus officinalis</u> |
| 9 - <u>Agropyron cristatum</u> | 10 - <u>Sporobolus airoides</u> |
| 11 - <u>Penstemon palmeri</u> | 12 - <u>Helianthus annuus</u> |
| 13 - <u>Agropyron cristatum</u> | 14 - <u>Sphaeralcea grossulariifolia</u> |
| 15 - <u>Ceratoides lanata</u> | 16 - <u>Chrysothamnus nauseosus</u> |
| 17 - <u>Elymus smithii</u> | |

Fig. 4: 1989 – Strip Planting Cover
for the C.V. Spur Subplot 13



* The bars represent total cover by strip, not cover of the species planted below. For total subplot cover and a list of cover by species of Subplot 13, refer to Tables 25 & 26.

Species Planted in Strips

- | | |
|-----------------------------------|------------------------------------------|
| 1 - <u>Atriplex corrugata</u> | 2 - <u>Elymus hispidus</u> |
| 3 - <u>Atriplex confertifolia</u> | 4 - <u>Atriplex canescens</u> |
| 5 - <u>Elymus lanceolatus</u> | 6 - <u>Stipa hymenoides</u> |
| 7 - <u>Hilaria jamesii</u> | 8 - <u>Melilotus officinalis</u> |
| 9 - <u>Agropyron cristatum</u> | 10 - <u>Sporobolus airoides</u> |
| 11 - <u>Penstemon palmeri</u> | 12 - <u>Helianthus annuus</u> |
| 13 - <u>Agropyron cristatum</u> | 14 - <u>Sphaeralcea grossulariifolia</u> |
| 15 - <u>Ceratoides lanata</u> | 16 - <u>Chrysothamnus nauseosus</u> |
| 17 - <u>Elymus smithii</u> | |

SUBPLOT

NUMBER

TREATMENT

1, 9	6 in. soil, seed, (control)
2, 6	6 in. soil, seed, wood fiber mulch
3, 7	4 in. soil, 2 in. coal refuse, seed, wood fiber mulch
4, 8	3 in. soil, 3 in. coal refuse, seed, wood fiber mulch
5	6 in. soil, wood fiber mulch, (strip planting)
10, 14	6 in. soil, seed, hay mulch
11, 15	4 in. soil, 2 in. coal refuse, seed, hay mulch
12, 16	3 in. soil, 3 in. coal refuse, seed, hay mulch
13	6 in. soil, hay mulch, (strip planting)

METHODS

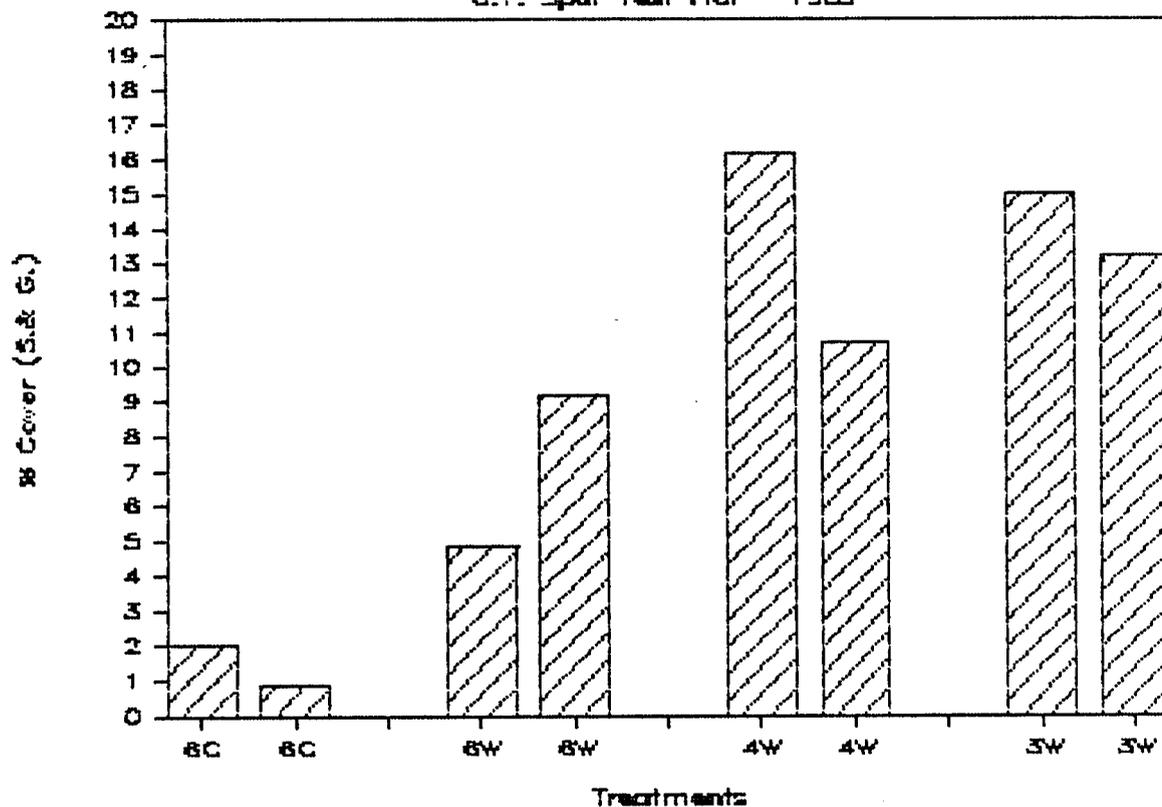
Quantitative and qualitative data were taken on each of the subplots of the C.V. Spur test site. Vegetation sampling was accomplished September 12-13, 1989.

Cover and Composition

Bi-directional random placement of sampling plots were designed to provide unbiased accuracy of the data compiled. This was accomplished by placing surveying tapes perpendicularly on two sides of each

Fig. 5: Soil Depths (Wood Fiber Mulch)

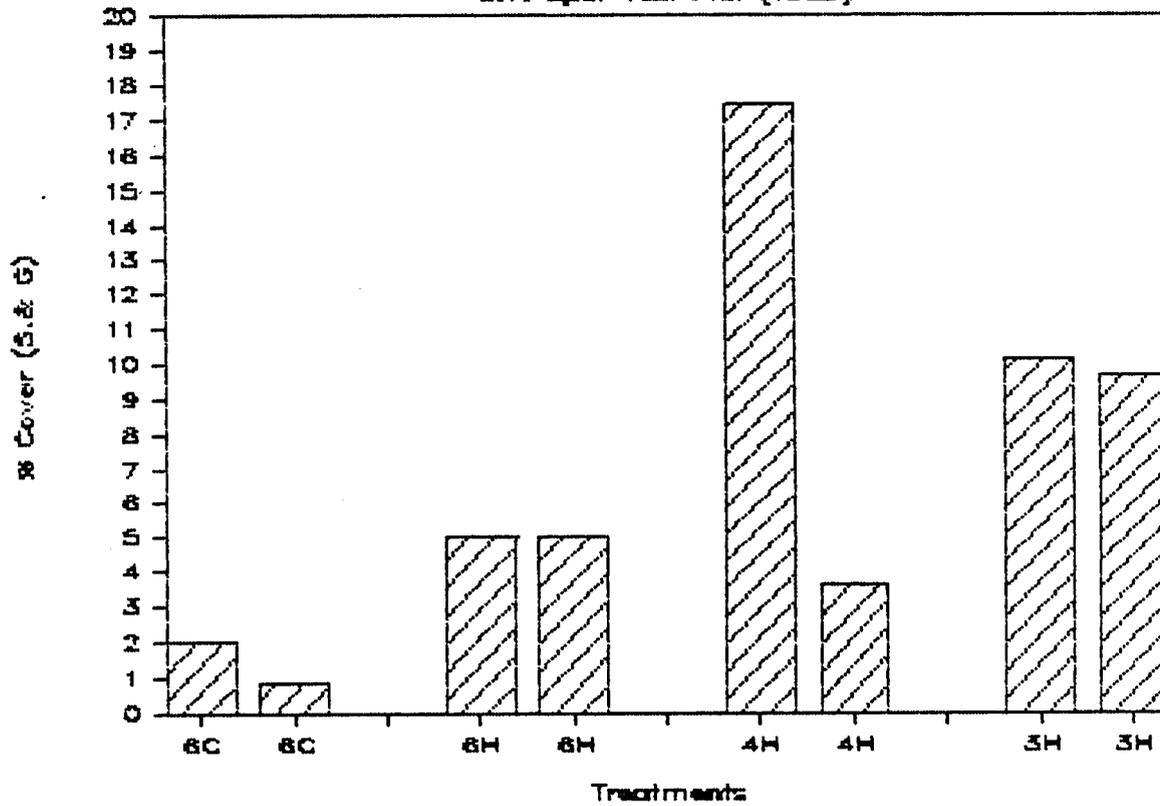
C.V. Spur Test Plot - 1989



S. & G - Shrub & Grass cover only (excludes annual weeds)
 6, 4, 3 - Treatment soil depth in inches
 C - Control
 W - Wood fiber mulch treatment
 H - Hay mulch treatment

Fig. 6: Soil Depth (Hay Mulch)

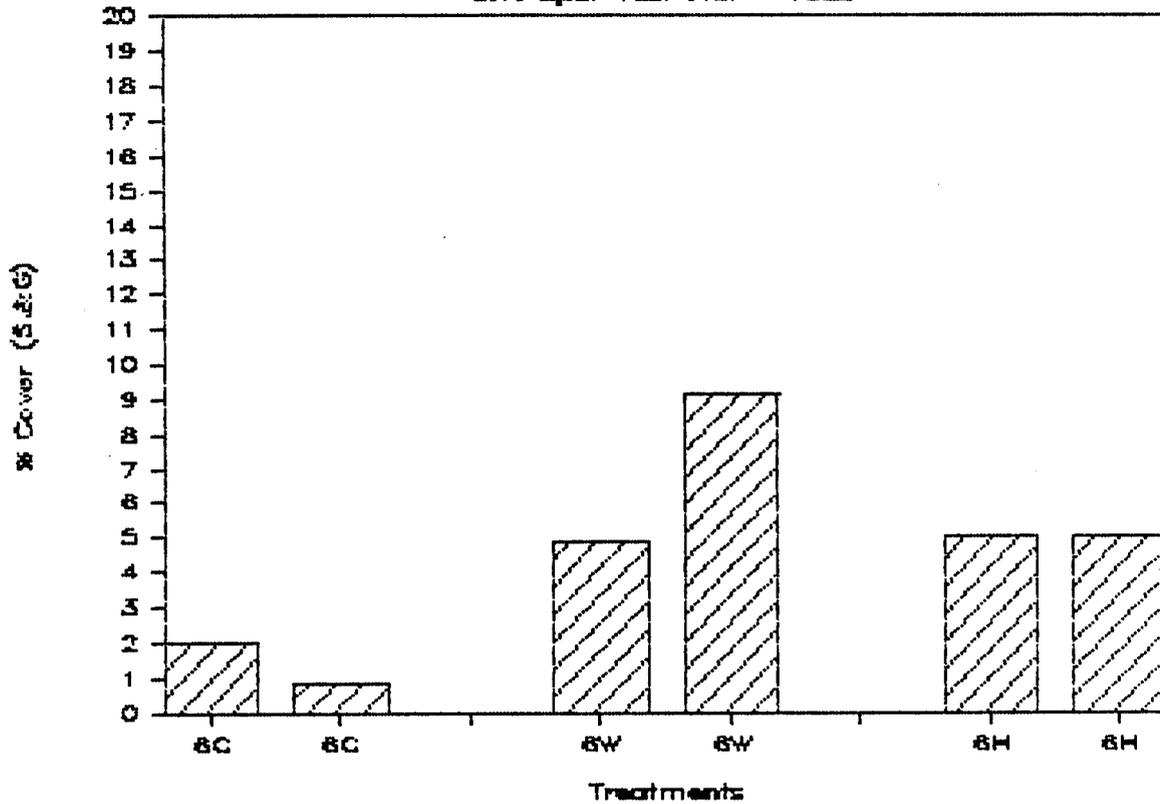
C.V. Spur Test Plot (1989)



 S. & G - Shrub & Grass cover only (excludes annual weeds)
 6, 4, 3 - Treatment soil depth in inches
 C - Control
 W - Wood fiber mulch treatment
 H - Hay mulch treatment

Fig. 7: Mulch Types (6" Soil Depth)

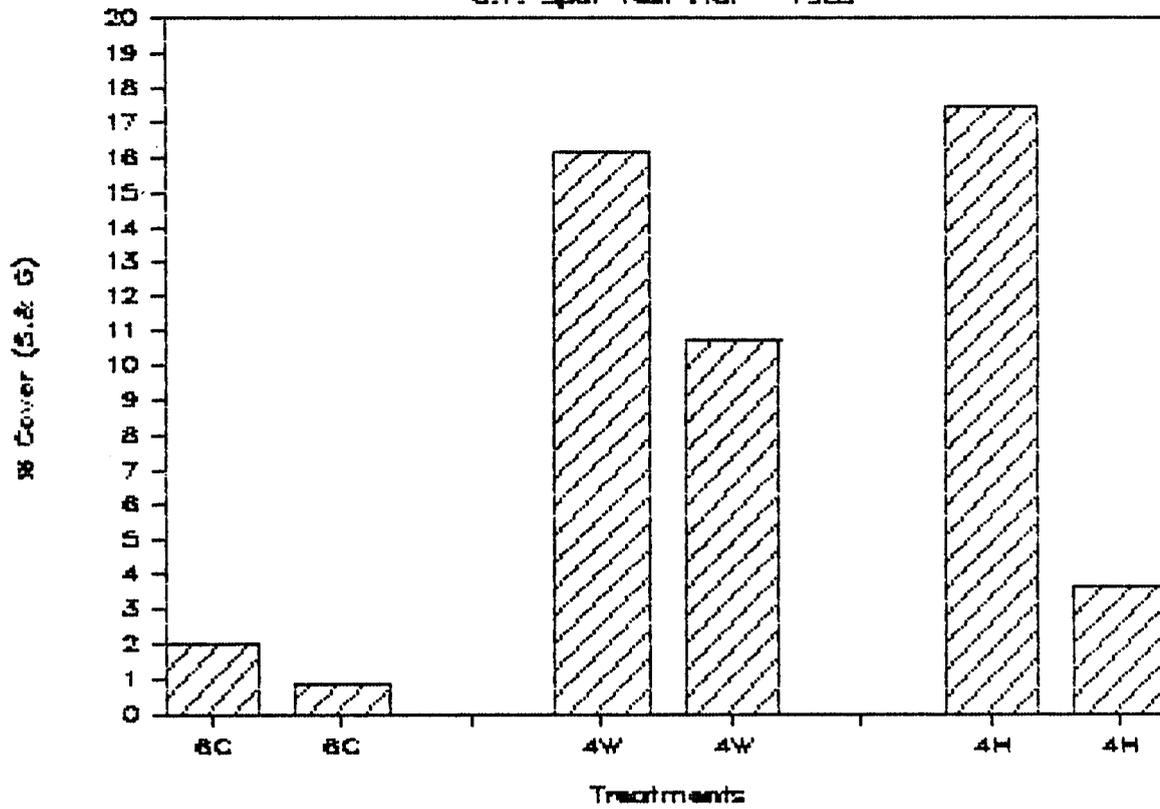
C.V. Spur Test Plot - 1989



S. & G - Shrub & Grass cover only (excludes annual weeds)
 6, 4, 3 - Treatment soil depth in inches
 C - Control
 W - Wood fiber mulch treatment
 H - Hay mulch treatment

Fig 8: Mulch Types (4" Soil Depth)

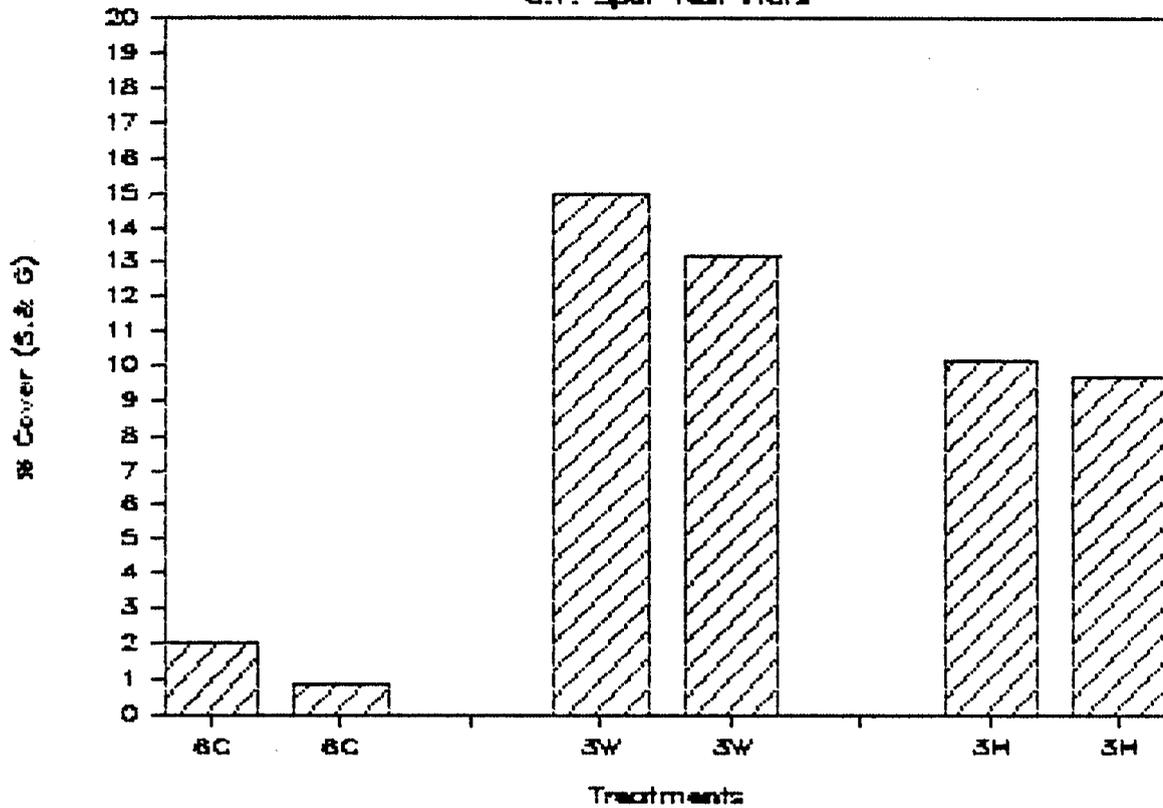
C.V. Spur Test Plot - 1989



S. & G - Shrub & Grass cover only (excludes annual weeds)
6, 4, 3 - Treatment soil depth in inches
C - Control
W - Wood fiber mulch treatment
H - Hay mulch treatment

Fig. 9: Mulch Types (3" Soil Depth)

C.V. Spur Test Plots



S. & G - Shrub & Grass cover only (excludes annual weeds)
 6, 4, 3 - Treatment soil depth in inches
 C - Control
 W - Wood fiber mulch treatment
 H - Hay mulch treatment

C. V. SPUR

VEGETATIVE TEST PLOT NO. 2

VEGETATIVE TEST PLOT #2

CV Spur

SCOPE:

Beaver Creek CV Spur is located approximately 4 miles Southeast of Price, Utah in Carbon County. The area comprises approximately 120 acres of potential disturbance associated with the washing, cleaning and loading of coal. The land lies in an agricultural region but is not classified a prime farm ground due to the rolling topography with saline soils derived from mancos shale. The predominant vegetative cover prior to disturbance is outlined in CV Spur MRP, Chapter 9. Total vegetative cover is less than 18% comprised predominantly of species which are of marginal importance to wildlife or domestic grazing. This in combination with very low productivity, less than 300# per acre renders this area ideal to attempt to enhance the region in its ability to support a more diversified population of wildlife while providing increased forage and cover over what existed prior to disturbance.

In 1987 Beaver Creek Coal implemented a test plot in cooperation with the Utah Division of Wildlife Resources. It is proposed to reclaim the area to enhance upland game habitat. To facilitate this end, Dr. J. Jurnack, Utah State University, was consulted to offer suggestions relative to soil treatments; Richard Stevenson, UDWR Experimental Station, was requested to recommend a seed mix suited for upland game habitat which was

adaptable to the site specific conditions relative to soil and climate; Mr. Larry Dalton, Resource Analyst UDWR, was consulted in regard to methodologies to establish vegetation which have been successfully utilized in similar areas. This test plot experienced two consecutive draught growing seasons, and the results of monitoring indicated a success ratio of less than desired.

In 1989, a second test plot was designed on a pre-law disturbed site adjacent to the existing pump house. (See exhibit #1 Location Map). This test plot was designed in cooperation with UDOGM utilizing the methodologies that appeared to be most successful on the original test plot with additional soil treatment and minor modification in the seed mix and fertilizer application.

METHODOLOGIES

On September 24, 1989, a JD450 Crawler in combination with a crimper disk was utilized to scarify an area of approximately 200' X 40'. A slurry of Super Phosphate was applied in conjunction with the seed bed preparation to incorporate the phosphate into the top 6" of the soil. On approximately one half of the area, 100' X 40', green alfalfa hay was tilled into the upper 6" of soil. The entire area was then fenced, utilizing 39" field fence and 2 strains of barbed wire (see Attachment #2 Plot Design).

On October 16, 1989, the entire area was hand broadcast utilizing the approved seed mix at twice the drill seed rate (see Attachment 3 Seed Mix). In the center of the plot encompassing approximately half hay treated soil and half non-hay treated soil, strip planting was implemented. Each strip utilized a separate species (thirteen in all). The strips were approximately 2 meters X 1 meter. Seed was hand broadcast and lightly raked in. The entire area was then hydromulched at a rate of 2,000 lbs. per acre. Incorporated in the mulch was Agro Tac at a rate of 100 lbs. per acre.

In early spring of 1990, Urea fertilizer will be sprayed over the area at a rate of 100 lbs. per acre. Monitoring of the plot will begin in 1990 as outlined in Appendix 9-2 and in Chapter 3 Section 3.5.5.2 page 3-62b.

EXHIBIT 1

LOCATION MAP
1" = 100'

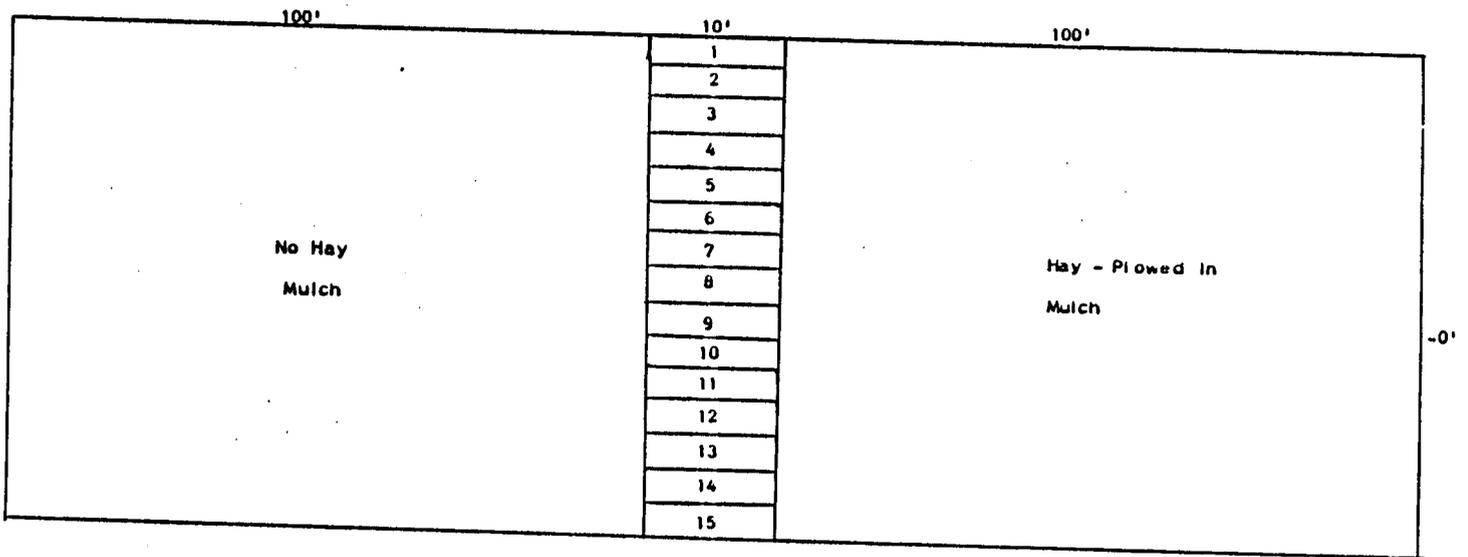


ATTACHMENT #2

VEGETATIVE TEST PLOT #2

CV SPUR

(AS CONSTRUCTED)



- 1. Open
- 2. Open
- 3. Clover
- 4. Winterfat
- 5. Globemallow

- 6. Shadscale
- 7. Sun flower
- 8. Kochia sp. (Prostrata)
- 9. Russian wildrye
- 10. Crested wheat (Fairway)

- 11. Squirreltail
- 12. Trickspike
- 13. Crested wheat (Ephraim)
- 14. Palmer penstemon
- 15. Indian ricegrass

ATTACHMENT #3

C.V. SPUR TEST PLOT NO. 2

SEED MIX

Mining and Reclamation Plan
 Castle Valley Spur Coal Processing and Loadout Facility Permit Application

Table 3-2
 PERMANENT RECLAMATION SEED MIXTURE

(117 Acres)

Name	Rate/##/Acre PLS	# Seeds/Pound	Cost Per Pound	Total
<u>Grasses</u>				
*Crested Wheat Grass (<u>Agropyron cristatum ephraim</u>)	2	319,660	1.20	2.40
Thickspike wheatgrass (<u>Agropyron dasystachyum</u>)	2	137,000	3.50	7.00
Indian ricegrass (<u>Oryzopsis hymenoides</u>)	4	188,295	4.50	18.00
Fairway crested wheatgrass *(<u>Agropyron cristatum fairway</u>)	2	319,000	1.20	2.40
Squirreltail grass (<u>Sithanyn hystrius</u>)	.5	191,585	14.00	7.00
*Russian wildrye (<u>Elymus juncus</u>)	1	210,000	3.50	3.50
<u>Forbs</u>				
Globemallow (<u>Sphaeralcea grossulariaefolia</u>)	.25	500,660	35.00	8.75
Sunflower (<u>Helianthus annuus</u>)	3		2.50	7.50
Palmer Penstemon (<u>Penstemon palmeri</u>)	.5	609,675	.11	5.50
Yellow sweetclover (<u>Melilotus officinalis</u>)	1	258,560	.40	.40
*Kochia (<u>Kochia prostrate</u>)	1	520,000	20.00	20.00
<u>Shrubs</u>				
Winterfat (<u>Eurotia Lanata</u>)	1	112,275	11.00	11.00
Shadscale (<u>Atriplex confertifolia</u>)	2	64,920	5.00	10.00

KIND: Indian Ricegrass

ORIGIN: Nevada

LOT NO: IRG-2-DX

PURITY: 98.11%
INERT: 1.85%
CROP: 0.00%
WEEDS: 0.04%
NOXIOUS: NONE

TOTAL GERMINATION: 84%

TEST DATE: 9/88

NET WEIGHT: ~~2.42~~ LBS.
4.5

2

KIND: PENSTEMON
VARIETY: PALMER

LOT NO: 1026
ORIGIN: UT

PURITY: 96.00%
INERT: 3.92%
CROP: 0.05%
WEEDS: 0.03%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 75%

TEST DATE: 08/88

NET WEIGHT 0.70 LBS.

3

KIND: CRESTED WHEATGRASS
VARIETY: EPHRAIM (CERT)

LOT NO: 0486
ORIGIN: UTAH

PURITY: 95.71%
INERT: 4.27%
CROP: 0.02%
WEEDS: 0.00%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 88%

TEST DATE: 11/88

NET WEIGHT 2.40 LBS.

KIND: THICKSPIKE
VARIETY: CRITANA

PURITY: 99.17%
INERT: 3.01%
CROP: 0.13%
WEEDS: 1.69%
NOXIOUS: NONE FOUND

LOT NO: 704
ORIGIN: WYOMING

TOTAL GERMINATION: 96%

TEST DATE: 11/88

NET WEIGHT 2.10 LBS.

5

KIND: SQUIRRELTAIL,
VARIETY: BOTTLEBRUSH

PURITY: 83.21%
INERT: 15.02%
CROP: 0.07%
WEEDS: 1.70%
NOXIOUS: NONE FOUND

LOT NO: 118
ORIGIN: NE

TOTAL GERMINATION: 91%

TEST DATE: 08/88

NET WEIGHT 0.66 LBS.

6

KIND: CRESTED WHEATGRASS
VARIETY: FAIRWAY

PURITY: 93.00%
INERT: 5.34%
CROP: 0.00%
WEEDS: 0.00%
NOXIOUS: NONE FOUND

LOT NO: 7-624-8
ORIGIN: UTAH

TOTAL GERMINATION: 87%

TEST DATE: 01/88

NET WEIGHT 2.50 LBS.

KIND: RUSSIAN WILD RYE
VARIETY:

LOT NO: CH-15-14
ORIGIN: MONTANA

PURITY: 94.11% TOTAL GERMINATION: 83%
INERT: 5.73%
CROP: 0.16%
WEEDS: 0.00%
NOXIOUS: NONE FOUND

TEST DATE: 08/89

NET WEIGHT 1.22 LBS.

KIND: KOCHIA PROSTRATA

LOT NO: 1024
ORIGIN: UTAH

PURITY: 50.00%
INERT: 47.50%
CROP: 2.00%
WEEDS: 0.50%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: ~~50%~~

TEST DATE: 10/89

NET WEIGHT ~~4.0~~ LBS.
4.0

KIND: SUNFLOWER
VARIETY: WILD

LOT NO: JB-88
ORIGIN: UTAH

PURITY: 92.00%
INERT: 7.83%
CROP: 0.15%
WEEDS: 0.02%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 80%

TEST DATE: 12/88

NET WEIGHT 4.10 LBS.

KIND: SHADSCALE

LOT NO: 1038
ORIGIN: UT

PURITY: 95.00%
INERT: 4.00%
CROP: 0.70%
WEEDS: 0.30%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 55%

TEST DATE: 02/89

NET WEIGHT 3.80 LBS.

KIND: GLOBE MALLOW
VARIETY:

LOT NO: GM1010
ORIGIN: IDAHO

PURITY: 96.00%
INERT: 3.85%
CROP: 0.10%
WEEDS: 0.05%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 85%

TEST DATE: 10/88

NET WEIGHT 0.31 LBS.

KIND: WINTERFAT

LOT NO: 1062
ORIGIN: UTAH

PURITY: 92.00%
INERT: 7.50%
CROP: 0.20%
WEEDS: 0.30%
NOXIOUS: NONE FOUND

TOTAL GERMINATION: 56%

TEST DATE: 10/88

NET WEIGHT 2.00 LBS.

KIND: Yelow Sweet Clover

ORIGIN: Canada

LOT NO: 2

PURITY: 99.56%
INERT: .44%
CROP: .00%
WEEDS: 0.00%
NOXIOUS: NONE

TOTAL GERMINATION: 93%

TEST DATE: 8/88

NET WEIGHT: 1.10 LBS.

TYPICAL COAL ANALYSES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

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

Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	#7 MINE
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-108130

Neutralization potential	4.8 tons CaCO ₃ / 1000 tons
Acid potential*	3.4 tons CaCO ₃ / 1000 tons
Net acid-base potential	1.4 tons CaCO ₃ / 1000 tons

*acid potential based on pyritic sulfur content

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

**COMMERCIAL TESTING & ENGINEERING CO.**

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PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311▶ Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	#8 MINE
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-108127

Neutralization potential	9.0 tons CaCO ₃ / 1000 tons
Acid potential*	3.6 tons CaCO ₃ / 1000 tons
Net acid-base potential	5.4 tons CaCO ₃ / 1000 tons

*acid potential based on pyritic sulfur content

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

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For Your ProtectionOVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
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P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	#9 MINE
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-108129

Neutralization potential	22.5 tons CaCO ₃ / 1000 tons
Acid potential*	2.5 tons CaCO ₃ / 1000 tons
Net acid-base potential	20.0 tons CaCO ₃ / 1000 tons

*acid potential based on pyritic sulfur content

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory



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

Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

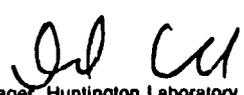
Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	Purchased Coal
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 22, 1989	

Analysis report no. 59-108128

Neutralization potential	17.5 tons CaCO ₃ / 1000 tons
Acid potential*	5.9 tons CaCO ₃ / 1000 tons
Net acid-base potential	11.6 tons CaCO ₃ / 1000 tons

*acid potential based on pyritic sulfur content

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.



Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

C.V. SPUR

1989

REFUSE PILE

INSPECTION / ANALYSES

REFUSE PILE INSPECTION REPORT

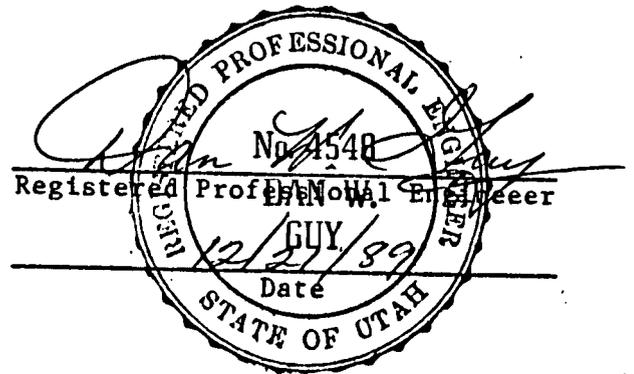
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 4/89

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>STABLE</u>
(3) Removal of Topsoil and Organics	<u>N/A ; Test Plot - O.K.</u>
(4) Construction and Maintenance Performance Standards	<u>Pile recently regraded; All material compacted except small amount of sediment on east end.</u>
(5) Recommendations	<u>NONE - Pile looks good.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

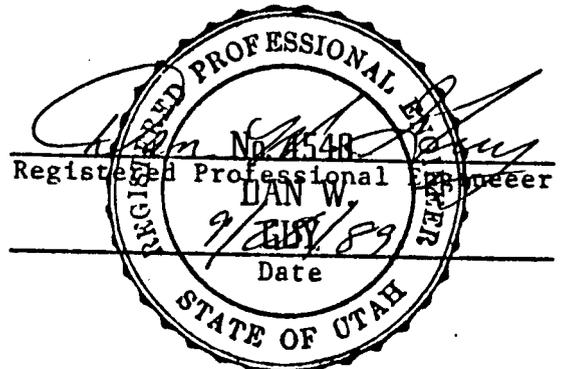
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 3/89

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>STABLE</u>
(3) Removal of Topsoil and Organics	<u>N/A ; TEST PLOT MONITORING COMPLETED - DRY.</u>
(4) Construction and Maintenance Performance Standards	<u>GOOD ; LARGER PILES (NO. 8 COAL) BLADED DOWN ; ENTIRE PILE REGRADED.</u>
(5) Recommendations	<u>NONE - PILE LOOKS GOOD.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

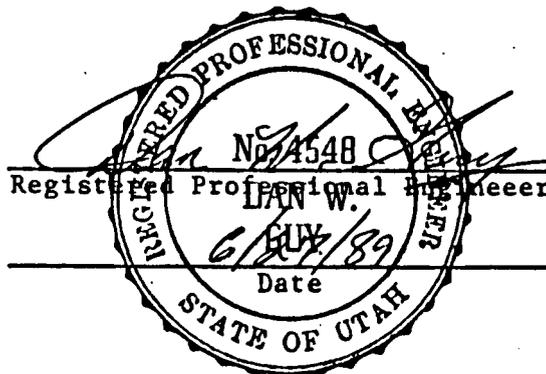
MSHA SITE #1211-UT-9-0034

C.V. SPUR

QUARTER 2/89

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>STABLE - Erosion near pond has been regraded.</u>
(3) Removal of Topsoil and Organics	<u>N/A; TEST plots are extremely dry.</u>
(4) Construction and Maintenance Performance Standards	<u>O.K. except for piles of No. 8 Mine coal - these need to be removed or regraded as soon as a decision is made on disposition.</u>
(5) Recommendations	<u>No. 8 Mine coal is pending further tests and decision whether it can be shipped. Remove or regrade upon reaching decision.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE INSPECTION REPORT

MSHA SITE #1211-UT-9-0034

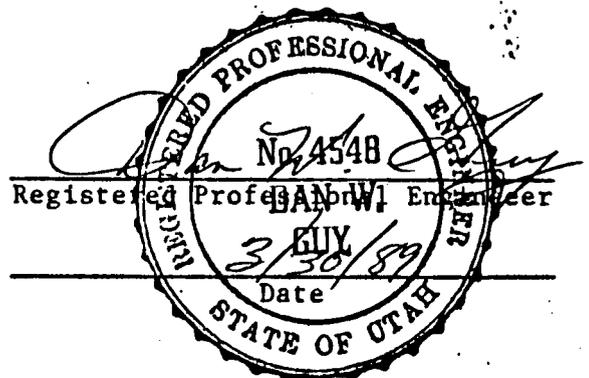
C.V. SPUR

QUARTER

1/89

<u>ITEM</u>	<u>REMARKS</u>
(1) Potential Safety Hazards	<u>NONE</u>
(2) Slope Stability	<u>STABLE</u>
(3) Removal of Topsoil and Organics	<u>N/A ; Test plots look fair - some green showing. Snow storage pile removed.</u>
(4) Construction and Maintenance Performance Standards	<u>O.K. - Moderate number of piles on north and east ends. Moderate erosion on east end above pond inlet.</u>
(5) Recommendations	<u>Blade out all loose piles A.S.A.P. Blade out erosion on east end of pile, near pond inlet.</u>

I have performed the above inspection on this refuse pile and do hereby certify it to be a true and accurate representation of the pile at this time.



REFUSE PILE ANALYSIS



COMMERCIAL TESTING & ENGINEERING CO.

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

Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	Refuse Stock Site
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 28, 1989	

Analysis report no. 59-108193

p. 1

pH	6.5 units
Electrical Conductivity	12.8 mmhos/cm
Saturation Percent	29.3%
Sodium Adsorption Ratio	2.42
Soluble calcium	56.1 meq/l
Soluble magnesium	43.9 meq/l
Soluble sodium	17.1 meq/l
Particle size analysis:	
Sand	96.4%
Silt	2.4%
Clay	1.2%
Selenium (total available)	<0.1 mg/kg
Total Nitrogen	0.90%
Nitrate nitrogen	3.3 mg/kg
Boron (total available)	6.0 mg/kg

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.



Manager, Huntington Laboratory

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TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



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Beaver Creek Coal Co.
P.O. Box 1378
Price, UT 84501

Dec. 21, 1989

Sample identification
by Beaver Creek

Kind of sample reported to us	Coal	
Sample taken at	Beaver Creek	Refuse Stock Site
Sample taken by	Beaver Creek	
Date sampled	Nov. 21, 1989	
Date received	Nov. 28, 1989	

Analysis report no. 59-108193

p. 2

Neutralization Potential	207.5 tons CaCO ₃ / 1000 tons
Maximum Acid Potential*	16.6 tons CaCO ₃ / 1000 tons
Acid Base Account	190.9 tons CaCO ₃ / 1000 tons

(*acid potential based on non-sulfate sulfur)

Organic Carbon 37.9%

Rock fragments 48.0%

Available water capacity* 7.50%
(*by ASTM D-1412; USDA procedure not available)

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

1989

MODIFICATIONS / AMENDMENTS



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

File

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

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-6340

October 4, 1989

Mr. Dan Guy, Manager
Permitting and Compliance
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

Dear Mr. Guy:

Re: Approval of Amendment for Access Road Relocation, Beaver
Creek Coal Company, C. V. Spur Coal Processing and Loadout
Facility, ACT/007/022-89B, Folder #3, Carbon County, Utah

This letter will inform you that the above-identified
amendment was approved on October 2, 1989

Sincerely,


Richard V. Smith
Permit Supervisor

djh
cc: P. Grubaugh-Littig, DOGM
J. Helfrich, DOGM
T. Munson, DOGM
AT64/106

BEAVER CREEK Coal Company
Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



September 28, 1989

Mr. Rick Smith
Permit Supervisor
Utah Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

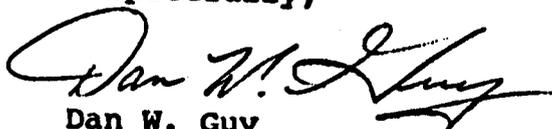
RE: Access Road Relocation
C.V. Spur Processing Facility
ACT/007/022-89B;#2
Carbon, County, Utah

Dear Mr. Smith:

Enclosed are 4 copies each of revised Plates and text for the above referenced amendment as requested in your letter of 9/26/89. The pages and Plates are numbered, and should replace corresponding numbers in the plan.

If you have any questions, or need any further information, please let me know.

Respectfully,


Dan W. Guy
Mgr. Permitting/Compliance

cc: Johnny Coffey (w/o enclosures)
Burk Biersdorf (w/o enclosures)
Files/

**RAPTOR SURVEY
AND
MONITORING REPORT**



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangertter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

September 28, 1988

Mr. Dan Guy, Manager
Permitting and Compliance
Beaver Creek Coal Company
P. O. Box 1378
Price, Utah 84501

Dear Mr. Guy:

Re: Final Approval, Request to Suspend Annual Raptor
Surveys, Beaver Creek Coal Company, C. V. Spur
Preparation Plant, ACT/007/022, Folder No. 3, Carbon
County, Utah

The Division hereby approves the above-noted amendment received August 31, 1988. The plans were reviewed by Brent Stettler, Reclamation Biologist, of the Division's technical staff.

If you have any questions, please call Brent Stettler or me. Thank you for your cooperation in this matter.

Sincerely,

John J. Whitehead
Permit Supervisor/
Reclamation Hydrologist

djh

Attachment(s)

cc: R. Hagen

B. Malencik

B. Stettler

WP+15/24

BEAVER CREEK Coal Company

Post Office Box 1378
Price, Utah 84501
Telephone 801 637-5050



August 25, 1988

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

Attention: Mr. John Whitehead

RE: Request to Suspend Annual
Raptor Surveys
C.V. Spur Prep Plant
ACT/007/022; #6
Carbon County, Utah

Dear Mr. Braxton:

In response to Mr. Whitehead's letter of July 19, 1988, Beaver Creek Coal Company is requesting the Division's approval to suspend annual raptor surveys for the above referred permit. No revised pages for the permit were found necessary for this request.

If you need any further information, please let me know.

Respectfully,

Dan W. Guy
Manager Permitting/Compliance

cc Johnny Coffey
File