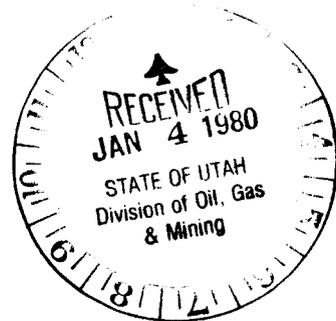


SWISHER COAL CO.
Gordon Creek #2 Mine
ACT/007/016
Mining and Reclamation Plans
Lease Modification



Swisher Coal Co.
Gordon Creek #2 Mine Lease Modification
Mining and Reclamation Plans

The enclosed Mining and Reclamation Plan for Gordon Creek #2 Mine Lease Modification is submitted to the Utah Division of Oil, Gas & Mining for final approval as per requirement of Utah Mined Land Reclamation Act, Title 40-8, and Public Law 95-87.

Guidelines for this submittal are from the "Surface Mining Reclamation and Enforcement Provisions for Coal" adopted by the Division on May 25, 1978, and more specifically, from the Underground Mining Performance Standards contained therein.

Swisher Coal Co.
Gordon Creek #2 Mine
Lease Modification

General

The Gordon Creek #2 Mine portals are located in Bryner Canyon, approximately thirteen (13) miles northwest of Price, Utah, in Section 13, Township 13 South, Range 8 East. The disturbance for the mine is pre-existing. Production in the #2 Mine started in late 1969.

The general area of mining is in the northeast part of the Wasatch Plateau in the Blackhawk formation of the Mesa Verde group. The #2 Mine is in the Castle Gate 'A' (upper) seam. Reserves some 150 feet below, in the lower Hiawatha seam, are projected to be reached with rock slopes, using existing portals.

This mine is completely underground with a small disturbed surface support area. There are Federal coal leases involved: U-8319 @ 411.75 acres; U-8319-1 Lease Modification @ 480 acres; and Authorized to Mine @ 120 acres. In addition, fee coal is owned on 560 acres. The property map in Exhibit #13 will show ownership and the mining plans in Exhibit #14 will show present locations of the mining with projections.

The 70 acre lease modification is located in the NE $\frac{1}{4}$ of Sec. 13, T.13S., R.7E, S.L.M. This area lies directly ahead of an advancing entry known as "A" Panel, (See Exhibit 19 for mining plan).

Swisher Coal Co. is a duly licensed corporation of the State of Utah, and a wholly owned subsidiary of General Exploration Co. Articles of Incorporation are found in Exhibit #11 and other authorizations and permits to operate are found in Exhibit #12.

DG/ac

LIST OF EXHIBITS

1. Signs and Markers
2. Backfilling and Regrading Plan
3. Disposal of Excess Rock and Earth
4. Hydrologic Protection Plan
5. Surface Water Monitoring Program
6. Sediment Control Plan
7. Ground Water Monitoring Program
8. Hydrologic Impact of Roads
9. Dam Construction
10. Topsoil Handling and Revegetation
11. Articles of Incorporation
12. Authorizations to Operate
13. Property Map
14. #2 Mine Plans
15. U.S.G.S. Environmental Analysis
16. Subsidence Monitoring Plan
17. Lease Modification Application and correspondence
18. B.L.M. EAR/TE for Lease Modification
19. Lease Modification Mining Plan

Exhibit #1: Signs and Markers

Exhibit #1
Signs and Markers

- A. Specifications: All signs required to be posted are of a standard design that can be seen and read easily, and are made of a durable material. Signs also conform to local ordinances and codes. The signs and other markers shall be maintained during all operations to which they pertain.

- B. Mine & Permit Identification Signs: Signs identifying the mine area are displayed at all points of access to the permit area from public highways. The attached drawings will show the sign design and detail.

- C. Topsoil Markers: The attached drawing will show the design of a typical "topsoil storage" marker for this operation. Such signs will be posted on approved topsoil storage areas.

GORDON CREEK NO. 2 MINE

I. D. - 42 - 00125

SWISHER COAL COMPANY

1109 SO. CARBON AVE.

PRICE, UTAH 84501

(801) 637-5050

PERMIT *ACT/007/016

12" X 18"

TOP - SOIL

STORAGE

Exhibit #2: Backfilling and Regrading Plan

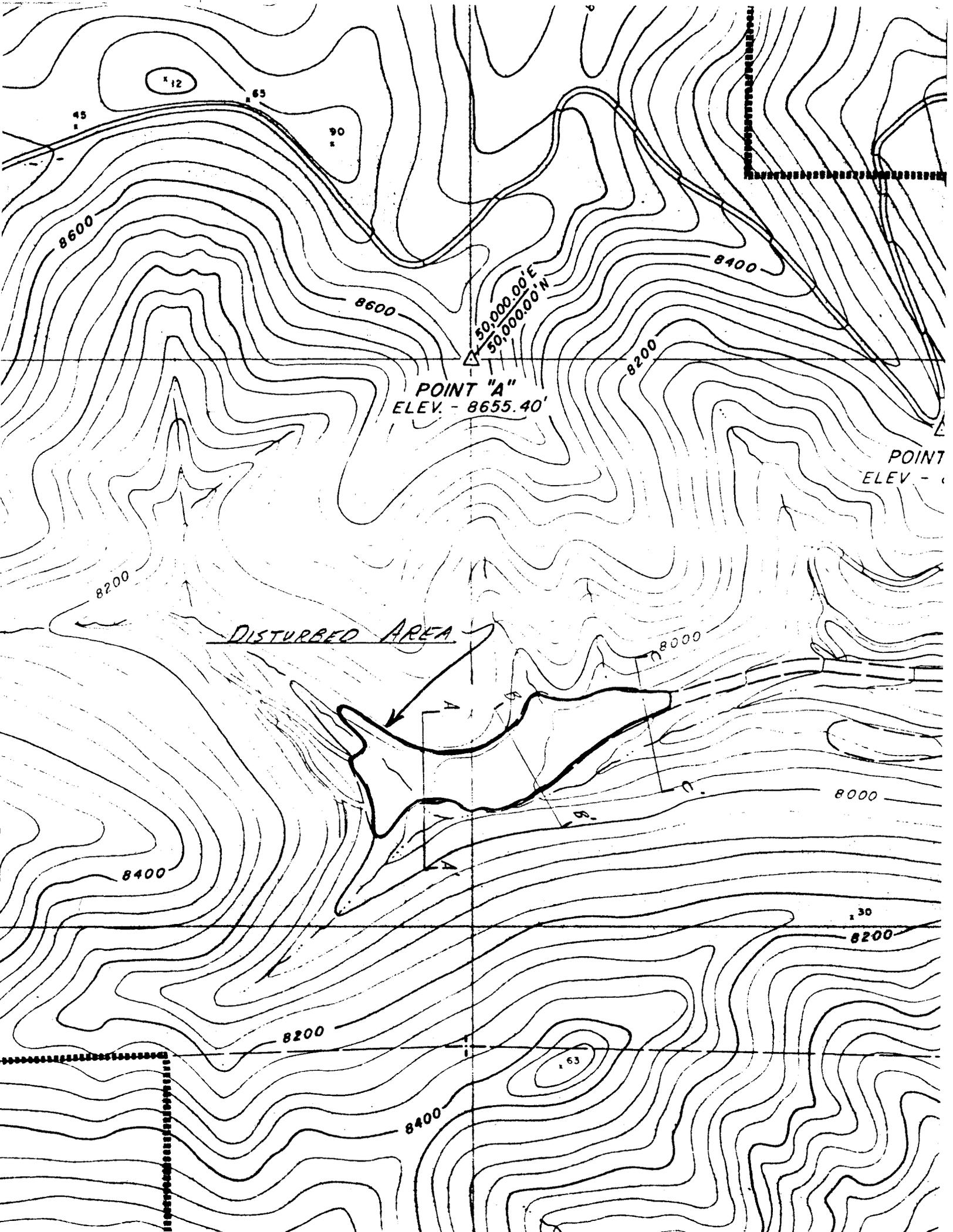
Exhibit #2
Backfilling and Regrading Plan

1. Upon completion of underground mining in this area, surface work areas shall be regraded to a contour compatible with proposed post-mining land uses: sheep & cattle grazing; wildlife habitat; hunting and hiking (as allowed by landowners).
2. The surface of this area was originally disturbed in late 1969 by a previous owner. The surface is all privately owned. Since no major effort was made at that time to save or store any topsoil or other material, restoration to approximate original contour is highly impractical. However, it is the intent of Swisher Coal Co. to restore the area to a form acceptable to the landowner using such materials that are available at the site.
3. All portals shall be sealed and covered. All highwalls shall be eliminated by backfilling, to the extent practical and allowed by the landowner. All roads shall be eliminated and reclaimed to the extent allowed by the landowner. All culverts shall be removed and major natural drainage patterns restored to the extent practical.
4. The backfilling shall be accomplished by the use of a backhoe or other equipment capable of reaching over the fill areas to reclaim material. This material shall then be placed along the portal highwalls to moderate the slopes. Additional backfilling material may be recovered in the excavation and restoration of natural drainage patterns. A map of the disturbed areas to be reclaimed is attached, along with several cross-sections of the proposed reclamation.

Topsoil, as available at the site, shall be spread over the reclaimed area to the extent deemed necessary, and the reclaimed areas planted with an approved seed mixture.

Rills and gullies deeper than nine (9) inches shall be regraded or otherwise stabilized.

All acid-forming, toxic-forming, or combustible materials, such as coal, shall be covered with a minimum of two (2) feet of incombustible material.



12

45

65

90

8600

8600

50,000.00' E
50,000.00' N

8400

8200

POINT "A"
ELEV. - 8655.40'

POINT
ELEV. -

8200

DISTURBED AREA

8000

8000

8400

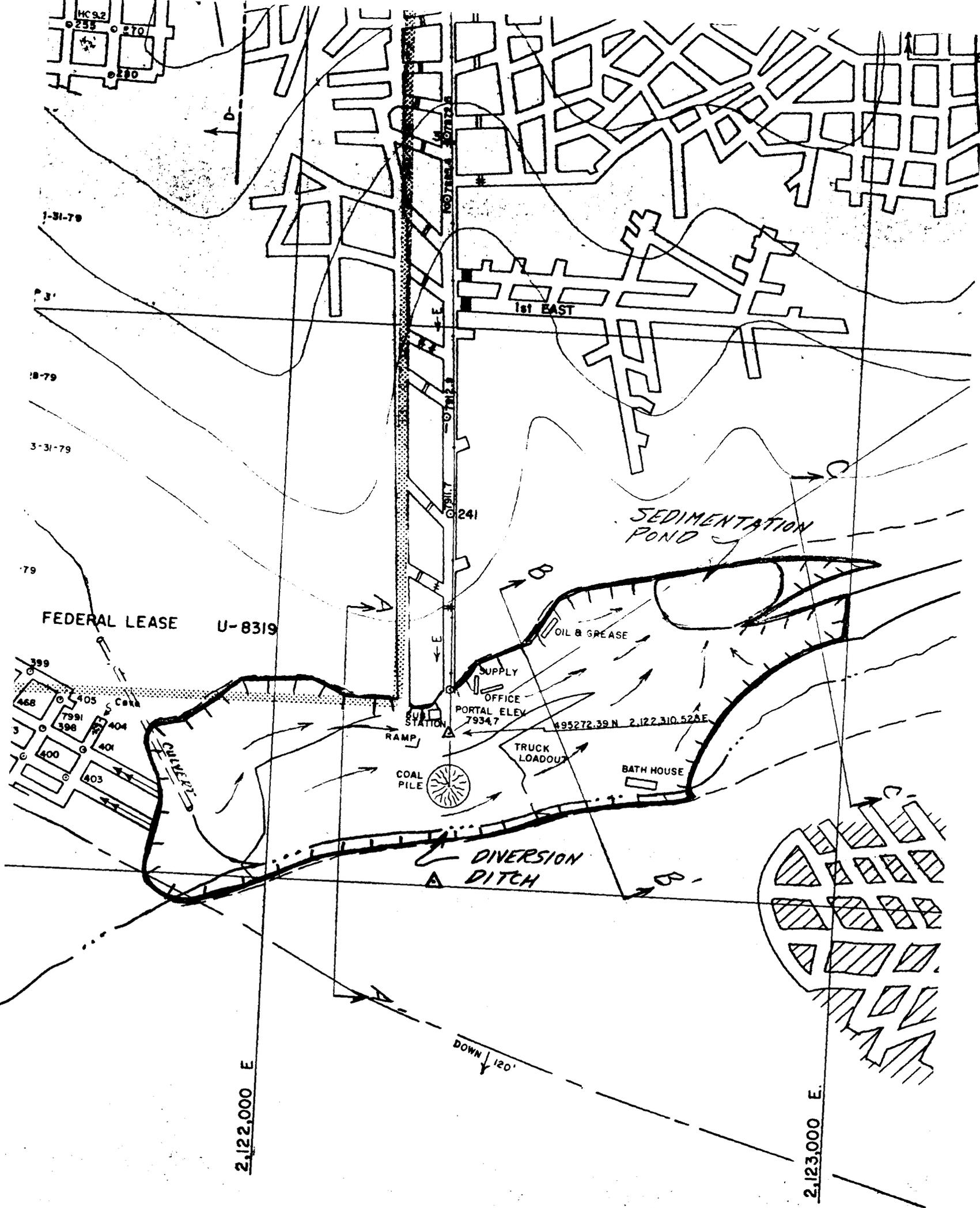
30

8200

8200

63

8400



1-31-79

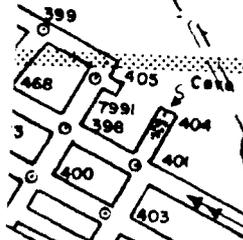
P 3'

18-79

3-31-79

79

FEDERAL LEASE U-8319

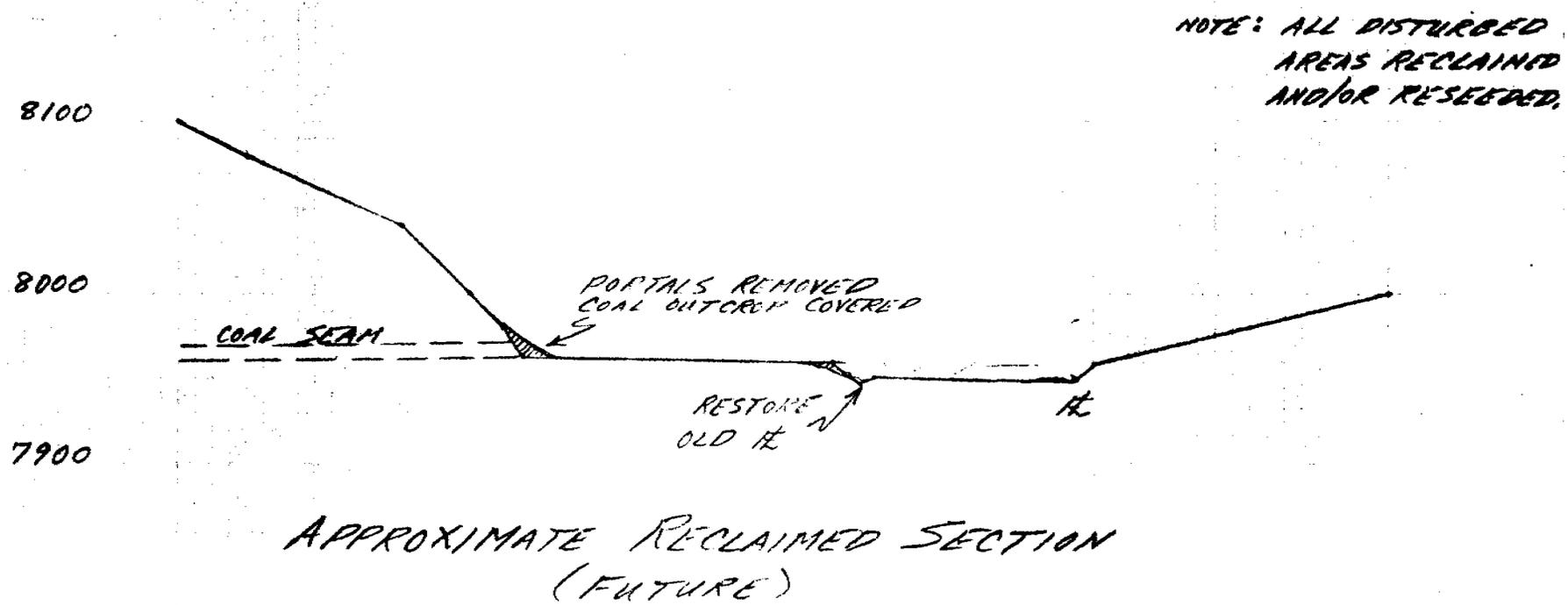
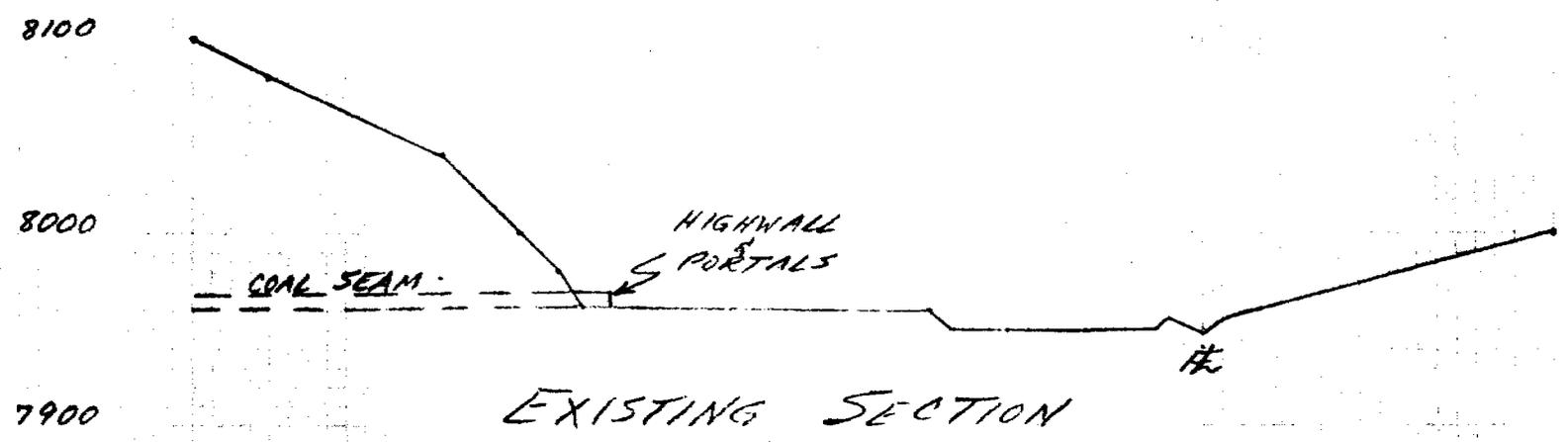


2,122,000 E

DOWN 120'

2,123,000 E

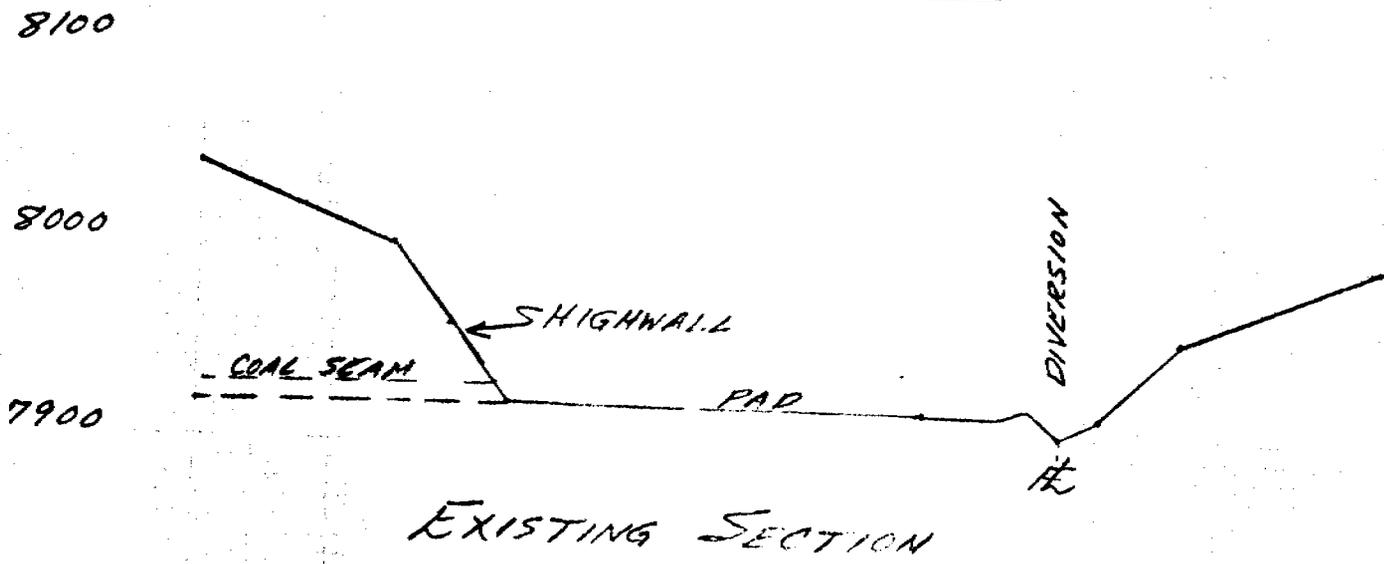
X-SECTION A-A'
SCALE ~ 1" = 100'



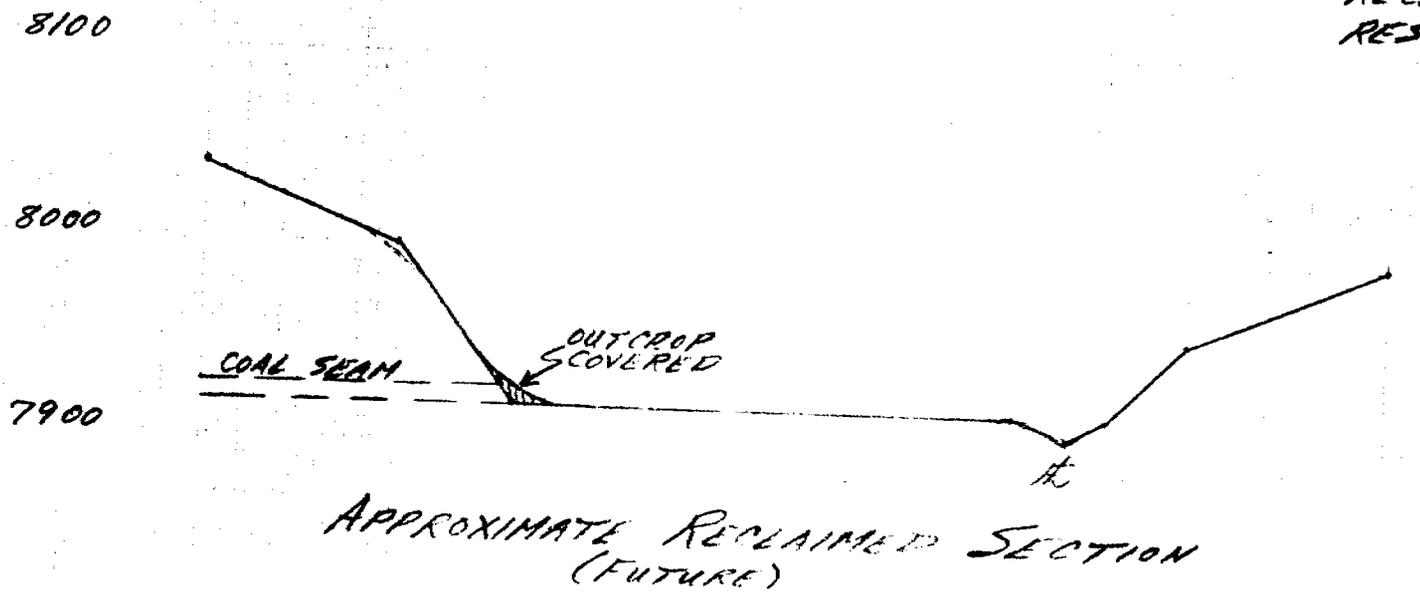
0 100 200 300 400 500 600 700
A A' A'

X-SECTION B-B'

SCALE ~ 1" = 100'

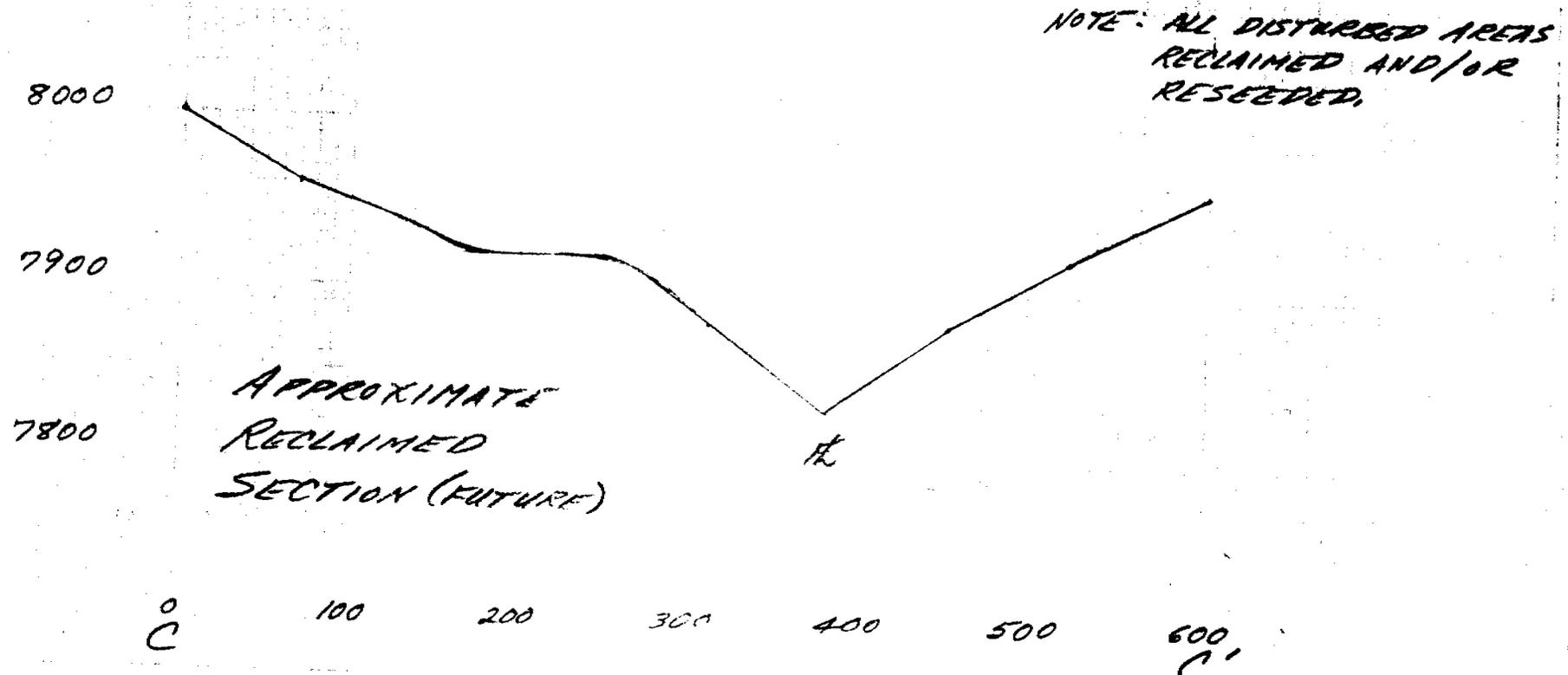
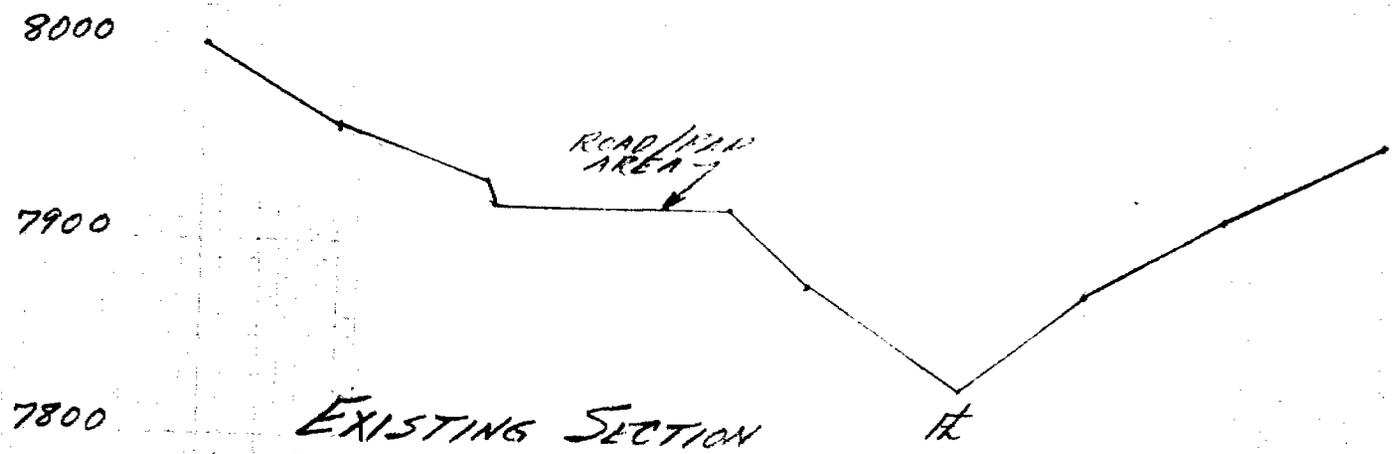


NOTE: ALL DISTURBED AREAS RECLAIMED AND/OR RESEEDED.



0 B 100 200 300 400 500 600 R'

X-SECTION C-C'
SCALE ~ 1" = 100'



0
C

600
C'

Exhibit #3: Disposal of Excess Rock and Earth

Exhibit #3
Disposal of Excess Rock and Earth

1. To the extent possible, any excess rock and earth materials generated by underground mining shall be stored underground in an approved manner. Rock, intermixed with coal to the extent that it cannot be stored underground, will be loaded out with the coal and removed from the property with the coal.
2. There is no surface storage of excess rock or earth materials anticipated at this time.

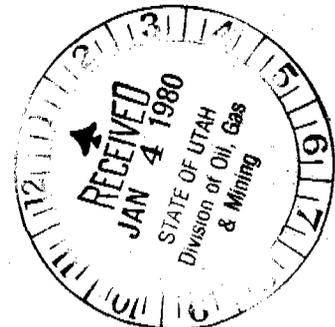
Exhibit #4: Hydrologic Protection Plan

Exhibit #4
Hydrologic Protection Plan

1. **General:** Swisher Coal Co. will conduct underground mining and reclamation operations to minimize disturbance of the prevailing hydrologic balance. Changes in water quality and quantity, in the depth to ground water, and in the location of surface water drainage channels shall be minimized, and applicable Federal and State statutes and regulations will not be violated. Swisher will conduct operations so as to minimize water pollution and shall, where necessary, use treatment methods to control water pollution.

2. **Water Quality Standards:** All surface drainage from the disturbed areas, including those that have been reclaimed, shall be passed through a sedimentation pond or series of ponds prior to leaving the permit area. (See Exhibit # 6 for details.)

Any discharge from the disturbed areas shall meet the effluent standards applicable to Federal and State regulations, except when such discharge results from a precipitation event larger than a ten-year, 24-hour frequency event. (See attached NPDES Permit for effluent standards.)



#2 MINE

Permit No. UT-0023124

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended,
(33 U.S.C. 1251 et. seq; the "Act"),

the Swisher Coal Company, Mine #2,

is authorized to discharge from a facility located at Section 18, Township 13 South Range
8 East, Carbon County, Utah,

to receiving waters named Gordon Creek which is a tributary to the Price River,

in accordance with effluent limitations, monitoring requirements and other conditions set forth
in Parts I, II, and III hereof.

This permit shall become effective on the date of issuance.*

This permit and the authorization to discharge shall expire at midnight, June 30, 1982.

Signed this 11 day of October, 1977



Irwin L. Dickstein
Director, Enforcement Division

*
Thirty (30) days after the date of receipt of this permit by the Applicant.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Alkaline Mine Drainage, Coal Preparation Plant, and Associated Areas)

1. During the period beginning immediately and lasting through June 30, 1980, the permittee is authorized to discharge from all point sources associated with active mining operations indicated on the area maps submitted pursuant to Part III, A.1. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u> b/	
	<u>Daily Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow - M ³ /Day, gpd	N/A	N/A	Two per month ²	Measured a/
Total Suspended Solids	25 mg/l	30 mg/l	Two per month ²	Composite
Total Iron	3.5 mg/l	7.0 mg/l	Two per month ²	Composite
Alkalinity - Acidity (At all times Alkalinity shall be greater than Acidity)			Two per month ²	Grab
Total Dissolved Solids	N/A	879 mg/l	Two per month ²	Composite

Oil and Grease shall not exceed 10 mg/l and shall be monitored monthly by a grab sample.

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 grab sample.²

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

The discharge shall not contain sanitary sewage.

2. Normal sampling days shall be the second and fourth Wednesdays of each month. However, if sufficient rainfall occurs so as to cause a discharge before the fourth Wednesday, one sample must be taken within 12 hours following the rainfall event. Data from the rainfall event sample shall be submitted in lieu of the data from one of the normal sample days.
3. See Schedule of Compliance. 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 III, A.1.

a/ See Part I, C.3:c.

b/ See Part III, A.2.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Alkaline Mine Drainage, Coal Preparation Plant, and Associated Areas)

4. Effective July 1, 1980, and lasting through June 30, 1982, the following limitations, in addition to the requirements on page two, shall not be exceeded from the point sources identified in Part III, A.1.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Suspended Solids	10 mg/l	20 mg/l	Two per month <u>a/</u>	Composite

a/ See Requirement 2, page 2.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:
 - a. If the permittee has not previously submitted Area Map(s) described in Part III, A., such Area Map(s) shall be submitted within 30 days of the effective date of this permit.
 - b. Revised Area Map(s) as described in Part III, A., must be submitted 60 days prior to commencement of the discharge.
 - c. The permittee shall submit to the permit issuing authority by January 1, 1979, an implementation plan for an abatement program designed to fully achieve the 1980 effluent limitations specified in this permit for discharge from all outfalls. The implementation plan shall consist of an outline of intended design, construction and operation, including a compliance schedule setting forth the dates by which compliance with the effluent limitations will be reached. The compliance schedule shall include, where appropriate, dates to accomplish the following:
 - (1) Completion of preliminary plans;
 - (2) Completion of final plans;
 - (3) Award of contract(s);
 - (4) Commencement of construction;
 - (5) Completion of major construction phases;
 - (6) Completion of all construction; and
 - (7) Attainment of operational level.

Upon approval of the implementation plan by the permit issuing authority, the Schedule of Compliance shall become conditions of this permit.

2. No later than 14 calendar days following a date identified in the above Schedule of Compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice to the permit issuing authority of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. MONITORING AND REPORTING

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.
2. Monitoring results obtained during the previous 3 months shall be summarized for each discharge for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on January 28, 1978. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator and the Director of the State of Utah Water Pollution Agency at the following addresses:

U.S. Environmental Protection Agency
Suite 103, 1860 Lincoln Street
Denver, Colorado 80295
Attention: Enforcement - Permits

Utah State Division of Health
Water Quality Section
150 West North Temple
P. O. Box 2500
Salt Lake City, Utah 84110

3. Definitions

- a. The "daily average" concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average of all the samples collected during the calendar day.
- b. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
- c. Measurement of flow shall be performed by a direct flow measurement technique such as a flow meter, weir, or gauge.
- d. A "composite sample" shall consist of at least three grab samples which is representative of the discharge.
- e. "Active mining area" means a place where work or other activity related to the extraction, removal, or recovery of coal is being conducted or carried on, except any land or area on or in which there has commenced or been completed reclamation work following the grading stage. (Subject to a more stringent definition pursuant to 401 state certification, see Part III, B.)

3. Definitions (Continued)

- f. The term "ten year, 24-hour, precipitation event" shall mean the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.
- g. For additional definitions, see Part III, B and C.

4. Test Procedures

- a. Methods for the determination of Total Iron and Total Manganese shall be as prescribed in 38 FR 28758 promulgated on October 18, 1973, pursuant to Section 304(g) of the Act.
- b. Methods for the determination of other pollutant parameters shall be as prescribed in 41 FR 52781 promulgated on December 1, 1976, pursuant to Section 304(g) of the Act unless otherwise noted in the permit.
- c. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.
- d. For the determination of Alkalinity and Acidity, the following test procedures as defined in ASTM Standards, Part 23, Water: Atmospheric Analysis, 1972 shall be used.

- (1) Acidity - D1067, Method E
- (2) Alkalinity - D1067, Method D (to end point pH 3.9)

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the State water pollution control agency.

A. MANAGEMENT REQUIREMENTS**1. Adverse Impact**

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Regional Administrator and the State of Utah with the following information, in writing, within five (5) days of learning or being advised of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge. This written submission shall not be considered as excusing or justifying the failure to comply with the effluent limitations.

3. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

4. Facilities Operation

- a. The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- b. Dilution water shall not be added to comply with effluent requirements.

5. Bypassing

- a. Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where essential to prevent loss of life or severe property damage or (ii) in cases of overflow from a structure designed and maintained to contain a 10-year, 24-hour precipitation event. The permittee shall furnish written notification to the Regional Administrator and the State of Utah for each such diversion or bypass explaining in detail how such diversion is allegedly justified for any of the above exceptions.
- b. Storm water runoff from undisturbed areas or reclaimed areas within the area delineated in Part III (Other Requirements) and diverted around the permittee's active operations and treatment facility is authorized to be discharged without numerical limitations or monitoring and reporting requirements.
- c. Any untreated overflow from facilities designed, constructed, and operated to treat the mine drainage, the wastewater from the coal preparation plant, or the wastewater from the associated areas, and the runoff at the treatment facility resulting from a 10-year, 24-hour, precipitation event, shall not be subject to the limitations set forth in Part I, A. of this permit. The 10-year, 24-hour, rainfall is 2.1 inches during any 24-hour period.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. Power Failures

No later than 30 days after the effective date of this permit, the permittee shall certify in writing to the permit issuing authority either that:

- a. An alternative mechanical or electrical power source sufficient to operate essential facilities utilized by the permittee to maintain compliance with the terms and conditions of the permit has been or will be installed or,
- b. Upon reduction, loss or failure of one or more of the primary sources of electrical power to essential facilities utilized by the permittee to maintain compliance with the terms and conditions of this permit, the permittee shall halt, reduce, or otherwise control production and/or all discharges in order to maintain compliance with the terms and conditions of this permit.

8. Delineated Discharges

Any discharge delineated in Part III (Other Requirements) (originating from operations covered by standard industrial classification codes 1211 and 1213) that commences after the effective date of this permit shall be in compliance with all effluent limitations, monitoring requirements, and other conditions contained herein upon initiation of discharge.

9. Contamination Control

The permittee shall be responsible for instituting management practices for the minimization and prevention of contamination of surface waters by contaminated runoff from disturbed areas. Those areas subject to the institution of these management practices shall include coal storage areas, refuse storage areas, coal preparation plants, and coal preparation plant ancillary areas.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator and the State water pollution control agency. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

Notwithstanding Part II, B.4. above, if a toxic effluent standard or prohibition (including any Schedule of Compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A.5.) and "Power Failures" (Part II, A.7.), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

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 to which the permittee is or may be subject under Section 311 of the Act.

8. 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 regulations under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, 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.

10. 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.

A. OTHER REQUIREMENTS

1. General Requirements

a. Area Maps (Mine Drainage, Coal Preparation Plant, and Associated Areas)

- (1) Underground mines which have already identified the location of each discharge need not submit an area map.
- (2) The permittee shall submit revised Area Map(s) to show any changes, corrections, or other modifications or adjustments of the location of the point source discharges. The purpose of this requirement is to assure that the Regional Administrator and the State of Utah are kept fully advised as to the current location of such discharges.
- (3) The 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 Regional Administrator or his designee. Each revised Area Map shall be 8½ 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 Regional Administrator or his designee. Where additional 8½-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 NPDES 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:

- (a) Existing Area of Operation  (Solid Outline)
- (b) Existing point source  (Solid Triangle)
- (c) The projected area of operation for the 5-year life of an NPDES permit  (Dashed Outline)
- (d) Projected point source for the 5-year life of an NPDES permit  (Opened Triangle)

A. OTHER REQUIREMENTS (Continued)

1. General Requirements (Continued)

(e) The monitoring reports must indicate the active-inactive status of all discharge points which are listed on the current area maps. These discharge points shall be assigned numbers 001, 002, 003, etc.

b. Monitoring of a discharge may be terminated if either:

(1) Sufficient data has been accumulated to show to the satisfaction of the Regional Administrator or his designee that the untreated discharge from an area where active mining has ceased will meet the limitations herein; or

(2) The discharge emanates from an area on which the State of Utah has released the grading bond or has taken other similar action.

c. Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge after the expiration date, the permittee shall, no later than 180 days prior to the expiration date of this permit, submit a new NPDES application and fees as required by the permit issuing authority.

2. Special Requirements

Federal law provides that any more stringent or additional limitations or conditions established pursuant to State law must be met by the permittee. The following limitations and monitoring requirements are state requirements included pursuant to Section 401(d) of the Act.

a. The 1980 Total Suspended Solids Requirements on page three are State of Utah standards.

b. Additional Monitoring Requirements - Mine Drainage

<u>Effluent Characteristic</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
BOD ₅	Quarterly	Grab
Total Coliforms/100 ml	Quarterly	Grab
Fecal Coliforms/100 ml	Quarterly	Grab

B. ADDITIONAL INFORMATION CONCERNING DISCHARGES OF POLLUTANTS FROM COAL MINING OPERATIONS

Section 502 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1362) sets forth the following definitions:

1. "Pollutant" means: ". . . solid waste, incinerator residue, sewage, garbage, sewage sludge, . . . chemical wastes, biological materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." 33 U.S.C. 1362(6)
2. "Discharge of pollutants" is the "addition of any pollutant to navigable waters from any point source . . ." 33 U.S.C. 1362(12)
3. A "point source" is "any discernible, confined, and discrete conveyance, including but not limited to, any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container . . . from which pollutants are or may be discharged." 33 U.S.C. 1362(14)
4. "Navigable waters" is all "waters of the United States . . ." 33 U.S.C. 1362(7)

Examples of discharges which are covered by Section 402 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1342) include, but are not limited to, the following:

1. Pumped or gravity drainage from the bench.
2. Pumped or gravity drainage from underground mines.
3. Discharges from silt basins.
4. Discharges resulting from preparation plant operations.
5. Discharges from sanitary waste treatment plants.
6. Discharges from other treatment facilities associated with coal operations.

C. ADDITIONAL DEFINITIONS

1. The term "coal preparation plant" means a facility where coal is crushed, screened, sized, cleaned, dried, or otherwise prepared and loaded for transit to a consuming facility.
2. The term "coal preparation plant associated areas" means the coal preparation plant yards, immediate access roads, slurry ponds, drainage ponds, coal refuse piles, and coal storage piles and facilities.

Exhibit #5: Surface Water Monitoring Program

Exhibit #5
Surface Water Monitoring Program

1. General - Swisher Coal Co. has had a surface water monitoring program in effect since 1977; however, the onset of additional regulations necessitate the revision and expansion of this program. This expanded program is, therefore, submitted herein for your approval.

The attached map will show the location of all proposed sampling points, and the attached chart will show the sampling frequency and parameters to be checked.

2. Such program will provide adequate monitoring of all discharge from the disturbed area and underground operations.
3. Base line data for this area is available from reports submitted by Swisher Coal Co. to the Division of Oil, Gas & Mining and the U.S. Geological Survey. Copies of this data are on file at the Swisher Coal Co. Administrative Office and are available for inspection upon request.
4. Monitoring frequencies shall be as described on the attached chart.
5. All tests shall be performed using accepted standard methods.
6. Reports of all measurements shall be submitted to the Division within sixty (60) days of sample collection. If violations of permit conditions occur, the Division shall be notified immediately after receipt of analytical results. A copy of the completed NPDES form shall also be provided to the Division.
7. All equipment, structures, or other measures used to accurately measure and sample surface waters shall be properly installed, maintained, and operated and shall be removed when no longer required.

HYDROLOGIC MONITORING PROGRAM
GENERAL INFORMATION SHEET

STATION	LOCATION	TYPE	FREQUENCY	FLOW DEVICE	RESULTS TO:	REMARKS
2-1-W	Discharge of Sediment Pont	Discharge	Monthly or as Occurs	Wier	OG&M, OSM, EPA	Also monitored for EPA as per NPDES Permit
2-2-W	Bryner Canyon Below Mine	Intermittent Stream	Monthly	Wier	OG&M, OSM	
2-3-W	Upper Beaver Creek	Perennial Stream	Monthly	Wier	OG&M, OSM	
2-4-W	Lower Beaver Creek	Perennial Stream	Monthly	Wier	OG&M, OSM	
2-5-W	Jewkes Spring in Beaver Creek	Spring	Monthly	Wier	OG&M, OSM	
2-6-W	Spring on Lease Modification	Spring	Monthly	Wier	OG&M, OSM	

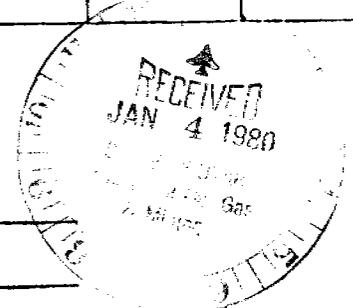
NOTE: No underground discharge from this mine

HYDROLOGIC MONITORING PROGRAM
DATA REPORT FORM

STATION	LOCATION	TYPE	FREQUENCY	FLOW	PH STD. UNIT	TEMP ° C	SPEC. COND.	TDS	TSS	IRON	MANGANESE	NITRATE	SULFATE	CHLORIDE	OIL & GREASE	REMARKS
2-1-W	Discharge Sedi Pond	Discharge	Monthly	Wier												
2-2-W	Bryner Can Below Mine	Intermittent Stream	Monthly	Wier												
2-3-W	Upper Beaver Creek	Perennial Stream	Monthly	Wier												
2-4-W	Lower Beaver Creek	Perennial Stream	Monthly	Wier												
2-5-W	Spring in BeaverCreek	Spring	Monthly	Wier												
2-6-W	Spring on Lease Mod.	Spring	Monthly	Wier												

DATE SAMPLED: _____

DATE ANALYZED: _____



SWISHER COAL CO.
P.O. BOX AU
PRICE, UTAH 84501

SAMPLED BY: _____

ANALYZED BY: _____

Exhibit #7: Ground Water Monitoring Program

Exhibit #6: Sediment Control Plan

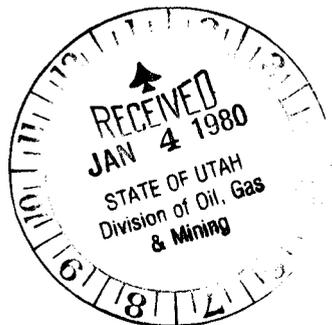


Exhibit #6
Sediment Control Plan

1. General - The complete sediment control plan for this area is attached. In general, all drawings from the disturbed area, plus some natural drainage, is collected at a low point, just above the sedimentation ponds. All other natural drainage above the mine site is diverted around the site and ponds via a 24-inch diameter culvert and an open diversion channel.
2. Culvert - The 24-inch culvert is sized to support the flow from a ten-year, 24-hour precipitation event. In addition, the location of the culvert inlet allows for some six feet of head storage above the culvert before any overflow could occur. The culvert inlet will be fitted with an appropriate trash rack, and the outlet will be rip-rapped to lessen any erosion possibilities.
3. Diversion Channel - The open diversion channel will be considered temporary. This diversion will carry natural runoff from the main canyon above the mine site as well as the discharge from the side canyon and 24-inch culvert around the west side of the disturbed area. The inlet and outlet of the diversion will be rip-rapped to lessen any erosion from such runoff. Discharge from the diversion will go directly into the Bryner Canyon drainage below the mine site.
4. Sedimentation Discharge - The pond will be constructed to safely pass any flow from the sedimentation facility without adding to downstream sediment loading.

Gordon Creek #2 Mine
Plan for Construction and Maintenance
Sedimentation Ponds and Diversion Structures

General Description

The disturbed area of the #2 Mine totals some 9.18 acres. The runoff from this area drains into an intermittent stream channel in Bryner Canyon. This area drains into Gordon Creek and eventually into the Price River.

In order to minimize additional sediment loading to any stream from this area, it is proposed to by-pass the natural drainage above this area through a diversion channel south of the mine site. The runoff from the mine site, along with any future mine discharge water, will be collected into a sedimentation pond at the lower end of the property.

An overall drainage map of the area, including location of the proposed structures is attached. Listed below are specifications for the proposed sedimentation structures:

Specifications

Location: The proposed pond will be at the lower end of the #2 Mine site (see attached map). Natural drainage will by-pass the disturbed area to the south.

Design: The pond is designed to hold the runoff and sediment from a ten-year, 24-hour precipitation event. The pond will be dug out of natural ground rather than have a built-up dam.

Construction: The construction of the ponds will be under the direction of a licensed engineer.

Capacity: The structure will have a capacity adequate to store the runoff and sediment load from a ten-year, 24-hour precipitation event, with an overflow capacity in excess of that for a six-hour, 25-year event. The pond shown on the attached map will have a capacity of 2.35 acre-feet.

Safety Precautions: The structure will be regularly inspected by a qualified individual as required by law. The pond will be cleaned as necessary, and any weakness or defect in the structure will be immediately corrected.

Monitoring: The pond discharge will be monitored as per the requirements of the NPDES Permit. Additional monitoring stations will be submitted with the Water Monitoring Program for this area.

Diversion: Natural runoff will be collected in one canyon directly upstream from the portals (see map). This runoff will pass beneath the upper property via a 24-inch diameter culvert. This culvert will discharge to the natural main channel of Bryner Canyon, which is then diverted around the south edge of the site.

Maintenance: The sedimentation pond shall be inspected after each major storm, and the sediment cleaned as necessary. Sediment removed shall be stored adjacent to the topsoil and used for final reclamation, if the quality is found to be acceptable. If the quality is not suitable for reclamation, it can be taken underground or to an approved refuse site for final disposal.

Calculations: Undisturbed Area

1. Use 2-inch figure for ten-year, 24-hour event
- *2. Table A-4 p. 538 - Runoff Curve No. (CN) = 54
Cover - Oak, Aspen
Condition - Fair
Soil Group - C (Slow Infiltration Rate)
- *3. Figure A-4 p. 541 - Direct Runoff = 0.03 inches
4. Drainage 36.16 acres. Total runoff will be
.03" x 36.16 acres = 1.09 acres inch or .09 acre feet

Disturbed Area

1. Use 2-inch figure
- *2. Table A-4 p. 538 - Runoff Curve No. (CN) = 85
Cover - Herbaceous
Condition - Poor
Soil Group - C
- *3. Figure A-4 p. 541 - Direct Runoff = .80 inches
4. Drainage Area = 9.18 acres. Total runoff will be
.80" x 9.18 acres = 7.34 acres inch or .61 acre feet

Sedimentation Pond Size:

1. Sediment storage volume shall be .10 acre-foot per acre of disturbed area. The disturbed area is measured to be 9.18 acres; therefore, the sediment storage area must be .918 or .92 acre-feet.
2. Total storage volume shall need to be a minimum of .09 acre-feet for undisturbed area runoff plus .61 acre-feet for disturbed area runoff and .92 acre-feet for sediment storage, or a total of 1.62 acre-feet.

Natural Drainage: Area A

1. Area = 202.30 acres
- *2. Same CN as Undisturbed Area = .54
- *3. Direct runoff = .03 inches
4. Total runoff - 202.3 acres x .03" = 6.07 acres inch or .51 acre feet
5. .51 acre feet x 326,700 gallons/acre foot = 166,617 gallon runoff
6. 166,617 gallon ÷ 600 minutes = 278 gpm during 10-year event
7. Assume peak runoff @ 3 times average = 278 gpm x 3 = 834 gpm
8. This amount of water can be passed through a 24-inch culvert at a velocity of less than .71 feet/second with nearly zero head loss; therefore, no buildup should occur at the inlet

to the culvert. There is, however, a potential for some surge capacity at the inlet if required. The culvert is about eight feet below the ground level at the inlet point.

Area B

1. Area = 205.74 acres
- *2. Same CN as Undisturbed Area = .54
- *3. Direct runoff = .03 inches
4. Total runoff = 205.74 acres x .03" = 6.17 acres inches or .51 acre feet
5. .51 acre feet x 326,700 gallon/acre foot = 166,617 gallon runoff
6. Add runoff from Area A - 166,617 gallon + 166,617 gallon = 333,234 gallon
7. 333,234 gallon ÷ 600 minutes = 555 gpm during a 10-hour event
8. Assume peak runoff @ 3 times average = 555 x 3 = 1665 gpm
9. This amount of water will reach a depth of 14 inches in the diversion

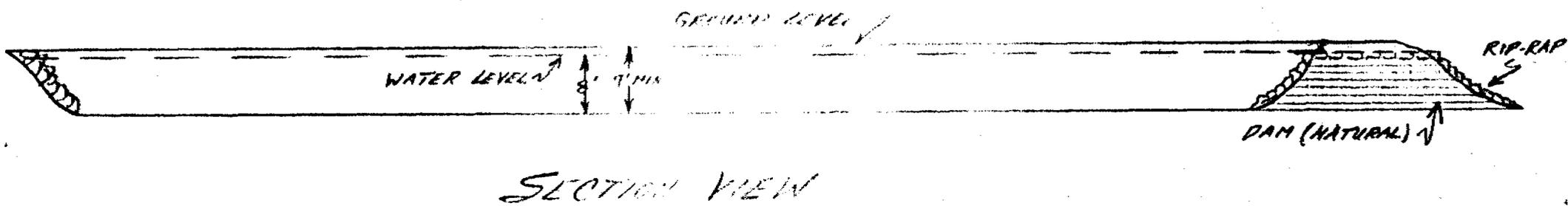
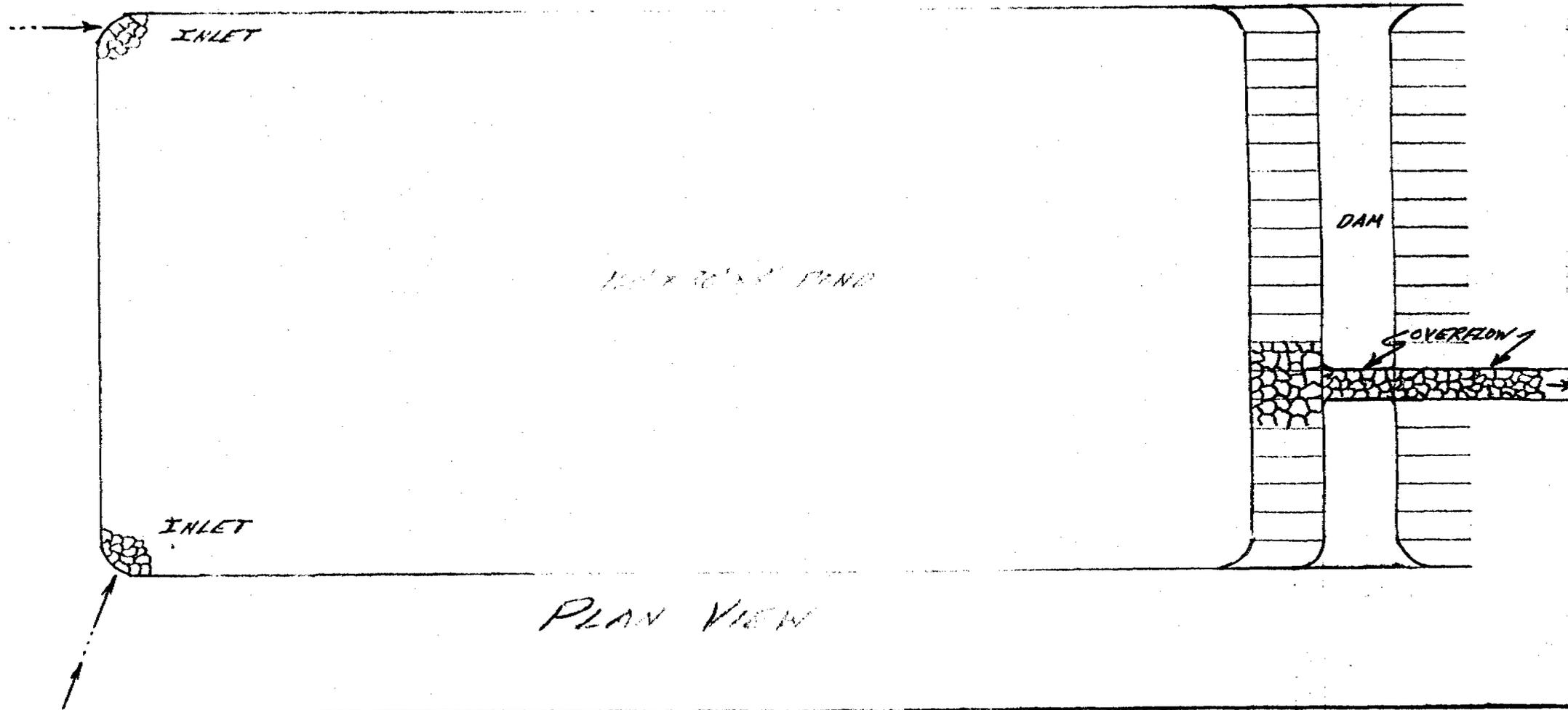
Discharge Structures: Energy dissipators (rip-rap, conveyor belting, or other) will be provided at the outlet of the 24-inch culvert and at the outlet of the main diversion. The pond will also have outlet protection. The pond will be constructed with an overflow of one foot below the top of the dam (such overflow shall be lined with rip-rap to prevent washing of the dam).

Conclusion:

1. The capacity of the pond will be some 2.35 acre-feet, allowing for a safety factor of 1.45.
2. The proposed sedimentation pond will be adequate to contain and clean the runoff from a ten-year, 24-hour precipitation event in the #2 Mine area.
3. The proposed 24-inch culvert and diversion will adequately divert the runoff from the natural drainage above the mine site.

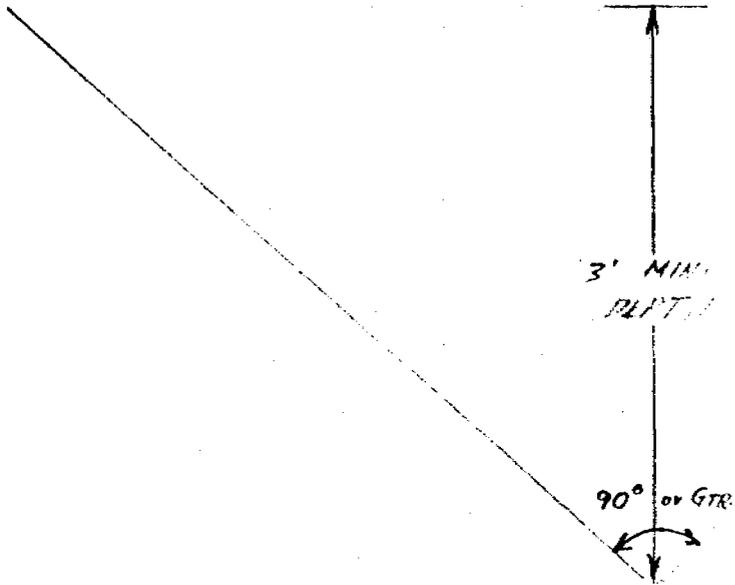
*Calculations made using the reference "Design of Small Dams" by the Bureau of Reclamation, Appendix A, 'Estimating Rainfall Runoff from Soil and Cover Data'.

PROPOSED SEDIMENTATION POND
GORDON CREEK #2 MINE
SCALE 1"=20'

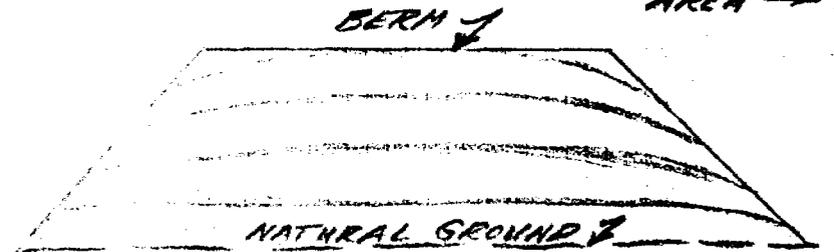


DIVERSION DITCH
TYPICAL SECTION
SCALE 1" = 1'

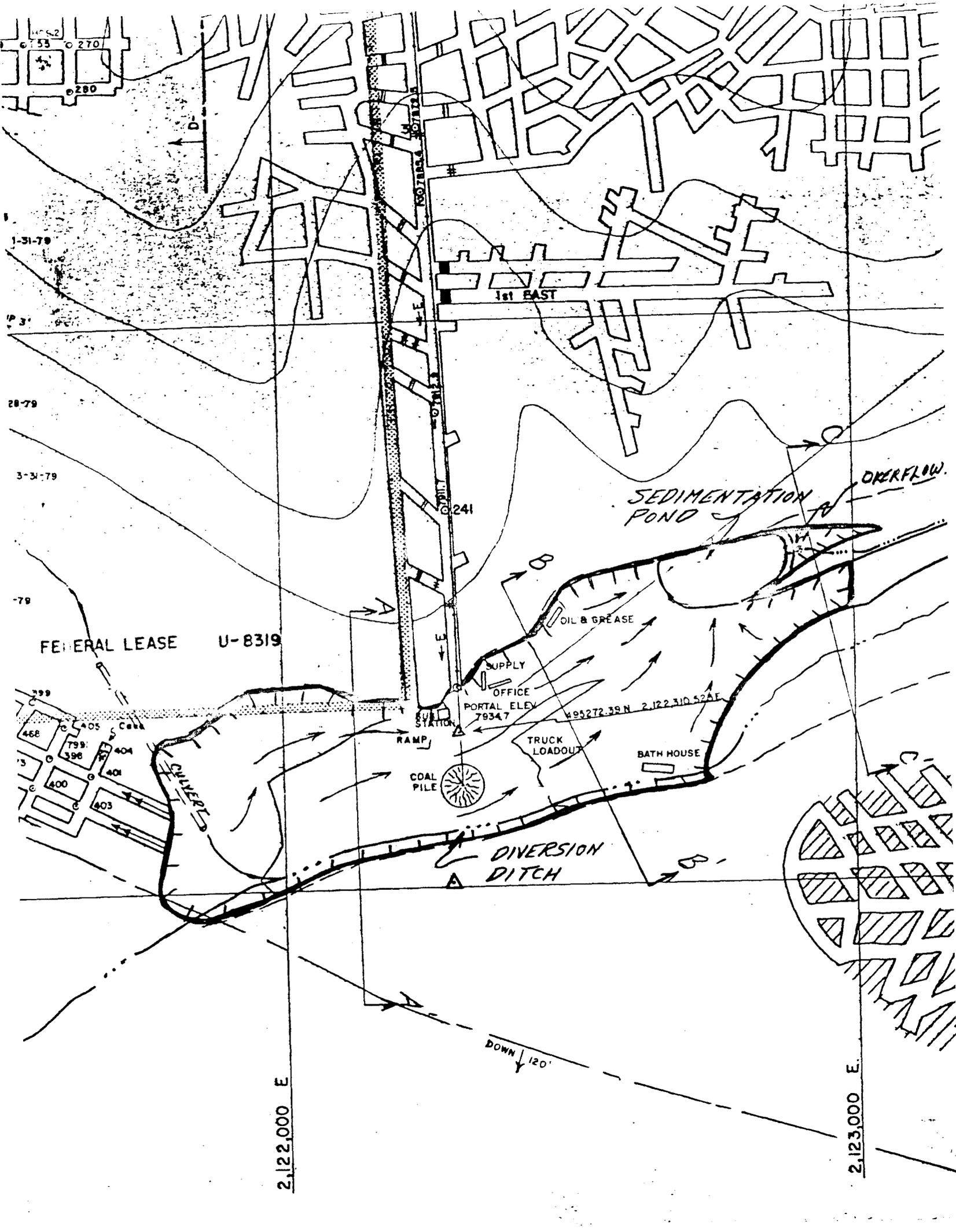
UNDISTURBED
← AREA



DISTURBED
AREA →



NOTE: STRAN OR ROCK DICES
ADDED AS NECESSARY.



53 270 280

1-31-79

28-79

3-31-79

-79

FEDERAL LEASE U-8319

468 799 398 404 401 400 403

COAL PILE

DIVERSION DITCH

SEDIMENTATION POND OVERFLOW

SUPPLY OFFICE PORTAL ELEV 7934.7 TRUCK LOADOUT BATH HOUSE

DOWN 120°

2,122,000 E

2,123,000 E

Exhibit #7
Ground Water Monitoring Program

1. General - The Gordon Creek #2 Mine has not encountered underground water of sufficient quantity to necessitate pumping from the mine. Any future discharge will be cleaned and monitored as per requirements of the applicable N.P.D.E.S. Permit.
2. Monitoring - It is proposed to monitor the quality of ground water if encountered as a monthly grab sample. Parameters to be checked shall be as shown on the Water Monitoring Sampling Chart (Exhibit #5). It is also proposed to measure quantity of the discharge by a wier, flowmeter, or other approved means.
3. Water Rights and Replacement - There are some surface springs in the #2 Mine area. Those identified springs or seeps are shown on the map in Exhibit #5, and will be monitored as per the sampling chart (also in Exhibit #5) to the extent allowed by the surface landowner.

Exhibit #8: Hydrologic Impact of Roads

Exhibit #8
Hydrologic Impact of Roads

1. General - Access and haul roads, culverts, ditches, and road right-of-way are constructed, and shall be maintained and reclaimed, to the extent practicable, to prevent additional contributions of suspended solids to streamflow or runoff.
2. Construction - All roads in the mine area are constructed. All grades are less than ten percent (10%) and there are no stream crossings.

All roads are adequately drained and all water control structures are designed with a discharge capacity capable of passing the peak runoff from a ten-year, 24-hour precipitation event. Access and haul roads are surfaced with a durable gravel material. Toxic or acid-forming substances are not used.

3. Maintenance - Access and haul roads are routinely maintained by wetting, scraping, and resurfacing as necessary. Ditches and other drainage controls are also routinely maintained to provide adequate control along the roads.
4. Other Transport Facilities - There are no railroads in the mine area. Conveyors are constructed and maintained to prevent additional contributions of suspended solids to streamflow.

Exhibit #9: Dam Construction

Exhibit #9
Dam Construction

1. General - There are no dams in the mine area to be constructed of waste material. The only dam within the permit area will be that for the sedimentation structure. The design and detail of this structure is covered in Exhibit #6, Sediment Control Plan.

Exhibit #10: Topsoil Handling & Revegetation

Exhibit #10
Topsoil Handling and Revegetation

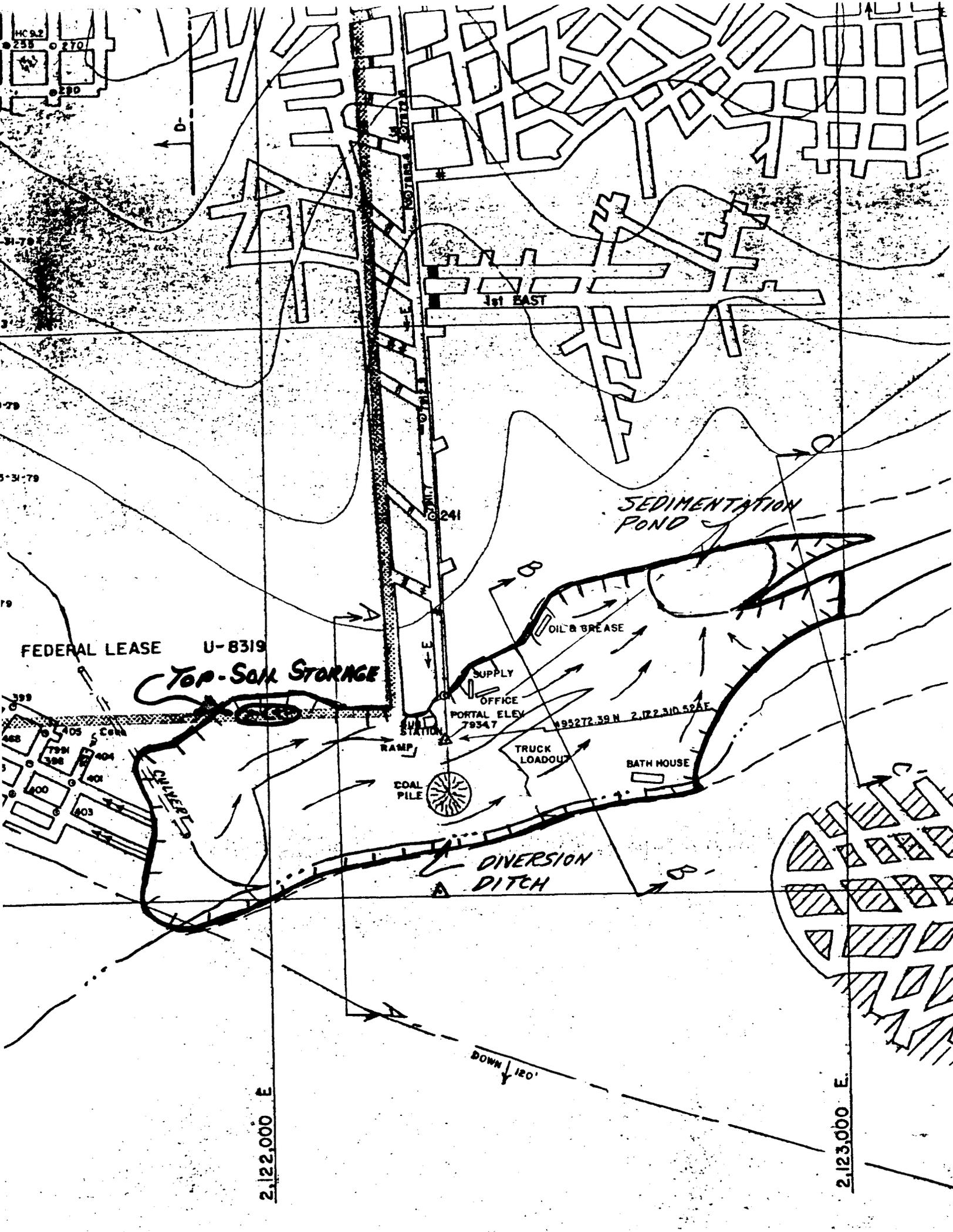
1. Topsoil Handling - The #2 Mine area is a pre-existing structure and the majority of the surface disturbance associated with the mine has already been done. At the time of the original construction, no topsoil was saved, and as a result, little, if any, can be salvaged at this time. In any future disturbance the topsoil will be removed and stockpiled as shown on the attached map. The topsoil will be compacted as placed, protected from surface runoff, and seeded to establish a protection from wind and water erosion.

2. The soil is a loam to silty loam depending on depth of development. Soil depths range from six inches on ridge tops to six feet in canyon bottoms, and are generally better developed on north-facing slopes.

North-facing slopes in the area have a cover of Douglas Fir and Aspen, along with some Ponderosa Pine, Juniper, and Pinyon Pine. Canyon bottoms, south-facing slopes, and ridgelines are generally covered with brush, such as Oak Brush, Mountain Mahogany, and Service Berry, and grasses such as Western Wheat Grass, Wild Rye, and Lupine. The mine site is in the canyon bottom and south-facing slope. It is proposed to revegetate the disturbed areas with the following seed mixture upon reclamation:

3 lb/acre - Smooth Brome
3 lb/acre - Timothy Grass
2 lb/acre - Orchard Grass
2 lb/acre - Crested Wheat Grass
1 lb/acre - Kentucky Blue Grass
1 lb/acre - Ranger Alfalfa
1 lb/acre - Meadow Foxtail
<hr/> 13 lb/acre - Total

Disturbed areas no longer needed, such as road cuts, highwalls, etc., shall be revegetated with the above seed mixture in the late fall or early spring following the disturbance.



FEDERAL LEASE U-8319

Top-Soil Storage

SEDIMENTATION POND

SUPPLY
OFFICE

PORTAL ELEV
7934.7

495272.39 N 2,122,310.52 E

TRUCK LOADOUT

BATH HOUSE

COAL PILE

RAMP

DIVERSION DITCH

DOWN 120'

2,122,000 E

2,123,000 E

MC 9.2
258
270
280

31-78

5-31-79

79

399

405
799
398
404
401
400
403

SWIMERS

D

WATER TOWER

1st EAST

Exhibit #11: Articles of Incorporation



Office of Lt. Governor/Secretary of State

I, DAVID S. MONSON, LT. GOVERNOR/SECRETARY OF STATE OF THE STATE OF UTAH, DO HEREBY CERTIFY THAT the attached is a full, true and correct copy of the Articles of Incorporation and Amendments of SWISHER COAL CO., and said corporation which was filed in this office June 19, 1975, is in good standing,

AS APPEARS OF RECORD IN MY OFFICE.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of the State of Utah at Salt Lake City, this _____ 9th _____ day of _____ May _____ A.D. 1977.

DAVID S. MONSON

LT. GOVERNOR/SECRETARY OF STATE

Amber Riley
AUTHORIZED PERSON

FILED in the office of the Secretary of State, of the State of Utah, on the 19th day of June A.D. 1975
- CLYDE L. ...
Secretary of State
Filing Clerk

9:19 75 AM

ARTICLES OF INCORPORATION OF

G E X Utah, Inc.

65925



We, the undersigned natural persons of the age of twenty-one years or more, acting as incorporators of a corporation under the Utah Business Corporation Act, adopt the following Articles of Incorporation for such corporation:

FIRST: The name of the corporation is:

G E X Utah, Inc.

SECOND: The period of its duration is perpetual.

THIRD: The purposes for which the corporation is organized are to engage in coal mining and related activities, and to engage in any other lawful business activities.

FOURTH: The aggregate number of shares which the corporation shall have authority to issue is ten thousand (10,000), each with one dollar (\$1.00) par value. All stock shall be common stock, of the same class having the same rights and priveleges.

FIFTH: The corporation will not commence business until consideration of the value of at least \$1,000.00 has been received for the issuance of shares.

SIXTH: The shareholders shall not have preemptive rights to acquire additional shares of the corporation.

SEVENTH: The post office address of its initial registered office is 607 Kearns Building, Salt Lake City, Utah 84101, and the name of its initial registered agent at such address is Paul B. Cannon.

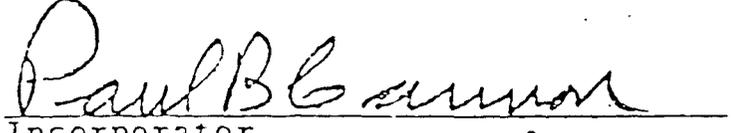
EIGHTH: The number of directors constituting the initial board of directors of the corporation is three, and the names and addresses of the persons who are to serve as directors until the first annual meeting of the shareholders or until their successors are elected and shall qualify are:

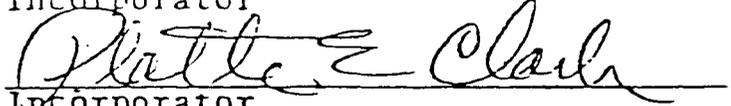
<u>NAME</u>	<u>ADDRESS</u>
Eugene E. Nearburg	4219 Sigma Road Dallas, Texas 75240
C. N. Bailey	4219 Sigma Road Dallas, Texas 75240
William G. Ferguson	180 East Broad Street Columbus, Ohio 43215

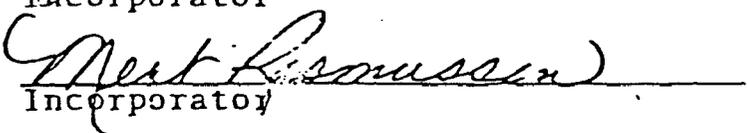
NINTH: The name and address of each incorporator is:

<u>NAME</u>	<u>ADDRESS</u>
Paul B. Cannon	607 Kearns Building Salt Lake City, Utah 84101
Platte E. Clark	353 East 300 South Salt Lake City, Utah 84111
Mert Rasmussen	353 East 300 South Salt Lake City, Utah 84111

DATED: June 19, 1975



 Incorporator


 Incorporator


 Incorporator

STATE OF UTAH)
): ss:
 County of Salt Lake)

I, Virginia Rasmussen, a notary public, hereby certify that on the 19th day of June, 1975, personally appeared before me, Paul B. Cannon, Platte E. Clark, and Mert Rasmussen, who being by me first duly sworn, severally declared that they are the persons who signed the foregoing document as incorporators and that the statements therein contained are true.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 19th day of June, 1975.

My commission expires:
April 17, 1977



 Notary Public
 Residing in Salt Lake City, Utah

OF

SWISHER COAL CO. with and into GEX UTAH, INC. with its name changed to SWISHER COAL CO.



The undersigned corporations pursuant to Section 69 of the "Utah Business Corporation Act" hereby execute the following articles of merger:

ARTICLE ONE

The plan of merger is as follows:

See Exhibit A attached hereto and made a part hereof.

ARTICLE TWO

As to each corporation, the number of shares outstanding, and the number and designation of the shares of any class entitled to vote as a class, are:

<u>Name of Corporation</u>	<u>Total Number of Shares Outstanding</u>	<u>Designation of Class Entitled to Vote as a Class (if any)</u>	<u>No. of Shares of Such Class (if any)</u>
Swisher Coal Co.	2,000	N/A	N/A
GEX Utah, Inc.	301	N/A	N/A

ARTICLE THREE

As to each corporation, the number of shares voted for and against the plan respectively, and the number of shares of any class entitled to vote as a class voted for and against the plan, are:

<u>Name of Corporation</u>	<u>Total Shares Voted For</u>	<u>Total Shares Voted Against</u>	<u>Class</u>	<u>Shares Voted For</u>	<u>Shares Voted Against</u>
Swisher Coal Co.	2,000	- 0 -	N/A	N/A	N/A
GEX Utah, Inc.	301	- 0 -	N/A	N/A	N/A

IN WITNESS WHEREOF each of the undersigned corporations has caused these articles of merger to be executed in its name by its

president or vice president and secretary or assistant secretary,
as of the 15 day of August, 1975.

SWISHER COAL CO.

By *Ray A. Ribb*
President

and *Harold S. White*
UNIT Secretary

GEX UTAH, INC.

By *Ray A. Ribb*
President

and *Harold S. White*
UNIT Secretary

STATE OF Utah)
COUNTY OF Salt Lake) SS

Before me, *Charles D. Smith*, a Notary
Public in and for the said County and State, personally appeared
Ray A. Ribb who acknowledged before me
that he is the *President* of SWISHER COAL CO., a
Title of office

Utah corporation and that he signed the foregoing document as his
free and voluntary act and deed for the uses and purposes therein
are set forth.

In witness whereof I have hereunto set my hand and seal this
15 day of August, A.D. 1975.

My commission expires May 2, 1979.

Charles E. Stett
Notary Public

STATE OF Utah)
COUNTY OF Salt Lake) SS

Before me, Charles E. Stett, a Notary Public in and for the said County and State, personally appeared Mark A. Ritt who acknowledged before me that he is the President of GEX UTAH, INC., a Utah Title of office

corporation and that he signed the foregoing document as his free and voluntary act and deed for the uses and purposes therein set forth.

In witness whereof I have hereunto set my hand and seal this 15 day of August, A.D. 1975.

My commission expires May 2, 1979.

Charles E. Stett
Notary Public

PLAN OF MERGER

OF

SWISHER COAL CO. with and into GEX UTAH, INC.
with its name changed to SWISHER COAL CO.

(a) Swisher Coal Co., a Utah corporation (the "Merging Corporation") shall be merged into GEX Utah, Inc. a Utah corporation (the "Surviving Corporation"), which shall be the surviving corporation. The Merging Corporation and the Surviving Corporation are hereinafter sometimes referred to jointly as the "Constituent Corporations."

(b) The terms and conditions of the merger are as follows:

(1) The Constituent Corporations shall be a single corporation which shall be the Surviving Corporation as the surviving corporation, and the separate existence of the Merging Corporation shall cease.

(2) The Surviving Corporation shall thereupon and thereafter possess all of the rights, privileges, immunities, powers and franchises, as well of a public as of a private nature, of each of the Constituent Corporations and all property, real, personal and mixed, all debts due on whatever account, including subscriptions to shares and all other choses in action, and all and every other interest, of or belonging to or due to each of the Constituent Corporations shall be taken and deemed to be transferred to and vested in the Surviving Corporation without further act or deed; and the title to all real estate, or any interest therein, vested in either of the Constituent Corporations shall not revert or be in any way impaired by reason of the merger.

(3) The Surviving Corporation shall be responsible and liable for all of the liabilities and obligations of each of the Constituent Corporations, and any claim existing or action or proceeding pending by or against either of the Constituent Corporations may be prosecuted to judgment as if the merger had not taken place, or the Surviving Corporation may be substituted in its place, and neither the rights of creditors nor any liens upon the property of either of the Constituent Corporations shall be impaired by the merger.

(4) All corporate acts, plans, policies, agreements, arrangements, approvals and authorizations of

the Merging Corporation, its shareholders, Board of Directors and committees thereof, officers and agents, which were valid and effective immediately prior to the effective date of the merger shall be taken for all purposes as the acts, plans, policies, agreements, arrangements, approvals and authorizations of the Surviving Corporation and shall be as effective and binding thereon as the same were with respect to the Merging Corporation. The employees and agents of the Merging Corporation shall become the employees and agents of the Surviving Corporation and continue to be entitled to the same rights and benefits which they enjoyed as employees and agents of the Merging Corporation.

(5) The By-laws of the Surviving Corporation as in effect on the effective date of the merger shall be and constitute the By-laws of the surviving corporation until the same shall be properly altered, amended or repealed.

(6) The directors and officers of the Surviving Corporation in office on the effective date of the merger shall be and constitute the directors and officers of the surviving corporation.

(c) Upon the issuance of a certificate of merger by the Secretary of State of Utah, the 2,000 shares of the par value of \$5.00 each of the Merging Corporation now issued, all of which are owned by the Surviving Corporation, shall be cancelled and the stated capital represented by such shares shall be eliminated.

(d) The following is a statement of all changes in the articles of incorporation of the Surviving Corporation to be effected by the merger:

Article First is amended to read as follows:

"FIRST: The name of the corporation is:
SWISHER COAL CO."

(e) This plan of merger may be abandoned by the Surviving Corporation by appropriate resolution of its Board of Directors at any time prior to the issuance of a certificate of merger by the Secretary of State of Utah.

(f) The merger is intended by the Constituent Corporations to be a transaction to which Section 334(b)(2) of the Internal Revenue Code of 1954, as amended, applies.

* * *

Exhibit #12: Authorizations to Operate



SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS, AND MINING BOARD

I. DANIEL STEWART
Chairman

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

May 11, 1978

Mr. Dave Shaver
Swisher Coal Company
90 West First North
Price, UT. 84501

Re: Gordon Creek #2
Carbon County, Utah

Dear Mr. Shaver:

As you know, under Section 502 of the Surface Mining Control and Reclamation Act (P.L. 95-87), you are required to have a State permit for your mining operations issued under State Law.

This is to inform you that for the purposes of Section 502 of the Act and Section 700.5 of the Federal Regulations, you have adequately complied with Section 40-8-23 of the Utah Mined Land Reclamation Act in that you have submitted a Notice of Intent and a Reclamation Plan or filed a Notice of Intent and have complied with the 30-CFR-211 regulations and therefore are operating with the expressed permission of the Division of Oil, Gas, and Mining. According to Sections 40-8-17 (1) and 40-8-23 (5) you are bound to comply with all applicable laws and regulations prior to your final approval under 40-8-13 and 40-8-14 (U.C.A.). Publication of said tentative approval will be made as required by Section 40-8-13 (4), U.C.A.

The tentatively approved permit number for this mine is ACT/007/016, and is revocable at any time by the Division until a final permit is issued under P.L. 95-87.

According to 715.11 (b) and 717.11 (b) of the Federal Regulations, a copy of this letter is to be available at the mine site.

Sincerely,

RONALD W. DANIELS
COORDINATOR OF MINED
LAND DEVELOPMENT

U.S. DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
Mailing Address: P.O. Box 25367, DFC
Denver, Colorado 80225
Street Address: 730 Simms
Lakewood, Colorado



Coal Mine Health and Safety
District 9

August 22, 1979

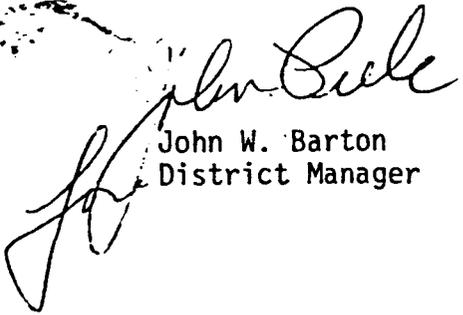
Mr. Bert Jeanselme
Swisher Coal Company
P. O. Box AU
Price, Utah 84501

Re: Gordon Creek #2 Mine, I.D. #42-00125
Gordon Creek #3 Mine, I.D. #42-01254
Gordon Creek #6 Mine, I.D. #42-01471

Dear Mr. Jeanselme:

The letter submitted August 10, 1979, has been received and since the roof control plans for the subject mines appear to be satisfactory, they shall remain in effect for another six months.

Sincerely,


John W. Barton
District Manager

U.S. DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION
Mailing Address: P.O. Box 25367, DFC
Denver, Colorado 80225
Street Address: 730 Simms
Lakewood, Colorado
Coal Mine Safety and Health
District 9



April 17, 1979

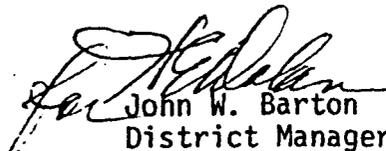
Reid C. Wilson
Swisher Coal Co.
PO Box AU
Price, Utah 84501

Re: Gordon Creek #2
I.D. No. 42-00125
Gordon Creek #3
I.D. No. 42-01254
Gordon Creek #6
I.D. No. 42-01471
Ventilation System and
Methane and Dust Control Plan

Dear Mr. Wilson:

The ventilation system and methane and dust control plans for the subject mines have been reviewed by MSHA as required by Section 75.316, 30 CFR 75. The plans on file will remain in effect; however, the plans are subject to revision at any time and shall be reviewed by the operator and MSHA at least every six months. Also before any changes are initiated in the plans, they shall be approved by the District Manager.

Sincerely yours,


John W. Barton
District Manager

Enclosure

4-20-79 *RS*

Exhibit #13: Property Map

Exhibit #14: #2 Mine Plan (Castle Gate 'A' Seam)
#2 Mine Plan (Hiawatha Seam)

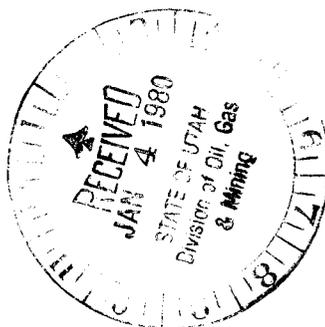
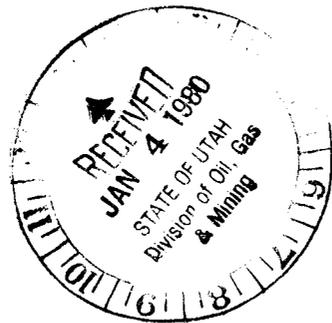


Exhibit #15: U.S.G.S. Environmental Analysis





United States Department of the Interior

U-8319
U-8319-1

GEOLOGICAL SURVEY

Office of the Area Mining Supervisor
Conservation Division
8426 Federal Building
125 South State Street
Salt Lake City, Utah 84138

January 24, 1978

Mr. Max Robb
President
Swisher Coal Company
P. O. Box AU
Price, Utah 84501

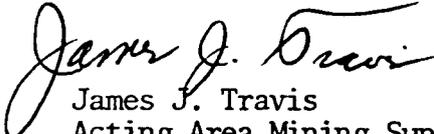
Dear Mr. Robb:

The 211 mining plans received at this office on May 17, 1977, for the Gordon Creek No. 2 mine are approved, subject to the following stipulations:

1. The provisions of 30 CFR 700 series dated December 13, 1977, are to be complied with. Some time after May 3, 1978, (30 CFR 710.11 (3)(ii) you will be informed of any necessary additions or changes to the plan.
2. An approved subsidence and hydrologic plan will be necessary for complete approval of the mining plans. These plans were received in this office on December 29, 1977. They are in the reviewing process.
3. The "Roof Control Plan" attached to the narrative is approved by MESA and is subject to review every six months by them.
4. The plan is subject to the agreement with the surface owners.
5. It will be necessary to comply with the regional impact statement when they are finalized.

Attached is an approved copy of the Mining and Reclamation Plan, dated May 17, 1977. Any deviations, changes, additions, and modifications from this plan must be approved by this office.

Sincerely yours,


James J. Travis
Acting Area Mining Supervisor

Attachment

ENVIRONMENTAL ANALYSIS
FOR
MINING AND RECLAMATION PLAN
SWISHER COAL COMPANY, LESSEE
GORDON CREEK NO. 2 MINE
CARBON COUNTY, UTAH

FEDERAL LEASES

U-8319

U-8319-1

U. S. GEOLOGICAL SURVEY
CONSERVATION DIVISION
OFFICE OF THE AREA MINING SUPERVISOR
SALT LAKE CITY, UTAH

PREPARED BY
RALPH J. BLUMER
MINING ENGINEER

NOVEMBER 10, 1977

PREVIOUS ENVIRONMENTAL ANALYSIS
PREPARED FOR MINE PLAN ON
FEDERAL LEASE U-8319
JULY 12, 1976
PREPARED BY
ROBERT W. CRACKNELL
MINING ENGINEER

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
A. Description of Proposed Action	2
1. General	2
2. History	3
3. Surface Facilities and Activities Related to Proposal	4
4. Mining Methods, Sequence, and Recovery Rate	5
5. Surface Disturbance and Reclamation	7
6. Water Use	8
7. Surface and Mineral Ownership	9
8. Action Required	9
a. State	9
b. Federal	9
B. Environmental Considerations of the Proposed Action	10
1. Geology	10
2. Soil	14
3. Air	19
(i) Meteorology	19
(ii) Air Quality	20
4. Water	21
(i) Hydrology	21
(ii) Water Quality	24
5. Fauna and Flora	25
6. Socio-Economics and Land Use	27

TABLE OF CONTENTS (Cont.)

	<u>Page</u>
C. Alternatives to the Proposed Action -----	30
D. Unavoidable Adverse Environmental Effects of the Proposed Action -----	30
E. Recommendation-----	32
F. References -----	33
G. Appendices	
1. Reviews and Reports from USGS	
2. BLM Concurrence and Stipulations and USGS Responses	
3. Endangered and Threatened Species Clearance	
4. Archeological and Historical Site Clearance	
5. Correspondence and Public Notice	
6. Hydrologic and Subsidence Stipulations	
7. Maps	
8. 30 CFR 211 Checklist	
9. Mining and Reclamation Plan	

FIGURES

	<u>Fig. No.</u>	<u>Page</u>
Coal & Surface Ownership -----	1A -----	2.1
Lease Location -----	1B -----	2.2
Castle Gate "A" Seam Workings -----	2A -----	5.1
Hiawatha Seam Workings -----	2B -----	5.2
Castle Gate "A" and Hiawatha Workings -----	2C -----	5.3
General Location Map -----	3A -----	10.1
County Index Map -----	3B -----	10.2
Stratigraphic Section -----	4 -----	11.1
Soil Association Map -----	5 -----	14.1
Meteorologic Information -----	6 -----	20.1

INTRODUCTION

The purpose of this analysis is to determine the impact on the environment which could result from underground coal mining operations by Swisher Coal Company on Federal leases U-8319 and U-8319-1, with Swisher Coal Company as lessee. This analysis is required by the National Environmental Policy Act of 1969, Section 102 (2)(C).

ENVIRONMENTAL ANALYSIS
FOR
MINING AND RECLAMATION PLAN
SWISHER COAL COMPANY, LESSEE
GORDON CREEK NO. 2 MINE

A. Description of Proposed Action

(1) General

Swisher Coal Company, lessee and operator, submitted a mining and reclamation plan to the Area Mining Supervisor on May 16, 1977, to comply with the requirements of 30 CFR 211 (May 17, 1976). The plan was inadequate, and additional information was submitted on November 3, 1977.

The plan covers Federal leases U-8319 and U-8319-1 and also 120 acres which Swisher was authorized to mine by the Area Mining Supervisor.

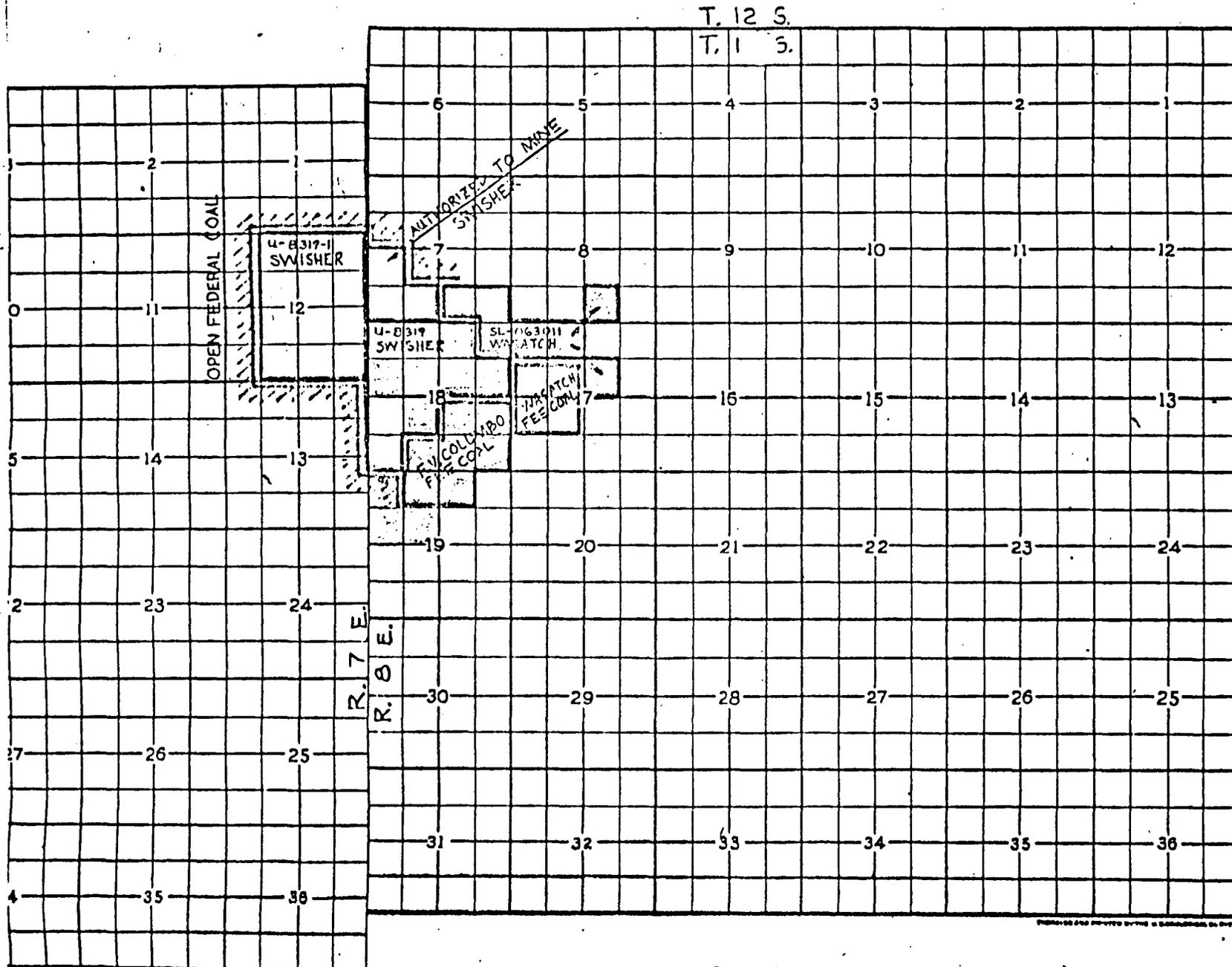
U-8319 T. 13 S., R. 8 E., SLM, Carbon County, Utah
sec. 18, NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
Lots 1, 2, 3, and 4
411.75 Acres

U-8319-1 T. 13 S., R. 8 E., SLM, Carbon County, Utah
sec. 12, E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$
480 Acres

Authorization
to Mine

T. 13 S., R. 8 E., SLM, Carbon County, Utah
sec. 7, W $\frac{1}{2}$ SW $\frac{1}{4}$, and SE $\frac{1}{4}$ SW $\frac{1}{4}$

The surface of the area is all fee, see figure 1A, Helper State Bank, C.P. Jewkes, and M.E. Jacob are the surface owners. We have no record of agreement between Swisher and the surface owners. The portal is located on land owned by Jacob. We assume Swisher has some agreement with Jacob. We have requested from Swisher the status of their agreements with the surface owners.



Surface Ownership

- Helper State Bank
- C.P. Jewkes
- M.E. Jacob
- E.E. Pierce Jr.
- Wasatch Coal Co.

Coal Ownership

- U-8319 Swisher
- Federal Lease No. and Lessee
- Wasatch Fee Coal
- Privately Owned

Scale: 1 inch = 1 mile

COAL AND SURFACE OWNERSHIP

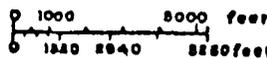


Figure 1A
Page 2.1

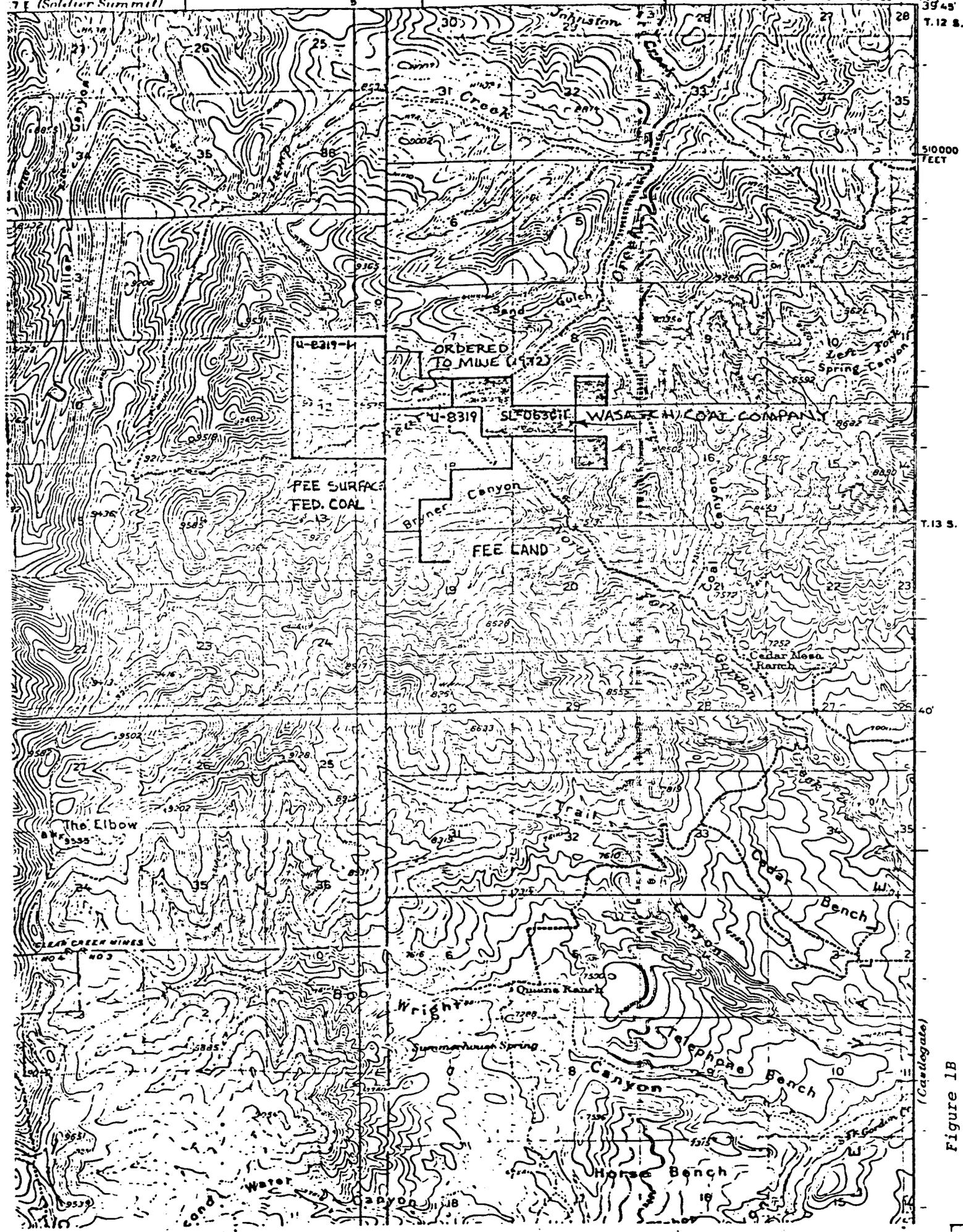


Figure 1B
Page 2.2

Swisher Coal Company filed with the State Division of Oil, Gas, and Mining on August 5, 1977. The information submitted was inadequate, and the State requested more material.

The objective of the proposal is to continue its operation on its existing leases and fee land. Its leases are partially bordered on the north and west by open Federal coal. Some applications have been submitted for competitive leases in these areas. It is assumed that Swisher intends to expand the existing operations north and west if they should acquire the necessary new leases.

(2) History

In 1968 the Swisher Coal Company started the Gordon Creek No. 2 mine on fee land. On March 1, 1970, Ura Swisher was issued U-8319 totaling 411.75 acres. The mine advanced into Federal land almost immediately. See figure 1B for the location of the leases.

On November 28, 1972, an order was issued under the authority of 30 CFR 211.54 (d) to mine the coal in T. 13 S., R. 8 E., W $\frac{1}{2}$ SW $\frac{1}{4}$ and SE $\frac{1}{2}$ SW $\frac{1}{4}$, sec. 7. This 120 acres parcel of land was hemmed in on the east and north by the inactive Blue Blaze No. 3 mine. To the west is a large area of unleased Federal coal. The possibility of entrance into the 120-acre plot from the west via an outcrop is practically nonexistent. To date only a small portion of this land has been mined.

In 1975 Swisher Coal Company was sold to General Exploration. Swisher Coal Company continued to mine the coal under designation of operator.

In 1976 Swisher Coal mined into open Federal coal now under Federal lease U-8319-1. The BLM took action against the company. On April 5, 1976, the U-8319 lease was modified to include the 400 acres of U-8319-1. On May 1, 1976, U-8319 and U-8319-1 were assigned from Ura Swisher to Swisher Coal Company.

The Gordon Creek No. 2 mine is currently operating on U-8319, fee land, and the parcel that Swisher was authorized to mine. The mine has also mined coal from Federal lease SL-063011. This was with the lessee's approval.

The No. 2 mine is operating in the Castle Gate "A" seam. About 140 acres of the Hiawatha seam (lower seam) has been mined out by the Sweet mine and the Blue Blaze No. 2. These two mines operated on fee land and now relinquished Federal leases.

(3) Surface Facilities and Activities Related to Proposal

The surface facilities are located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, sec. 18, T. 13 S., R. 8 E., and consists of a bathhouse, a storage trailer, and coal loadout facilities. The ventilation portal is located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, sec. 18 T. 13 S., R. 8 E. See figure 2A for location of portals and surface facilities.

The coal leaves the mine by a conveyor belt, goes over a shaker screen for separation into lump and fine coal, and finally is stockpiled. The coal is loaded with front-end loaders into 100-ton coal trucks. The coal is hauled about 9 miles east to Swisher's coal cleaning plant.

The culinary water is trucked to the mine. The sewage is treated in a septic tank-leach field system. Electricity for the operation comes through powerline located along Highway 139 to Helper. Very little drilling was performed, and this was done on or near existing roads.

(4) Mining Methods, Sequence, and Recovery Rate

The mine has been operating since 1968. This mine plan merely shows the extension of the existing operation. As shown on figure 2A there are two major faults running mainly east and west. The areas between the faults and between the faults and the lease boundaries will be developed by five-entry room and pillar system. Entries will be driven off these development entries into panels which will be first and second mined. See figures 2A, 2B, and 2C for the location of the abandoned, existing and proposed mine areas.

Two mining methods could be used in this coal mining operation depending on the conditions and nature of the coal seam. They are conventional and continuous room and pillar mining. Coal is currently being mined by continuous miner units with room and pillar mining methods.

In both conventional and continuous room and pillar mining, part of the coal bed is removed by driving parallel excavations or rooms. The coal remaining between the rooms becomes the pillar, which is pierced at certain intervals by break-throughs or "cross-cuts" to provide passageways for ventilation.

Openings are developed in a uniform pattern within a panel or block of coal. Remaining columns of coal or pillars are left standing for support of the overlying strata. In conventional, the coal is

STRIKE N 33° W
DIP 8.1%

ROCK SLOPES

18

BLUE BLAZE No. 3 MINE

ROCK SLOPES

TRAILER

FAN

ROAD

CONVEYOR

COAL STORAGE PILE

WASH HOUSE

BLUE BLAZE No. 2 MINE

SWEET MINE

EXISTING AND PROPOSED MINE WORKINGS

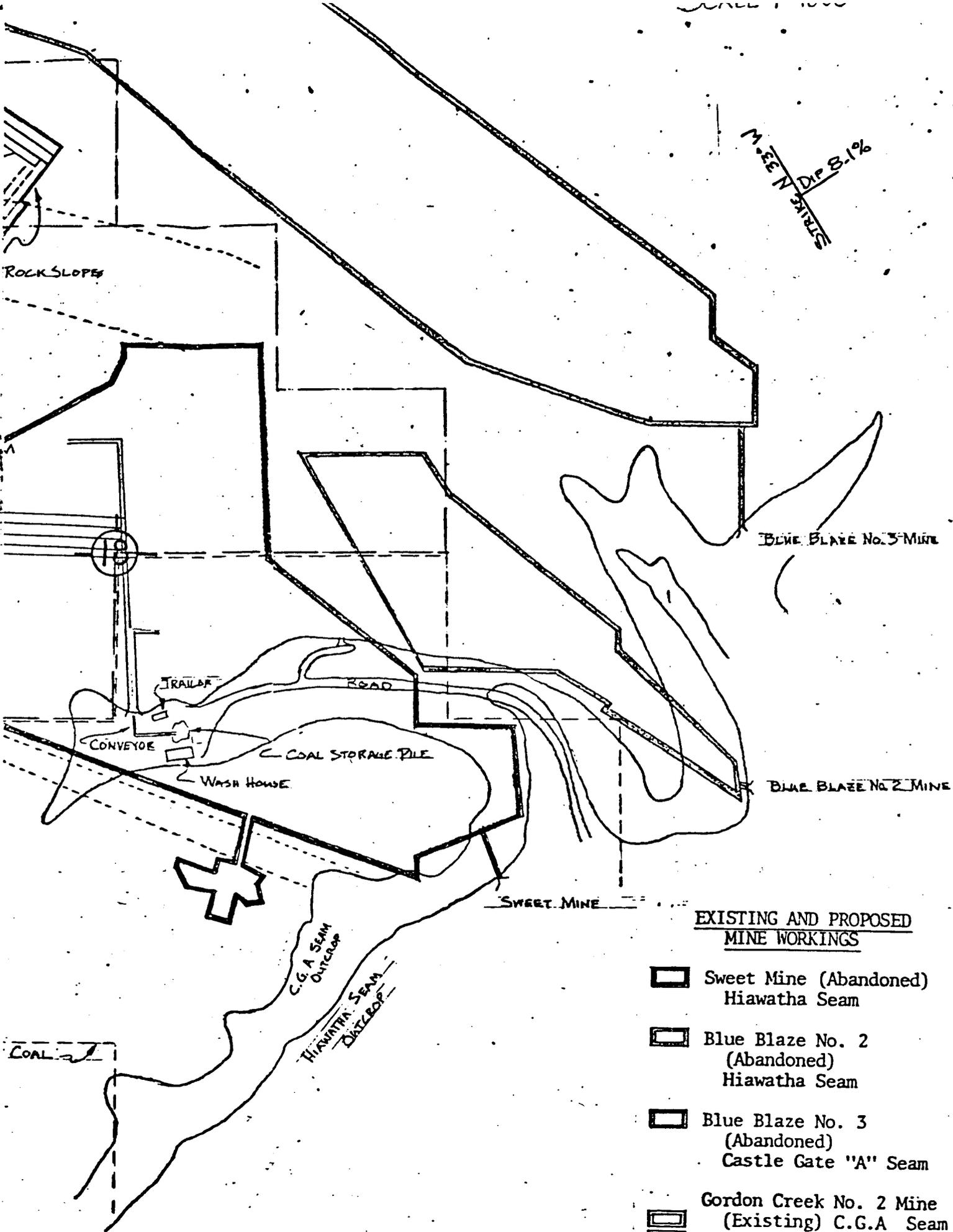
-  Sweet Mine (Abandoned)
Hiawatha Seam
-  Blue Blaze No. 2 (Abandoned)
Hiawatha Seam
-  Blue Blaze No. 3 (Abandoned)
Castle Gate "A" Seam

-  Gordon Creek No. 2 Mine (Existing) C.G.A Seam
-  (Proposed) C.G.A Seam
-  (Proposed) Hiawatha Seam

C.G.A. SEAM
OUTCROP

HIAWATHA SEAM
OUTCROP

COAL



EXISTING AND PROPOSED MINE WORKINGS

-  Sweet Mine (Abandoned)
Hiawatha Seam
-  Blue Blaze No. 2 (Abandoned)
Hiawatha Seam
-  Blue Blaze No. 3 (Abandoned)
Castle Gate "A" Seam
-  Gordon Creek No. 2 Mine (Existing) C.G.A Seam
-  (Proposed) C.G.A Seam
-  (Proposed) Hiawatha Seam

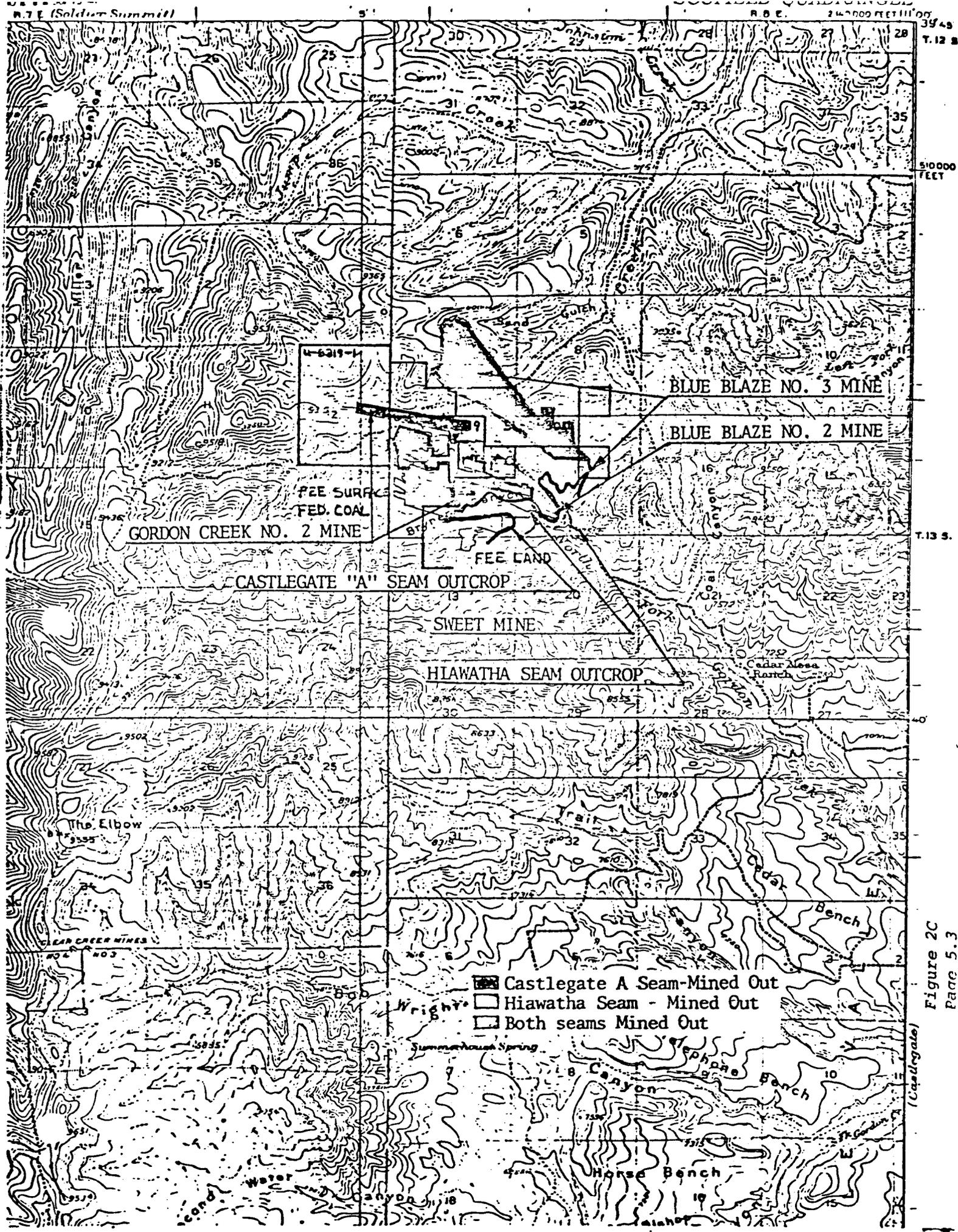


Figure 2C
Page 5.3

(Castlegate)

blasted from the coal face. The broken coal is then gathered by a loading machine which transfers it onto a shuttle car for transportation to a nearby conveyor belt. Continuous room and pillar mining is identical to conventional room and pillar mining except the mining is performed by a single mining machine, the "continuous miner." The continuous miner rips the coal loose from the coal face with mechanical cutters and loads the broken material directly into a conveyor belt or shuttle car. After the coal is removed, the roof may be supported by either timber or steel supports, or more commonly, "roof bolts" which bind the overlying roof rock into a "continuous beam." The pillars may be "pulled" or mined upon completion of mining and the roof allowed to cave.

Where the pillars are left standing for support, the method is called "first mining." Pillar size is determined by depth of cover and sized to ensure stability with high recovery

The mining method called "second mining" is a variation of the room and pillar methods. Three or four entries with connecting crosscuts will be driven to the boundary of the panel.

Mining will then retreat out of the panel robbing the pillars. Coal recovery in the panel based on mining height is expected to be about 60 to 70 percent. Continuous mining units will be used in second mining. Two seams will be mined. The mining in the upper seam will precede that in the lower. The pillars in the upper and lower seams will be superimposed for reasons of improved roof control and safety.

Maximum extraction could result in surface subsidence over the long term. With the occurrence of mining, in all probability, some surface subsidence would occur. It will depend on the distance from the seam to the surface, the amount of coal removed under the methods of mining, and the stratigraphy of the formations above the coal seams. The fractures associated with the caving will propagate upward until the void left after coal extraction is filled with broken rock. If conditions are unfavorable, the fractures will eventually extend to the surface, causing differential subsidence. Partial extraction methods such as conventional or continuous room and pillar without pillar extraction mining methods would reduce or eliminate surface subsidence. Partial extraction would recover no more than 40 percent of the total in-place coal, and is less desirable from a standpoint of maximum resource recovery.

This mine is not set up to handle a large production rate. A maximum production rate of 280,000 to 232,000 short tons per year is expected. At this rate the property will be mined out by the mid 1990's. Up to two continuous miners will be used in this operation.

(5) Surface Disturbance and Reclamation

Approximately 8 acres have been disturbed by the surface facilities and access road. All surface facilities are on fee land. There will be no waste or tailings disposal at the mine site. The coal is cleaned at Swisher's cleaning plant 9 miles east. Swisher has a refuse factor of 8-12 percent. Some of this waste is used on the road for fill and the rest is piled by the cleaning plant. The cleaning plant is located on fee land.

C
All portals will be sealed with blocks or concrete at a point where the overburden is three times the height of the entry. Outby this seal will be filled with earth.

All surface facilities will be removed from the site. Usable items will be salvaged and the unusable items will be disposed of in an approved sanitary land fill.

The surface will be regraded to the original contour where possible.

When the grading for the surface facilities was performed in 1968 no topsoil was saved. Swisher states in the mine plan that soil will be hauled in for the reclamation.

The soil will be distributed, fertilized, and seeded. A seeding mixture as recommended by the BLM or State will be used.

(6) Water Use

C
The water uses at the mine are not substantial. A maximum of 1,000 gallons per day are used for sanitary purposes. The estimated water consumption of the mine equipment follows:

(2 mining machines) (20 gal/operating minutes)* (3 operating hours/shift) (60 minutes/hour) (2 shifts/day) = 14,400 gallons/day

*Rate includes allowances for conveyor and haulage systems as well as roof bolters and other related equipment.

The above results in approximately 15,400 gal/day. The company encounters water in the mining process. Much of the water used by the mining equipment comes from the mine. The water for

sanitary and culinary purposes is hauled in. Swisher has stated that it has diversion rights on Gordon Creek and would use water from this source for the mine if needed.

(7) Surface and Mineral Ownership

The surface owners are C.P. Jewkes, M.E. Jacob, and the Helper State Bank. The bank owns the surface of Federal lease U-8319-1. Jewkes owns the surface of the 120-acre area that Swisher was authorized to mine and 160 acres of Federal lease U-8319. Jacob owns the remaining 251.75 acres of the surface of U-8319. Swisher has and will continue to mine coal owned by F.V. Columbo. Jacob owns the surface overlaying the Columbo fee coal. See figure 1A and 1B for coal and surface ownership.

(8) Action Required

(a) State

Swisher must get approval of its mine plan from the State. This is required by the Utah Mined Land Reclamation Act of 1975. This action is unrelated to any action required for the approval of this mine plan.

The division shall review the notice of intention which must be submitted by Swisher which includes mining and reclamation plans, and shall make a decision as to the adequacy of the proposal.

(b) Federal

All mining and reclamation plans and exploration plans will be reviewed and approved, if adequate, by the Area Mining Supervisor after completion of the following:

- (1) An Environmental Analysis as required by the NEPA of 1969.

(2) An on-site inspection by the USGS and the surface management agency if required.

(3) Archeological report if surface disturbance is involved.

(4) Concurrence by the surface management agency.

Any surface disturbance for roads and facilities shall follow the same procedures as outlined for exploration.

Changes in mining plans shall be approved by the Area Mining Supervisor.

B. Environmental Considerations of Proposed Action

(1) Geology

The area is part of the Wasatch Plateau coal field. It is mountainous and rugged. The elevation ranges from 8,000 feet msl on the eastern edge of the property near the portals to 9,300 feet msl on the western edge. See topographic map, appendix 7. Access to the area is via Utah State Route 139 which connects with U.S. Highway 50-6 near Helper. The Gordon Creek No. 2 mine is about 13 miles west of Helper. See figure 3A and 3B for location maps.

Cretaceous and Tertiary consolidated units are exposed in the area. The Star Point Sandstone is the oldest unit in the immediate area and is of Cretaceous age. It is about 440 feet thick in the Gordon Creek area and consists of massive tongues of yellow-gray littoral sandstone separated by Mancos-like shales.

The Star Point is overlain by the Blackhawk Formation which contains all the important coal seams. The Blackhawk consists of sandstone, shale and coal, varying between lagoonal and littoral sequences. The littoral sandstones are resistant, forming ledges and

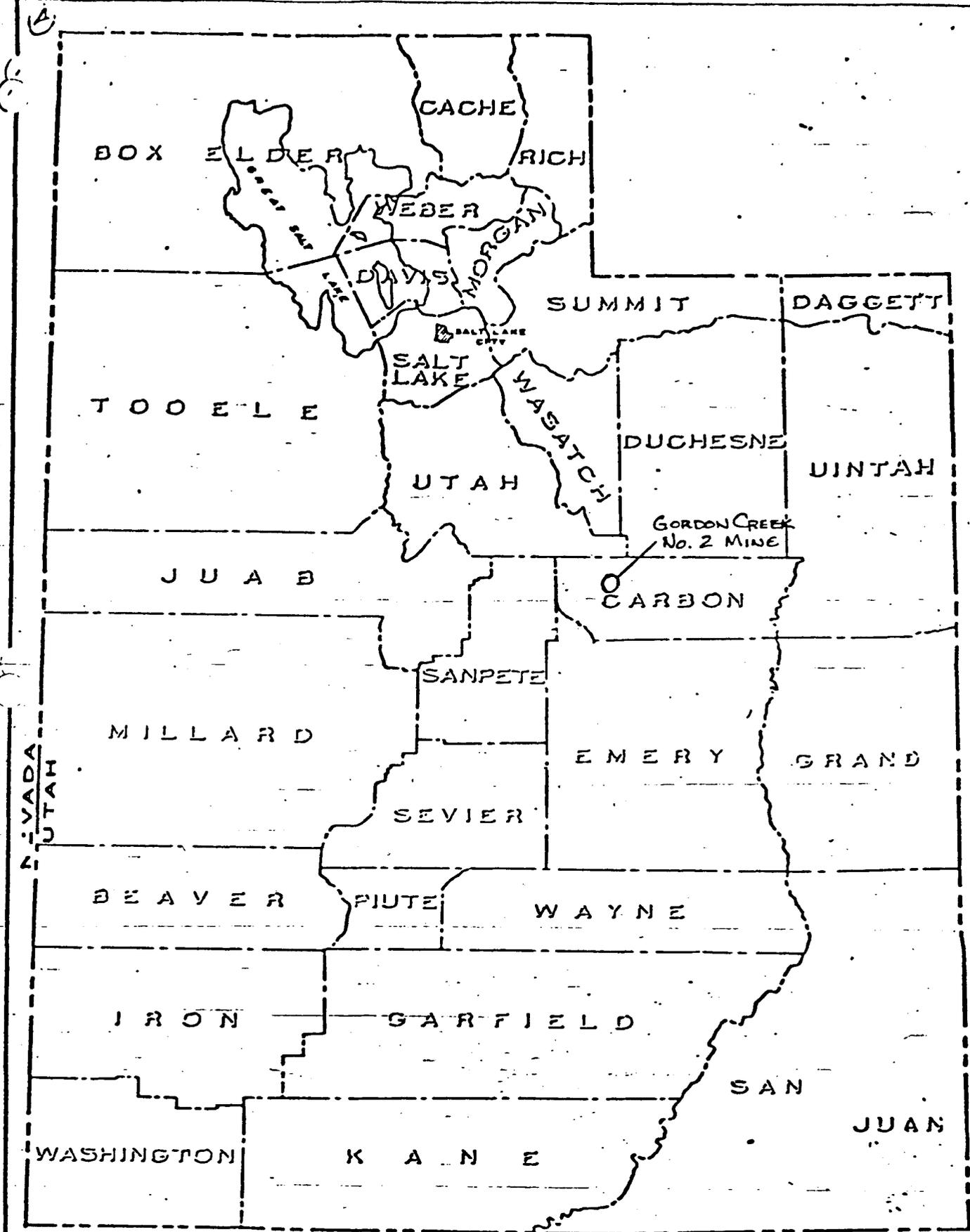


Figure 3B
 Page 10.2
 INDEX MAP of UTAH

cliffs; the lagoonal shales and coal along with a substantial amount of shaley sandstone form intervening slopes. Eight hundred and seventy-five feet were measured in the southwest map area and structure contours north of Coal Canyon indicate the unit to be more than 900 feet thick at that location. The important coal beds lie in the lower 350 feet. Zones and beds well developed in the area are the Hiawatha bed and Castlegate "A" bed.

In the Beaver Creek area the Blackhawk is successively covered by the Castlegate Sandstone, the Price River Formation and the North Horn (Wasatch). The Castlegate is coarse-grained, massive and a cliff former. The Price River continues with a similar lithology but is not as massive and somewhat less resistant. The lower unit is a little more than 500 feet thick and the upper unit less than 500 feet.

Unconsolidated alluvium is confined to the valley floors of the important drainages; gravel is deposited on benches of Masuk Shale which are preserved from erosion by the coarse clastic material. See figure 4 for the stratigraphic cross-section.

The most significant feature in this area is the North Gordon fault zone. The faults are well described by Spieker (1931, p. 102):

In the North Gordon area the coal-bearing rocks are broken by the network of faults that constitute the North Gordon fault zone. This fault zone is most complex and extensive in the valley of North Fork of Gordon Creek, where it is about 5 miles broad. Between the eastern border of the area and the head of North Fork of Gordon Creek there are at least 33 faults, 10 of which have displacements greater than 100 feet. Most of the larger faults trend nearly north, but many others extend

System	Stratigraphic Unit	Thickness (feet)	Description		
TERTIARY	Green River Formation	-	Chiefly greenish lacustrine shale and siltstone.		
	Wasatch Group	Colton Formation	300-1,500	Varicolored shale with sandstone and limestone lenses.	
		Flagstaff Limestone	200-1,500	Dark yellow-gray to cream limestone, evenly bedded with minor amounts of sandstone, shale and volcanic ash, ledge former.	
		North Horn Formation	500-2,500	Variegated shales with subordinate sandstone, conglomerate and freshwater limestone, slope former.	
	Mesaverde Group	Price River Formation	600-1,000	Gray to white gritty sandstone interbedded with subordinate shale and conglomerate, ledge and slope former.	
		Castlegate Sandstone	150-500	White to gray, coarse-grained often conglomeratic sandstone, cliff former, weathers to shades of brown.	
		Blackhawk Formation MAJOR COAL SEAMS	700-1,000	Yellow to gray, fine- to medium-grained sandstone, interbedded with subordinate gray and carbonaceous shale, several thick coal seams.	
		Star Point Sandstone	90-1,000	Yellow-gray massive cliff-forming sandstone, often in several tongues separated by Masuk Shale.	
		Masuk Shale	300-1,300	Yellow to blue-gray sandy shale, slope former.	
	CRETACEOUS	Emery Sandstone COAL	50-800	Yellow-gray friable sandstone tongue, cliff former. Coal present in subsurface.	
			Mancos Shale	Blue Gate Member	1,500-2,400
		Ferron Sandstone Member MAJOR COAL SEAMS		50-950	Alternating yellow-gray sandstone, sandy shale and gray shale with important coal beds of Emery coal field, resistant cliff former.
		Tununk Shale Member		400-650	Blue-gray to black sandy marine slope forming mudstone.
Dakota Sandstone MINOR COAL		0-60	Variable assemblages of yellow-gray sandstone, conglomerate shale and coal. Beds lenticular and discontinuous.		

Figure 4
Page 11.1

C
in diverse directions, forming an irregular network within which the positions of the coal beds are somewhat complicated... The largest fault in the area is the Coal Canyon fault, on which the coal-bearing rocks have dropped from high positions in the cliffs east of Coal Canyon to positions near creek level on the west...The Coal Canyon fault decreases in throw northward, owing to the strong northeastward dip of the strata east of the fault...

To the south coal beds are approximately horizontal. In the Gordon Creek area the strata dips about 8 percent and has a strike of N 30° W. Locally, especially near faults, they may be higher.

8
The Hiawatha bed lies just above the base of the Blackhawk Formation on top of the Star Point Sandstone. It thickens east of Trail Canyon to Coal Canyon averaging 6.9 feet and ranging from 5 to 10 feet. Most Hiawatha exposures are without splits but the thickest observed is one-half foot.

Approximately 200 feet above the Hiawatha atop the Aberdeen Sandstone Member of the Blackhawk is the Castlegate "A" seam. It is consistently present along outcrop but thins along the east margin of the area. The Castlegate "A" bed is believed well developed in Pleasant Valley and is probably continuous into the Gordon Creek area. The bed is probably too thin east of Beaver Creek to mine profitably. Thickness ranges to 10 feet but averages 5.6 feet excluding the area east of Coal Canyon.

The coal is low sulfur and high volatile B bituminous in both seams. The following is an average coal analysis of the seams taken from the Central Utah Coal Fields, Monograph Series No. 3, 1972. The right hand column was submitted by Swisher.

	No. Analyses	As-received (percent)		As received Percent
		Average	Range	
HIAWATHA BED				
Moisture	40	7.2	3.2-12.6	
Volatile matter	35	41.3	37.3-44.4	
Fixed carbon	35	44.6	39.7-49.1	
Ash	38	6.5	2.9-11.5	
Sulfur	28	0.56	0.4- 0.87	
Btu/lb	38	12,114	10,550-13,078	
CASTLEGATE "A" BED				
Moisture	7	5.4	4.1-6.1	7.0
Volatile matter	5	43.7	42.2-44.2	44.35
Fixed carbon	5	44.9	43.9-45.9	44.86
Ash	7	5.9	4.7- 7.0	9.5
Sulfur	7	0.45	0.39-0.60	.46
Btu/lb	5	12,686	12,330-12,840	12,200

It is difficult to calculate the reserves on the leasehold due to the sparse number of drill holes and also due to the numerous unmapped faults. Using a 50 percent recovery rate, Swisher's reserve estimates for the lease area are 3.7 million tons for the "A" seam and 3.6 million tons for the Hiawatha seam.

There are no known mineral resources besides coal in the immediate area. There are no oil, gas, or water wells in the area. The coal reserves located adjacent to the leasehold will be protected by the use of barrier pillars which by Federal regulations can not be less than 50 feet wide.

The overburden ranges from 0 feet at the outcrop to 1,300 feet at the west boundary line of U-8319-1. The overburden is basically sandstone, siltstone, and shale.

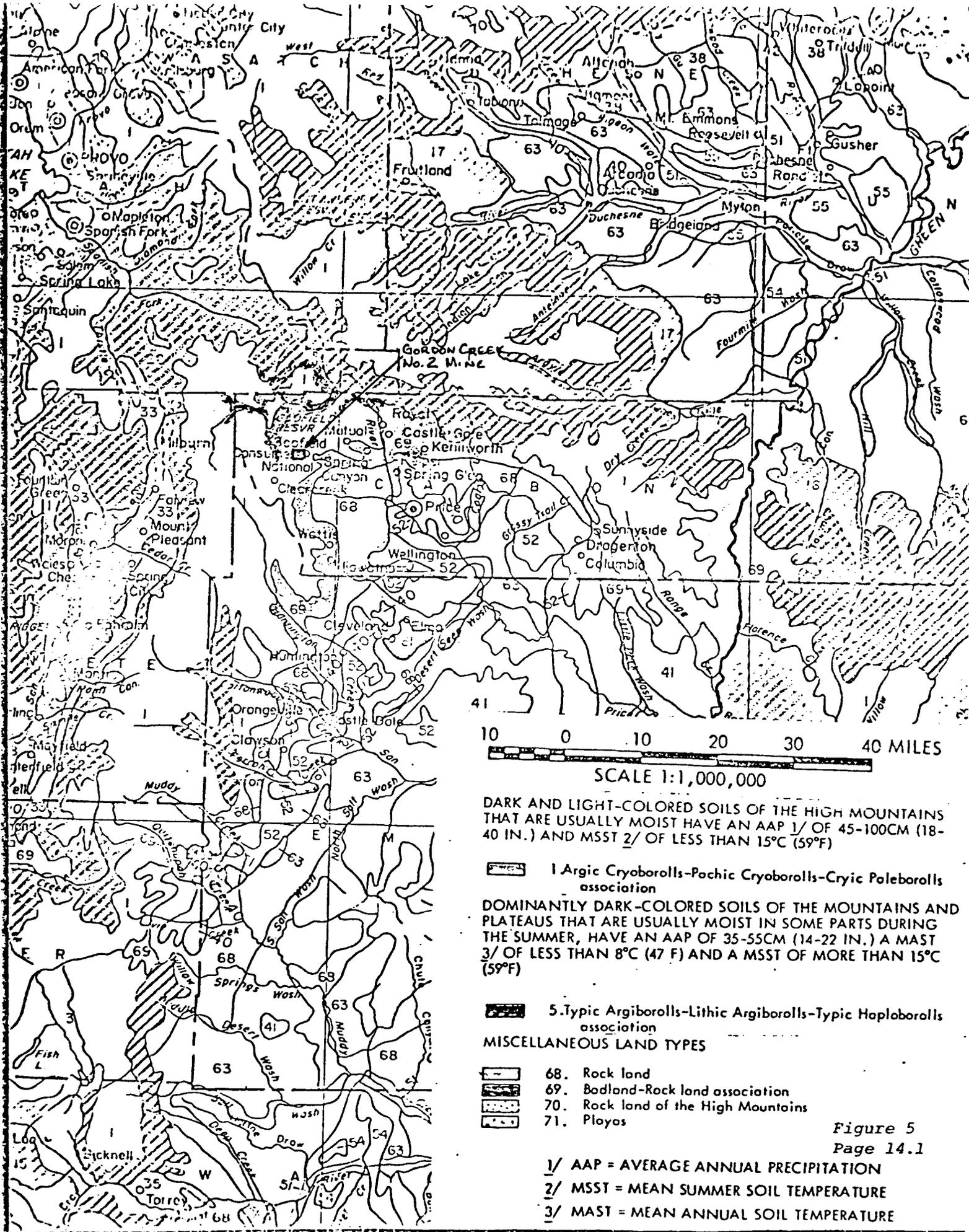
There may be significant paleontological values in the form of fossilized dinosaur footprints. The mining will help to locate these and will make the study of such items possible.

The possibility of severe geologic hazards in this area are small. Even though the area has numerous faults, seismic activity is very low. Rock slides as a result of natural weathering processes and subsidence could possibly pose a small threat to the surface facilities.

Erosion hazards in this area are relatively high, but the mining will have little if any effect on them. Subsidence could possibly increase the amount of erosion, but subsidence usually occurs slowly resulting in only minor changes in drainage patterns. The surface values of the leasehold are of relatively minor importance. Subsidence, if any, should only have a minimal effect on the surface as far as grazing and timbering is concerned. There are no residential or commercial structures overlying the leasehold.

(2) Soils

The soil is a loam to silty loam depending on the depth of development. Soil depths range from 6 inches on ridge tops to 6 feet in canyon bottoms. Soils are generally better developed on north facing slopes and in canyon bottoms. The area has no flat open area conducive to soil development. See figure 5 for the location of the different soil groups. The descriptions of the soil associations correlating to figure 5 follows:



1. Argic Cryoborolls-Pachic Cryoborolls-Cryic Paleborolls Association

This association is located mostly in the Wasatch Mountains and the Wasatch Plateau in northern and central Utah, in the Tushar and Cedar Mountains, and the Sevier Plateau in southern Utah. Elevations range from 8,000 to 12,000 feet, and slopes are rolling to very steep.

This association consists of about 25 percent each of Argic Cryoborolls, Pachi Cryoborolls, and Cryic Paleborolls. The other 25 percent is mainly Typic Cryoborolls, Cryic Pachic Paleborolls, Lithic Cryoborolls, Mollic Cryoborolls, and Rock outcrop.

The Argic Cryoborolls are deep and moderately deep neutral to medium acid soils with hard bedrock below a depth of about 30 inches. The surface layers are brown to very dark grayish-brown silt loams and clay loams. The subsoils are brown fine, fine-loamy, loamy-skeletal, and clayey-skeletal. Representative soil series are Elwood, Hourglass, and Sessions.

The Pachic Cryoborolls are deep and moderately deep, slightly acid to mildly alkaline soils with hard bedrock below a depth of about 30 inches. The surface layers are brown to very dark grayish-brown loams and silt loams and are cobbly in places. The subsoils are brown and grayish-brown, coarse-loamy, fine-loamy, loamy-skeletal, and sandy-skeletal. Representative soils series are Dateman, Daybell, and Hailman.

6
The Cryic Paleborolls are deep, slightly to very strongly acid soils. The surface layers are very dark grayish-brown loams and silt loams. They are gravelly or cobbly in places. The subsurface layers are lighter color and usually have less clay. The subsoils occur deeper than 24 inches below the surface. They are brown and reddish-brown fine-loamy, loamy-skeletal, and clayey-skeletal. Representative soil series are Baird Hollow and Lucky Star.

The soils in this association are moderately well to somewhat excessively drained. Permeability is slow to rapid. Runoff is medium to slow and sediment production is moderately low. The hydrologic groups are mainly B and C.

C
The principal native vegetation is aspen, spruce, fir, and pine with associated grasses, forbs, and shrubs.

These soils are used mainly as grazed woodland, water yielding areas, wildlife habitat, recreation and summer home sites, and for timber production.

5. Typic Argilborolls-Lithic Argilborolls-Typic Haploborolls Association

This association occurs in large areas on Diamond Mountain in northeastern Utah, on the Roan Plateau north of Thompson and south of the Uintah Basin, east of Soldier Summit, and in the Kolob Plateau in southwestern Utah, southeast of

Cedar City. Elevations range from about 7,000 to 8,400 feet. Slopes are steep and very steep.

This association consists of about 35 percent Typic Argiborolls, and 20 percent Typic Haploborolls. The other 25 percent is mainly Pachic Argiborolls, Argic Cryoborolls, and Rock outcrop.

The Typic Argiborolls are deep and moderately deep neutral to moderately alkaline soils. The surface layers are dark-brown and grayish-brown gravelly loam and gravelly sandy loams. The subsoils are brown and reddish-brown loamy-skeletal and clayey-skeletal. The substrata are pink and reddish-yellow, loamy-skeletal. Some soils have calcium carbonate accumulations in the lower layers. Representative soil series are Datino and Panquitch.

The soils in this association are well drained. Permeability is slow to moderate. Runoff is medium to rapid and sediment production is low. The hydrologic groups are mainly B and C for the deep soils and D for the shallow soils.

The principal native vegetation is pinyon pine, juniper, oakbrush, big sagebrush, bitterbrush, Indian ricegrass, and some ponderosa pine.

These soils are used mainly as range, wildlife habitat, recreation, and water yielding areas. Areas of ponderosa pine are used for timber production.

68. Rock Land

This land type is located in eastern Utah in the Colorado River drainage and in southwestern Utah in the Virgin River drainage. It is most extensive in the southeastern quarter of the state. This association occurs mainly on canyon slopes of the Colorado River and its numerous tributaries. It also occurs on geologic folds and faulted areas and includes undulating plateaus, mesas, and some basin areas. The relief varies from very steep canyon walls and fault scarps to undulating and rolling uplands. Elevations range from about 3,600 to 7,600 feet.

The bare rock in this land type is estimated to be from 50 to 75 percent of the area. Shallow and very shallow soils over sandstone bedrock comprises deep and moderately deep soils. Runoff is high on this association.

This land type includes some of the most colorful rock lands in the world. The Arches, Canyon Lands, Capital Reef, and Zions National Parks are all located in this association as well as the Glen Canyon National Recreation Area. Areas not in National Parks or National Recreational Areas are used as range and wildlife habitat and water producing areas.

69. Badland-Rock Land Association

This association is most extensive in eastern Utah occurring in Carbon, Emery, Grand, and San Juan Counties. It occurs

to a limited extent along the eastern edge of the Great Basin east of Salina and east of Cedar City. Other areas occur in Washington County near St. George. Part of Bryce Canyon National Park is included in this land type. The relief is steep to very steep dissected mountain, plateaus, escarpments, and breaks along canyons.

Bedland is mainly barren shale or interbedded sandstone and shale.

Rock land is mainly bare rock outcrop, but also includes some shallow and very shallow soils over bedrock. The shallow and very shallow soils are on benches and mesas where the topography is undulating or rolling. Elevations range from 3,000 to 8,000 feet.

Runoff is rapid to very rapid and sediment production is very high. Control of soil loss and the resultant heavy sediment production is a major problem in these areas.

The soils near the mine site are in the transitions zone between groups 5 and 68. As you leave the mine site and gain elevation to the north and west you go from group 5 to group 1.

(3) Air

(i) Meteorology

The temperature ranges in the Gordon Creek area during the winter months range between -10°F in the early morning to $30-35^{\circ}\text{F}$ as the day warms up. Summer months range from 45°F in the morning to 85° in the day time. There is no available data to determine the

number of frost free days or the growing season for this area, but the period between mid June and late September should be pretty close.

Precipitation averages 12 inches per year with the greatest amount of 10 inches falling during the Fall, Winter, and Spring months. During the summer the average is 1.5 to 2.5 inches.

The winds are usually from the west with an 8 to 10 mph average. Due to the topograph, much wind is created at the cliff faces and canyon.

There are no meteorologic monitoring stations at Gordon Creek.

The closest stations were at Scofield, Scofield Dam, and Price. Figure 6 gives the temperature and precipitation variations for these locations. They may not be representative of the Gordon Creek area, but they do surround the area, and from them you can get a pretty good idea of the meteorological conditions.

(ii) Air Quality

The main concern with air quality in the mine is the discharge of effluents from the mine, the dust created at the surface facilities, and the dust created as a result of the coal haulage.

The effluents from the mine are mine gases (NH_4 & SO_2), rock dust ($CaCO_3$ & silica--4% max.) and coal dust. The rock dust and coal dust are usually contained within the mine by water sprays. Much of the dust also settles out before it reaches the exhaust portals. The coal haulage and the regular traffic on the gravel road to the mine site creates large quantities of dust. This is somewhat suppressed when the roads are watered. They are watered almost continuously, but due to the climatic conditions, the moisture is only retained for a short time.

Minimum-Maximum
temperatures

Scofield

80° Max./-30° Min. 1975

83° Max./-35° Min. 1974

83° Max./-34° Min. 1973

Scofield Dam

83° Max./-28° Min. 1975

84° Max./-29° Min. 1974

85° Max./-17° Min. 1973

Price

95° Max./-3° Min. 1975

90° Max./-11° Min. 1974

97° Max./ - Min. 1973

Estimated frost free
days: Mid June thru
September

	PRECIPITATION (Inches)			AVERAGE TEMPERATURE (°F)		
	Scofield	Scofield Dam	Price	Scofield	Scofield Dam	Price
JAN	1.66	.95	.76	16.0	11.9	25.0
FEB.	1.79	.81	.69	16.8	12.3	31.6
MAR.	2.26	1.29	1.11	25.1	22.4	41.3
APR.	1.41	.50	.01	27.7	27.4	43.7
MAY	3.42	2.01	.74	40.8	39.4	53.6
JUNE	1.27	1.57	.92	49.8	49.5	57.9
JULY	.73	1.08	1.54	59.2	61.2	72.3
AUG.	1.00	.62	.06	54.9	55.9	71.0
SEPT.	.55	.86	1.26	49.4	50.5	63.9
OCT.	1.35	.43	.14	39.3	38.8	52.1
NOV.	2.06	.98	.45	26.2	25.6	---
DEC.	.71	.35	.08	19.5	18.7	---
1975 TOTAL	18.21	11.45	7.75	35.4	34.5	---
1974 TOTAL	11.02	6.77	5.83	36.5	37.4	---
1973 TOTAL	17.50	11.14	8.88	35.3	36.4	48.4

There are no meteorological monitoring stations at Gordon Creek. By using the stations at Scofield, Scofield Dam, and Price, a general picture of the weather conditions can be interpreted. The conditions at the Price station are probably the most representative of the Gordon Creek area.

The emission of gases from the mine is inevitable. Due to geologic structure of the area, the mine is relatively free of gas. Taking this into account, gas as an effluent is of minor importance.

The air quality in the area is good. Price occasionally gets above the national ambient standards, but this has little if any affect on the Gordon Creek area. The mine itself will have an insignificant affect on the air quality. The dust from the road will have a minor to medium adverse affect depending on the wind.

(4) Water

(i) Hydrology

The lease is drained by Beaver and Gordon Creeks, which are perennial streams in the headwaters of the Price River basin. The Price River is a major tributary of the Upper Colorado River. Runoff in Beaver and Gordon, in the general area of the lease, is used by wildlife and livestock. Swisher Coal Co. states that they have water rights in the area and may divert some of the runoff for the proposed mining operation. Any runoff in Beaver and Gordon Creek that reaches the Price River is used for irrigation in downstream areas. Diversion of small amounts of water for the proposed mining operation would be at the expense of local and downstream uses, but the impact is expected to be small to negligible.

Beaver Creek flows through the lease, and the narrow stream-valley floor provides some access for grazing, recreation, and other uses. North Fork of Gordon Creek heads in the SE part of the lease and its narrow valley floor provides access for grazing, recreation, mining, and other uses. Construction associated with the proposed

mining operation would require some alteration of the natural drainage, but the impact on access, runoff, and water quality would be minor as long as required mitigating measures are used.

Neither Beaver nor Gordon Creeks have been gaged. Average annual runoff in Gordon Creek near its mouth is estimated to be about 20 ft³/s (K.M. Waddell, U.S. Geol. Survey written commun., 1977). Streamflow in both Beaver Creek and North Fork Gordon Creek, in the immediate vicinity of the lease, probably averages less than 5 ft³/s, but could exceed 100 ft³/s during periods of cloudburst flooding. Construction of mine-portal facilities would increase the potential for flood damage locally and in downstream areas. This impact can be mitigated by installation of required runoff control facilities. There are no surface-water storage facilities on Beaver or Gordon Creek except for some reported beaver ponds. These probably will not be affected by the proposed mining operation.

The process water demands will be a maximum of 15,400 gallons per day. Much of this will come from the mine or if required, water from Gordon Creek will be used. If any mine water is to be discharged, an EPA discharge permit will be required. Presently there is no discharge. Any discharge would go into Gordon Creek.

There are no tailings ponds or impoundments on the surface. Excess mine water is stored in the mine.

The depth to the regional water table has not been determined in this area. It probably ranges from only a few feet below land surface along the axis of Beaver and Gordon Creek canyons to several hundred

feet below in the higher parts of the lease. The coal-bearing beds appear to be above the regional water table, so that only perched discontinuous aquifers in and above the coal-bearing beds would be affected by the mining operation and associated land subsidence.

The upper part of the lease is within an area of natural ground-water recharge, as indicated by Price and Arnow (1974, pl. 10). Ground-water recharge occurs by deep seepage of precipitation (chiefly melting snow) to perched aquifers and eventually to the regional water table. The ground water discharges naturally to local springs and seep, and as influent seepage to Beaver and Gordon Creek.

There are no known water wells in the lease area. The nearest known water wells are in the Scofield and Clear Creek areas several miles to the east and northeast. Those wells are used for domestic, stock, and recreation supply, and would not be affected by the proposed mining operation.

The water used in the mine comes from the water encountered in the mining operation.

Exploratory drill holes are cemented from bottom to top to seal off the different hydrologic zones.

Subsidence probably will occur over the mined-out areas of the lease. This could accelerate headward erosion of streams, which would increase fluvial sediment slightly. Rock fracturing associated with the subsidence could divert more rainfall and snowmelt underground, thus increasing ground-water recharge at the expense of overland runoff. Shallow perched aquifers would be disrupted and natural ground-water flow patterns would be altered as a result of subsidence. This

might affect the flow of one or more springs fed by the perched aquifers, and perhaps increase the flow of water into mine workings, but no water would be lost from the hydrologic system. Although the impact may be significant with regard to a local water source, it would be minor to insignificant with regard to the regional hydrologic system or water supply.

(ii) Water Quality

Surface water in the lease area is fresh. Available data indicate that the dissolved-solids concentration of the water is generally less than 500 mg/L during low runoff periods, and less than 250 mg/L during high runoff periods. At these low concentrations, the water is chemically suitable for most common uses. The water may not be suitable for domestic use without proper treatment because of possible bacteriological contamination by wildlife and livestock (see also Mundorff, 1972). The proposed mining operation should not significantly impair the surface-water quality, provided required mitigating measures are used.

Ground-water quality in the lease area is also fresh (Price and Arnow, 1974, pl. 2A), and suitable for most common uses. A water sample collected from a U.S. Geological Survey exploratory well in Beaver Creek canyon, about 3 miles downstream from the lease, contained only 315 mg/L of dissolved solids, and none of the mineral constituents analyzed exceeded the maximum allowable limits recommended by the U.S. Public Health Service for domestic use. The proposed mining operation would have a minor to negligible impact on ground-water quality, provided required mitigating measures to protect water quality are used.

8
At this time Swisher has no hydrologic monitoring plan. This office has required the submittal of such proposal by January 1, 1978. See appendix 6 for the USGS guidelines.

There are some drainage ditches located at the surface facility site. These are used to channel the drainage from above the site.

The siltation potential immediately below the mine site has increased as a result of the surface disturbance resulting from the construction of roads and surface facilities. The area disturbed by the surface facilities is relatively small, and with proper drainage the siltation potential is small.

8
The pollution potential as far as mine waters is concerned is minimal at this time. If it should be necessary to discharge mine water, permits will be required to bring the quality up to "Class C" standards. To bring the water up to these standards, some chemical and physical type purification system will be required. The mine water is typically hard with a pH from 7 to 9.

With adequately designed and constructed sewage systems, which are governed by the State, the pollution potential from this source is small.

(5) Fauna and Flora

At the lower elevations the plant species most common are Western Wheat Grass, Wild Rye, Sage Brush, Lupine, Oak Brush, Mountain Mohogany, Aspen, Service Berry, Juniper and Pinyon Pine. Oak Brush, Lupine, Sage Brush, and Western Wheat are the most common. At the higher elevations, Aspen and Douglas Fir with some Ponderosa Pine become prominent.

The north facing slopes have a heavier cover of Douglas Fir and Aspen while the canyon bottoms, south facing slopes, and ridgelines are covered mainly with brush and grass.

The mine site, being located in a canyon, is mainly covered with brush and grass.

The mine site, located on fee land, has been operating since 1968. An expansion of the surface facilities is not expected.

Fish are nonexistent in Gordon Creek due to its intermittent nature. Beaver Creek has native trout (Cutthroat), Rainbow trout, frogs, toads, salamanders (water dogs), greys, and horned lizards (mud cats).

Wildlife is relatively abundant and depends on the season.

The following is a list of wildlife commonly found in the area:

C = Common
U = Uncommon
R = Rare
E = Endangered

Shrew	C	Rats	C
Bats	C	Mice	C
Cottontail	C	Porcupine	C
Jackrabbit	C	Coyote	C
Chipmunk	C	Fox	C
Squirrels	C	Bear	U
Prairie Dog	C	Marten	R
Gopher	C	Ermine	R
(Pot Guts)		Owls	C
Badger	C	Eagles	C
Skunk	C	Ducks	C
Mountain	C	Quail	C
Lion		Chukar	C
Elk	C	Magpie	C
Deer	C	Woodpecker	C
Hawks	C	Bluebird	C
Jays	C	Sparrows	C
Ravens	C	Frogs	C
Warblers	C	Snakes	C
Toads	C		
Lizards	C		

Mule deer are occasionally seen along the main route to the mine. Consequently there may be some danger of vehicle-deer collisions. The posted speed limit is 30 mph over much of the route. This should lessen the chances of such an accident.

There are no known nesting areas in the area near the mine.

There are no known or endangered or threatened plant or animal species in the area. The Marten and Ermine are listed as being rare by the company, but their habitat is probably above the mine site where there is a lot of timber.

The potential for establishing vegetative cover is unknown at this time. The revegetation should be successful if topsoil is brought in and adequately fertilized and seeded.

(6) Socio-Economics and Land Use

The dominant land use now as in the past is mining. There are three abandoned mining towns in the area, Consumers, National, and Coal City. About all that remains of these towns now are broken and weathered foundations. Between 1920 and 1940 there were six different mines operating in the area. The Gordon Creek No. 2 is the only active mine in the immediate area now. The Gordon Creek No. 3 mine is about 2.5 miles east in Coal Canyon.

The area above the mine near Beaver Creek is a popular big game hunting area.

To the southeast of the leasehold the area is rough and barren. About all its good for is some small game hunting.

There are no occupied structures in the area.

6
The nearest community is Helper which is about 13 miles east of the mine site. Price is located about 6 miles south of Helper. Helper and Price are the main labor contributors in the area. Price has been expanding its social and cultural resources in the past few years due to the large increases in mining and mining related industries.

There are no known architectural, historical, or archeological sites in the immediate area. The old mining towns and surface facilities nearby may have some historical significance but they will not be affected by the mining operation. Many of the old surface facilities are quite interesting, but in time, especially with the new strip mining bill, they will be removed. It looks like this new generation of regulations will not leave any historical sites for the future.

6
There have been no archeological surveys of the leasehold. The surface facilities are on fee land and as stated earlier have been in existence since 1968. Consequently, if there were any significant sites here, they no longer exist. If any archeological sites exist above the mine works, they will be safe from disturbance by the mining. It is unlikely that subsidence would have a detrimental affect on the sites, since the subsidence usually occurs gradually. Any existing sites may be lowered, but they, in all probability, would not be destroyed.

6
The surface above the mine at higher elevations, especially along Beaver Creek, is very scenic. The mine site cannot be seen from this area. Below the mine site the land consists mostly of sage

brush, scrub oak, and Pinyon-Juniper Pines. This land may be scenic to some people, especially from a great distance, but for the most part, it is a typical low-land view of little interest.

The employment at the mine is currently around 30 people. The mine has no plans nor the potential to greatly increase the amount of coal being currently mined. It may require another 15 to 30 people, which could be obtained from the local job market.

The mined land reclamation potential is unknown. Since the mine's surface facilities are on fee land, it will be the States main concern to monitor and enforce the reclamation. The State appears to be doing a thorough job in seeing that the State regulations are followed.

The main problem as far as reclamation is concerned is the lack of water. If the surface is monitored closely after reclamation and well cared for, the revegetation should be successful. Our office has had good success with the revegetation of drill sites in the area.

The post mining land use will be the same as it was prior to mining. Not being cynical, but being realistic, the post mining use will in reality be practically no use at all. There will be some small game habitation and some deer, but this was a marginal area at best to begin with, so not too much can be expected.

This office has not received any public statements or opinions on the mine whatsoever. We continually scan the local papers in that area and have found no adverse opinions concerning the mining. Occasionally we do find articles which are critical of the USGS's delays of mining.

C
c. Alternatives to the Proposed Action

The alternatives to the proposed (existing) underground mine plan are:

1. Strip and or auger mining.
2. Prohibit further mining on the Federal leasehold.

Both of the above alternatives are in reality no alternatives at all. Strip and auger mining are technically and financially infeasible.

The mine plan indicates that there will be little additional environmental damage. Subsidence of course will result in environmental damage, but to say how much, when, and where would be crystal ball gazing. The only way to mitigate the effects of subsidence would be to restrict mining to first mining and prohibit pulling pillars. This results in a great loss of resources.

The dust resulting from coal haulage appears to be the only other major environmental concern. The mitigating measures for this are the paving of the haulage road or increased sprinkling of the route with water. The Swisher mines in Gordon Creek are small, and they will probably be mined out in 10 to 15 years. The cost of paving the road would be prohibitive due to the short life of these mines. Consequently the only plausible mitigating measure to control the dust is continually applying water to the road.

C
d. Unavoidable Adverse Environmental Effects of the Proposed Action

The main and most unpredictable effects will result from subsidence. The subsidence may reach the surface resulting in tension fractures, compression arches, faults, and rock falls. Surface subsidence feature may cause minor changes in the drainage patterns resulting in

a temporary increase of the erosion. As the subsidence migrates to the surface any existing aquifers in its path will be disrupted. Springs could be dried up. The flow in Beaver Creek could be disrupted. This could result in a slight change of the stream course or at worst could actually dry up portions of the stream.

The wildlife along the coal haulage route and the mine site will be disturbed. Dust created by the coal haulage will be a nuisance and will result in a minor safety hazard.

E. Recommendation

I determine that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102 (2)(C), and the environmental impacts of the proposed action are not likely to be highly controversial.

I Concur: Jackson W. Moffitt _____
Jackson W. Moffitt, Area Mining Supervisor Date

Reviewed by: Tom Turner, Mining Engineer 11/21/77
Tom Turner, Mining Engineer Date

Prepared by: Ralph J. Blumer 11/21/77
Ralph J. Blumer, Mining Engineer Date

F. References

Doelling, H.H., 1972, Central Utah Coal Field, Monograph
Series No. 3.

Soils of Utah, 1975, Utah State University, Agricultural
Experiment Station, Bullentin 492.

Swisher Coal Company, Gordon Creek No. 2 Mining and Reclamation
Plan.

Swisher Coal Company, U-8319 and U-8319-1 Correspondence File.

Sweet Coal Company, Sweet mine map.

Blue Blaze Coal Company, Blue Blaze No. 2 and 3 mine map.

U.S. Department of Commerce, 1973, 1974, 1975, Environmental
Data Service, Climatological Data

State of Utah, 1972, Technical Publication No. 39, Department
of Natural Resources

Bureau of Air Quality Utah State Division of Health.

Mundorff, J.C., 1972, Reconnaissance of chemical quality of
surface water and fluvial sediment in the Price River
basin, Utah: Utah Department of Resources Tech. Pub. 39.

Price, Don, and Arnow, Ted, 1974, Regional appraisals of the
nations' ground-water resources - Upper Colorado Region:
U.S. Geol. Survey Prof. Paper 813-C.

Exhibit #16: Detailed Subsidence Monitoring Plan

Exhibit #16
Detailed Subsidence Monitoring Plan

Swisher Coal Co. Gordon Creek #2 Mine Area

General Subsidence Requirements: Attached hereto is a map showing the area of potential subsidence based upon geologic and engineering data, hereby submitted with proposed underground coal mining plans to satisfy the requirements of 30 CFR 211. In addition, the regulations are interpreted to mean that subsidence must be monitored and controlled in a predictable manner.

Personnel Qualifications: The baseline study and determination of the need for a subsidence monitoring program will be performed by a qualified professional. Surveyed monitoring stations, monuments, and subsidence maps will be certified by a professional engineer, professional engineer, and/or other professionally qualified person.

Subsidence Investigations and Monitoring That Involves Private Surface Overlying Federal Minerals: The surface owners within our mining projections angle of draw are shown on the property map in Exhibit #13.

Locations of Stations: At least one reference will be tied to the existing surface and the underground survey and be located out of the area to be affected by underground mining. This station will have a reliable coordinate and elevation should be set in concrete. Preferably, this station will be located in an easily accessible area. The first subsidence station should be placed as closely as possible to the reference station and preferably at the same elevation to facilitate direct levels. However, vertical angle elevations may be used if the accuracy is within the 0.5' \pm limit. Since the subsidence shall be measured relative to the reference station, it is imperative that such station be located in a stable area, preferably in solid rock or in a concrete base of adequate size. All subsidence stations originally tied to this reference shall be monitored relative to this point and no other. A sufficient number of fixed monuments will be installed over areas subject to potential subsidence and in outlying stable areas for control. A typical grid system will consist of three stations per panel. One station will be located in the center of each panel with other stations over adjacent barrier and chain pillars. Exact spacing due to rugged terrain may be a limiting factor in some areas. The location of the long-range projections (18 months plus) of mining and monitoring are subject to change as new information is obtained. The locations of monitoring points shown on the enclosed map is subject to final field inspection and determination of the best location due to physical features encountered.

Monuments will be steel re-bar with aluminum caps set so that weather, frostheave, or livestock will not disturb them.

Underground monitoring points will be placed in the roof of the belt entry at locations where a surface monitoring point is relatively vertically above. Other monitoring points will be placed underground at special points where subsidence may occur.

Subsidence Network: There are two (2) types of networks which may be used separately or in conjunction (the loop type network and/or the fan type network).

The loop type network shall employ a closed loop survey, with the elevations of each subsidence station figured relative to each preceding station, starting and ending with the reference point. The disadvantage of this system is that it necessitates traveling to each station to establish an elevation.

The fan type network is preferred, but may not be feasible in some areas. This type would allow the monitoring of a number of stations from one reference point. This is an open ended survey, but reliable results should be obtained through the use of accurate instruments (one-second theodolite and six-mile electronic distance meter). It is likely that as the mine grows in size, a combination of the two networks may be employed. It should also be noted that separate networks may also be used provided each has its own reference point out of the area affected by mining. Proposed reference points are shown on the attached map.

Monitoring Schedule: Stations shall be monitored for subsidence at six-month intervals (spring and fall). The stations monitored shall include all stations within the mining area plus angle of draw and all stations with the 18-month projection of mining operations with angle of draw. A record shall be kept of each monitoring cycle and a copy of the results shall be submitted to the Area Mining Supervisor. Such record shall show the total subsidence of each station relative to the original condition of the station. The subsidence monitoring program will include a semi-annual survey of the condition of the ground surface above all underground mine workings (plus angle of draw). This survey will attempt to identify and document the presence of tension cracks, fissures, structural offsets, and obvious subsidence damage to buildings, roads, or other cultural facilities.

The upper seam (Gastle Gate "A" Seam) mining plan is shown on the enclosed map; angle of draw is shown for the lower seam (Hiawatha Seam). Additional monitoring points for the lower seam are also shown.

Recovery is estimated at 75% within the panels. Pillars of adequate size shall be left along all mains until final retreat. (See map.)

Exhibit #17
Lease Modification Application
and
Subsequent Correspondence

Eng (9)

SWISHER COAL CO.

P. O. BOX AU
PRICE, UTAH 84501
PHONE 801-637-5050

July 17, 1979

Mr. William Leavell
U.S. Dept. of the Interior
Bureau of Land Management
Utah State Office
University Club Building
136 East South Temple
Salt Lake City, Utah 84111

Dear Mr. Leavell:

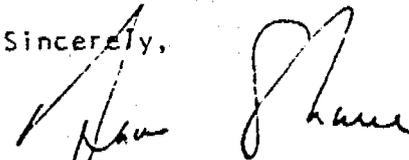
This letter constitutes a formal application by Swisher Coal Company to modify federal lease U8319 to include the following lands:

T13S, R7E Sec. 13	SLBM
NE NEE	40 acres
N W NE NEE	20 acres
N S NE NEE	<u>10 acres</u>
TOTAL	70 acres

This additional land is needed to provide access into federal coal lease U8319-1. As can be seen on the accompanying map, the present property boundary configuration, together with the proximity of old mine works and large faults in the area make it very questionable whether Swisher Coal can mine out into lease U8319-1 without first gaining access to the above lands. It is in the interest of the United States to insure that these valuable non renewable coal resources are not lost forever because of a lack of access. The U.S.G.S. concurs with the need for this access and feels that because of the large fault which runs thru this area, the lands applied for can only be mined by Swisher Coal and are non-competitive.

Presently there are two active miner units advancing steadily toward this area and so it is with a degree of urgency that the company makes this application. Any efforts made by the B.L.M. to expedite this application will be most appreciated.

Sincerely,



David Shaver
Swisher Coal Company

DS/ag



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
136 E. SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

IN REPLY REFER TO

3432
U-8319
(U-942)

CERTIFIED MAIL

DECISION

JUL 31 1979
RECEIVED
AUG 6 1979

Swisher Coal Company
P.O. Box AU
Price, UT 84501

Coal
U-8319

SWISHER COAL CO.

Evidence Required

On July 19, 1979, Swisher Coal Company filed an application for modification of the subject lease to include the following-described lands in Carbon County, Utah:

T. 13 S., R. 7 E., SLM, Utah
Sec. 13, NE $\frac{1}{2}$ NE $\frac{1}{2}$, N $\frac{1}{2}$ NW $\frac{1}{2}$ NE $\frac{1}{2}$,
N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{2}$ NE $\frac{1}{2}$.

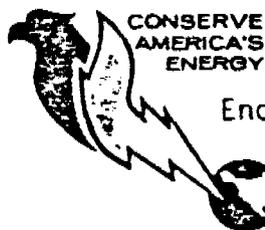
Containing 70 acres

Before further action can be taken to process the subject application, the following information required by the regulations under 43 CFR 3472 (44 F.R. 42632, July 19, 1979) must be submitted:

1. A statement as to acreage holdings (43 CFR 3472.1-1(a));
2. A statement as to sole party in interest (43 CFR 3472.2-1); and
3. A statement as to corporate qualifications (43 CFR 3472.2-2).

Thirty days from receipt of this decision are allowed in which to submit the evidence required. If no action is taken within the time allowed, the modification will be returned unapproved.

Right of appeal to the Board of Land Appeals, Office of the Secretary, is allowed in accordance with the regulations in 43 CFR Part 4, Subpart E. If an appeal is taken, it must be filed with the Utah State Office, Bureau of Land Management, 136 East South Temple, Salt Lake City, Utah 84111, so that the case file can be transmitted to the Board. To avoid summary dismissal of the appeal, there must be strict compliance with the regulations.



Enclosures
Form 1842-1
Regulations

Save Energy and You Serve America!

Acting

Thomas M. ...
Chief, Minerals Section

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS

1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

1. NOTICE OF APPEAL Within 30 days file a *Notice of Appeal* in the office which issued this decision (see Sec. 4.411). You may state your reasons for appealing, if you desire.
2. WHERE TO FILE
NOTICE OF APPEAL

Bureau of Land Management
Utah State Office
University Club Building
105 East South Temple
Salt Lake City, Utah 84111
3. STATEMENT OF REASONS Within 30 days after filing the *Notice of Appeal*, file a complete statement of the reasons why you are appealing. This *must* be filed with the U.S. Department of the Interior, Office of the Secretary, Board of Land Appeals, 4015 Wilson Blvd., Arlington, Virginia 22203. You may state your reasons for appealing when filing the *Notice of Appeal* if a separate statement is necessary.
4. ADVERSE PARTIES Within 15 days after each document is filed, each adverse party named in the decision *must* be served with a copy of (a) the *Notice of Appeal*, (b) the statement of reasons, and (c) any other documents filed (see Sec. 4.413).
5. PROOF OF SERVICE Within 15 days after any document is served on an adverse party, file proof of that service with the U.S. Department of the Interior, Office of the Secretary, Board of Land Appeals, 4015 Wilson Blvd., Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (see Sec. 4.401(c)(2)).

Unless these procedures are followed your appeal will be subject to dismissal (see Sec. 4.402). Be certain that all communications are identified by serial number of the case being appealed.

NOTE: A document is not filed until it is actually received in the proper office (see Sec. 4.401(a)).

SUBPART 1821.2--OFFICE HOURS; TIME AND PLACE FOR FILING

Sec. 1821.2-1 *Office hours of Land Offices.* (a) Land Offices and the Washington Office of the Bureau of Land Management are open to the public for the filing of documents and inspection of records during the hours specified in this paragraph on Monday through Friday of each week, with the exception of those days where the office may be closed because of a national holiday or Presidential or other administrative order. The hours during which the Land Offices and the Washington Office are open to the public for the filing of documents and inspection of records are from 10 a.m. to 4 p.m., standard time or daylight saving time, whichever is in effect at the city in which each office is located.

Sec. 1821.2-2(d) Any document required or permitted to be filed under the regulations of this chapter, which is received in the Land Office or the Washington Office, either in the mail or by personal delivery when the office is not open to the public shall be deemed to be filed as of the day and hour the office next opens to the public.

(e) Any document required by law, regulation, or decision to be filed within a stated period, the last day of which falls on a day the Land Office or the Washington Office is officially closed, shall be deemed to be timely filed if it is received in the appropriate office on the next day the office is open to the public.

* * * * *

objections to its issuance and state the supporting facts.

(b) If the state, or local entity opposes the issuance of the license to mine or lease, the facts submitted in support of the opposition must be carefully considered and each case separately decided on its merits. Opposition by the state or local entity is not a bar to issuance of the license to mine or lease for the reserved minerals in the lands. (See, however, § 3481.1(b).) In each case, the final determination on whether to issue the license to mine or lease is based on the best interests of the public.

§ 3471.3 Cancellation or forfeiture.

§ 3471.3-1 Cancellation or forfeiture for cause.

Any lease or license to mine may be cancelled or forfeited for violation of the act under which the lease or license to mine was issued, applicable Federal regulations, or the terms and conditions of the lease or license to mine (43 CFR 3452.2).

§ 3471.3-2 Protection of bona fide purchaser.

(a) The Secretary's right to cancel or forfeit a lease for any violation shall not adversely affect the title or interest of a bona fide purchaser of any lease or any interest therein. A bona fide purchaser must be a person, association, or corporation qualified to hold such lease or interest, even though the holdings of the party or parties from which the lease or interest therein was acquired or their predecessor(s) in title (including the original lessee of the United States), may have been cancelled or forfeited for any such violation.

(b) Any party to any proceedings with respect to a violation of any provision of the mineral leasing laws has the right to be dismissed promptly as a party by showing that he or she holds and acquired his or her interest as a bona fide purchaser without having violated any provisions of the mineral leasing laws. No hearing shall be necessary on such showing unless prima facie evidence is presented to indicate a possible violation on the part of the alleged bona fide purchaser.

(c) If, during any such proceeding, a party waives his or her rights under the lease, or if such rights are suspended by order of the Secretary pending a decision, rental payments and time counted against the term of the lease shall be suspended as of the first day of the month following the filing of the waiver or the Secretary's suspension until the first day of the month following the final decision in the proceeding or

the revocation of the waiver or suspension.

§ 3471.3-3 Sale of underlying interests.

If, in any proceeding to cancel or forfeit a lease or any interest therein acquired in violation of any of the provisions of the mineral leasing laws, the lease or interest therein is cancelled or forfeited, and if there are valid options to acquire the lease or an interest therein that are not subject to cancellation, forfeiture, or compulsory disposition, this lease or interest therein shall be sold to the highest responsible qualified bidder by competitive bidding, in a manner similar to that provided for in the offering of leases by competitive bidding, subject to all outstanding valid interests and options. If less than the whole interest in the lease or interest therein is cancelled or forfeited, the partial interest shall be sold in the same way. If no satisfactory offer is obtained as a result of the competitive offering of a whole or partial interest, it may be sold by other methods that the authorized officer finds appropriate. However, the terms shall not be less favorable to the Government than those of the best competitive bid received.

§ 3471.4 Future interest, acquired lands.

An application to lease lands in which the United States has a future interest filed more than 2 years prior to the date of the vesting in the United States of the interest in the coal shall be rejected. Any application for a future interest lease outstanding at the time of the vesting in the United States of the present possessory interest in the coal shall not lapse, but shall continue to be treated under subpart 3425 of this title. (See 43 CFR 3472.1-1(g).)

Subpart 3472—Lease Qualification Requirements

§ 3472.1 Qualified applicants and bidders.

A lease may be issued only to (a) citizens of the United States; (b) associations of citizens organized under the laws of the United States or of any state thereof, which are authorized to hold such interests by the statute under which they are organized and by the instrument establishing their association; (c) corporations organized under the laws of the United States or of any state thereof, including a company or corporation operating a common carrier railroad; and (d) public bodies, including municipalities.

§ 3472.1-1 Special leasing qualifications.

(a) Each applicant or bidder for a lease shall furnish a signed statement showing that, with the area applied for

bid for, the applicant or bidder's interests in leases and lease applications, held directly or indirectly, do not exceed in the aggregate the acreage limitation in § 3472.1-2 of this title.

(b) A lease shall not be issued to a minor but may be issued to a legal guardian or trustee on behalf of a minor.

(c) Every company or corporation operating a common carrier railroad shall make a statement that it needs the coal for which it seeks a lease solely for its own railroad use; that it operates main or branch lines in the state in which the lands involved are located; that the aggregate acreage in the leases and applications in which it holds an interest, directly or indirectly, does not exceed 10,240 acres; and that it does not hold more than one lease for each 200 miles of its railroad lines served or to be served from such coal deposits. This last requirement excludes spurs or switches, branch lines built to connect the leased coal with the railroad, and parts of the railroad operated mainly by power not produced by steam.

(d) Aliens may not acquire or hold any direct or indirect interest in leases, except that they may own or control stock in corporations holding leases if the laws of their country do not deny similar or like privileges to citizens of the United States. If any appreciable percentage of stock of a corporation is held by aliens who are citizens of a country denying similar or like privileges to United States citizens, that corporation's application or bid for a lease shall be rejected, and that corporation's lease shall be subject to cancellation.

(e) After August 4, 1986, no lease shall be issued to any applicant or bidder that holds and has held for 10 years any lease from which coal is not being produced, except as authorized under § 3475.4 of this title, in commercial quantities as defined in § 3400.0-5(i)(1) of this title.

(f) In order to qualify for a lease on acquired lands set apart for military and naval purposes, a governmental entity shall show that it produces electrical energy for sale to the public and that it is located in the state where the lands subject to the application or bid are located.

(g) Any applicant for a lease for lands in which the United States has a future interest shall submit documentation that he or she holds, in fee or by lease, the present interest in the coal deposit subject to the application.

§ 3472.1-2 Acreage limitations.

(a)(1) No person, association, or corporation, or any subsidiary, affiliate, or person controlled by or under common control with such person, association, or corporation shall take, hold, own, or control at one time Federal coal leases, lease or lease modification applications, or bids on more than 48,080 acres in any one state and in no case on more than 100,000 acres in the United States.

(2) No person, association, or corporation holding, owning, or controlling leases, lease or lease modification applications or bids (individually or through any subsidiary, affiliate, or person under common control) on more than 100,000 acres in the United States on August 4, 1976, shall be required to relinquish any lease or lease application held on that date. However, it shall not be permitted to hold any additional interests in any further leases or lease applications until such time as its holdings, ownership, or control of leases or applications has been reduced below 100,000 acres within the United States.

(b)(1) In computing acreage held, owned, or controlled, the accountable acreage of a party owning an undivided interest in a lease shall be the party's proportionate part of the total lease acreage. The accountable acreage of a party owning an interest in a corporation or association shall be the party's proportionate part of the corporation's or association's accountable acreage. However, no person shall be charged that person's pro rata share of any acreage holdings of any association or corporation unless that person is the beneficial owner of more than 10 percent of the stock or other instruments of ownership or control of such association or corporation.

(2) On acquired lands, if the United States owns only a fractional interest in the coal resources of the lands involved, only that part of the total acreage involved in the lease, proportionate to the extent of ownership by the United States of the coal resources, shall be charged as acreage holdings. The acreage embraced in a future interest lease is not to be charged as acreage holdings until the lease for the future interest takes effect.

§ 3472.2 Filing of qualification statements.

§ 3472.2-1 Sole party in interest statement.

Every applicant or bidder for a lease or license to mine shall submit to the Bureau of Land Management State

Office having jurisdiction over the lands in the application or subject to the bid (43 CFR Subpart 1821) at the time of filing the application or bid a signed statement that the applicant is the sole party in interest in the application or bid, and the lease or license to mine, if issued. If the applicant or bidder is or will not be the sole party in interest, the applicant or bidder shall set forth the names of the other interested parties in the application or bid. A separate or joint statement shall be signed by them and by the applicant or bidder setting forth the nature and extent of the interest of each in the application or bid, the nature of the agreement between them, if oral, and a copy of such agreement if written. Such separate or joint statement of interest and written agreement, if any, or a statement of the nature of such agreement, if oral, shall accompany the application or bid. All interested parties shall furnish evidence of their qualifications to hold such interest in the lease or license to mine including a statement regarding knowledge of written consent from any qualified surface owner for the area involved (43 CFR Part 3427).

§ 3472.2-2 Contents of qualification statement.

(a) If the applicant or bidder is an individual, he shall submit a signed statement setting forth his citizenship with each application or bid for a license to mine or lease.

(b) If the applicant or bidder is an association or partnership, the application or bid shall be accompanied by a certified copy of the articles of association or partnership, together with a statement showing (1) that the association or partnership is authorized to hold a lease or license to mine; (2) that the member or partner executing the lease or license to mine is authorized to act on behalf of the association or partnership in such matters; (3) the names and addresses of all members owning or controlling more than 10 percent of the association or partnership and their citizenship and holdings.

(c) If the applicant or bidder for a lease or license to mine is a corporation, it must submit statements showing (1) the state of incorporation; (2) that the corporation is authorized to hold leases or licenses to mine; (3) the names of the officers authorized to act on behalf of the corporation; (4) the percentage of the corporation voting stock and all of the stock owned by aliens or those having addresses outside of the United States; and (5) the name, address, citizenship, and acreage holdings of any stockholder owning or controlling 10 percent or more

of the corporate stock of any class. If more than 10 percent of the stock is owned or controlled by or on behalf of aliens, or persons who have addresses outside of the United States, the corporation shall provide their names and addresses, the amount and class of stock held by each such person, and to the extent known to the corporation or which can be reasonably ascertained by it, the facts as to the citizenship of each such person. Any applicant who has previously filed a qualification statement may submit either a serial number reference to the record and office where the statement is filed or a new qualification statement. Applications on behalf of a corporation executed by other than an officer named under subsection (c)(1) of this section shall be accompanied by proof of the signatory's authority to execute the instrument except in a case where an officer of a corporation signs an application on behalf of the corporation.

(d) To qualify as a small business for the purpose of bidding on any tract to be offered as part of a special opportunity lease sale for small businesses, the bidder shall submit evidence demonstrating qualification under 15 CFR 121.

(e) Where there is a legal guardian or trustee, the following shall be provided:

(1) A copy of the court order or other document authorizing the guardian or trustee to act as such and to fulfill in behalf of the ward or beneficiary all obligations of the lease or other obligations arising thereunder; the person submitting any such document shall in some manner indicate its authenticity;

(2) A statement by the guardian or trustee as to his or her citizenship and holdings (of acreage in Federal coal leases) in any capacity, i.e., individually and for the benefit of any person; and

(3) A statement by each ward and beneficiary as to his or her citizenship and holdings; if the ward or beneficiary is a minor, the statement shall be executed for the minor by the guardian or trustee, as appropriate.

§ 3472.2-3 Signature of applicant.

(a) Every application or bid for a lease or license to mine shall be signed by the applicant or bidder or by its attorney-in-fact. If executed by an attorney-in-fact the application or bid shall be accompanied by the power of attorney and the applicant's own statement as to citizenship and acreage holdings unless the power of attorney specifically authorizes and empowers the attorney-in-fact to make such statement or to

execute all statements which may be required under these regulations.

(b) If the application or bid is signed by an attorney-in-fact or agent, it shall be accompanied by:

(i) a statement over the signature of the attorney-in-fact or agent; and

(ii) a separate statement personally signed by the applicant or bidder stating whether there is any agreement or undertaking, written or oral, whereby the attorney-in-fact or agent has or is to receive any interest in the lease, if issued.

§ 3472.2 Special qualifications, heirs, and devisees (estates).

(a) If an applicant or bidder for a license to mine or a lease dies before the license to mine or lease is issued, the license or lease shall be issued: if the estate has not been probated, to the executor or administrator of the estate; if probate has been completed, or is not required, to the heirs or devisees; and if they are minor heirs or devisees, to their legal guardian or trustee.

(b) The lease or license to mine shall not issue until the following information has been filed:

(1) Where probate of the estate has not been completed:

(i) evidence that the person who acts as executor or administrator has the authority to act in that capacity and to act on the application or bid;

(ii) evidence that the heirs or devisees are the heirs or devisees of the deceased applicant or bidder, and are the only heirs or devisees of the deceased; and

(iii) a statement over the signature of each heir or devisee concerning citizenship and holdings.

(2) Where the executor or administrator has been discharged or no probate proceedings are required: (i) a certified copy of the will or decree of distribution, if any, and if not, a statement signed by the heirs that they are the only heirs of the applicant or bidder, and citing the provisions of the law of the deceased's last domicile showing that no probate is required; and (ii) a statement over the signature of each of the heirs or devisees with reference to citizenship and holdings, except that if the heir or devisee is a minor, the statement shall be over the signature of the guardian or trustee.

§ 3472.2-5 Special qualifications, public bodies.

(a) To qualify to bid for a lease on a tract offered for sale under § 3420.1-4 of this title, a public body shall submit:

(1) Evidence of the manner in which it is organized;

(2) Evidence that it is authorized to hold a lease;

(3) A definite plan as described in § 3420.1-4(b) to produce energy within 10 years of issuance of the prospective lease solely for its own use or for sale to its members or customers (except for short-term sales to others); and

(4) Evidence that the definite plan has been duly authorized by its governing body.

(b) To obtain a license to mine, a municipality shall submit with its application:

(1) Evidence of the manner in which it is organized;

(2) Evidence that it is authorized to hold a license to mine; and

(3) Evidence that the action proposed has been duly authorized by its governing body.

(c) To qualify to bid for a lease on a tract of acquired land set apart for military or naval purposes, a governmental entity shall submit:

(1) Evidence of the manner in which it is organized, including the State in which it is located;

(2) Evidence that it is authorized to hold a lease;

(3) Evidence that the action proposed has been duly authorized by its own governing body; and

(4) Evidence that it is producing electricity for sale to the public in the state where the lands to be leased are located.

(d) If the material required in paragraphs (a), (b), or (c) of this section has previously been filed, a reference to the serial number of the record in which it has been filed, together with a statement as to any amendments, shall be accepted.

Subpart 3473—Fees, Rentals, and Royalties

§ 3473.1 Payments.

§ 3473.1-1 Form of payment.

Payments shall be made in cash, or by money order, personal check, certified check, bank draft, or bank cashier's check payable to the Bureau of Land Management or Geological Survey, as appropriate.

§ 3473.1-2 Where paid.

(a) Payments for all licenses to mine shall be paid to the Bureau of Land Management State Office having jurisdiction over the land (43 CFR Subpart 1821).

(b) Payments of all rentals for non-producing leases shall be paid to the Bureau of Land Management State Office having jurisdiction over the land (43 CFR Subpart 1821).

(c) Rentals and royalties on producing leases shall be paid to the Mining Supervisor for the area in which the lands under lease are situated.

§ 3473.1-3 When paid.

First year's rental for preference right leases shall be remitted at the time of filing the applications. First year's rental for competitive leases shall be payable when required by decision. Thereafter, rental for all leases shall be paid in accordance with the lease provisions.

§ 3473.2 Fees.

§ 3473.2-1 General fee provisions.

(a)(1) A filing fee of \$250.00 shall accompany each application for a lease, exploration license or lease modification.

(2) Each original application or any renewal application for a license to mine shall be accompanied by a \$10.00 filing fee.

(3) A filing fee of \$50.00 shall accompany each application for approval of any transfer of a lease or an interest therein.

(b) The fee shall be retained as a service charge even if the application is rejected or withdrawn in whole or in part. An application not accompanied by the filing fee will not be accepted for filing; it will be returned to the applicant without action.

§ 3473.2-2 Exemptions from fee provisions.

No filing fee is required for:

- (a) An application for a license to mine filed by a relief agency as described in subpart 3440 of this title; or
- (b) Preference right lease applications.

§ 3473.3 Rentals and royalties.

§ 3473.3-1 Rentals.

(a) The annual rental per acre or fraction thereof on any lease issued or readjusted after the promulgation of this subpart shall not be less than \$3. The amount of the rental will be specified in the lease.

(b) Until a lease issued before August 4, 1976, is readjusted, the rental paid for any year shall be credited against the production or advance royalties for that year.

(c) On leases issued or readjusted after August 4, 1976, rental payments shall not be credited against royalties.

§ 3473.3-2 Royalties.

(a)(1) Royalty rates shall be determined on an individual case basis prior to lease issuance. For competitive leases, initial royalty rates shall be set out in the notice of lease sale.

112

SWISHER COAL CO.

P. O. BOX A U
PRICE, UTAH 84501
PHONE 801-627-5050

August 8, 1979

Ms. Nancy McCarty
Acting Chief, Minerals Section
U.S. Dept. of Interior
Bureau of Land Management
136 East South Temple
Salt Lake City, Utah 84111

Re: Swisher Coal Co. Lease Modification
Application on #U-8319

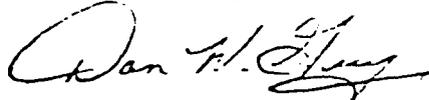
Dear Ms. McCarty:

In reference to your letter of July 31, 1979, requesting additional information on Swisher's Lease Modification Application, please find the following statements enclosed:

1. Statement as to acreage holdings (43CFR3472.1-1(a));
2. Statement as to sole party in interest (43CFR3472.2-1); and
3. Statement as to corporate qualifications --- with Articles of Incorporation (43CFR3472.2-2).

I trust this information will help expedite the approval process. If you have any questions or need further information please let me know.

Respectfully,



Dan W. Guy, P.E.
Chief Engineer

DWG/rh

Enclosures

SWISHER COAL CO.
STATEMENT AS TO ACREAGE HOLDINGS

This is to certify that Swisher Coal Co. and General Exploration Co. do not hold federal coal leases, applications, or bids on more than 46,080 acres in any one state, nor more than 100,000 acres in the United States.



Max A. Robb, President
Swisher Coal Co.

State of Utah)
 : SS
County of Carbon)

Sworn to and subscribed to before me this 17 day of August, 1979.

My Commission Expires: _____


Notary Public
Residing in: _____

1 TRACT OR DEPOSIT (by public land survey description if possible)	2 COUNTY	3-4 3-FEDERAL OR 4-NON-FEDERAL (check one) 3 4		5 INTEREST HELD (If federal, give lease or permit number; if non- federal, state nature of interest--owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none, so state)	8-9 (At 50% Recoverable) COAL RESERVES 8-TONNAGE 9-ACREAGE (breakdown into strippable and non- strippable 8 9)		10 BTU CONTENT OR RANK	11 SULF CONT
T.13S., R.7E., Sec. 12 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$	Carbon	X		U-8319-1 Lease Mod.	Private	Access	Non-Strippable 4,427,225*	480	12,000-12,500	.3-
T.13S., R.8E., Sec. 7 S $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$	Carbon	X		2A-818 Auth. To Mine	Private	Access	1,112,800*	120	"	"
T.13S., R.8E., Sec. 18 NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$	Carbon	X		U-8319 Federal Lease	Private	Access	1,954,050*	412	"	"
T.13S., R.8E. Sec. 17 - SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 18 - SE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 19 - NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$	Carbon		X	Columbo Fee - Lessee	Private	Access & Surface Facilities	713,675*	560	"	"

Gordon Creek #3 Mine, 42-01254
 T.13S., R.8E., S10M
 #3 Mine - Hiawatha Seam
 #6 Mine - Castle Gate "A" Seam

STATEMENT OF COAL RESOURCES
 CONTROLLED BY LESSEE

*Based on November 23,
 1977 Southern Plan

1 TRACT OR DEPOSIT (by public land survey description if possible)	2 COUNTY	3-4 3-FEDERAL OR 4-NON-FEDERAL (check one) 3 4		5 INTEREST HELD (If federal, give lease or permit number; if non- federal, state nature of interest--owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none, so state)	8-9 (at 50% Recoverable) COAL RESERVES 8-TONNAGE 9-ACREAGE (breakdown into strippable and non- strippable 8 9)		10 BTU CONTENT OR RANK	11 SULFUR CONTENT
T.13S. R.8E. Sec. 16- SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 17- SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$	Carbon		X	Skaggs Fee - Lessee	Private	Access and Surface Facilities	1,664,272*	Non-Strippable 280	11,000-12,000	.3-
T.13S. R.8E. Sec. 16 SE $\frac{1}{4}$ NW $\frac{1}{4}$	Carbon		X	State Lease No. 27342	Private	Access	3,293,331*	40	"	"
T.13S. R.8E. Sec. 8 - SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 9 - S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 16 - N $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 17 - NE $\frac{1}{4}$ NE $\frac{1}{4}$	Carbon		X	Carbon County Lease - Lessee	Private	Access	361,048*	320	"	"

*Based on November 23,
1977 Southern Plan

1 TRACT OR DEPOSIT (by public land survey description if possible)	2 COUNTY	3-4 3-FEDERAL OR 4-NON-FEDERAL (check one) 3 4		5 INTEREST HELD (If federal, give lease or permit number; if non- federal, state nature of interest--owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none, so state)	8-9 (At 50% Recoverable) COAL RESERVES 8-TONNAGE 9-ACREAGE (breakdown into strippable and non- strippable 8 9		10 BTU CONTENT OR RANK	SUL CON
T.16S. R.7E. Sec. 17 NE $\frac{1}{2}$ SE $\frac{1}{2}$	Emery		X	Madden Fee - Lessee	Private	Access	551,856*	Non-Strippable 80	11,500-12,500	.4-
T.16S. R.7E. Sec. 5 SW $\frac{1}{2}$	Emery		X	Dellenbach Fee - Owner	Private	Owned in Fee	1,635,328	160	"	"
T.16S. R.7E. Sec. 16 SW $\frac{1}{2}$ SW $\frac{1}{2}$	Emery		X	T. Nielson Fee - Owner	Private	"	10,912*	40	"	"
T.16S. R.7E. Sec. 16 SW $\frac{1}{2}$ SE $\frac{1}{2}$	Emery		X	Skeen Corp. Fee - Owner	Private	"	29,920*	40	"	"
T.16S. R.7E. Sec. 16 E $\frac{1}{2}$ SE $\frac{1}{2}$, E $\frac{1}{2}$ NE $\frac{1}{2}$	Emery		X	Fish Fee - Owner	Private	"	45,360*	160	"	"
T.16S. R.7E. Sec. 16 SE $\frac{1}{2}$ SW $\frac{1}{2}$	Emery		X	DuVels Inc. Fee - Owner	Private	"	77,200*	40	"	"
T.16S. R.7E. Sec. 9 S $\frac{1}{2}$ SW $\frac{1}{2}$, SW $\frac{1}{2}$ SE $\frac{1}{2}$	Emery		X	Fleishhacker Fee - Lessee	Private	Access	864,864*	120	"	"
T.16S. R.7E. Sec. 17 E $\frac{1}{2}$ SE $\frac{1}{2}$	Emery		X	Skeen Corp. - Owner	Private	Owned in Fee	571,040*	80	"	"
T.16S. R.7E. Sec. 8 SW $\frac{1}{2}$	Emery		X	I. Nielson - Owner	Private	"	1,300,524	160	"	"
T.16S. R.7E. Sec. 16 SE $\frac{1}{2}$ NW $\frac{1}{2}$, SW $\frac{1}{2}$ NE $\frac{1}{2}$, NW $\frac{1}{2}$ SE $\frac{1}{2}$, NE $\frac{1}{2}$ SW $\frac{1}{2}$	Emery	X		SL-064903 - DuVels	Federal	"	1,541,536*	160	"	"

1 TRACT OR DEPOSIT (by public land survey description if possible)	2 COUNTY	3-4 3-FEDERAL OR 4-NON-FEDERAL (check one) 3 4		5 INTEREST HELD (If federal, give lease or permit number; if non- federal, state nature of interest--owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none, so state)	8-9 (At 50% Recoverable) COAL RESERVES 8-TONNAGE 9-ACREAGE (breakdown into strippable and non- strippable 8 9)		10 BTU CONTENT OR RANK	SUL CON
T.16S, R.7E. Sec. 8 S ₁ SE ₄ ; Sec. 16, NW ₄ NE ₄ , N ₁ NW ₄ , SW ₄ NW ₄ , NW ₄ SW ₄ ; Sec. 17, NE ₄ Huntington Canyon #5 Mine T14S, R6E, SLBM	Emery	X		U-33454	Federal	Access	3,350,000	440	"	"
T.14S. R.6E. Sec. 25 NW ₄	Emery	X		SL-050641	Federal	Access	1,000,000	Non-Strippable 160	12,500	"

1 TRACE OR DEPOSIT by public land survey description (if possible)	2 COUNTY	3-4 3- FEDERAL OR 4- NONFEDERAL (check one) 3 4		5 INTEREST HELD (If federal, give lease or permit number; if non- federal, state nature of interest-owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none so state)	8-9 (AT 50% RECOVERABLE) COAL RESERVES B-TONNAGE 9-ACREAGE (breakdown into stripper and non- strippable.) B 9		10 BTU CONTENT Or RANK	11 SULFUR CONTE
-10-S, R-98-W Sec. 28: All except SW ¹ / ₄ Sec. 27: W ¹ / ₂ NW ¹ / ₄ , W ¹ / ₂ NE ¹ / ₄ , E ¹ / ₂ NE ¹ / ₄ , N ¹ / ₂ SE ¹ / ₄ , 3/4 SW ¹ / ₄	Mesa		X	Shaw Fee - GEX Colorado	Private	Access & Surface Facilities	3,843,000	NON-STRIPPABLE * 966	11,700	.7%
-10-S, R-98-W Sec. 29: All Sec. 32: All Sec. 28: W ¹ / ₂ NW ¹ / ₄ Sec. 33: NW ¹ / ₄ , N ¹ / ₂ SW ¹ / ₄	Mesa	X		C-01538 Federal Lease	Federal	Access	14,575,000	* 2560	"	"
-10-S, R-98-W Sec. 22: E ¹ / ₂ E ¹ / ₄ , NW ¹ / ₄ SE ¹ / ₄ Sec. 23: W ¹ / ₂ NW ¹ / ₄ , NW ¹ / ₄ SW ¹ / ₄ Sec. 27: SW ¹ / ₄ SE ¹ / ₄ Sec. 33: E ¹ / ₂ , S ¹ / ₂ NW ¹ / ₄ Sec. 34: NW ¹ / ₄ NE ¹ / ₄ , S ¹ / ₂ NW ¹ / ₄	Mesa		X	C F&I Steel Corp - GEX Colorado	Private	Access & Surface Facilities	2,444,000	* 1290	"	"
-11-S, R-98-W Sec. 3: Lots 1, 2, 3, 4, 5, 7, 8, 12, 13 Sec. 4: Lots 7 & 8										
-10-S, R-98-W Sec. 26: Pt. SW ¹ / ₄ NW ¹ / ₄ , Pt. W ¹ / ₂ SW ¹ / ₄	Mesa		X	Hays Fee - GEX Colorado	Private	Access & Surface Facilities	156,000	* 48	"	"

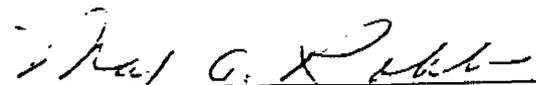
1 SOURCE OR DEPOSIT of public land Survey description (if possible)	2 COUNTY	3-4 3- FEDERAL OR 4- NONFEDERAL (check one)		5 INTEREST HELD (If federal, give lease or permit number: If non- federal, state nature of interest--owner, lessee, operator)	6 SURFACE OWNER (state, federal, private)	7 AGREEMENT WITH SURFACE OWNER (if none so state)	8-9 (AT 50% RECOVERABLE) COAL RESERVES 8-TONNAGE 9-ACREAGE (breakdown into stripper and non- strippable.)		10 BTU CONTENT OR RANK	11 SUL CON
		3	4				8	9		
0-S, R-98-W .34: SE1/4, 2SW1/4, S1/2NE1/4 .35: NW1/4SW1/4, SW1/4SW1/4 .2: Pt. N1/2N1/2	Mesa		X	Renace Fee - GEX Colorado	Private	Access & Surface Facilities	NON-STRIPPABLE *	370	11,630	.67
0-S, R-98-W .26: S3/4 1/4SW1/4, S1/2SW1/4SW1/4 .34: Pt. NE1/4 1/4 .35: Pt. N1/2 1/4 .34: Trace In 1/4NE1/4	Mesa		X	Kerr Fee - GEX Colorado	Private	Access & Surface Facilities	*	115	"	"
0-S, R-98-W .35: Pt. 1/4SW1/4	Mesa		X	Reeves/Lekas Fee - GEX Colorado	Private	Access & Surface Facilities	*	50	"	"
1-S, R-98-W .1: Pt. Lot 2 .2: Pt. Lots 1&2							*Total 3,384,000			
0-S, R-98-W .26: E1/2 .35: E1/2, 2SW1/4, 2SW1/4	Mesa		X	C-078049 Federal Lease	Federal	Access	4,915,000	809.99	"	"

SWISHER COAL CO.
STATEMENT ON CORPORATE QUALIFICATIONS

This will certify that Swisher Coal Co., a Utah Corporation, is duly qualified to hold leases or licenses to mine in the State of Utah.

(See attached Articles of Incorporation.)

Swisher Coal Co. is a wholly owned subsidiary of General Exploration Company, a Delaware Corporation, and all of the capital stock of Swisher Coal Co. is owned by General Exploration Company.



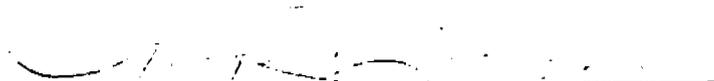
Max A. Robb, President
Swisher Coal Co.

State of Utah)
 : SS
County of Carbon)

Sworn to and subscribed to before me this 10th day of August, 1979.

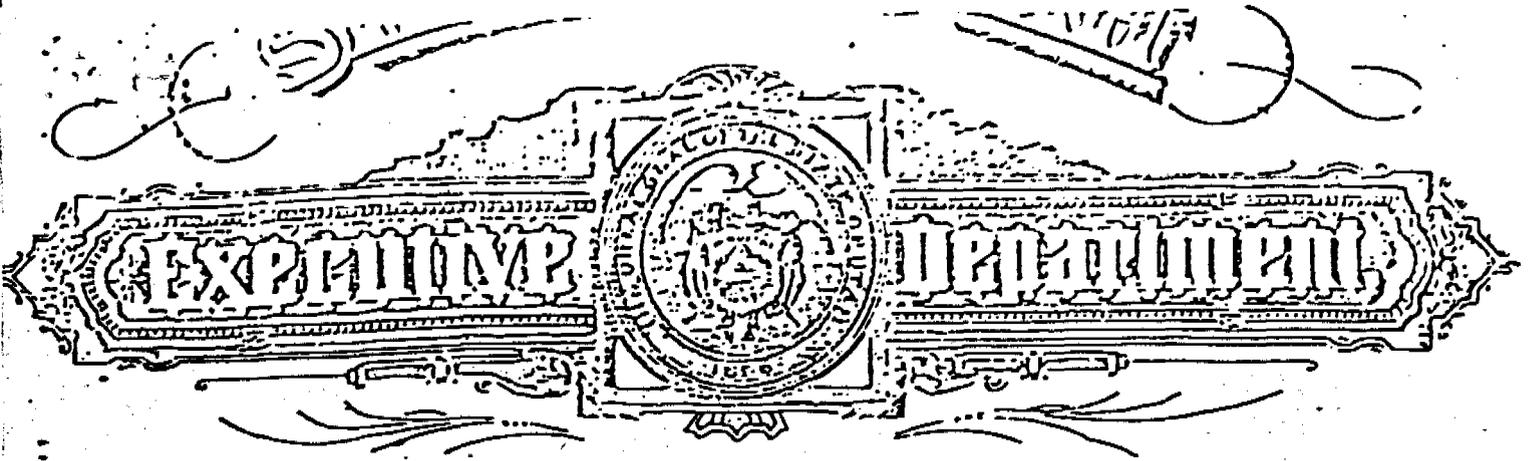
My Commission Expires:

1-1-80



Notary Public

Residing in: _____



Office of Lt. Governor/Secretary of State

I, DAVID S. MONSON, LT. GOVERNOR/SECRETARY OF STATE OF THE STATE OF UTAH, DO HEREBY CERTIFY THAT the attached is a full, true and correct copy of the Articles of Incorporation and Amendments of SWISHER COAL CO., and said corporation which was filed in this office June 19, 1975, is in good standing,

AS APPEARS OF RECORD IN MY OFFICE.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of the State of Utah at Salt Lake City, this 9th day of May A.D. 1977

DAVID S. MONSON
LT. GOVERNOR/SECRETARY OF STATE
David S. Monson
AUTHORIZED PERSON

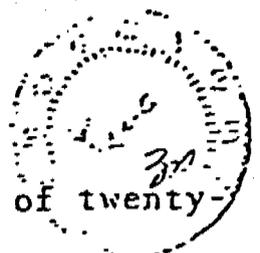
Filed in the office of the Secretary of State of the State of Utah on the 19th day of June A.D. 1975
- CLIVE L. ...
Secretary of State
50

JUN 19 75 AM

ARTICLES OF INCORPORATION OF

G E X Utah, Inc.

65925



We, the undersigned natural persons of the age of twenty-one years or more, acting as incorporators of a corporation under the Utah Business Corporation Act, adopt the following Articles of Incorporation for such corporation:

FIRST: The name of the corporation is:

G E X Utah, Inc.

SECOND: The period of its duration is perpetual.

THIRD: The purposes for which the corporation is organized are to engage in coal mining and related activities, and to engage in any other lawful business activities.

FOURTH: The aggregate number of shares which the corporation shall have authority to issue is ten thousand (10,000), each with one dollar (\$1.00) par value. All stock shall be common stock, of the same class having the same rights and priveleges.

FIFTH: The corporation will not commence business until consideration of the value of at least \$1,000.00 has been received for the issuante of shares.

SIXTH: The shareholders shall not have preemptive rights to acquire additional shares of the corporation.

SEVENTH: The post office address of its initial registered office is 607 Kearns Building, Salt Lake City, Utah 84101, and the name of its initial registered agent at such address is Paul B. Cannon.

EIGHTH: The number of directors constituting the initial board of directors of the corporation is three, and the names and addresses of the persons who are to serve as directors until the first annual meeting of the shareholders or until their successors are elected and shall qualify are:

<u>NAME</u>	<u>ADDRESS</u>
Eugene E. Nearburg	4219 Sigma Road Dallas, Texas 75240
C. N. Bailey	4219 Sigma Road Dallas, Texas 75240
William G. Ferguson	180 East Broad Street Columbus, Ohio 43215

NINTH: The name and address of each incorporator is:

<u>NAME</u>	<u>ADDRESS</u>
Paul B. Cannon	607 Kearns Building Salt Lake City, Utah 84101
Platte E. Clark	555 East 500 South Salt Lake City, Utah 84111
Mert Rasmussen	555 East 500 South Salt Lake City, Utah 84111

DATED: June 19, 1975

Paul B Cannon
Incorporator

Platte E Clark
Incorporator

Mert Rasmussen
Incorporator

STATE OF UTAH)
 : ss:
County of Salt Lake)

I, Stephene Rasmussen, a notary public, hereby certify that on the 19th day of June, 1975, personally appeared before me, Paul B. Cannon, Platte E. Clark, and Mert Rasmussen, who being by me first duly sworn, severally declared that they are the persons who signed the foregoing document as incorporators and that the statements therein contained are true.

IN WITNESS WHEREOF, I have hereto set my hand and seal this 19th day of June, 1975.

My commission expires:

Stephene Rasmussen
Notary Public
Residing in Salt Lake City, Utah

April 17, 1977

OF

SWISHER COAL CO. with and into GEX UTAH, INC. with its name changed to SWISHER COAL CO.

The undersigned corporations pursuant to Section 69 of the "Utah Business Corporation Act" hereby execute the following articles of merger:

ARTICLE ONE

The plan of merger is as follows:

See Exhibit A attached hereto and made a part hereof.

ARTICLE TWO

As to each corporation, the number of shares outstanding, and the number and designation of the shares of any class entitled to vote as a class, are:

<u>Name of Corporation</u>	<u>Total Number of Shares Outstanding</u>	<u>Designation of Class Entitled to Vote as a Class (if any)</u>	<u>No. of Shares of Such Class (if any)</u>
Swisher Coal Co.	2,000	N/A	N/A
GEX Utah, Inc.	301	N/A	N/A

ARTICLE THREE

As to each corporation, the number of shares voted for and against the plan respectively, and the number of shares of any class entitled to vote as a class voted for and against the plan, are:

<u>Name of Corporation</u>	<u>Total Shares Voted For</u>	<u>Total Shares Voted Against</u>	<u>Class</u>	<u>Shares Voted For</u>	<u>Share Voted Against</u>
Swisher Coal Co.	2,000	- 0 -	N/A	N/A	N/A
GEX Utah, Inc.	301	- 0 -	N/A	N/A	N/A

IN WITNESS WHEREOF each of the undersigned corporations has caused these articles of merger to be executed in its name by its

president or vice president and secretary or assistant secretary,
as of the 15 day of August, 1975.

SWISHER COAL CO.

By *Max A. Ritt*
President

and *Harold S. Wain*
Assistant Secretary

GEX UTAH, INC.

By *Max A. Ritt*
President

and *Harold S. Wain*
Assistant Secretary

STATE OF Utah)
COUNTY OF Salt Lake) SS

Before me, *Cheryl D. Smith*, a Notary
Public in and for the said County and State, personally appeared
Max A. Ritt who acknowledged before me
that he is the *President* of SWISHER COAL CO., a
Title of office

Utah corporation and that he signed the foregoing document as his
free and voluntary act and deed for the uses and purposes therein
are set forth.

In witness whereof I have hereunto set my hand and seal this
15 day of August, A.D. 1975.

My commission expires May 2, 1979.

Clara E. Smith
Notary Public

STATE OF Utah)
COUNTY OF Salt Lake) SS

Before me, Clara E. Smith, a Notary Public in and for the said County and State, personally appeared Walter A. Ritt who acknowledged before me that he is the President of GEX UTAH, INC., a Utah corporation and that he signed the foregoing document as his free and voluntary act and deed for the uses and purposes therein set forth.

In witness whereof I have hereunto set my hand and seal this 15 day of August, A.D. 1975.

My commission expires May 2, 1979.

Clara E. Smith
Notary Public

PLAN OF MERGER

OF

SWISHER COAL CO. with and into GEX UTAH, INC.
with its name changed to SWISHER COAL CO.

(a) Swisher Coal Co., a Utah corporation (the "Merging Corporation") shall be merged into GEX Utah, Inc. a Utah corporation (the "Surviving Corporation"), which shall be the surviving corporation. The Merging Corporation and the Surviving Corporation are hereinafter sometimes referred to jointly as the "Constituent Corporations."

(b) The terms and conditions of the merger are as follows:

(1) The Constituent Corporations shall be a single corporation which shall be the Surviving Corporation as the surviving corporation, and the separate existence of the Merging Corporation shall cease.

(2) The Surviving Corporation shall thereupon and thereafter possess all of the rights, privileges, immunities, powers and franchises, as well of a public as of a private nature, of each of the Constituent Corporations and all property, real, personal and mixed, all debts due on whatever account, including subscriptions to shares and all other choses in action, and all and every other interest, of or belonging to or due to each of the Constituent Corporations shall be taken and deemed to be transferred to and vested in the Surviving Corporation without further act or deed; and the title to all real estate, or any interest therein, vested in either of the Constituent Corporations shall not revert or be in any way impaired by reason of the merger.

(3) The Surviving Corporation shall be responsible and liable for all of the liabilities and obligations of each of the Constituent Corporations, and any claim existing or action or proceeding pending by or against either of the Constituent Corporations may be prosecuted to judgment as if the merger had not taken place, or the Surviving Corporation may be substituted in its place, and neither the rights of creditors nor any liens upon the property of either of the Constituent Corporations shall be impaired by the merger.

(4) All corporate acts, plans, policies, agreements, arrangements, approvals and authorizations of

the Merging Corporation, its shareholders, Board of Directors and committees thereof, officers and agents, which were valid and effective immediately prior to the effective date of the merger shall be taken for all purposes as the acts, plans, policies, agreements, arrangements, approvals and authorizations of the Surviving Corporation and shall be as effective and binding thereon as the same were with respect to the Merging Corporation. The employees and agents of the Merging Corporation shall become the employees and agents of the Surviving Corporation and continue to be entitled to the same rights and benefits which they enjoyed as employees and agents of the Merging Corporation.

(5) The By-laws of the Surviving Corporation as in effect on the effective date of the merger shall be and constitute the By-laws of the surviving corporation until the same shall be properly altered, amended or repealed.

(6) The directors and officers of the Surviving Corporation in office on the effective date of the merger shall be and constitute the directors and officers of the surviving corporation.

(c) Upon the issuance of a certificate of merger by the Secretary of State of Utah, the 2,000 shares of the par value of \$5.00 each of the Merging Corporation now issued, all of which are owned by the Surviving Corporation, shall be cancelled and the stated capital represented by such shares shall be eliminated.

(d) The following is a statement of all changes in the articles of incorporation of the Surviving Corporation to be effected by the merger:

Article First is amended to read as follows:

"FIRST: The name of the corporation is:
"SWISHER COAL CO."

(e) This plan of merger may be abandoned by the Surviving Corporation by appropriate resolution of its Board of Directors at any time prior to the issuance of a certificate of merger by the Secretary of State of Utah.

(f) The merger is intended by the Constituent Corporations to be a transaction to which Section 334(b)(2) of the Internal Revenue Code of 1954, as amended, applies.

* * *

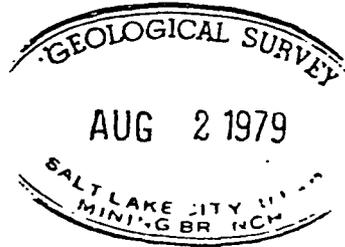
Attn: Allen & Boyd
JM
af

SWISHER COAL CO.

P. O. BOX AU
PRICE, UTAH 84501
PHONE 801-437-5050

August 1, 1979

Mr. Jackson W. Moffitt
U.S. Department of Interior
Geological Survey
Office of Area Mining Supervisor
Conservation Division
8426 Federal Building
125 South State Street
Salt Lake City, Utah 84138



Re: Swisher Coal Co.
Gordon Creek #2 Mine
Federal Coal Lease U-8319

Dear Mr. Moffitt:

I have enclosed, for your approval, seven copies of an updated map, showing our revised mining projections.

It is presently our plan to turn the 1st West section at a bearing to allow clearance from old works and access into federal lease U-8319-1. We have also started another section called 1st West "A" Panel and show a proposed "B" Panel.

We feel that the two panels are a minor modification to our plan which will give us a better recovery of federal coal in the known faulted area.

I hope you will agree with our reasoning and grant us the needed approval. If you have any questions, please contact me.

Sincerely,

Bert Jeanselme

Bert Jeanselme
BY U.S.C.G.
Engineering

MINING PLAN
BRANCH OF MINING OPERATIONS

Date: 8/1/79

By: *J. W. Moffitt*
Area Mining Supervisor

Deputy Area Mining Supervisor

Senior Staff Mining Engr.

Allen J. ...
Mining Engineer

BJ/ag

Enclosures

Industrial and Domestic Coals



United States Department of the Interior

GEOLOGICAL SURVEY

Office of the Area Mining Supervisor
 Conservation Division
 8426 Federal Building
 125 South State Street
 Salt Lake City, Utah 84138

August 10, 1979

Mr. Bert Jeanselme, Engineering
 Swisher Coal Company
 P. O. Box AU
 Price, UT 84501

Dear Mr. Jeanselme:

In your August 1, 1979, request you propose to update the mining projections for the 1st West section, which includes the 1st West "A" and "B" panels. In the request you propose to turn the 1st West section northwesterly at a bearing to allow clearance around the lease boundary and the old works providing access into Federal lease U-8319-1.

All of these changes are considered of minor consequence from a human environmental standpoint with respect to NEPA Section 102 (2) (c), and an addendum to the environmental analysis will not be required.

Accordingly, the minor modifications dated August 1, 1979, are approved conditioned upon the following stipulation:

1. Advancement is limited to within the boundaries of the Federal lease U-8319 which includes the modification issued April 5, 1976, also known as U-8319-1.

An approved copy of the letter and map is enclosed for your file.

If you have any questions, please advise.

Sincerely yours,

Jackson W. Moffitt
 Area Mining Supervisor

Enclosure





United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
136 E. SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111

IN REPLY REFER

950/U-83
(U931)

NOV 8 1979

Memorandum

To: Director (W-141)

From: State Director, Utah

Subject: Expediting of Swisher Coal Company's Coal Lease Modification Application to Meet Emergency

A bypass situation at Swisher Coal Company's Gordon Creek No. 2 mine will result in loss of considerable federal coal unless a pending modification application can be completed in less than three months. The coal in the application tract is also needed at this time by the Company to maintain contracted production. Mine operating schedules have been disrupted by difficult ground conditions and by a long delay (now eleven months) in obtaining mining plan approval from OSM at their No. 4 mine for developing the federal lease tract obtained through an emergency short-term lease sale by BLM on September 21, 1978. About 40 percent of their present production is coming from the section which would include the modification area.

The coal land in question is located between two steep northwest trending parallel faults about 1,100 ft. apart. The southern fault has a displacement of 120 ft. that prevents economical development of the fault segment from mine workings south of the fault. The northerly fault has a displacement of only 17 ft., however, broken ground conditions expected to be associated with it would add to the difficulty of driving an incline across it. Therefore, it is questionable if the fault segment can be economically mined in conjunction with coal land north of the fault that is now being developed. Naturally, production economics will be affected by future coal prices, but it is now thought by the Geological Survey, Conservation Division (Allan Vance), that development through inclines from workings north of the fault will probably be uneconomic. Thus, it is concluded that federal coal in the fault segment will be lost by bypassing unless it is mined in the near future while access remains available.



Save Energy and You Serve America!

The 70-acre application tract contains an estimated 269,000 tons of recoverable coal in the Castlegate "A" seam that will be lost through bypassing. The fault segment enters the tract on the east boundary, crosses it, returns to Swisher's federal lease through the north boundary and continues for an additional 2,200 ft. to the boundary on the existing lease. Coal in the existing lease will also be subject to bypass. About 300,000 tons of recoverable coal are in this area. The Hiawatha bed which underlies the Castlegate contains a similar coal resource, but it will be several years before this coal is developed.

The lease modification is also needed to provide room for the five entries needed to properly develop the existing federal lease. The presence of caved, old workings makes it impractical to establish five entries within the coal land between the cave and the edge of the lease. There is room for four entries and at present these are being advanced. The fifth will be driven when the modification is received.

An earlier modification application was filed in February 1978 for this area, but was rejected because of a modification received in May 1976. The July 19, 1979, regulations allow additional modifications where former actions were made before the Coal Leasing Amendments Act. The new application was made as soon as the regulations were published. A right-of-way application filed in January 1979 was withdrawn in September 1979 because it will be unnecessary if the modification is granted.

Swisher is presently developing the coal land between the faults with a five-entry system which is now about 900 ft. from their property line which is also the boundary of the modification application tract. It is expected that the boundary will be reached in about two months. Coal mining in the section must be continued to meet contract requirements. It would be better if production mining could be postponed until all of the fault slice was developed, but under existing conditions production mining will probably have to begin to provide an interim coal supply. It is estimated that about three months production can be made without seriously endangering the access entries. The entries immediately to the north of the application must also be protected. When this coal is exhausted, mining of the entry pillars will have to be initiated and bypassing of the federal coal will commence.

The pressure to meet contract commitments will make it impractical to suspend production in this section. Swisher's probable course if the modification isn't obtained is to pull the entry pillars, which will provide coal for about four months and use the time provided to prepare another mine section for development. Hopefully, their mining plan for the No. 4 mine will have been approved by OSM and operations could be resumed there.

It should be noted that Swisher Coal has inadequate working capital. Large investments have been made in the mines and in a central coal washing plant. Swisher's parent company, General Exploration is unable to meet current debt repayments and is attempting to sell part of their assets including Swisher Coal. The Wall Street Journal reported 11/5/79 that an agreement had been reached in principle for sale by General Exploration of their coal properties in Utah and Kentucky to Atlantic Richfield Company. An ownership change won't affect the physical situation of a potential bypass threatening loss of federal coal. Probably considerable time will be needed to negotiate sale terms agreeable to creditors and shareholders, obtain government approval, and complete the sale.

An estimate of the time needed to process this application based on experience with previous applications is five and one-half months. This period is obviously unsatisfactory and I am adopting an accelerated schedule for this application. That is, a continuous effort will be made in state office with other work being set aside if necessary. I request that a high priority also be given this application during Washington processing and that other government departments be asked to cooperate. My schedule will allow issuance of the modification in two and one-half months. This will provide enough time for mining plan approval before coal outside of entry pillars is mined providing the OSM treats it as an emergency situation. Swisher's Mine Engineer is meeting with OSM officials November 9, 1979, to ask for this type of action when the modification is issued.

Following is my projected schedule for completing this action:

<u>Lease Sale Processing Step</u>	<u>Estimated completion date</u>
Draft TE/EAR by district	completed 10-26-79
Public meeting	held 11/7/79
Draft TE/EAR to W.O. 141 for review	11/16/79
Coal Resource Economic Evaluation	11/16/79
Review of TE/EAR (141)	12/3/79
Transmit case to W.O. 141	12/10/79
DOE review	12/26/79
Secretarial approval	12/28/79
Modification Issuance	1/21/80

The "Coal Resource Economic Evaluation" has been promised for November 16, 1979, by the Geological Survey. Periods of about two weeks each are projected for reviews by the Departments of Energy and Justice, although regulations allow 30 days. I believe these times can be met. The DOE has reviewed some applications in two weeks. A Justice Depart-

ment investigation in two weeks should be possible if it is begun as soon as requested. A similar antitrust investigation was made of Swisher Coal last fall in connection with the leasing of a short-term tract at the No. 4 mine, so only an updating of file information may be needed. The property will be owned by Swisher Coal when the investigation is made, any antitrust complication arising from the probable sale to Atlantic Richfield should be addressed when permission for the sale is requested.

Remaining processing will be done mainly by BLM. I guarantee that Utah offices will meet the intervals projected for their portion of the processing and request that the W.O. assign a high priority to this work.

A handwritten signature in black ink, reading "Gary J. Weeks". The signature is written in a cursive style with a large, looping initial "G".



United States Department of the Interior

U-8319

GEOLOGICAL SURVEY

Office of the Area Mining Supervisor
Conservation Division
2040 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

November 9, 1979

Swisher Coal Company
P. O. Box AU
Price, Utah 84501

Dear Sirs:

We have reviewed your proposal to mine the coal in the land requested in your recent application for modification of coal lease U-8319. The modification is required to provide economic access to the southern part of the coal reserves in coal lease U-8319-1. In addition it will permit recovery of the available coal between your south lease boundary and the major west-trending fault in the land you have applied for. Failure to acquire the proposed modification could make the south reserves in U-8319-1 sub-economic and cause the reserves in the modification north of the major fault zone to be bypassed and lost.

Your proposal to develop a multiple entry system from the existing works in lease U-8319 northwest through the modification area into the southern end of lease U-8319-1 is the most feasible way to recover the coal between the two major fault systems. The multiple entries in lease U-8319 are rapidly approaching the east boundary of the land requested by modification. Failure to acquire the land and to obtain prompt approval of a mining plan would require that the mining unit be moved or the plan be modified so that it could continue production. Any change in the plan as proposed would adversely affect your ability to mine the lease reserve in an orderly manner and could result in substantial loss of coal.

In our opinion the lease modification should be acquired as soon as possible and the mining plan should be promptly approved. Failure to achieve these goals will substantially restrict the orderly development of the mine and could result in a loss of coal reserves.

Sincerely yours,

Jackson W. Moffitt
Area Mining Supervisor



SWISHER COAL CO.

P. O. BOX AU
PRICE, UTAH 84501
PHONE 801-637-5050

November 13, 1979

Mr. Don Crane
Director, Region V
Office of Surface Mining
Post Office Building, Room 270
1823 Stout Street
Denver, Colorado 80202

Re: #2 Mine Lease Modification

Dear Mr. Crane:

Swisher Coal Co. has applied for a lease modification on 70 acres of isolated coal land adjacent to its present holdings. Access to the coal in this area is cut off from the south and west by a 120-foot fault and from the north by three (3) faults; one 17-foot, one 28-foot and one of unknown displacement.

We are presently mining toward the lease boundary and it is estimated that we will reach this area within sixty (60) days. The BLM and USGS have recognized the potential by-pass situation of this coal and have subsequently accelerated their schedules for review and approval of the modification to better coincide with the mining schedule. However, the approval of a mining plan for this area still remains to be done and the USGS has requested same to be submitted to your office.

Mr. Dan Guy, Chief Engineer on my staff, contacted Mr. John Hardaway about this mining plan. He was referred to Mr. John Nadolski, and met in Denver on November 9, 1979, with Mr. Nadolski, Mr. Thomas Pike, and Mr. Robert Hagen and at that time requested that the mining plan be approved as a minor modification to our overall mining plans in the interest of time, and more importantly, from the standpoint of little or no potential environmental damage expected on the surface.

At the meeting no decision was reached; however, it was recommended that the material be presented directly to you along with our request for a mining plan approval. This letter, therefore, represents a formal request from Swisher Coal Co. that the mining plan for the proposed Lease Modification be approved as a minor modification to the existing approved (USGS) mine plan. This request is based on

Mr. Don Crane
Office of Surface Mining
November 13, 1979
Page Two

the following:

1. The EAR from the BLM has determined that there are no significant surface effects to be expected as a result of mining this area.
2. The proposed mining is entirely underground and is merely an extension of the approved mining plan for this area.
3. This area is inaccessible from any other direction than that of the advance of our 'A' Panel.
4. The USGS agrees that a potential by-pass situation exists here and that a timely approval of the modification and mine plan is of the essence to prevent loss of this coal.
5. The BLM has recognized the time problem and has revised its schedule for approval while recommending that the mine plan for this area be approved as a minor modification to facilitate mining of these reserves.
6. Since a major modification process has an automatic fifty (50)-day time delay, plus review time, and since the process cannot start until the modification is approved, this would push the mining date far beyond our mining schedule for this area.
7. Swisher Coal Co. is under contractual obligation to produce at least at its present rate and even increase production in 1980. Approximately forty percent (40%) of present production is coming from this section of #2 Mine and if approval to mine in the proposed Lease Modification cannot be obtained by the time the section advances to its present boundary, Swisher will be forced to begin pulling the pillars on retreat from 'A' Panel. It is estimated that this will close all access and result in the loss of some 270,000 tons of high-quality steam coal and a loss of nearly a half million dollars in royalties to the federal government.
8. This is the fourth time Swisher has applied for access into this area since January, 1977.

I have enclosed the following support data to assist in your decision:

- a. Draft copy of 1979 EAR/TE from BLM and a file copy of the EAR/TE written on this area for the previous Lease Modification Application.
- b. Lease Modification Application and Supplemental Information submitted to BLM in July and August, 1979.

Mr. Don Crane
Office of Surface Mining
November 13, 1979
Page Three

- c. Letter of approval (with map) for existing mining in 'A' Panel from USGS.
- d. Memo from Utah State Director of BLM to Washington concerning the need for expediting the Lease Modification Application.
- e. Letter from Area Mining Supervisor of USGS expressing the need for prompt approval of mining plans.
- f. Letter and map from Max Robb to BLM Director requesting prompt approval of modification and showing proposed mining plan of area.
- g. Map showing mining progress in 'A' Panel for August, September, and October, 1979.

I trust you will find this data adequate to review our case and that you will consider this emergency by-pass situation a minor modification to our mine plan.

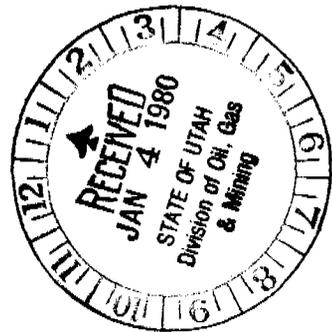
Sincerely,

Max A. Robb,
President

MAR/rh

cc: Ron Daniels

Exhibit #18
B.L.M. EAR/TE
for
Lease Modification



ENVIRONMENTAL ASSESSMENT COVER SHEET

Project Name Supplemental EAR/TE for Modification of Swisher Coal Lease

Intensity of Analysis Low
EA Register No. 43-070-5-24 (Original EAR)
UT-060-PR-0-1 (Supplemental EAR)

Office Price River Resource Area

Activity Code 1791/3500

Action Swisher Coal Lease Modification

Serial No. C - U-8319

Location T13S, R7E, SLM

Required by 43 CFR 23: Yes No

<u>Prepared by</u>	<u>Title</u>	<u>Resource (s) Assigned</u>
<u>Sid Vogelpohl</u>	<u>Geologist</u>	

Compliance responsibility assigned to: _____ (Name and Title)

	<u>Signature</u>	<u>Date</u>
* Area Manager	_____	_____
** District Manager	_____	_____

* Signature will be required on all EA's
** Will sign off on all high-level EA's

I. BACKGROUND

Swisher Coal Company, a subsidiary of General Exploration Company, has filed for modification of Federal coal lease U-8319. The lease was originally issued on March 1, 1970 for 411.75 acres described as:

T. 13 S., R. 8 E., SLM

Sec. 18: Lots 1 to 4, inclusive, NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Since the original lease was issued the following events have taken place. On April 5, 1976 the lease was modified to include an additional 480 acres described as:

T. 13 S., R. 7 E., SLM

Sec. 12: E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

On February 27, 1978 Swisher Coal Company applied for a lease modification for 162.83 acres which was amended on April 10, 1978 to a total of 157.83 acres. On May 19, 1978 the USGS determined that only those 35 acres located in:

T. 13 S., R. 7 E., SLM

Sec. 13: N $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{2}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$

could be disposed of non-competitively. On November 28, 1978, the application was rejected by the SLM Director on the basis of the Federal Coal Leasing Amendments Act. In mid-1979 revised interpretation of the Act allowed Swisher to qualify for a modification as the 480-acre modification was approved prior to the enactment of the Act. Subject modification was received on July 19, 1979 for 70 acres (Figure 1) described as:

T. 13 S., R. 7 E., SLM

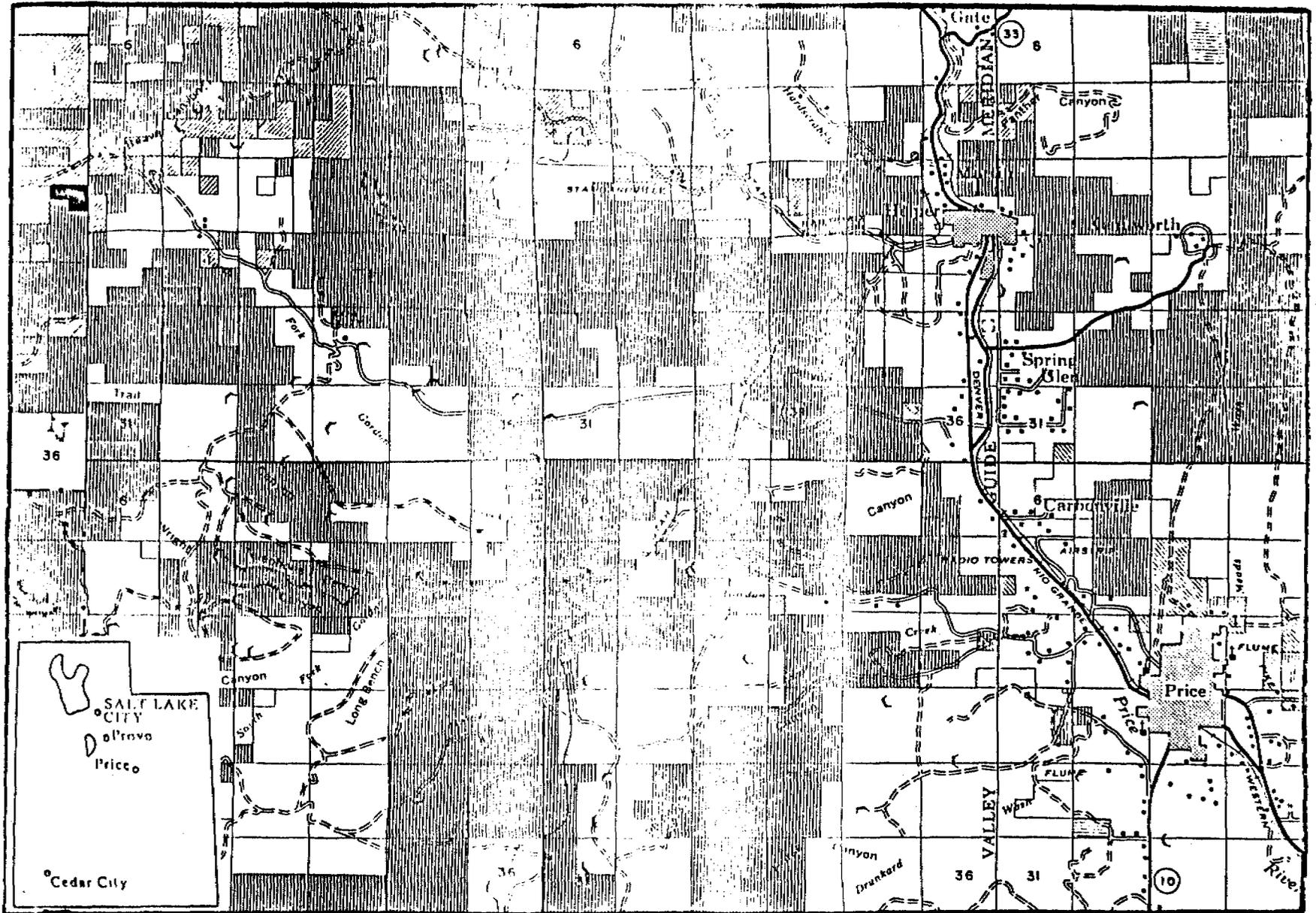
Sec. 13: NE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$

On August 16, 1979 the USGS made a preliminary determination that the application meets the requirements of 43 CFR 3432.2.

An Environmental Assessment Record and Technical Examination (EAR/TE) was prepared in 1975 to evaluate the impacts of leasing the 480-acre modification tract to Swisher Coal Company. As the current 70-acre modification tract is contiguous to the approved 480-acre tract (Figure 2) and both areas are geologically, topographically and ecologically the same, this report has been prepared as a supplement to the 1975 EAR/TE in accordance with the Council of Environmental Quality guidelines and tiering concept.

R 9 E

R 10 E



Yellow - Federal Surface
 Blue - State Surface
 White - Private Surface

Figure 1. Swisher Coal Company's 70-Acre Coal Lease Modification Application (Black)

R 7 E

R 8 E

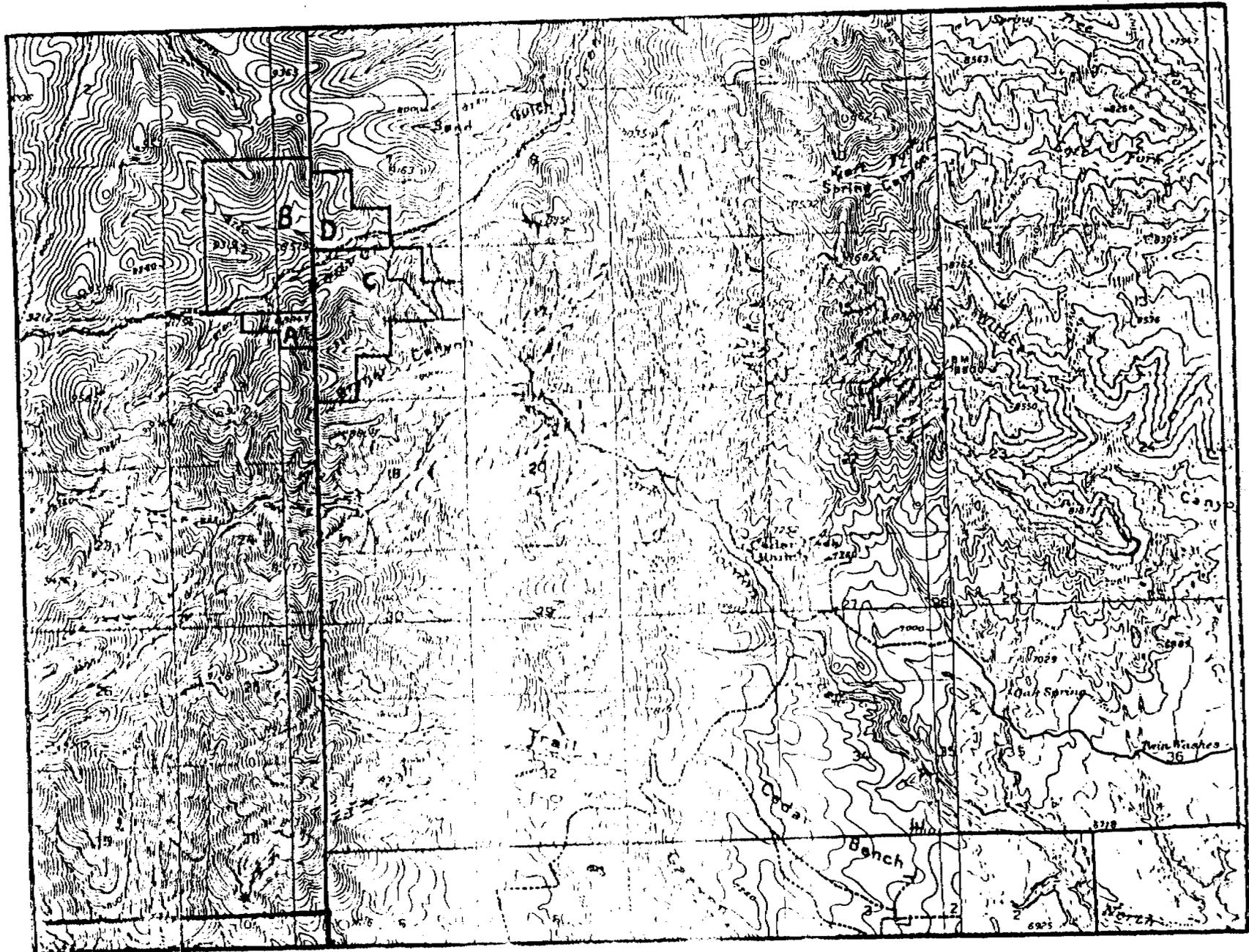


Figure 2. Topography of Area; Subject Modification (A), 1976 Modification (B), Original Lease (C), and 100-Acre USGS Order (D).

Several changes have occurred in Swisher's operation since the writing of the EAR/TE which should be noted. The ventilation portals that were to have been constructed on the 480-acre tract are no longer contemplated. A new coal preparation plant has been constructed along the D&RGW railroad near Wellington and coal stockpiles at the former site are being removed. No mine wastes are disposed of on the surface in the mine area. Human wastes are disposed of in septic tanks. Coal is transported to Wellington by truck.

Swisher Coal Company operates four coal mines in the Wasatch Plateau coal field; namely, Gordon Creek Mines No. 2, No. 3, and No. 6 and Huntington Canyon No. 4. Gordon Creek No. 2 produces coal from the Castlegate A seam of Federal coal lease U-8319 and is a mainstay to Swisher's total production.

The Gordon Creek No. 2 mine has been in operation since 1968. Production in 1978 was over 115,000 tons which was produced mainly from U-8319. Some coal was produced from SL-063011 which is leased to Wasatch Coal Company. Other than the 891.75 acre U-8319, Swisher also holds an additional 120 acres which was granted under a USGS order.

The mine operation is based on room-and-pillar methods with continuous miners. Average recovery of the seven to eight-foot thick Castlegate A seam is 50 percent. Mined coal is removed from the mine by conveyor belts. The coal is transported by truck over 25 miles to the newly constructed preparation plant south of Wellington. Most of the processed coal is shipped by unit train to a power generating plant operated by Mississippi Power Company in Mississippi.

The life of Gordon Creek No. 2 mine will be determined in large extent by the producibility of coal in the 480-acre modification tract. To date coal mined from this tract has been restricted to an area between two northwest-southeast trending faults in the east-central portion of the tract (see mine map). An attempt to mine into the northern portion was foiled when dangerous roof conditions were encountered in T. 13S., R. 8 E., SLM, Sec. 7: SE $\frac{1}{4}$ SW $\frac{1}{4}$.

Two mine sections advancing toward the southeastern portion of the 480-acre tract are now the only active sections of the mine (see mine map). Swisher hopes to mine the remaining reserves of the 480-acre tract through these sections. The northern section progressing toward the southeastern corner of the tract is confined between abandoned mine workings to the right and unleased coal (area of subject modification) to the left. The number of entries of the section has been reduced from four to three so as to further clear the abandoned workings. A fault with about three-foot displacement and trending perpendicular to the section has recently been encountered. The possibility of low-coal in the area of active mining is suggested by such conditions in the nearby abandoned workings. However, a drill hole in the southwestern portion of the 480-acre tract indicates minable coal.

The southern of the two active sections is progressing parallel to the northern section and is expected to reach the barrier pillar at the unleased coal boundary of subject modification tract within several months. The section is proceeding between a 120-foot fault to the left and a 17-foot fault to the right. In the event that subject modification is approved the section would be driven across the 70-acre tract and possibly into the 480-acre tract.

II. PROPOSED ACTION

Swisher Coal Company has applied for lease of subject 70-acre tract by modification of their Federal lease U-8319. The primary purpose of the application is to allow recovery of an estimated 270,000 tons of Castlegate A coal from about 40 of the 70 acres as allowed by faulting. Secondly, the 70-acre tract may allow an alternative southern route into the 480-acre tract should the northern of the two operating mine sections encounter low coal, faults or poor roof conditions.

The modification tract would be mined as a continuation of the existing underground Gordon Creek No. 2 mine. All surface facilities required for coal production and processing are presently in operation on private surface.

Subject area has been found suitable for coal leasing in accordance with 43 CFR 3460 and U.S.G.S. has determined that the area will be lost to mining if not mined concurrently with Swisher's contiguous lease holdings.

The surface of subject land is owned by Helper Associates who have been notified of the proposed action.

III. EXISTING ENVIRONMENT

A. Non-Living

Subject land lies in a mountainous area about three miles west of the Wasatch Plateau escarpment (Figure 2). Elevations range from 8,400 to 8,900 feet. The frost free period averages 135 days with 16 to 20 inches of precipitation annually. Air and water quality in the area are good to excellent. The spring at the Gunnison Homestead - - - .

B. Living

Vegetative types occurring in the application area includes sagebrush-grass and conifer-aspen. Major vegetation includes Douglas fir, quaking aspen, big sagebrush, rabbitbrush, and wheatgrass. No threatened or endangered plant species have been identified in the area (Welsh, 1979).

A large variety of wildlife inhabit the area. Game species include mule deer, elk, and moose. The State Division of Wildlife Resources has identified subject area as an elk migration route and critical moose winter habitat has been designated several miles to the north and north-west. Subject area is migratory habitat of the endangered peregrine falcon and the bald eagle is a winter visitor (USGS, 1979).

The area is grazed by sheep under the authority of the surface owners.

See the 1975 EAR/TE for additional information on the existing environment.

C. Human Values

Little archaeological data is available for the modification tract. Data collected for the Central Utah Coal Environmental Statement (ES) (USGS, 1979) indicated the tract is in an area of low site density (1-10 per township). Regional archaeological and historic values are fully discussed in the ES (II-95 to II-102).

The BLM's Visual Resource Management class for the entire area falls within Class IV. This classification allows modification during the life of a project. Subsequent rehabilitation or reclamation must be directed toward reestablishing a natural or near-natural landscape.

Subject area and adjacent areas have been considered for wilderness values, but have been dropped from further wilderness inventory due to land ownership patterns.

IV. ANTICIPATED IMPACTS

Surface occupancy of subject land is not anticipated so that the only impacts to the surface environment would be those caused by subsidence. Factors influencing subsidence include mining methods, rate of mining, thickness of coal removed, nature of strata above mined areas and thickness of overburden. As mine passageways subside stress is transferred to solid coal boundaries or pillars with caving progressing to the surface until the stress is dissipated. The effects of mine passageways closing may be visible at the surface as fractures in resistant rock or as buckles and depressions. Accurate prediction of subsidence has not been fully accomplished, but, with the mining of coal eight feet thick under an overburden of 300 to 700 feet, to expect subsidence of four feet would be reasonable. Surface expressions of subsidence, such as cracks and depressions, would fill with soil and debris. Subsidence over mined areas in similar terrain has generally not been visually noticeable.

A large variety of wildlife inhabit the area. Game species include mule deer, elk, and moose. The State Division of Wildlife Resources has identified subject area as an elk migration route and critical moose winter habitat has been designated several miles to the north and north-west. Subject area is migratory habitat of the endangered peregrine falcon and the bald eagle is a winter visitor (USGS, 1979).

The area is grazed by sheep under the authority of the surface owners. See the 1975 EAR/TE for additional information on the existing environment.

C. Human Values

Little archaeological data is available for the modification tract. Data collected for the Central Utah Coal Environmental Statement (ES) (USGS, 1979) indicated the tract is in an area of low site density (1-10 per township). Regional archaeological and historic values are fully discussed in the ES (II-95 to II-102).

The BLM's Visual Resource Management class for the entire area falls within Class IV. This classification allows modification during the life of a project. Subsequent rehabilitation or reclamation must be directed toward reestablishing a natural or near-natural landscape.

Subject area and adjacent areas have been considered for wilderness values, but have been dropped from further wilderness inventory due to land ownership patterns.

IV. ANTICIPATED IMPACTS

Surface occupancy of subject land is not anticipated so that the only impacts to the surface environment would be those caused by subsidence. Factors influencing subsidence include mining methods, rate of mining, thickness of coal removed, nature of strata above mined areas and thickness of overburden. As mine passageways subside stress is transferred to solid coal boundaries or pillars with caving progressing to the surface until the stress is dissipated. The effects of mine passageways closing may be visible at the surface as fractures in resistant rock or as buckles and depressions. Accurate prediction of subsidence has not been fully accomplished, but, with the mining of coal eight feet thick under an overburden of 300 to 700 feet, to expect subsidence of four feet would be reasonable. Surface expressions of subsidence, such as cracks and depressions, would fill with soil and debris. Subsidence over mined areas in similar terrain has generally not been visually noticeable.

Subsidence could impact surface and ground water by additional seepage of surface water into the subsurface. Spring flow could be increased or decreased. Ground water confined to strata at the mine horizon or above could seep into lower strata. The net effects on the water systems is unknown but of probable minor significance.

The cumulative effects of subsidence are not expected to significantly affect the environment or current surface uses, such as grazing and recreation. Visual and cultural resources would not be impacted. The endangered peregrine falcon and bald eagle would not be affected.

V. RECOMMENDED MITIGATING MEASURES

In accordance with 43 CFR 3432.3(a) the "terms and conditions of the original lease shall be made consistent with the laws, regulations and lease terms applicable at the time of modification--". Thus, the lease terms developed for the 1976 modification are the terms to which the entire lease are currently subject. Those terms are attached as Appendix I and the same terms are recommended for the 70-acre modifications tract being considered by this report with the exception of the following:

ADDITION

Section 8(B)5. The lessee shall establish a water-monitoring system capable of providing information pertaining to any effects mining operations may have on the Gunnison Homestead Spring. The monitoring system shall include the periodic measurement and analysis of water quantity and quality. The system and methods employed shall be approved by the Area Mining Supervisor in consultation with the Authorized Officer.

Section 8(B)6. The lessee is to assume full responsibility and liability for the loss of or alteration of water sources that result from his mining activities or other operations conducted under the terms of this lease. If mining or other activities of the lessee could cause adverse alteration of water quality or loss of waters available from the Gunnison Homestead Spring, the lessee shall prevent such loss when possible, consistent with standard mining practices, or if not possible, correct any adverse affect on water quality and replace any lost water from an alternate source, in at least an equal quantity and quality.

Section 15. The lessee shall establish a surface subsidence monitoring system to measure the effects of the underground mining activities on the land surface topography, underground and surface hydrology, and vegetation. A satisfactory series of monitoring points shall be established on the lease area. The monitoring shall be conducted by a method and in a manner approved by the Area Mining Supervisor in consultation with the Authorized Officer. The results of the monitoring shall be reported periodically to the Mining Supervisor and Authorized Officer. The Area Mining Supervisor may require the lessee to employ such measures and

precautions deemed necessary, including mining methods and extent and manner of coal extraction, to ensure that neither damage to the surface facilities nor loss of perennial streams or springs occurs, nor hazardous conditions are created.

DELETION

Delete Section 1(B) as inappropriate in accordance with 43 CFR 3451.1.

It is recommended that the standard \$25,000 statewide or \$75,000 nationwide bond would be sufficient for lease U-8319.

VI. PUBLIC PARTICIPATION AND COORDINATION

A field inspection of the 70-acre tract was conducted on September 21, 1979. Those present were Dan Guy and Bruce Ware of Swisher Coal Company, Allan Vance of U.S.G.S., and Gary Davis, Jeff Williams and Sid Vogelpohl of the BLM. Helper Associates, the surface owners, were notified of the field inspection but did not attend.

~~APPENDIX 1~~

REFERENCES

1. Welsh, S.L., 1979, Illustrated Manual of Protected Endangered and Threatened Plants of Utah: Brigham Young University, p. 318.
2. U.S.G.S., 1979, Development of Coal Resources in Central Utah (E.S.), Department of Interior, p.II-39 to 47.

COAL LEASE ENVIRONMENTAL STIPULATIONS

SECTION 1. GENERAL.

(A) Applicability of Stipulations.

The terms, conditions, requirements and prohibitions imposed upon the Lessee by these Stipulations are also imposed upon the Lessee's agents, employees, contractors, and sub-contractors, and their employees. The failure or refusal of the Lessee's agents, employees, contractors, or sub-contractors, or their employees to comply with these Stipulations shall be deemed to be the failure or refusal of the Lessee. The Lessee shall require his agents, contractors, and sub-contractors, to include these Stipulations in all contracts and sub-contracts which are entered into by any of them, together with a provision that the other contracting party, and his agents, employees, contractors, and sub-contractors, and the employees of each of them, shall likewise be bound to comply with these stipulations.

(B) Changes in Conditions.

These Stipulations are based on existing knowledge and technology. They may be revised or amended, in writing, by the mutual consent of the Mining Supervisor, the District Manager, and the Lessee at any time to adjust to changed conditions or to correct an oversight. The Lessor may amend these Stipulations consistent with any new Federal or State statutes and with regulations issued under those statutes. The Lessee, the Mining Supervisor, and the District Manager shall meet at least once a year to review advances in technology and, in a mutual endeavor, weigh and decide the feasibility and need of revising or amending existing Stipulations.

The Lessor and the Lessee agree that, in this mutual endeavor to decide upon the feasibility and need for amending the existing Stipulations, they will act in good faith and in a sincere effort to make the Lessee's activities under the lease as free from environmental damage as is practicable. Systems which require pollution control devices shall, whenever possible, possess sufficient flexibility to adopt improved technology when the improvements are available, and the systems shall be constructed with the understanding that continued compliance with changing pollution control laws is required.

(C) Emergency Decisions.

Any decisions or approvals of the Mining Supervisor or District Manager required by these Stipulations to be in writing may in emergencies be issued orally, with written confirmation as soon thereafter as possible.

(D) Construction Standards

The general design of all buildings and structures shall comply with the latest edition of the Uniform Building Code (U.B.C.). Steel structures shall be designed in accordance with the latest edition of the American Institute of Steel Construction, "Specifications for Design, Fabrication and Erection of Structural Steel for Buildings." Reinforced concrete shall comply with the latest edition of the American Concrete Institute's "Building Code Requirements for Reinforced Concrete." Engineering works for impoundments shall conform to standard engineering practice sufficient to prevent environmental damage which could result from a 100-year flood in the drainage in which installed.

SECTION 2. ACCESS AND SERVICE PLANS.

(A) Pipelines.

In the design, construction and operation of pipelines and the choice of materials for them, the Lessee shall follow the standards (whenever they may be made applicable) established by the Department of Transportation and, if these standards should ever be revised, supplemented, or superseded, shall follow the new standards. These standards include:

- (1) 49 CFR 192, Transportation of Natural and Other Gas by Pipeline;
- (2) 49 CFR 195, Transmission of Liquids by Pipeline;
- (3) 49 CFR, Part 191, Carriers by Pipeline (Other than Natural Gas and Water).

(B) Electric Transmission Facilities.

The Lessee shall design and construct telegraph and telephone lines, electric powerlines, distribution lines and other transmission facilities on the leased lands in accordance with the guidelines set forth in "Environmental Criteria for Electric Transmission Systems," (U.S.D.I., U.S.D.A., 1970), as now or in the future amended, or if these guidelines should be superseded, in the guidelines or other rules superseding them. Distribution lines shall be designed and constructed in accordance with REA Bulletin 61-10, "Powerline Contracts by Eagles and Other Large Birds," as now or in the future amended, or, if these guidelines should be superseded, in the guidelines or other rules superseding them. Nothing in this subsection shall be deemed to require the reconstruction of facilities which at the time of their construction were in compliance with existing rules or guidelines.

(C) Existing and Future Roads and Other Rights-of-Way.

Where feasible, the Lessee shall use existing railroads, roads, trails, and other rights-of-way. Unless the Lessor shall direct otherwise, future railroads, roads, trails and other rights-of-way shall be located, constructed, maintained, and closed according to the specifications of the Bureau and shall include drainage structures where needed.

The Lessee has the responsibility for securing access rights-of-way.

(D) Regulation of Public Access.

After construction on rights-of-way is completed, the Lessee shall, upon consultation with the Lessor, permit reasonable, free and unrestricted public access to and upon roads and other rights-of-way for all lawful and proper purposes except to mine sites, disposal areas, operational haul roads, and other operational areas which may be closed to the general public. The Lessee shall regulate public access and public vehicular traffic as required to facilitate operations and to protect the public and, to the extent reasonable, livestock and wildlife from hazards associated with mining operations. For this purpose, the Lessee shall provide warnings, flagmen, barricades, and other public safety measures as necessary. Whenever the Mining Supervisor shall determine that the Lessee's regulation of access and traffic is unreasonable, or that the Lessee's provision of public safety measures is inadequate, he shall so inform the Lessee who shall immediately take corrective measures.

(E) Waterbars and Breaks.

The Lessee shall divert runoff from roads and uphill slides by means of waterbars, waterbreaks, or culverts constructed in accordance with Bureau specifications.

(F) Barriers.

Where a railroad, road, trail, pipeline, transmission facility or exploratory site cuts a natural barrier used for livestock control, the Lessee shall, at his own expense, close the opening by the use of a fence or other suitable barrier. All fences, cattleguards and other barriers constructed by the Lessee shall meet established Bureau specifications and standards.

(G) Crossings.

The Lessee shall take all steps necessary to make certain that railroads, roads, trails, pipelines, and transmission facilities constructed under this Lease do not prevent or unreasonably disrupt the use of existing roads, trails, pipelines, and other rights-of-way or major animal migration routes. This requirement shall include the construction of suitable overhead or underground crossings where they are determined to be necessary by the Mining Supervisor or the District Manager.

(H) Alternate Routes.

If any of the Lessee's activities on the leased lands shall interfere with the free use of existing roads and trails used by persons, whether or not recorded, he shall provide such alternate roads and trails as the Mining Supervisor or the District Manager may determine to be needed.

(I) Off-Road Vehicle Use.

The Lessee shall use off-road vehicles in a manner consistent with applicable Federal, State and local regulations.

SECTION 3. FIRE PREVENTION AND CONTROL.

(A) Instructions of the Mining Supervisor.

(1) The Lessee shall comply with regulations (including, but not limited to, 30 CFR, Parts 75, 77, 211, and 43 CFR, Part 23) and with the instructions and directions of the Mining Supervisor concerning the use, prevention, and suppression of fires, and shall make every reasonable effort to prevent, control and suppress any fire on Leased Lands. Uncontrolled fires must be immediately reported to the Mining Supervisor and District Manager.

(2) (a) The Lessee shall construct fire lines or perform clearing when necessary to fight fires or, when determined by the Mining Supervisor or the District Manager to be necessary, to prevent such fires.

(b) The Lessee shall comply with the National Fire Codes on handling, transportation, storage, use and disposal of flammable liquids, gasses and solids.

(c) The Lessee shall take all appropriate actions to prevent coal outcrop fires.

(B) Liability of Lessee.

The control and suppression of any fires on the Leased Lands (or on adjoining public lands which have spread from the Leased Lands) caused by the Lessee or his employees, contractors, subcontractors, or agents shall be at the expense of the Lessee. Upon the failure of the Lessee to control and suppress any such fires in a manner satisfactory to the Mining Supervisor or the District Manager, the Mining Supervisor or District Manager shall take such steps as are necessary to control and suppress the fire, either alone or in conjunction with other Federal, State, and local authorities, and the cost of such control and suppression shall be borne by the Lessee.

SECTION 4. FISH AND WILDLIFE.

(A) Management Plan.

The Lessee shall submit to the Mining Supervisor, as part of the mining plan required under Section 11 of this Lease, a detailed fish and wildlife management plan which shall include the steps which the Lessee shall take to: (1) avoid or, where avoidance is impracticable, minimize damage to fish and wildlife habitat, including water supplies; (2) restore, to the extent possible, such habitat in the event it is unavoidably destroyed or damaged; (3) provide alternate habitats where feasible; and (4) provide controlled access to the public for enjoyment of wildlife resources on the leased lands as may be mutually agreed upon. The plan shall include, but not be limited to, detailed information on activities, time schedules, performance standards, proposed accomplishments, and ways and means of avoiding or minimizing environmental impacts on fish and wildlife.

(B) Mitigation of Damage.

Wherever destruction or significant disturbance of fish and wildlife habitat is inevitable, the Lessee shall submit, for the Mining Supervisor's approval at least 60 days prior to the destruction or damage of the habitat, those measures which the Lessee proposes to take to avoid, or, where avoidance is impracticable, minimize and repair injury or destruction of fish and wildlife and their habitat. As a general rule, the proposed measures should provide for habitat of similar type and equal in quantity and quality to that destroyed or damaged. The Mining Supervisor shall, within 60 days after the submission of the proposed measures to him, either approve or disapprove them. If he shall approve them, the Lessee shall execute the measures proposed for the mitigation of the destruction or damage of the habitat. If the Mining Supervisor shall disapprove the measures, he shall offer the Lessee an opportunity for consultation at which, wherever possible, he shall inform the Lessee of any changes which will make the measures acceptable.

(C) Big Game.

The Lessee shall construct big game drift fences when and where necessary to direct big game movements around or away from operational areas as prescribed by the Mining Supervisor.

(D) Posting of Notices.

The Lessee shall post in reasonable and conspicuous places on or adjacent to the Leased Lands notices informing its employees, agents, contractors, subcontractors, and their employees, of all applicable laws and regulations governing hunting, fishing, and trapping.

SECTION 5. HEALTH AND SAFETY.

(A) General.

The Lessee shall take all measures necessary to protect the health and safety of all persons affected by its activities and operations and shall immediately abate any activity or condition which generally threatens the life or health of persons or which threatens any person with bodily harm.

(B) Housing and Welfare of Employees.

In the exercise of his right under Section 1 of the Lease to construct buildings and other facilities for the welfare of his employees, the Lessee shall at all times make certain that these facilities are situated, constructed, operated, and maintained in an orderly manner, satisfactory to the Mining Supervisor or District Manager. While no general restriction is imposed upon the construction of facilities necessary to the employees' health and well-being, such construction shall be subject to the Mining Supervisor's or District Manager's approval and shall not unreasonably damage the environment of the Leased Lands.

Construction of housing and other facilities on the Leased Lands shall require the written approval of the District Manager and shall be subject to county zoning regulations. At the termination of the lease, the Lessee agrees to remove or otherwise dispose of housing and service buildings or any other such facilities to the satisfaction of the Mining Supervisor or District Manager.

(C) Compliance with Federal Health and Safety Laws and Regulations

The Lessee shall comply with the Federal Coal Mine Health and Safety Act of 1969, 83 Stat. 742, as amended, 30 U.S.C. §§ 801-960, as now in effect or as hereafter amended, or, if it should be superseded, with the statute superseding it; or, if applicable, the Occupational Safety and Health Act of 1970, 84 Stat. 1590, 29 U.S.C., §§ 651-678, as now in effect, or as hereafter amended, or, if it should be superseded, with the statute superseding it; and all health and safety standards and regulations promulgated pursuant to such statutes.

(D) Use of Explosives.

The Lessee shall insure that explosives are used only in accordance with existing State and Federal laws and the requirements specified by the Mining Supervisor. The Lessee shall provide adequate advance written notice by publication or posting of planned blasting schedules to local governments and to residents who might be affected by the use of such explosives, and he shall maintain for a period of at least two years a log of the magnitudes and times of blasts. The Lessee

shall limit the type of explosives and detonating equipment, the size, the timing and frequency of blasts based upon the physical conditions of the site so as to prevent injury to persons, damage to public and private property outside the mining site, adverse impacts on any underground mine, and change in the course, channel, or availability of ground or surface water outside the mining site.

SECTION 6. HAZARDOUS MATERIALS.

(A) Responsibility.

If, during operations, any hazardous substance should be discharged, the control, removal, disposal, and cleanup of that substance, wherever found, shall be the responsibility of the Lessee. Upon the failure of the Lessee to control, remove, dispose of, or clean up the discharge, or to repair all damages resulting therefrom, the Mining Supervisor may take such measures as he deems necessary to control, remove, dispose of, or clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wild-life habitats, at the full expense of the Lessee. Such action by the Mining Supervisor shall not relieve Lessee of any responsibility as provided in this Lease.

(B) Reporting of Spills and Discharges.

The Lessee shall give immediate notice of any spills or discharges of hazardous substances to: (1) the Mining Supervisor and (2) such other Federal and State officials as are required by law to be given such notice. Any oral notice shall be confirmed by the Lessee in writing as soon as possible.

(C) Storage and Handling.

The Lessee shall store oil, petroleum products, industrial chemicals and similar toxic or volatile materials in durable containers and locate such materials so that any accidental spillage will not drain into water courses, lakes, reservoirs, or ground water. Unless otherwise approved by the Mining Supervisor, the Lessee shall store substantial quantities (more than 500 gallons) of such materials in an area surrounded by impermeable containment structures. The volume of the containment structures shall be at least: (1) one-hundred fifty (150) percent of the total storage volume of storage tanks in the relevant area; plus (2) a volume sufficient for maximum trapped precipitation and run-off which might be impounded at the time of a spill.

(D) Pesticides and Herbicides.

The Lessee shall not use pesticides and herbicides without the approval of the District Manager (except that within the area of Leased Lands in which actual mining operations are being conducted, this authority

shall be supervised by the Mining Supervisor). Pesticides and herbicides shall be considered treatments of last resort to be used only when reasonable alternatives are not available and where their use is consistent with protection and enhancement of the environment. Where pesticides and herbicides are used, they shall be used only with the approval of the Mining Supervisor and the type, amount, method of application, storage, and disposal shall be in accordance with applicable Federal and State procedures.

SECTION 7. POLLUTION--AIR

(A) Air Quality.

The Lessee shall utilize and operate all facilities and devices in such a way as to avoid, or where avoidance is impracticable, minimize air pollution. At all times during construction and operation, the Lessee shall conduct activities in accordance with all applicable air quality standards and related plans of implementation adopted pursuant to the Clean Air Act, 77 Stat. 392 as amended, 42 U.S.C. 1857, as now in effect or as hereafter amended, or if it should be superseded, the statute superseding it, and applicable State standards.

(B) Dust.

The Lessee shall make every reasonable effort to avoid, or where avoidance is impracticable, minimize dust problems. The Mining Supervisor may require sprinkling, ciling, or other means of dust control on roads, trails, etc. The Lessee shall conduct processing so as to prevent, or if prevention is impossible, minimize to the maximum extent possible, environmental or health problems associated with dust.

(C) Burning.

Open burning is permitted only after securing a burning permit from the Utah Bureau of Environmental Health. A copy of such burning permit shall be presented to the District Manager and the Mining Supervisor for their approval prior to conducting any such burning.

SECTION 8. POLLUTION--WATER

(A) General.

The Lessee shall utilize and operate all facilities and devices in accordance with State and Federal statutes (including, but not limited to, the Federal Water Pollution Control Act, 62 Stat. 1155, as amended, 33 U.S.C., 1251-1376) and regulations as now in effect or as hereafter amended, or if they should be superseded, the statute and regulations

superseding them, and he shall minimize the disturbance to the prevailing hydrologic balance at the mine site and in associated off-site areas and to the quality and quantity of water in surface and ground water systems, during both coal mining and reclamation operations, by:

(1) Avoiding acid or other toxic mine drainage by such measures as, but not limited to, preventing or removing water from contact with toxic-producing deposits; treating drainage to reduce toxic content which adversely affects downstream water upon being released to water courses; containing harmful ground water encountered in the mining operation; or casing, sealing, or otherwise managing bore holes, shafts, and wells to keep acid or other toxic drainage from entering ground and surface waters;

(2) Conducting surface mining operations so as to prevent to the maximum extent practicable additional contributions of suspended solids to stream flow or runoff outside the mining site above natural levels under seasonal flow conditions as measured prior to any mining, and avoiding channel deepening or enlargement in operations requiring the discharge of water from mines;

(3) Removing temporary or large siltation structures from drainways after disturbed areas are revegetated and stabilized;

(4) Restoring, to the maximum extent possible, recharge capacity of the aquifer at the mine site to approximate premining conditions;

(5) Preserving to the maximum extent practicable, through the mining and reclamation process, the hydrologic integrity of alluvial valley floors in arid and semiarid areas;

(6) Implementing such other measures as the Mining Supervisor may prescribe.

(B) Disturbance of Existing Waters.

(1) All activities, exclusive of actual mining activities, that may cause the creation of new lakes, drainage of existing ponds, diversion of natural drainages, alteration of stream hydraulics, disturbance of areas of stream beds or degradation of land and water quality or adversely affect the environmental integrity of the area are prohibited unless approved in writing by the Mining Supervisor and with the owners' prior written consent.

(2) The location of crossings of perennial streams, lakes and rivers must be approved in writing by the Mining Supervisor.

(3) In conducting all activities, including actual mining activities, the Lessee shall, to control erosion, maintain buffer strips at least 200 feet wide on each side of a stream in their natural and undisturbed state unless otherwise authorized in writing by the Mining Supervisor.

(4) In addition to complying with the provisions of subsection (3), the Lessee shall not cut or fill near or in streams or drainages if it would result in siltation or accumulation of debris unless approved in writing by the Mining Supervisor.

(C) Road Surfacing Material.

All road surfacing material used by the Lessee must be approved by the Mining Supervisor or the District Manager.

SECTION 9. POLLUTION -- NOISE.

The Lessee shall comply with all applicable Federal, State or local standards on noise pollution, as now in effect or as hereafter amended, or, if they should be superseded, the standards superseding them. In the absence of specific noise pollution standards, the Lessee shall keep noise at or below levels safe and acceptable for humans, as determined by the Mining Supervisor or the District Manager.

SECTION 10. REHABILITATION.

The Leased Lands shall be rehabilitated in a manner that will avoid or minimize environmental impacts off the Leased Lands and be in accordance with Federal, State and local surface rehabilitation statutes and regulations.

SECTION 11. CLEARING AND STRIPPING.

The Lessee may clear and strip only such lands as are necessary for mining, processing, and other operations under the Lease. In connection with such operations, the Lessee may clear and strip land necessary for roadbeds, but the widths of such roadbeds shall be not more than 25 feet from the centerline, unless otherwise specified by the Mining Supervisor or District Manager.

SECTION 12. WASTE DISPOSAL.

Disposal of mine and other wastes shall be carried out pursuant to applicable Federal, State and local laws and regulations.

SECTION 13. SCENIC VALUES.

(A) The Lessee shall, except where the Mining Supervisor or District Manager has approved otherwise, use the following standards in all designing, clearing, earthmoving, and construction:

(1) Contours compatible with the natural environment shall be used to avoid straight lines wherever feasible.

(2) Natural colors consistent with the local environment such as pastels or muted shades of brown, green, red, or grey shall be used in the painting of facilities installed on the Leased Lands. Bright or unnatural colors shall be avoided except for use in warning or other markings for safety purposes.

(3) Small natural openings or the edges of larger openings in the natural environment shall be utilized in the construction of facilities or disturbing the land surface whenever feasible.

(4) During the time when the land is disturbed, the portion of land which is not under revegetation programs shall only be those areas required under the mining plan for mining, storage, or processing operations.

(B) Consideration of Aesthetic Values.

The Lessee shall consider existing aesthetic values in all planning, construction, reclamation and mining operations. All roads, trails, railroads, pipelines and transmission lines shall, where practicable, be constructed so as to minimize visual impact, to make use of the natural topography, and, wherever feasible, to achieve harmony with the landscape.

(C) Protection of Landscape.

The Lessee shall design any structures and facilities built under this lease so that they will, to the extent practicable, blend with the natural landscape.

(D) Signs.

The Lessee shall design and construct signs that are rustic in appearance, except for warning signs and other marking for safety purposes, and they shall conform to the sign standards of the Bureau.

SECTION 14. ANTIQUITIES AND OBJECTS OF HISTORIC AND SCIENTIFIC VALUE.

(A) "Cultural resources," for the purpose of this section, shall be defined as any district, site, building, structure, or object of American historical, scientific prehistoric, archaeological, or architectural significance. Prior to the submission of any exploration or mining plan, the Lessee shall engage a qualified independent expert who shall conduct a survey, acceptable to the District Manager, of the lands to be disturbed under that plan and immediately adjoining lands to determine the existence

of cultural resources. (Information collected prior to the Effective Date as to cultural resources on the Leased Lands shall, with the approval of the District Manager, satisfy all or part of the survey requirements of this section.) The expert conducting the survey shall be a person acceptable to the District Manager and the terms and conditions of the contract under which the survey is conducted shall be subject to approval of the District Manager. The contract shall provide that the expert shall be directly responsible to the Lessor, and the Lessor shall, upon approval of the contract, become a party thereto. The District Manager shall approve (or disapprove, as the case may be) the contract not later than 30 days after the Lessee submits the contract to him. The survey, at the discretion of the Lessee, may be in two parts, one covering the lands which are the subject of the exploration plan and one covering the lands which are the subject of the mining plan, or may be in one part including the lands which are the subject of both the exploration plan and the mining plan. The responsibility and cost of the survey and of any salvage that may be required as a result of such survey will be that of the Lessee. No plan in connection with which a survey is prepared shall be approved before the expert has completed a survey acceptable to the District Manager. In order that the requirements of this section may be expeditiously fulfilled, the Lessee may elect to have the expert on hand during exploration or mining to complete the necessary survey of additional lands not covered by the initial survey before those lands are disturbed pursuant to changes which the Mining Supervisor approves in the exploration or mining plan. In the event that the survey identifies cultural resources, the plan shall contain provisions to avoid the disturbance of such discoveries until the Lessee and the Lessor have complied with the law with respect to such discoveries.

(E) The Lessee shall immediately bring to the attention of the Mining Supervisor any cultural resources discovered as a result of operations under this Lease and shall leave such discoveries intact. The Mining Supervisor shall immediately inform the District Manager of the discovery and the District Manager shall, within ten days thereafter, evaluate the discoveries brought to his attention to determine whether such discoveries may be potentially qualified for inclusion in the National Register of Historic Place or may be otherwise significant as a cultural resource. If the District Manager shall make such determination in the affirmative, he shall immediately refer this determination to the appropriate officer of the Department of the Interior for review and approval of potential qualification, which shall be made within ten days thereafter. During this period for determination and evaluation of the discovery, the Lessee shall comply with the directions of the District Manager so as to avoid the disturbance of the cultural resource.

APPENDIX II

PUBLIC NOTICE

The Bureau of Land Management (BLM) has prepared a draft supplement to an Environmental Assessment Record and Technical Examination (EAR-TE) prepared in 1975 for the modification of a Federal coal lease held by Swisher Coal Company. The supplemental EAR-TE considers a second modification for the

addition of 70 acres to Swisher's Federal coal lease U-8319. The tract is located approximately 11.5 miles west of Helper, Utah near Beaver Creek (T13S, R7E, SLM, Sec. 13: NE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$). Mining would be conducted as part of Swisher's ongoing operation at the Gordon Creek No. 2 mine. Mining would be by underground methods. Surface oc-

cupancy is not anticipated. The supplemental and the original EAR-TE is available for review at the BLM, Price Office. Written comment will be received up to November 26, 1979.

A public meeting will be conducted at the Carbon County Courthouse in Price, Utah on November 7, 1979 at 7:00 p.m.

Published in the Emery County Progress Oct. 25, 1979.

PUBLIC NOTICE

The Bureau of Land Management (BLM) has prepared a draft supplement to an Environmental Assessment Record and Technical Examination (EAR-TE) prepared in 1975 for the modification of a Federal coal lease held by Swisher Coal Company. The supplemental EAR-TE considers a second modification for the addition of 70 acres to Swisher's Federal coal lease U-8319. The tract is located approximately 11.5 miles west of Helper, Utah near Beaver Creek (T13S, R7E, SLM, Sec. 13: NE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$). Mining would be conducted as part of Swisher's ongoing operation at the Gordon Creek No. 2 mine. Mining would be by underground methods. Surface occupancy is not anticipated.

The supplemental and the original EAR-TE is available for review at the BLM, Price, Office. Written comment will be received up to November 26, 1979.

A public meeting will be conducted at the Carbon County Courthouse in Price, Utah on November 7, 1979 at 7:00 p.m.

Published in the Sun Advocate, October 24, 1979.

File Copy

43-070-5-24
1212 (U-070)

43 CFR PART 23 TECHNICAL EXAMINATION
AND
ENVIRONMENTAL ANALYSIS REPORT
FOR
SWISHER COAL COMPANY

LEASE NUMBER U-8319, T. 13 S., R. 8 E.

Sec. 7: SE $\frac{1}{2}$ SW $\frac{1}{2}$

Sec. 18: NW $\frac{1}{2}$ NE $\frac{1}{2}$, S $\frac{1}{2}$ NE $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{2}$, NE $\frac{1}{2}$ SW $\frac{1}{2}$

LEASE MODIFICATION T. 13 S., R. 7 E.

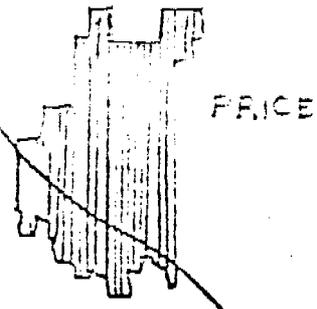
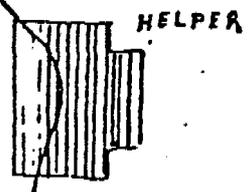
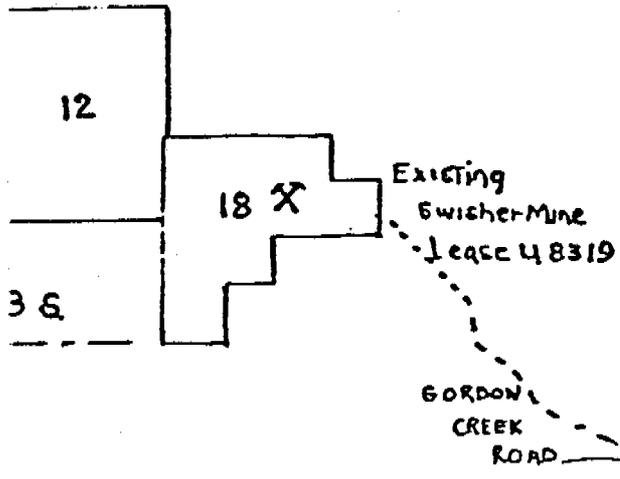
SEC. 12: E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$

TABLE OF CONTENTS

	<u>Page</u>
Location Map.....	1
Description of Proposed Action and Alternative.....	2
Description of Existing Environment	
Non-Living Components.....	3
Living Components.....	14
Ecological Interrelationships.....	23
Human Values.....	24
Analysis of Proposed Action	
Anticipated Environmental Impacts (On Site).....	27
Anticipated Environmental Impacts (Off Site).....	32
Analysis of Proposed Alternatives.....	34
Recommended Mitigating or Enhancing Measures (On Site)..	35
Recommended Mitigating or Enhancing Measures (Off Site)..	39
Relationship Between Short-Term and Long-Term Productivity...	41
Irreversible and Irretrievable Commitments of Resources.	41
Persons, Groups and Government Agencies Consulted.....	41
Intensity of Public Interest.....	41
Recommendation for Environmental Impact Statement.....	42
Signatures.....	42

R. T. E. | R. B. E.

Modification



Location Map

SCALE = 1" = 2.5 mi.

Miles To Price = 16

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Swisher Coal Company proposed to increase their existing lease (U-8319) by an additional 480 acres located in Section 12, T. 13 S., R. 7 E.

The proposed modification would allow a continuation of mining activities in the Castle Gate "A" coal bed and could be accomplished through the existing mine portal located in Section 18, T. 13 S., R. 8 E., (see location and topographic maps).

The mining company proposed to open an additional two (2) mine portals within the lease modification boundaries for the purpose of mine ventilation. The ventilation portals are a requirement of the Bureau of Mines, safety regulations.

Alternatives to the proposed action would be to reject the lease modification, or place the lands requested under competitive bid status.

DESCRIPTION OF THE EXISTING ENVIRONMENT

Current Mining Operation and Mine Site

Swisher Coal Company is currently mining in T. 13 S., R. 8 E., Section 18. The mining procedure being used is the room and pillar method. The average overburden is estimated at 1,000 feet. Current mine production is 250,000 tons per year. The mine mouth is located near the bottom of Bryner Canyon, a

3

major tributary to Gordon Creek. The mine has been operating since 1962. There is an estimated 250,000 tons of mine tailings stockpiled in the bottom of the canyon. Live water is flowing that portion of the canyon. There is an approximate eight to ten acres cleared and leveled adjacent to the mine mouth.

A. Non-Living Components

1. Geology and Topography

The lease area lies on the eastern face of the Wasatch Plateau and is characterized by numerous faults trending in a north-south direction. The major formations within the lease area are the Black Hawk and Star Point. The Black Hawk Formation is the major coal producer in the region. Other primary constituents are sandstone, mudstone, and shale. The Star Point Formation consists of interbedded, light-colored sandstone and gray marine shale.

The topography of the area varies greatly with slopes ranging from 30 to 90 percent. The general aspect of the lease area is northeast. Elevations range from 5,000 to 9,300 feet above sea level. Subsequent faulting does occur in the lease area which trends in a general east-west direction. Maximum fault throw is approximately 20 feet, (see topographic map in appendix).

4.

2. Climate

The lease area lies in an annual precipitation belt of 16 to 20 inches. The 10 year average annual precipitation is 16.8 inches.

Temperatures vary greatly by season (see Appendix I for annual mean maximum and minimum temperatures). The 10 year average annual temperature is 37 degrees F.

Evaporation rates remain relatively constant on an annual basis with a 10 year average of 6.1 inches in June. These averages will vary by months but for the purpose of this report, June will serve as an index.

Solar insolation has not been monitored in the area.

The prevailing wind is from the southwest and velocities vary greatly by month and year. Peak wind velocities are generally expected between June and July. The maximum recorded velocity over the previous 5-year period was 83.4 miles per hour.

Air inversions are not common in the area due principally to topography and wind factors.

Recorded snow data is sparse in the area but by extrapolation methods the 10 year average January snow accumulation is

26.4 inches with a water equivalent of 2.5 inches. The annual average snowpack water equivalent is 10 inches.

The average frost-free season for the area extends from June 2 to September 11, a period of 135 days.

3. Air

(a) Particulate Matter

Suspended solids in the atmosphere have been monitored, on a continual basis, in the general area since 1970.

Based on available data from six monitoring stations, the concentrations of particulates are far below State and Federal air quality standards. Available data indicate 96 percent of particulates sampled are natural dust particles. The remaining 4 percent consist of fly ash and soot.

(b) Carbon Monoxide

Levels of CO concentrations have not been monitored in the area. Expected present concentrations would be well within the Federal standards.

(c) Nitrogen and Sulfur Oxides

Data from the Huntington Canyon air monitoring study indicates sulfur dioxide concentrations in the area

are below the detectable level of .005 ppm.

Nitrogen oxide concentrations range, on an average, between .007 and .021 ppm. Extrapolating this data, a slightly higher level could be expected in the lease area due to its proximity to a larger city, but the levels would be well within the State and Federal standards.

(d) Ozone

Ozone concentration range between .02 and .04 ppm., which is below the Federal standard of .08 ppm.

(e) Hydrocarbons

No data is available for hydrocarbon concentrations in the area.

(f) Heavy Metals

There is no data available on volatilized metals such as lead or mercury. Levels of these and other heavy metals would be expected to correspond to background levels and to be below detectable limits.

(g) Radiological Contaminants

No data is available on radiological contaminants in the area.

7
4. Lands

(a) Soil Depth

The soils in the lease area belong to the Castle Valley-Kenilworth Association and are identified as (1) mountain loam, (2) mountain stony loam, and (3) mountain loam (oakbrush) types. The soils are generally shallow, calcareous, well-drained and are gently sloping to steep. Water holding capacity of the soils is considered to be good with the exception of the mountain stony loam.

(b) Soil Structure

Approximately 40 percent of the area is comprised of mountain loam, 35 percent mountain loam (oakbrush) and 25 percent mountain stony loam. All three soil types have an angular and/or subangular blocky structure. Mountain loam and mountain loam (oakbrush) are medium textured soils and have good infiltration capacities. Mountain stony loam is also a medium textured soil, but the soil profile indicates 50 percent or more is composed of stone which limits the water holding capacity and increases deep percolation.

(c) Soil Erosion

Due to well established vegetation over most all of the area involved, and infiltration, percolation and

8

water holding capacities of the soils, erosion is occurring at a relatively normal geologic rate. At present, human surface activities are limited to the mine mouth located in the canyon bottom, the access to the mine mouth and one private access road which are contributing an insignificant amount of surface erosion. These soils, when not protected, will erode at a moderate rate.

(d) Land Use Compatibility

The surface of the lands involved in the lease and lease modification is in private ownership. The primary land use at present is grazing, with some other forms of recreational use, such as hunting, hiking, horseback riding, etc. These uses are apparently compatible to adjacent land uses with no foreseen public controversy. These uses are also compatible with coal mining activities.

(e) Land Use Suitability

The lease area is suitable for all of the current uses. There is a small amount of merchantable timber but at present, it would be uneconomical to harvest. Grazing production could be increased under a rest rotation management plan.

None of the surface is suitable for industrial use due to an inadequate supply of water, but the surface has a high value in terms of water production for downstream uses. Recreational development, homesites, and wildlife habitat are all suitable uses for the area.

5. Water Resources (Hydrology)

(a) Precipitation

Normal annual precipitation in the lease area ranges between 16 and 17 inches. The greatest amount occurs between the months of October through April, in the form of snow with a water equivalent of 8 to 10 inches. Normal May through September precipitation is 6 to 8 inches.

(b) Surface Water

The North Fork of Gordon Creek and Beaver Creek, both perennial streams, flow through the lease area. Data obtained from the gaging station on Beaver Creek, located near Soldier Summit (Sec. 30, T. 11 S., R. 9 E., Utah County), show peak flows occur in mid-May or early June. The maximum discharge for water year 1973 (October 1 through September 30) occurred on May 19 and was 253.4 acre feet. Records for water year 1973 show a total discharge of 7,610 acre feet. There are no flow data available for the North Fork of Gordon Creek. There

are no flood frequency or hydrologic analysis data available for either stream.

(c) Ground Water

There are numerous springs, approximately 16, scattered throughout the lease area. There are no flow data available for any of the springs. Most of the springs are active throughout the year and are major contributors to both Beaver and North Fork Gordon Creeks. Surface geology would indicate there are no shallow confirmed aquifers bisecting the lease area. However, due to extensive faulting, the area may represent a recharge zone for deeper aquifers.

(d) Evapotranspiration and Other Losses

Data available from the Beaver Creek gaging station indicate an estimated annual loss of 6,000 acre feet of water from the 26 square mile drainage basin, (based on an average annual 17 inch precipitation figure). There are no detailed data available to determine exact causes for the loss, but it is reasonable to assume drainage basin leakage and evapotranspiration could easily account for as much as 80 percent. There is no data available for Gordon Creek.

(e) Suspended Solids and Bed Loads

There are no data available on suspended solids or bed loads in the surface waters. However, erosive

characteristics of the upper drainage basins would indicate relatively low suspended solids contributed by the lease area. Downstream from the lease area, watershed conditions deteriorate and it is expected sediment loads would increase.

(f) Water Quality (Chemical)

Random grab samples were taken from Beaver Creek and the North Fork of Gordon Creek on September 28, 1974. Both streams were sampled in the upper portion of both drainage basins and again in the lower portion of the basins below the lease area. The data presented in Table II (Appendix) does not establish trends or present an accurate account of surface water quality, but merely gives an indication of water quality during low flow conditions (estimated flow of each stream, 2 cubic feet per second) at a given point in time. In order to establish a reliable water quality data base, a systematic, long-term data collection process would need to be implemented.

The streams were analyzed for eleven various parameters (see Table II). In general, water quality conditions were good. Based on the grab sample data, both streams were strongly bicarbonate-sulfate type.

INTERPRETATION OF DATA PRESENTED IN TABLE IISodium and Potassium (Na and K)

Sodium and potassium are dissolved from numerous rock and associated soil types. Moderate quantities of these constituents (less than 50 ppm. when combined) have little effect on the usability of the water for most purposes. Sodium is, by far, the most harmful constituent when considering irrigation because of its accumulative property and absorption ability on clay soils. Its absorption ability will impede soil drainage and can tie up available nutrients needed for plant growth. The waters of Beaver and Gordon Creeks, where sampled, are well within acceptable limits for usable water.

Calcium and Magnesium (Ca and Mg)

Calcium and magnesium in the form of inorganic salts are derived from limestone, dolomite and gypsum. Calcium and magnesium are the major constituents which contribute to water hardness. Values between 60 and 120 ppm. with the two combined are considered to be moderately hard which does not seriously interfere with most uses of the water.

Chloride (Cl)

Chloride is dissolved from many rock and soil materials. High concentration of chloride (600 mg/l and above) will increase the corrosiveness of water and make it unsuitable for industrial use. The waters sampled are well within acceptable limits.

Sulfate (SO₄)

Sulfate is derived primarily from gypsum and marine shales. High concentrations of sulfate in conjunction with magnesium increase water hardness. Concentrations of sulfate lower the value of water for many uses. The waters sampled are within acceptable concentration levels.

Hydrogen-ion Concentration (pH)

The hydrogen-ion concentration is the relationship of acidity or alkalinity of the water. A pH value of 7.0 indicates a neutral condition. Values below 7.0 denote acidity while values above 7.0 indicate alkalinity. The pH of most natural waters ranges between 6 and 8. The water analyzed are moderate in alkalinity, (Values varies between 8.05 and 8.22).

Electrical Conductance (E.C. Umhos)

Electrical conductivity is an indirect measurement of the total dissolved solids found in a body of water. It is merely a quantitative measurement and does not indicate what the dissolved solids are. Values derived from electrical conductivity become useful tools when trying to establish trends in the dissolved solid content of water over a period of time, values above 1000 ppm. are considered to be excessive. Values shown in Appendix II indicate moderate concentrations of dissolved solids. (These values translate to a range between 450 and 800 ppm.)

Organic Compounds

The water samples were not analyzed for nitrate, nitrite or phosphate.

Water Quality (Bacteriological)

There is no bacteriological data available on the two streams. The water samples were not analyzed for coliform concentrations.

B. Living Components

1. Plant Communities (Terrestrial)

a. Conifers

The conifers found in the lease area are Douglas fir (Pseudotsuga menziesii Var. glauca), lesser amounts of subalpine fir (Abies lasiocarpa), sparse ponderosa pine (Pinus ponderosa), pinyon-juniper (Pinus edulis), and Utah juniper (Juniperus osteosperma). The Douglas fir and subalpine fir are confined to the north slopes. Ponderosa pine is sparse and occupies the lower elevations and drier sites. The pinyon-juniper community is confined primarily to the flat mesa tops. The Douglas fir and subalpine fir occupy the mountain stony loam soils along the north slopes above the 5,500 foot elevation zone. The timber stands are on slopes exceeding 60 percent. The stands are characterized.

by mature and overmature trees (age class 100 years plus) which are stagnated. The average DBH (diameter at breast height) is 18 inches. Tree heights range from 40 to 50 feet. There is no data available on stand volumes. Visual observation indicates relatively low mortality rates. Natural reproduction of both species is occurring in natural canopy openings. (See Appendix II)

Douglas fir is considered to be the climax species in this region of the Rocky Mountains. The timber is not considered to be of commercial value, due primarily to (1) accessibility of the timber, (2) the size of the timber, (3) the lack of a viable timber market within a reasonable distance, and (4) inadequate logging technology in the immediate area.

The ponderosa pine are very sparse and are overmature (age class 200 plus). There is little evidence of pine reproduction. The vigor of the trees is poor and most are insect infected (pine bark beetle). The ponderosa pine have no commercial value.

The pinyon-juniper type is confined to the mesa tops and south facing slopes in the 4,000 to 5,000 foot

elevation zone. The stands vary from sparse to dense and are old growth. Natural reproduction of the type is occurring very slowly due primarily to its harsh environment. The pinyon-juniper has no commercial value with the exception of cordwood for use in fireplaces and fence posts.

There are no accurate data available on stand density and distribution of these species.

b. Hardwoods

The hardwoods found in the area are gamble oak (Quercus gambellii), quaking aspen (Populus tremuloides), mountain mahogany (Cercocarpus montanus), curleaf mahogany (Cercocarpus ledifolius), and Rocky Mountain maple (Acer glabrum). Gamble oak, mountain mahogany, curleaf mahogany and Rocky Mountain maple are sparse and are found along the south and east slopes at the lower elevations and are associated with the pinyon-juniper type. All species listed have no commercial value. Mountain mahogany and curleaf mahogany are key winter browse species for deer and elk. Quaking aspen are found in dense clones above the 6,000 foot elevation zone. The species has little commercial value but does provide good deer and elk habitat. There are no accurate

data available concerning density and distribution of these species. (See Appendix II)

c. Browse Species

The major browse species found in the area are:

- Symphoricarpos oreophilus - Snowberry
- Purshia tridentata - antelope bitterbrush
- Amelanchier alnifolia - serviceberry
- Artemisia tridentata - big sagebrush
- Chrysothamnus nauseosus - rabbitbrush
- Cercocarpus montanus - mountain mahogany
- Cercocarpus ledifolius - curleaf mahogany

There are no data available on distribution, densities, or utilization of the browse species. However, it is reasonable to assume each species is an important winter feed for resident and migrating deer and elk herds.

d. Forbs and Grasses

There is no transect data available in the area to indicate species composition, distributions, densities, or plant community health. The major forb-grass communities occur on the mountain loam (oakbrush), soils primarily on the south and west facing slopes.

In general, the following major species are found in the area.

GRASS

- Agropyron spicatum - bluebunch wheatgrass
Agropyron subsecundum - bearded wheatgrass
Agropyron trachycaulum - slender wheatgrass
Agropyron smithii - western wheatgrass
Poa ampla - big bluegrass
Poa pratensis - Kentucky bluegrass
Sitanion hystrix - squirrel tail
Oryzopsis hymenoides - Indian ricegrass
Bouteloua gracilis - blue grama

FORBS

- Lupinus alpestris - mountain lupine
Salsola kali tenuifolia - Russian thistle
Achilles lanulosa - western yarrow
Hackelia foribunda - stickseed
Aster engelmanni - Engelmann aster
Calochortus nuttallii - segolily

The range land condition is good with an estimated total ground cover of 60 percent. There is no data available on livestock utilization or on range carrying capacities.

2. Plant Communities (Aquatic)

There is no data available on aquatic plant communities or algae populations for either stream.

3. Fish and Wildlife

For ease of discussion, the fish and wildlife section will be divided into two (2) parts:

Part I - Game Species

Part II - Non-game Species

(a) Game Species (Terrestrial)

The major game species found in the lease area are elk and mule deer. The Utah State Department of Natural Resources, Division of Wildlife Resources has the state divided into game units. The lease boundaries are located within the Manti-Mountain, Joes Valley - Huntington Unit, designated as unit 12 for elk and unit 33 for mule deer in the respective 1974 hunting proclamations.

The majority of the elk and deer populations are migratory and utilize the area as winter range. There are a few individuals (both elk and deer) which inhabit the area year round but their numbers are small, (estimated 40-45 head of deer and 20-25 head of elk). The number of individuals which utilize the area as winter range vary from year to year. Estimates range from 200-300 head of deer and 75-100 head of elk.

Game unit hunter success and hunting pressure statistics can be obtained by contacting the Utah State Department of Natural Resources, Division of Wildlife Resources. Actual hunting pressure within the lease boundaries is insignificant due primarily to the surface being in private ownership.

There are no known significant elk calving areas within the lease boundaries. The small resident elk herd utilize the dense Douglas fir stands occupying the north slopes above the 8,000 foot elevation zone which are relatively remote from the mining and human population areas. There are no opportunities for game habitat improvement projects within the lease boundaries due to the surface ownership patterns.

Other game species found in the area are the snowshoe hare, cottontail rabbit, blue grouse, and sage grouse. There are no data available to indicate population densities or distribution of these species in the lease area. Hunting pressure on these species within the lease boundaries is expected to be insignificant.

(b) Game Species (Aquatic)

The head water areas of Beaver and Upper Gordon Creeks are inhabited by small (fingerlings and fry), Rainbow and cutthroat trout. The Beaver ponds located on Upper Beaver Creek are inhabited by a relatively good population of Cutthroat trout averaging 14-16 inches in length, which were stocked in 1970. Visual reconnaissance of the two streams indicate an estimated maximum of 15 percent of Beaver Creek and 5 percent or less of Upper Gordon Creek would be suitable for spawning and successful reproduction. There are no aquatic survey data available, on either stream, to indicate their capacity to support a significant fishery.

Water quality (total dissolved solids and salinity) in the lower reaches of Beaver and Gordon Creeks indicate conditions not suitable for a stable fish population. However, under a sound stream improvement program, the upper reaches of Beaver Creek could support a sport fishery with limited fisherman use.

(c) Non-Game Species (Terrestrial)

The non-game species found occupying the various ecological niches, in the lease area, are far

to numerous to list. Reference can be made to the Bureau of Land Management, Price District, Price, Utah, Huntington and Wattis Unit Resource Analysis, for a complete listing of all the species.

(d) Non-Game Species (Aquatic)

Both Beaver and Gordon Creeks support a sparse population of mountain sucker, mottled sculpin, shinner, and dace.

(e) Invertebrates (Aquatic)

There is no inventory data available on the existing invertebrate communities of either stream.

(f) Invertebrates (Terrestrial)

There is no data available on the terrestrial invertebrate communities which may be found in the lease area.

(g) Rare and Endangered Species

There is no known rare or endangered species found in the lease area.

(h) Fur Bearing Species

There is evidence of recent Beaver activity in the upper reaches of Beaver Creek, (beaver ponds).

It is unknown at this time, if the beaver are presently utilizing the stream.

(1) Reptiles

There were no reptiles noted in the lease area. However, it is expected that several species and varieties of snakes are present.

C. Ecological Interrelationships

The primary ecological interrelationships to be considered, in light of the possible environmental impacts, is that of fisheries and fishery habitat. The significance of the relationships is dependent on three (3) factors:

1. Allowing human waste to enter natural waterways or contaminate ground water supplies.
2. Acid mine drainage entering natural waterways.
3. The mining operation affecting flows of either stream.

Assuming liquid waste (human and/or acid mine drainage) are discharged into either Beaver or Gordon Creek, or enter the streams by some other means (i.e., overland flow, ground water) the initial impact will be a change in the chemical regime of the waters. In addition, there will be an increase in bacteriological activity. The change in chemical and bacteriological quality of the water will have an immediate

effect on the stream invertebrate and microorganism populations. The effect will be to reduce the stream productivity which would effect the food supply of the fishery which in turn could decrease the fish population and/or change the species composition of the stream. (i.e., increase numbers of non-game species.)

The problem, left unattended, could in a relatively short time sterilize the streams thus making them unsuitable for supporting any fishery populations.

Alterations of stream flows and/or stream diversion due to the mining activity has obvious ecological implications.

D. Human Values

(a) Landscape Character

The lease boundaries embrace three (3) major landscape characters:

- (1) Low-elevation grassland.
- (2) Mid-elevation shrub land.
- (3) High-elevation alpine forest.

Each of these landscape characters has its own distinct line, form, and color.

Human activities, at present, are primarily concentrated in the low and mid-elevation grass and shrub zones. There are, existing, varying degrees of surface disturbance within

the vicinity of the mine mouth (i.e., two access roads which are no longer in use, mine slag piles, etc.) which disrupt the landscape character of the upper reaches of Gordon Creek drainage. With the exception of one existing jeep trail, the Beaver Creek drainage remains in relatively pristine condition.

The high elevation alpine forest zone is in a relatively pristine state. The zone is used for grazing and there is an existing access road built across private lands which leads to the head water areas of both streams. The forest zone probably offers the most diverse landscape character. This unique diversity affords several types of recreational use, (i.e., sightseeing, hunting, backpacking, horseback riding, etc.).

The dominate landscape theme of the lease area is one of multiple use and yet is in a relatively undisturbed state.

(b) Sociocultural Interest

1. Historical Values

There is evidence of an early homestead located in the upper reaches of Beaver Creek. All that remains of the homestead is the clearing where the house once stood and a few decayed logs used in the construction. There are no known significant historical values in the lease area.

2. Archeological Values

There has been no archeological survey done in the lease area to determine the existance of possible significant archeological sites. However, a literature review indicates there are no significant sites located on the lease area.

3. Paleontological Values

There has been no paleontological survey done of the lease area to determine the possible existance of significant paleontological sites.

(c) Socio-economics

The socio-economic characteristics of Carbon County are common with the coal mining industry.

Carbon County has experienced significant population fluctuations since the turn of the 20th century.

From approximately 1920 to 1940, Carbon County experienced a significant increase of population. Generally speaking, the County experienced a significant decrease of population between the years 1940 and 1972. From 1972 to the present, Carbon County has been on a steady increase of total population, (See, Department of Commerce, United States Census).

The most significant population increase to date in Carbon County has occurred over the past two (2) years. (1972-1974).

The recent increased National energy demand has triggered an increased interest in coal as a primary energy source. President Nixon's "Project Independence" has played a major role in the renewed interest in coal mining. The price of coal, at the mine mouth, has almost doubled in a short period of time, making coal mining more economical and profitable.

Population projections (to 1985) for Carbon County indicate an approximate three (3) fold increase over the current estimated population of 25,000.

ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES

I. Anticipated Environmental Impacts

For ease of discussion the anticipated environmental impacts will be divided into two parts:

Part A: On site impacts.

Part B: Off site impacts.

A. On Site Impacts

The significant on site environmental impacts which could be anticipated as a result of increased mining activity fall in the following categories:

1. New portal openings.
2. Mine subsidence.
3. Interruption of surface waters.

4. Waste products from the mining operation.
5. Aesthetics.

(1) New Portal Openings

The exact location of the mine portals is not known at this time. However, it is expected both portals will be located in the mid-elevation shrub zone.

There will be some deer and/or elk habitat destroyed but the acreage denuded is insignificant when compared to the total area involved. Human activity at the mine portals (i.e., mining equipment, ventilation fans, etc.) will have a definite negative effect on wildlife utilization in the vicinity of the portals. There will probably be a significant amount of solid waste, in the form of mine slag, discharged from the mine portals over the life of the mine. These wastes will eventually enter ephemeral stream channels and could have an effect on the water quality in Beaver and Gordon Creeks. There will be an increase erosion hazard at the portal openings but it is expected to be insignificant and of short duration. The portals could be used for mine waste water release.

(2) Mine Subsidence

The method of mining being used coupled with the thickness and character of overburden substantially decreases the chance of serious mine subsidence. Should mine subsidence occur it would be insignificant and would not be detectable at the land surface.

(3) Interruption of Surface Waters

The lands requested in the lease modification embrace portions of the head water areas of Beaver and Gordon Creek. Due to extensive faulting throughout the lease area, increased mining operations could interfere with surface water flows. Any probable interruptions would be in the form of induced diversions, through major faults from surface flow to subterranean flow which could be diverted through the mine.

Surface water diversions, due to underground mining activities are extremely site specific. The probability of surface water diversions is dependent on (1) the subsurface geology (i.e., strike and dip of the coal beds, faulting, etc.), and (2) the method by which the resource (coal) is removed.

The surface waters involved are currently being used for livestock watering. Portions of the water

rights of the head waters of Beaver Creek are held in private ownership. Should these waters be affected cattle and/or sheep grazing would be suppressed.

(4) Waste Products from the Mining Operation

Waste Products expected from the mine will be in three (3) primary forms:

- (a) Increased mine tailing.
- (b) Human wastes.
- (c) Mine waste waters.

Increased Mine Tailings

There will be a significant volume of mine tailings incurred over the life of the existing mine and proposed modification, (approximately ten years). Based on an estimated total recoverable reserves involved in the modification of 2,000,000 tons of coal, an estimated 200,000 tons of mine waste will be produced.

Human Wastes

Human waste incurred over the life of the mine, from the mine worker population, at the site could be relatively significant. Swisher Coal Company currently employs 45 individuals and works two (2)

production shifts and one (1) maintenance shift. Should the proposed mine modification be approved an estimated 15 new employees will be needed. Based on an estimated average per capita liquid waste production of 15 gallons per day there will be an estimated 324,000 gallons produced annually. Current sanitary facilities at the mine site consists of two (2) portable toilets located within the mine works.

Mine Waste Waters

To date, the Swisher mining operation has not discharged water in any appreciable quantities. However, with the increased mining proposed, there could be significant ground waters encountered. There is no data available to indicate what quantities of water which might be expected. However, there are numerous springs which outcrop at the surface and which could be diverted as mining progresses. These waters becomes highly acidic due primarily to the pick up of oxidized ferric iron. In addition, there is the possibility of producing ferric hydroxide precipitate. Ferric hydroxide is objectionable when it enters natural waters because, (1) it has a detrimental effect on fisheries and aquatic invertebrate in the streams, (2) it can induce bacteriological growth, (3) it's detrimental effect on aquatic vegetation,

and (4) it is aesthetically unpleasing.

(5) Aesthetics

There will be an increased visual impact associated with the proposed lease modification, primarily in the form of the new mine portals. The mine portals will interrupt the landscape form, line and color in the mid-elevation shrub zone. This interruption will tend to draw attention to the portals. In addition the increased coal mine wastes (slag) stockpiled in the area will create a detraction from the natural setting.

B. Off Site Impacts

The significant off site impacts which could be anticipated as a result of increased mining activity fall in the following categories:

1. Public Safety.
2. Projected Employee Increase.
3. Downstream Water Quality Degradation.

Public Safety

There will be an increased public safety hazard associated with the proposed lease modification. The company proposed to double the mine production over the current production of 250,000 tons annually. This

proposal will necessitate an increase in transportation vehicles and/or an increase in the number of trips per day for current coal transportation equipment. There is an existing 150 foot public right-of-way to the mine mouth located along the north fork of Gordon Creek. The increased trips will increase fugitive dust along the right-of-way causing a safety hazard. It is not expected the right-of-way will need to be increased. Road side warning signs are sparse. The company currently operates five (5) - 80 ton capacity coal haulers to transport the coal to the mine tipple.

Projected Employee Increases

It is expected an additional 15 or 20 new employees will be associated with the proposed mine modification. There are no data available to indicate if these will be people from the local population or if they will be brought in from outside the County. If they are brought in from outside the County, it will place an additional stress on an already depressed housing market. It will also place a stress on the consumptive water use of the basin. The degree of additional stress, when considered singularly, will be relatively insignificant. But when the cumulative population growth ~~is~~ considered it could be significant.

Downstream Water Quality Degredation

There is no data available on the downstream water uses of either stream. It is assumed the primary uses are for livestock watering and irrigation. Impacts associated with mine waste water have been eluded to in the on site impacts section. Additional water quality impacts to consider are; (1) discharge of human effluent into natural waters and, (2) mine waste (slag) entering the stream channels. Since the collected water samples were not analyzed for nutrient concentrations, no analysis can be made of the current or background levels. However, dumping untreated sewage into natural water ways will decrease the streams natural purification ability by increasing nitrates, nitrites and phosphates. These nutrients will induce undesirable algae growth and in addition will foster harmful bacteriological growth.

The mine waste (slag), if allowed to enter the natural water ways, can be transported, as bed load, (that material which is rolled along the bottom of a stream by the force of the moving water) far downstream from the original source. The water quality of the stream will deteriorate as previously discussed in the on site impacts section.

II. ANALYSIS OF THE PROPOSED ALTERNATIVES

The only reasonable alternatives to the proposed action are:

- (1) Reject the application for lease modification.
- (2) Place the requested lands under competitive bid status.

The rejection option should be considered a viable one, but at the same time it should be realized that rejecting the lease modification may delay or delete extracting the energy resource.

Placing the lands in question under competitive bid status may also be a viable option, if ^a the larger block of land (greater than 480 acres) were placed on the market for bid.

It must be realized that should this option be selected and should the tract be sold, there would be need for additional access roads, new mine mouth openings and new portal openings. The possible environmental damages resulting from this action may be greater than selecting one of the other alternatives.

III. RECOMMENDED MITIGATING OR ENHANCING MEASURES (ON SITE)

New Portal Openings

1. Locate the portal openings so as to reduce the visual impact.
2. Construct the portal openings on as gentle slopes as possible. Lay the fill at a three to one slope or to conform to the natural topography.
3. Eliminate expending mine waste (slag) through the portals.
4. Eliminate mine waste water discharge from the portals.
5. Reseed the disturbed area of the mine portals with an ecologically compatible seed mixture.

6. When possible, limit the use of mining equipment and human activity at the mine portals during deer and elk wintering and migration periods.
7. Do not use the portal areas as a storage yard for the mining operation.

Mine Subsidence

There are limited means of mitigating this impact. One alternative would be to stock pile mine waste (slag) back in the mine after operations are complete. At best this would be a partial mitigation measure because the volume of mine waste removed. Another possibility would be to induce mine roof failure as sections of the coal block are mined out.

Interruption of Surface Waters

1. The mining operator should inform all individuals, which hold water rights in the lease area of his mining plan and the possibilities of significant water diversions.
2. The mining operator should be prepared to use all means at hand to seal surface water diversion points if they are encountered as the mining progresses and if technically feasible.
3. If averting surface water diversion is impossible the mining operator could construct a reservoir to pump water to the livestock users in the lease area.

4. The mining operator could purchase the surface water rights of the area which might be most affected by the increased mining activities (Beaver Creek).
5. The mining operator should be prepared to accept full responsibility for significant water diversion as a result of his mining operation. He should also be prepared to take necessary steps to correct or mitigate the problem, working under the guidelines of responsible federal, state and local officials.

Waste Products from the Mining Operation

A. Mine Tailings (Slag) :

1. The operator should not stockpile mine tailings in any natural water way.
2. The mine tailings should not be placed in such a manner so as to impound or impede water movement.
3. The mine tailing stockpile should be located so as to cause the least environmental damage. The mining operator should contact responsible Federal, and/or State officials for help in selecting a suitable tailing stockpile site.
4. The mining operator should remove the existing mine tailings stockpiled in the Bryner Canyon drainage bottom.
5. The mine tailing stockpile should be lined with an impervious material to reduce problems associated

with leachate and possible ground and surface water contamination.

B. Human Waste

1. Effluent from the mine operation should not be allowed to enter any natural waterway or should not be discharged on the surface of the ground.
2. The mining operator should supply sealed vault sanitary facilities of suitable size to accommodate expected liquid waste productions at least monthly. The sanitary facilities should be serviced on a regular basis to insure proper operation.

C. Mine Waste Waters

1. Should significant ground waters be encountered in the mining process, (volumes greater than can be used in the mine), they must be analyzed on a continuous (weekly) basis for a minimum of 90 days. The estimated volumes of water and water quality analysis must be reported to the Bureau of Land Management.
2. If water quality conditions dictate a need to dispose of the water, the mining operator should be prepared to construct an evaporation settling pond of sufficient size to accommodate the mine waters.
3. If ground water interception occurs and affects any of the numerous springs located in the head water area of Beaver Creek, the mine operator should be prepared to accept full responsibility.

AESTHETICS

The mine operator should keep his entire mining area in a neat and orderly fashion. Waste materials (trash etc.) should be transported to the nearest disposal area. Equipment maintenance yards should be kept free from excessive oil spills. The mine mouth and portal areas should not be used as equipment storage areas. The mine mouth area should be fenced to prevent fugitive solid waste materials from leaving the site.

IV. RECOMMENDED MITIGATING OR ENHANCING MEASURES (OFF SITE)

Public Safety

1. The mining company should install more traffic warning signs along the right-of-way to inform the public of the potential hazard.
2. The mining company should submit a fugitive dust control plan to the Bureau of Land Management for review and should implement a mutually agreed upon dust control program.
3. The company should insure their coal transportation system is operating as safely as possible or could be expected so as not to endanger public transportation along the access road.

Projected Employee Increase

It is not known at this time where the additional employees will

be obtained. The company should submit estimates, to the Bureau of Land Management, of where the additional employees will be obtained so as to help in analyzing impacts.

Downstream Water Quality Degredation

1. All human waste associated with the mining operation should be contained in sealed vault sanitary facilities. These facilities must be serviced at regular intervals to insure proper maintenance and operation.
2. The mining operator should be prepared to construct an evaporation pond, on site, of adequate size to contain any mine water flows which might be encountered if these waters are determined to be of poor quality and would endanger the existing surface or ground waters.
3. All mine drainage should be diverted to the evaporation pond(s) and should not be allowed to enter any natural waterway unless water quality conditions are determined to be non-degrading.
4. The mining operator should be prepared to accept full responsibility for all downstream water quality degradation associated with the mining operation.

Air Quality

The proposed action is not expected to significantly impact ambient air quality.

Vegetation

The proposed action will have minimum impact on the vegetative communities of the lease area.

V. RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Subsurface mining in the proposed lease modification will have no long-term effect on the productivity of the surface lands. There will be minor short-term losses of vegetation for livestock and wildlife. There will be short-term disturbance of big game animals on the winter range in the vicinity of the mine portals.

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES *

The mining activity will remove a non-renewable resource. Estimates are, the company will remove 2,000,000 tons of coal in approximately ten (10) years. This represents an irretrievable commitment of a mineral resource.

Minor soil loss from the portal areas can be anticipated but can be held to a minimum with proper construction and revegetative methods.

There may be significant water lost to the Beaver Creek drainage basin which may not be mitigated.

VII. PERSONS, GROUPS AND GOVERNMENT AGENCIES CONSULTED

1. U.S. Geological Survey (Recommended \$5,000 bond requirement).
2. Private land holders of the lease area (Expressed great concern about possible water losses).
3. U.S. Soil Conservation Service.

VIII. INTENSITY OF PUBLIC INTEREST

The general public (local) has demonstrated no particular interest to the Bureau of Land Management about the proposed modification.

IX. RECOMMENDATIONS ON ENVIRONMENTAL IMPACT STATEMENT

The requested action does not constitute a major federal action significantly affecting the environment. Thus, an environmental impact statement is not recommended.

X. SIGNATURES

Prepared by:

Charles T. Tankersley
Nat. Res. Spec. (Surface Prot.)

1-23-75

Date

Reviewed by:

David S. Orr
Nat. Res. Mgr. (Price R. A.)

1-23-75

Date

Roy W. Edmonds, Jr.
Environmental Coord.

1-23-75

Date

Approved by:

Glenn W. Freeman, Jr.
District Manager

1-23-75

Date

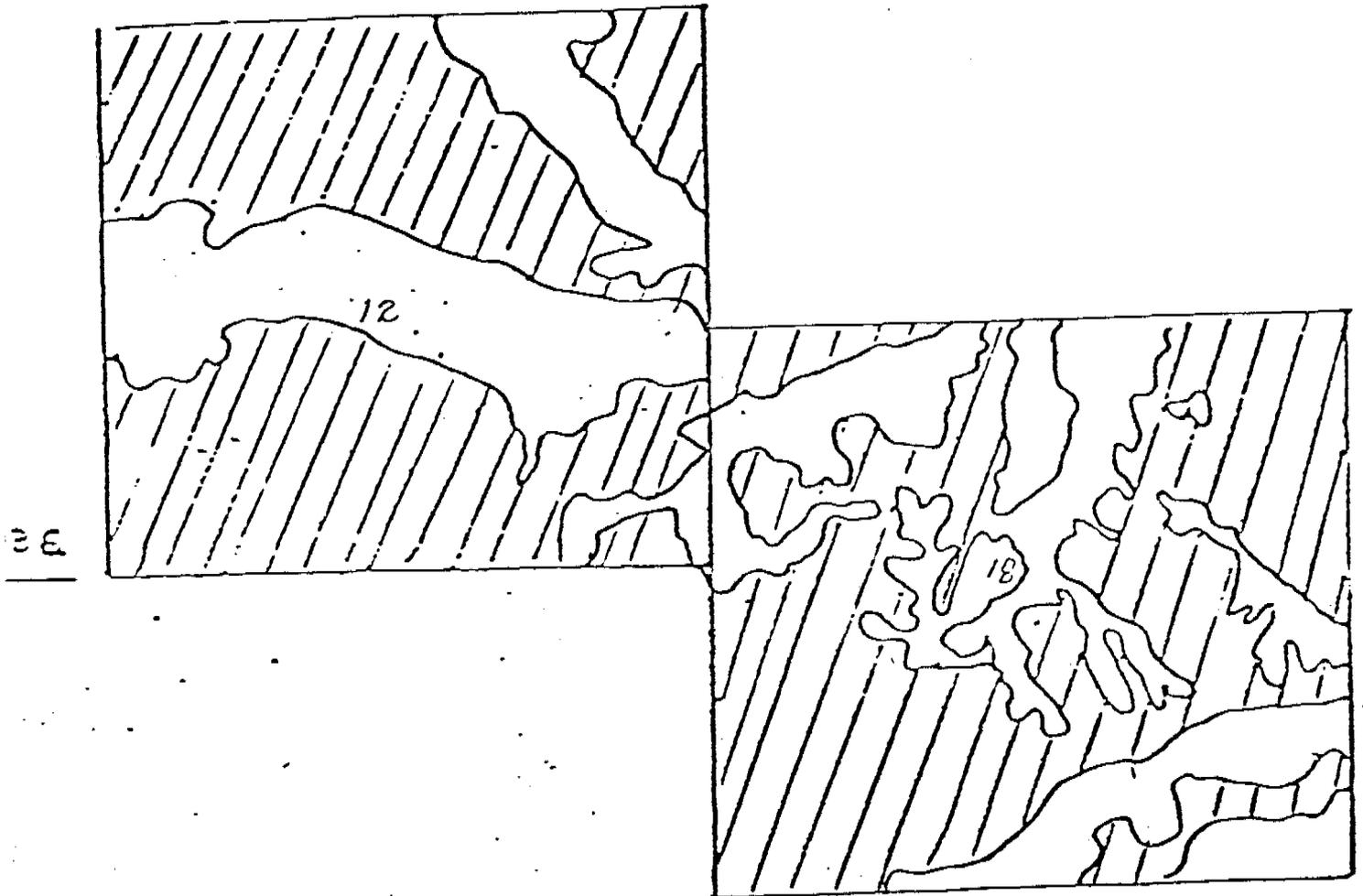
APPENDIXES

APPENDIX I

Annual Mean Temperatures
For July and January
Taken from Climatological
Record of Utah

	Annual Mean Maximum (Degrees F°)	Annual Mean Minimum (Degrees F°)
JULY	80 - 90	35 - 40
JANUARY	25 - 30	0 - 6

R. 7 E. | R. 8 E.



LEGEND



PINION-JUNIPER - SHRUB LAND



ALPINE FOREST

APPENDIX II

MAJOR VEGETATIVE ZONES

TABLE II

Water Quality Analysis for Beaver and Gordon Creek
 Sept. 28, 1974
 Values Given in PPM Except Where Noted

Sample	NA	K	CA	Mg	Cl	CO ₃	HCO ₃	SO ₄	pH*	Temp**	E.C.***
Upper Gordon Creek	5.3	3.1	78	35	14.8	8.5	289.4	87.7	8.22	14 ^o	590
Lower Gordon Creek	26.0	5.8	62	65	23.2	11.6	245.6	285.4	8.12	21.5	890
Upper Beaver Creek	4.5	2.4	76	20	11.0	111.6	286.7	23.5	8.25	15	472
Lower Beaver Creek	5.9	3.3	62	20	14.4	10.3	248.7	15.0	8.05	18.5	450

* - Log [H]

** Degrees Centigrade

*** Electrical Conductance (umhos)

Exhibit #19
Lease Modification
Mining Plan

Mining Plan
Lease Modification Area
General Notes

1. Main Entry Development - The 5 Entry System of "A" Panel will be extended to the northwest; through the Lease Modification Area and back into Federal Lease U-8319-1, to the present property barrier.
2. Once the extreme limits of development are reached, second mining (room & pillar) will begin on retreat as noted on the plan.
3. Entries will be 80' apart with cross-cuts on 80' centers and will be driven a maximum of 20' wide.
4. Final mining limits will likely be controlled by the location and displacement of the faults in the area, as well as property boundaries.
5. Roof control and ventilation in the area will be as per the approved M.S.H.A. plans for #2 Mine.
6. Mining equipment for this area will include: Continuous Miner, Shuttle Cars, Feeder Breaker, Conveyor Haulage, Roof Bolter, other support equipment as needed for rock work, clean-up, material supply, etc.

DG/ac