UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG ____ ELECTRIC LOGS ____ FILE X WATER SANDS ____ LOCATION INSPECTED ____ SUB. REPORT/abd ____

DATE FILED 1-11-80

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-02857 INDIAN

DRILLING APPROVED 1-16-80

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: LOCATION ABANDONED * WELL NEVER DRILLED

FIELD: Bar X 3/96

UNIT: Bar X

COUNTY: Grand

WELL NO. Bar X Unit #10 API NO. 43-019-30591

LOCATION 600' FT. FROM (N) (S) LINE. X 1000' FT. FROM (E) (W) LINE. X SW SW 1/4 — 1/4 SEC. 1

| TWP. | RGE. | SEC. | OPERATOR | TWP. | RGE. | SEC. | OPERATOR |
|---|---|---|---|---|---|---|---|
| 17S | 25E | 1 | TERRA RESOURCES, INC. | | | | |

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42 R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUPLICATE

# APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
TERRA RESOURCES, INC.

3. ADDRESS OF OPERATOR
P. O. Box 2500, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
600' FSL and 1000' FWL
At proposed prod. zone
600' FSL and 1000' FWL

5. LEASE DESIGNATION AND SERIAL NO.
U-02857

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Bar X

8. FARM OR LEASE NAME

9. WELL NO.
#10

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 1, T17S, R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
35 NW of Grand Junction, Colorado

12. COUNTY OR PARISH
Grand

13. STATE
UT

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
600'

16. NO. OF ACRES IN LEASE
415.19

17. NO. OF ACRES ASSIGNED TO THIS WELL
320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
3100' NE of Well #6 Sec. 11

19. PROPOSED DEPTH
4000'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Approximate ground level is 5413'

22. APPROX. DATE WORK WILL START*
Jan. 4, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 9 7/8 | 7 5/8 | 26.4 | 250 | 150 sx Reg. "G" w/2% $CaCl_2$ |
| 6 1/8 | 4 1/2 | 10.5 | 4000 | 220 sx 50-50 Pozmix 2/10% Salt |

1. Drill 9 7/8" Hole to 250' and set surface casing. (Cement to surface).
2. A double ram BOP will be installed, tested and operational checks made daily and each trip for bit.
3. The hole will be air drilled to approximately 4000' to test the Salt Wash member of the Morrison formation.
4. The hole will be logged, and if commercial production is obtained, 4½" casing will be run.

EXHIBITS ATTACHED:

A. Location and Elevation Plat
B. Ten-Point Compliance Program
C. Blowout Preventer Diagram
D. Multipoint Requirement for A.P.D.
E. Access Road Map onto location and radius map of area.
F. Drill Pad Layout and Cut-Fill, Cross Section.
G. Drill Rig & Production facilities layout.
H. Acidizing-Fracturing Layout.
I. Rehabilitation Plan

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED F. C. Reisch, Jr. TITLE District Manager-Operations DATE 12-12-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (ORIG. SGD.) A. HENRICKS TITLE FOR E. W. GUYNN DISTRICT ENGINEER DATE APR 1980

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

NOTICE OF APPROVAL

*See Instructions On Reverse Side

Utah State Oil & Gas

Oil and Gas Drilling

EA No. 205-80

United States Department of the Interior
Geological Survey
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

# USUAL ENVIRONMENTAL ASSESSMENT

Date March 14, 1980

Operator Terra Resources Well No. 10

Location 600' FSL 1000' FWL Section 1 Township 17S Range 25E

County Grand State Utah Field/Unit

Lease No. U-02857 Permit No.

Prepared by: Glenn M. Doyle
Environmental Scientist
Grand Junction, Colorado

Joint Field Inspection Date: February 13, 1980

Field Inspection Participants, Titles, and Organizations:

| | |
|---|---|
| Glenn Doyle | U. S. Geological Survey |
| Elmer Duncan | Bureau of Land Management |
| Hank Fritzler | Operator |
| Bill Buniger | Dirt Contractor |
| | |
| | |
| | |

Related Environmental Documents:

Book Mountain Planning Unit Resource Analysis, Bureau of Land Management, Utah

Admin Complex 2,
Pad 200 x 300,
Pit 100 x 100,
1/10 mi x 16' improve access
1 4/10 ac
Pit in fill - mud precautions

Cond 7 Appr
Pg 6 # 7
1-7

DESCRIPTION OF PROPOSED ACTION

Proposed Action:

1. Location — State: Utah; County: Grand

   600' FSL, 1000' FWL, SW¼ SW¼

   Section 1, T17S, R25E, SLM

2. Surface Ownership — Location: Public; Access Road: Public

   Status of Reclamation Agreements: Not Applicable

3. Dates
   - APD Filed: 1/03/80
   - APD Technically Complete: 1/30/80
   - APD Administratively Complete: 1/3/80

4. Project Time Frame — Starting Date: March 1980; Duration of drilling activities: 12 days.

A period of 30 to 60 days is normally necessary to complete a well for production if hydrocarbons are discovered. If a dry hole is drilled, recontouring and reseeding would normally occur within one year; revegetation or restoration may take several years. If the well is a producer, an indefinite period of time would occur between completion and rehabilitation.

5. Related actions of other federal or state agencies and Indian tribes:

   None known

6. Nearby pending actions which may affect or be affected by the proposed action:

   None known

7. Status of variance requests:

   None known

The following elements of the proposed action would/could result in environmental impacts:

1. A drill pad 200' wide x 300' long and a reserve pit 100' x 100' would be constructed. Approximately 1.1 miles of existing road would be improved to 16' wide) from a maintained road. 1.4 acres of disturbed surface would be associated with the project.

2. Drilling

3. Waste disposal

4. Traffic

5. Water requirements

6. Completion

7. Production

8. Transportation of hydrocarbons

9. Other

Details of the proposed action are described in the Application for Permit to Drill.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography - The wellsite lies on a gently-sloping erosional plain which is bounded by the Book Cliffs, approximately one mile to the north and west. Wild Cow Wash lies about one-half mile due east.

PARAMETER

A. Geology - Surface geology is Mancos Shale. Other formations are listed in the 10-Point Subsurface Plan. Structurally, the wellsite lies within the boundaries of the Bar X KGS. This structure is not considered a limiting factor for siting of the well.

Information Source: Terra Resoruces, Field observation

1. Other Local Mineral Resources to be Protected: Coal may be found in the Dakota, probably in subeconomic amounts.

Information Source: District Geologist, ME

2. Hazards:

a. Land Stability: Mancos Shale, the surface soil, can be quite unstable when the moisture content is significant and/or the slopes are steep.

Information Source: Field observation

b. Subsidence: With the withdrawal of fluids (oil, gas, and/or water), subsidence may occur.

Information Source: "Environmental Geology," Edward A. Keller

c. Seismicity: Seismic risk maps for the general region indicate that, statistically, the greatest amount of damage would be moderate, corresponding to intensity VII of the Modified Mercalli Intensity Scale, 1931.

Information Source: David M. Perkins, USGS

d. High Pressure Zones/Blowout Prevention: The operator reports no zones of expected high pressure. Blowout prevention systems are detailed in the APD.

Information Source: Terra Resources

B. Soils

1. Soil Character: No detailed soil surveys have been done in this area; therefore, changes in soil fertility, soil horizons, slope stability, etc., cannot be predicted. Field observations indicate the soils are nitrogen poor, alkalic soils that support the salt-desert community.

Information Source: David Oberwager, USGS-AOSO

2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. The extent of these increases cannot be predicted without site-specific studies being conducted.

Information Source: Field observation

C. Air Quality - The wellsite lies in a Class II attainment area. No Class I attainment areas are adjacent to, or near, the proposed location.

Information Source: Bureau of Land Management-Moab

D. Noise Levels - Ambient noise levels would be temporarily elevated due to rig operations and associated traffic. Personnel safety could be jeopardized in the event that operators of machinery can't hear the voices of people who are in danger of being injured by equipment.

Information Source: Field observation

E. Water Resources

1. Hydrologic Character

a. Surface Waters: Several small, intermittent drainages would be leveled and filled. Surface water will be obtained from Big Salt Wash. Use authorization granted by Bill Buniger. Impacts on downstream users should be negligible.

Information Source: Field observation

b. Groundwaters: Contamination to groundwaters due to the introduction of drilling fluids is possible. Groundwater drainage should not occur provided the drilling and casing programs are adequate as determined by the District Engineer.

Information Source: G. Doyle, Environmental Scientist, USGS

2. Water Quality

a. Surface Waters: N/A

Information Source: Field observation

b. Groundwaters: Operator proposes 250' of surface casing. If any aquifers are encountered below the casing, commingling of drilling fluids with potentially usable water could render the groundwater unusable. Pits would be unlined.

Information Source: G. Doyle, Environmental Scientist, USGS

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the informal comments received from the Bureau of Land Management on February 13, 1980, we determine that there would be no effect on endangered and threatened species and/or their critical habitat.

2. Flora: Predominant species in the area include pinyons, junipers, and desert grasses. Construction would remove about 1.4 acres of vegetation, necessitating complete revegetation subsequent to well operations.

Information Source: Bureau of Land Management, Oil & Gas Surface Operating Standards

3. Fauna: Removal of vegetation would remove habitat and a potential food source. No known deer winter grounds, migratory bird nesting areas, strutting or breeding grounds, or fish-spawning areas would be impacted by the proposed action.

Information Source: Field observaton, Bureau of Land Management-Moab

G. Land Uses

1. General: Oil and gas operations, recreation, and grazing are the major land uses. A reduction in the amount and the quality of land available to livestock, wildlife, and recreationists would occur over the life of the well.

Information Source: Field observation

2. Affected Floodplains and/or Wetlands: N/A

Information Source: Field observation

H. Aesthetics: The operation would not blend in with the natural surroundings. The presence of drilling equipment, support facilities, production facilities, etc., would most likely be unappealing to recreationists. The impact would be temporary, the duration extending for the life of the well.

Information Source: Field observation

I. Socioeconomics: The effect of one well on the local and regional population and economy would be considered minor. However, should the drilling of this well result in a major discovery, an influx of population and an increase in economic activity would be expected. As population increases, community services would be taxed. Depending on how quickly and in what manner the community responds would determine the socioeconomic impact. Pipeline and transporation routes would need to expand.

Information Source: G. Doyle, Environmental Scientist, USGS

J. Cultural Resources Determination: Based on the formal comments received from the Bureau of Land Management-Moab on April 3, 1980, we determine that there would be no effect on cultural resources subject to no stipulations.

Information Source: Bureau of Land Management-Moab

K. Other: None

Information Source: G. Doyle, Environmental Scientist, USGS

L. Adequacy of Restoration Plans: The rehabilitation plan appears adequate, i.e., meets minimum NTL-6 standards. Problems which may hamper restoration are

1) The area is subject to a short growing season,

2) There is limited precipitation during the growing seasor, and

3) There is generally very little topsoil and it is limited in organic matter and low in fertility.

Information Source: David Oberwager, USGS-AOSO

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.

2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:

a. About 1.4 acres of vegetation would be removed, increasing and accelerating erosion potential.

b. Pollution of groundwater systems could occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing and drilling program.

c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.

d. The potential for fires, leaks, spills of gas and oil or water exists.

e. During construction and drilling phases of the operation, noise and dust levels would increase.

f. Distractions from aesthetics during the lifetime of the project would exist.

g. Erosion from the site would eventually be carried as sediment in the Colorado River. The potential for pollution to Wild Cow Wash would exist through leaks and spills.

h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of an irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.

i. Other: As proposed, the reserve pit would be located off the pad. Its dimensions would be 100' x 100' constructed in fill. Potential for leaks and spills would be substantial.

2. Conditional approval

a. All adverse impacts described in section one above would occur, except by narrowing and lengthening the reserve pit to 40' x 150', and by constructing it on the pad, total surface disturbance would be reduced. Additionally, it would be built at least one-half in cut material, significantly reducing the potential for leaks and spills.

Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

1. See attached Lease Stipulations.

2. See attached BLM Stipulations.

3. Narrow and lengthen the reserve pit to 40' x 150' and construct within the confines of the proposed pad.

4. Stockpile 12" of topsoil on the west edge of the pad.

5. Keep all trash in a portable cage or bin. No trash pit allowed.

6. Reroute road onto pad to accommodate rig (see changes on rig layout).

7. Shift pad (not wellhead) 10' to the west.

Controversial Issues and Conservation Division Response: None known

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination

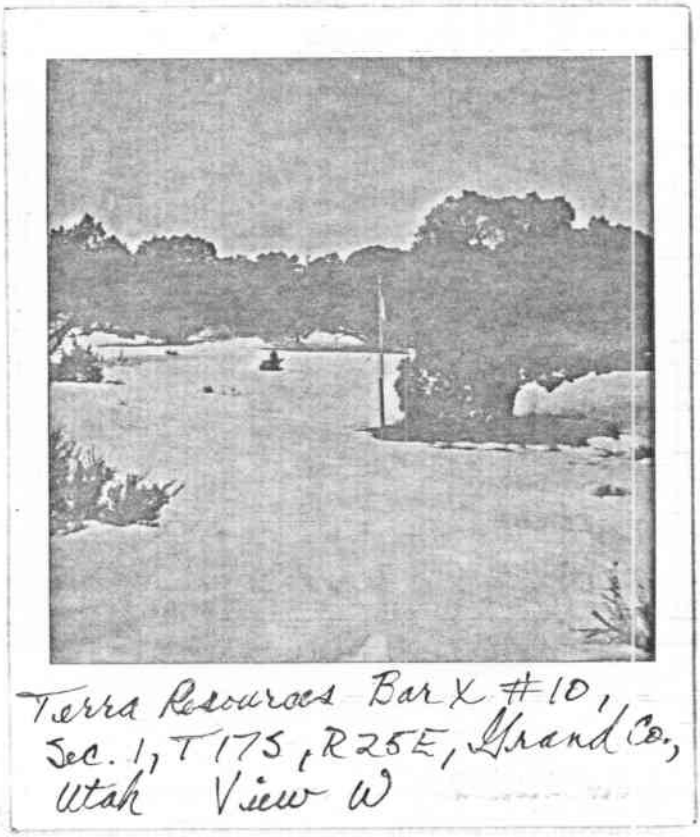
I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(C).

DISTRICT ENGINEER

APR 09 1980

District Engineer
U. S. Geological Survey
Conservation Division
Oil & Gas Operations
Salt Lake City District

Date



Terra Resources Bar X #10,
Sec. 1, T 17S, R 25E, Grand Co.,
Utah View W

REFERENCES


1 BLM-Moab, Book Mounttain Unit Resource Analysis

2 Keller, Edward A., EEnvironmental Geology, 488 pages, 1976, Charles E. Merrill.

3 Utah State Division of Health, Conservation Committee, Utah Air Conservaticon Regulations, Revised February, 1979, Bureau of National AAffairs, Inc.

4 Perkins, David M., SSeismic Risk Maps, Reprint-Earthquake Information Bulletin, Nov-Dec 1974, Vol 6, No. 6.

5 von Hake, Carl A., EEarthquake History of Utah, NOAA.

6 BLM-Utah, Final Initial Wilderness Inventory, 50 pp, August 1979, USDI.

7 Brown, Merle, Climatees of the States - Utah, 15 pp, Climatography of the U.S., No. 60--42, Feb. 1960.

# APPENDICES

| | |
|---|---|
| APPENDIX I | Bureau of Land Management Stipulations |
| APPENDIX II | Mining Report, USGS |
| APPENDIX III | Revised Rig Layout |

IN REPLY REFER TO
3100
(U-603)

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
Grand Resource Area
P. O. Box M
Moab, Utah 84532

April 1, 1980

Memorandum

To: Oil and Gas Office, USGS Conservation Division,
P. O. Box 3768, Grand Junction, CO. 81502

From: Area Manager, Grand

Subject: Terra Resources Inc.
Bar X 10, Lease # U-02857
Section 1, T. 17 S., R. 25 E., SLB&M
Grand County, Utah

On February 13, 1980, a representative from this office met with Glen Doyle, USGS, and Hank Fritzler agent of Terra Resources, Inc. for an inspection of the above referenced location. Subject to the attached conditions, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location and a copy is attached for your files. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Terra Resources, Inc.

C. Delano Backus

Enclosures: (4)
1-Reclamation Procedures
2-Seed Sources
3-Seed Mixture
4-Cultural Clearance

CONSERVE AMERICA'S ENERGY

APR 3 REC'D

APPENDIX I

## STANDARD STIPULATIONS FOR OIL & GAS EXPLORATION

Contact this office at least 24 hours prior to beginning construction of access road and pad.

Stockpile the surface 12 inches of topsoil in a wind-row on the west side of the location.

The upper banks (uphill side) of all cuts will be rounded during construction of the access road and pad.

Notify the BLM District Archaeologist if cultural material from subsurface deposits is exposed during the operation.

The trash pit will be at least six feet deep and fenced with fine mesh wire during drilling operations.

The "blooey" line will be centered and directed into the pit.

If production is obtained, the access road will be upgraded to BLM specifications for long-term roads as outlined in the surface use standards section of the "Oil and Gas" pamphlet (joint BLM and USGS publication).

If production is obtained, all production facilities will be painted "desert tan" or a similar color approved by the Grand Resource Area Manager.

Rehabilitation of the site and access road will be accomplished in accordance with the enclosed restoration procedures.

Production facilities and pipeline route are approved on this location under lease rights.

Trees of any size on location will be limbed, bucked into 8 foot lengths and piled on the northwest edge of location.

Access road will be re-routed along west side of location.

Lessee will be responsible for any vegetative loss or soil contamination caused by fracing the well.

# RECLAMATION PROCEDURES IN GRAND RESOURCE AREA

1. Disk or rip pads and access roads.

   a. Overlap passes in order to insure complete treatment.

2. Contour pads and access roads.

   a. Lay berms into centers.

   b. Use cut material for fill areas.

   c. Lay stockpiled surface soil over top of pads and spread evenly.

   d. On highly erosive soils, it may be more beneficial to grade slopes to reduce steepness.

   e. Do not smooth pads out, leave a roughened surface. On steeper slopes and slopes with clayey soils scarify or serrate the ground in order to increase water infiltration and reduce erosion.

3. Water bar roads where required by this office.

| | | | |
|---|---|---|---|
| * 2% | Grade | - | 200 ft. intervals |
| 2-4% | Grade | - | 100 ft. intervals |
| 4-5% | Grade | - | 75 ft. intervals |
| 5% | Grade | - | 50 ft. intervals |

   * Actual spacing may vary according to soil stability. Lighter textured soils will require more frequent water bars. When natural drainage ways are present, water bars are to be constructed to make maximum use of them. Plan operations so that natural drainage ways do not become blocked.

4. Seed roads and pads in the fall (Oct. through mid-Dec.).

# SEED SOURCES

Arkansas Valley Seed Co.
Attn: Robert Appleman
3131 E. Alameda, Apt. 2104
Denver, Colorado 80209

Arkansas Valley Seeds, Inc.
Box 270
Rocky Ford, CO 81067

Beaver Enterprises
3416 Tamarack
Boise, ID 83702

Berger & Plate Co.
P. O. Box 7697
San Francisco, CA 94120

Carhart, Ross O.
Dove Creek, Colo. 81324

Cenex Seed Co.
P. O. Box 1748
Billings, MT 59103

Christensen, Art
Box 186
Dillon, MT 59725

Curtis and Curtis, Inc.
Star Route, Box 8A
Clovis, New Mexico

Robert Dye Seed Ranch, Inc.
Pomerdy, WA 99347

Eiseman Seed Co.
Box 277
Fairfield, MT 59436

Etheridge, Paul H.
Star St., Box 235B
Powell, WY 82435

Emac Seed Co.
Rt. 1, Box 850
Willcox, AZ 85643

Globe Seed & Feed Co., Inc.
Box 445
Twin Falls, ID 83301

Boyd E. Globe & Sons
Gunnison, Utah 84634

The Gooding Seed Co.
Box 57
Gooding, ID 83330

Dick Haynes, Farmterials, Inc.
Baker, OR 97814

McFarland Trading Co.
P. O. Box 68
Hubbard, OR 97032

Mallery, D. B.
1506 NE Northview
Bend, OR 97701

Mile High Seed Co.
Box 1988
Grand Junction, CO 81501

Montana Seeds, Inc.
Rt. 3
Conrad MT 59425

Coos Grange Supply
1085 S. Second St.
Coos Bay, OR 97420

Nomad Alfalfa, Inc.
P. O. Box 217
Forest Grove, OR 97116

Northplan Seed Products
P. O. Box 9107

Northrup King & Co.
P. O. Box 192
Longmont, CO 80501

Northrup King & Co.
Box 7746
Boise, ID 83707

Sharp Bros. Seed Co.
P. O. Box 11
Healy, KS 67850

Sharp Bros. Seed Co.
4378 Canyon Dr.
Amarillio, TX 79109

Vic's Enterprises
319 McKinley
Rawlins, WY 82301

Rocky Mountain
Landscaping & Sprinkler
P. O. Box 624
Ogden, UT 84401

S & S Seed
382 Arboleda Rd.
Santa Barbara, CA 93110

Steven Bros.
P. O. Box 496
Ephraim, UT 84627

CLYDE ROBIN SEED COMPANY, INC.
Mr. Steven R. Atwood, V.P.
P.O. Box 2091
Castro Valley, CA 94546

LONGMONT SEED COMPANY
51 Brown Street
P.O. Box 923
Longmont, CO 80501

GLOBE SEED & FEED COMPANY
Mr. L.H. Haslam
Truck Lane
TwinFalls, Idaho

E. C. MORAN
Stanford, Montana 59479

JACKLIN SEED CO. (Division of The Vaughan-Jacklin Corp.)
Mr. John Thorne, Ph.D., Research Director
(509-926-6241)
E8803 Sprague Ave.
Spokane, WA 99206

HORSELY-CUMMINGS SEED CO.
Mr. Dave Cummings
(801-723-5246)
P.O. Box H
Brigham City, Utah 84302

Gary Jorgenson
Ephraim, UT 84627

John Plummer
Ephraim, UT 84627

Roger Stewart
Ephraim, UT 84627

| SPECIES | | LB/ACRE |
|---|---|---|
| **Grass** | | |
| Oryzopsis hymenoides | Indian rice grass | 1 |
| Hilaria jamesii | Curley grass | 1 |
| **Forbs** | | |
| Penstemon palmeri | Palmer Penstemon | 1 |
| **Shrubs** | | |
| Artiplex confertifolia | Shadscale | 1 |
| Ceretoides lanata | Winterfat | 1 |
| | | 5 |

1. Inform this office before beginning work.

U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

OM: : DISTRICT GEOLOGIST, ME, ~~SALT~~ LAKE CITY, UTAH

: DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

BJECT: APD MINERAL EVALUATION REPORT LEASE NO. U-02857

PERATOR: Terra Resources WELL NO. #10

OCATION: SE ¼ SW ¼ SW ¼ sec. 1, T. 17S, R. 25E, SLM

Grand County, Utah

. Stratigraphy: OPERATOR'S ESTIMATES appear Reasonable:

| | | |
|---|---|---|
| Upper shale member of Mancos | - Surface | + 5400 |
| ~~From~~ Frontier | - 3020' | + 2380 |
| Dakota | - 3420' | + 1980 |
| Morrison | - 3530' | + 1870 |
| Salt Wash | - 3850' | + 1550 |

. Fresh Water:

Fresh/usable water may occur in the Sands of the Mancos

. Leasable Minerals:

Prospectively valuable for coal, coal may occur in thin beds within the Dakota.

. Additional Logs Needed:

logging suite sufficient

. Potential Geologic Hazards:

None anticipated

. References and Remarks:

USGS Map I-736

within Bar-X KGS

Signature: Joseph Incandela Date: 1-30-80

Glenn

Terra Resources
1-17S-25E

Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn

From: Mining, Supervisor, Mr. Jackson W. Moffitt

Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. U-02857 Well No. 10

1. The location appears potentially valuable for:

   [ ] strip mining*

   [ ] underground mining**

   [X] has no known potential. coal over 3000 feet deep

2. The proposed area is

   [ ] under a Federal lease for _____ under the jurisdiction of this office.

   [X] not under a Federal lease under the jurisdiction of this office.

   [ ] Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at _____ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

**If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed Allen L. Vance

19 FEB 1980

APPENDIX II

EXHIBIT G

TERRA RESOURCES INC.
BAR X UNIT #10

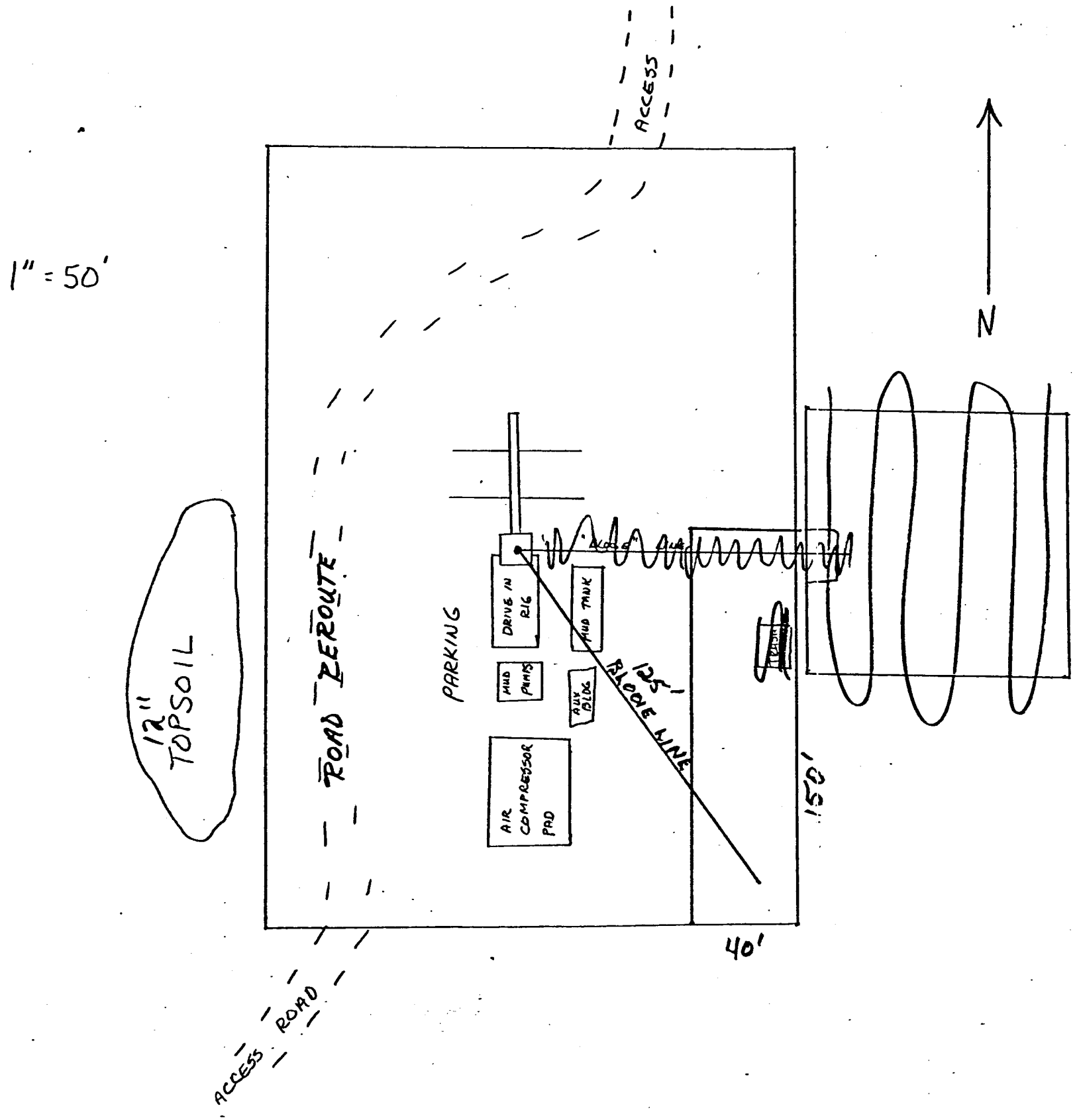


EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM OF NTL-6

APPROVAL OF OPERATIONS

Attached to Form 9-331C
Company: Terra Resources, Inc.
Well: Bar X Unit Well #10.
Well Location: 600' FSL and 1000' FWL
Sec. 1 T 17S R 25E
Grand County, Utah

1. Geological Surface Formation

Mancos

2. Estimated Important Geologic Markers

| Formation | Depth |
|---|---|
| Frontier | 3020' |
| Dakota Silt | 3340' |
| Dakota | 3420' |
| Morrison | 3530' |
| Salt Wash | 3850' |
| TD | 4000' |

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

| Formation | Depth | Remarks |
|---|---|---|
| Dakota | 3420' | possible gas |
| Upper Morrison | 3530' | possible gas |
| Salt Wash | 3850' | possible gas |

4. The Proposed Casing Program

(a) Set 7 5/8" 26.4# K-55 new casing, in 9 7/8" hole at 250' and cement with 150 sx regular "G" cement w/2% $CaCl_2$. (Cement to surface).

(b) Set 4½" 10.5# J-55 new casing, in 6 1/8" hole at TD. (4000') and cement if productive with 220 sx of 50-50 Pozmix w/10% salt.

5. The Operator's Minimum Specifications For Pressure Control

Exhibit "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to the full working pressure after nippling up and after any use under pressure. The BOP's will be operationally checked each 24-hour period and each time pipe is pulled out of the hole.

6. The Type and Characteristics of the Proposed Circulating Muds

Hole will be air drilled from surface to TD (4000').

7. The Auxiliary Equipment to be Used

A) A full opening Hydril or equivalent ball valve will be available on the floor to make up on the drill pipe when the kelly is not in the string.

8. The Testing, Logging, and Coring Programs to be Followed

(A) No conventional DST's are planned.

(B) Well logging as follows:

| | |
|---|---|
| CNL, FDC-GR | TD to surface casing |
| IES | TD to surface casing |

(C) No cores are planned.

(D) Acidize with 500 gallons 15% MSR and/or Foam Frac with 50,000 gallons of 5% HCl and 70,000# 20-40 and 10/20 sand if the zones merit. See Exhibit "H".

9. Any Anticipated Abnormal Pressures or Temperatures Expected

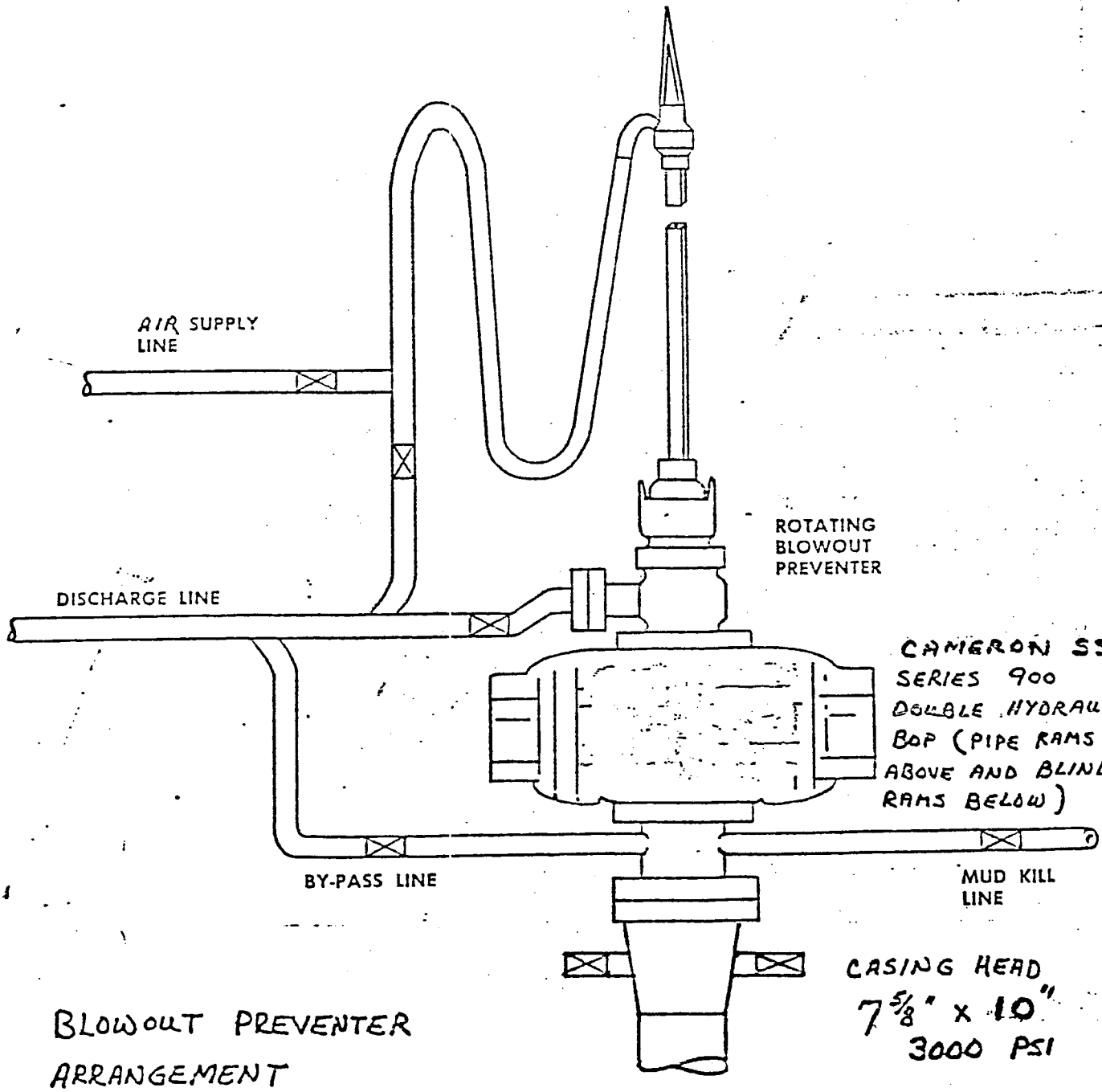
NONE

10. The Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for January 4, 1980 or immediately as possible after examination and approval of all drilling requirements.

The operations should be completed within 12 days after spudding the well.

EXHIBIT C




BLOWOUT PREVENTER ARRANGEMENT

BAR X UNIT WELL #10

ALL MANIFOLD AND LINE WILL HAVE AT LEAST THE SAME PRESSURE RATING AS THE BOP STAC

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331C
Terra Resources, Inc.
Bar X Unit Well 10
600' FSL and 1000' FWL
SE, SE, Sec. 1 T17S, R25E
Grand County, Utah

1. Existing Roads

A. The proposed well site and elevation plat is shown as EXHIBIT "A".

B. The distance from Mack, Colorado, is 21.3 miles. Proceed West on paved Highway 50, 9.2 miles from the Mack Post Office; thence Northeast on maintained number two (2) road, 4.8 miles to fence on Utah/Colorado boundary; turn North up fence line and proceed 3.1 miles on maintained road to intersection with gas field road; proceed West 3.1 miles; turn right and proceed Northwest 1.1 miles to location, as shown on EXHIBIT "E".

C. All roads are color-coded into location.

D. N/A

E. This is a developmental well. All existing roads within a one-mile radius are shown on EXHIBIT "E".

F. The existing roads need no major improvement. Maintenance will be performed as required.

2. Planned Access Road

None will be required, location is right beside an existing road.

3. Location of Existing Wells

For all existing wells within a one-mile radius of developmental well, see EXHIBIT "E".

(1) There are no water wells within a one-mile radius of this location.

(2) There are no abandoned wells within this one-mile radius.

(3) There are no temporarily abandoned wells.

(4) There are no disposal wells.

(5) There are no wells presently being drilled.

(6) There are two producing wells within this one-mile radius.

(7) There are no shut-in wells.

(8) There are no injection wells.

(9) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

A. Within a one-mile radius of location the following existing facilities are owned or controlled by lessee/operator:

(1) Tank Batteries: None

* (2) Production Facilities: Yes, dehydration unit.

(3) Oil Gathering Lines: None

* (4) Gas Gathering Lines: Yes, buried.

(5) Injection Lines: None

(6) Disposal Lines: None

*All surface facilities excluding the wellhead and tanks are owned and operated by the gas purchaser, N.W. Pipeline.

B. If production is obtained, new facilities will be as follows:

(1) Production facilities will be located on solid ground of cut area in the NW corner of the drill pad, as shown on EXHIBIT "F".

(2) All well flow lines will be buried.

(3) Production Facilities will consist of a dehydrator and meter building located on the northwest corner of the pad.

(4) All construction materials for pad will be obtained from site. No additional material from outside sources is anticipated.

(5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.

C. Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with the restoration plans presented in ITEM #10 following.

5. Location and Type of Water Supply

A. The source of water will be the Colorado River, South of Interstate Highway 70, which is running water.

B. Water will be transported by truck over existing roadways as needed.

C. No water well is to be drilled on this lease.

6. Construction Materials

A. No construction materials are needed for drilling and access roads into the drilling location unless production is obtained. The surface soil materials will be sufficient or will be purchased from Dirt Contractor as needed.

B. No construction materials will be taken off this Federal land.

C. All surface soil materials for construction of access roads are sufficient.

D. All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

(1) Drill cuttings will be buried in the reserve pit and covered.

(2) Plan is to drill with air, but water may be encountered which will then be handled in the reserve pit.

(3) Any fluids produced, oil or water, during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt waters or other noxious fluids will be cleaned up and removed.

(4) Any sewage will be covered or removed. Chemical facilities will be provided for human waste.

(5) Garbage and non-flammable waste and salts and other chemicals produced during drilling or testing will be handled in trash pit.

Flammable waste will be disposed of in burn pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on "EXHIBIT "F".

(6) After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. Any dangerous open pit will be fenced during drilling and kept closed until such time as the pit is leveled. Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig. The trash and/or burn pit will be totally enclosed with small mesh wire.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout.

(1) EXHIBIT "F" is the Drill Pad Layout as staked, with elevations, by Powers Elevation Company, Inc. of Grand Junction, Colorado. Cuts and fills have been drafted to visualize the planned cut across the location spot and to the deepest part of the pad. Topsoil will be stockpiled per BLM specifications determined at time of pre-drill inspection.

(2) EXHIBIT "G" is a plan diagram of the proposed rig and equipment, reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will not be a trailer on site.

(3) EXHIBIT "G" includes a diagram showing the proposed rig orientation, parking areas and access road.

(4) The reserve pits will not be lined. Steel mud tanks may be used during drilling operations.

10. Plans for Restoration

(1) Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.

(2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the BLM. Revegetation is recommended for road area, as well as around drill pad.

(3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped; and the fencing will be maintained until leveling and cleanup are accomplished.

(4) If any oil is on the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.

(5) The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in April, 1980 unless requested otherwise.

11. Other Information

(1) The soil is sandy, supporting desert brush and grass. There are small areas of rock outcrops, and the area has some scattered junipers. The geomorphology is intermediate to the desert to the South and bookcliffs to the North.

(2) The primary surface use is for grazing. The surface is owned by the U.S. Government.

(3) The closest live water is the Colorado River, South of I-70.

The closest occupied dwelling is a single ranch house 13.2 miles from the location, 1 mile East of number two road on Highway 50.

There are no archaeological, historical, or cultural heritages that will be disturbed by this drilling.

(4) There are no reported restrictions or reservations noted on the oil and gas lease.

(5) Drilling is planned for on or about January 4, 1980. It is anticipated that the casing point will be reached within 12 days after commencement of drilling.

12. Lessee's or Operator's Representative

Cecil Foote
Terra Resources
Box 2500
Casper, Wyoming 82602
Phone: (307) 237-8461

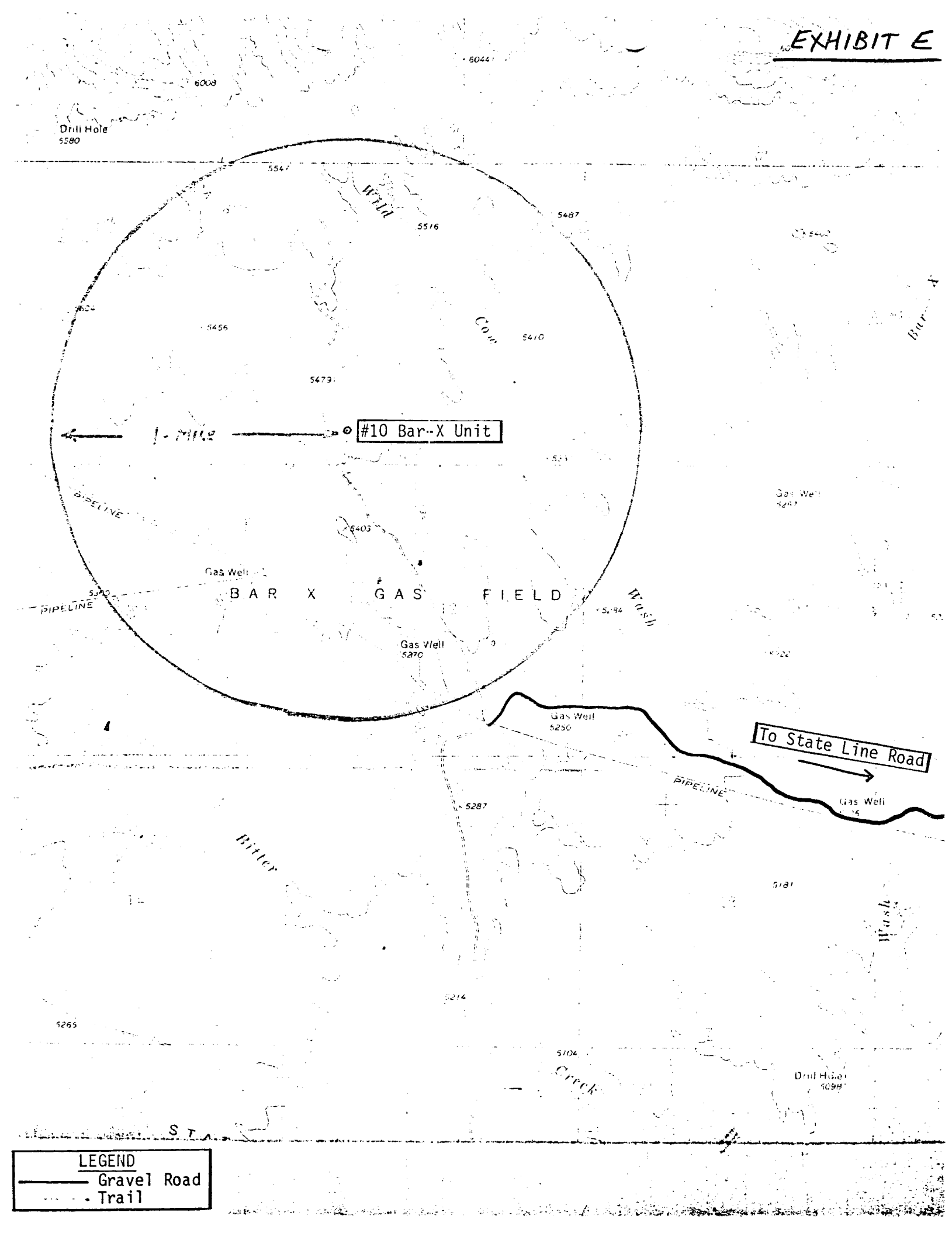
13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Terra Resources and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

12-12-79
Date

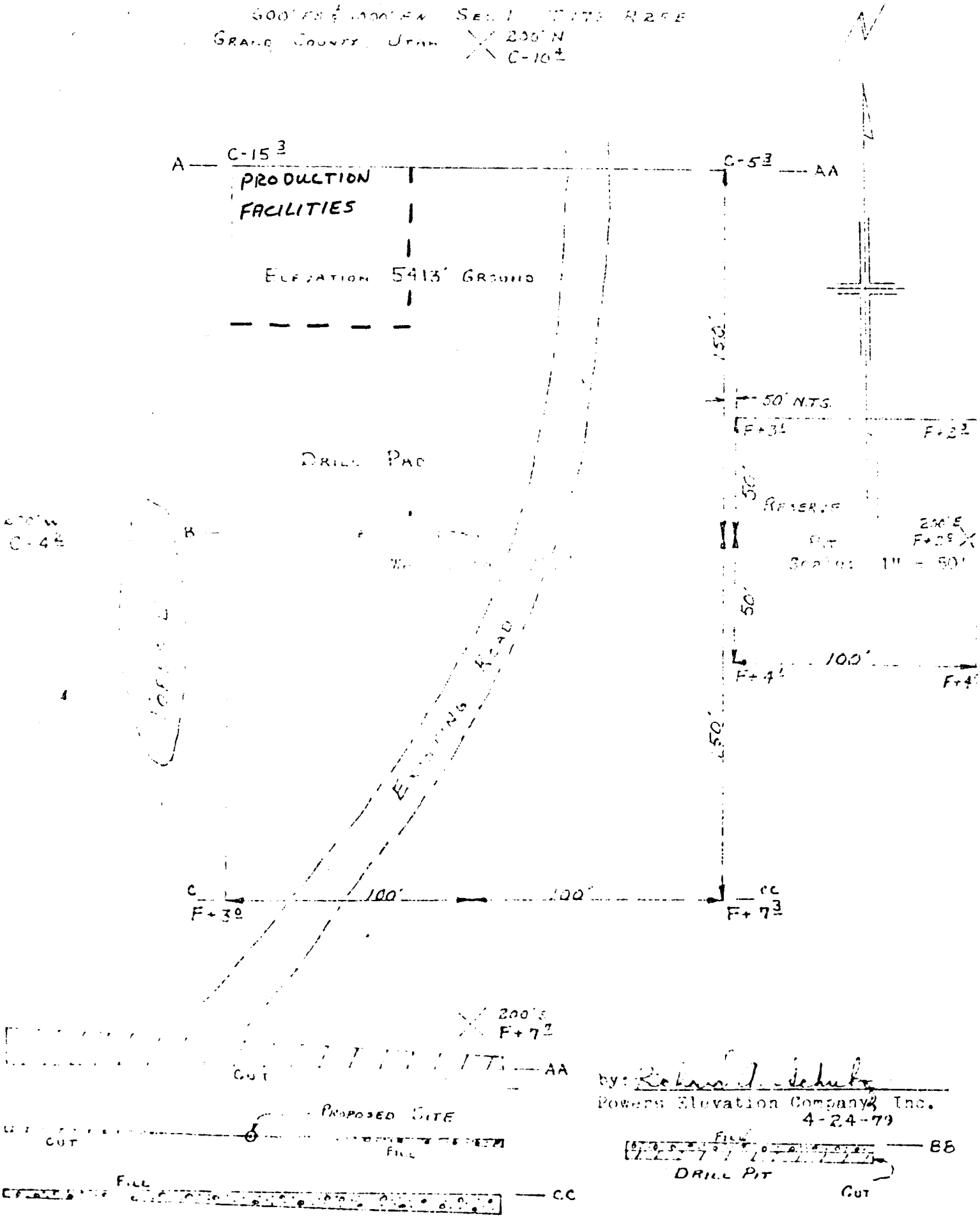
Cecil G Foote
C. G. Foote
Operations Engineer

EXHIBIT E


Drill Hole
5580
6009
6044
5547
5516
5487
5456
5410
5473
1 - Mile
#10 Bar-X Unit
PIPELINE
6403
Gas Well
BAR X GAS FIELD
5270
5284
Gas Well
5250
To State Line Road
PIPELINE
Gas Well
5287
5181
5214
5265
5104
Drill Hole
5098
LEGEND
Gravel Road
Trail

# EXHIBIT F

TERRA RESOURCES CO.
#10 BAR-X UNIT
600' FSL & 1000' FEL SEC. 1 T17S R25E
GRAND COUNTY, UTAH




by: Richard J. Schultz
Powers Elevation Company, Inc.
4-24-79

# EXHIBIT G

TERRA RESOURCES INC
BAR X UNIT #10

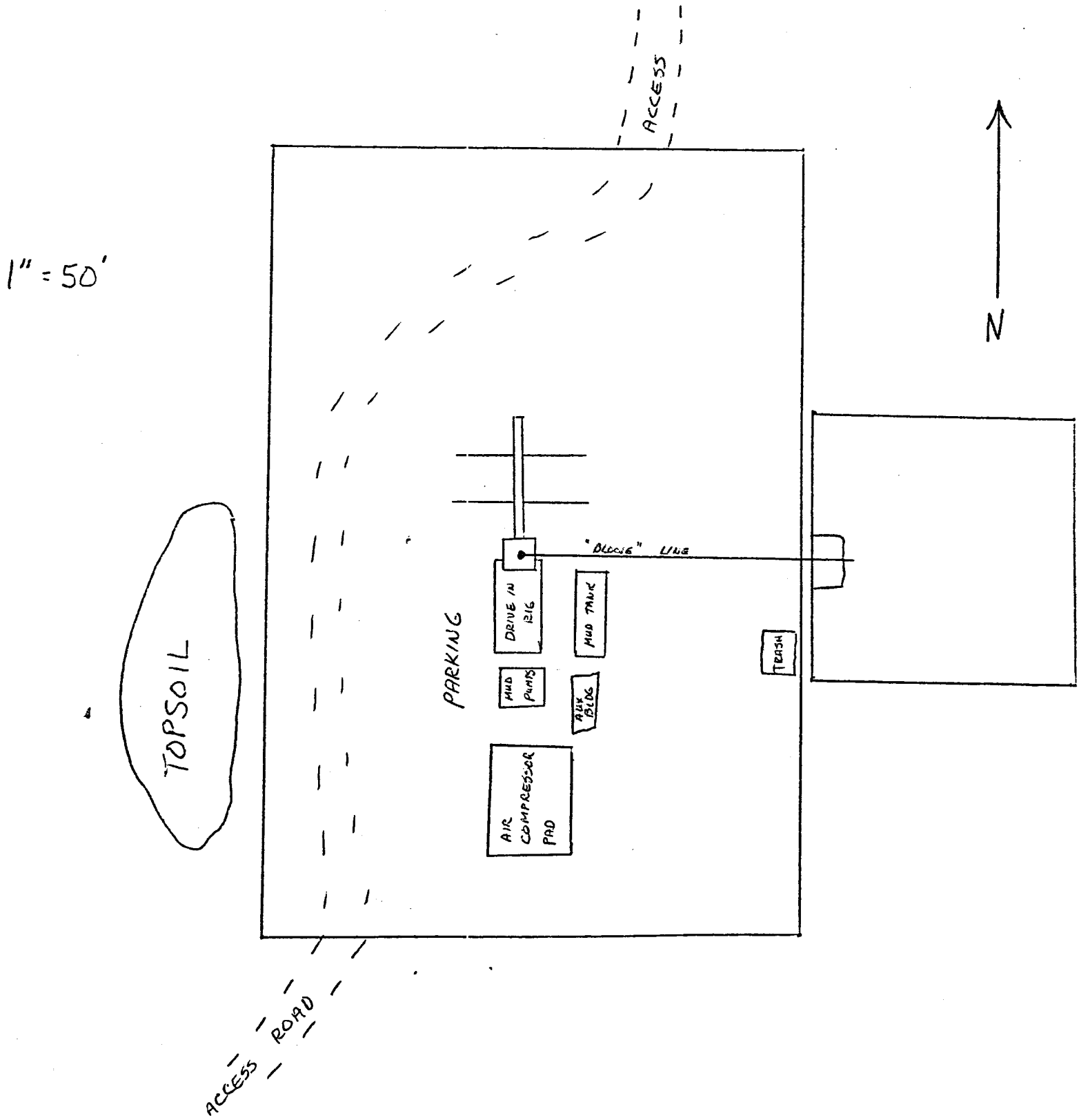
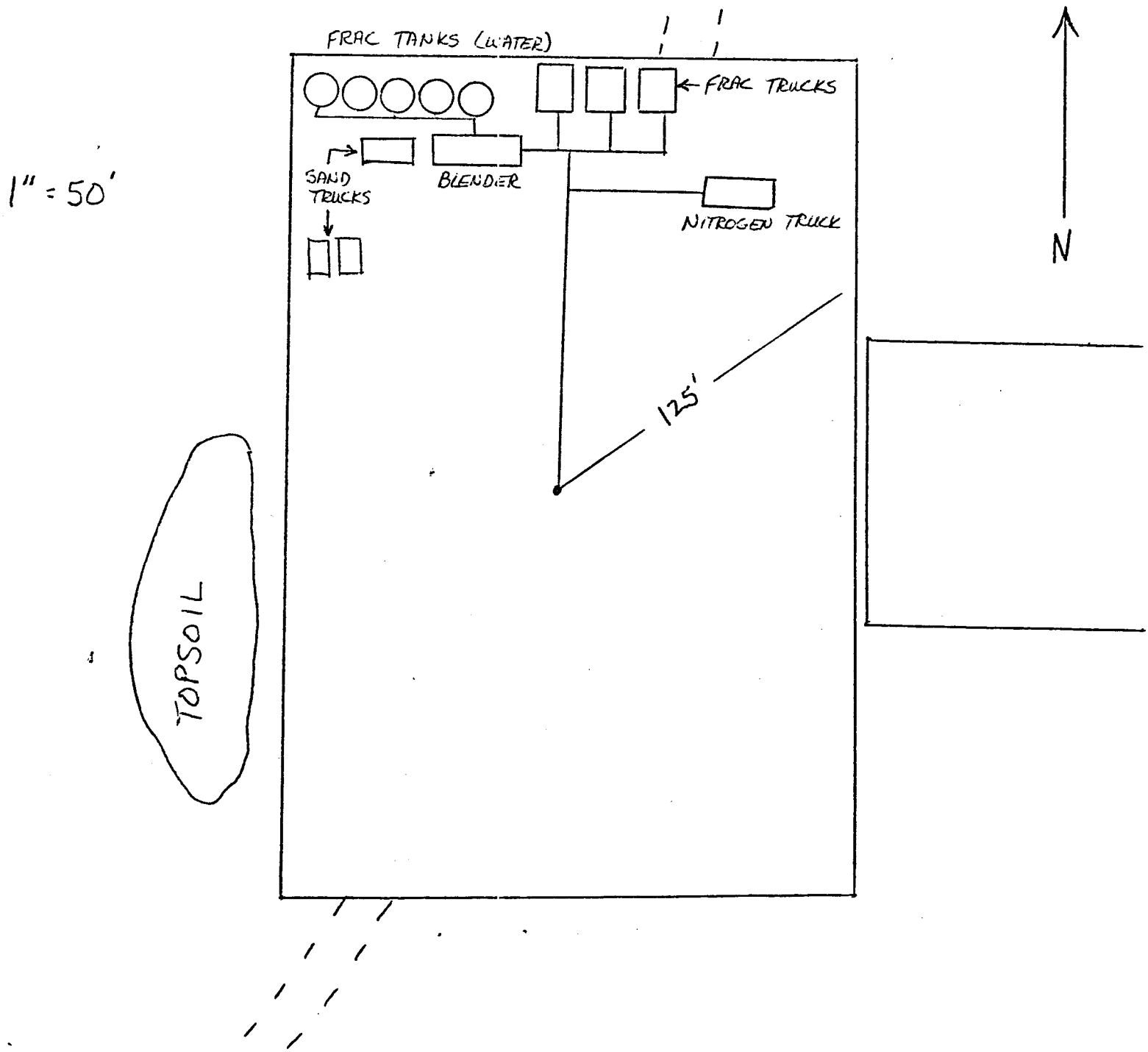


EXHIBIT H

TERRA RESOURCES INC
BAR X UNIT #10




1" = 50'

# EXHIBIT "I"

(04-02-76)
WY060-3109-3

## REHABILITATION PLAN

Lease No.: _____; Well Name and No.: 10 Bar X Unit;
Location: 600' FSL and 1000' FWL, Sec. 1, T. 17 S N., R. 25 E W.

Terra Resources XXXXXXXXXXXXintends to drill a well on surface owned by BLM. The lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

/X/ Yes / / No Maintain access road and provide adequate drainage to road.

/X/ Yes / / No Reshape and reseed any area not needed for maintenance of the pump and support facilities.

Other requirements: none

The following work will be completed when the well is abandoned:

/X/ Yes / / No Pit will be fenced until dry, then filled to conform to surrounding topography.

/X/ Yes / / No Water bars will be constructed as deemed necessary.

/X/ Yes / / No Site will require reshaping to conform to surrounding topography.

/X/ Yes / / No Entire disturbed area will be reseeded. If yes, the following seed mixture will be used:
BLM mixture

/X/ Yes / / No Access road will be closed, rehabilitated and reseeded using the same seed mixture as above.

/ / Yes /X/ No Access road will remain for surface owner's use.

/XX/ Yes / / No Water bars will be constructed on the access road as deemed necessary.

Other requirements: none

Surface Owner:

Name: BLM
Address:
City:
State:
Telephone:
Date:

Operator/Lessee

Name: Terra Resources
Address: P.O.Box 2500
City: Casper
State: Wyoming
Telephone:
Date: Nov. 13, 1978

I CERTIFY rehabilitation has been discussed with me, the surface owner:

N/A
(Surface owner's signature)

This plan covers rehabilitation requirements only and does not affect any other agreements between the lessee/operator and surface owner.

TERRA RESOURCES, INC.

ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE
P.O. BOX 2500
CASPER, WYOMING 82601
(307) 237-8461

January 8, 1980

Re: Application for Permit to Drill
Terra Resources, Inc.
Bar X Unit Well #10
and Unit Well #11
Grand County, Utah

Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Gentlemen:

Enclosed please find two (2) copies of Form #9-331C, "Application for Permit to Drill" for each of the above referenced wells.

Your approval of these applications at an early date will be greatly appreciated.

Yours very truly,

TERRA RESOURCES, INC.

E. C. Reish, Jr.
District Manager-Operations

ECR:CGF/gj

Enclosures

RECEIVED
JAN 11 1980
DIVISION OF
OIL, GAS & MINING

Form 9-331 C
(May 1963)

SUBMIT IN ?LICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425

13

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-02857

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME: Bar X

8. FARM OR LEASE NAME:

2. NAME OF OPERATOR: TERRA RESOURCES, INC.

9. WELL NO.: 10

3. ADDRESS OF OPERATOR: P. O. Box 2500, Casper, Wyoming 82602

10. FIELD AND POOL, OR WILDCAT: Bar X

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 600' FSL and 1000' FWL SW SW
At proposed prod. zone: 600' FSL and 1000' FWL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 1, T17S, R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 35 NW of Grand Junction, Colorado

12. COUNTY OR PARISH: Grand | 13. STATE: UT

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 600'

16. NO. OF ACRES IN LEASE: 415.19

17. NO. OF ACRES ASSIGNED TO THIS WELL: 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 3100' NE of Well #6 Sec. 11

19. PROPOSED DEPTH: 4000' Salt Wash

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): Approximate ground level is 5413'

22. APPROX. DATE WORK WILL START*: Jan. 4, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 9 7/8 | 7 5/8 | 26.4 | 250 | 150 sx Reg. "G" w/2% $CaCl_2$ |
| 6 1/8 | 4 1/2 | 10.5 | 4000 | 220 sx 50-50 Pozmix 2/10% Salt |

1. Drill 9 7/8" Hole to 250' and set surface casing. (Cement to surface).
2. A double ram BOP will be installed, tested and operational checks made daily and each trip for bit.
3. The hole will be air drilled to approximately 4000' to test the Salt Wash member of the Morrison formation.
4. The hole will be logged, and if commercial production is obtained, 4½" casing will be run.

EXHIBITS ATTACHED:

A. Location and Elevation Plat
B. Ten-Point Compliance Program
C. Blowout Preventer Diagram
D. Multipoint Requirement for A.P.D.
E. Access Road Map onto location and radius map of area.
F. Drill Pad Layout and Cut-Fill, Cross Section.
G. Drill Rig & Production facilities layout.
H. Acidizing-Fracturing Layout.
I. Rehabilitation Plan

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED F. C. Reesh, Jr. TITLE District Manager-Operations DATE 12-12-79

(This space for Federal or State office use)

PERMIT NO. 43-019-30591 APPROVAL DATE

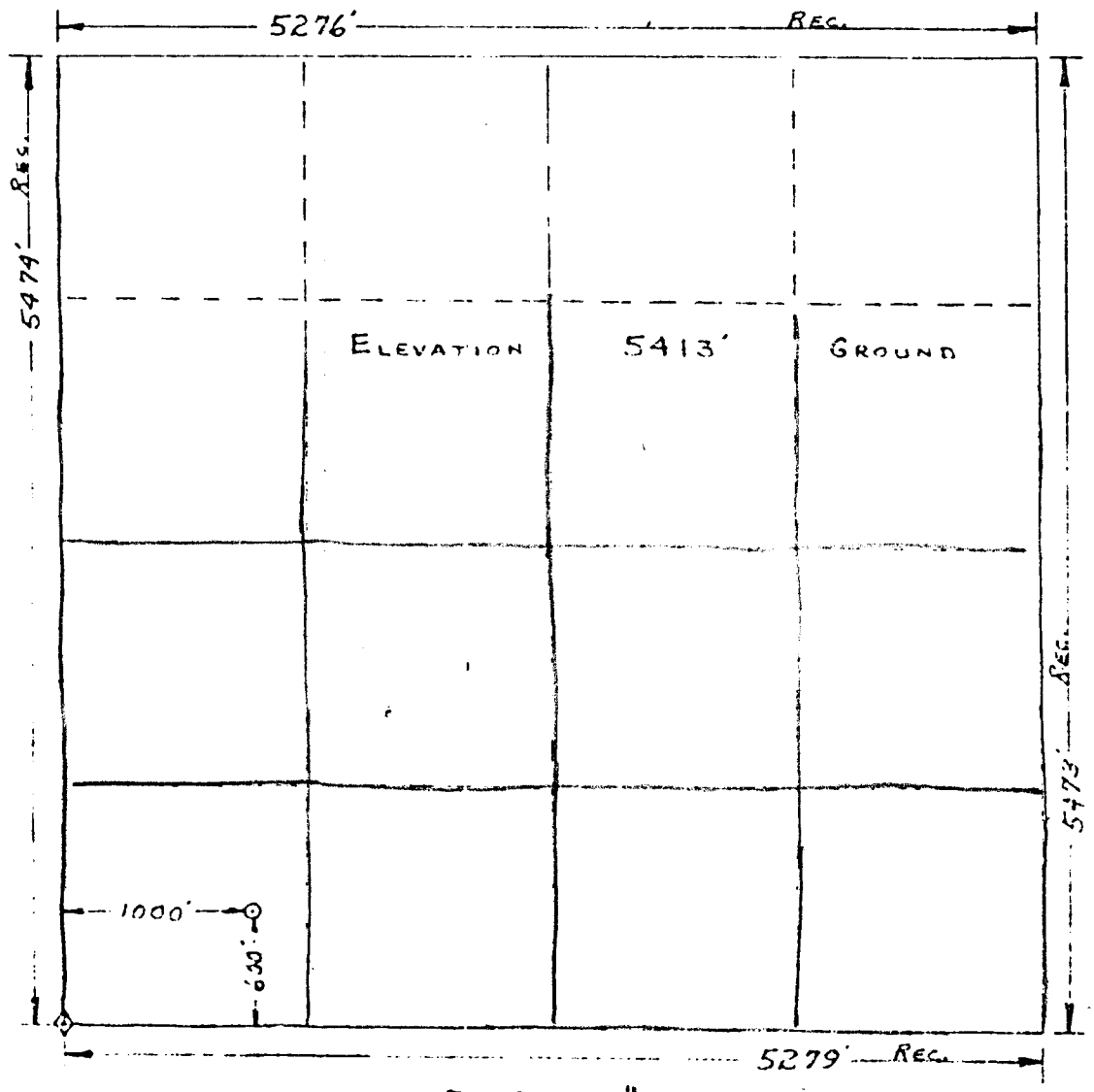
APPROVED BY TITLE DATE JAN 11 1980

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
JAN 11 1980
DIVISION OF
OIL, GAS & MINING

*See Instructions On Reverse Side

R 25 E.




N

T. 17 S.

Scale 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from Cecil Foote for Terra Resources Company determined the location of #10 Bar X Unit to be 600' FS & 1000' FW Section 1 Township 17 S. Range 25 E. of the Salt Lake Meridian Grand County, Utah

I hereby certify that this plat is an accurate representation of a correct survey showing the location of #10 Bar X Unit

Date 1-24-79

Licensed Land Surveyor No 2711
State of Utah

** FILE NOTATIONS **

DATE: January 15, 1980

Operator: Terra Resources, Inc.

Well No: Bar X Unit #10

Location: Sec. 1 T. 17S R. 25E County: Grand

File Prepared: ✓ Entered on N.I.D.: ✓

Card Indexed: ✓ Completion Sheet: ✓

☐ API Number 43-019-30591

CHECKED BY:

Geological Engineer: _____

_____

_____

Petroleum Engineer: _____

_____

_____

Director: _____

APPROVAL LETTER:

Bond Required: ☐ Survey Plat Required: ☐

Order No. _____ O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception/company owns or controls acreage within a 660' radius of proposed site ☐

Lease Designation Fed-Unit Plotted on Map ✓

Approval Letter Written ✓

ltm

nl
PI

January 16, 1980

Terra Resources, Inc.
P.O. Box 2500
Casper, Wyoming 82602

Re: Well No. Bar X Unit #10, Sec. 1, T. 17S, R. 25E., Grand County, Utah
Well No. Bar X Unit #11, Sec. 18, T. 17S, R. 26E., Grand County, Utah

Insofar as this office is concerned approval to drill the above referred to gas wells are hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-3, General Rules and Regulations and Rules or Practice and Procedure.

Should you determine that it will be necessary to plug and abandon these wells, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER
Geological Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API numbers assigned to these wells are #10 - 43-019-30591; #11 - 43-019-30592.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Geological Engineer

/btm

cc: USGS

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

CHARLES R. HENDERSON
*Chairman*

JOHN L. BELL
C. RAY JUVELIN
THADIS W. BOX
MAXILIAN A. FARBMAN
EDWARD T. BECK
E. STEELE McINTYRE

February 20, 1981

Terra Resources, Inc.
P.O. Box 2500
Casper, Wyoming 82602

RE: Spudding Notice
See Attached Sheet

Gentlemen:

In reference to the mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill these wells, and action will be taken to terminate the application. If you plan on drilling these locations at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Barbara Hill

BARBARA HILL
WELL RECORDS

/bjh

(1). Well No. Bar X Unit #18
Sec. 12, T. 17S, R. 25E.,
Grand County, Utah

(2). Well No. BAr X Unit #17
Sec. 11, T. 17S, R. 25E.,
Grand County, Utah

(3). Well No. Bar X Unit #13
Sec. 7, T. 17S, R. 26E.,
Grand County, Utah

(4). Well No. Bar X Unit #12
Sec. 8, T. 17S, R. 26E.,
Grand County, Utah

(5). Well No. Bar X Unit #11
Sec. 18, T. 17S, R. 26E.,
Grand County, Utah

(6). Well No. Bar X Unit #10
Sec. 1, T. 17S, R. 25E.,
Grand County, Utah

(7). Well No. Rock Canyon Rim #1
Sec. 1, T. 19S, R. 6E.,
Emery County, Utah

7

# TERRA RESOURCES, INC.

ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE
P.O. BOX 2500
CASPER, WYOMING 82601
(307) 237-8461

March 3, 1981

Spudding Notice
See Attached Sheet

Division of Oil, Gas, & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Gentlemen:

Please be advised that Terra Resources, Inc., still plans to drill the six (6) Bar X Wells. If a rig can be located Unit #10, #11, #12, and #13 will probably be drilled this spring.

Rock Canyon Rim #1 has been postponed indefinitely,

If we can be of any further assistance in this matter, please advise.

Yours very truly,

TERRA RESOURCES, INC.

E.C. Reish, Jr.
District Manager - Operations

ECR/CGF:ek
Attach.

RECEIVED
MAR 09 1981
DIVISION OF
OIL, GAS & MINING

(1). Well No. Bar X Unit #18
Sec. 12, T. 17S, R. 25E.,
Grand County, Utah

(2). Well No. BAr X Unit #17
Sec. 11, T. 17S, R. 25E.,
Grand County, Utah

(3). Well No. Bar X Unit #13
Sec. 7, T. 17S, R. 26E.,
Grand County, Utah

(4). Well No. Bar X Unit #12
Sec. 8, T. 17S, R. 26E.,
Grand County, Utah

(5). Well No. Bar X Unit #11
Sec. 18, T. 17S, R. 26E.,
Grand County, Utah

(6). Well No. Bar X Unit #10
Sec. 1, T. 17S, R. 25E.,
Grand County, Utah

(7). Well No. Rock Canyon Rim #1
Sec. 1, T. 19S, R. 6E.,
Emery County, Utah

RECEIVED
[illegible]
DIVISION OF
OIL, GAS & MINING

MDO-8143-1
January 1980

IN REPLY REFER TO

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
P O Box 970
Moab, Utah 84532

Evaluation of Compliance With Executive Order 11593 and Section 106 of the Historic Preservation Act of 1966

Project Name Bar X Unit Wells #10, 11, 12, 13, 17

Developer Terra Resources Inc

Antiquities Permit # 79-ut-028

Name of Permitted Institution Powers Elevation

Description of Activity 5 well pads (40 acres surveyed for each)

Location of Activity T17S, R25E, Sec. 1, 11, 12; T17S, R26E, Sec. 7, 8, 18 GRA

Description of Examination Procedures:

/✓/ Search of Site Survey Files and Available Literature

/✓/ Physical Examination

Evaluation of Findings

/✓/ Adequate for compliance with Executive Order 11593.

/✓/ Adequate to substantiate a determination of no effect.

/ / Adequate to provide the basis for a determination of no adverse effect. BLM will have to present its case to the Historic Preservation Office and to the National Advisory Council on Historic Preservation.

/ / Will require consultation with the contractor to resolve certain questions. See attached analysis.

/ / Is inadequate for compliance purposes because:

Janet Pierson
03/25/80

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

Conservation Division
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

May 5, 1981

Terra Resources, Inc.
P.O. Box 2500
Casper, Wyoming 82602

Re: Return Application for
Permit to Drill
Well No. 10
Section 1, T. 17S., R. 25E.
Grand County, Utah
Lease No. U-02857
Bar X Unit

Gentlemen:

The Application for Permit to Drill the referenced well was approved April 24, 1980. Since that date no known activity has transpired at the approved location. Under current District policy, application's for permit to drill are effective for a period of one year. In view of the foregoing this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location on a future date a new application for permit to drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must, then be submitted. Your cooperation in this matter is appreciated.

Sincerely,

(Orig. Sgd.) R. A. Henricks

for E. W. Guynn
District Oil and Gas Supervisor

bcc: DCM, O&G, CR, Denver
BLM, Moab
State Office (O&G)
State Office (BLM)
USGS-Vernal
Well File
APD Control

RAH/TM/tm