

January 4, 1979

Terra Resources, Inc.
P.O. Box 2500
Casper, Wyoming 82601

Re: Well No. Bar X Unit #8
Sec. 11, T. 17S, R. 25E.,
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-8, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, 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 (aquifers) 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 number assigned to this well is 43-019-30494.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Mikhael T. Minder
Geological Engineer

/btm

cc: USGS

TERRA RESOURCES, INC.

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

January 26, 1979

Re: Application for Permit
to Drill
Terra Resources, Inc.
Bar X Unit Well #8
778' SNL and 1877' EWL
NW/4 Sec. 11, T17S-R25E
Grand County, Utah

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

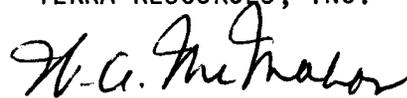
Gentlemen:

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

Your approval of this application at an early date will be appreciated.

Yours very truly,

TERRA RESOURCES, INC.



W. A. McMahon
District Manager

WAM/CGF:dat
Enclosures



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Terra Resources, Incorporated

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 778' SNL and 1877' EWL
 At proposed prod. zone 778' SNL and 1877' EWL

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

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 778'

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. 2620' WNW of Well #6

19. PROPOSED DEPTH 4000'

20. ROTARY OR CABLE-TOOL* Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 Ground Level is 5377'

22. APPROX. DATE WORK WILL START*
 March 15, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	32	300	290 sx Reg w/2% CaCl ₂
7 7/8"	4 1/2"	10.5	4000	280 sx 50-50 Pozmix w/10% Salt

It is planned to drill a 12 1/4" hole to 300', set 8 5/8" 32# surface casing and cement to surface using 290 sx of Regular Cement w/2% CaCl₂. A double ram BOP will be installed, tested, and operational checks made daily and on each trip for bit. A 7 7/8" hole will be air drilled to approximately 4000' to test the Salt Wash member of the Morrison formation. The hole will be logged and if commercial production is obtained, 4 1/2" casing will be run and cemented with approximately 280 sx 50-50 Pozmix w/10% salt.

JAN 27 1979

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 W. A. McMahon TITLE District Manager DATE 1/26/79

(This space for Federal or State office use)

PERMIT NO. A3-09-30494 APPROVAL DATE _____

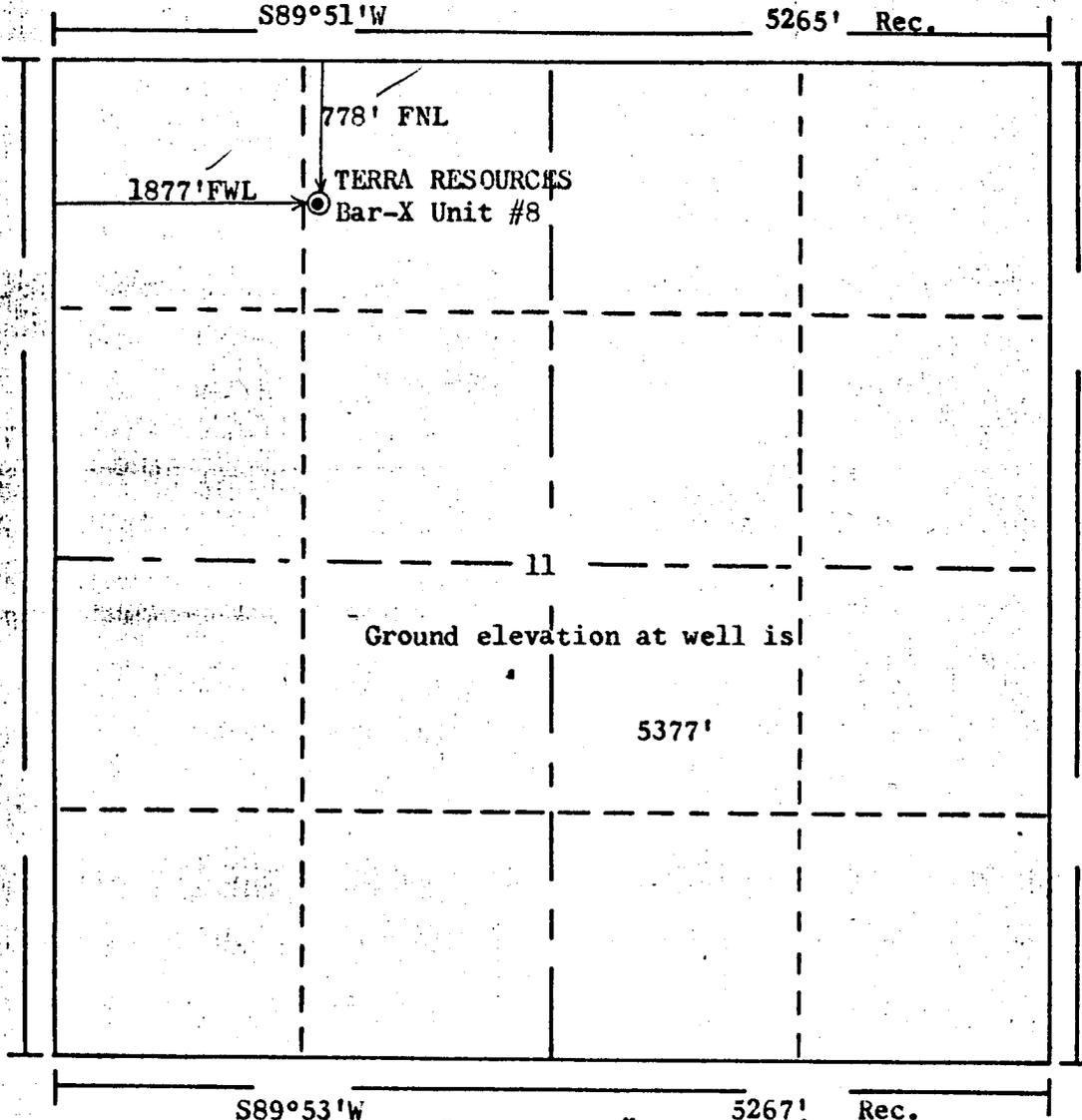
APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:



FORM F-106

EXHIBIT "A"
Location & Elevation
Plat

R. 25 E



N0°01'W
5280'
Rec.

Scale... 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado
has in accordance with a request from Cecil Foote
for **TERRA RESOURCES**

determined the location of **Bar-X Unit #8**
to be **778' FNL & 1877' FWL**
Section 11 Township 17S
Range 25 E of the Salt Lake Base and Meridian, Utah
Grand County, Utah

I hereby certify that this plat is an
accurate representation of a correct
survey showing the location of
Bar-X Unit #8

Date: 11/22/78

T. Nelson
Licensed Land Surveyor No.
State of Utah

LS 2711

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 DRILL DEEPEN PLUG BACK
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 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

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 Terra Resources, Incorporated

3. ADDRESS OF OPERATOR
 P. O. Box 2500, Casper, Wyoming 82601

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 At proposed prod. zone
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 35 NW of Grand Junction, Colorado

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 2620' WNW of Well #6

19. PROPOSED DEPTH
 4000'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 Approximate ground level is 5380'

22. APPROX. DATE WORK WILL START*
 July 10, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	32	300	290 sx Reg w/2% CaCl2
7 7/8	4 1/2	10.5	4000	280 sx 50-50 Pozmix w/10% salt

1. Drill 12 1/4" hole to 300" and set surface casing.
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, 4 1/2" casing will be run.

EXHIBITS ATTACHED

- | | |
|--------------------------------------|---|
| A. Location and Elevation Plat | F. Radius Map of Area |
| B. Ten-Point Compliance Program | G. Drill Pad Layout and Cut-Fill, Cross-Section |
| C. Blowout Preventer Diagram | H. Drill Rig & production facilities layout |
| D. Multipoint Requirement for A.P.D. | I. Acidizing-Fracturing Layout |
| E. Access Road Map onto location | J. 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 W. A. McMahon TITLE District Manager DATE 4-3-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 APPROVED BY (Orig. Sgd.) R. A. Henricks TITLE ACTING DISTRICT ENGINEER DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY
 *See Instructions On Reverse Side

NOTICE OF APPROVAL
 Utah-OEG

NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION APPROVED SUBJECT TO ROYALTY (NPL-4)

U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM: : DISTRICT GEOLOGIST, SE, SALT LAKE CITY, UTAH

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-02857

OPERATOR: Terra Resources, Inc.

WELL NO. 8

LOCATION: $\frac{1}{2}$ NW $\frac{1}{2}$ NE $\frac{1}{2}$ sec. 11, T. 17 S., R. 25 E., SIM

Grand County, Utah

1. Stratigraphy: American Metals # 6 Govt. (SE NE same section) el. 5321 reported tops as follows:

3075- Dakota
3166- Morrison
3372- Salt Wash
3826- Entrada

Operator projected tops appear to be 200-300 feet too deep.

2. Fresh Water: Some usable water could occur in sands in the upper Mancos. No significant fresh water zones are anticipated below the surface casing.

3. Leasable Minerals: Valuable prospectively for coal. Coal beds in the area are likely to be thin and discontinuous.

4. Additional Logs Needed: Logging program proposed in the APD should be adequate.

5. Potential Geologic Hazards: None anticipated.

6. References and Remarks: Within Bar X Field KGS
REF: USGS files Salt Lake City, Utah, USGS Map I-736.

Signature:

James E. Keller

Date: 05 - 09 - 79

Proposed Action:

On April 25, 1979, Terra Resources, Inc., filed an Application for Permit to Drill the No. 8 development well, a 4000' test of the Salt Wash Member of the Morrison Formation; located at an elevation of 5380' in the NE/4 NW/4, Sec. 11, T17S, R25E, on Federal mineral lands and Public surface; lease No. U-02857. There was no objection raised to the well site nor to the access road.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Freshwater sands and other mineral-bearing formations would be protected. A Blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface Plan are on file in the U.S.G.S. District Office in Salt Lake City, Utah, and the U.S.G.S. Northern Rocky Mountain Area Office in Casper, Wyoming. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City.

A working agreement has been reached with the Bureau of Land Management, the controlling surface agency. Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 100' wide x 200' long and a reserve pit 50' x 75'. A new access road would be bladed 14' wide x 250' long from a maintained road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad.

If production is established, the access road would be crowned and ditched with an 18' wide total disturbance. Also, plans for a gas flowline would be submitted to the appropriate agencies for approval.

The anticipated starting date is upon approval and duration of drilling activities would be about ten days.

Location and Natural Setting:

The proposed drillsite is approximately 15 miles northwest of Mack, Colorado, the nearest town. A fair road runs to within 250' of the location. This well is in the Bar X field.

Topography:

Area topography is flat to gently undulating with small ridges and hills. The Book Cliffs are located just north of the proposed location. The drill pad is situated on a gently sloping ridgetop.

Geology:

The surface geology is Mancos Shale. The soil is sandy clay with rock fragments. No geologic hazards are known near the drillsite. Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formation to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep into the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation. The operator plans to use air drilling methods which would reduce the potential for lost circulation.

A geologic review of the proposed action has been furnished by the Area Geologist, U. S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

Soils:

No detailed soil survey has been made of the project area. The topsoils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community. The pinyon-juniper association is also present.

Topsoil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately 0.6 acre of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated.

Precipitation:

Annual rainfall should range from about 6 to 10" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rainstorms. This type of storm is rather uncommon as the annual precipitation is around 7".

Winds are medium and gusty, occurring predominantly from southeast to northwest. Air mass inversions are rare. The climate is semiarid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

Drainage from the location would be toward San Arroyo Wash, a non-perennial tributary of the Colorado River.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potentials for pollution would be present from leaks or spills. The operator is required to report and clean up all spills or leaks.

Groundwater Hydrology:

Some minor pollution of groundwater systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination, and commingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of freshwater formations are listed in the 10-Point Subsurface Protection Plan. The pits would be unlined. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

Vegetation:

Sagebrush, grasses and juniper are present on the proposed location. Plants in the area are of the salt-desert shrub types grading to the pinyon-juniper association.

Proposed action would remove about 0.6 acre of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

Wildlife:

The fauna of the area consists predominately of pronghorn antelope, mule deer, coyotes, rabbits, foxes, and varieties of small ground squirrels, and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

An animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area.

Social-Economic Effect:

An on the ground surface archaeological reconnaissance would be required prior to approval of the proposed action. Appropriate clearances would then be obtained from the surface managing agency. If a historic artifact, an archaeological feature or site is discovered during construction operations, activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings or other facilities of this nature in the general area. Minor distractions from aesthetics would occur over the lifetime of the project and are judged to be minor. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels.

The site is not visible from any major roads. After drilling operations, completion equipment would be visible to passersby of the immediate area but would not present a major intrusion.

The overall effect of oil and gas drilling and production activity is significant in Grand County but it is difficult to assess the environmental impact of a single well on state and/or national levels. However, if said well was to produce in sufficient quantity, additional development wells might be anticipated. This additional development, in turn, would lead to greater environmental and socioeconomic consequences.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

There are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

The proposed location is within the Book Mountain Planning Unit. This Environmental Assessment Record was compiled by the Bureau of Land Management, the surface managing agency of the Federal surface in the area. The study includes additional information on the environmental impact of oil and gas operations in this area and gives land use recommendations. The E.A.R. is on file in the agency's State offices and is incorporated herein by reference.

Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A trash pit would be utilized for any solid wastes generated at the site and would be buried at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

Alternatives to the Proposed Action:

1) Not Approving the Proposed Permit--The Oil and Gas Lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits. Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under U.S.G.S. and other controlling agencies' supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration.

2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

3) Drilling should be allowed provided the following mitigative measures are incorporated into the proposed AOD and adhered to by the operator.

- a. The reserve pit was elongated 25' to the southeast to allow for a 125' blooie line.
- b. The blooie line should be misted with water to suppress dust.
- c. The topsoil stockpile was changed to the northwest corner of the pad.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately 0.6 acre of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, leaks, spills of gas, oil or water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for subsurface damage to fresh-water aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the

well is a producer, an irreplaceable and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in the Colorado River. The potential for pollution to the San Arroyo Wash would exist through leaks and spills.

Determination:

This requested action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Sec. 102(2)(C).

7/19/79
Date

E. W. Longman
District Engineer
U. S. Geological Survey
Conservation Division
Oil and Gas Operations
Salt Lake City District



UNITED STATES
DEPARTMENT OF THE INTERIOR
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3. ADDRESS OF OPERATOR
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EXHIBITS ATTACHED

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24. SIGNED W. A. McMahon TITLE District Manager DATE 4-3-79

(This space for Federal or State office use)

PERMIT NO. 43-019-30494 APPROVAL DATE _____

APPROVED BY ALT Kessick TITLE ACTING DISTRICT ENGINEER DATE JUL 27 1979

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

*See Instructions On Reverse Side

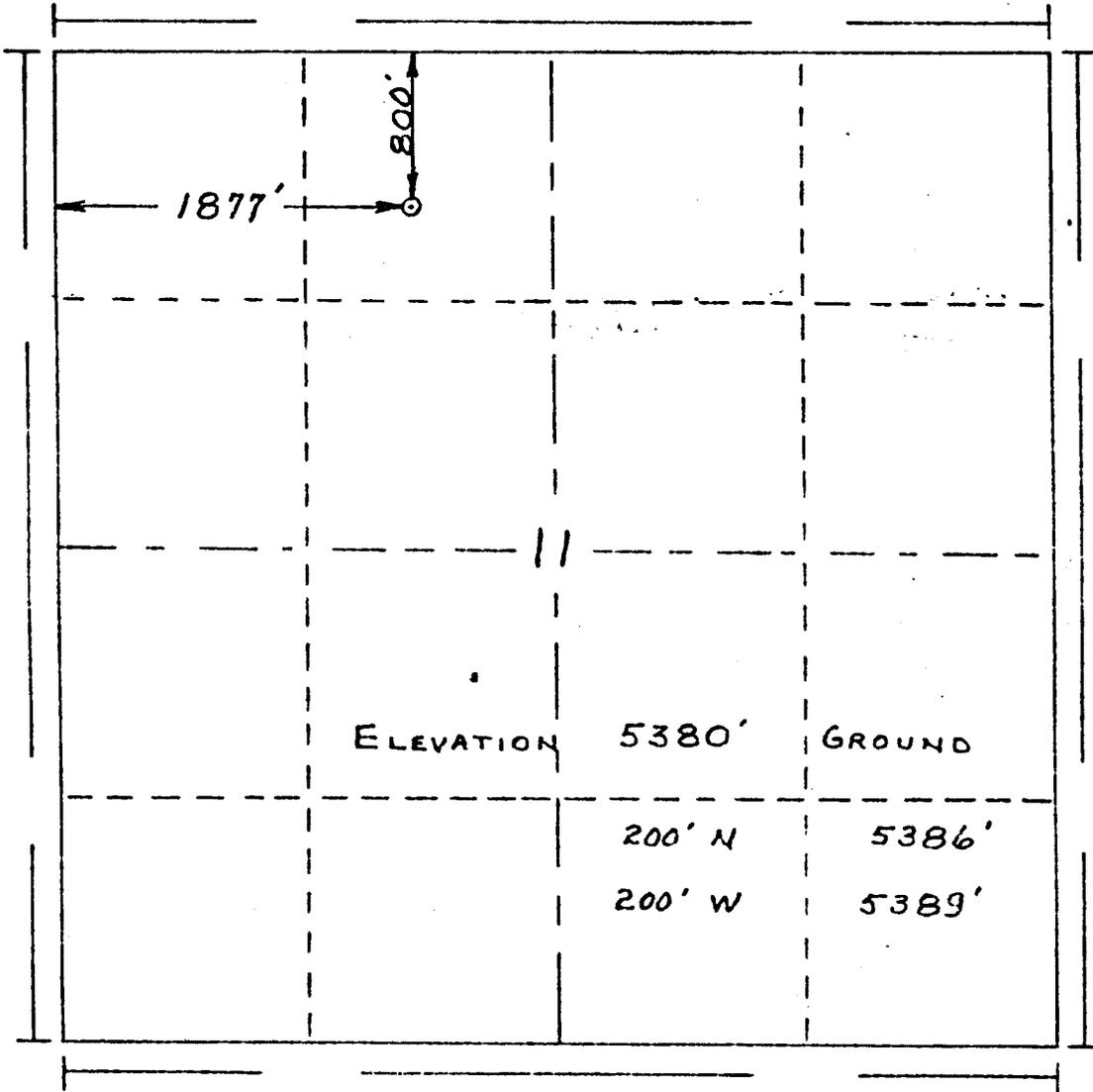
OPERATOR HAS DURING
 PERIOD OF COMPLETION APPROVED
 OPERATOR'S RESPONSIBILITY (17-14)

Operator

CONDITIONS OF APPROVAL ATTACHED



R. 25 E



T. 17 S

Scale... 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from Ed REISH for TERRA RESOURCES determined the location of #8 BAR-X to be 800' FN & 1877' FW Section 11 Township 17 S Range 25 E OF THE SALT LAKE Meridian GRAND County, UTAH

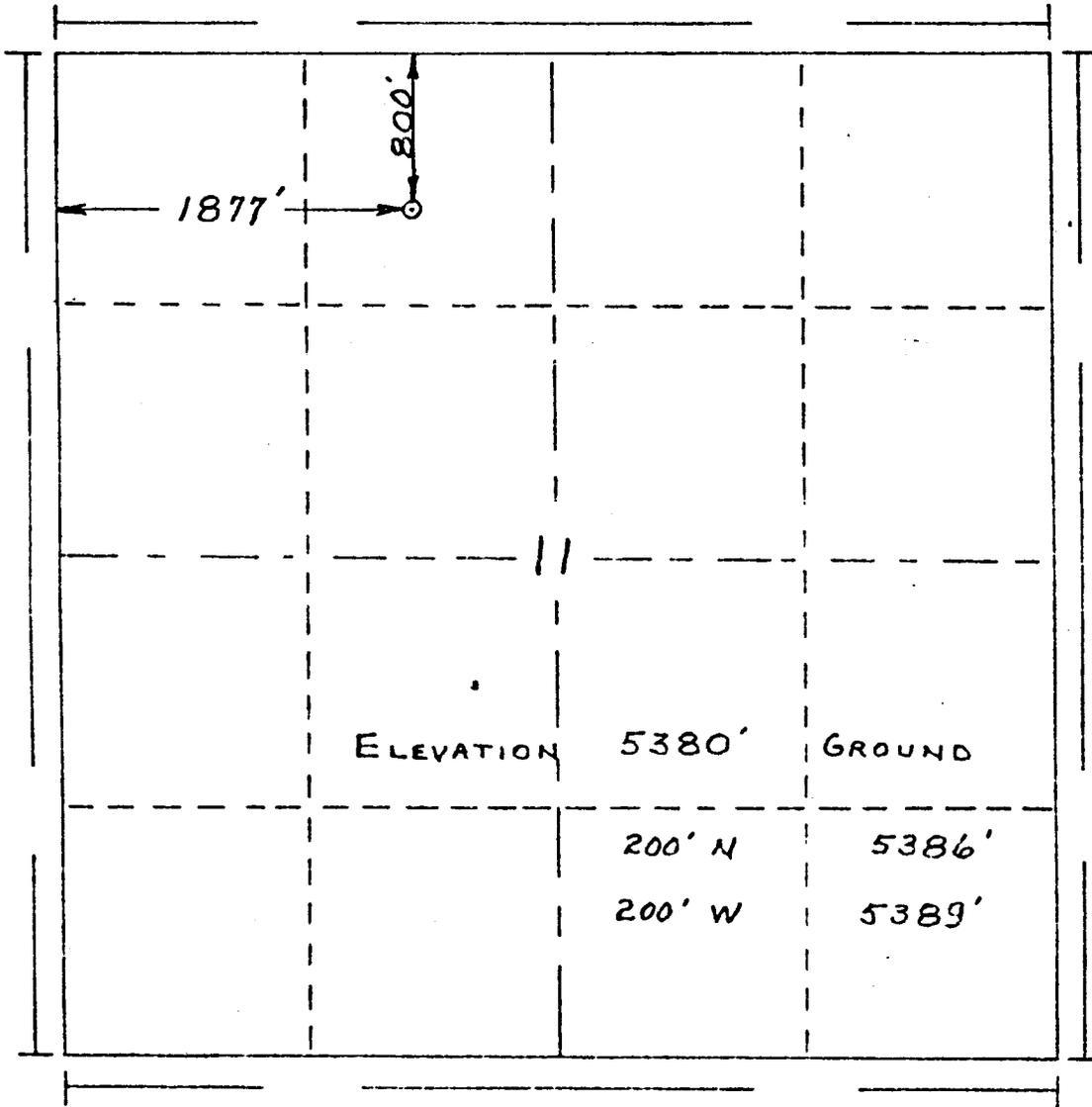
I hereby certify that this plat is an accurate representation of a correct survey showing the location of #8 BAR-X

Date: 3-25-79

T. M. [Signature]
 Licensed Land Surveyor No. 2711
 State of UTAH



R. 25 E



T. 17 S

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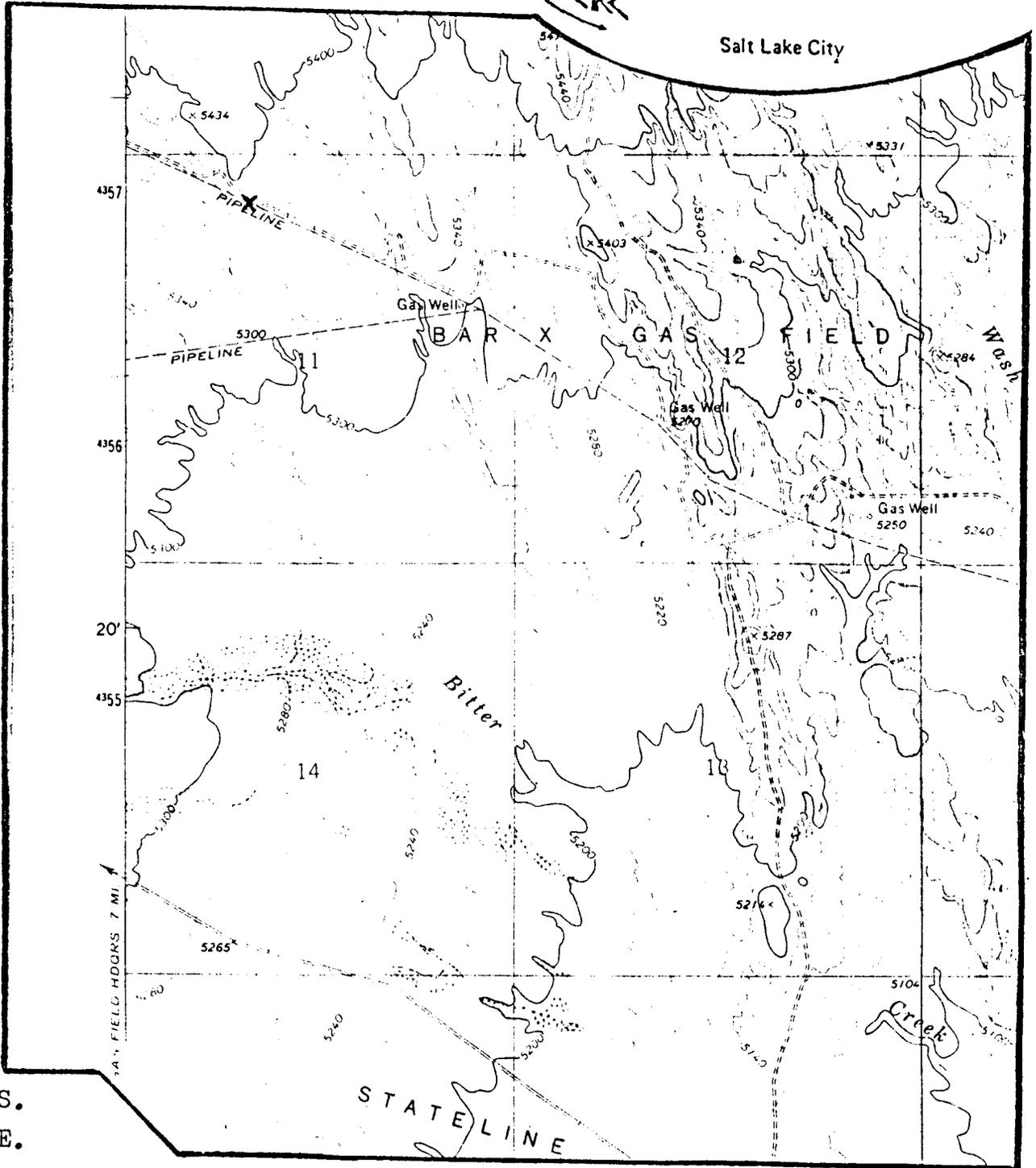
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T. M. [Signature]
 Licensed Land Surveyor No. 2711
 State of UTAH



Salt Lake City



T. 17S.

R. 25E.

Meridian: Salt Lake B.&M.

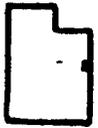
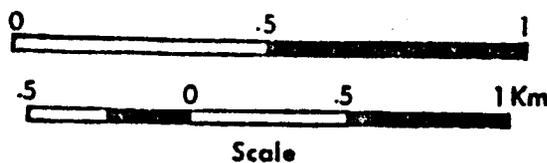
Quad: Bar X Wash Quad, Utah
7.5 Minute Series
USGS

Project: PEC-79-1
Series: Eastern Utah
Date: 5-9-79

TERRA RESOURCES NO. 8
BAR X UNIT WELL LOCATION
IN GRAND COUNTY, UTAH

Legend:

Drill Location: x



- (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 "H".
- (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 "G" 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 "H" 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 "H" 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 September, 1979 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, South of location, as shown on EXHIBIT "E".

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

There are no known 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 July 10, 1979. It is anticipated that the casing point will be reached within 10 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.

4-6-79
Date

Cecil A Foote

EXHIBIT F
RADIUS MAP
OF AREA

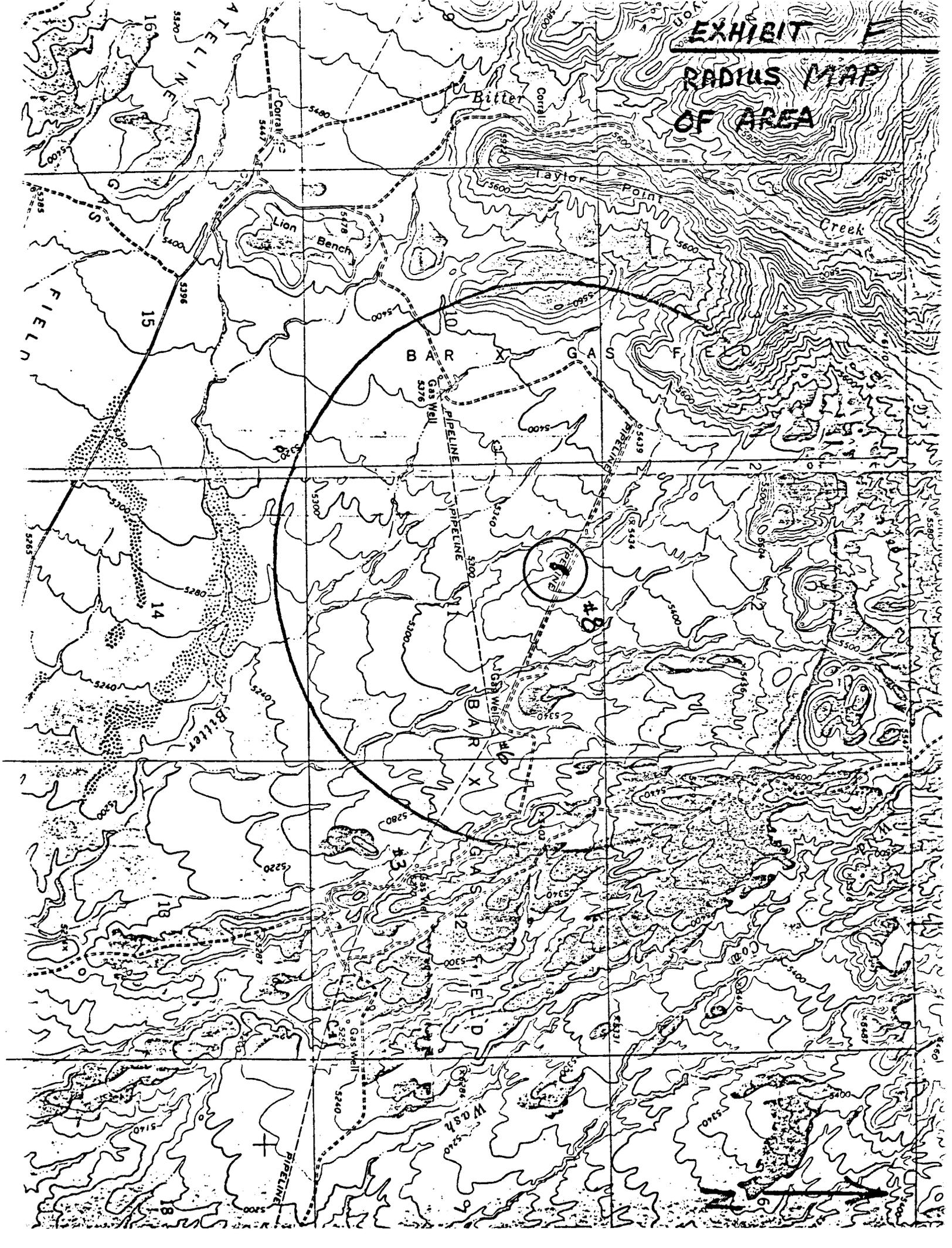
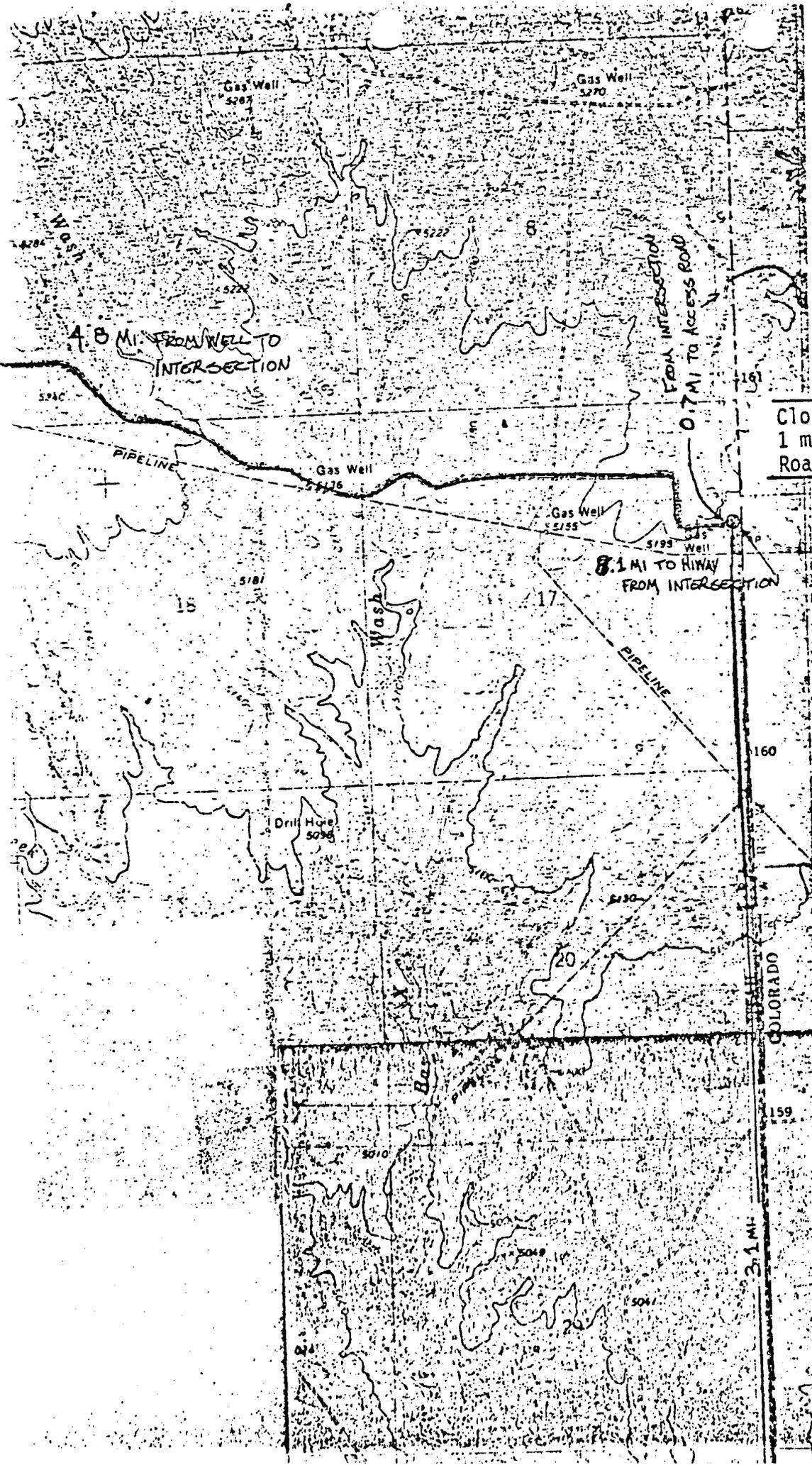


EXHIBIT
Access Road onto
Location



Closest Dwelling:
1 mile East of #2
Road on Highway #6 & #50

4.8 MI. FROM WELL TO
INTERSECTION

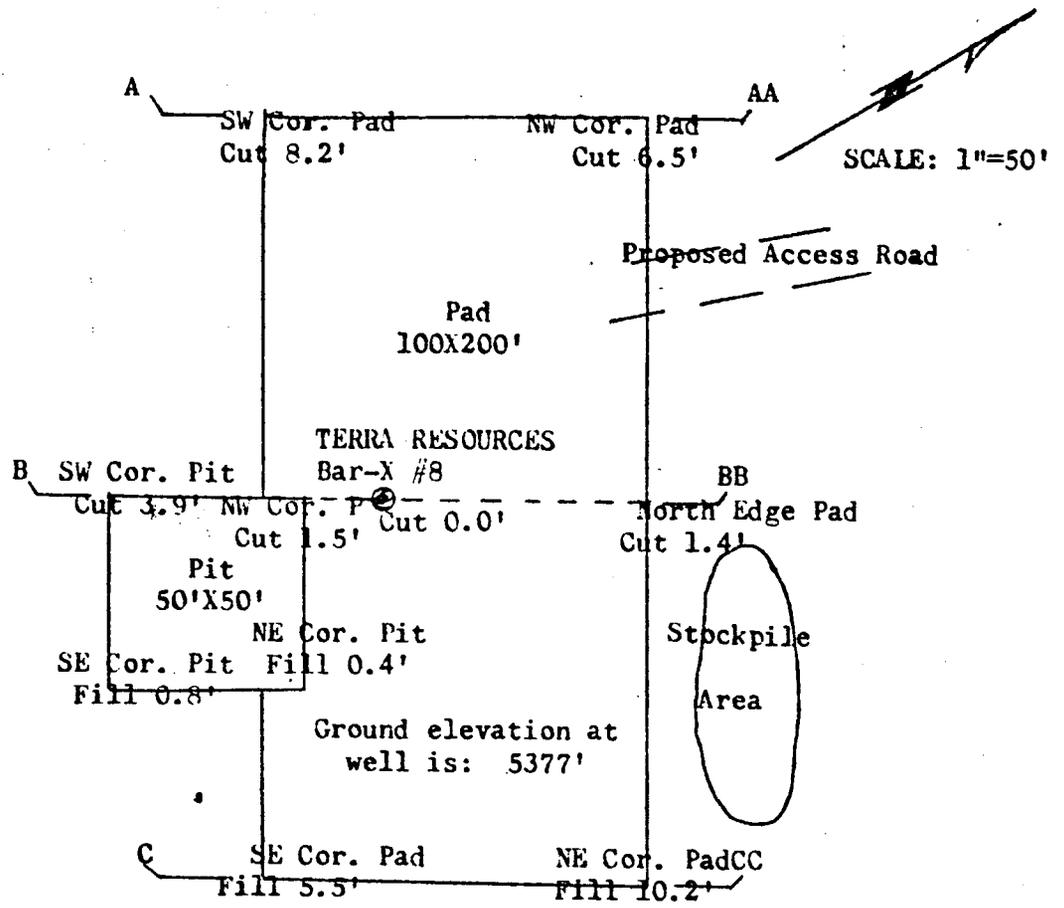
0.7 MI TO ACCESS ROAD
FROM INTERSECTION

8.1 MI TO HWY
FROM INTERSECTION

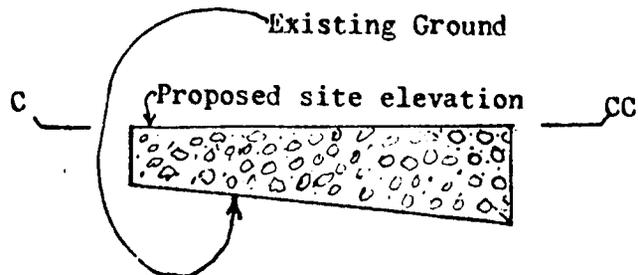
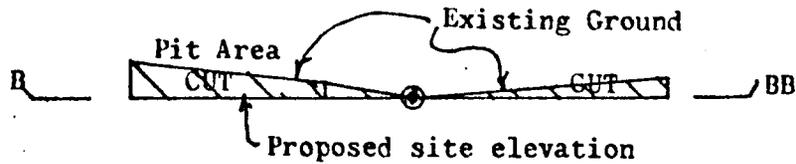
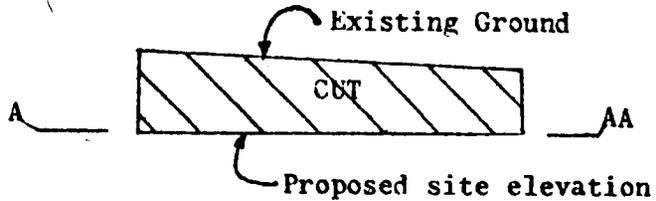
COLORADO

EXHIBIT "G"
 Drilling Pad Layout &
 Cut-Fill Cross-Section

TERRA RESOURCES
 BAR-X #8
 800' FNL & 1877' FWL
 Section 11, T17S, R25E
 Grand, Utah
 11/22/78



CROSS SECTIONS THROUGH PAD/PIT FROM EAST
 SCALES: Vert. 1"=20'; Horiz. 1"=50'



BY: Mike Zancanella
 POWERS ELEVATION COMPANY, INC.
 Grand Junction, Colorado
 303/243/8988

EXHIBIT H

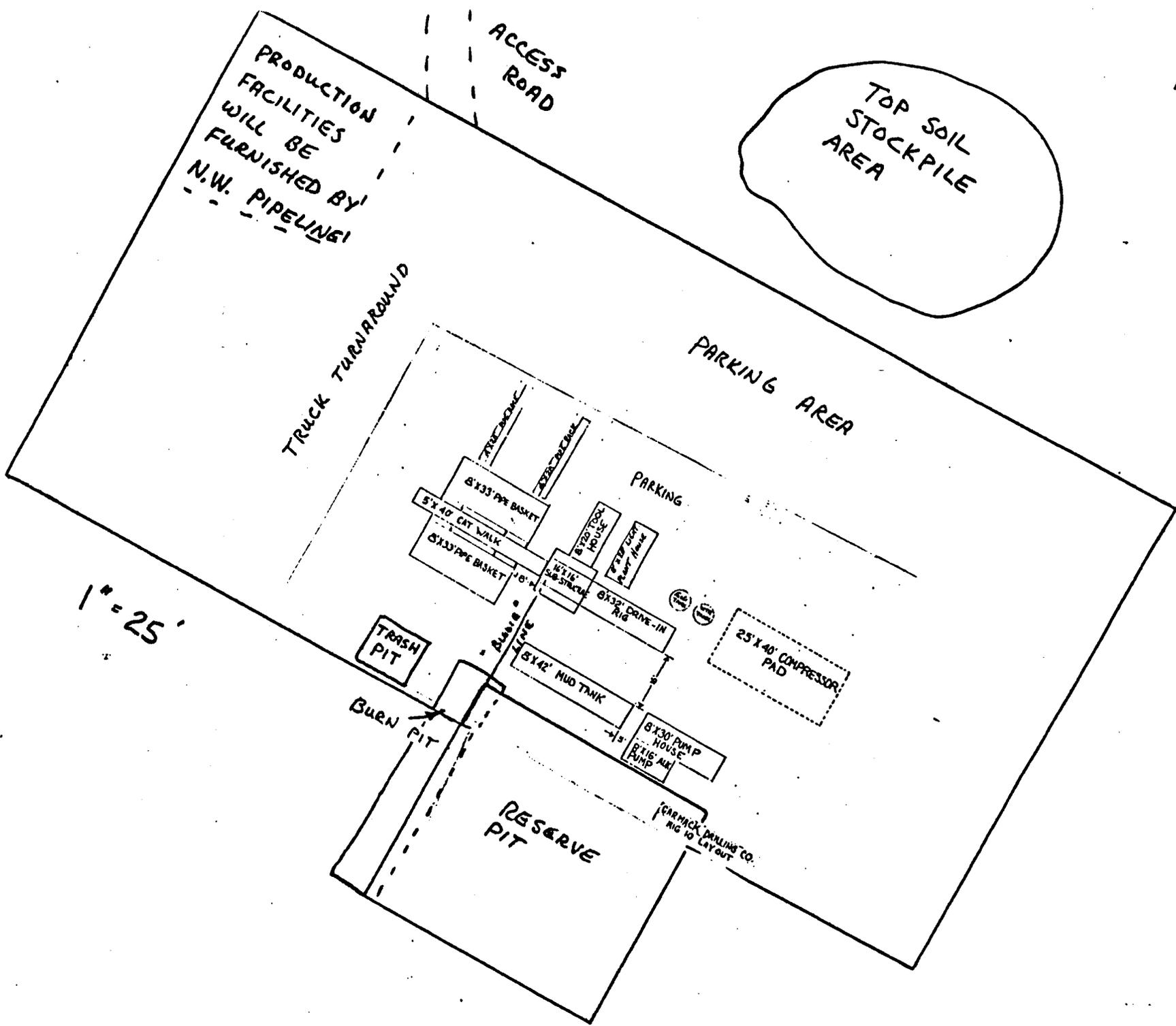
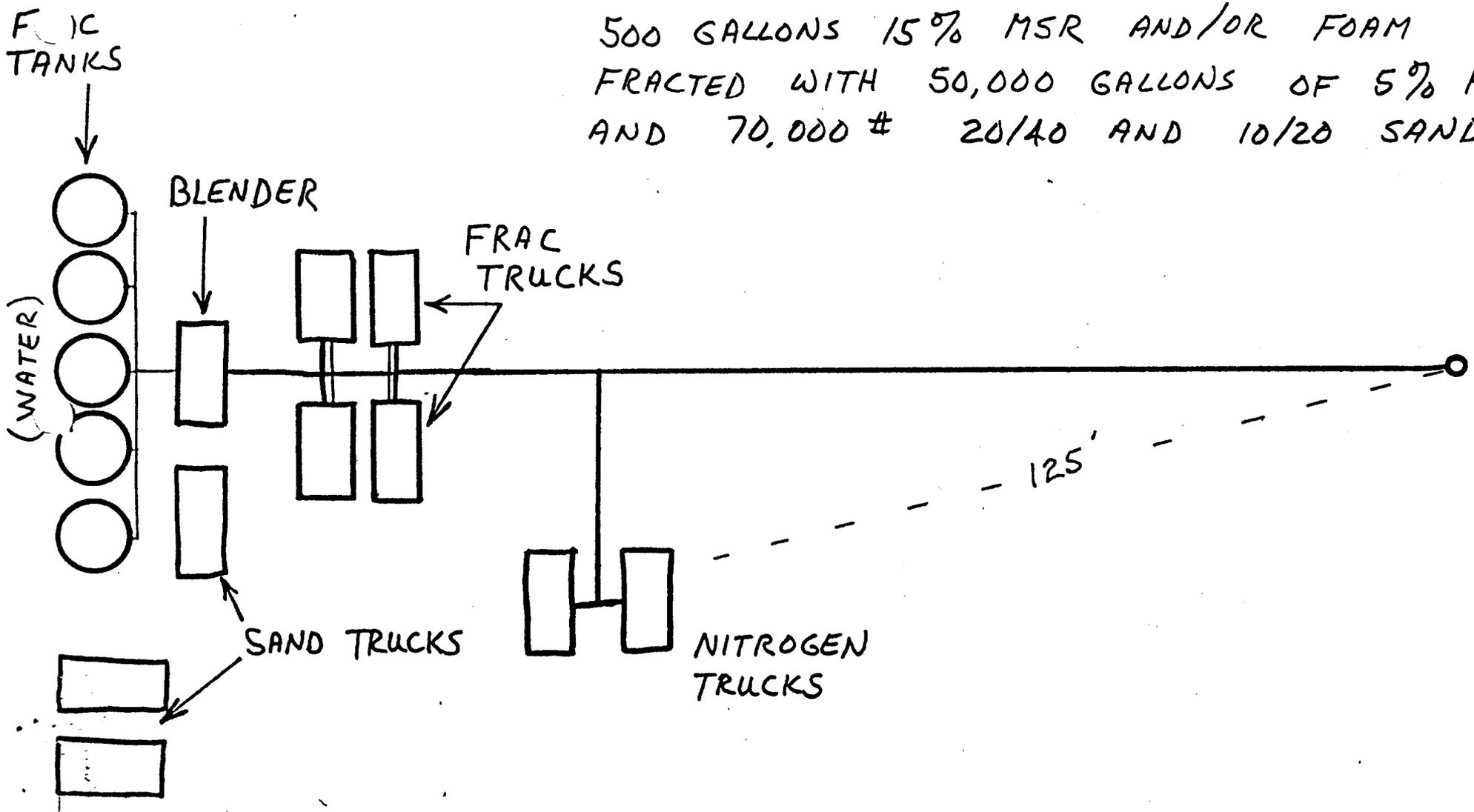


EXHIBIT I



WELL WILL BE ACIDIZED WITH APPROXIMATELY
500 GALLONS 15% MSR AND/OR FOAM
FRACTED WITH 50,000 GALLONS OF 5% HCL
AND 70,000 # 20/40 AND 10/20 SAND.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Moab District Office

Summary Report of
Inspection for Cultural Resources

BLM Use Only: Use Initials.

Case File No.

Report Acceptable Yes ___ No ___

Mitigation Acceptable Yes ___ No ___

Comments: _____

1. Project Name, Developer

Terra Resources: Class III Inventory of Terra Resources No. 8 Bar X
Unit Well (PEC-79-1)

2. Legal Description of Project Area (Attach Map Also)

NW $\frac{1}{4}$, Sec. 11, T.17S., R.25E., S6BM

3. Institution Holding Antiquities

NA

4. Antiquities Permit No.

79-Ut-061 (M-1)

5. Dates of Field Work

March 27 and April 2, 1979

6. Description of Examination Procedures

Five north-south 15 meter wide transects were walked in surveying the 75 meter square drill pad. In addition to this, a short access road approximately 40 meters long was surveyed in two 15 meter-wide sweeps. Both the pad area and access had been staked and flagged.

7. Description of Findings (Attach forms or detailed report, if appropriate)

No cultural resources were located within the project area.

8. Actual/Potential National Register Properties Affected

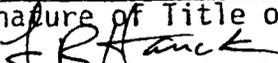
No National Register status properties will be affected by the project.

9. Conclusions/Recommendations AERC recommends cultural resource clearance and a determination of "no affect" provided the developer follows the three stipulations listed below: 1. all vehicular traffic personnel movement and construction be confined to the location examined and to evaluated access roads; 2. all personnel refrain from collecting individual artifacts or from disturbing any cultural resources in the area; 3. a qualified archeologist be consulted should cultural remains from subsurface deposits*

10. Signature of Person in Direct Charge of Field Work

T. Michael Smith, Archeologist

11. Signature of Title of Institutional Officer Responsible


F. R. Hauck, Ph.D., President

USO Form 6230-3 (July 1977)

*be exposed or if the need arises to relocate or otherwise alter any locations.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

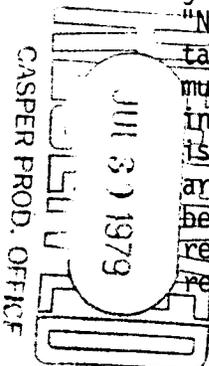
Company Terra Resources, Inc. Well No. 8
Location Section 11-17S-25E Lease No. U-02857

A COPY OF THESE CONDITIONS SHOULD BE FURNISHED YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (30 CFR 221), and the approved plan of operations. The operator is considered fully responsible for the actions of his subcontractors. The following items are emphasized:

1. There shall be no deviation from the proposed drilling and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 30 CFR 221.22. Any changes in operations must have prior approval of this office. Pressure tests are required before drilling out from under all casing strings set and cemented in place. Blowout preventer controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to insure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. All BOP pressure tests must be recorded on the daily drilling report.
2. All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and furnished this office for analysis. All oil and gas shows will be adequately tested for commercial possibilities, reported, and protected.
3. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of this office. If operations are to be suspended for more than 30 days, prior approval of this office must be obtained and notification given before resumption of operations.

In the event abandonment of the hole is desired, an oral request may be granted by this office but must be timely followed within 15 days with a "Notice of Intention to Abandon" (Form 9-331). Unless the plugging is to take place immediately upon receipt of oral approval, the District Engineer must be notified at least 48 hours in advance of the plugging of the well, in order that a representative may witness plugging operation. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form 9-331) must be submitted within 15 days after the actual plugging of the well bore, reporting where the plugs were placed, and the current status of the surface restoration. If surface restoration has not been completed at that time, a



follow-up report on form 9-331 should be filed when all surface restoration work has been completed and the location is considered ready for final inspection.

4. The spud date will be reported orally to the District Engineer within 48 hours after spudding. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report.

Periodic drilling progress reports must be filed directly with the District Engineer's office on a frequency and form or method as may be acceptable to the District Engineer.

In accordance with NTL-1, this well must be reported on Form 9-329 "Monthly Report of Operations," starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report should be filed in duplicate directly with the U.S. Geological Survey Area Office, P.O. Box 2859, Casper, Wyoming 82602.

Any change in the program must be approved by the District Engineer. "Sundry Notices and Reports on Wells" (form 9-331) must be filed for all changes of plans and other operations in accordance with 30 CFR 221.58. Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground will require the filing of a suitable plan pursuant to NTL-6 and prior approval by the District Engineer.

5. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (form 9-330) will be submitted not later than 15 days after completion of the well or after completion of operations being performed, in accordance with 30 CFR 221.59. Two copies of all logs run, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with form 9-330. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by this office.
6. Significant surface values (are) (~~are not~~) involved at this location. Accordingly, you (must) (~~need not~~) notify ~~this office and~~ the Surface Management Agency at least 24 hours prior to commencing field operations to allow ~~this office and/or~~ the Surface Management Agency office to have personnel present for consultation during the construction of roads and locations.

The Surface Management Agency contact is: Rocky Curnett
Office Phone: 259-6111, Home Phone: _____
City: Moab, State: Utah

The U.S. Geological Survey District Office address and contacts are:

Address: 8440 Federal Building, 125 South State St., Salt Lake City, UT 84138
Office Phone: (801) 524-5650
District Engineer E. W. Gynn Home Phone: 582-7042
Asst. Dist. Engineer W. P. Martens Home Phone: 466-2780
Asst. Dist. Engineer R. A. Henricks Home Phone: 484-2294

Unless otherwise specified herein, construction and maintenance of surface facilities approved under this plan shall be in accordance with the guidelines set forth in the BLM/FS/GS Oil and Gas Brochure entitled, "Surface Operating Standards for Oil and Gas Exploration and Development." This includes but is not limited to such items as road construction and maintenance, handling of top soil, and rehabilitation.

8. If a replacement rig is contemplated for completion operations, a "Sundry Notice" to that effect must be filed for prior approval of the District Engineer, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.
9. Pursuant to NTL-2B requirements regarding disposal facilities for new wells, this is authorization for unlined pit disposal of the water produced from this well for a period of 90 days from the date of initial production for sales purposes. During this period, an application for approval of the permanent disposal method, along with the required water analysis and other information must be submitted for the District Engineer's approval. Failure to timely file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order until the application is submitted.
10. This application is valid for a period of one year from the date of approval. No extensions will be considered. If the application terminates, any surface disturbance created under the application must be rehabilitated in accordance with the approved plan. After termination, future operations will require a new application be filed for approval.
11. If a tank battery is constructed on this lease, it must be surrounded by a fire wall of sufficient capacity to adequately contain the storage capacity of the battery.

12. _____

SUPPLEMENTAL STIPULATIONS OF APPROVAL CONTINUED

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 beams 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 Nov.)

Terra Resources, Inc.
Well #8
Section 11-17S-25E
Bar X Unit
Grand County
U-02857

Supplemental Stipulations:

1. Stockpile the surface 12 inches of surface soil as shown on Exhibit H (enclosed).
2. If production is obtained, all production facilities will be painted "desert gold" or a similar color approved by the Grand Resource Area Manager.
3. The "blooey" line will be centered and directed into the pit, and misted with water to suppress dusts.
4. The upper banks (uphill side) of all cuts will be rounded during construction of the access road and pad.
5. Rehabilitation of the site and access road will be accomplished in accordance with the enclosed restoration procedures.
6. Notify the BLM District Archaeologist if cultural material from subsurface deposits is exposed during the operation.
7. The reserve pit was elongated 25' to the southeast to allow for a 125' blooie line.

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 beams into centers.
 - b. Use cut material for fill areas.
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4. Seed roads and pads in the fall (OCT. through Nov.)

SEEDING MIXTURE
Big Sage Brush Type
(Low Elevation)

<u>SPECIES</u>		<u>RATE</u>
		<u>lb/acre</u>
<u>Grasses</u>		
Standard Crested Wheatgrass	(Agropyron desertorum)	1
Indian Ricegrass	(Oryzopsis hymenoides)	1
Russian Wildrye	(Elymus junceus)	1
<u>Forbs</u>		
Ladak Alfalfa	(Medicago sativa)	.5
Yellow Sweetclover	(Melilotus officinalis)	.5
Globemallow	(Sphaeralcea grossulariaefolia)	.5
Wild Sunflower	(Helianthus annus)	.5
<u>Shrubs</u>		
Big Sage Brush	(Artemisia tridentata)	.5
Four-wing Saltbush	(Atriplex canescens)	1.5
Winterfat	(Eurotia lanata)	1
Black Sagebrush	(Artemisia nova)	1
		<hr/> 9.0

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 #8
Well Location: 800' SNL and 1877' EWL
Sec. 11 T 17S R 25E
County: Grand State: Utah

1. Geologic Surface Formation

Mancos

2. Estimated Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Frontier	3010'
Dakota Silt	3330'
Dakota	3410'
Morrison	3520'
Salt Wash	3840'
TD	4000'

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

<u>Formation</u>	<u>Depth</u>	<u>Remarks</u>
Dakota	3410'	possible gas
Upper Morrison	3520'	possible gas
Salt Wash	3840'	possible gas

4. The Proposed Casing Program

- (a) Set 8 5/8" 32# K-55 new casing, in 12 1/4" hole at 300' and cement with 290 sx regular cement w/2% CaCl₂.
- (b) Set 4 1/2" 10.5# J-55 new casing, in 7 7/8" hole at TD. (4000') and cement if productive with 280 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 nipping 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 "I".

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 July 10, 1979 or immediately as possible after examination and approval of all drilling requirements.

The operations should be completed within 10 days after spudding the well.

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 nipping 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.

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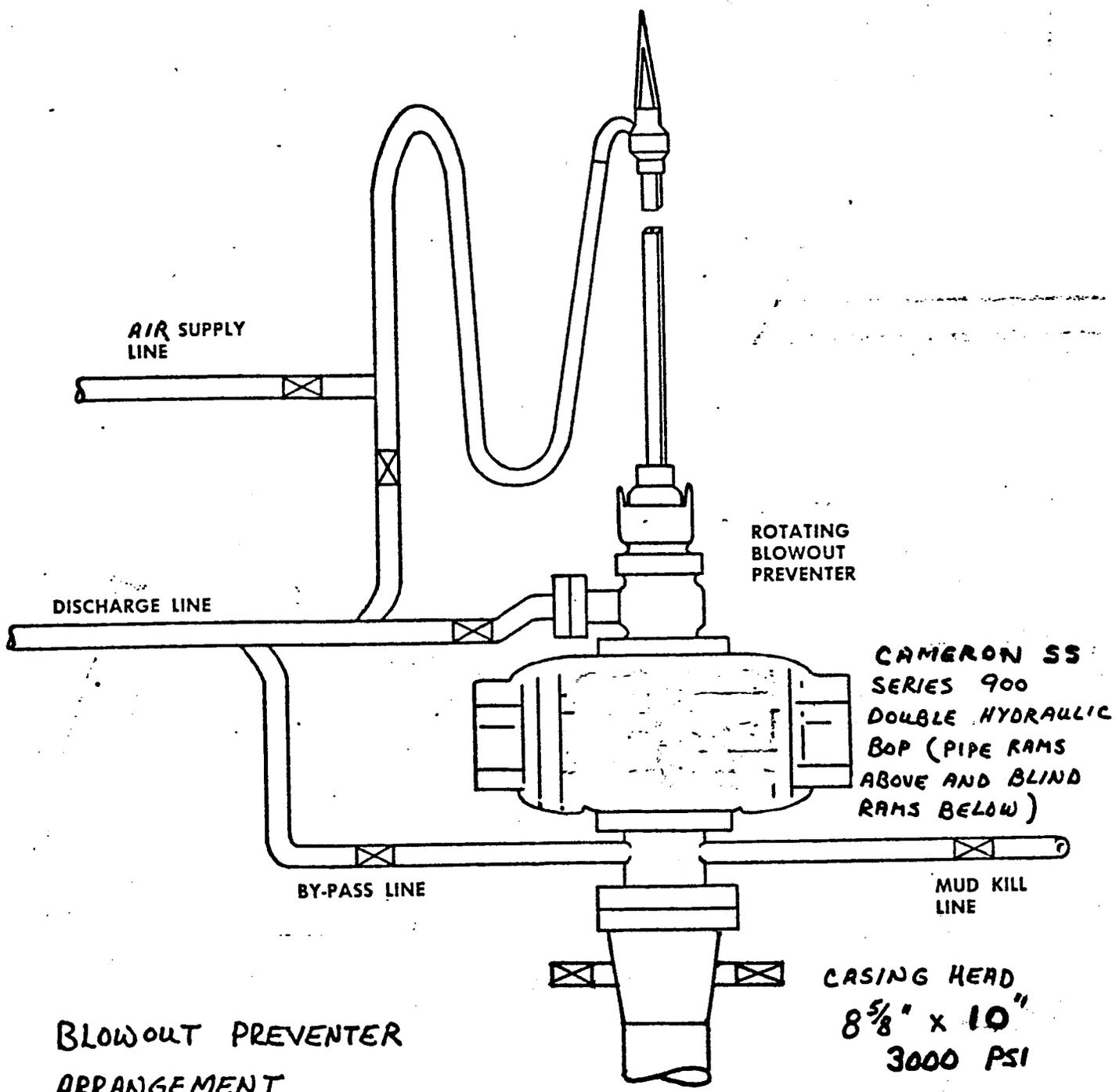
9. Any Anticipated Abnormal Pressures or Temperatures Expected

NONE

10. The Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for July 10, 1979 or immediately as possible after examination and approval of all drilling requirements.

The operations should be completed within 10 days after spudding the well.



BLOWOUT PREVENTER
ARRANGEMENT
BAR X UNIT WELL # 8

ALL MANIFOLD AND LINES
WILL HAVE AT LEAST
THE SAME PRESSURE
RATING AS THE BOP STACK

EXHIBIT "D"

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

Attached to Form 9-331C
Terra Resources, Inc.
Bar X Unit Well #8
800' SNL & 1877' EWL
NE NW, Sec. 11 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 21.9 miles. Proceed West on paved Highway 50, 9.2 miles from the Mack Post Office; thence Northeast on maintained number two 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 4.8 miles to staked access road; proceed South 250' to location, as shown on EXHIBIT "E".
- C. All roads are color-coded into location. An access road 250' from the existing gas field road will be required, as shown on EXHIBIT "E".
- D. N/A
- E. This is a development well. All existing roads within a one-mile radius are shown on EXHIBIT "F".
- F. The existing roads need no improvement. Maintenance will be performed as required.

2. Planned Access Roads

Map showing all necessary access roads to be constructed or reconstructed is shown as EXHIBIT "F" for the following:

- (1) The maximum width of the running surface of the 250' access road as you leave the existing gas field road will be 18'.
- (2) The grade will be 8% (eight percent) or less.
- (3) No turn outs are planned.
- (4) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.

- (5) No culverts are needed. No major cuts or fills are anticipated along access road during drilling operation.
- (6) Surfacing materials will be native soil.
- (7) No gates, cattle guards or fence cuts are needed.
- (8) The new access road to be built has been staked during the time of staking the location, and is centerline flagged as shown on EXHIBIT "F".

3. Location of Existing Wells

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

- (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 three 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 of drill pad, as shown on EXHIBIT "H".
- (2) All well flow lines will be buried.
- (3) Production Facilities will consist of a dehydrator and meter building located on the north 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, as shown on EXHIBIT "E".
- 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 "H".
- (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 "G" 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 "H" 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 "H" 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 September, 1979 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, South of location, as shown on EXHIBIT "E".

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

There are no known 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 July 10, 1979. It is anticipated that the casing point will be reached within 10 days after commencement of drilling.

12. Lessee's or Operator's Representative

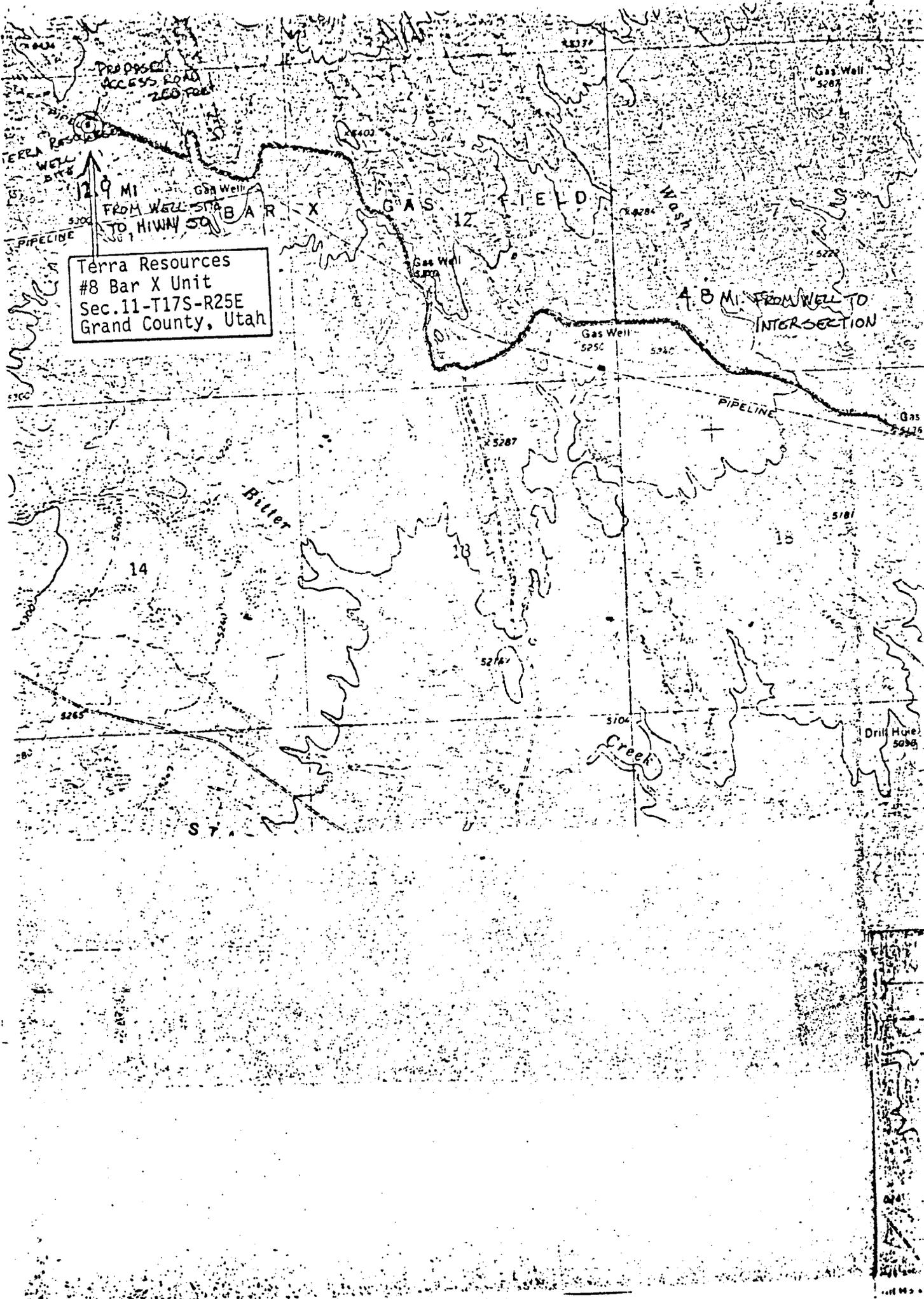
Cecil Foote
Terra Resources
Box 2500
Casper, Wyoming 82602
Phone: (307) 237-8461

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.

4-6-79
Date

Cecil G Foote



Terra Resources
#8 Bar X Unit
Sec. 11-T17S-R25E
Grand County, Utah

12.9 MI
FROM WELL STAB
TO HWY 50

4.8 MI FROM WELL TO
INTERSECTION

Proposed
ACCESS ROAD
250 FEET

Terra
Well
Site

Bitter

GAS FIELD

Wosh

Gas Well
525C

Gas Well
5207

Gas Well
5220

Drill Hole
5096

14

15

5104
Creek

5287

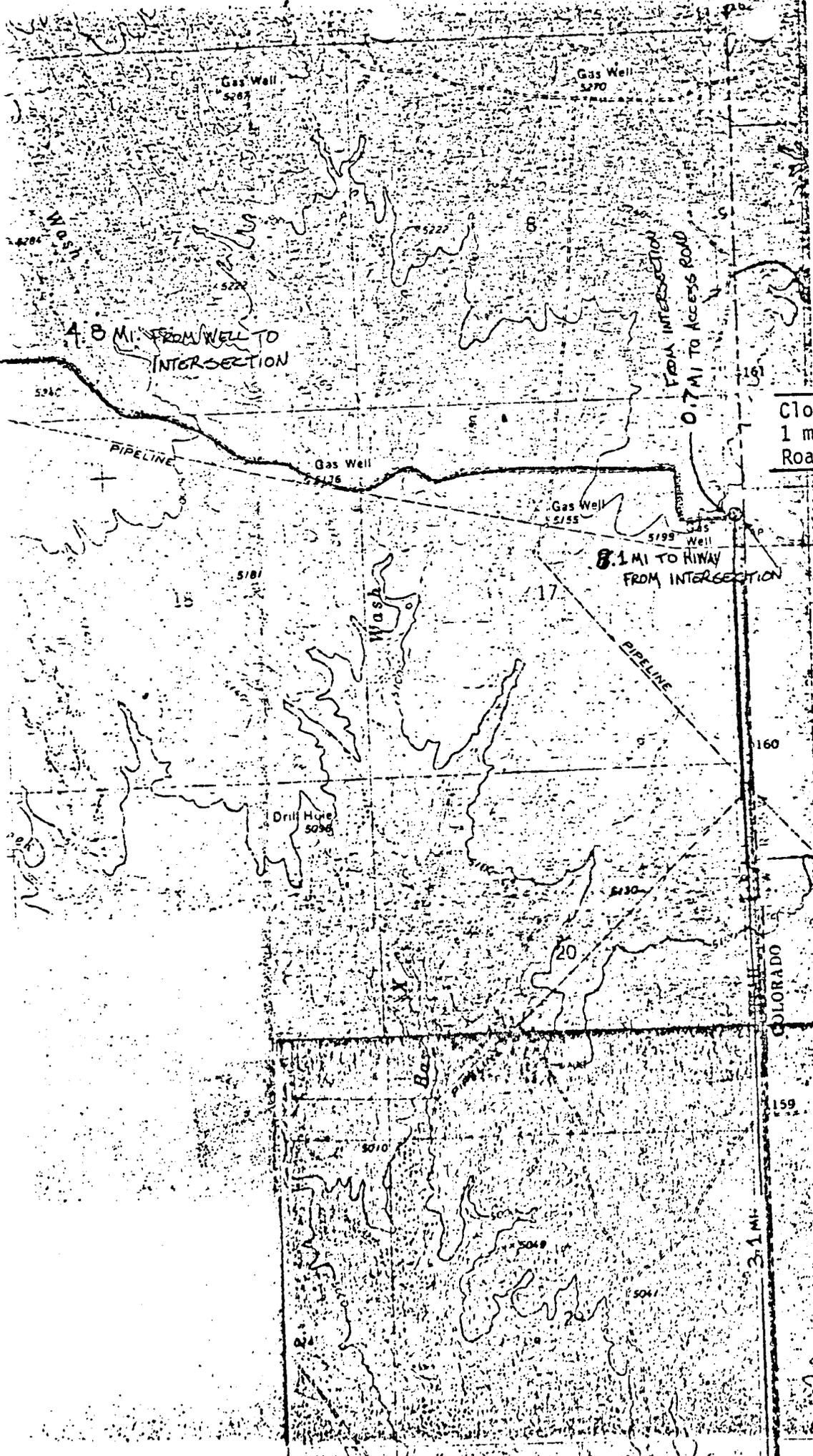
5262

5265

5181

ST.

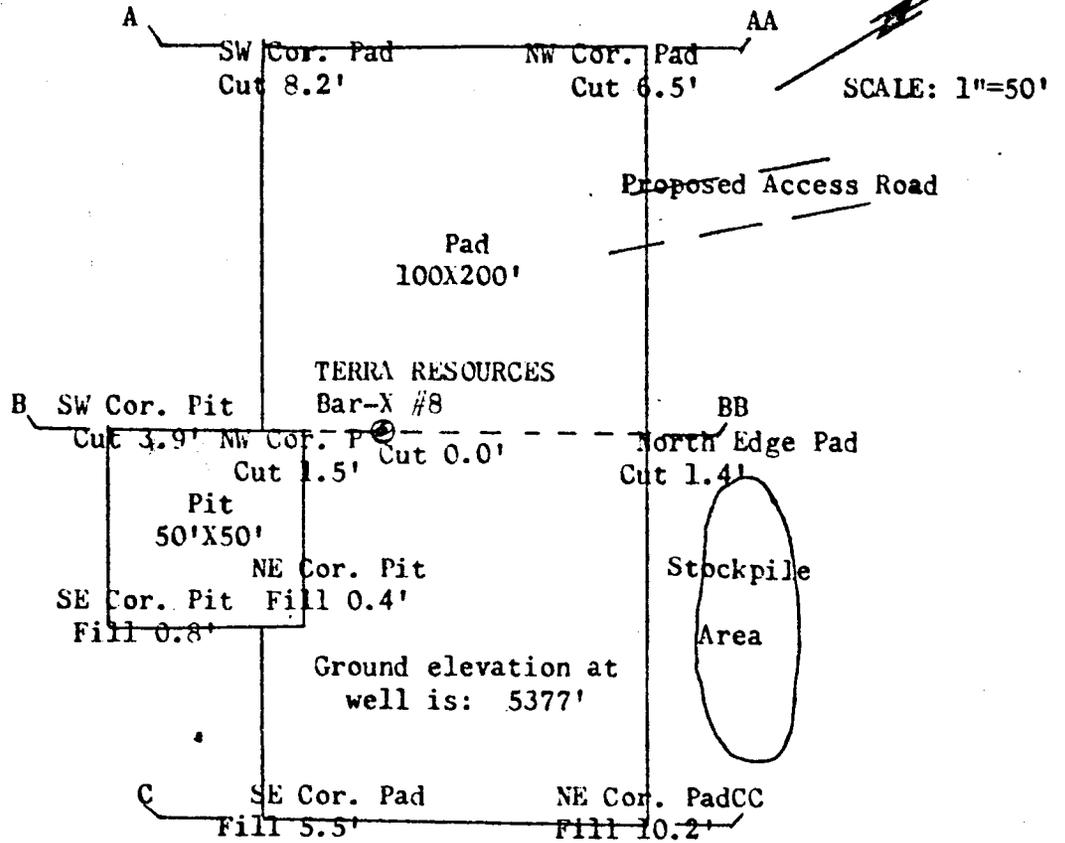
Access Road onto
Location



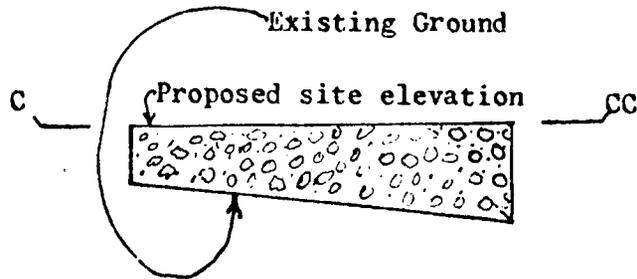
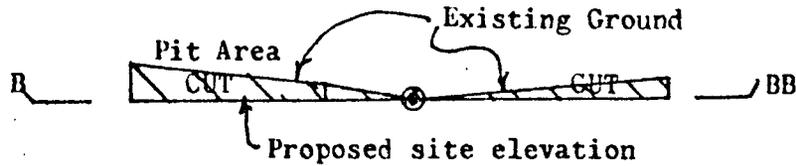
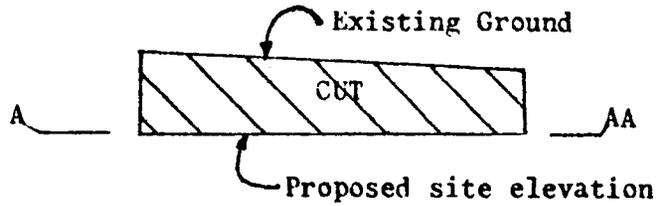
Closest Dwelling:
1 mile East of #2
Road on Highway #6 & #50

3.1 MI.

TERRA RESOURCES
BAR-X #8
800' FNL & 1877' FWL
Section 11, T17S, R25E
Grand, Utah
11/22/78

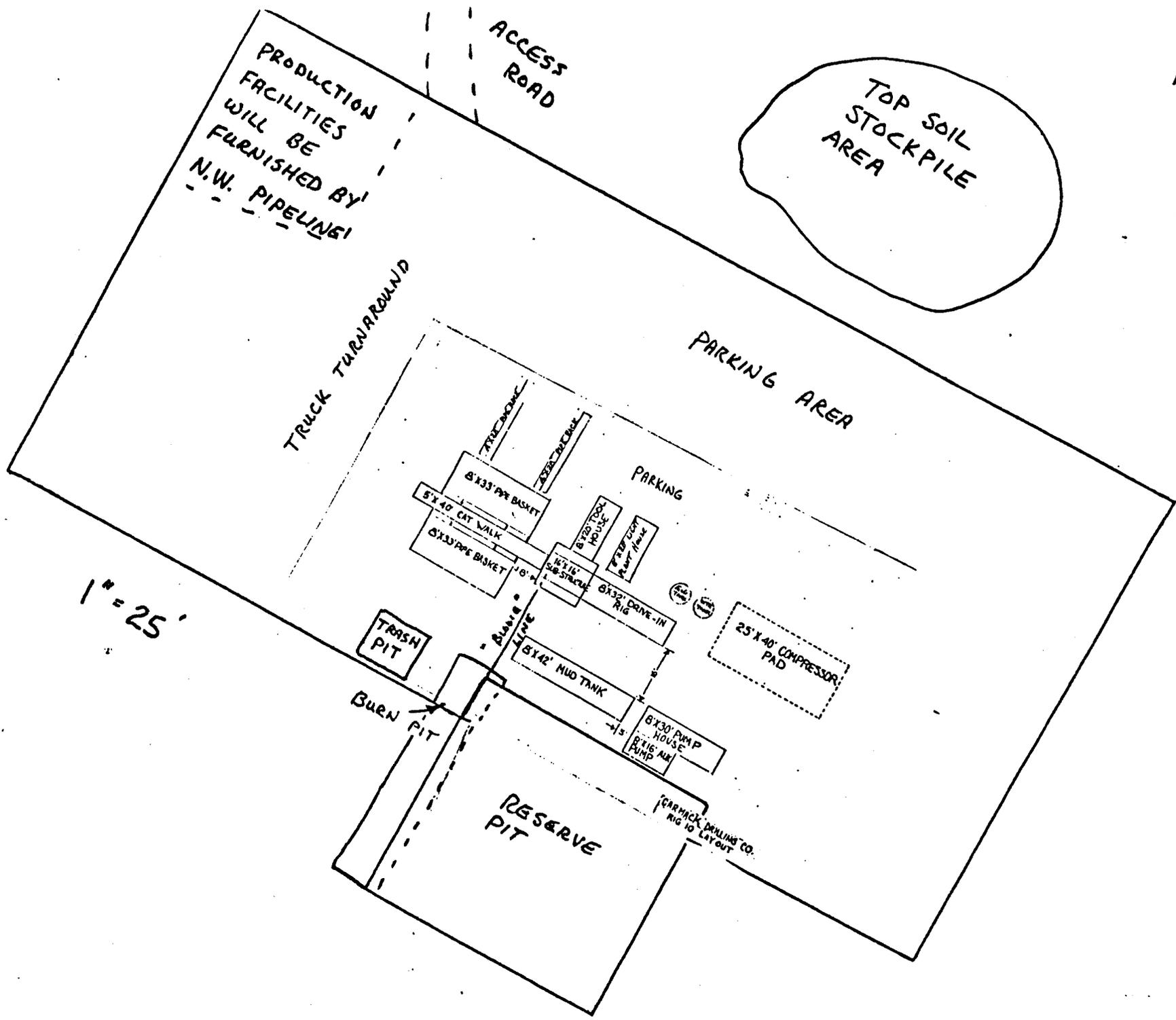


CROSS SECTIONS THROUGH PAD/PIT FROM EAST
SCALES: Vert. 1"=20'; Horiz. 1"=50'



BY: Mike Zancanella
POWERS ELEVATION COMPANY, INC.
Grand Junction, Colorado
303/243/8988

EXHIBIT A





ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

P.O. Box 17544 - Salt Lake City, Utah 84117

Tel.: (801) 486-0261

April 9, 1979

Subject: Archeological Reconnaissance of Terra Resources
No. 8 Bar X Unit Well in the Bar X Gas Field of
Grand County, Utah

Project: Terra Resources/Powers Elevation Co., Inc.

Project No.: PEC-79-1 (PEC-78-5)

Dept. of Interior Permit No.: 79-Ut-061 (M-1)

To: Mr. Michael Metcalf, Powers Elevation Co., P.O.
Box 1199, Eagle, Colorado 81631

Mr. Del Backus, BLM Area Manager, Bureau of Land
Management, P.O. Box M, Moab, Utah 84532

Mr. Gene Day, BLM District Manager, Bureau of
Land Management, P.O. Box 970, Moab, Utah 84532

Info: Mr. Richard Fike, BLM Archeologist, Bureau of Land
Management Offices, University Club Bldg., 136
East South Temple, Salt Lake City, Utah 84111


TERRA RESOURCES, INC.

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

December 19, 1979

*Re: Application for Permit to Drill
Terra Resources, Inc.
Bar X Unit Well #8
800' SNL and 1877' EWL
NW/4 Sec. 11, T17S, R25E
Grand County, Utah*

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

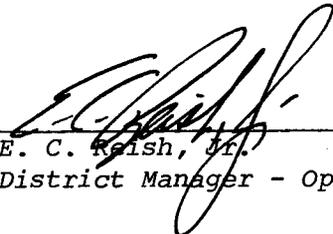
Gentlemen:

*Enclosed please find one (1) approved copy of Form #9-331C,
Application for Permit to Drill.*

*Terra will proceed with the drilling of this well as per your
verbal approval 12-19-79.*

Yours very truly,

TERRA RESOURCES, INC.



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

ECR:CGF/gj

Enclosure

RECEIVED

DEC 24 1979

**DIVISION OF
OIL, GAS & MINING**

GENERAL OFFICES

SUITE 300 5416 SOUTH YALE AVENUE TULSA, OKLAHOMA (918) 492-2231

**** FILE NOTATIONS ****

DATE: December 27, 1979

OPERATOR: Terra Resources, Inc.

WELL No. Bar X Unit #8

LOCATION: SEC. 11 T. 17S R. 25E COUNTY Grand

FILE PREPARED: _____

ENTERED ON NID: _____

CARD INDEXED: _____

COMPLETION SHEET: _____

API NUMBER: 43-019-30494

CHECKED BY:

GEOLOGICAL ENGINEER: _____

PETROLEUM ENGINEER: _____

DIRECTOR: OK well in Bar X Unit

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 Field Unit PLOTTED ON MAP

APPROVAL LETTER WRITTEN

utm

NE
PI

AFE # 620 431 C



INITIAL REPORT

1/19/80
MONTH DAY YEAR

LEASE & WELL NO. _____ UNIT # 8 _____

FIELD BAR X ; COUNTY PARISH GRAND

STATE UTAH ; W.I. 5000

LOCATION: NE QUARTER OF THE NW QUARTER OF SECTION 11 T 17 S ; R 25 E
1877 Ft EWL ~~800~~ 800 Ft ~~SNL~~ Of SEC 11

ELEVATION: Staked 5380 ; Graded _____ ; Kelly Bushing 5390

CONTRACTOR CARDINAL RIG #4 ; Footage Contract ; Daywork Contract

OBJECTIVE FORMATION DAKOTA ; Est.TD 4000 ; Estimated Rig Days 5

DIRECTIONS TO LOCATION THE LOCATION IS 21.9 MILES FROM MACK COLO. PROCEED WEST ON HIGHWAY 50, 9.2 MILES FROM MACK POST OFFICE. THEN NORTHEAST ON COUNTY ROAD #2 (DIRT) 4.8 MILES TO FENCE ON UTAH-COLO BOUNDARY. TURN NORTH UP FENCE LINE AND PROCEED 3.1 MILES TO INTERSECTION WITH GAS FIELD ROAD. PROCEED WEST 4.8 MILES TO RIG SIGN. TURN SOUTH PROCEED 250' THRU TREES TO LOCATION.

REMARKS: CARDINAL PUSHER - GARNEY ROSENDAHL
HOME 303-858-7428 MACK COLO
ANS SERU 303-245-3660

DAILY DRILLING REPORT

1/10/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X. #8

DEPTH _____ footage last 24 hrs _____ FORMATION _____

PRESENT OPERATION: MI & RU

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE

WOB _____ RPM _____ DC _____

DEVIATIONS: _____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB
_____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB

PUMP: press _____ ; strokes _____ ; liners _____ x _____ ; Pump Press _____ at _____ SPM

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____
% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg _____ ; Trips _____ ; Slope Survey _____ ; Check BOP _____

Other: _____

REMARKS: _____

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Terra Resources, Inc.

WELL NAME: Bar X Unit #8

SECTION 11 NE NW TOWNSHIP 17S RANGE 25E COUNTY Grand

DRILLING CONTRACTOR Cardinal Drilling

RIG # 4

SPUDDED: DATE 1/10/80

TIME 10:00 a.m.

HOW rotary

DRILLING WILL COMMENCE presently

REPORTED BY _____

TELEPHONE # _____

DATE January 11, 1980

SIGNED *M. J. Mander*

cc: USGS



Day On Well 1

Time 6 AM

DAILY DRILLING REPORT

1 / 11 / 80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 110 footage last 24 hrs 110 FORMATION SURF

PRESENT OPERATION: DRLG

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE
	<u>1</u>	<u>1 1/4</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>0</u>	<u>110</u>

WOB 5M RPM 50 DC 4-6 1/4" DC

DEVIATIONS: _____ at _____ FT KB: _____ at _____ FT KB: _____ at _____ FT KB
_____ at _____ FT KB: _____ at _____ FT KB: _____ at _____ FT KB

PUMP: ^{AIR} press 600 ^{CFM}; strokes _____; liners _____ x _____; Reduced Pump Press _____ at _____ SPM

MUD: wt _____; vis _____; wl _____; fc _____; ph _____; cl _____; % sol _____
%oil _____; %lcm _____; pv _____; yp _____; mbt _____; ca _____
comments: _____

OPERATION HRS: Drlg _____; Trips _____; Slope Survey _____; Check BOP _____

Other: _____

REMARKS: SNOW, SLEET, & HEAVY RAIN. PARTIAL REPORT DUE TO FACT CAN NOT REACH RIG.

CASING REPORT

SURFACE INTERMEDIATE PRODUCTION LINER

1/11/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

HOLE DATA: DRLD. SIZE 1 1/4 in. TO 335 FTKB; REAMED SIZE - in. TO - FTKB

CASING: SIZE 8 5/8 in. OD; TOTAL LENGTH 314.72 FT.; JTS. 9 LANDED AT 325 FTKB

DESCRIPTION (BOTTOM SEGMENT TO TOP SEGMENT)

LENGTH FEET	NUMBER OF JTS.	WEIGHT LBS./FT.	GRADE	THREAD	JOINT	CONDITION
314.72	9	11.6	K-55	8 RD	ST&C	NEW

CEMENT: CEMENTED WITH 18.5 SX. OF CLASS "G" W/ 2% CaCl₂,
1/4 #/SK FLAKE

OBTAINED (FULL) ~~()~~ MUD RETURNS. CEMENT (WAS) ~~()~~ CIRC. TO SURFACE
BUMPED TOP PLUG WITH 1000 psi AT 2¹⁵ ~~PM~~ 1-11 1980
FLOAT ~~()~~ (DIDN'T HOLD) PLUG DISPLACED WITH 18.7 BBLs WTR.

DOWN HOLE CEMENT EQUIPMENT LOCATION: (ALL DEPTHS FTKB)

GUIDE SHOE 325 INSERT FLOAT 304 SCRATCHERS _____
FLOAT SHOE _____ BAFFLE _____
TEX. PAT. SHOE _____ STAGE COLLAR _____
FLOAT COLLAR _____ MARKER JT. _____
CENTRALIZERS 318, 263, 235

CASING HEAD DISC. 8 5/8" x 3000# 10"

REMARKS HOLE WAS TOTALLY AIR DRILLED. PUMPED
15 BBLs OF GELLED WTR PRIOR TO CEMENT

PIPE DRIFTED ON RACK

REPORTED BY HANK FRITZLER



Day On Well 2

Time 6 AM

DAILY DRILLING REPORT

1/12/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 335 footage last 24 hrs 225 FORMATION SURF

PRESENT OPERATION: DRLG PLUG

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE
	<u>1</u>	<u>1 1/4</u>	<u>REED</u>	<u>OPEN</u>	<u>6</u>	<u>0</u>	<u>3.35</u>
	<u>2</u>	<u>7/8</u>	<u>HPSM</u>	<u>OPEN</u>	<u>-</u>	<u>335</u>	<u>-</u>

WOB 5 M RPM 50 DC 8-5 3/4

DEVIATIONS: 1/4 at 98 FT KB: 3/4 at 335 FT KB: _____ at _____ FT KB
1/2 at 180 FT KB: _____ at _____ FT KB: _____ at _____ FT KB

PUMP: AIR press 80 ; ~~CFM~~ 900 ; liners _____ x _____ ; Pump Press _____ at _____ SPM

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____

% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg _____ ; Slope _____ ; Trips _____ ; Survey _____ ; Check _____ ; BOP _____

- Other: 3 1/2 DRILL SURF
1 CONDITION HOLE
1 1/2 TRIP
2 1/4 RUN PIPE & CMT W/ DOWELL
15 1/4 WOC # NU
1/4 PRESS TEST BOP
1/4 SERVICE BOP

REMARKS: SURF HOLE WAS DRILLED "DRY". NO WTR ENCOUNTERED

REPORTED BY HANK FRITZLER

Safety Meeting Held

Safety Drill Held

Location & Operation Of D.P. Safety Valves Chk'd

DAILY DRILLING REPORT

1/13/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 1631 footage last 24 hrs 1296 FORMATION SD 9 SH

PRESENT OPERATION: DRUG

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE
	<u>2</u>	<u>7/8</u>	<u>HPSM</u>	<u>OPEN</u>	<u>20</u>	<u>335</u>	<u>1296</u>

WOB 25 M RPM 90 DC 14-5 3/4"

DEVIATIONS: 2 1/2 at 813 FT KB: _____ at _____ FT KB: _____ at _____ FT KB

2 1/2 at 1288 FT KB: _____ at _____ FT KB: _____ at _____ FT KB

PUMP: ^{AIR} press 100 ; ^{CFM} ~~1106~~ 1106 ; liners _____ x _____ ; Pump Press _____ at _____ SPM

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____

% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drig 18 ; Trips _____ ; Slope Survey 3/4 ; Check BOP _____

Other: 3/4 RIG SERVICE

1/2 BLOW HOLE DRY

2 1/2 UNLOAD CSG, LAY DOWN, DP, PU D.C

1 1/2 WORK ON AIR COMP

REMARKS: _____

DAILY DRILLING REPORT

1/14/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 3247 footage last 24 hrs 1666 FORMATION DAKOTA

PRESENT OPERATION: TESTING GAS

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE
	<u>2</u>	<u>7/8</u>	<u>HPSM</u>	<u>OPEN</u>	<u>42</u>	<u>335</u>	<u>2912</u>

WOB 25 M RPM 90 DC 14-5 3/4" DC

DEVIATIONS: 3 at 1795 FT KB: 3 1/4 at 3247 FT KB: _____ at _____ FT KB
2 1/4 at 2806 FT KB: _____ at _____ FT KB: _____ at _____ FT KB

PUMP: AIR press 110; CFM ~~1100~~ 1100; liners _____ x _____; Reduced Pump Press _____ at _____ SPW

MUD: wt _____; vis _____; wl _____; fc _____; ph _____; cl _____; % sol _____
% oil _____; % lcm _____; pv _____; yp _____; mbt _____; ca _____

comments: _____

OPERATION HRS: Drlg 2 1/4; Trips _____; Slope Survey 1; Check BOP _____

Other: 3/4 RIG SERVICE
1/2 TESTING GAS

REMARKS: DRUG BREAK 3230-40'. DRILLED 7' PAST
BREAK. WELL TESTING 594 MCFPD ON 1/2 ORFICE.
W/ 100 PSI



Day On Well 6

Time 6 ^{AM}

DAILY DRILLING REPORT

1/16/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 3950 footage last 24 hrs 0 FORMATION SALT WASH

PRESENT OPERATION: LAY DOWN D.P.

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE

WOB _____ RPM _____ DC _____

DEVIATIONS: _____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB
_____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB

PUMP: ^{AIR} ~~press~~ 600 ; ^{CFM} ~~600~~ 600 ; liners _____ x _____ ; Pump Press _____ at _____ SPM

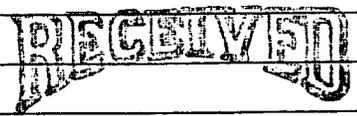
MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____
% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg _____ ; Trips _____ ; Slope Survey _____ ; Check BOP _____

- Other: 3 TEST & WAIT ON SCHLUMBERGER
1 1/2 LOGGING
2 1/2 T/H
5 WAIT ON ORDERS.
3 LAY DOWN D.P.

REMARKS: LAST TEST RATE - 2 HR STABILIZED FLOW OF 1092 MBFPD ON A 3/4" DRF W/ 79 PSI.



JAN 21 1980

TR-0182-8/76

DIVISION OF REPORTED BY HANK FRITZLER

Safety Meeting Held

OIL, GAS & MINING Safety Drill Held

Location & Operation Of D.P. Safety Valves Chk'd

DAILY DRILLING REPORT

1/15/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

DEPTH 3950 footage last 24 hrs 703 FORMATION SALT WASH

PRESENT OPERATION: TESTING AT TD

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE
	2	7/8	HPSM	OPEN	59 3/4	335	3615

WOB 25 M RPM 90 DC 14-5 3/4"

DEVIATIONS: 4 at 3950 FT KB; _____ at _____ FT KB; _____ at _____ FT KB

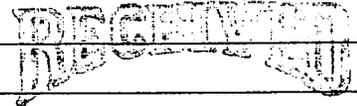
PUMP: AIR press 110 ; CFM 1100 ; liners _____ x _____ ; Reduced Pump Press _____ at _____ SPW

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____
% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg 18 1/2 ; Trips 2 1/4 ; Slope Survey 1/2 ; Check BOP _____

Other: 3/4 RIG SERVICE
1 BLOW HOLE
1 TESTING



JAN 21 1980

DIVISION OF OIL, GAS & MINING

REMARKS: WELL TESTING 883 MCFPD ON 3/4" ORF W/ 61 PSI. EST FLARE TO BE 15'. SCHLUMBERGER BEING PULLED ON TO LOCATION.

CASING REPORT

SURFACE INTERMEDIATE PRODUCTION LINER

1/16/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

HOLE DATA: DRLD. SIZE 7 7/8 in. TO 3950 FTKB; REAMED SIZE - in. TO - FTKB

CASING: SIZE 4 1/2 in. OD; TOTAL LENGTH 3956 FT.; JTS. 97 LANDED AT 3947 FTKB

DESCRIPTION (BOTTOM SEGMENT TO TOP SEGMENT)

LENGTH FEET	NUMBER OF JTS.	WEIGHT LBS./FT.	GRADE	THREAD	JOINT	CONDITION
39.37	CUT JT					
3936	97	11.6	K-55	8 RD	ST&C	NEW

CEMENT: CEMENTED WITH 375 SX. OF RFC 10-0 w/ 1/4 #/SK D29 FLAKE. PUMPED 61 BBLs OF 4% KCL FOLLOWED BY 24 BBLs OF CW100 MUD FLUSH THEN THE CMT.

OBTAINED ~~(YES)~~ (NO) MUD RETURNS. CEMENT ~~(YES)~~ (WAS NOT) CIRC. TO SURFACE
 BUMPED TOP PLUG WITH 1200 psi AT 2 ^{PM} 1-16 1980
 FLOAT ~~(HELD)~~ (DID NOT HOLD) PLUG DISPLACED WITH 61.6 BBL WTR

DOWN HOLE CEMENT EQUIPMENT LOCATION: (ALL DEPTHS FTKB)

GUIDE SHOE 3947 INSERT FLOAT 3905 SCRATCHERS _____
 FLOAT SHOE _____ BAFFLE _____
 TEX. PAT. SHOE _____ STAGE COLLAR _____
 FLOAT COLLAR _____ MARKER JT. _____
 CENTRALIZERS 3940, 3865, 3707, 3547, 3270, 3175

RECEIVED
 JAN 24 1980

DIVISION OF
 OIL, GAS & MINING

CASING HEAD DISC. OCT 10" 3000 #

REMARKS AFTER PUMPED 24 BBLs TOTAL PRESS WENT TO 3000 PSI -
RATE FELL TO 1/2 BPM. PUMPED 4 BBLs AT THAT RATE, THEN
BROKE LOOSE & PUMPED REST OF JOB AT 500 PSI.

PIPE DRIFTED ON RACK REPORTED BY HANK FRITZLER



Day On Well 7

Time 6 AM

DAILY DRILLING REPORT

1/17/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

PBTD DEPTH 3905 footage last 24 hrs _____ FORMATION _____

PRESENT OPERATION: RIG RELEASED

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE

WOB _____ RPM _____ DC _____

DEVIATIONS: _____ at _____ FT KB: _____ at _____ FT KB: _____ at _____ FT KB
_____ at _____ FT KB: _____ at _____ FT KB: _____ at _____ FT KB

PUMP: press _____ ; strokes _____ ; liners _____ x _____ ; Pump Press _____ at _____ SPM

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____
% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg _____ ; Trips _____ ; Slope Survey _____ ; Check BOP _____

- Other:
- 1 1/2 LAY DOWN DP & DC
 - 3 RU & RUN 4 1/2" CSG
 - 1 1/2 CMT CSG
 - 1 "BLOW" CSG
 - 2 REMOVE BOP, SET SUPS CUT 4 1/2"

REMARKS: RIG RELEASED 1-16-80 AT 4 PM

RECEIVED
JAN 24 1980

DIVISION OF
OIL, GAS & MINING

TCTD \$ 102,095
DET \$ 123,000

REPORTED BY HANK FRITZLER

Safety Meeting Held

Safety Drill Held

Location & Operation Of D.P. Safety Valves Chk'd



Day On Well 7

Time 6 AM

DAILY DRILLING REPORT

1/17/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

PBTD DEPTH 3905 footage last 24 hrs _____ FORMATION _____

PRESENT OPERATION: RIG RELEASED

BIT DATA:	NO.	SIZE	TYPE	JETS	HRS	DEPTH IN	FOOTAGE

WOB _____ RPM _____ DC _____

DEVIATIONS: _____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB
_____ at _____ FT KB; _____ at _____ FT KB; _____ at _____ FT KB

PUMP: press _____ ; strokes _____ ; liners _____ x _____ ; Pump Press _____ at _____ SPM

MUD: wt _____ ; vis _____ ; wl _____ ; fc _____ ; ph _____ ; cl _____ ; % sol _____
% oil _____ ; % lcm _____ ; pv _____ ; yp _____ ; mbt _____ ; ca _____

comments: _____

OPERATION HRS: Drlg _____ ; Trips _____ ; Slope Survey _____ ; Check BOP _____

- Other:
- 1 1/2 LAY DOWN DP & DC
 - 3 RU & RUN 4 1/2" CSG
 - 1 1/2 CMT CSG
 - 1 "BLOW" CSG
 - 2 REMOVE BOP, SET SUPS, CUT 4 1/2"

REMARKS: RIG RELEASED 1-16-80 AT 4 PM

RECEIVED

FEB 01 1980

DIVISION OF OIL, GAS & MINING

TCTD \$ 102,095
DAT \$ 123,000

REPORTED BY HANK FRITZLER

CASING REPORT

SURFACE INTERMEDIATE PRODUCTION LINER

1/16/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

HOLE DATA: DRLD. SIZE 7 7/8 in. TO 3950 FTKB; REAMED SIZE - in. TO - FTKB

CASING: SIZE 4 1/2 in. OD; TOTAL LENGTH 3956 FT.; JTS. 97 LANDED AT 3947 FTKB

DESCRIPTION (BOTTOM SEGMENT TO TOP SEGMENT)

LENGTH FEET	NUMBER OF JTS.	WEIGHT LBS./FT.	GRADE	THREAD	JOINT	CONDITION
39.37	CUT JT					
3936	97	11.6	K-55	8RD	ST#C	NEW

CEMENT: CEMENTED WITH 375 SX. OF RFC 10-0 w/ 1/4 #/SK D29 FLAKE. PUMPED 61 BBLs OF 4% KCL FOLLOWED BY 24 BBLs OF CW100 MUD FLUSH THEN THE CMT.

OBTAINED ~~SEGS~~ (~~PERCENT~~) (NO) MUD RETURNS. CEMENT (~~WAS~~) (WAS NOT) CIRC. TO SURFACE

BUMPED TOP PLUG WITH 1200 psi AT 2 ^{PM} 1-16 1980

FLOAT (HELD) (~~DID NOT HOLD~~) PLUG DISPLACED WITH 61.6 BBL WTR

DOWN HOLE CEMENT EQUIPMENT LOCATION: (ALL DEPTHS FTKB)

GUIDE SHOE 3947 INSERT FLOAT 3905 SCRATCHERS _____

FLOAT SHOE _____ BAFFLE _____

TEX. PAT. SHOE _____ STAGE COLLAR _____

FLOAT COLLAR _____ MARKER JT. _____

CENTRALIZERS 3940, 3865, 3707, 3547, 3270, 3175

RECEIVED

FEB 01 1980

CASING HEAD DISC. OCT 10" 3000 # DIVISION OF OIL, GAS & MINING

REMARKS AFTER PUMPED 24 BBLs TOTAL PRESS WENT TO 3000 PSI - RATE FELL TO 1/2 BPM. PUMPED 4 BBLs AT THAT RATE, THEN BROKE LOOSE & PUMPED REST OF JOB AT 500 PSI.

PIPE DRIFTED ON RACK

REPORTED BY HANK FRITZLER

COMPLETION & WORKOVER DAILY REPORT

3 19 80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8 *Utah*

3-19-80 MI # RU GIBSON WELL SERVICE.
MOVED 500-BBL FRAC TANK ON
TO LOCATION. SDFN

RECEIVED

MAR 24 1980

DIVISION OF
OIL, GAS & MINING

TCTD \$ 102,095
AFE \$ 233,000

REPORTED BY HANK FRITZLER

COMPLETION & WORKOVER DAILY REPORT

3/21/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

3-20-80 RU OWP # RAN CBL-GR-CCL
FROM TD. TO 2400'. BOND
APPEARS GOOD THRU ZONES OF
INTEREST. RD OWP. SDFN

RECEIVED
MAR 26 1980

DIVISION OF
OIL, GAS & MINING

COMPLETION & WORKOVER DAILY REPORT 3 MAR 80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

3-21-80 PU SPEAR DRESSED FOR 4 1/2" CSG & RIH TO 40'. PU 4 1/2" CSG & RELEASED THE SLIPS. CUT & LOWERED THE 8 5/8" X 10" 3000# CSG HEAD 10". RE-WELDED CSG HEAD. SET 4 1/2" SLIPS. TOOH W/ 4 1/2" SPEAR. CUT & RE-DRESS 4 1/2" CSG. INSTALLED A 10" 3000" X 6" 3000" TBG HEAD SPOOL. PRESSURE TESTED SPOOL TO 3500 # CSG TO 4500 PSI. HELD OK. CSG HAD BEEN BROKEN WHEN DALGARNO PULLED SUB-STRUCTURE INTO THE CSG HEAD WHILE RIGGING CARDINAL DOWN. SDFN

3-22-80 PU CSG SCRAPER DRESSED FOR 4 1/2" 11.6# CSG & TIH TO 3864'. SWABBED WELL DOWN TO 3851. TOOH. NU BOP. RU OWP LUBRICATOR & PERFORATE FROM 3227' - 3474' GROSS W/ 18 - .32" DIAMETER HOLES. CSG PRESS 1 HR AFTER PERFORATING WAS 45 PSI. RD OWP. SDFN

3-23-80 SDFWE

RECEIVED
MAR 26 1980

DIVISION OF
OIL, GAS & MINING



PRODUCTION PERFORATING REPORT

3/22/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

LOGGING & PERFORATING DONE BY OWP; TYPE OF LOGS RUN:
CBL FROM 2400 TO 3852 KB
CR-CCL FROM 2400 TO 3842 KB
 FROM _____ TO _____ KB

LOGGERS T.D. INSIDE CSG. 3852 KB; INDICATED CEMENT TOP 2534 KB

CEMENT BOND IN AREA OF PERFORATED INTERVAL IS (~~VERY GOOD~~) (GOOD) (FAIR) (POOR)

DESCRIPTION OF FLUID IN WELL WHEN PERFORATED DRY

F. L. PRIOR TO PERFORATING 3851 KB; FORMATION PERFORATED DAKOTA & MORRISO.

OPEN HOLE LOG THAT WAS USED FOR CORRELATION SCHLUMBERGER SNP

PERFORATED AS FOLLOWS: (USE APPROPRIATE FROM-TO, OR AT PERF. DEPTHS)

3227, 3230, 3234, 3236, 3239, 3242, 3245,
3248, 3251, 3254 ; 3282, 3286, 3290,
3293; 3357 ; 3418 ; 3470, 3474

TOTAL NO. OF HOLES 18; ~~CHARGE~~ OR GUN O D. 3/8; CHARGE RATING 12 GRAMS

TYPE OF CHARGE AND TRADE NAME _____

DISCRIPTION OF PRESSURE, FLUID LEVEL OR BLOW INCREASES NOTED IMMEDIATELY AFTER PERFORATING IN 1 HR CSG PRESS ROSE TO 45 PSI

OTHER WIRELINE SERVICES PERFORMED _____

REMARKS: _____

RECEIVED

MAR 26 1980

DIVISION OF
OIL, GAS & MINING

PRODUCTION PERFORATING REPORT

3/20/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

LOGGING & PERFORATING DONE BY OWP; TYPE OF LOGS RUN:

CBL FROM 2400 TO 3852 KB
GR-CCL FROM 2400 TO 3842 KB
 FROM _____ TO _____ KB

LOGGERS T.D. INSIDE CSG. 3852 KB; INDICATED CEMENT TOP 2400? KB

CEMENT BOND IN AREA OF PERFORATED INTERVAL IS (VERY GOOD) (GOOD) (FAIR) (POOR)

DESCRIPTION OF FLUID IN WELL WHEN PERFORATED _____

F. L. PRIOR TO PERFORATING _____ KB; FORMATION PERFORATED _____

OPEN HOLE LOG THAT WAS USED FOR CORRELATION _____

PERFORATED AS FOLLOWS: (USE APPROPRIATE FROM-TO, OR AT PERF. DEPTHS)

TOTAL NO. OF HOLES _____; CHARGE OR GUN O D. _____; CHARGE RATING _____ GRAMS

TYPE OF CHARGE AND TRADE NAME _____

DISCRIPTION OF PRESSURE, FLUID LEVEL OR BLOW INCREASES NOTED IMMEDIATELY AFTER PERFORATING _____

RECEIVED
MAR 26 1980

OTHER WIRELINE SERVICES PERFORMED _____ DIVISION OF OIL, GAS & MINING

REMARKS:	INTERVAL	BOND		BOND
	2534' - 2600'	100%	2750' - 2800'	85%
	2600' - 2620'	80%	2800' - 2890'	70%
	2620' - 2650'	20%	2890' - 3300'	90%
	2650' - 2700'	75%	3300' - 3400'	80%
	2700' - 2750'	50%	3400' - 3852'	100%

TREATMENT REPORT

LEASE NAME & WELL NO. BAR X #8 3/24/80
MONTH DAY YEAR

ZONE TREATED DAKOTA NO. OF PERFS. 4

INTERVAL 3282', 3286', 3290', 3293'

TREATED DN: (tbg) (~~cas~~) (~~both~~) ; PACKER SET AT 3262 kb; BRIDGE PLUG AT 3304 kb; pbt 3852 kb

TREATMENT:

OPERATION	PRESS (psi)	VOL (gal bbl)	RATE (bpm)	REMARKS (materials)
ACID	3000	12	1/2	7 1/2 % MSR
FLUSH	2500	13	5	4 % KCL WTR

ADDITIVES, PROP & DIVERTER 500 GAL 7 1/2 % MSR w/ 50 # BENZOK FLAKES

MAX TREAT PRESS 3000 INSTANTANEOUS SHUT IN PRESS 1500 ¹⁰ MIN VAC ³⁰ MIN ; SIP

JOB COMPLETED at am pm ; TOTAL LOAD FLUID TO RECOVER 0 BBL

REMARKS SWABBED ACID BACK. LIGHT BLOW OF GAS

RECEIVED
MAR 28 1980

DIVISION OF
OIL, GAS & MINING

TR-0189-8/76 REPORTED BY HANK FRITZLER

Safety Meeting Held Before Job

TREATMENT REPORT

LEASE NAME & WELL NO. BAR X # 8

3/24/80
MONTH DAY YEAR

ZONE TREATED DAKOTA NO. OF PERFS. 10

INTERVAL 3227, 3230, 3234, 3236, 3239, 3242, 3245, 3248

TREATED DN: (tbg) (~~csy~~) (~~hsth~~) ; PACKER SET AT 3201 kbi ; BRIDGE PLUG AT 3272 kbipbtd 3251 kb
3254 kb
3852

TREATMENT:

OPERATION	PRESS (psi)	VOL (gal bbl)	RATE (bpm)	REMARKS (materials)
ACID	2100	24	1/2	7 1/2 % MSR
FLUSH	2500	13	5 1/2	4 % KCL WTR

ADDITIVES, PROP & DIVERTER 1000 GAL 7 1/2 % MSR w/ 100 # BENZOK FLAKES.

MAX TREAT PRESS 2700 ; INSTANTANEOUS SHUT IN PRESS 2300 ; ¹⁰35 MIN SIP 1150 ; ²⁰30 MIN SIP VAC

JOB COMPLETED at - am pm ; TOTAL LOAD FLUID TO RECOVER 0 BBL

REMARKS SWABBED ACID BACK. NO FLOW OF GAS.

RECEIVED
MAR 28 1980

DIVISION OF OIL, GAS & MINING

TREATMENT REPORT

LEASE NAME & WELL NO. BAR X #8 3/24/80
MONTH DAY YEAR

ZONE TREATED MORRISON NO. OF PERFS. 4

INTERVAL 3357', 3418', 3470' & 3474'

TREATED DN: (tbg) (~~esp~~) (~~haha~~) ; PACKER 3330 kb; BRIDGE 3492 kb; PLUG AT 3652' kb

TREATMENT:

OPERATION	PRESS (psi)	VOL (gpm bbl)	RATE (bpm)	REMARKS (materials)
ACID	2400	12	1/2	7 1/2 % MSR
FLUSH	2900	13	4	4 % KCL WTR

ADDITIVES, PROP & DIVERTER 500 GAL 7 1/2 % MSR w/ 50 # BENZOK FLAKES.

MAX TREAT PRESS 3000 ; INSTANTANEOUS SHUT IN PRESS 1700 ; ¹⁰ 45 MIN SIP 1000 ; 30 MIN SIP -

JOB COMPLETED at - am pm ; TOTAL LOAD FLUID TO RECOVER 0 BBL

REMARKS SWABBED ACID BACK. NO FLOW OF GAS.

RECEIVED
MAR 28 1980

DIVISION OF OIL, GAS & MINING

COMPLETION & WORKOVER DAILY REPORT 3 25 80 MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-24-80 36 HR CSG PRESS- 250#. BLEW WELL RIGHT DOWN. TIH W/ RBP & PKR. SET RBP AT 3492', PKR AT 3330'. RU DOWELL AND ACIDIZE THE PERFS AT 3357', 3418', 3470' & 3474' W/ 500 GAL 7 1/2% MSR W/ 50# BENZOK FLAKES. RELEASED PKR & PU RBP. SET RBP AT 3304' & PKR AT 3262'. ACIDIZE THE PERFS FROM 3282' - 3293' W/ 500 GAL 7 1/2% MSR W/ 50# BENZOK FLAKES. RELEASED PKR & PU RBP. SET RBP AT 3272' & PKR AT 3201'. ACIDIZED THE PERFS FROM 3227' - 3254' W/ 1000 GAL 7 1/2% MSR W/ 100# BENZOK FLAKES. RELEASED PKR & PU RBP. TOOH W/ RBP & PKR. PU SN & TIH TO 3033' KB. LANDED TBG W/ 10' BLAST JT BELOW THE DONUT. ND BOP. NU UPPER WELLHEAD. SDFN.

RECEIVED

MAR 28 1980

DIVISION OF
OIL, GAS & MINING

REPORTED BY HANK FRITZLER



M

COMPLETION & WORKOVER DAILY REPORT

3/26/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

3-255-80 COULD NOT REACH LOCATION
DUE TO SNOW & MUD. SHUT
DOWN DUE TO WEATHER.

RECEIVED

MAR 28 1980

DIVISION OF
OIL, GAS & MINING

REPORTED BY HANK FRITZLER

COMPLETION & WORKOVER DAILY REPORT

3/27/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-26-80 SHUT DOWN DUE TO WEATHER.
650 # ON TBG.

RECEIVED

MAR 31 1980

DIVISION OF
OIL, GAS & MINING

TCTD # 123,295
AFE # 233,000

REPORTED BY HANK FRITZLER

COMPLETION & WORKOVER DAILY REPORT

3 28 80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-27-80 48 HR SITP - 700 PSI. RU
DOWELL & NOWSCO TO FRAC THE
WELL. SDFN.

RECEIVED

MAR 31 1980

DIVISION OF
OIL, GAS & MINING

REPORTED BY HANK FRITZLER

COMPLETION & WORKOVER DAILY REPORT

3 27 80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-28-80 FRAC WELL W/ 80,000 GAL OF
75% QUALITY FOAM, 20,000# 100
MESH & 80,000# 20/40 SAND. AVERAGE
RATE 32 BPM W/ 5400# TBG &
3300# CSG. ISIP - 2500# 513
BF TO RECOVER. RD DOWELL & NOWSU
OPENED WELL @ 1^{PM}. FLOWING FOAM.
LEFT WELL FLOWING OVERNIGHT.

RECEIVED

APR 03 1980

DIVISION OF
OIL, GAS & MINING



COMPLETION & WORKOVER DAILY REPORT

3/30/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-29-80 AFTER 27 HRS FLOWING WELL,
RATE WAS 2400 MCFPD WITH
190 # TBG & 310 # CSG. LEFT WELL
FLOWING.



COMPLETION & WORKOVER DAILY REPORT

3/31/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-30-80 FLOWING WELL 1948 MCFPD W/
170 # TBG & 300 # CSG. LEFT WELL
FLOWING.



COMPLETION & WORKOVER DAILY REPORT

4/1/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X # 8

3-31-80 FLOWING WELL AT 1800 MCFPD W/
150 # TBG & 290 # CSG. SHUT WELL
IN FOR 1 HR. PRESSURE INCREASED
450 # TBG & CSG. BLEW WELL DOWN.
WELL LEVELED OUT AT 1980 MCFPD.
LEFT WELL FLOWING. RD SERVICE
UNIT & MOVED TO # 9

RECEIVED
APR 03 1980

DIVISION OF
OIL, GAS & MINING

TREATMENT REPORT

LEASE NAME & WELL NO. Bar X #8 MONTH 1 DAY 1 YEAR

ZONE TREATED _____ NO. OF PERFS. _____

INTERVAL _____

TREATED DN: (t bg) (csg)(both) ; PACKER SET AT _____ kb; BRIDGE PLUG AT _____ kb; p btd _____ kb

TREATMENT:

OPERATION	PRESS (psi)	VOL (gal bbl)	RATE (bpm)	REMARKS (materials)
FRAC	5400/3400	12	32	SPACER
FRAC	5600/3400	48	32	7#/GAL 20/40 SAND
FRAC	5400/3400	12	32	SPACER
FRAC	5400/3300	48	32	7#/GAL 20/40 SAND
FRAC	5400/3300	12	32	SPACER
FRAC	5400/3300	60	32	8#/GAL 20/40 SAND
FLUSH	5300/3200	33		

ADDITIVES, PROP & DIVERTER _____

MAX TREAT PRESS _____ ; INSTANTANEOUS SHUT IN PRESS _____ ; 15 MIN SIP _____ ; 30 MIN SIP _____

JOB COMPLETED at _____ am pm ; TOTAL LOAD FLUID TO RECOVER _____ BBL

REMARKS _____

RECEIVED
APR 03 1980

DIVISION OF OIL, GAS & MINING

REPORTED BY HANK FRITZLER

Safety Meeting Held Before Job

TREATMENT REPORT

3/28/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

ZONE TREATED DAKOTA & MORRISON NO. OF PERFS. 18

INTERVAL 3227' - 3474' GROSS

TREATED DN: (~~100~~) (~~250~~) (both) ; PACKER SET AT — kb; BRIDGE PLUG AT — kb; 3895 kb

TREATMENT: TBC / C96

OPERATION	PRESS (psi)	VOL (gal + bbl)	RATE (bpm)	REMARKS (materials)
PAD	4500/2800	48	32	
FRAC	4500/2800	48	32	6#/GAL 100 MESH
FRAC	5100/3100	24	32	8#/GAL 100 MESH
FRAC	5400/3300	12	32	SPACER
FRAC	5400/3400	12	32	2#/GAL 20/40 SAND
FRAC	5400/3400	24	32	3#/GAL 20/40 SAND
FRAC	5500/3300	36	32	4#/GAL 20/40 SAND
FRAC	5600/3300	12	32	SPACER
FRAC	5600/3300	48	32	5#/GAL 20/40 SAND
FRAC	5500/3300	48	32	6#/GAL 20/40 SAND

ADDITIVES, PROP & DIVERTER 20,000 # 100 MESH, 80,000 # 20/40 SAND, 42 GAL A-200, 63 GAL F78, 42 GAL F75, 525 GAL L41, 42 GAL L51.

MAX TREAT PRESS 5600/3400; INSTANTANEOUS SHUT IN PRESS 2500; 15 MIN SIP 1600; 30 MIN SIP 1300

JOB COMPLETED at 12¹⁵ ~~am~~ pm; TOTAL LOAD FLUID TO RECOVER 513 BBL

REMARKS _____

RECEIVED

APR 03 1980

DIVISION OF OIL, GAS & MINING

COMPLETION & WORKOVER DAILY REPORT 4/2/80

MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

4-1-80 SHUT IN FOR PRESSURE BUILDUP

RECEIVED

APR 04 1980

DIVISION OF
OIL, GAS & MINING

COMPLETION & WORKOVER DAILY REPORT

4/3/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

4-2-80 COULD NOT REACH WELL DUE TO
"SPRING" SNOW STORM. WELL SHUT
IN

RECEIVED

APR 07 1980

DIVISION OF
OIL, GAS & MINING

TCTD \$ 201,000
AFE \$ 233,000

COMPLETION & WORKOVER DAILY REPORT

4/4/80
MONTH DAY YEAR

LEASE NAME & WELL NO. BAR X #8

4-3-80 48 HR SITP OF 550 PSI. LEFT WELL
SHUT IN.

COMPLETION & WORKOVER DAILY REPORT

4/17/80
MONTH DAY YEAR

LEASE NAME & WELL NO. Bar X #8

(4-5-80)

4-4-80 72 hr shut in the well on 520# Bean
24 hr flow test, rate at end of 8 hr was 1800 mcf/d
w/200# the psi. left well flowing normally.

(4-6-80)

4-5-80 stabilized 24 hr flow rate of 1800 mcf/d
w/200# the psi shut well in.

Final Report

RECEIVED
APR 09 1980

DIVISION OF
OIL, GAS & MINING

165-3, 4;
13; 4; 10

TERRA RESOURCES, INC.

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

April 18, 1980

Re: Commingle Production
Bar X #8 and
Bar X #9
Mesa County, CO and
Grand County, UT

U.S. Geological Survey
2000 Administration Building
1745 West 1700 South
Salt Lake City, UT 84104

Attn: Mr. Edgar W. Guynn,
District Engineer

Dear Sir:

Enclosed please find three (3) copies of Form 9-331, "Sundry Notices & Reports on Wells" for each of the above referenced wells.

Terra is requesting permission to commingle production on both of these wells.

Three zones (Dakota, Morrison & Salt Wash) are open in Well #9 and two zones (Dakota and Morrison) in Well #8. The main reason behind the request to commingle is to help each well lift fluids. Of the six producing wells in Bar X, each presently has an intermitter to help lift fluids.

Both #8 and #9 are presently completed without packers. To run packers, would mean killing both wells, with the associated loss in productivity due to putting fluids in the well to kill it. Both wells are presently shut-in waiting on pipeline connections.

Should you require any further information on either of these wells, please advise.

Yours very truly,

TERRA RESOURCES, INC.


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

ECR/CGF:ek
Attachments

cc: D.V. Rogers
Oil & Gas Conservation Comm.
1313 Sherman St., Rm 721
Denver, CO 80203

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-02857

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

<p>1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Terra Resources, Inc.</p> <p>3. ADDRESS OF OPERATOR Box 2500, Casper, WY 82602</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1877' EWL & 800' SNL</p>	<p>7. UNIT AGREEMENT NAME Bar X</p> <p>8. FARM OR LEASE NAME</p> <p>9. WELL NO. 8</p> <p>10. FIELD AND POOL, OR WILDCAT Bar X</p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 11, T175, R25E</p>	
<p>14. PERMIT NO. 43-019-30494</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5390' KB</p>	<p>12. COUNTY OR PARISH Grand</p> <p>13. STATE Utah</p>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	
(Other) <input type="checkbox"/>	Commingle Production <input checked="" type="checkbox"/>		

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Terra requests permission to commingle the Dakota and Morrison on Unit #8. The two zones together will produce 1800 MCFPD at 200# line pressure. To run a packer to isolate these zones would mean "killing" the well, with the associated loss in productivity due to fluid coming in contact with the water sensitive Dakota and Morrison. Producing both zones up the tubing will also help lift any produced fluids and possibly extend the life of the well.

Well file copy

APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING

DATE: 5-1-80

BY: M.Y. Winder

18. I hereby certify that the foregoing is true and correct

SIGNED E.C. Reish, Jr. TITLE Dist. Manager-Operations DATE 4-18-80

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
APR 23 1980

*See Instructions on Reverse Side

DIVISION OF
OIL, GAS & MINING

TERRA RESOURCES, INC.



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

RECEIVED
APR 28 1980

DIVISION OF
OIL, GAS & MINING

April 17, 1980

Re: Well Completion Report
Bar X #8
Sec. 11, T17S - R25E
Grand County, Utah

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

Gentlemen:

Enclosed please find three (3) copies of the U.S.G.S. Form #9-330, "Well Completion or Recompletion Report and Log", on the above referenced well.

Copies of these reports have been sent to the U. S. G. S. These copies should complete your files. If any additional information is required, please advise.

Yours very truly,

TERRA RESOURCES, INC.

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

ECR/KP:dat
Attachments

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

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved,
Budget Bureau No. 42-R355.5.

3

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other _____

2. NAME OF OPERATOR
Terra Resources, Inc.

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1877' EWL 800' SNL, NE NW
At top prod. interval reported below
At total depth

14. PERMIT NO. 43-019-30494 DATE ISSUED 1/4/80

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.
8

10. FIELD AND POOL, OR WILDCAT
Bar X

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Sec. 11, T17S-R25E

12. COUNTY OR PARISH Grand 13. STATE Utah

15. DATE SPUDDED 1/11/80 16. DATE T.D. REACHED 1/15/80 17. DATE COMPL. (Ready to prod.) 4/5/80 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 5,390' KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 3,950' 21. PLUG, BACK T.D., MD & TVD 3,895' 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ALL ROTARY TOOLS CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* Dakota, Morrison 25. WAS DIRECTIONAL SURVEY MADE YES

26. TYPE ELECTRIC AND OTHER LOGS RUN GR, CBL, CCL, SNP-FDC 27. WAS WELL CORED NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8	11.6	325	11-1/4	185 sx Class G	
4-1/2	11.6	3947	7-7/8	375 sx	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8	3033	

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER
3227	3242	3282 3418
3230	3245	3286 3470
3234	3248	3290 3474
3236	3251	3293 18 holes
3239	3254	3357 3-1/8" 12 grams

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3357-3474	500 gal. 7-1/2% MSR 3000 psi
3282-3293	500 gal. 7-1/2% MSR 3000 psi
3227-3248	1000 gal. 7-1/2% MSR 2700 psi
3227-3474	20,000# 100 Mesh 80,000# 20/40 sar

33.* PRODUCTION

DATE FIRST PRODUCTION 3/30/80 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flow WELL STATUS (Producing or shut-in) SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4/5/80	24	open	→		1800		
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
205		→		1800			

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented TEST WITNESSED BY Hank Fritzler

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED F. C. Reish TITLE District Manager-Operations DATE 4/17/80

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS			
				NAME	MEAS. DEPTH		
					TOP		
					TRUE VERT. DEPTH		
			<div style="font-size: 2em; font-weight: bold; transform: rotate(-5deg);">RECEIVED</div> <div style="font-size: 1.2em; font-weight: bold; margin-top: 5px;">APR 28 1980</div> <div style="font-size: 0.8em; margin-top: 10px;">DIVISION OF OIL, GAS & MINING.</div>	Dakota Morrison Basal Salt Wash	3188 3297 3540		

May 5, 1980

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

Re: Well No. Bar X Unit #8
Sec. 11, T. 17S, R. 25E.
Grand County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office 4-17-80, from above referred to well indicates the following electric logs were run: GR, CBL, CCL, SNP-FDC. As of todays date this office has received the following: SIDEWALL NEUTRON POROSITY, COMPENSATED FORMATION DENSITY, DUAL INDUCTION.

To complete our files, please forward the logs we do not have to this office as soon as possible.

Your cooperation in the above will be appreciated.

Sincerely,

DIVISION OF OIL, GAS, AND MINING


JANICE TABISH
CLERK-TYPIST

TERRA RESOURCES, INC.

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

May 9, 1980

Re: Terra Resources, Inc.
Well #8
Bar X Unit
Grand County, Utah

RECEIVED
MAY 14 1980

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

Dear Ms Tabish:

DIVISION OF
OIL, GAS & MINING

Enclosed please find a copy of the log you requested on the above referenced well.

Should you require any further information, please advise.

Yours very truly,

TERRA RESOURCES, INC.

Cecil G. Foote

Cecil G. Foote
Operations Engineer

CGF:dat
Enclosure

THE FOLLOWING METERS WILL HAVE CALIBRATION / SETTLEMENT TESTS RUN ON THE DATES INDICATED. STARTING TIME WILL BE 0800 OR AS SPECIFIED BELOW AND AT THE OFFICE OF THE NORTHWEST PIPELINE GRAND JUNCTION DISTRICT YOU WILL BE NOTIFIED SHOULD ANY CHANGES OCCUR IN THIS SCHEDULE. IF YOU HAVE ANY QUESTIONS ABOUT THE SCHEDULE, CONTACT OR WRITE THE DISTRICT OFFICE.

METER CODE	WELL NAME	LOC	RUN	DAY	MO/YR	STARTING TIME
95772016	BAR X #16	06	02	<u>18</u>	12/85	<u>0800</u>
92002012	BAR X #4 17S. 24E. 18	06	12	<u>1</u>	11/85	<u>T.D.</u>
92003019	BAR X #6 CS 17S. 25E. 11	06	12	<u>13</u>	11/85	<u>1100</u>
92005011	CRITTENDON #1 CASING 17S. 25 12	06	12	<u>13</u>	11/85	<u>1000</u>
92006018	CRITTENDON #1 TUBING " "	06	12	<u>13</u>	11/85	<u>0900</u>
92013014	BAR X #5 17S. 24E. 17	06	12	<u>6</u>	11/85	<u>1000</u>
92292010	BAR X #12 17S. 24E. 17	06	12	<u>6</u>	11/85	<u>1100</u>
92293017	BAR X #13 17S. 24E. 7	06	12	<u>13</u>	11/85	<u>0800</u>
93549015	BAR X #9	06	12	<u>6</u>	11/85	<u>0900</u>
92100012	BAR X #8 17S. 25E. 11	06	12	<u>3</u>	12/85	<u>0900</u>

LONE MOUNTAIN PRODUCTION COMPANY

P.O. BOX 3394
408 PETROLEUM BUILDING
BILLINGS, MONTANA 59103-3394
(406) 245-5077

RECEIVED
MAR 10 1989

March 8, 1989

DIVISION OF OIL, GAS & MINING
STATE OF UTAH
355 W. North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180

DIVISION OF
OIL, GAS & MINING

Re: Bar-X Unit
GRAND COUNTY, UTAH and
MESA COUNTY, COLORADO

Gentlemen:

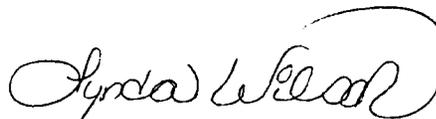
Following is a list of wells and well locations which make up the Utah portion of the Bar-X Unit. Change of operator for this unit was effective January 1, 1989.

019-15022	Crittenden No. 1	SE SE Section 12: T17S-R25E, Grand Co., UT
019-15022	Bar-X Unit No. 3	NE SW Section 12: T17S-R25E, Grand Co., UT
019-15023	Bar-X Unit No. 4	NE NE Section 18: T17S-R26E, Grand Co., UT
019-15024	Bar-X Unit No. 5	SE NE Section 17: T17S-R26E, Grand Co., UT
019-15025	Bar-X Unit No. 6	SE NE Section 11: T17S-R25E, Grand Co., UT
019-15026	Bar-X Unit No. 7	NW NE Section 7: T17S-R26E, Grand Co., UT
019-30494	Bar-X Unit NO. 8	NE NW Section 11: T17S-R25E, Grand Co., UT
019-30547	Bar-X Unit No. 12	NW SE Section 8: T17S-R26E, Grand Co., UT
019-30598	Bar-X Unit No. 13	NW SW Section 7: T17S-R26E, Grand Co., UT

Should you require any further information, please feel free to call.

Very truly yours,

Lone Mountain Production Company



Lynda Wilson

/lw