

UTAH DIVISION OF OIL, GAS AND MINING

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

DATE FILED 12-21-79

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. U-18863 INDIAN

DRILLING APPROVED: 12-26-79

SPUDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION: 6663' GR

DATE ABANDONED: LOCATION ABANDONED * WELL NEVER DRILLED 5-5-81

FIELD: ~~Wildcat~~ 3/96 Buzzard Bench

UNIT:

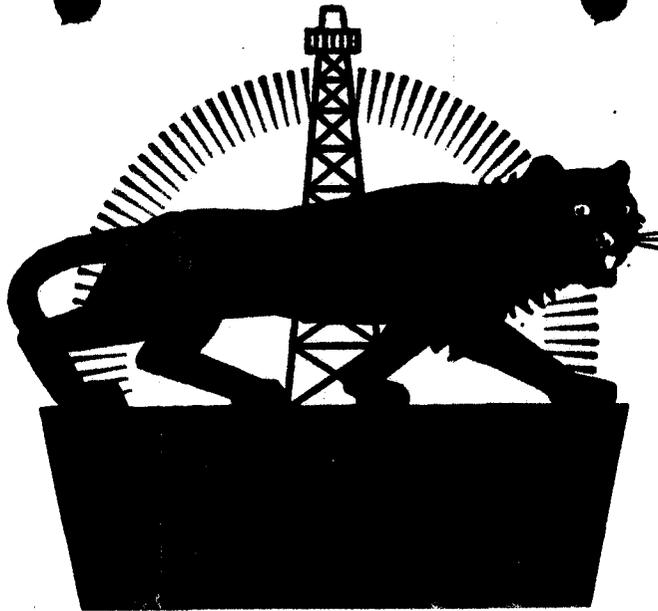
COUNTY: Emery

WELL NO. Federal 41-33

API NO: 43-015-30071

LOCATION 700' FT. FROM (N) ~~XX~~ LINE. 770' FT. FROM (E) ~~XX~~ LINE. NE NE 1/4 - 1/4 SEC. 33

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
18S	7E	33	TIGER OIL COMPANY				



October 18, 1979

Mr. Edgar Guynn
U.S.G.S.
8440 Federal Building
Salt Lake City, Utah 84138

Re: Tiger Oil Company
All Locations
Township 18S, Range 7E
Emery County, Utah

Dear Mr. Guynn:

Edward Mike Davis doing business as Tiger Oil Company requests that George H. Fentress, Box 113, Wheatridge, Colorado 80033, be the agent representing Tiger Oil Company for any locations to be drilled in the township above, insofar as all matters dealing with NTL-6 reports, inspections and other steps necessary for drilling in the area. We reserve the right to withdraw this agency, if desired.

Sincerely,

A handwritten signature in black ink, appearing to read "E. H. White". The signature is written in a cursive, flowing style.

E. H. White
Chief Engineer

EHW:ce

GEORGE H. FENTRESS

GEOLOGICAL ENGINEER

mail all correspondence to:
P.O. Box 113
Wheat Ridge, Colorado 80033
Phone (303) 423-0835

Residence
14600 Foothill Road
Golden, Colorado 80401
Phone (303) 279-4880

December 19, 1979

Cleon B. Feight, Dir.
Oil, Gas, & Mining Division
1588 Wes, North Temple
Salt Lake City, Utah 84116

RE: Tiger Oil Co.,
#41-33 Federal
700'FNL 770'FEL (NENE)
Sec. 33-T18S-R7E
Emery Co., Utah

Dear Cleon:

Enclosed are three copies of Form 9-331C which was used in filing APD with the U.S. Geological Survey, which APD also accompanied the some 20-page NTL-6 environmental impact statement. The original signed copy by Ed White was with that report filed with the federal government.

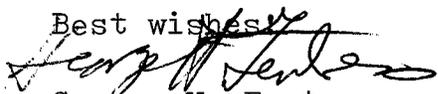
I also enclose surveyor plats.

I forget whatever else you might need, for approval by the State of Utah to drill. I seldom send this filing in until the field inspection is made, which was today.

Contrary to a report received in your office that Tiger Oil Company was "moving in on location December 19", this date is the date for the field inspection before the feds will allow drilling on their lands.

I would appreciate your approval by mailing such approval to me at the above P. O. Box so that I can forward to the proper people in Tiger, since I am their Agent in this matter. A copy of such agency also included herein.

Best wishes


George H. Fentress

cc. Tiger Oil Co.

RECEIVED
DEC 21 1979

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUPLICATE

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
 E. M. Davis d/b/a Tiger Oil Company

3. ADDRESS OF OPERATOR
 P. O. Box 113, Wheat Ridge, Colo. 80033

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface
 700' FNL 770' FEL (NE NE)
 At proposed prod. zone
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 8.35 miles west of Courthouse at Castledale

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 700'

16. NO. OF ACRES IN LEASE
 2,118.37

17. NO. OF ACRES ASSIGNED TO THIS WELL
 40-acres

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 9.550'

19. PROPOSED DEPTH
 9.550'

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6663' ground

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

5. LEASE DESIGNATION AND SERIAL NO.
 U-18863

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
 Federal

9. WELL NO.
 #41-33

10. FIELD AND POOL, OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec. 33-T18S-R7E

12. COUNTY OR PARISH
 Emery

13. STATE
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36# K-55	1,000'	500 sx Posmix
8 3/4"	5 1/2"	15.5 & 17# K-55	9,550'	300 sx Posmix

To drill 12 1/4" hole to 1,000' and set surface casing.
 To log BOP's daily while drilling 8 3/4" hole.
 To run electric logs, test if needed, and run production casing.
 To perforate and stimulate as needed and as attached to this 9-331C

EXHIBITS ATTACHED:

- A" Location & Elevation Plat
- B" Ten-Point Compliance Program
- C" The B.O.P. Diagram
- D" Multipoint Requirements
- E" Access Route from Castledale, etc.
- F" Drilling Rig Layout
- "G" The Production Facilities Layout
- "H" The Drill Pad Contours & Lay
- "I" Cut & Fill over Drill Pad
- Letter Designation of Representative
- Designation of Operator

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.

SIGNED: [Signature] TITLE: Chief Engr DATE: November 8, 1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
 FOR (ORIG. SGD.) E. W. GUYNN DISTRICT ENGINEER DATE APR 10 1980

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

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY
 NOTICE OF APPROVAL
 State of Utah, Department of Natural Resources
 Division of Oil, Gas, and Mining
 1588 West North Temple
 Salt Lake City, Utah 84116
 FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

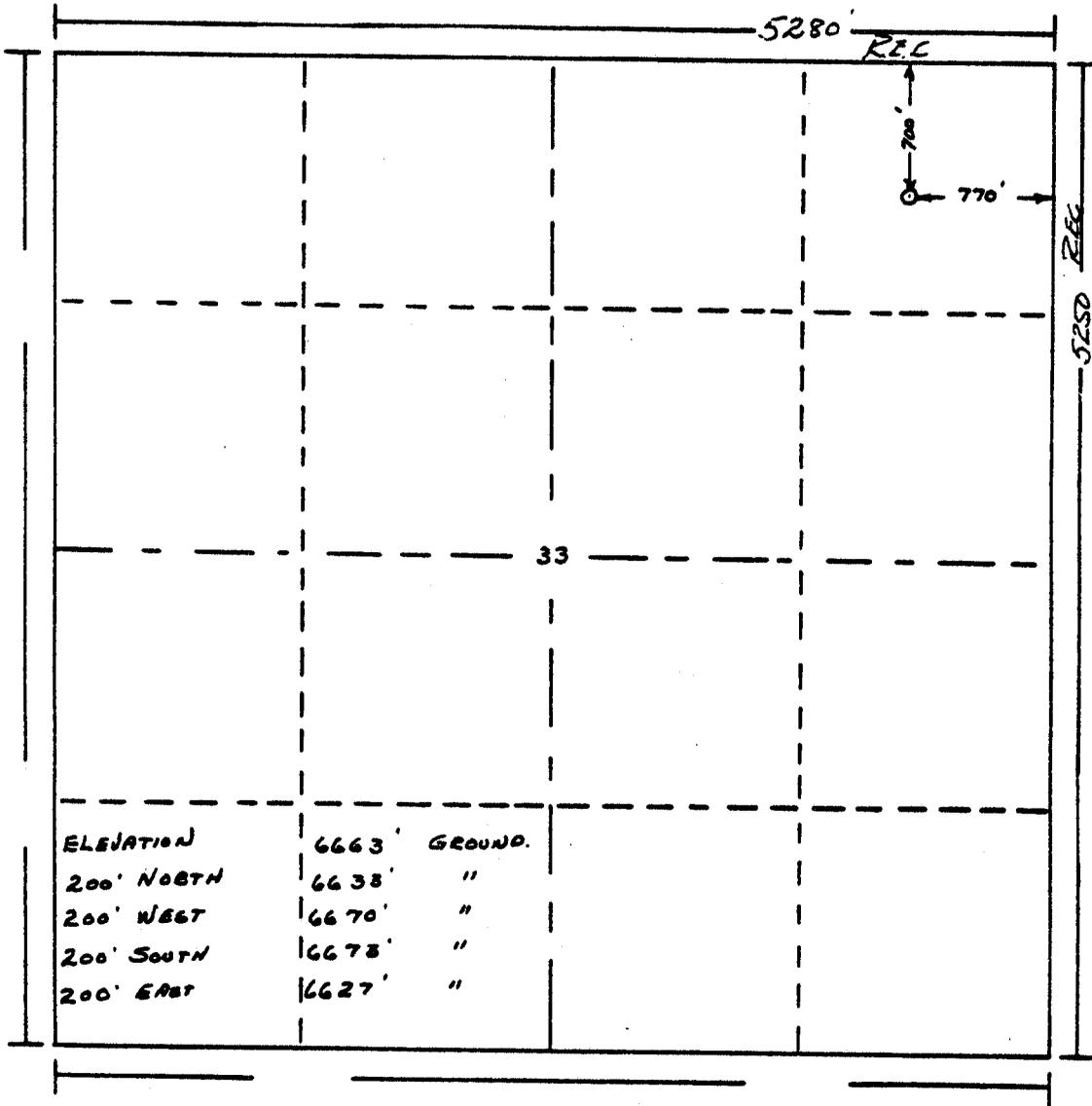
Ut. State O+G



LOCATION AND ELEVATION PLAT

Tiger Oil #41-33 Federal

R. 7 E.



T.
18
S.

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado
 has in accordance with a request from *GEORGE FENTRESS*
 for *TIGER OIL COMPANY*
 determined the location of *#41-33 FEDERAL*
 to be *700' EN & 770' FE* Section 33 Township 18.S.
 Range 7.E. OF THE SALT LAKE PRINCIPAL Meridian
EMERY County, *UTAH*

I hereby certify that this plat is an
 accurate representation of a correct
 survey showing the location of
#41-33 FEDERAL

Date: 10-26-79

T. Nelson
 Licensed Land Surveyor No. 2711
 State of *UTAH*

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-18863OPERATOR: E.M. Davis d/b/a Tiger Oil CompanyWELL NO. 41-33LOCATION: ½ NE ½ NE ½ sec. 33, T. 18S, R. 7E, SLMEmery County, Utah

1. Stratigraphy: Mancos - Surface

Emery Ss. 700

Ferron Ss. 3000

Navajo 7400

Moenkopi 8300

Kaibab 9300

2. Fresh Water: Fresh water may be present in the Emery, Ferron, Dakota, and Cedar Mtn.

3. Leasable Minerals: Prospectively valuable for coal in the Ferron Sandstone.

4. Additional Logs Needed: Proposed logs should be adequate to define any coal that is present.

5. Potential Geologic Hazards: None anticipated.

6. References and Remarks: outside KGS.

U.S.G.S. files, SLC, Utah

Signature: J. Paul MathenyDate: 12 - 18 - 79

Oil and Gas Drilling

EA No. 090-80

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

USUAL ENVIRONMENTAL ASSESSMENT

Date April 2, 1980

Operator E. M. Davis, dba Tiger Oil Co. Well No. 41-33
Location 700' FNL 770' FEL Section 33 Township 18S Range 7E
County Emery State Utah Field/Unit Wildcat
Lease No. U-18863 Permit No. _____

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

Joint Field Inspection Date: December 19, 1979

Field Inspection Participants, Titles, and Organizations:

<u>Glenn Doyle</u>	<u>U. S. Geological Survey</u>
<u>John Niebergall, Fred Thompson</u>	<u>U. S. Forest Service</u>
<u>Elise Yakupzack, Ted Fitzgerald</u>	<u>U. S. Forest Service</u>
<u>Brent B. Barney</u>	<u>U. S. Forest Service</u>
<u>Richard Wilcox</u>	<u>State of Utah, Division of Lands</u>
<u>Gene Lawson</u>	<u>Operator</u>
<u>Paul Buhler</u>	<u>Bureau of Land Management - Price</u>

Related Environmental Documents:

Environmental Assessment and Technical Evaluation, Tiger Oil Co. Well #41-33,
U-18863, U. S. Forest Service

Grand Pg 2
Cond of Approval 1-7
Admin Council?
Pad 400 x 400
125 x 175
1/4 mi x 1/4 mi new access
37.00 mi x 16' upgrade
Put Sur - Access

2. Drilling
3. Waste disposal
4. Traffic
5. Water requirements
6. Completion
7. Production
8. Transportation of hydrocarbons
9. Other

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

The access road crosses, in sequence, private, BLM, State of Utah, BLM, and then USFS lands. A permit to cross state land has been granted. Access on the private surface is by Emery County graveled road. No private surface agreement is indicated, however, a large tree on private surface hangs low over the county road. Operator will contact county and private owners to mitigate problem of moving equipment by this tree.

Environmental Considerations of the Proposed Action:

Regional Setting/Topography - The wellsite lies on an erosional knob on the eastern flank of North Horn Mountain at an elevation of 6663'. Vertical cliffs rise approximately 2000' within .25 mile west of the site. Deeply incised talus slopes surround the location.

PARAMETER

A. Geology - Surface is Mancos Shale. Other formations are listed in the 10-Point Subsurface Plan.

Information Source: Application to Drill.

1. Other Local Mineral Resources to be Protected: Coal may be found in the Ferron Sandstone in prospectively valuable amounts.

Information Source: District Geologist, M.E.

2. Hazards:

- a. Land Stability: Surface material is Mancos Shale. According to the operator and USFS engineers, the site would be unstable, given the expected loads. A 6" bed of gravel is recommended to improve the load-bearing capacity of the soils.

Information Source: Application to Drill, USFS Environmental Assessment.

b. Subsidence: ^{may} Subsidence can occur with the withdrawal of oil, gas, and/or water. *Minor possibility by Low Production*

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

c. Seismicity: Seismic risk: low. Statistically, greatest damage would be moderate, corresponding to intensity VII of Modified Mercalli Intensity Scale, 1931.

Information Source: "Seismic Risk Maps," David M. Perkins, USGS.

d. High Pressure Zones/Blowout Prevention: No high pressure zones expected. Blowout prevention systems detailed in APD.

Information Source: Application to Drill.

B. Soils

1. Soil Character: No detailed soil surveys done in area. Changes in soil fertility, horizons, slope stability, etc., cannot be predicted. Soils are considered nitrogen-poor, alkaline soils that support the salt-desert community.

Information Source: Field observation.

2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. Extent of increases unpredictable without site-specific studies being done.

Information Source: Field observation.

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

Information Source: Bureau of Land Management, U. S. Forest Service.

D. Noise Levels - Ambient noise levels temporarily elevated. Personnel safety could be jeopardized. Wildlife would avoid area.

Information Source: Field observation.

E. Water Resources

1. Hydrologic Character

a. Surface Waters: Surface drainage onto the pad, causing ponding of water, could be a significant environmental and operational problem. Steep drainages empty onto the proposed location. Drainage rerouting to divert surface flow away from the pad will mitigate this potential hazard.

Information Source: U. S. Forest Service, Field observation

b. Ground Waters: Contamination to groundwaters through commingling with drilling fluids is possible.

Information Source: Field observation

2. Water Quality

a. Surface Waters: Surface water quality is characterized by high sediment content derived from Mancos parent material during nonperennial flow periods. Quality is considered poor.

Information Source: Field observation

b. Groundwaters: Fresh water may be present in the Emery, Ferron, Dakota, and Cedar Mountain Formations. Operator proposes 1000' of surface casing. Commingling of drilling fluids with potentially usable water could render groundwater unusable. Pits would be unlined.

Information Source: Application to Drill, District Geologist, M.E.

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the formal comments received from the U. S. Forest Service on February 14, 1980, we determine that there would be no effect on endangered and threatened species and/or their critical habitat.

2. Flora: Construction would remove about 3.7 acres of vegetation increasing potential for non-point erosion and decreasing soil fertility.

Information Source: U. S. Forest Service Environmental Assessment

3. Fauna: Vegetation removal reduces wildlife habitats and food sources. Deer are known to winter in the area. No known migratory bird nesting areas, strutting or breeding grounds, or fish-spawning areas would be impacted by proposed action. Mitigative measures addressing deer wintering are presented in the Forest Service Environmental Assessment.

Information Source: U. S. Forest Service Environmental Assessment

G. Land Uses

1. General: Deer winter range, minor livestock grazing, and recreation are predominant land uses.

Information Source: U. S. Forest Service Environmental Assessment

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

Information Source: Field observation

H. Aesthetics: Operation would not blend with natural surroundings. Most likely unappealing to recreationists. Impact duration: life of well.

Information Source: Field observation

I. Socioeconomics: The effect of one well on local and regional population and economy would be considered minor. If major discovery, then consider: Population increase, community services taxed, resources depleted, cumulative impacts multiply, pipelines and transportation routes expand.

Information Source: G. Doyle, Environmental Scientist

J. Cultural Resources Determination: Based on the formal comments received from the U. S. Forest Service on February 14, 1980, we determine that there would be no effect on cultural resources subject to no stipulations.

Information Source: U. S. Forest Service Environmental Assessment.

K. Other: None

L. Adequacy of Restoration Plans: Rehabilitation plan judged as adequate. Problems hampering restoration: a) Area subject to short growing season; b) limited precipitation during growing season; and c) generally, very little topsoil which has limited organic matter and is low in fertility.

Information Source: Application to Drill

Alternatives to the Proposed Action:

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

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

Adverse Environmental Effects:

1. If approved as proposed:

a. About 4.2 acres of vegetation would be removed, increasing and accelerating erosion potential.

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

- c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
- d. The potential for fires, leaks, spills of gas and oil or water exists.
- c. During construction and drilling phases of the operation, noise and dust levels would increase.
- f. Distractions from aesthetics during the lifetime of the project would exist.
- g. Erosion from the site would eventually be carried as sediment in the Buzzard Bench drainages. The potential for pollution to these drainages would exist through leaks and spills.
- h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of an irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.
- i. Other:
 - (1) Leveling the area of the wellsite would create a large break in the naturally-steep drainage pattern. Ponding, sheet runoff, and erosional cutting during rainstorms and runoff periods would generate operational problems and land instability.
 - (2) As proposed, a small powerline would be impacted by the turnaround area of the pad.
 - (3) Any leaks/spills would disturb and contaminate deer graze.

2. Conditional approval

- a. All adverse impacts described in section one above would occur, except
 - (1) Rerouting the drainage above the pad by digging a 3' deep diversion ditch along the south side would reduce potential ponding, sheet runoff, and erosional cutting, thereby reducing potential land instability.
 - (2) Laying 6" of gravel on the pad and newly constructed access would improve load-bearing capacity of the location.
 - (3) No surface disturbance or activity within 10' of the powerline would eliminate any potential impacts.

(4) Construction of a 12" berm around the location would reduce the likelihood of any fluids impacting the already sparse deer graze.

Recommended Approval Conditions:

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

1. See attached USFS Stipulations.
2. See attached BLM Stipulations.
3. Construct 3' deep diversion ditch along south edge of the location.
4. Spread 6" of gravel over the location and along newly-constructed access road.
5. Provide a 10' (minimum) buffer zone (no surface activity) between the location and the powerline.
6. Construct a 12" berm around entire pad to prevent any harmful fluids from impacting deer graze.
7. Utilize a removable garbage bin rather than a trash pit. (Rig comes equipped with this bin.)

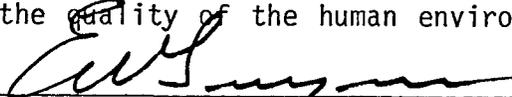
Controversial Issues and Conservation Division Response:

None known

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

Determination

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

 DISTRICT ENGINEER

APR 07 1980

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

Date

APPENDICES

Appendix I	U. S. Forest Service Environmental Assessment
Appendix II	Bureau of Land Management Stipulations
Appendix III	Archeologic Report
Appendix IV	Mineral Evaluation Report



ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

588 West 800 South Bountiful, Utah 84010
Tel: (801) 292-7061 or 292-9668

December 5, 1979

Subject: Archeological Evaluation of Drill Location
Federal #41-33 in the Buzzard Bench Locality
of Emery County, Utah

Project: Tiger Oil Company - 1979, 1980 Drilling Program
(Lease U-18863)

Project No.: TOC-79-1

Permit: U.S. Forest Service, Region 4, Blanket Permit

To: Mr. George Fentress, Geological Engineer,
P.O. Box 113, Wheat Ridge, Colorado 80033

Mr. John Niebergall, District Ranger, U.S.
Forest Service, Ferron Ranger District,
Ferron, Utah 84523

Mr. C. Christensen, Forest Supervisor, U.S. Forest
Service, Manti-LaSal National Forest, 350 East
Main Street, Price, Utah 84501

Info: Dr. Evan DeBloois, U.S. Forest Service Office,
324 - 25th Street, Ogden, Utah 84401

Received 11/10/79

GENERAL INFORMATION:

On November 27, 1979, F. R. Hauck of AERC conducted an evaluation of Tiger Oil Company well, Federal #41-33, which is located in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 33, Township 18 South, Range 7 East. The location lies on a low, sterile ridge in the Masuk-Mancos Shale geological zone. An existing road crosses the well location, hence, an access road evaluation was conducted. The location was under 50% snow cover with large surface patches on the shale being open for observation. No cultural resources of any type were observed in the well location or on adjacent slopes.

CONCLUSION AND RECOMMENDATIONS:

AERC considers that there is no potential for the existence of significant cultural resource sites of National Register Status on the well location. Nor is there any potential on location for any site of lesser significance discounting a very small, sparse lithic scatter type site. The barren surface consists of gray shale with some small scattered accumulations of topsoil (aeolian) marked by grasses and saltbush. This surface has been subjected to extensive sheet erosion; hence, the probability of the existence of historic or prehistoric sites or isolated artifacts on the well station is considered nil.

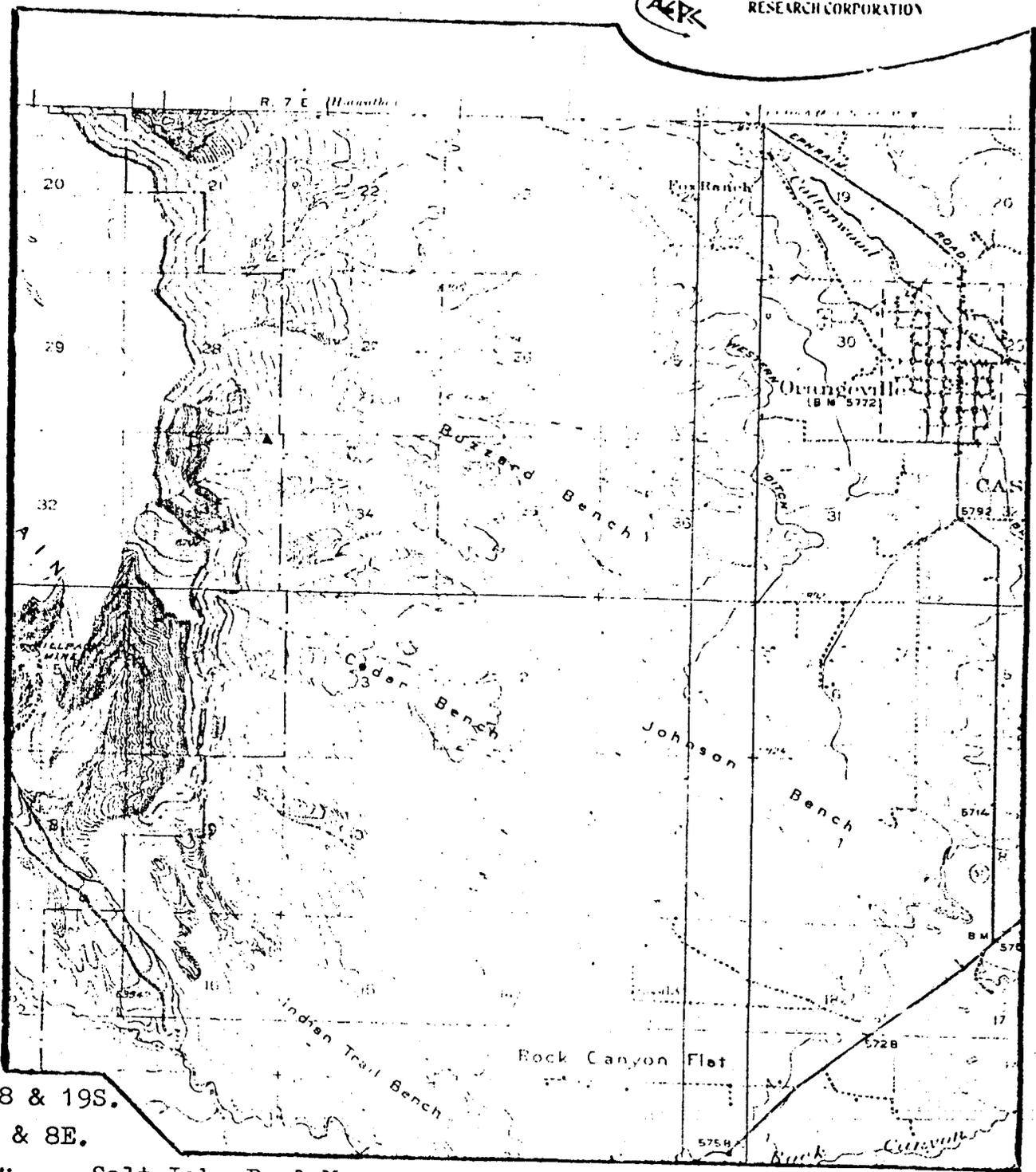
AERC recommends that a cultural resource clearance be granted to Tiger Oil Company based upon their adherence to the following stipulations:

1. All vehicular traffic, personnel movement, and construction to be confined to the locations examined and to access roads leading into these locations.
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 be exposed during construction work or if the need arises to relocate or otherwise alter the construction area.



F. R. Hauck, Ph.D.
President



T. 18 & 19S.
R. 7 & 8E.

Meridian: Salt Lake B. & M.

Quad:

Castle Dale,
Utah
15 Minute
USGS

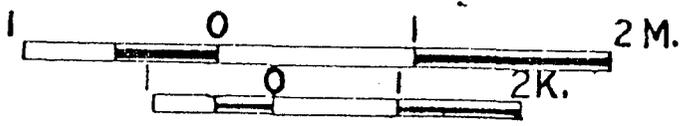


Project: TOC-79-1
Series: Central Utah
Date: 12-5-79

WELL LOCATION
(FEDERAL 41-33) IN THE
BUZZARD BENCH LOCALITY
OF EMERY CO., UTAH

Legend:

Well Location ▲



Scale

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-18863OPERATOR: E.M. Davis d/b/a Tiger Oil CompanyWELL NO. 41-33LOCATION: ½ NE ½ NE ¼ sec. 33, T. 18S, R. 7E, SLMEmery County, Utah

1. Stratigraphy: Mancos - Surface

Emery Ss. 700

Ferron Ss. 3000

Navajo 7400

Moenkopi 8300

Kaibab 9300

2. Fresh Water:

Fresh water may be present in the
Emery, Ferron, Dakota, and Cedar Mtn.3. Leasable Minerals: Prospectively valuable for coal in the
Ferron Sandstone.4. Additional Logs Needed: Proposed logs should be adequate
to define any coal that is present.

5. Potential Geologic Hazards: None anticipated.

6. References and Remarks: outside KGS.

U.S.G.S. files, SLC., UT

29 DEC REC'D

APPENDIX IV

Signature: J. Paul MathenyDate: 12 - 18 - 79

John

REFERENCES

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

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

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

von Hake, Carl A., Earthquake History of Utah, NOAA.

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

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

**** FILE NOTATIONS ****

DATE: 12/26/79
OPERATOR: TIGER OIL CO
WELL No. Federal #41-33
LOCATION: SEC. 33 T. 18S R. 7E COUNTY Emery

FILE PREPARED: _____ ENTERED ON NID: _____
CARD INDEXED: _____ COMPLETION SHEET: _____

✓ API NUMBER: 43-015-30071

CHECKED BY:
GEOLOGICAL ENGINEER: _____

PETROLEUM ENGINEER: _____

DIRECTOR: OK

APPROVAL LETTER:

BOND REQUIRED: _____ SURVEY PLAT REQUIRED: _____

ORDER No. _____ O.K. RULE C-3

RULE C-3(c), TOPOGRAPHIC EXCEPTION/COMPANY OWNS OR CONTROLS ACREAGE
WITHIN A 660' RADIUS OF PROPOSED SITE _____

LEASE DESIGNATION Fed. PLOTTED ON MAP

APPROVAL LETTER WRITTEN _____

h1 PI

December 26, 1979

Tiger Oil Company
P.O. Box 113
Wheat Ridge, Colorado 80033

Re: Well No. Federal #41-33
Sec. 33, T. 18 S., R. 7 E.,
Emery County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Rule C-3, 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 one of the following:

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

CLEON B. FEIGHT
Director
Office: 533-5771
Home: 466-4455

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 43-015-30071.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Michael T. Minder
Geological Engineer

MTM/pj6
cc: GS

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Manti-LaSal National Forest
350 East Main Street
Price, Utah 84501

2820

February 12, 1980



Glen Doyle
U.S. Geological Survey
Oil and Gas Office
P.O. Box 3768
Grand Junction, Colorado 81502

Dear Mr. Doyle:

Attached is a copy of the Environmental Assessment prepared by the Forest Service and BLM for the Tiger Oil Well #41-33. This document is our concurrence to approval of the activity, and contains the stipulations and mitigating measures required.

The BLM and Forest Service must be notified prior to beginning any activity on the ground for this project.

Sincerely,

for
REED C. CHRISTENSEN
Forest Supervisor

Enclosure

APPENDIX I

FEB 14 REC'D

ENVIRONMENTAL ASSESSMENT AND TECHNICAL EXAMINATION

Tiger Oil Company
Well #41-33 -- U-18863

Manti-LaSal National Forest

Responsible Agency: U.S.D.A. Forest Service
Intermountain Region
Manti-LaSal National Forest

Responsible Official: Reed C. Christensen
Forest Supervisor
Manti-LaSal National Forest
Price, Utah 84501

For Further Information Contact: John Niebergall
District Ranger
Ferron Ranger District
Ferron, Utah 84523

Prepared by: *Eric G. Thompson* Date 1/17/80
Geologist, Ferron Ranger District

Recommend Approval: *John Niebergall* Date 1/17/80
District Ranger

Recommend Approval: *Eric G. Thompson* Date 1/11/80
Forest Engineer

Approval by: *Ross E. Butler* Date 2/2/80
Forest Supervisor

Approval by: *David A. Orr* Date 2/13/80
Acting Area Manager -- B.L.M.

TIGER OIL COMPANY PROPOSED DRILL SITE EVALUATION

I. INTRODUCTION

Tiger Oil Company has made application to drill a 9550 foot wildcat well for investigation of oil and gas potentials. Drilling would begin when the permit is received (possibly in March) and would be completed in 3 to 4 months.

- A. The well site is located in Section 33, T18S, R7E, Federal Lease U-18863 as described in Section IV of this report.

A copy of this application is attached and is made a part of this Environmental Assessment.

This Environmental Assessment is written to evaluate effects to the environment of the well, the access road, and the reclamation of the drill site and access road prior to abandonment.

- B. Map (See Appendix for Map, Exhibit "E")

- C. Issues, Concerns and Opportunities

The interdisciplinary team has reviewed the proposal submitted by Tiger Oil Co. The proposal has been discussed with State and other federal agencies. The only public issues, management concerns, or opportunities that could be identified are as follows:

1. Deer and other wildlife species could be temporarily affected during the drilling operation, a period of 3 months.
2. A portal location to mine coal from North Horn Mountain has been proposed for the same area as the drill site.
3. There is an opportunity to create a better plant community on the Mancos Shale by leaving the prepared area created by the drill pad level.

II. AFFECTED ENVIRONMENT

The site is within unit A6 of the Ferron-Price Land Management Plan which allows for coal and other mineral development.

A general description of the area is included in the Ferron-Price Land Management Plan. The following describes that portion of the environment that relates to the concerns that has been identified.

Wildlife and Vegetation

The drill site is located on deer winter range within deer herd unit 35. Results from a study nearby at Buzzard Bench show an average of 2.5 deer days use/acre. This study showed no use five out of the past nine years.

Existing plant species at the drill site include Castle Valley clover, Indian ricegrass and hardgrass. Production is very low, being estimated at 50 lbs/acre. Plant species adjacent to the access road on BLM land are pinyon, juniper, fourwing saltbush, serviceberry, and minor amounts of forbs and grasses. Forage production is somewhat higher in this area. These areas all have minimal value for big game species.

There are no threatened or endangered plants or animals present at the drill site or along the access road.

The nearest raptor habitat is $\frac{1}{2}$ mile horizontal and over 1,000 feet vertical distance from the drill site. The drilling activities will have no effect on threatened or endangered species or their habitat. Some small wildlife species are present.

The drill site or access road is not in prime farm, range, or timber lands. It is not in a wilderness or proposed wilderness area, in wetlands or a floodplain. The site falls within an area where archeological sites occur, but has been cleared by an Archeological study.

The Federal Coal leasing program has included the North Horn Mountain as a tract to be leased in 1981. The Buzzard Bench area, on which the proposed well site is located, has been proposed as a possible portal location from which mining could occur. Since there is not any proposal for the portal nor is there any specific location identified, the degree of conflict cannot be identified at this time.

Transportation

The road to the site is about 5.25 miles in length. Beginning at U29 about 1.5 miles are through private land and is county maintained. This section is graveled and in good condition. From the private land to the site the road is through Federal lands. This section is about 3.75 miles long. About 300 feet is on State land and 900 feet on Forest with the rest on BLM.

The road was constructed to install the power line to the electronic site on North Horn Mountain. It is not carried on the Forest or BLM road systems, nor is it needed to remain open for administration. There is presently little or no use of the road, only occasional use for maintenance of the power line. The road is not maintained, but can be traveled in dry weather.

The road on Federal land is in gravelly alluvium for about 3 miles. The last .75 to 1 mile to the site is in the Mancos Shale.

The alluvial material has good bearing capacity, while the Mancos Shale will not support the expected loads when wet and will powder easily when dry.

Approximately 400 EWL will be required for the proposed activity. About 6 inches of crushed gravel would be required to support this type and number of loads in the Mancos Shale areas. A lesser amount of gravel would be needed in the alluvial material.

The operator has recognized that placing gravel on those road sections in the Mancos Shale is necessary for assured access. Gravel will be placed on these areas and on other areas should it become necessary as per the attached operating plan.

A typical roadway section for a 16 foot top width is attached showing requirements for road construction.

The BLM and State desire the road to be left much as it now exists. Only those areas which are not passable by the equipment are to be reconstructed. The road is to be maintained for dust control while in use. When drilling is completed, the road if no longer needed would be graded and necessary erosion control measures taken.

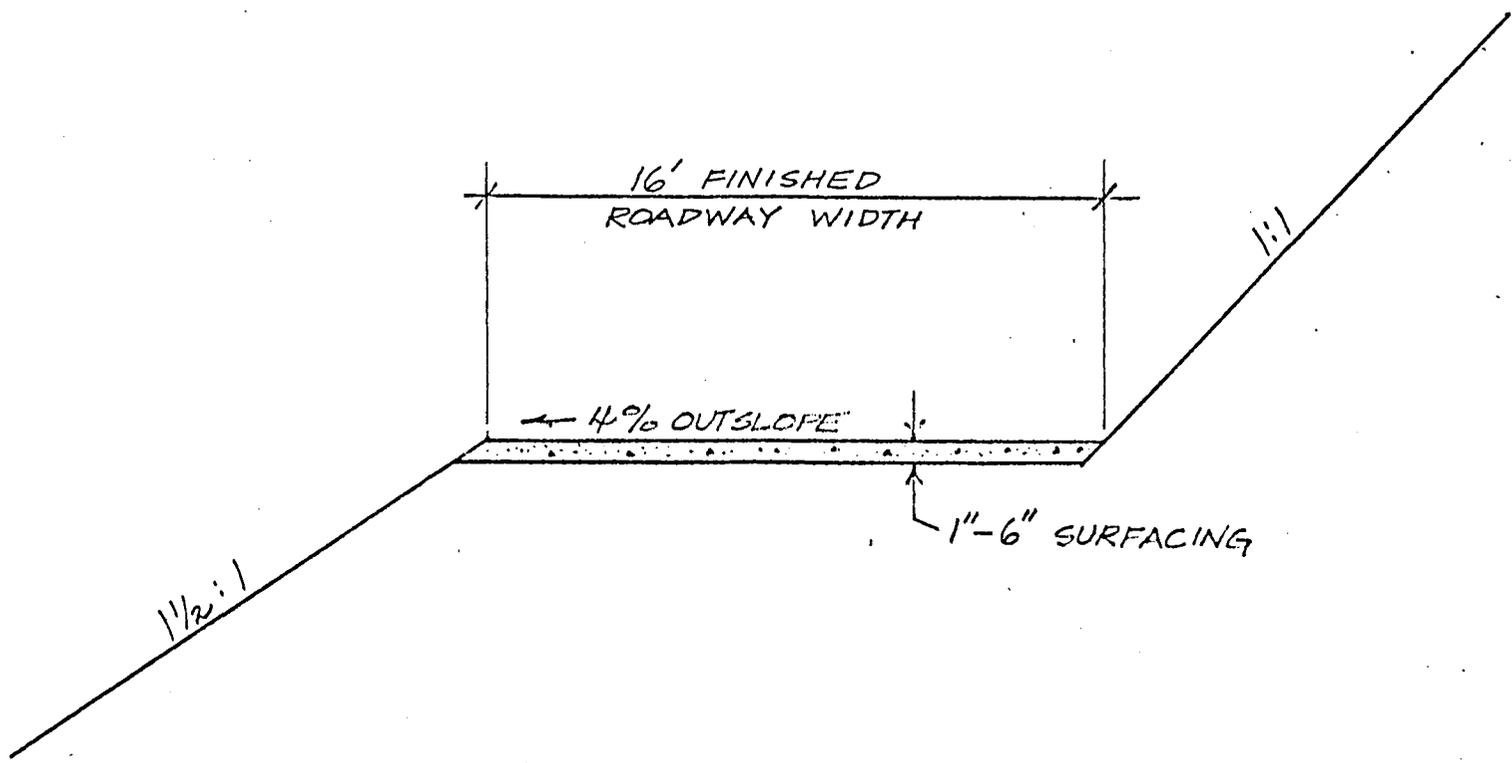
Should the well be a producer requiring permanent access, the operator will submit to the BLM and Forest Service an application for a road use permit. This will include a road design based upon vehicle weight, number of vehicle trips, soils tests and other data as may be pertinent.

Should the well produce natural gas, and require a pipeline, the location of such a line will be designated and a sundry notice will be submitted to the USGS. Approval for the pipeline location and construction will require a field review and an Environmental Assessment by the Surface Management Agency.

The operator will contact Emery County and will maintain that section of road through private lands in accordance to the requirements of the county.

III. EVALUATION CRITERIA

1. Must be consistent with discussions and directions of the Ferron-Price Land Management Plan.
2. The action must be consistent with Federal and State laws and regulations.
3. The activity must use the best available methods and technology.
4. The Environmental effects to other resources must be considered.



16 FT. TYPICAL ROADWAY SECTION

IV. ALTERNATIVES

1. Do not allow the well to be drilled. This is the no action alternative. This is not consistent with criterias 1, 2, or 3 and is therefore not viable.
2. Approve the well to be drilled as proposed, but constrained by management requirements and constraints. This alternative is consistent with all criteria.

The Company proposes to drill an oil well in NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 33, T18S, R7E (see map, Exhibit "E" in the Appendix) below the East Rim of North Horn Mountain on the Ferron District, Manti-LaSal National Forest. About 3.7 acres of land will be leveled for a drill pad, including a mud pit. Access to the site will be by way of the power line maintenance road on the south side of Buzzard Bench (see Exhibits "F", "H", and "I" in the Appendix). This access road crosses approximately four miles of BLM land and .10 miles of State land.

The Company proposes to reshape the existing road to provide 16 feet surface width. It intends to place sufficient gravel on the road to provide a stable travel surface. One temporary culvert will be installed to provide drainage.

No ancillary facilities are proposed off the pad site.

Plans for restoration of the surface include:

1. Backfilling, leveling, revegetation and contouring will be accomplished as soon as possible after the well is completed. Waste materials, spoils or any other noxious substances will be removed immediately after the rig is moved from the location.
2. The drill site will be fenced until vegetation is established, then the fence removed.
3. Any oil spills and bad materials at the drill site will be cleaned up and removed from the Forest.
4. The pits will be filled and leveled as soon as possible after drilling is completed.

Management Requirements, Constraints and Mitigation Measures

1. Install a 24 inch culvert in draw on Forest Service land just inside boundary. Remove culvert at end of project and place a dip in gully crossing.

2. Place 12 inch berm around entire drill pad and gravel pad surface.
3. Slope or ditch the drill pad so everything will drain into pit.
4. Install a 3 feet deep diversion ditch across top of cut bank to intercept and divert water from above drill pad.
5. It is desired that the mud pit not be lined, however, leakage from the pit will not be allowed.
6. All trash, wastes, non-flammable wastes, salts, chemicals, noxious spills and substances, and other dangerous, harmful or bad materials will be removed from the Forest.
7. All activity will remain at least 10 feet from power line.
8. Drainages passing through site will be reopened after work is completed.
9. Gravel will be removed from drill pad. Pad will be leveled, the surface broken up and reseeded with the following mixture:

Indian ricegrass	<u>Oryzopsis hymenoides</u>	4 lbs./acre
Fourwing saltbush	<u>Atriplex canescens</u>	2 lbs./acre
Castle Valley clover	<u>A. cuneata</u>	2 lbs./acre (if available)

Reseeding should start no earlier than September 15, 1980, and be completed no later than November 15, 1980.

10. Forest Service will be contacted at least 48 hours before actual work begins.

For the portion of the road crossing Bureau of Land Management the following stipulations are required:

1. Bureau of Land Management will be contacted at least 48 hours before actual roadwork begins.
2. Any area disturbed by road work will be contoured to slope and reseeded with a mixture of grasses, forbs and shrubs at a rate of 12 pounds per acre. The soil would be roughened, the seed broadcast and lightly harrowed into the ground. The reseeded should start no earlier than September 15, 1980 and be completed no later than November 15, 1980.

<u>Grasses</u>	<u>Species</u>	<u>Rate Lbs./Acre</u>
Indian ricegrass	<u>Oryzopsis bymenoides</u>	4
Russian Wildrye	<u>Elymus junceus</u>	4

Forb

Sweet clover Melilotus officinalis 2

Shrub

Fourwing saltbush Atriplex canescens 2

3. There will be no material piled or pushed into any natural drainages while road construction is being done.
4. The access road will be returned to a standard 16 foot subgrade cross section after completion of the project. See attached drawings. The road will be outsloped and dips constructed as designated to prevent erosion.
5. No gravel from lands managed by BLM will be obtained without a permit.
6. General Wildlife Resource Information and Stipulations:

Employees associated with the project should be instructed that when wildlife is encountered during routine work, they should not stop vehicles for viewing purposes.

If a snake den is located, it should be reported to the BLM.

Raptor nest or roost trees will not be disturbed.

Every effort should be made to minimize disturbance to deer in this area.

V. EFFECTS OF IMPLEMENTATION

Approximately four acres of wildlife habitat will be lost directly due to activities at the drill site. This will have the greater impact on small non-game species who are less mobile than large species. The value of additional habitat up to $\frac{1}{4}$ mile surrounding the drill site and road will be reduced to some degree for larger species due to behavioral avoidance. Some wildlife mortality may occur due to road accidents.

It is the conclusion of the Bureau of Land Management, the State and also the Forest Service that because of the low impacts the road will be used as it now exists with reconstruction only in those areas where equipment cannot pass. Graveling will be done in those areas which the operator has determined essential to assure access. The road will be maintained to control dust.

VI. CONSULTATION WITH OTHERS

This Environmental Assessment was prepared by a U.S. Forest Service - Bureau of Land Management interdisciplinary team. Consultation and coordination was made with the State of Utah Division of Wildlife Resources, the operator, and Emery County.

IV. FINDING OF NO SIGNIFICANT IMPACT

Tiger Oil Company
Well #41-33--U-18863
Emery County, Utah

An environmental assessment report that discusses the proposed Tiger Oil Well #41-33, U-18863, to explore for oil and gas on the Manti-LaSal National Forest is available for public review in the Forest Supervisor's Office in Price, Utah.

The environmental assessment report indicates that there will be no significant effect on the quality of the environment. Therefore, an environmental statement was not prepared.

This decision was based upon the following items, discussed previously in the Environmental Assessment Report:

1. Project will have minor impact on the vegetation and wildlife resources.
2. There will be no affect upon T and E plants or animals.
3. Drill site is not prime farm, range or timber land.
4. Site is not in wetlands or floodplain.
5. There will be no irreversible commitment of resources.
6. The area has received consideration for wilderness characteristics. Upon completion of the wilderness review, the unit was found not to contain wilderness characteristics and was released for further wilderness review.

X. Appendix

1. Map - Exhibit "E", Roads & Access to Location.
2. Exhibit "F", Drilling Rig Layout.
3. Exhibit "H" Drilling Pad Layout - Contours - Reserve Pit Site
4. Exhibit "I" Cut and Fill of Area

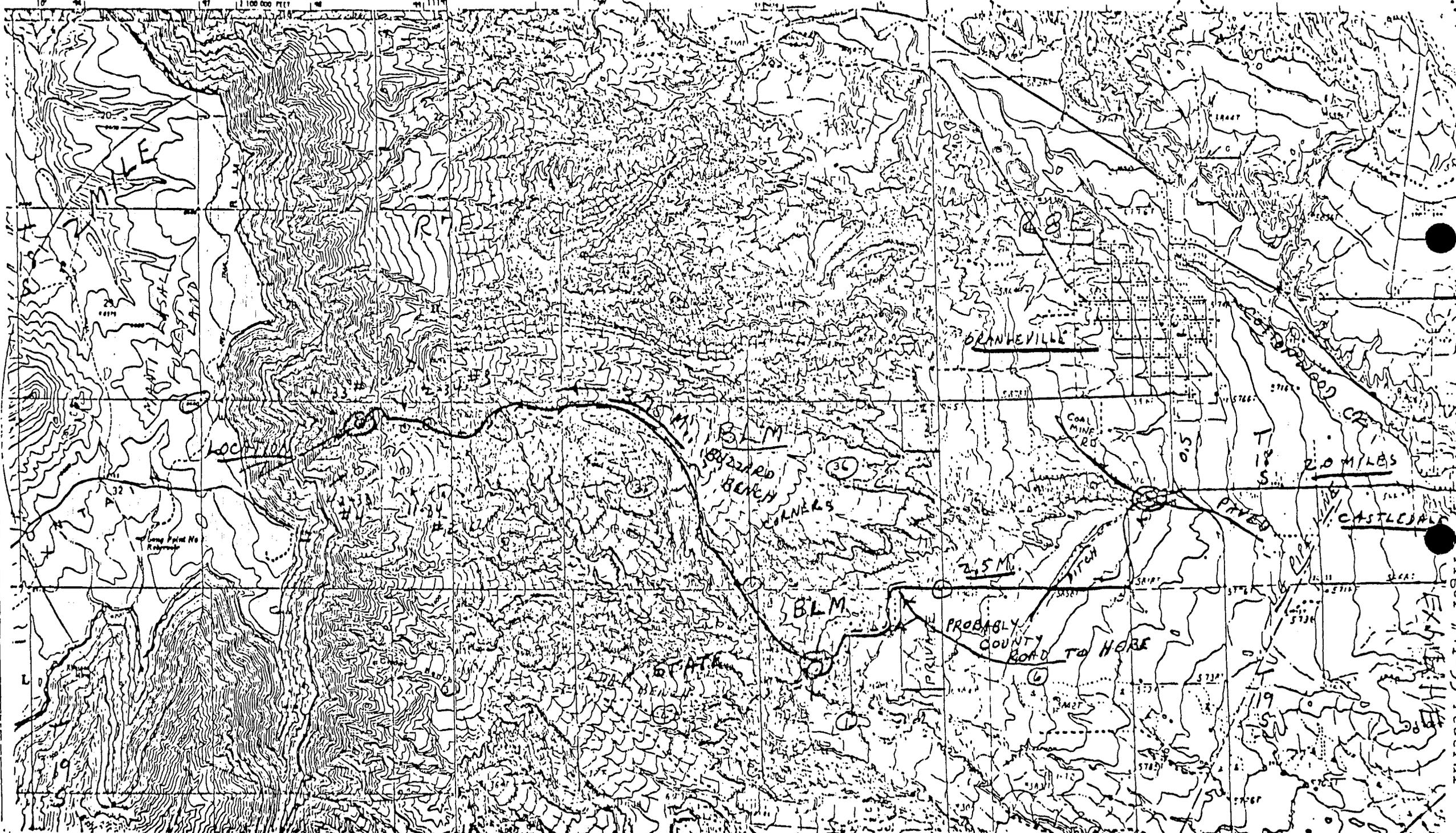
These exhibits are from the Tiger Oil Application for Permit To Drill.

ADVANCE PROOF
SUBJECT TO CORRECTION
SCALE 1:50,000

THE CAP QUADRANGLE
UTAH-EMERY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
ONE CENTIMETER SCALE TO QUADRANGLE

R7E

R8E



LOCATION

BLM
BIRD BUNCH OWNERS

PROBABLY COUNTY ROAD TO HERE

2.5 M.

2.0 MILES

CASTLEDALE

EXHIBIT
2 MILE RADIUS OF BELLS
Tiger #41-33 Federal

DRILLING RIG LAYOUT

Tiger # 41-33 Federal

EXHIBIT "F"



ROAD IN

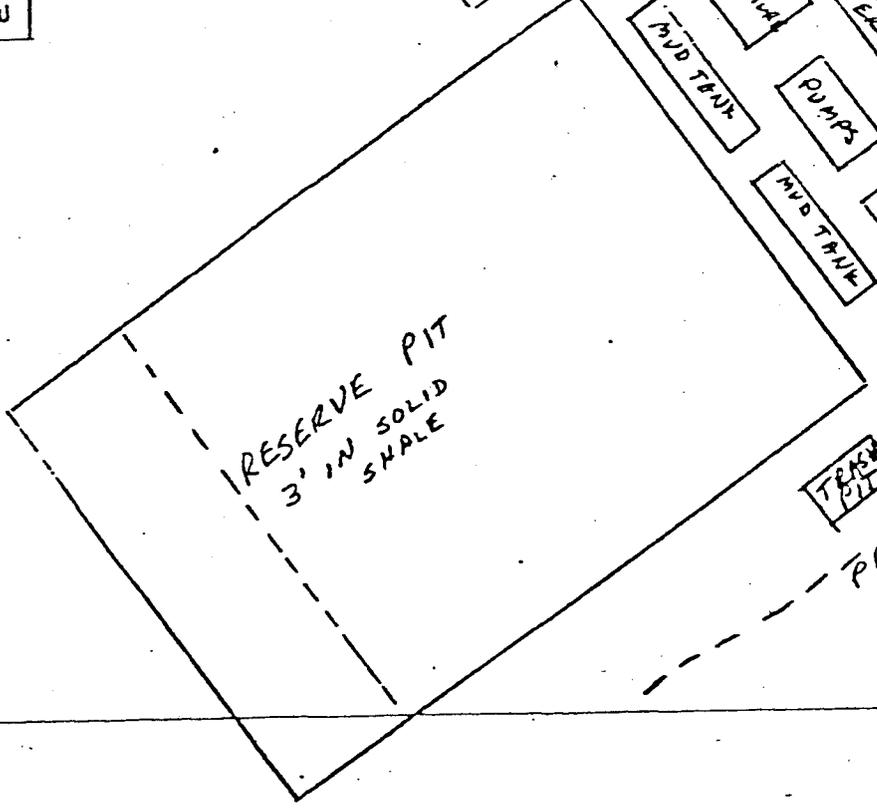
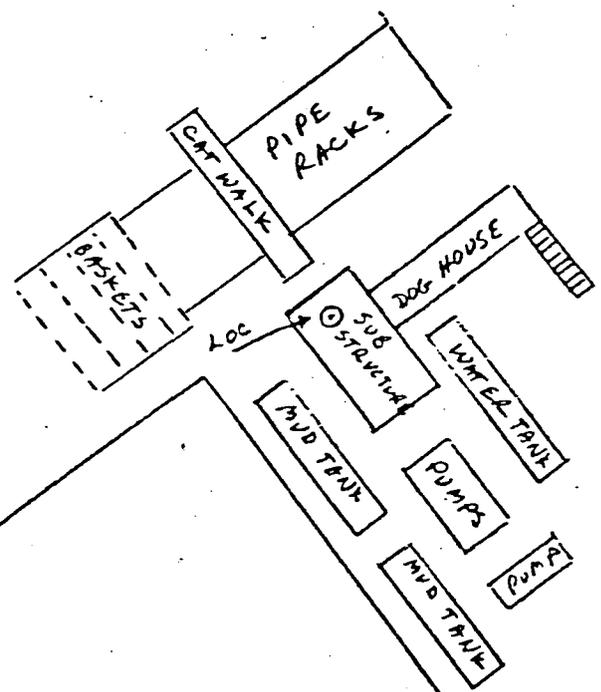
SOIL BANK

TRAILERS & PARKING

DERRICK STAND

SOIL BANK

EQUIPMENT



STORAGE

TRASH PIT

PROBABLE FILL TO HERE
VERY LITTLE CUT
THIS AREA

400'

DRILLING PAD LAYOUT - CONTOURS - -

RESERVE PIT SITE

Tiger Oil #41-33 Federal



ROAD IN

200' N. STAKE #633'

SOIL BANK

CUT-FILL SECTION B

FILL AREA

↑ --- 6354'

↓ CUT AREA

SOIL BANK

BALANCE LOCK

LOCATION 6663'

CUT-FILL

RESERVE PIT

ALTERNATE PIT TO HAVE 3' IN SOLID SHALE

FILL 6640

VERY LITTLE CUT PLANNED IN THIS AREA

CUT-FILL SECTION A

200' S. STAKE 6673'

400'

SCALE 1" = 50'

PAD 400' x 400'

200' E. STAKE 6670

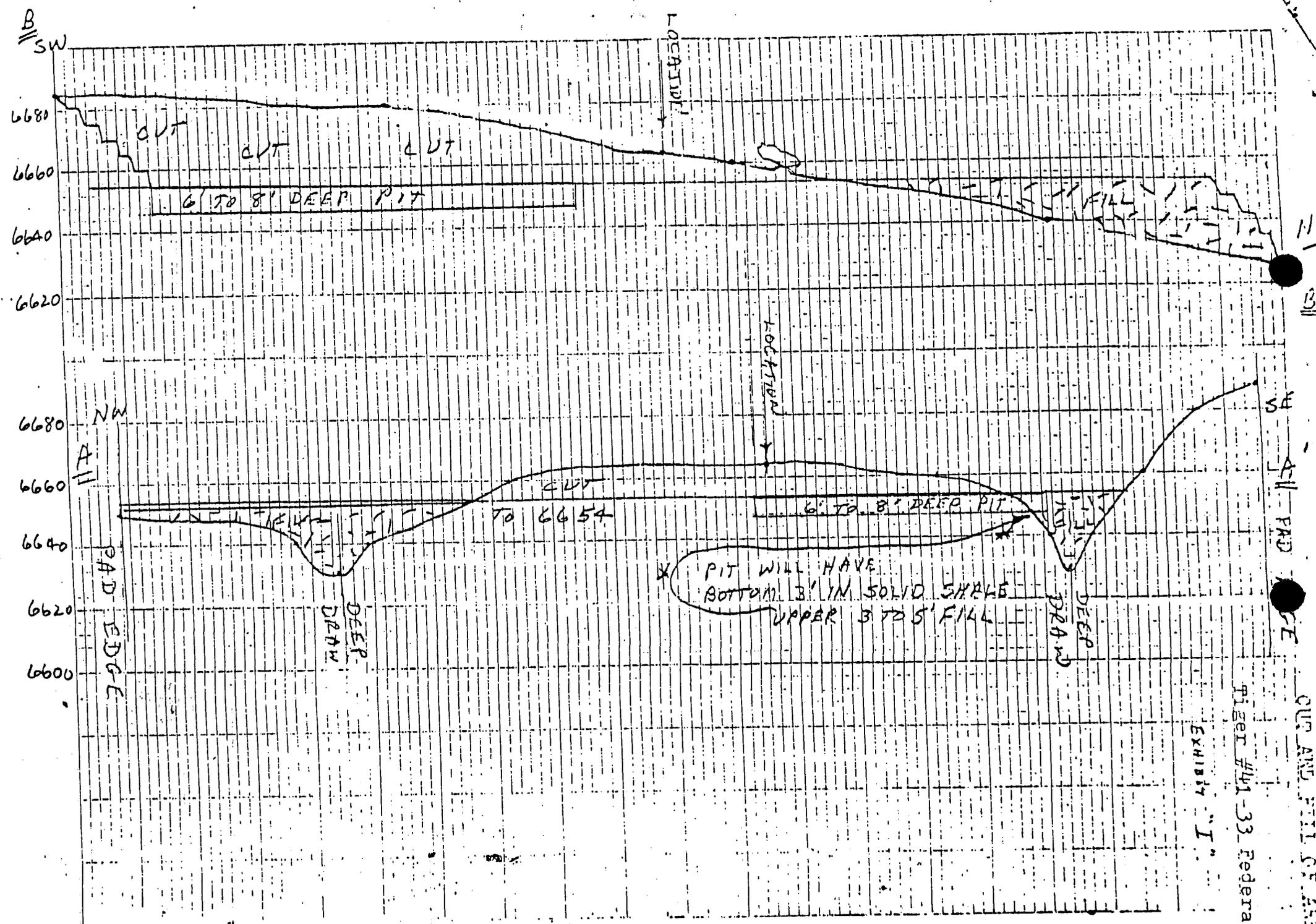


EXHIBIT "I"
Piper #41-33 Federal

OUR AND FILE OF ASSE



Glenn

United States Department of the Interior

IN REPLY REFER TO
3100
U-18863
(U-602)

BUREAU OF LAND MANAGEMENT
Moab District
San Rafael Resource Area
P. O. Drawer AB
Price, Utah 84501

January 10, 1980

Memorandum

To: District Engineer, U.S.G.S. Salt Lake City, Utah

From: Area Manager, San Rafael

Subject: Tiger Oil Company Well #41-33, Lease #U-18863 33-185-7E

Following are stipulations for subject lease:

1. Bureau of Land Management will be contacted no later than 48 hours before actual roadwork begins.
2. Any area disturbed by roadwork will be contoured to slope and reseeded with a mixture of grasses, forbs, and shrubs at a rate of 12 pounds per acre. The soil should be roughened, the seed broadcast and lightly harrowed into the ground. The reseeded should start no earlier than September 15, 1980 and be completed no later than November 15, 1980.

<u>Grasses</u>	<u>Species</u>	<u>Rate Lbs/Acres</u>
Indian ricegrass	Oryzopsis hymenoides	4
Russian wildrye	Elymus junceus	4
<u>Forb</u>		
Sweet clover	Melilotus officinalis	2
<u>Shrub</u>		
Fourwing saltbush	Atriplex canescens	2

3. There will be no material piled or pushed into any natural drainages while road construction is being done.
4. The access road will be turned to a standard cross section after completion of the project.



19 FEB 1980

5. No gravel from lands managed by BLM will be obtained without a permit.
6. General Wildlife Resource Information and Stipulations:

The plateau in which Tiger Oil Company plans to drill is inhabited on occasion and during different seasons of the year by about 364 species of vertebrate wildlife. Some of these species are considered "high interest", which is defined as all game species, deer and elk, any economically important species, and any species of special aesthetic, scientific or educational significance. Eighty-three percent of these 364 species of vertebrate wildlife are protected.

Employees associated with the projects should be instructed that when wildlife are encountered during routine work that they should not stop vehicles for viewing purpose. Moving traffic is less disturbing to wildlife than traffic that stops or results in out of the vehicle activities. If viewing is desirable the vehicle should only be slowed, but not stopped.

Snake dens are ranked as being crucial-critical to the population and are protected by law. If a den is located, it should be reported to the Bureau of Land Management.

Several species of raptors inhabit the project area. Falcons, golden eagles, (year-round resident and common nesters) and bald eagles (winter resident November 15, to March 15.) If located, raptors nest or roost trees (when active) should not be disturbed and abandoned stick nest of raptors are never to be damaged during inactive periods. As a general comment, whenever active raptor nests are observed or roost trees located, they should be reported to the Bureau of Land Management.

The access road and drill site is located in a crucial-critical wintering area for mule deer. Every effort should be made to minimize disturbance in this area.

cc: USFS, Ferron

A handwritten signature in black ink, appearing to read "David New". The signature is written in a cursive style with a horizontal line underneath the name.

GEORGE H. FENTRESS

GEOLOGICAL ENGINEER

mail all correspondence to:
P.O. Box 113
Wheat Ridge, Colorado 80033
Phone (303) 423-0835

Residence
14600 Foothill Road
Golden, Colorado 80401
Phone (303) 279-4880

March 10, 1980

RE: Tiger #41-33 Federal
NE NE 33-18S-7E
Emery Co., Utah

Laurelle Hughes--B.L.M.
Glen Doyle---U.S.G.S.
Janice Hemmer--U.S.G.S.

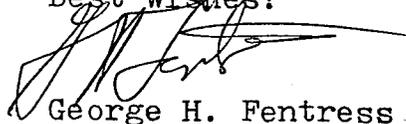
It may be an oversight on my part that I did not notice that Dr. Hauck had only sent the archeological report to the Forest Service and myself. I thought he had to always send to B.L.M.

At any rate, enclosed for each of you is the archeological report on the above location.

I hope that this is now sufficient to proceed with approval to commence operations.

I really don't understand why someone did not send me a note that the delay in approval was this report.

Best wishes!



George H. Fentress

APPENDIX III



SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

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

OIL, GAS, AND MINING BOARD

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MAXILIAN A. FARBMAN
EDWARD T. BECK
E. STEELE McINTYRE

March 27, 1981

Tiger Oil Company
P.O. Box 113
Wheat Ridge, Colorado 80033

Re: Well No. Federal #41-33
Sec. 33, T. 18S. R. 7E.
Emery County, Utah

Gentlemen:

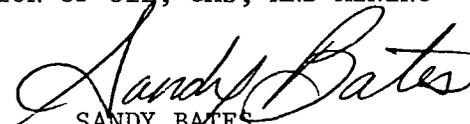
In reference to the above mentioned well, considerable time has gone by since approval was obtained from this office.

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

Your prompt attention to the aböve will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING


SANDY BATES
CLERK-TYPIST

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

May 5, 1981

E. M. Davis dba Tiger Oil Co.
P.O. Box 113
Wheat Ridge, Colorado 80033

Re: Return Application for
Permit to Drill
Well No. 41-33
Section 33, T. 18S., R. 7E.
Emery County, Utah
Lease No. U-18863

Gentlemen:

The Application for Permit to Drill the referenced well was approved April 10, 1980. Since that date no known activity has transpired at the approved location. Under current District policy, application's for permit to drill are effective for a period of one year. In view of the foregoing this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location on a future date a new application for permit to drill must be submitted.

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

Sincerely,

(Orig. Sgd.) R. A. Henricks

for E. W. Guynn
District Oil and Gas Supervisor

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

RAH/TM/tm