

**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

January 7, 1980

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

RE: Tiger Oil Co.,  
Five Location Permits  
Wayne & Emery Co., Utah

Dear Cleon:

Enclosed are three copies each of five Form 9-331C's which were used in filing APD's with the U. S. Geological Survey, which APD's also accompanied the 20+ page NTL-6 environmental impact statement. The original signed copies by Ed White were with that report filed with the Federal government.

I also enclose a surveyor plat on each location, and a map of access roads into these locations.

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.

Best wishes!



George H. Fentress

cc. Tiger Oil Co.

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]
2. NAME OF OPERATOR: E. M. Davis d/b/a Tiger Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 113, Wheat Ridge, Colorado 80033
4. LOCATION OF WELL: 695' FWL 965' FNL (NW NW)
5. LEASE DESIGNATION AND SERIAL NO.: U-11375
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME: Federal
9. WELL NO.: #12-27
10. FIELD AND POOL, OR WILDCAT AND SURVEY OR AREA: Exploratory
11. SEC., T., R., M., OR BLEK. AND SURVEY OR AREA: Sec. 27-T26S-R7E
12. COUNTY OR PARISH: Emery
13. STATE: Utah
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 32.0 miles from Cainsville, Utah (Exhibit "E")
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.: 695'
16. NO. OF ACRES IN LEASE: 720.00
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.: 4960'
19. PROPOSED DEPTH: 4960'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5568' ground
22. APPROX. DATE WORK WILL START: February 10, 1980

PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Rows for 12 1/2" and 8 3/4" holes.

- 1. Drill 12 1/2" hole to 250' and set surface casing.
2. To log BOP's daily while drilling 8 3/4" hole
3. Run electric logs, test as needed, and run production casing
4. To perforate and stimulate as cited in Exhibit "B"

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
"B" Ten-point Compliance Program
"C" The B.O.P. Diagram
"D" Multipoint Requirements
"E" Access Route from Cainsville, and from Fremont Junction.
"F" Drilling Rig Layout
"G" Production Facilities Layout
"H" Drill Pad Contours and Cut-fill. Letter of Agency for Fentress
A-ERC Archeological Report Designation of Operator

RECEIVED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present production 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.

JAN 9 1980

SIGNED: [Signature] TITLE: Ass't Chief Engineer DATE: December 26, 1979

(This space for Federal or State office use)

DIVISION OF OIL, GAS & MINING

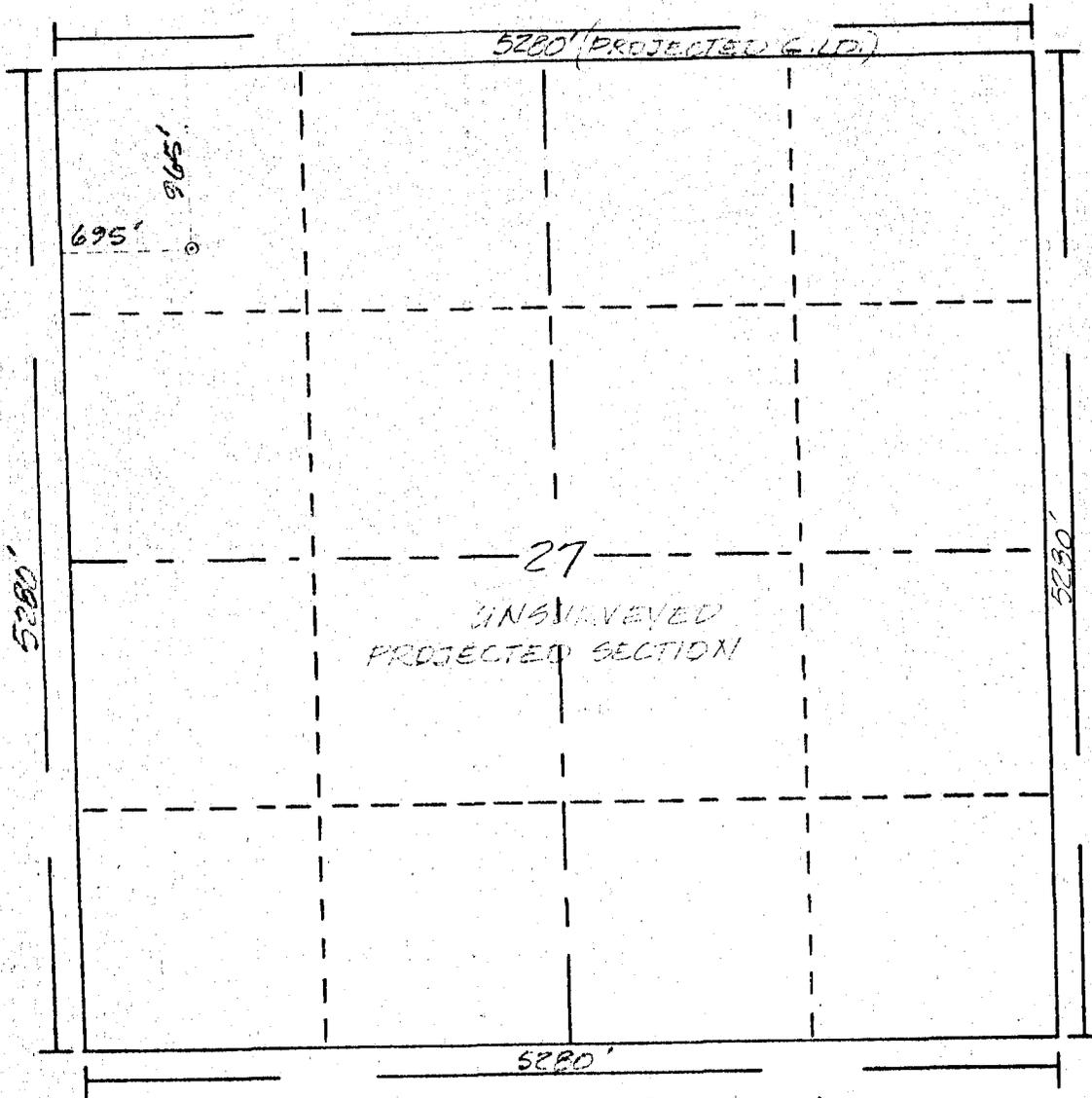
PERMIT NO. 43-015-30072 APPROVAL DATE: January 15, 1980

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



R. 7 E.



T. 26 S.

Scale... 1" = 1000'

**Powers Elevation of Denver, Colorado** 303-321-2217  
 has in accordance with a request from **GEO. FENTRESS**  
 for **E.M. DAVIS dba TIGER OIL CO.**  
 determined the location of **12-27 FEDERAL**  
 to be **965' FNL, & 695' FNL OF** Section 27 Township 26 S.,  
 Range **T. E., S. C. P. &** Meridian  
**EMERY** County, **UTAH**

I hereby certify that this plat is an accurate representation of a correct survey showing the location of

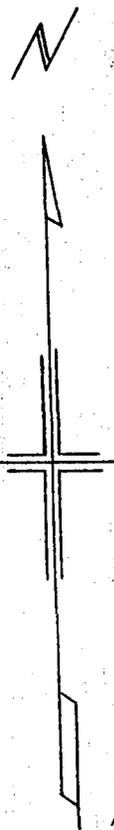
Date: 12-6-79

Harry M. Becken

Grand Junction

Licensed Land Surveyor No. 4189  
State of UTAH

TOPOGRAPHIC MAP



R.P.  
108' N.  
5576.4

EL. 5568'  
Well site = CO. 0

R.P.  
200' E.  
5558.0  
Scale: 1" = 50'

W. 200'  
R.P.  
5577.2

WELL NO. 12-27 FEDERAL  
NW 1/4 NW 1/4, SEC. 27, T. 26 S., R. 7 E.  
EMERY COUNTY, UTAH

167' S. R.P.  
5567'

by: Jerry N. Berden  
Powers Elevation Company, Inc.

\*\* FILE NOTATIONS \*\*

DATE: January 9, 1980

Operator: Tiger Oil Company

Well No: Federal # 12-27

Location: Sec. 27 T. 26S R. 7E County: Emery

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-015-30072

CHECKED BY:

Geological Engineer: \_\_\_\_\_

\_\_\_\_\_

Petroleum Engineer: \_\_\_\_\_

\_\_\_\_\_

Director: \_\_\_\_\_

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. \_\_\_\_\_

O.K. Rule C-3

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

Lease Designation Sed

Plotted on Map

Approval Letter Written

*Wtw*

#1

*hl  
PI*

January 18, 1980

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

Re: Well No. Federal 11-4, Sec. 4, T. 27S, R. 7E., Wayne County, Utah  
Well No. Federal 12-27, Sec. 27, T. 26S, R. 7E., Emery County, Utah  
Well No. Federal 14-9, Sec. 9, T. 26S, R. 7E., Emery County, Utah  
Well No. Federal 14-21, Sec. 21, T. 26S, R. 7E., Emery County, Utah  
Well No. Federal 41-8, Sec. 8, T. 27S, R. 7E., Wayne County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil wells is hereby granted in accordance with Rule C-3, G General Rules and Regulations and Rules of Practice and Procedure.

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

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

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (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 #11-4 - 43-055-30027; #12-27 - 43-015-30072; #14-9 - 43-015-30073; #14-21 - 43-015-30074; #41-8 - 43-055-30028.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/btm  
cc: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK  
 DRILL  **DUPLICATE** 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, Colorado 80033

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface  
 695' FWL 965' FNL (NW NW)  
 At proposed prod. zone  
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 32.0 miles from Cainsville, Utah (Exhibit "E")

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 695'

16. NO. OF ACRES IN LEASE  
 720.00

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.

19. PROPOSED DEPTH  
 4960' KBAB

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.)  
 5568' ground

22. APPROX. DATE WORK WILL START\*  
 February 10, 1980

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" K-55	36#	250'	250 sacks
8 3/4"	5 1/2" K-55	14#	4960'	300 sacks

1. Drill 12 1/4" hole to 250' and set surface casing.
2. To log BOP's daily while drilling 8 3/4" hole
3. Run electric logs, test as needed, and run production casing
4. To perforate and stimulate as cited in Exhibit "B"

EXHIBITS ATTACHED:

- |  |                                      |
|--|--------------------------------------|
| "A" Location and Elevation Plat                              | "G" Production Facilities Layout     |
| "B" Ben-point Compliance Program                             | "H" Drill Pad Contours and Cut-fill. |
| "C" The B.O.P. Diagram                                       | Letter of Agency for Pentress        |
| "D" Multipoint Requirements                                  | A-ERC Archeological Report           |
| "E" Access Route from Cainsville, and from Fremont Junction. | Designation of Operator              |
| "F" Drilling Rig Layout                                      |                                      |

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.

**RECEIVED**  
 MAR 12 1980

SIGNED E. M. Davis TITLE Ass't Chief Engineer DATE December 26, 1979  
 DIVISION OF OIL, GAS & MINING

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY W. J. Martin FOR E. W. GUYNN DISTRICT ENGINEER DATE MAR 10 1980  
 CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

\*See Instructions On Reverse Side

NOTICE OF APPROVAL

FLARING OR VENTING OF GAS IS SUBJECT TO NTL-4-A  
 LIMITED 1/1/80

Utah O & G

FROM: DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH  
TO: DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH  
SUBJECT: APD MINERAL EVALUATION REPORT

U-11375

LEASE NO. U-11374

OPERATOR: E.M. Davis d/b/a Tiger Oil Company WELL NO. Fed. #11-12-27

LOCATION: 1/4 NW 1/4 NW 1/4 sec. 27, T. 26S, R. 7E, SLBL#M  
Emery County, Utah

- 1. Stratigraphy: Carmel surface
- Navajo 50'
- Chinle 1650'
- moenkopi 2045
- Sinbad 2650
- Kaibab 2940
- Wolfcamp 4040
- Miss. T.D. 4960

2. Fresh Water: see attached WRD report;

3. Leasable Minerals: None

4. Additional Logs Needed: None - operator's program is adequate

5. Potential Geologic Hazards: None anticipated

6. References and Remarks: U.S.G.S. files, SLC  
Outside of KLS

Signature: J. Paul Matheny Date: 1 - 23 - 80

REQUEST FOR INFORMATION FROM WATER RESOURCES DIVISION

4 275 7E 132L

Person and Division making request Paul Matheny - Mineral Eval.

Date 1-17-80

AREA: County and State Wayne Co., Utah

Township 27 <sup>N</sup> Range 7 <sup>E</sup> W Section 4  $\frac{1}{4}$  NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SL BL&M

Altitude of surface at site 5730 Formation at surface (if known) Carmel

PURPOSE:

Protection of useful ground water (casing program); check   
 Other (describe):

For WRD use

Date in: Jan. 17, 1980  
Jan. 7, 1980

Person assigned: J.W. Hood

Date out:

Evaluation: This location is near the axis of the Last Chance anticline. Carmel Formation at the surface; the Navajo Sandstone is 450 to 550 ft deep. Water level in the Carmel is unknown, but that in the Navajo may be 550 to 650 deep; thus leakage from the Carmel to the Navajo is possible. Both formation may be substantially fractured and lost circulation is possible. Also, igneous dikes and sills may be encountered. Other aquifers to be encountered at greater depths include the Wingate Sandstone and the Coconino Sandstone. Either or both of the latter may flow(?). Water in either or both of the later may be fresh to moderately saline, and thus useful, at least for stock.

Northwest of the site, on the Oilwell Bench, at least one previous oil test was converted to a water well in the Navajo SS and the well reportedly yields fresh water.

The problem here, is the reverse of the usual occurrence of shallow fresh water vs deeper, saline water. The Navajo, except for ~~xxx~~ a nearby anomaly, is a source of useful water. The overlying Carmel Fmn is a source of saline water that can ~~xxxxx~~ contaminate (or further contaminate) the Navajo.

Therefore, The surface casing should extend to the top of the Navajo.

Note: The operator may find that he will produce a large amount of water from the Navajo- particularly if he is drilling with air mist- and he may find it ~~xxxx~~ necessary to case off the Navajo. The Navajo here is about 1,000 ft thick.

Lastly, please note that on abandonment or completion, plugs ~~or~~ or seals should be placed across 1) Coconino-Kaibab-~~Mxx~~ Moenkopi contacts, 2) Wingate-Chinle, 3) Wingate-Kayenta, 4) ~~Kxxxx~~ Kayenta- Navajo, and 5) Navajo-Carmel contacts. Of course, if this test goes below the Coconino, the bottom of that unit also should receive a plug.

continue over

Signed by evaluator J. Matheny

Time used

Evaluator: Send copy to coordinator - original direct to originator of request

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

USUAL ENVIRONMENTAL ASSESSMENT

Date February 4, 1980

Operator E. M. Davis dba Tiger Oil Co. Well No. 12-27  
Location 695' FWL 965' FNL Section 27 Township 26S Range 7E  
County Emery State Utah Field/Unit Wildcat  
Status: Surface Ownership Public Minerals Federal  
Lease No. U-11375 Permit No. \_\_\_\_\_

Joint Field Inspection Date: January 16, 1980

Field Inspection Participants, Titles, and Organizations:

<u>George Fentress</u>	<u>Operator's agent</u>
<u>Gene Lawson</u>	<u>Tiger Oil</u>
<u>Laurelle Hughes</u>	<u>Bureau of Land Management</u>
<u>Glenn Doyle</u>	<u>U. S. Geological Survey</u>
_____	_____
_____	_____
_____	_____

Related Environmental Documents:

- 1) Management Framework Plan, San Rafael Resource Area, Bureau of Land Management, Utah.
- 2) Seismic Risk Maps, David M. Perkins.
- 3) Earthquake-Hazard Map of U.S. by S. T. Algermissen and David M. Perkins
- 4) Environmental Geology, Edward A. Keller.

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

*Stip's Pg 9  
M. 2) a-h  
3ac*

ParameterA. Geology

Structure: Structure does not appear to be a critical factor for siting the well. (Operator) Expected formation tops are filed with the NTL-6 10-Point Subsurface Plan. Stratigraphic traps are indicated as hydrocarbon target zones. (FO\*)

1. Other Local Mineral Resources to be Protected: Fresh water in aquifers (see "Groundwater" section). (WRD)
2. Hazards: Several faults lace the general region; however, earthquake activity is low, so the hazard is judged to be minor. (David M. Perkins, S. T. Algermeissen, USGS) Landslides and falling cliff sections pose a minor hazard. (FO) Flashflooding is a definite threat during heavy thunderstorms. (FO)
  - a. Land Stability: Most of the location will be built on flat canyon-bottom soils and baserock. No evidence of land instability was observed. (FO)
  - b. Subsidence: With the withdrawal of fluids (oil, gas, and/or water), subsidence is a possibility. (FO and "Environmental Geology," Edward A. Keller)
  - c. Seismicity: Seismic risk maps for the general region indicate that, statistically, the greatest amount of damage would be moderate, corresponding to intensity VII of the Modified Mercalli Intensity Scale, 1931. (David M. Perkins, USGS)
  - d. High Pressure Zones/Blowout Prevention: The operator reports no zones of expected high pressure. A blowout preventor with blind and pipe rams (hydraulic) mounted on the casing head and rated at 3000# working pressure would be installed and operational during drilling. (Operator)

B. Soils

1. Soil Character: Shaley sands and platy mudstones predominate. No detailed soil surveys have been done in this area. Field observations indicate the soils are nitrogen-poor, alkalic soils that support the salt-desert community.
2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. The extent of these increases cannot be predicted without site-specific studies being conducted. Sedimentation of the main intermittent drainage on the south side of the location would be extensive. Additionally, the proposed rig layout places the reserve pit in this channel. The potential for erosion, sedimentation, and pollution from spills would be high if the reserve pit was located as proposed. (FO)

\*Field Observation

C. Air Quality

The wellsite lies in a Class II attainment area. About 5.5 miles due west, the boundary for Capitol Reef National Park trends north and south. Capitol Reef National Park is a Class I attainment area. The winds blow predominantly from SW to NE, so air quality of the Park should not be affected.

D. Noise Levels

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

E. Water Resources

1. a. Surface Waters: Several small, intermittent drainages would be leveled and filled. By locating the reserve pit in the main canyon channel, significant pollution, erosion and sedimentation potential would exist. By rotating the rig about 50' to the NE, the reserve pit would then be in cut material, out of the channel, and the potential impacts significantly reduced. (FO)

b. Groundwaters: Contamination to groundwaters due to the introduction of drilling fluids is a possibility. The WRD-USGS has evaluated the drilling plan and recommends the following casing program to prevent this from occurring: Surface casing should extend to the top of the Navajo Formation. On abandonment or completion, plugs or seals should be placed across the following contacts: 1) Coconino-Kaibab-Moenkopi, 2) Wingate-Chinle, 3) Wingate-Kayenta, 4) Kayenta-Navajo, 5) Navajo-Carmel.

2. Water Quality:

a. Surface Waters: N/A (FO)

b. Groundwaters: Good quality water may be found in the Navajo Sandstone. Water in either the Wingate and/or Coconino Sandstones may be fresh to moderately saline, and thus useful, at least for stock. (WRD)

F. Flora and Fauna

1. Endangered and Threatened Species Determination

Based on the informal comments received from the Bureau of Land Management, Price, Utah, on January 31, 1979, we determine that there would be no effect on listed endangered and threatened species and/or their critical habitat.

2. Flora: Predominant vegetation in the area includes: Fourwing saltbush, shadscale, winterfat, and Indian ricegrass. (BLM & FO)

3. Fauna: Predominant animals of region include: Rabbits, coyotes, reptiles, varieties of small ground squirrels, and other rodents. Birds include: Sparrows, crows, ravens, and some hawk and vulture species. No known deer winter grounds, migrating bird nesting areas, strutting or breeding grounds, or fish spawning areas would be impacted by the proposed action. Livestock also occur infrequently in the area.

G. Land Uses

1. General: As recently as 1973, oil and gas activities have occurred sporadically. The area in question was considered as a Wilderness Study Area, but was subsequently dropped. Recreation and grazing occur here. (BLM-Price)
2. Affected Floodplains and/or Wetlands: N/A (FO, BLM-Price)

H. Aesthetics

The operation does not blend in with the natural surroundings. The presence of drilling equipment and support facilities would most likely be unappealing to recreationists. This impact would be temporary, however, as the drilling should require about two weeks. (FO)

I. Socioeconomics

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

J. Cultural Resources Determination

Based on the informal comments received from the Bureau of Land Management on January 16, 1980, we determine that there would be no effect on cultural resources subject to no conditions or stipulations. (BLM-Price)

K. Other                      None

L. Adequacy of Restoration Plans

The rehabilitation plan appears to be adequate, however, the operator must recognize that three main factors govern how successful restoration can be:

- 1) The area is subject to a short growing season,
- 2) There is limited precipitation during the growing season, and
- 3) There is generally very little topsoil and it is limited in organic material and low in fertility. (David Oberwager, USGS-AOSO)

M. Alternatives to the Proposed Plan

1. Disapproving the requested action - Under leasing provisions, the Geological Survey has an obligation to permit mineral development provided the environmental consequences are not too severe or totally irreversible. The proposed plan presents environmental impacts which are unacceptable and cannot be mitigated to allow for successful rehabilitation. Choosing this alternative would result in no adverse environmental impacts.
- 2) Approving the project with the following recommended stipulations included in the APD:
  - a) Operator will rotate rig about 50' to the NE to reduce the adverse impacts to the main canyon channel.
  - b) Operator will coordinate closely with the Bureau of Land Management during access road construction.
  - c) If, during wellsite construction, fractured bedrock is encountered, the operator will line the reserve pit with at least 1" of bentonite to reduce the chances of leakage into subsurface groundwater systems.
  - d) If drilling with air, the operator will maintain the blooie line a minimum of 125' from the wellhead and direct it into an approved pit.
  - e) Operator will provide a portable chemical toilet during operations. No sewage pits, burn, or trash pits are allowed. A covered trash bin will be used and then dumped at an approved location.
  - f) Operator will protect subsurface aquifers as per WRD-USGS recommendations.
  - g) Operator will stockpile 3" of topsoil on the west edge of location.
  - h) Operator will flag access road on benchtops on the north side of the drainage.

Environmental impacts would be significantly mitigated if this alternative is selected.

3) Other Alternatives:

- a) Approving the proposed plan as is. This alternative was considered at the onsite inspection. Environmentally speaking, it was determined that the adverse impacts to the surface drainage systems and subsurface aquifers would be significant. Environmental degradation would be the greatest (of the suggested alternatives) if this alternative is selected.

N. Adverse Environmental Effects

## 1) If Approved as Proposed:

- a. The main canyon drainage to the west would be dug to a depth of 6'. Bedrock would be broken. The reserve pit would be in the channel. Potential for erosion, sedimentation, and pollution to surface and subsurface water systems would be significant.
- b. Livestock and wildlife could be adversely affected by drinking reserve pit fluids or by falling into an unfenced pit.
- c. Minor pollution of groundwater systems would occur with the introduction of drilling fluids into the aquifer(s). The potential for inter-aquifer leakage and lost circulation is ever-present, depending on the casing program.
- d. About three acres of vegetation would be removed, increasing and accelerating erosion potential.
- e. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
- f. The potential for fires, leaks, spills of gas and oil or water exists.
- g. During construction and drilling phases of the operation, noise and dust levels would increase.
- h. Distractions from aesthetics during the lifetime of the project would exist.
- i. If the well is a producer, an irretrievable and irreplaceable commitment of resources would be made.
- j. Cumulative impacts of a single well should be minor; however, with the establishment of production, additional impacts to the well pad and additional exploration in the region would generate further direct and cumulative impacts.

O. Conditional Approval

- 1) By rotating the rig about 50' to the NE, no cuts or fills would occur in the main canyon channel. Surface and subsurface water systems would sustain greatly reduced impacts. Also, lining the reserve pit with at least 1" of bentonite would reduce the chances of leakage and pollution, if fractured bedrock is encountered during construction.
- 2) Fencing the reserve pit on three sides prior to drilling and on the fourth side once the rig moves off eliminates the chance that livestock and wildlife could fall into, or drink fluids in the pit.

- 3) All other impacts described in the "If Approved as Proposed" section would still occur.
- 4) By following the casing program recommended by WRD-USGS, groundwaters would be adequately protected.

P. Recommended Approval Conditions

See Alternative 2).

Q. Controversial Issues

The wellsite lies in an area formerly designated by the BLM as being a Wilderness Study Area. It has since been dropped from consideration; however, it appears that an appeal on that decision has been made. The outcome evidently rests with the courts, however, BLM has determined the lease as qualifying under the "grandfathered use" section of their "Interim Management Policy and Guidelines for Lands Under Wilderness Review." This determination clears the way for mineral lease development under existing environmental policies.

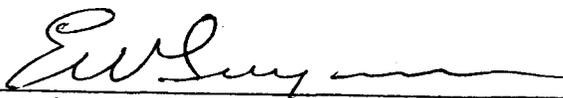
We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

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, Sec. 102(2)(C).

Date

2/12/80

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

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-11375

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

12-27

10. FIELD AND POOL, OR WILDCAT SURVEY OR AREA

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 27-T26S-R7E

12. COUNTY OR PARISH

Emery

13. STATE

Utah

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.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Edward Mike Davis dba Tiger Oil Company

3. ADDRESS OF OPERATOR  
5 Greenway Plaza East, Suite 1500, Houston, TX 77046

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
695 FWL & 965' FNL (NW/4, NW/4)

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5568 GR

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)   
PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)   
REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

(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.)\*

Moved in and rigged up Benco Rathole Drillers. Spudded at 5:00 p.m. on March 28, 1980. Drilled a 24" hole to 12' and hit extremely hard sand. Continued to drill 24" hole to ± 42'. Reamed 24" to 30" down to 32'. All with continuous but slow progress. Moved out Benco and immediately moved in Zimmerman Well Service Company. Drilled a 17" hole to 55' and reamed same to 24" to 50'. Ran 18" casing to 50' and cemented from 50' to surface with approximately 4 yds. ready mix cement. Cement was in place at 5:30 p.m. on April 10, 1980. Will now wait for drilling rig to drill to the original proposed depth.

See letter dated 4-23-80.

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

SIGNED

*E. W. Gynn*

TITLE

Chief Engineer

DATE

3-15-80

(This space for Federal or State office use)

APPROVED BY

*R. A. Henrichs*

TITLE

FOR E. W. GYNN  
DISTRICT ENGINEER

DATE

APR 24 1980

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED

\*See Instructions on Reverse Side

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-11375

6. 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.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR Edward Mike davis dba Tiger Oil Company		8. FAEM OR LEASE NAME Federal	
3. ADDRESS OF OPERATOR Five Greenway Plz. #1500 Houston, Texas 77046		9. WELL NO. 12-27	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  695' FWL & 965' FNL (NW/4, NW/4)		10. FIELD AND POOL, OR WILDCAT Wildcat	
14. PERMIT NO.		15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5568 GR	
		12. COUNTY OR PARISH Emery	13. STATE Utah

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

NOTICE OF INTENTION TO :

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF :

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input 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.)\*

By 1/2/81 the following work will be conducted.

1. Fill conductor casing from TD of 55' to ground level with soil and 10 sack cement cap at surface.
2. Restore location in accordance with BLM requirements.

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

SIGNED *W. W. Samnelly* TITLE Engineer DATE 12/3/80

(This space for Federal or State office use)

APPROVED BY *[Signature]* TITLE E. W. GUYNN DISTRICT ENGINEER DATE DEC 11 1980

open -

\*See Instructions on Reverse Side

July 10, 1981

Tiger Oil Company  
Suite 1500 Five Greenway Plaza East  
Houston, Texas 77046

Re: See Attached Sheet

Gentlemen:

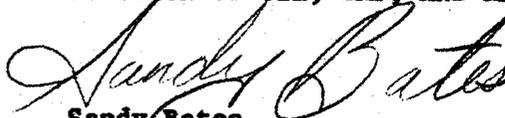
In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING



Sandy Bates  
Clerk-Typist

/lm  
Attachment

1. Well No. Federal 14-21  
Sec. 21, T. 26S, R. 7E  
Emery County, Utah
2. Well No. Federal 14-9  
Sec. 9, T. 26S, R. 7E  
Emery County, Utah
3. Well No. Federal 12-27  
Sec. 27, T. 26S, R. 7E  
Emery County, Utah

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

SUBMIT IN TRIPlicate\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <small>(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.)</small>		5. LEASE DESIGNATION AND SERIAL NO. <b>U-11375</b>
1. <input checked="" type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR <b>Edward Mike Davis dba Tiger Oil Company</b>		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR <b>5 Greenway Plaza East, Suite 1500, Houston, Texas 77046</b>		8. FARM OR LEASE NAME <b>Federal</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <b>695' FWL &amp; 965' FNL (NW/4, NW/4)</b>		9. WELL NO. <b>12-27</b>
14. PERMIT NO.		10. FIELD AND POOL, OR WILDCAT <b>Wildcat</b>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5568 GR</b>		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec 27, T26S, R7E</b>
		12. COUNTY OR PARISH    13. STATE <b>Emery                      Utah</b>

18. 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 checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) _____		<small>(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</small>	

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.)\*

This location was not drilled except for setting a conductor pipe at surface; On 2-1-81 the following work was conducted to abandon the location:

1. Filled conductor casing from TD of 55' to ground level with soil and 10 sack cement cap at surface.
2. Restored location in accordance with BLM requirements.

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

SIGNED *[Signature]* TITLE Engineer DATE 7-29-81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: