

UTAH DIVISION OF OIL, GAS AND MINING

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

DATE FILED 10-22-79

LAND: FEE & PATENTED STATE LEASE NO. PUBLIC LEASE NO. 14267 INDIAN

DRILLING APPROVED: 10-22-79

SPOUDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: Location Abandoned Well Never Drill 4-2-81

FIELD: Unnamed 3/86 Treater Cocco

UNIT:

COUNTY: Grand

WELL NO. Bowers Federal 3-35 API NO: 43-019-30563

LOCATION 1575' FT. FROM ~~XXX~~ (S) LINE. 1711' FT. FROM (E) ~~XXX~~ LINE. NW SE <sup>10</sup> 1/4 - 1/4 SEC. 35

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				19S	23E	35	BOWERS OIL & GAS EXP.

**BOWERS OIL & GAS EXPLORATION INC.**

P.O. Box 636

GRAND JUNCTION, CO. 81501

BUS: 303-245-1342

RES: 303-242-6311

October 4, 1979

United States Geological Survey  
8440 Federal Building  
125 S. State Street  
Salt Lake City, Utah 84138

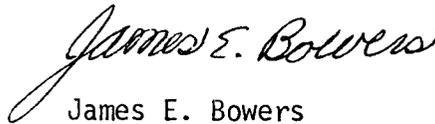
Attention: Mr. E. W. Guynn

RE: Bowers Federal Well #3-35,  
Sec. 35, T19S, R23E, SLB&M,  
Grand County, Utah.

Dear Mr. Guynn:

Enclosed in triplicate is an APD for the captioned well.

Very truly yours,



James E. Bowers  
President

JEB/bz  
Enclosure

CC: Utah Oil and Gas Commission



10

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  
 Bowers Oil and Gas Exploration, Inc.

3. ADDRESS OF OPERATOR  
 P. O. Box 636, Grand Junction, Colorado 81502

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface 1711' FEL; 1575' FSL ~~1575'~~ NW SE  
 At proposed prod. zone same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 9 miles north/northwest of Cisco, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1575'

16. NO. OF ACRES IN LEASE 2240'

17. NO. OF ACRES ASSIGNED TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2674' / 2640'

19. PROPOSED DEPTH 2710' Morrison

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4878' GR

22. APPROX. DATE WORK WILL START\* 1 December, 1979

5. LEASE DESIGNATION AND SERIAL NO.  
14267

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
N/A

7. UNIT AGREEMENT NAME  
N/A

8. FARM OR LEASE NAME  
N/A

9. WELL NO.  
Bowers Federal Well #3-35

10. FIELD AND POOL, OR WILDCAT  
Unnamed field

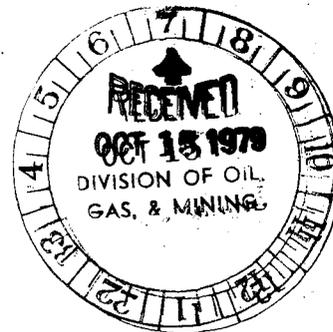
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 35, T19S, R23E, SLB&M

12. COUNTY OR PARISH 13. STATE  
Grand Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	200' KB	60 sx. Class B
6 3/4"	4 1/2"	9.5#	2700' KB	130 sx. RFC

SEE ATTACHED



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.

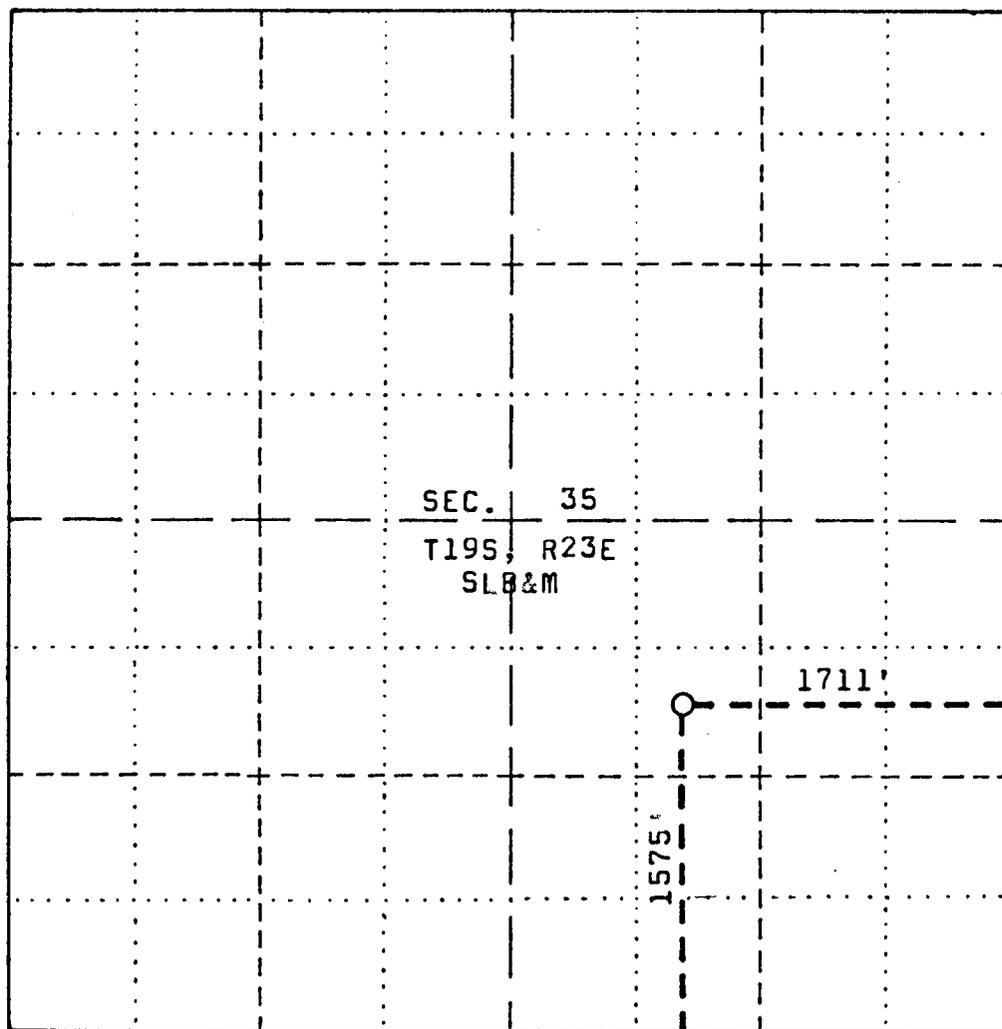
24. SIGNED James E. Bowers TITLE President DATE 10-4-79

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_



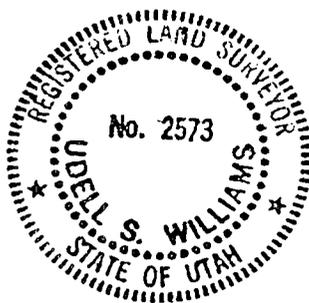
SCALE: 1" = 1000'

BOWERS FEDERAL WELL #3-35

Located North 1575 feet from the South boundary and West 1711 feet from the East boundary of Section 35, T19S, R23E, SLB&M.

Elev. 4878

Grand County, Utah



SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

*Udell S. Williams*  
UTAH R.L.S. NO. 2573



UDELL S. WILLIAMS  
751 Rood Avenue  
GRAND JUNCTION, COLORADO 81501

PLAT OF  
PROPOSED LOCATION  
BOWERS FEDERAL WELL #3-35  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  SECTION 35  
T19S, R23E, SLB&M

SURVEYED BY: USW DATE: 10/2/79

DRAWN BY: USW DATE: 10/2/79

**BOWERS OIL & GAS EXPLORATION INC.**

P.O. Box 636

GRAND JUNCTION, CO. 81501

BUS: 303-245-1342

RES: 303-242-6311

NTL-6

1. Geologic name of surface formation - mancos shale.
2. Estimated tops of important geologic markers -
  - a. Dakota - 2150 ft.
  - b. Morrison - 2350 ft.
  - c. Morrison - (salt wash member) 2650ft.
3. The estimated depths at which anticipated water, oil, gas or other mineral - bearing formations are expected to be encountered -
  - a. Dakota, 2200 ft., gas or water is expected.
  - b. Cedar Mountain, 2300 ft., gas is expected.
  - c. Morrison, 2545 ft., gas is expected.
  - d. Morrison (salt wash member), 2650 ft., gas or water is expected.
4. The proposed casing program, including the size, grade, and weight/ft. of each string and whether new or used.
  - a. The surface pipe will be new and grade H-40.  
Other information regarding this pipe is listed in #23, first page of APD.
  - b. The production pipe if needed, will be new and graded H-40.  
Other information regarding this pipe is also listed in #23, first page of APD.
5. The operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings, and the testing procedures and testing frequency -
  - a. A Schaeffer blowout prevents w/Grants rotating head will be used.  
This BOP is rated to 3,000 psi.
  - b. See attached schematic diagram.
  - c. Unit will be tested to 1000 psi. prior to drilling out from under surface pipe by pressuring-up air-compressors. Daily testing will be performed thereafter.
6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.
  - a. We proposed to drill with air as far as possible. If water is encountered we will continue with air/mist. If excessive gas is encountered we will mud-up with high yield gel and drispack system circulated with 4% KCL. At TD we will mud-up with the

6. a. continue

same system even if excessive gas is not encountered. The mud weight will be between 8.5 lbs/ft. and 9.0 lbs./ft. If a heavier mud is needed we will add CaCl as needed.

7. Auxiliary equipment to be used.

- a. Kelly cocks.
- b. Floats at the bit.
- c. Visual monitoring of the mud system (when used).
- d. A sub on the rig floor with full opening valve to be stabbed into drill pipe when kelly is out of string.

8. The testing, logging, and coring programs to be followed with provision made for required flexibility :

- a. No drill stem tests or coring programs are anticipated.
- b. Visual examination of cuttings will be made.
- c. Logging will consist of dual induction-laterlog, and compensated neutron/formation density.

9. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfidgas, along with plans for mitigating such hazards -

None Expected.

10. The anticipated starting date and duration of the operation-

We plan to start December 1, 1979. Operation should take seven (7) days.

**BOWERS OIL & GAS EXPLORATION INC.**

P.O. Box 636  
GRAND JUNCTION, CO. 81501  
BUS: 303-245-1342  
RES: 303-242-6311

SURFACE USE PLAN (NTL-6)

1. Existing Roads - (See attached map).

a. Proposed well site is marked. 200 ft., north, south directioned reference stakes have been laid.

b. Route and distance from nearest town or locatable reference point to where well access route leaves main road -

From Grand Junction, CO. you take I-70 west until you come to the east Cisco exit (a distance of approx. 50 miles). You turn right off of the exit and proceed in a northerly direction for approx. 4 miles. This distance will have brought you to our access road where you turn right and travel about 800 ft. to the proposed location.

c. Access road to location color-coded or labeled -

Access road is labled (see attached map).

d. If exploratory well, all existing road within 3-mile radius

N/A.

e. If development well, all existing roads within a 1-mile radius of well site (including type of surface, conditions, ect.)

There are three such roads. The first is a light duty, hard surfaced road. It is the road described in l.b. above. It is located approximately 800 feet from the proposed location (see attached maps). The second is an unimproved dirt road located approximately one mile NE of the proposed location. This road begins in sec. 33 where it exists the 1st road. This second road runs in a SW/NE direction (see map). The third road is a jeep trail located approximately 1/2 mile from the location. It begins in sec. 36 where it intersects with the first road. It swings around to the north/northwest and intersects with the second road in section 26 (see map.)

f. Plans for improvement and/or maintenance of existing roads -

There are no plans for improvements and/or maintenance of existing roads.

2. Planned Access Roads

Enclosed is a map showing the one access road which needs to be constructed. No access road needs to be reconstructed.

(1) Width - The road will be 15-18 feet wide.

2. Planned Access Roads (continue)

- (2) Maximum grade - The maximum grade will be 3%.
- (3) Turnouts - No turnouts will be needed.
- (4) Drainage design - None needed.
- (5) Location and size of culverts and brief description of any major cuts and fills - No culverts are needed. No major cuts or fills are needed, (see attached diagram).
- (6) Surfacing material - No foreign material will be put on the access road. The native soil will provide an adequate surface.
- (7) Necessary gates, cattleguards, or fence cuts - No gates nor cattleguards will need to be built. No fences will need to be cut.
- (8) The access road is center-line flagged.

3. Location of Existing Wells

The following is a list of various types of wells located within a one-mile radius of the location: (also, see attached map)

- (1) Water wells - There are no water wells within a one-mile radius.
- (2) Abandoned wells -
  - a. SE $\frac{1}{4}$  sec. 27, T19S, R23E.
  - b. SW $\frac{1}{4}$  sec. 26, T19S, R23E.
  - c. SE $\frac{1}{4}$  sec. 35, T19S, R23E.
- (3) Temporarily abandoned wells- There are no temporarily abandoned wells within a one mile radius.
- (4) Disposal wells - There are no disposal wells within a one mile radius.
- (5) Drilling wells - There are no drilling wells within a one mile radius.
- (6) Producing wells - There are no producing wells within a one mile radius.
- (7) Shut-in wells -
  - a. Gas well in SW $\frac{1}{4}$  sec. 36, T19S, R23E.
  - b. Gas well in SE $\frac{1}{4}$  sec. 36, T19S, R23E.
- (8) Injection wells - There are no injection wells within a one mile radius.
- (9) Monitoring or observation wells for other resources- There are no monitoring or observation wells for other resources within a one mile radius.

4. Location of Existing and/or Proposed Facilities -

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

4. Location of existing and/or proposed facilities (continue)

1. Tank batteries - None owned or controlled by operator/lessee.
2. Production facilities - Wellhead equipment for shut in gas wells located in SW $\frac{1}{4}$  and SE $\frac{1}{4}$  sec. 36, T19S, R23E are owned and controlled by operator, lessee, etal.
3. Oil gathering lines - None owned or controlled by operator/lessee.
4. Gas gathering lines - None owned or controlled by operator/lessee.
5. Injection lines - None owned or controlled by operator/lessee.
6. Disposal lines - None owned or controlled by operator/lessee.

(Indicated if any of the above line are buried) - N/A

B. If new facilities are contemplated, in the event of production, show:

- (1) Proposed location and attendant lines by flagging if off of well pad  
Flagged stakes from the well location to N.W. Pipeline Co.'s feeder line has been set. This route would be the proposed gas pipeline route if commercial natural gas is found.
- (2) Dimensions of facilities - A gas-meter housing facility would be no more than 50' x 50'. It's purpose would be for measuring the volumn of gas produced. A 4 $\frac{1}{2}$ " pipeline (buried) would run from this meter station to N.W. Pipeline's gathering system on the route described in B.1. above. Approx. five feet on either side of the pipeline route would be needed for installation.
- (3) Construction methods and materials - The meter house would be a metal, pre-fabricated structure painted desert gold. Inside would be valves, fittings, meter runs, chart, etc. needed to measure the volumn of gas. The pipeline would be 4 $\frac{1}{2}$ " O.D. pipe.
- (4) Protective measures and devices to protect livestock and wildlife  
It is believed neither the wellhead, nor the meter house nor the pipeline would present a danger to wildlife. If water is produced a 4 ft. fence w/steel posts will be built around the reserve pit. (We do not anticipate encountering oil. If commercial oil is found, however, we will present a proposed oil production facility by use of a sundry notice.)

C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction completed - We plan to contour all of the topsoil back over the disturbed areas that is no longer needed after operations are ended. We will then reseed in a quantity, method and with the type of seed the BLM recommends.

D. Location and type of Water Supply

- A. Show location and type of water supply either on map or by written description - We will obtain fresh water from the Colorado River north of Cisco, Utah, from a drinking water tap in Fruita, CO. or from Cottonwood Creek. Fruita, Colorado is located west of

5. Location and type of water supply (continue)

- A. Grand Junction, as described above and also exits off I-70. Cisco, Utah can be reached by turning left off the east Cisco exit (as you travel west on I-70). Go approximately 3½ miles south on highway 50. The turnoff to the River is approximately ½ mile from Cisco. You turn off of highway 50 on an unimproved dirt road and travel approx. 3 miles. Cottonwood Creek can be reached by traveling approximately two miles west of the proposed location on the light duty, hard surfaced road described in 1.e. Turn right off this road onto the unimproved dirt road which is also described in 1.e. This road will take you to Cottonwood Creek (approximately 2 miles).
- B. State method of transporting water, and show any roads or pipelines needed - We will transport water by water truck. The roads needed are described in 5.A. No new roads will be constructed. No pipelines will be needed.
- C. If water well is to drilled, so state - No water well will be drilled.

6. Source of Construction Materials -

- A. Show information either on map or by written description - No entranceous material will be brought in. The native soil will be used as the pad base.
- B. Identify if from Federal or Indian land - N/A
- C. Describe where materials, such as sand, gravel, stone and soil material, are to be obtained and used - As explained in 6.A. the native soil will be used as the pad base. We will not use other material such as sand, gravel or stone.
- D. Show any needed access roads crossing Federal or Indian lands under Item 2 - The only access road will be the one described in (2). It will cross Federal land. (See attached map).

7. Methods for Handling waste disposal

(Describe methods and location of proposed containment and disposal of waste material, including):

- (1) Cuttings - We will blow the cuttings into a reserve pit (the pit is shown on the attached diagram).
- (2) Drilling fluids - The drilling fluids will be contained in two large steel tanks. The fluids will be disposed into the reserve pit when drilling operations are over.
- (3) Produced fluids - (oil, water) - Produced water will be run into the reserve pit. Oil will also be disposed into the reserve pit unless a large enough amount is produced. If a large amount is produced we will contain it in steel tanks.
- (4) Sewage - Will be disposed of by use of toilet facilities in a mobile home or by use of facilities in Cisco, Utah.

7. Methods for Handling Waste Disposal(Continue)

- (5) Garbage or other waste material - Will be contained in plastic bags and taken from site when operations end or burned/buried in a trash/burn pit which will be fenced with small mesh wire.
- (6) Statement regarding proper cleanup of well site area when rig moves out  
We will completely clean-up site within two (2) days after rig moves out.

8. Ancillary Facilities - No camps or airstrips will be needed.

9. Well site layout - (see attached plot). Pits will be unlined.

10. Plans for Restoration of surface -

- (1) Backfilling, leveling, contouring, and waste disposal; segregation of spoils materials as needed - All pits will be backfilled. We will contour the topsoil, no longer needed, over the portion of the pad which is no longer needed. The fluids contained in the reserve pit will be buried as will the trash in the trash/burn pit. Appreciable amounts of waste or produced fluids will be hauled from the site rather than buried.
- (2) Revegetation and rehabilitation - We will reseed all disturbed areas, including the access road, in a manner and with the type and quantity of seed that BLM directs.
- (3) Prior to rig release, pits will be fenced and so maintained until clean up.
- (4) If there is oil on pit we will remove oil or install overhead flagging.
- (5) We will commence rehab. operations within one week after operations end and complete rehab. within one week after starting rehab. (except for reseeded which will be done when BLM so directs).

11. Other Information

- (1) Topography, soil characteristics, geologic features, flora and fauna - The location is on a relatively flat piece of ground.  
(see attached map). The soil in this area varies from that containing appreciable amounts of clays to a sand/gravel mixture. The plant life consists mainly of sagebrush with small amounts of native grass. The animal life consists of prairie dogs and jack rabbits.
- (2) Other surface - use activities and surface ownership of all involved lands - The surface land is used for winter grazing of sheep and cattle. The surface land is federally owned.
- (3) Proximity of water, occupied dwellings, archeological, historical or cultural sites - There are two water sources in the area. One is located at Cisco Springs. Cisco Springs is approx. 3 miles SE of the proposed location. The Cottonwood Creek, described in para. 5.A. is the other. There are no archeological, historical or cultural sites in the area. The only occupied dwellings are in Cisco, Utah located approximately 9 miles south of the location.

12. Lessee's or operator's representative - The operator's representative is James E. Bowers, P. O. Box 636, Grand Junction, Colorado, 81502, telephone number: 303-245-1342.
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 Bowers Oil and Gas Exploration, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10/4/79  
Date

James E. Bowers  
James E. Bowers, President, Bowers Oil and Gas Exploration, Inc.

BOWERS OIL & GAS EXPLORATION INC.

P.O. Box 636

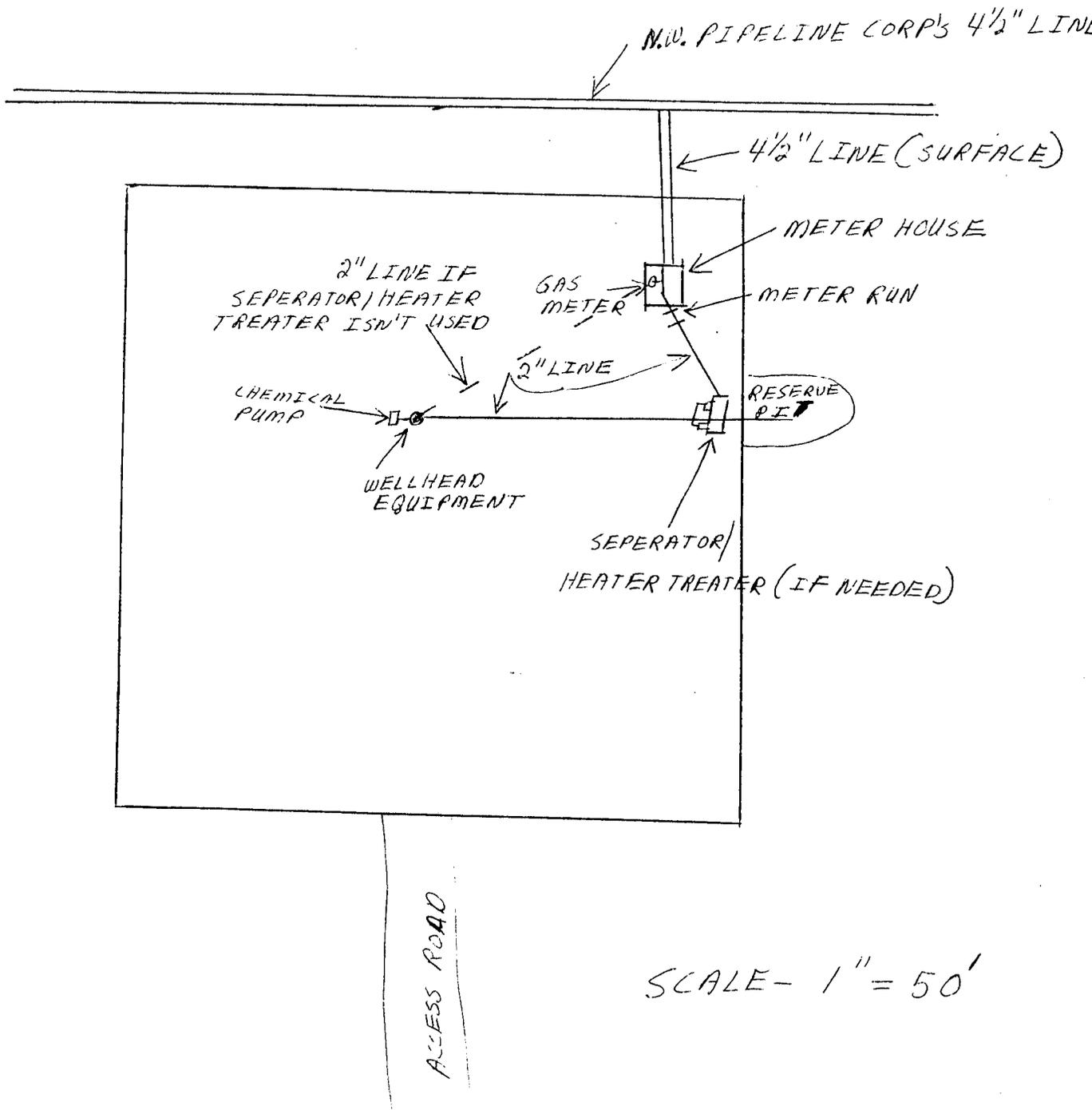
GRAND JUNCTION, CO. 81501

BUS: 303-245-1342

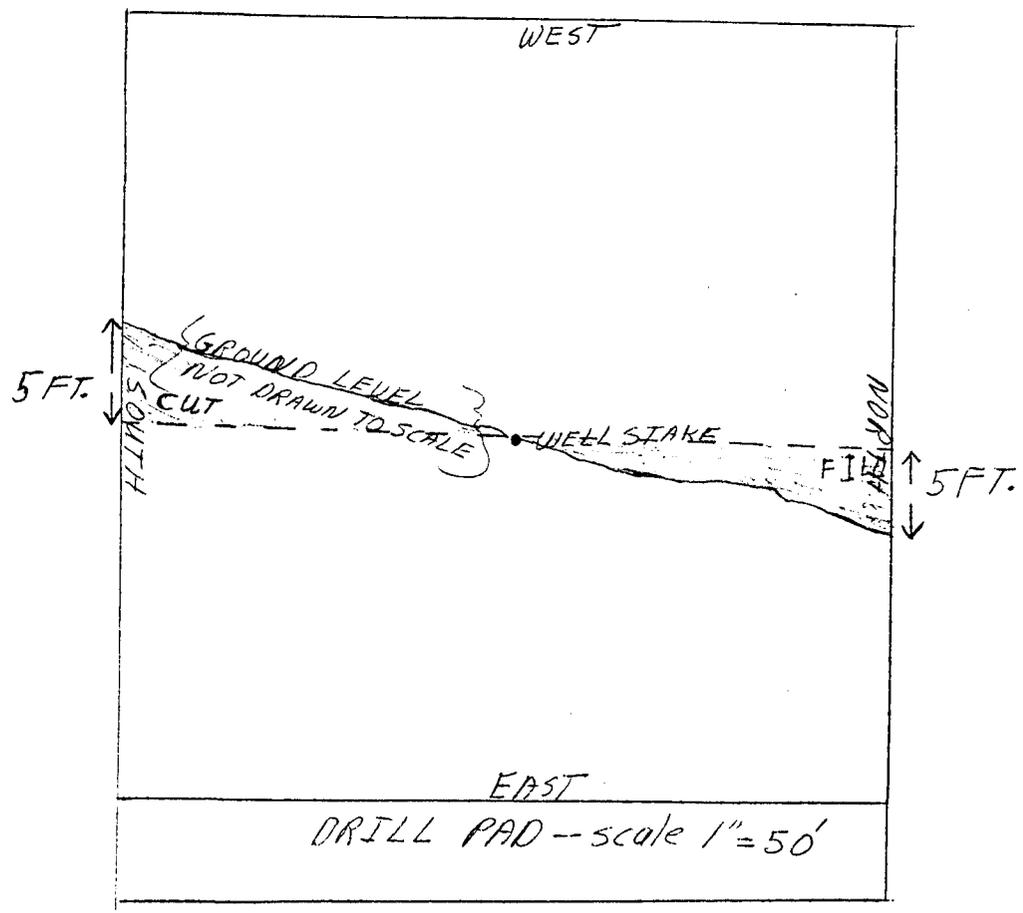
RES: 303-242-6311

PROPOSED PRODUCTION FACILITIES FOR BOWERS FED. WELL #3-35

N



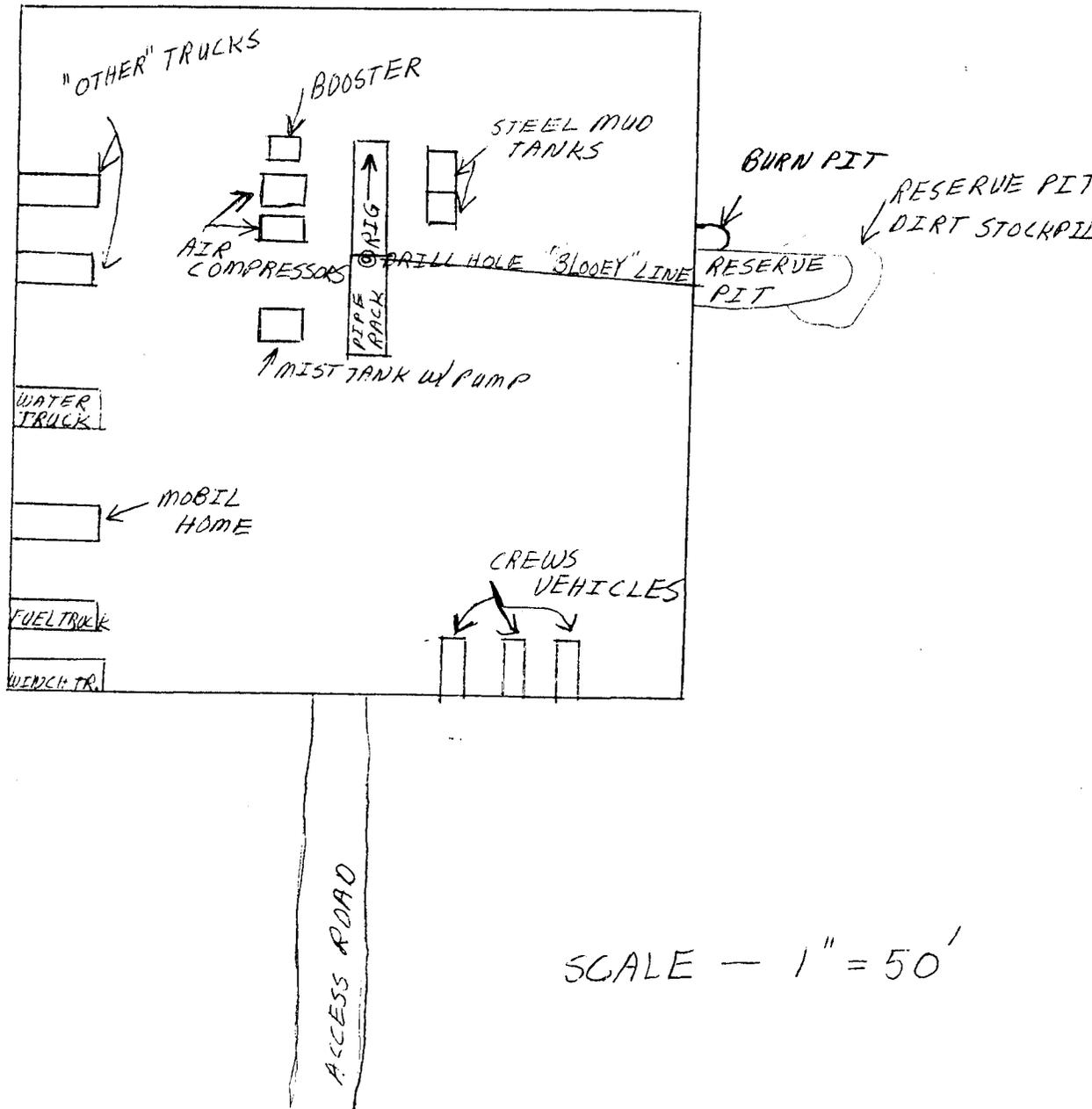
CUT/FILL DIAGRAM FOR WELL #3-35

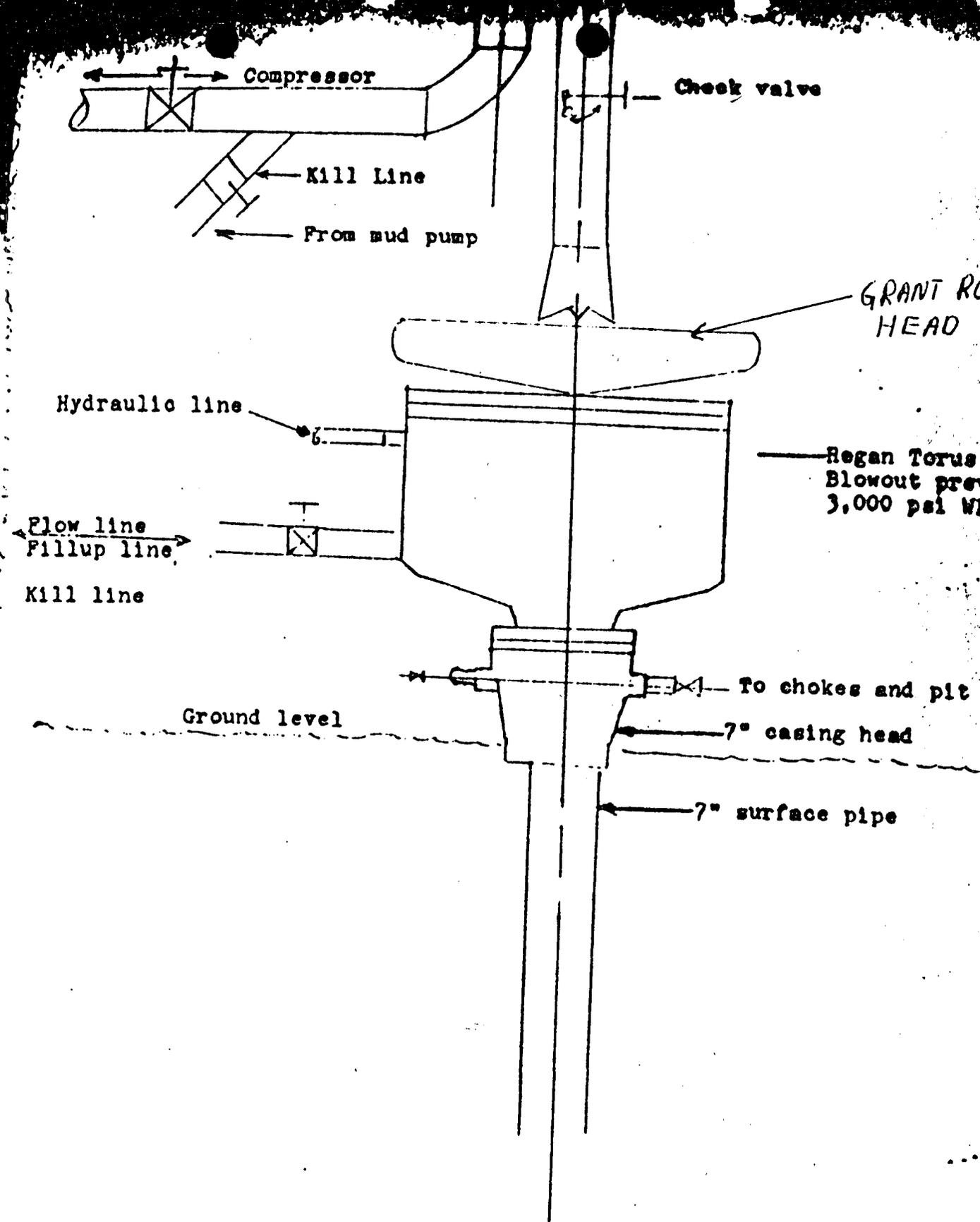


EAST/WEST CROSS SECTION

# DRILL PAD LAYOUT FOR BOWERS FEDERAL WELL #3-35

N







DIAMOND RIDGE (Je)  
Kd

UNNAMED (Jm)  
Kd

PEAR PARK (Jm)  
Kd

K CLIFFS UNIT (Jm)  
Kd

BOOK CLIFFS UNIT  
GULF OIL

DANISH WASH (Jm)  
Kd

SEIBER NOSE (Jm)  
Kd, Jm

CISCO SPRINGS (Je)  
Kd, Jm

CISCO WASH (Jm)  
Jm

CISCO (P1)  
Kd, Jm

EAGLE MONUMENT (Jm)  
Jm

DOMES (PC)  
Kcm, Jm

GRAVEL PILE  
#1-36

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\*\* FILE NOTATIONS \*\*

DATE: October 16, 1979

Operator: Bowers Oil & Gas Exploration, Inc

Well No: Bowers Federal # 3-35

Location: Sec. 35 T. 195 R. 23E County: Grand

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-019-30563

CHECKED BY:

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

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

Director: J OK

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. 102-16 8/22/79

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

*blm*

Approval Letter Written

#3

HL PI

*pending plat showing acreage ownership 10/17*

*OK m gas well spacing*

**BOWERS OIL & GAS EXPLORATION INC.**

P.O. Box 636

GRAND JUNCTION, CO. 81501

BUS: 303-245-1342

RES: 303-242-6311

October 16, 1979

Utah Oil and Gas Commission  
1588 W. N. Temple  
Salt Lake City, Utah 84116

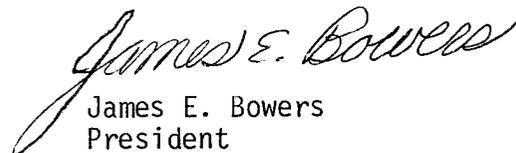
Attention: Mr. Mike Minder

RE: Bowers Federal Wells #1-34, #2-35, #3-35,  
Secs. 34,35, T19S, R23E, Grand County

Dear Mike:

Last week we sent in APD's on the captioned wells. I forgot to send a plat showing the lease outline for the wells (all of them are on lease #14267) as required by the recent spacing memorandum. Enclosed are copies of such a plat (shaded portion indicates the acreage comprising this lease).

Very truly yours,

  
James E. Bowers  
President

JEB/bz  
Enclosure



October 22, 1979

Bowers Oil and Gas Exploration, Inc.  
P.O. Box 636  
Grand Junction, Colorado 81502

Re: Well No. Bowers Federal #3-35  
Sec. 35, T. 19S, R. 23E.,  
Grand County, Utah

Re: Well No. Bowers Federal #2-35  
Sec. 35, T. 19S, R. 23E.,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas wells is hereby granted in accordance with the Order issued in Cause No. 102-16 dated August 22, 1979

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 these wells are #2-35 - 43-019-30562;  
#3-35 - 43-019-30563.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/bzm

cc: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**DUPLICATE COPY**

**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  
 Bowers Oil and Gas Exploration, Inc.

3. ADDRESS OF OPERATOR  
 P. O. Box 636, Grand Junction, Colorado 81502

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface 1711' FEL; 1575' FSL  
 At proposed prod. zone same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 9 miles north/northwest of Cisco, Utah

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1575'

16. NO. OF ACRES IN LEASE 2240'

17. NO. OF ACRES ASSIGNED TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2654'  
2640'

19. PROPOSED DEPTH 2710'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4878' GR

22. APPROX. DATE WORK WILL START\* 1 December, 1979

5. LEASE DESIGNATION AND SERIAL NO. 14267

6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A

7. UNIT AGREEMENT NAME N/A

8. FARM OR LEASE NAME N/A

9. WELL NO. Bowers Federal Well #3-3!

10. FIELD AND POOL, OR WILDCAT Unnamed field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 35, T19S, R23E, SLB8

12. COUNTY OR PARISH Grand

13. STATE Utah

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	200' KB	60 sx. Class B
6 3/4"	4 1/2"	9.5#	2700' KB	130 sx. RFC

SEE ATTACHED

**RECEIVED**

FEB 08 1980

CONDITIONS OF APPROVAL ATTACHED  
TO OPERATOR'S COPY

DIVISION OF  
OIL, GAS & MINING

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 James E. Bowers TITLE President DATE 10-4-79

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY W.P. Martin ACTING DISTRICT ENGINEER DATE FEB 06 1980  
 CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_ TITLE \_\_\_\_\_

State of Utah, Department of Natural Resources  
 Division of Oil, Gas, and Mining  
 1500 West North Temple  
 Salt Lake City, Utah 84116

\*See Instructions On Reverse Side

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

NOTICE OF APPROVAL

Utah State Oil & Gas

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

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

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U 14267OPERATOR: Bowyer Oil & Gas ExplorationWELL NO. #3-35LOCATION: SE 1/4 NW 1/4 SE 1/4 sec. 35, T. 19S, R. 23E, S. 1/4Grant County, Utah

## 1. Stratigraphy:

Mancos shale	- surface
Dakota ss	- 2150
Cedar mm	2250
Morrison	2350
Salt Wash	2650
TD	2710

## 2. Fresh Water:

probably none

## 3. Leasable Minerals:

possible gas in Dakota, Cedar mm + Morrison

## 4. Additional Logs Needed:

none

## 5. Potential Geologic Hazards:

none expected

## 6. References and Remarks:

Signature: [Signature]Date: 11 - 27 - 79

United States Department of the Interior  
Geological Survey  
8440 Federal Building  
Salt Lake City, Utah 84138

Usual Environmental Analysis

Lease No: U-14267  
Operator Bowers Oil & Gas Exploration, Inc. Well No. 3-35  
Location 1711' FEL 1575' FSL Sec. 35 T. 19S R. 23E  
County Grand State Utah Field Wildcat  
Status: Surface Ownership Public Minerals Federal  
Joint Field Inspection Date November 14, 1979

Participants and Organizations:

<u>Bob Kershaw</u>	<u>Bureau of Land Management</u>
<u>Jim Bowers</u>	<u>Operator</u>
<u>Glenn Doyle</u>	<u>U. S. Geological Survey</u>
<u> </u>	<u> </u>

Related Environmental Analyses and References:

- (1) Book Mountain Planning Unit Resource Analysis, Bureau of Land Management, Utah
- (2)

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

Date November 27, 1979

*Pad 200' x 200'  
Pit 25' x 50'  
80' x 25' new access  
Flowline incl -  
Erosion control -  
2 ac  
Noted - G. Diwachak  
11/11/79  
Gas line in area*

Proposed Action:

On October 16, 1979, Bowers Oil & Gas Exploration, Inc., filed an Application for Permit to Drill the No. 3-35 development well, a 2710' gas test of the Morrison Formation (Salt Wash Member); located at an elevation of 4878' in the NW/4, SE/4 of Section 35, T19S, R25E on Federal mineral lands and Public surface; lease No. 14267. There was no objection raised to the wellsite. Approved

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, Utah.

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 200' wide x 200' long and a reserve pit 25' x 50'. A new access road would be constructed 16' wide x 800' long from an existing, improved road. The operator proposes to construct production facilities on disturbed area of the proposed drill pad.

To expedite production, if established, plans for a gas flowline and production facilities were submitted with the APD and approved by the BLM at the onsite. The anticipated starting date is December 1, 1979, and duration of drilling activities would be about seven days.

The north end of the wellsite is approximately 25' from a high pressure (300 psi), 4½" gas pipeline owned by Northwest Pipeline. Activity by trucks and /or earthmoving equipment near this line could be hazardous.

Location and Natural Setting:

The proposed drillsite is approximately nine miles NNW of Cisco, Utah, the nearest town. A good road runs to within 800' of the location. This well is a wildcat well.

Topography:

The proposed location lies in generally flat terrain interspersed with isolated, small, rolling hills.

Geology:

The surface geology is Mancos shale. The soil is a sandy-clay. 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.

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 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.

Eight inches of topsoil would be removed from the surface and windrowed on the south side of the wellsite. 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 two acres 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. However, if H<sub>2</sub>S or any other toxic substances are encountered, the USGS should be notified immediately.

Precipitation:

Annual rainfall should range from about 8 to 11" 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 8".

Winds are medium and gusty, occurring predominantly from SW to NE. 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:

The wellsite is proximal to several small, dry washes and is bordered on the east by a main wash. 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:

Plants in the area are of the salt-desert shrub types grading to the pinyon-juniper association.

Proposed action would remove about two acres 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. Rehabilitation would be in accordance with BLM recommendations.

#### Wildlife:

Animal and plant inventory has been made by the BLM. No endangered plants or animals are known to inhabit the project area. The fauna of the area consists predominantly of 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.

#### 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. 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.

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 covered 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.

Proposed Supplemental Conditions of Approval:

- 1) Eight inches of topsoil will be stockpiled on both sides of the access road on the north end of the pad.
- 2) The reserve pit will be fenced on three sides during drilling activities and on four sides once the rig moves off.
- 3) The blooie line will be directed at least 125' from the wellhead into the reserve pit.
- 4) Operator will maintain a 25' "buffer zone" between the high pressure gasline and the north end of the drill pad. Operator will maintain this zone as undisturbed surface.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately two acres 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 freshwater 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 would exist through leaks and spills.

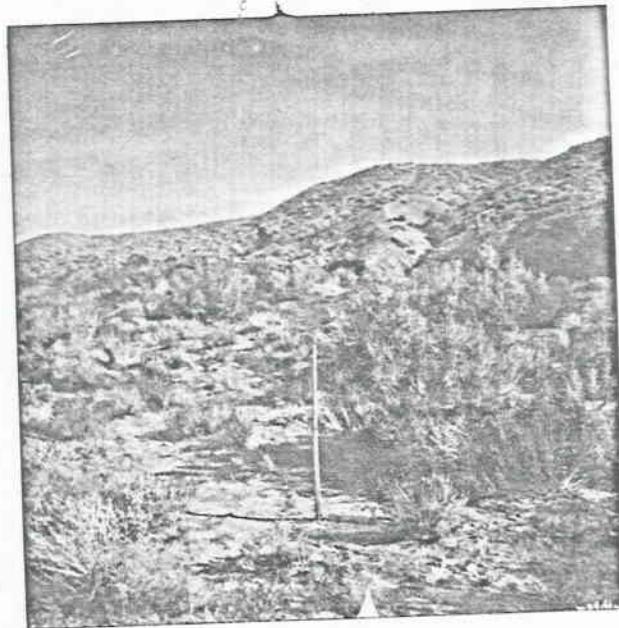
If well is a producer, other development wells would be anticipated with substantially greater environmental and economic impacts.

Determination:

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

12/20/79  
Date

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



*Bowers #3-35*

SCOTT M. MATHESON  
Governor



L.A

OIL, GAS, AND MINING BOARD

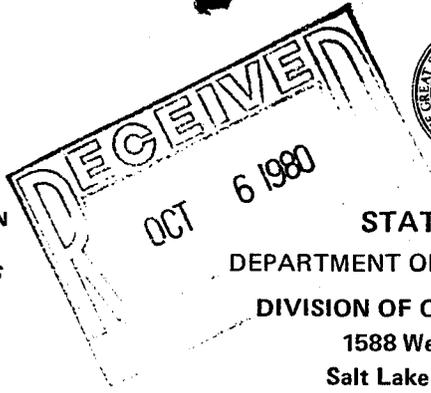
GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

CLEON B. FEIGHT  
Director

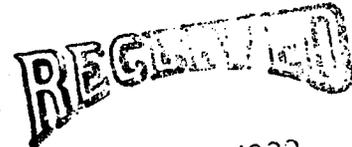
STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

CHARLES R. HENDERSON  
Chairman

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE



October 3, 1980



Bowers Oil and Gas Exploration, Inc.  
P.O. Box 636  
Grand Junction, Colorado 81502

DIVISION OF  
OIL, GAS & MINING

RE: Well No. Bowers Federal #2-35, Sec. 35, T. 19S, R. 23E, Grand County.,  
RE: Well No. Bowers Federal #3-35, Sec. 35, T. 19S, R. 23E, Grand County.,  
RE: Well No. Bowers State #5-36, Sec. 36, T. 19S, R. 23E, Grand County.,

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. If you plan on drilling these locations at a later date, please notify as such. ✓

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

*Barbara Hill*

BARBARA HILL  
CLERK TYPIST

/bjh

*We have plans to drill these locations in the future. We do not know the date it will be done.*

*L.A. 4/2/81*

*Jim Bowers*

Conservation Division  
405 Adams Building  
17th Street South  
Salt Lake City, Utah 84104

April 2, 1978

Re: Oil Field Exploration, Inc.  
P.O. Box 125  
Littleton, Colorado 80120

Re: Return Application for  
Permit to Drill  
Well No. 3-78  
Section 36, T. 38S., R. 20E.,  
Wasatch County, Utah  
Lands No. 0-1-107  
April 2, 1978

Re: Application for Permit to Drill the referenced well as approved. Since there are no known activities have developed at the proposed location, the relevant District office applications for permit to drill are not active for a period of one year. In order to proceed with this application, a copy of the approval or denial of the application for permit to drill is required. If you intend to drill at this location in a future year, a new application for permit to drill must be submitted.

This office requires a letter certifying that no surface disturbance has occurred for this well site. Any surface disturbance must be approved because of the well is to be rehabilitated. A schedule for this rehabilitation must be submitted. Your cooperation in this matter is appreciated.

Sincerely,

(/s/ Edw.) C. A. Mantzke

State Office (107)  
State Office (107)  
1035  
Mail File  
1040 Central

POOR COPY