

OIL AND GAS CONSERVATION COMMISSION

DEPARTMENT OF NATURAL RESOURCES

OF THE STATE OF COLORADO

File in triplicate for Patented and Fee
File in quadruplicate for State lands.



00362487

RECEIVED

FEB 17 1976

7

5. LEASE DESIGNATION AND SERIAL NO.
COLO. OIL & GAS CONS. COMM.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Friend

9. WELL NO.

#2-A-X

10. FIELD AND POOL, OR WILDCAT

W. C.

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

SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 19-T3S-R50W

12. COUNTY

Washington

13. STATE

Colorado

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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

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

2. NAME OF OPERATOR
R. E. Hibbert Oil Properties 39850

3. ADDRESS OF OPERATOR
c/o 1507 Denver Club Bldg., Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 2010' FEL and 1990' FNL of Sec. 19
At top prod. interval reported below Same
At total depth Same

14. PERMIT NO. 75-467 DATE ISSUED 6/16/76

15. DATE SPUDDED 6/10/75 16. DATE T.D. REACHED 6/16/75 17. DATE COMPLETED (Ready to prod. or Plug & Abd.) 6/16/75 18. ELEVATIONS (DF, RKB, RT, GR, ETC.) 4561' GL-4571 KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 4081' Logger 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY None 23. INTERVALS DRILLED BY rotary 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) None 25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN IES and FDC - Schlumberger 27. WAS WELL CORED YES NO (Submit analysis) DRILL STEM TEST YES NO (See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	261' KB	12-1/4"	200 sacks	none

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33. PRODUCTION DATE FIRST PRODUCTION None PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) WELL STATUS (Producing or shut-in)

DATE OF TEST HOURS TESTED CHOKE SIZE PROD'N. FOR TEST PERIOD OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO

FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITY-API (CORR.)

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

35. LIST OF ATTACHMENTS
Geologic Report - Sundry notice mailed 9/10/75

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED Jim Snyder TITLE Contractor DATE 2/16/76

DVR	<input checked="" type="checkbox"/>
FIP	<input checked="" type="checkbox"/>
HHM	<input checked="" type="checkbox"/>
JAM	<input checked="" type="checkbox"/>
JIB	<input checked="" type="checkbox"/>
GCH	<input checked="" type="checkbox"/>
CGM	<input checked="" type="checkbox"/>

37. SUMMARY OF POROUS ZONES:
 SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			<p>Geologic Report attached</p>

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
<p>Geologic Report attached</p>		

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FINAL WELL REPORT

R. E. HIBBERT & E. B. O'HARA

#2-A-X FRIEND

SW NE SECTION 19 - T3S - R50W

WASHINGTON COUNTY, COLORADO

DVR	
FJP	
HHM	✓
JAM	✓
JID	✓
GCH	✓
CGM	

J. W. Nylund
Petroleum Geologist

75-467

GENERAL INFORMATION

Operator: R. E. Hibbert

Farm: Friend - A

Well Number: 2 - X

Location: 2010' FEL; 1990' FNL, SW NE Section 19 - T3S - R50W

County: Washington

State: Colorado

Elevation: 4561' GL; 4571 KB

Surface Casing: Drilled 270' of 12 $\frac{1}{4}$ " surface hole; ran 250' of
24" 8 5/8" welded casing, set at 261' KB with
200 sacks cement, 2% CaCl₂, plug down at 7:15 PM.

Cores: None

Drill Stem Tests: One D Sand test

Logs: Ran Schlumberger Induction - Electrical log from
4080' to 258'; ran Gamma Ray-Density log from
4080' to 3800'.

Status: Plugged and abandoned.

Wellsite Geologist: J. W. Nylund

Drilling Contractor: Jim Snyder Drilling Co., rig #2, Ralph Rhodes,
toolpusher

CHRONOLOGICAL HISTORY

- June 9, 1975 - Skidded rig from #2-A Friend, rigged up.
- June 10 - Spudded at 10:00 A.M., set surface casing, shut down to let location dry out.
- June 11 - Shut down - mud.
- June 12 - Started drilling out surface plug at 3:00 AM; at 9:30 AM drilling at 500'; bit #1.
- June 13 - Drilling at 2843'; bit #1.
- June 14 - Drilling at 3755'; bit #2; drilled to TD of 4079'.
- June 15 - Ran IES and Gamma Ray-Density logs; ran DST #1; plugged with 15 sacks cement in bottom of surface casing and 10 sacks in top, as per telephone instructions from D. V. Rogers, Colorado Oil and Gas Conservation Commission.

FORMATION TOPS

<u>Formation</u>	<u>Log Tops</u>
Niobrara	2983'
Ft. Hayes	3457'
Carlile	3516'
Greenhorn	3644'
Bentonite marker	3841'
D Sand	3927'
J Sand	3980'
Total Depth	4079" driller; 4081' Schlumberger

DRILL STEM TESTS

DST #1, 3930' to 3950', open 2 hours, shut in 45 minutes. Tool opened with weak blow ($\frac{1}{4}$ " below water); increased slightly over 20 minute period to 1" below water; remained steady throughout test.

Recovery

235 water cut mud

Pressures

Initial Hydrostatic	2155#
Final hydrostatic	2069#
Initial flow	105#
Final flow	178#
Final shut in	730#
Pressure below bottom packer bled to 905#	

Bottom hole temperature 132#

Test successful

Note: In my opinion a portion of the mud recovered on this test may possibly have come from the #2-A Friend where circulation was lost in the D Sand.

BIT RECORD

<u>Run No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Depth Out</u>	<u>Footage</u>	<u>Hours</u>
1	7 7/8"	Reed	Y12J	3518'	3241'	32 1/2
2	7 7/8"	Smith	DT J	4079'	561'	30 3/4

DEVIATION SURVEYS

<u>Depth</u>	<u>Degrees from Vertical</u>
3518'	2°
4079'	3/4°

S A M P L E D E S C R I P T I O N

- 3890 - 3930 Shale, black, silty, soft, very bentonitic, fissile.
Top of D Sand
- 3930 - 40 Sandstone, brown, very fine grained, low to good porosity and permeability, approximately 75% of sand has good porosity and permeability, argillaceous in part, very friable, medium soft, fair to good sorting, sub-angular grains, pyritic, good solid oil stain, bright yellow fluorescence, globules of oil form on a fresh break.
- 3940 - 45 Sandstone, white, very fine grained, tight, shaly, silty, argillaceous, poor sorting, sub-rounded grains, medium hard, NS; also, few pieces of sandstone as described at 3920-30 (probably cavings).
- 3945 - 50 Sandstone, tan to brown, very fine grained (finer than above sandstone), low to fair porosity, questionable permeability, argillaceous in part, well sorted, friable, sub-rounded grains, medium soft, spotted to even oil stain, bright yellow fluorescence.
- 3950 - 60 Sandstone, as above, becoming oil saturated in part; sheets oil on a fresh break.
- 3960 - 65 Sandstone, white, fine grained, tight to fair porosity and permeability, argillaceous, soft, friable, sub-rounded grains, glauconitic, no show.
- 3965 - 70 Shale, gray, soft, interbedded with siltstone, brown.
- 3970 - 75 No sample caught.
- 3975 - 80 Sandstone, gray, fine grained, tight, very argillaceous, very silty, shaly, poor sorting, hard, rounded to sub-rounded grains, no show.
- 3980 - 85 No sample caught.
Top of J Sand
- 3985 - 90 Sandstone, brown, fine grained, tight to fair porosity and permeability, very argillaceous and silty in part, pyritic, glauconitic, hard, shaly, sub-rounded grains, fair sorting, the sand having porosity has fair to good oil stain and good (sometimes spotty) fluorescence; much loose sand in sample tray that fluoresces.
- 3990 - 4008 No samples caught.

- 4008 Sandstone, light tan, fine grained, good porosity and permeability, argillaceous, fair sorting, medium soft, friable, glauconitic, sub-rounded grains, fair to good oil stain, bright yellow fluorescence.
- 4008 - 4015 Sandstone, as above, except a little heavier clay-filled.
- 4015 - 25 Sandstone, white to gray, fine grained, tight, very argillaceous, shaly, poor to fair sorting, sub-rounded grains, no show.
- 4025 - 30 Interbedded shale and clay with few pieces tight sandstone.
- 4030 - 35 As above; also, sandstone, white, very fine grained, low porosity and permeability, clean, well sorted, rounded grains, medium soft, no show.
- 4035 - 40 Sandstone, white to gray, fine grained to very fine grained, low to fair porosity and permeability, pyritic in part, medium hard, well sorted, rounded to sub-rounded grains, argillaceous, no show.
- 4040 - 45 Sandstone, as above except one piece has even stain and bright yellow fluorescence, and two pieces have no stain and dull yellow fluorescence.
- 4045 - 50 Sandstone, as above, except no show.
- 4050 - 55 Sandstone, as above; and sandstone, brown, very fine grained, tight, very slightly argillaceous, well sorted, medium hard, rounded to sub-rounded grains, solid oil stain with bright yellow fluorescence.
- 4055 - 60 Sandstone, gray, fine grained, low porosity and permeability, argillaceous, medium soft, friable, sub-rounded grains, fair sorting, no show.
- 4060 - 65 Sandstone, as above, with large amount of bentonite.
- 4065 - 70 Sandstone, gray, fine to very fine grained, tight to low porosity and permeability, argillaceous, silty, shaly, poor sorting, medium hard, no show.
- 4070 - 75 Sandstone, as above, somewhat less argillaceous, generally low porosity and permeability, no show.
- 4075 - 79 Sandstone, as above, mostly tight, no show.

Sample quality - poor to fair