

FILE NOTATIONS

Entered in WED File ✓
Location Map Filled ✓
Card Indexed ✓

Checked by Chief
Approval Letter
Disapproval Letter

P.W.B.
6-24-74

COMPLETION DATA:

Date Well Completed

Location Inspected ..

DW..... WW..... TA.....

Bond released

GW..... OS..... PA.....

State or Fee Land

LOGS FILED

Driller's Log.....

Electric Logs (No.)

E..... I..... East I Log..... GR-M..... Micro.....

BHC Sonic GR..... Lat..... M-L..... Sonic.....

CBLog..... CGLog..... Others.....

State

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
Willard Pease Oil & Gas Company

3. ADDRESS OF OPERATOR
P. O. Box 548, Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface *sw* **SW.NW. SEC. 20, T.13 S., R.11 E., S.L.M.**
 At proposed prod. zone **(636' fr.W-line & 2004' fr.N-line)**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
About 7 1/2 miles NE of Price, Utah

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

16. NO. OF ACRES IN LEASE
1880 acres

17. NO. OF ACRES ASSIGNED TO THIS WELL
160 ac.

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

19. PROPOSED DEPTH
5500'

20. ROTARY OR CABLE TOOLS
Rotary tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Grd.: 6724'; K.B.: 6734'

5. LEASE DESIGNATION AND SERIAL NO.
U-9139

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal

9. WELL NO.
Price #3-Mesa

10. FIELD AND POOL, OR WILDCAT
Wildeat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SW.NW.SEC.20-13S-11E.

12. COUNTY OR PARISH
S.L.M.

13. STATE
Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	7 5/8"	26.40#	250'	100 sks.

It is planned to drill a well at the above location to test the natural gas possibilities of the various sand zones in the Ferron, Dakota, & Cedar Mt. formations. The expected tops are: Ferron at 4150'; Dakota at 4710'; Cedar Mt. at & 4740'; and Morrison at 5450'. The well will be drilled with rotary tools, using air as a circulating medium as long as conditions permit. The well will be drilled 50 ft. into the Morrison formation, unless commercial production is obtained at a lesser depth. A blowout preventer and rotating head will be used for control equipment. In the event of production, 4 1/2" casing will be set and cemented above the productive sand using a Lynes packer and DV collar.

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 *H. Don Gungler* TITLE **Consulting Geologist** DATE **June 21, 1974**

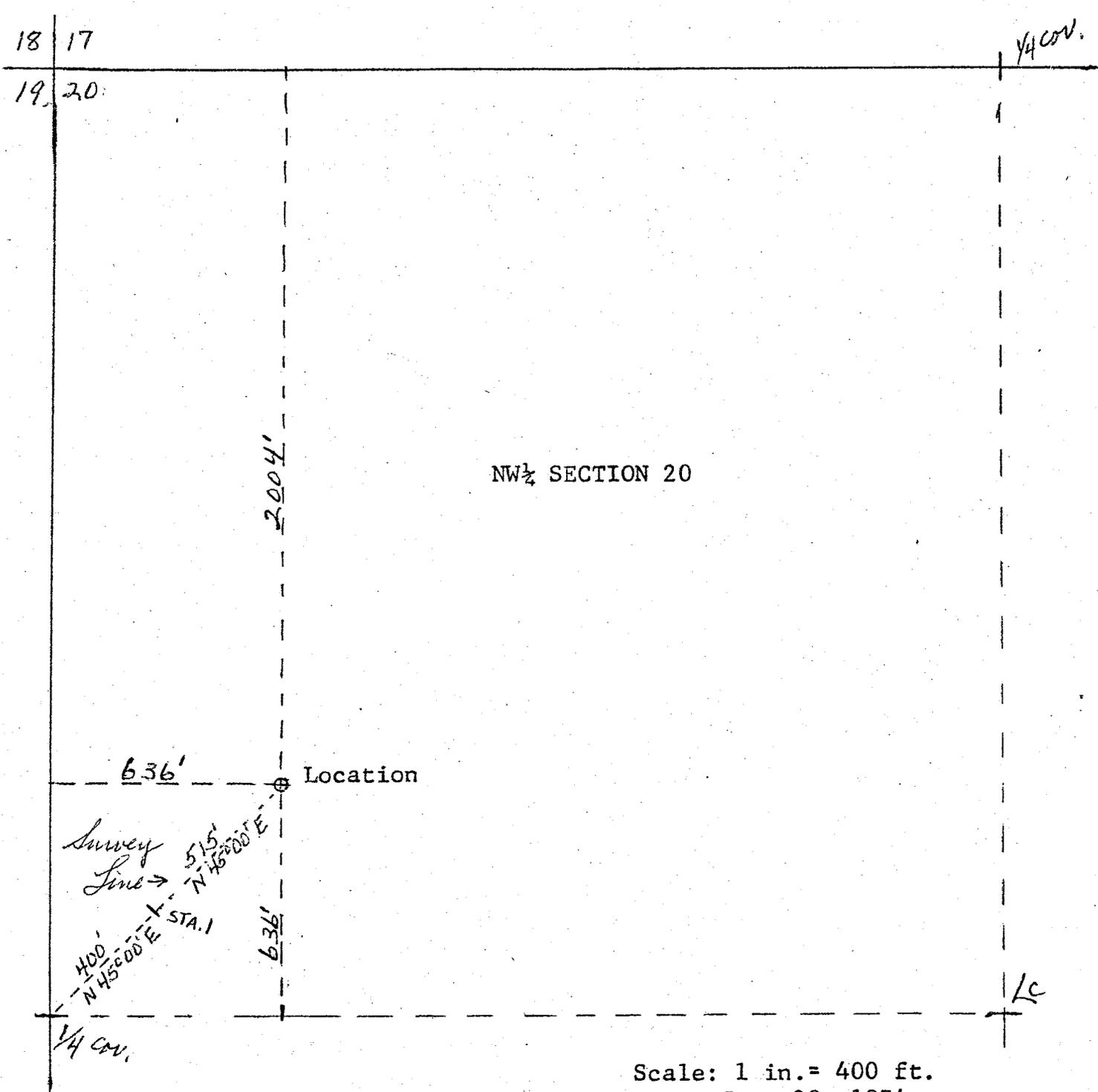
(This space for Federal or State office use)
 PERMIT NO. *13-007-30024* APPROVAL DATE _____

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

LOCATION AND DRILLING PLANS
FOR WILLARD PEASE OIL & GAS CO.
PRICE #3-MESA WELL, SW.NW. Sec.20
T.13S., R.11 E., S.L.M., CARBON CO.

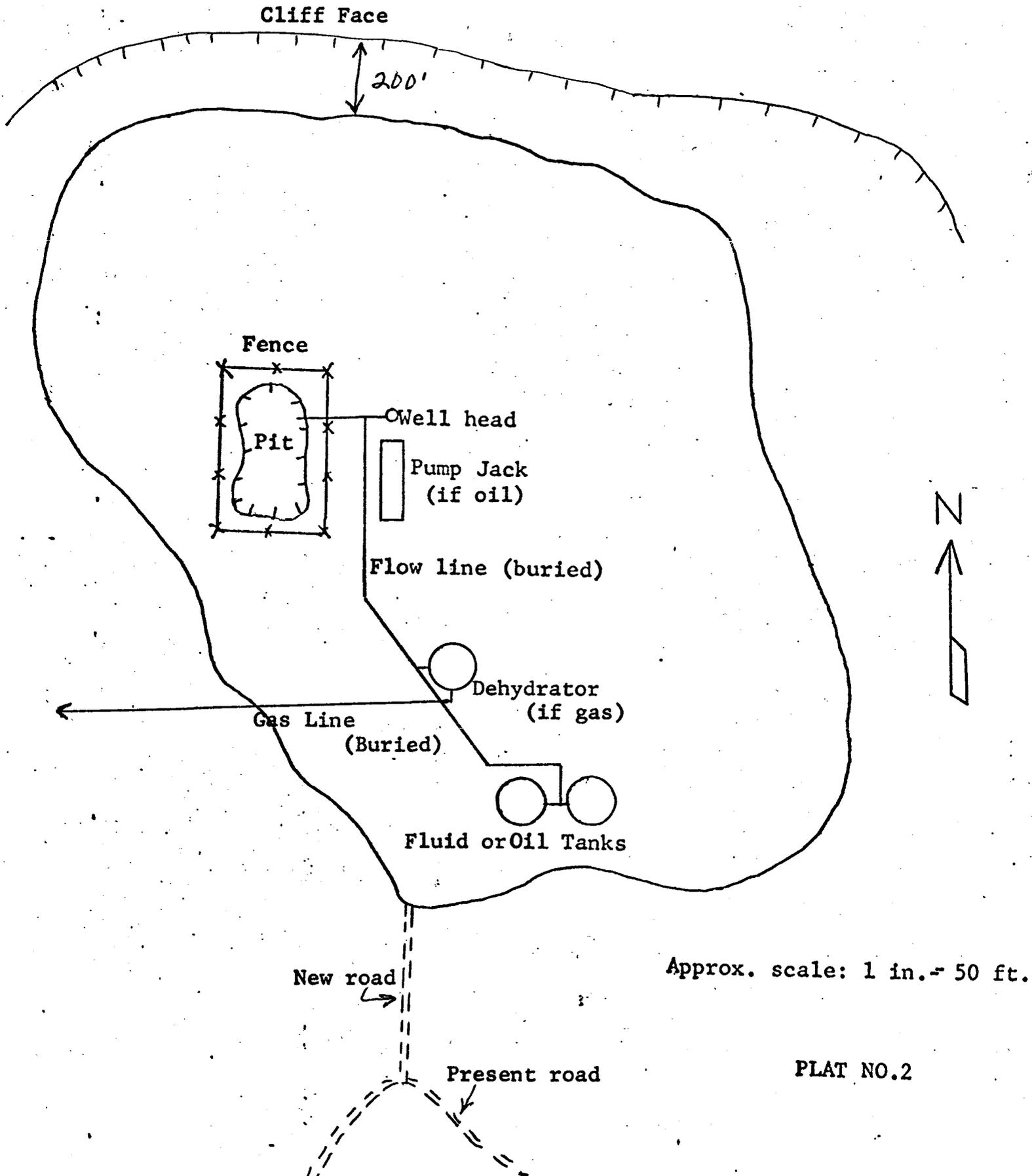
1. A survey plat for the location of the subject well is attached, A portion of the topographic map of the area is attached as Map No.1 and shows the route to the well site from Price, Utah. The present trail to the well from the Deadman Canyon road is shown on this map.
2. The proposed well site is about 500 ft. from the present trail. The new road to the well site is along a flat area beside a short and shallow wash.
3. The map shows the location of the wells drilled in the area in and the past and the location of another proposed well to be drilled in the future. (See Section 28-13S-11E).
4. See 1 and 2 above.
5. A plan for the location of the completion equipment, in the event the well is successful, is shown on Plat No. 2.
6. It is planned to haul the water required for the rig use and drilling operations from the town of Price by truck. This will be about $9\frac{1}{2}$ miles.
7. A plan for the drilling equipment placement is shown on Plat No.3. This plat shows the small reserve pit and trash or burn pit. The dust cuttings from the drilling operations will be blown into the reserve pit and all trash and burnable material will be put into the burn pit. At the completion of the well these pits will be folded-in and levelled.
8. See location of house trailers on Plat No.3. No other camp facilities will be needed.
9. There are no air strips, other than the Price Airport, in use around the proposed well site.
10. See Plat No. 3 for the drilling equipment layout.
11. There is little or no topsoil at the well site. The area is at the base of a high ridge or cliff, but is on a gentle slope. No deep cuts or removal of rock will be required. The area is covered by sage brush and juniper trees. After the well is finished and abandoned, if dry, the site will be cleaned and levelled, and the pits will be covered. The surface will be restored as required.
12. As can be seen by the map herewith the area is quite rugged with sharp and high cliffs, with canyons and washes dissecting the area into a dendritic pattern. Access roads are limited to the canyons with a few crossing the lower and less steep ridges. Rocks belonging to the Measverde and Mancos formations are exposed around the cliffs and on the surface of the well site. Coal deposits are found in the general area; but none are located on or near the well site. There are no gas or oil pipelines in the immediate area.

LOCATION PLAT FOR
WILLARD PEASE OIL & GAS CO.
PRICE #3-MESA WELL
SW.NW.SEC.20-13S-11E
CARBON COUNTY, UTAH
(636' from W-line & 2004' from N-line)
Elev.: 6724' grd.



Scale: 1 in. = 400 ft.
Date: June 20, 1974
Surveyed by: W. Don Quigley

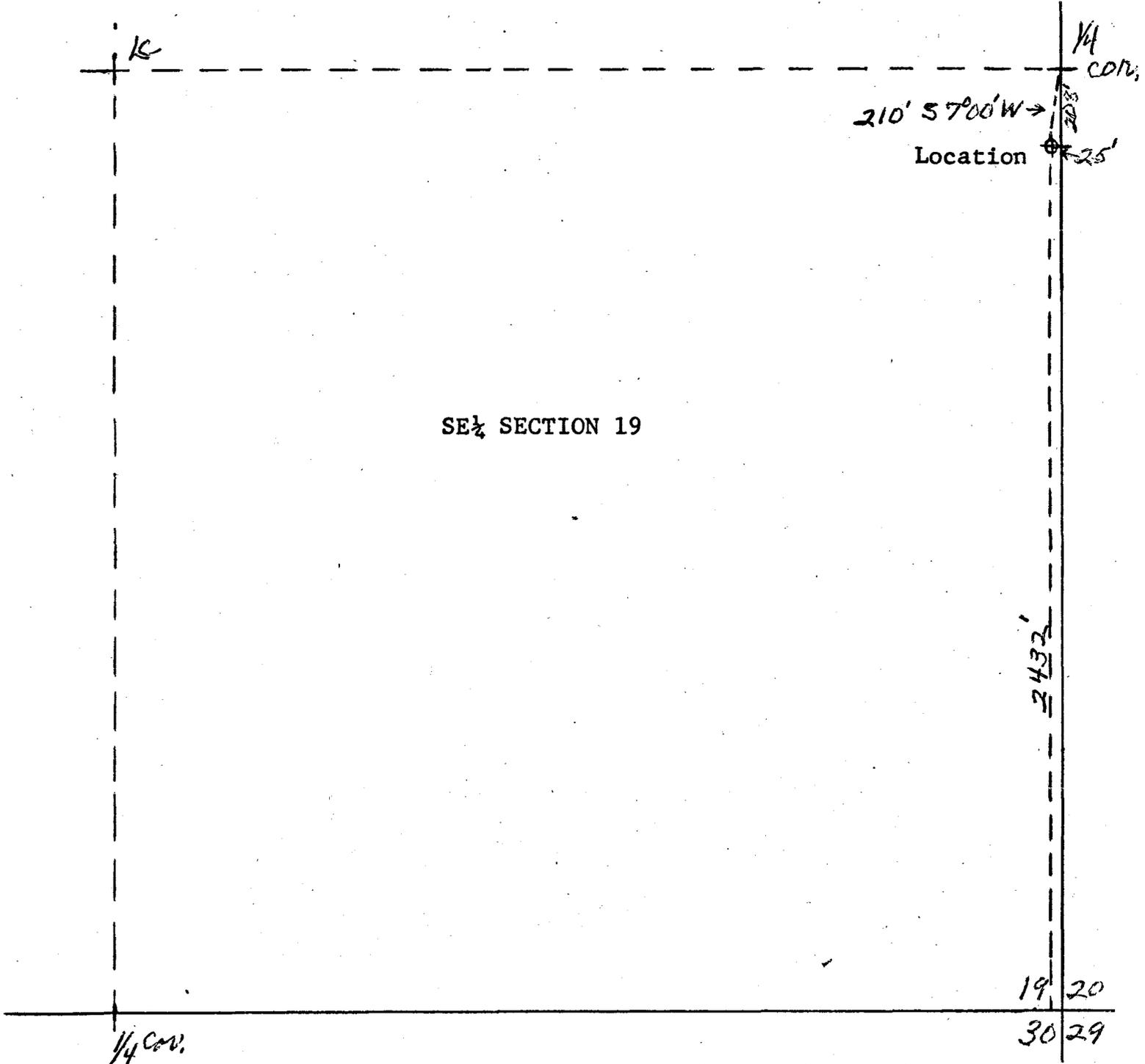
PLAN FOR COMPLETION EQUIPMENT
FOR PEASE OIL & GAS COMPANY
PRICE #3-MESA WELL
SW.NW SEC.20-13S-11E.
CARBON COUNTY, UTAH



Approx. scale: 1 in. = 50 ft.

PLAT NO.2

SUPPLEMENTAL LOCATION PLAT FOR
WILLARD PEASE OIL & GAS CO.
PRICE #3-MESA WELL
NE.NE.SE.SEC.19-13S-11E
CARBON COUNTY, UTAH
(25' from E-line & 2432' from S-line)
Elev.: 6685' grd.

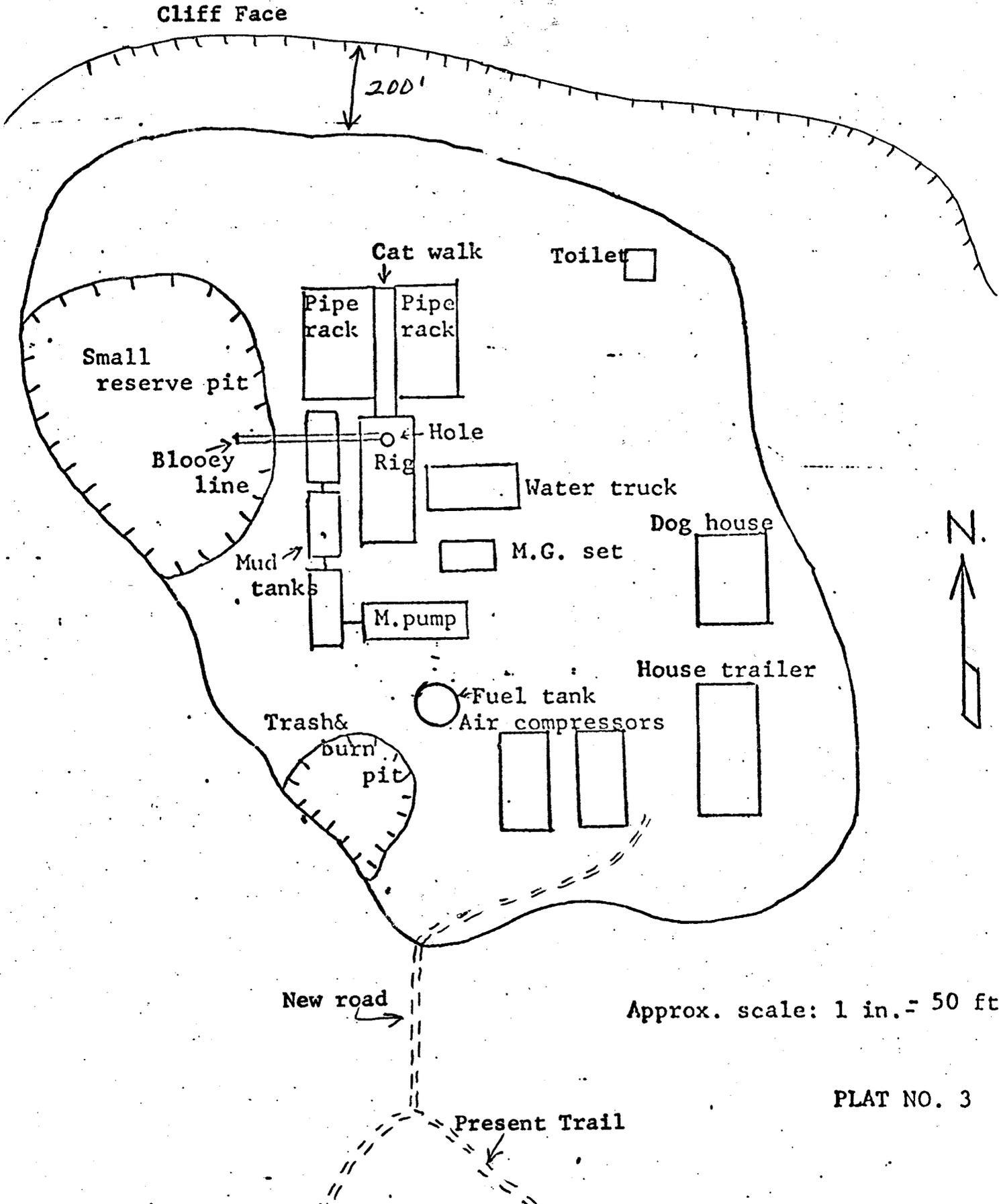


SE $\frac{1}{4}$ SECTION 19

Scale: 1 in. = 400 ft.
Date: July 2, 1974
Surveyed by: W. Don Quigley

PLAT NO. 1

PLAN FOR PLACEMENT OF DRILLING EQUIPMENT
PEASE OIL & GAS COMPANY
PRICE #3- MESA WELL
SW.NW.SEC.20-13S-11E.
CARBON COUNTY, UTAH



Approx. scale: 1 in. = 50 ft.

PLAT NO. 3

W. DON QUIGLEY

OIL AND MINERALS CONSULTANT
803 PHILLIPS PETROLEUM BLDG. - SALT LAKE CITY, UTAH 84101

WELL CONTROL EQUIPMENT FOR
PEASE OIL & GAS COMPANY
PRICE #3-MESA WELL
SW.NW.SEC.20-13S-11E.
CARBON COUNTY, UTAH

The following control equipment is planned for the above designated well:

1. Surface Casing:
 - A. Hole size for surface casing is 11".
 - B. Setting depth for casing is approx. 250'.
 - C. Casing specs. are: 7 5/8 J-55, 26.40#, 8 rd. thread new or used.
 - D. Anticipated pressure at setting depth is approx. 50 #.
 - E. Casing will be run and cemented with 100sks of cement with returns to the surface.
 - D. Top of casing will be just above ground level.
2. Casing Head:

Flange size: 8 (nominal); A.P.I. pressure rating: 2000#; Cameron or OCT; new or used; equipped with two 2" ports with nipples and 2", 1500# W.P. valves. Casing head and valves set above ground.
3. Intermediate Casing:

None planned.
4. Blowout Preventers:
 - A. Double rams; hydraulic; one set of blind rams; one set of rams for 3 1/2" drill pipe; #8 flange or spoil with #8 to #10 flange; 3000# W.P.; Series 900; equipped with mechanical wheels and rods for back-up; set on top of casing head flange and securely bolted down and tested for leaks up to 1500# pressure; Cameron, Shaffer, or equivalent.
 - B. Rotating head: 10"; set on top of blowout preventer and bolted securely; complete with Kelly drive, pressure lubricator; 3 1/2" stripper rubber for 1500# W.P.; Shaffer or equivalent.
 - C. The fill and kill lines (2") are to be connected thru

the 2" valves on the casing head.

5. Auxillary Equipment:

A float valve (2000#) is to be used in the bottom drill collar at all times. A string-float will also be used in the drill pipe and kept within 200'-300' below the surface at maximum.

6. Anticipated Pressures:

The shut-in pressure of the gas zones in wells near to the proposed well is about 1270 lbs. at depths of around 4250'. Pressures of all other zones should be only about 200-300# more than this.

7. Drilling Fluids:

Air will be used down thru the Dakota sands and then may be converted to mud to keep control of the thick bentonite zones in the upper Cedar Mt. formation at depths of 4740'-4840'.

8. Production Casing:

A. Hole size: 6 3/4"

B. Approximate setting depth: 4300' which will be thru the gas sand but the casing will be cemented above the sand.

C. Casing specs: 4 1/2" O.D.. J-55, 9.50#, 8-rd. thread, new or used.

D. Casing will be run with a Lynes packer set above the top of the gas sand and one or two joints of casing below the packer (plugged at the bottom). The bottom of the casing will be set on the bottom of the hole. The casing will then be cemented above the packer thru perforations or thru a D-V tool with 50 sacks of cement. The cement will be allowed to cure for 24 hrs., and then the casing will be set on the slips (4 1/2") in the casing head, holding at least 10,000#, and cut off. A tubing head, 8" to 2 1/2" series 600, 2000# W.P. will be installed on the casing head flange and bolted securely.

E. Tubing, 2 3/8" O.D., upset, J-55, 4.70#, new, will be run with a 3 1/2" bit and the plug will be drilled out. The bit will then be removed and a seating nipple and and perforated joint will be installed on the bottom of the tubing and run back in the hole and landed just below the Lynes packer. The tubing ~~xxxx~~ head flange will be connect to the tobing and secured to the top of the head. A 2" master valve will be installed on top. About 1/2 of the water will then be swabbed out of the casing and tubing, and the well will be perforated below the bottom of the tubing.

June 24, 1974

Willard Pease Oil & Gas
Box 548
Grand Junction, Colorado 81501

Re: Well No. Price Federal #3
Sec. 20, T. 13 S, R. 11 E,
Carbon County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the General Rules and Regulations and Rules of Practice and Procedure.

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

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API number assigned to this well is 43-007-30024.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CSF:sd

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-9139

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Helper Unit

8. FARM OR LEASE NAME

Federal

9. WELL NO.

Price #3-Mesa

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

NE.NE.SE.SEC.19 -13S-11E

S.L.M.

12. COUNTY OR PARISH

Carbon

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

Willard Pease Oil & Gas Co.

3. ADDRESS OF OPERATOR

P.O. Box 548, Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)

At surface

NE.NE.SE.SEC.19, T.13 S., R.11 E., S.L.M.
(25' from E-line & 2432' from S-line)

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

Grd.: 6685'; K.B.: 6695'

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other) Change of location

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.)*

The location of the above well has been changed to the location shown by request of the district office of the Bureau of Land Management at Price, Utah. They feel that the new location is more suitable for ecological reasons.

APPROVED BY DIVISION OF
OIL & GAS CONSERVATION

JUL 16 1974

DATE

BY *[Signature]*

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

SIGNED *W. Don Gungley*

TITLE Consulting Geologist

DATE July 9, 1974

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

CONDITIONS OF APPROVAL FOR WELL ABANDONMENT

Company Willard Packer Drilling Co

Location NE3E 12 13S 11E

Well No. 3 Price Mesa

Lease No. U 9139

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

1. This office should be notified sufficiently in advance of actual plugging work so that a representative may witness the operation if time and circumstances permit.
2. Upon completion of approved plugging, erect the regulation marker and clean up the location. The marker should not be less than 4 inches in diameter and extend approximately 4 feet above general ground level. Heap up the dirt around the base of the marker about 18 inches to take care of any settling of the cellar. The top of the marker must be closed or capped.
3. The following minimum information shall be permanently placed on the marker with a plate, cap or beaded on with a welding torch:
"Well name and number, location by $\frac{1}{4}$ section, township and range."
4. Within 15 days after well bore plugging operations are completed, form 9-331 (Subsequent Report of Abandonment) must be filed showing location of plugs, amount of cement in each, amount of casing left in hole, and status of surface restoration. If a temporary delay in removal of equipment or surface cleanup is deemed necessary and acceptable to this office, so note on this report and notify this office when such work has been completed to your satisfaction. This final abandonment report will not be approved until a physical inspection by this office and the surface management agency finds the well site in satisfactory condition.
5. If not previously filed, submit in duplicate Well Completion or Recompletion Report and Log (form 9-330), well history, electric logs, and other surveys, and if taken, core analysis and water analysis. These reports must also be filed within 15 days after completion of plugging operations.
6. You or your authorized representative should inspect the abandoned location prior to notification to this office that it is ready for inspection, and note especially:
 - (a) That the regulation dry-hole marker bears the correct legend as required in item 3.
 - (b) That rathole and mousehole are filled, not just bridged, and pits are filled and leveled.
 - (c) That all material and junk are gone. This includes deadmen protruding above the level ground surface.
 - (d) That reseeding or other required restoration work has been completed.

SURFACE RESTORATION REQUIREMENTS:

- A. Clean up and remove all foreign material.
- B. Disc in all oil spills.
- C. Smooth location as neat as possible and contour it as near as possible to its original contour.
- D. Remove all unnecessary roads to this location.
- E. Reseed location, all removed roads, and all unvegetated spots caused by the oil and gas operations. Reseed on the contour as directed by the Area Manager - BLM - Price, Utah. He will determine the reseeding period, rate, species and whether fertilizer or mulching will be required.

614 NEWHO
UTAH S LAK
(CARBON COUNTY) DEPARTMENT OF THE INTERIOR
CASTLE GATE QUADRANGLE GEOLOGICAL SURVEY



T
13
S.

T
14
S.

Map # 1

ORAL APPROVAL TO PLUG AND ABANDON WELL

Operator Willard Peace Oil & Gas Representative Don Quigley

Well No. 3 Price Mesa Located NE 1/4 SE 1/4 Sec. 19 Twp. 13S Range 11E

Lease No. U 9139 Field W.C. Carbon Co State Utah

Unit Name and Required Depth Helper 5000' Base of fresh water sands None Noted

T.D. 5015 Size hold and Fill per Sack 6 1/2" 5.12' Mud Weight and Top 9.2 #/Gal.

Casing Size	Set At	Top of Cement	To Be Pulled	Plugging Requirements		
				From	To	Sacks Cement
<u>2 5/8</u>	<u>218</u>	<u>Circ</u>	<u> </u>	<u>4750</u>	<u>4600</u>	<u>25 SX</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>4400</u>	<u>4100</u>	<u>50 SX</u>
<u>Formation</u>	<u>Top</u>	<u>Base</u>	<u>Shows</u>	<u>250</u>	<u>150</u>	<u>20 SX</u>
<u>Mancos</u>	<u>Surface</u>	<u> </u>	<u> </u>	<u>Surface</u>	<u>5 w/mkr.</u>	<u> </u>
<u>Ferron</u>	<u>sd</u>	<u>4162</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Dakota</u>	<u>4695</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Cdr Mtn</u>	<u>4730</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Remarks

DST's, lost circulation zones, water zones, etc. Shows in Ferron - could not recover -

Approved by Don Quigley Date 7/25/79 Time 10:30 ~~PM~~ AM

Copies: BLM Price - Orr
Don Quigley
Optry
W.D.V. Oil & Gas

PZ
PWB

August 1, 1974

MEMO FOR FILING

Re: WILLARD PEASE DRILLING CO.
Price-Federal #3
Sec. 20, T. 13 S, R. 11 E,
Carbon County, Utah

On July 26, 1974, a visit was made to the above referred to well site.

Met with the driller, Howard Johnson, and a safety inspection was made of the Willard Pease Company's drilling Rig #2. Several unsafe practices that might cause a mishap were called to the attention of the operator. The overall inspection was considered poor, and it is recommended that the Industrial Commission check this particular rig out on its next drilling assignment. This matter will be called to the attention of the interested parties by a copy of this memo.

At the time of the visit they were preparing to log to a total depth of 5015' and the contractor was in the process of coming out of the hole. Subsequent tests indicated the gas and oil shows in the Ferron Sandstone were too small to be considered commercial, and the well was subsequently plugged and abandoned later in the day.

PAUL W. BURCHELL
CHIEF PETROLEUM ENGINEER

PWB:lp

cc: Utah Industrial Commission
Willard Pease Drilling Co.
U. S. Geological Survey

PI

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

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

State 5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

5. LEASE DESIGNATION AND SERIAL NO.

U-9139

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Helper

8. FARM OR LEASE NAME

Federal

9. WELL NO.

Price #1-Mesa

10. FIELD AND POOL, OR WILDCAT

11. SECTION, OR BLOCK AND SURVEY OR AREA

NE.NE.SE.SEC.19-138 11E.-S.L.M.

12. COUNTY OR PARISH

13. STATE

Carbon Utah

1a. TYPE OF WELL: OIL WELL [] GAS WELL [x] DRY [] Other []

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

2. NAME OF OPERATOR

Willard Pease Oil & Gas Company

3. ADDRESS OF OPERATOR

P.O. Box 548, Grand Junction, Colo. 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

NE.NE.SE. SEC.19, T.13 S., R.11 E., S.L.M.

At top prod. interval reported below

25' from E-line & 2432' from

At total depth

S-line.

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

16. DATE T.D. REACHED

17. DATE COMPL. (Ready to prod.)

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)

19. ELEV. CABLE LOG

Jul. 8 '74

Jul. 26 '74

D&A

Ord. : 6685' ; K.B. : 6695'

20. TOTAL DEPTH, MD & TVD

21. PLUG, BACK T.D., MD & TVD

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

5015'

0' to T.D.

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*

none

no

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual-Induction; Sonic-F-log; Gamma-Density

27. WAS WELL CORED

no

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

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Row 1: 7 5/8", 26.40#, 218', 9 5/8", 90 sks., none

29. LINER RECORD

Table with 5 columns: SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT*, SCREEN (MD)

30. TUBING RECORD

Table with 3 columns: SIZE, DEPTH SET (MD), PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

none

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

Table with 2 columns: DEPTH INTERVAL (MD), AMOUNT AND KIND OF MATERIAL USED. Row 1: none

33.* PRODUCTION

Table with 7 columns: DATE FIRST PRODUCTION, PRODUCTION METHOD, WELL STATUS, DATE OF TEST, HOURS TESTED, CHOKER 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

Drilling History & Geologic Report

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

SIGNED

H. Row Gungley

TITLE

Consulting Geologist

DATE

Aug. 31, 1974

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

INSTRUCTIONS

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

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

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

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s) and bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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.	GEOLOGIC MARKERS	
				NAME	MEAS. DEPTH
					TRUE VERT. DEPTH
SEE ATTACHED REPORT					

DRILLING HISTORY
AND
GEOLOGIC REPORT

ON

WILLARD PEASE OIL AND GAS CO.
PRICE #3 - MESA WELL

CARBON COUNTY, UTAH

By

W. Don Quigley
Consulting Geologist
Salt Lake City, Utah

August 30, 1974

DRILLING HISTORY
OF
PEASE OIL & GAS CO.
PRICE #3 - MESA WELL
CARBON COUNTY, UTAH

Operator: Willard Pease Oil & Gas Company
P.O. Box 548, Grand Junction, Colo.

Contractor: Willard Pease Drilling Company
P.O. Box 548, Grand Junction, Colo.

Location: NE. NE. SE. Sec. 19, T 13S., R 11E., S.L.M.,
Carbon County, Utah (25' from E-line and 2432'
from S-line)

Elevation: Grd.: 6685', K.B.: 6695'

Spudded-in: July 8, 1974

Finished Drilling: July 26, 1974

Total Depth: 5015'

Producing Formation: none

Production Intervals: none

Plugged and Abandoned: July 27, 1974

Surface Casing: 218' of 7⁵/₈" , J-55, 26.40# casing.

History

July 6-7: Moving in rig and rigging up.

July 8: Finished rigging up. Drilled rat hole. Drilled mouse hole. Drilled surface hole for conductor pipe (30 ft. deep) and cemented in one joint of 10³/₄" casing. Waiting on cement. Nippled-up.

July 9: Drilled 30' to 107' (77'). Dried-up hole with air and began drilling ahead with 9⁵/₈" bit, using air for circulation.

- July 10: Drilled 107' to 400' (293'). Made rd-trip at 219' for Bit #4. Bit #3 (Reed-YS1-G) made 149' (70' to 219') in 20³/₄ hrs. Drilled at avg. rate of 7 ft/hr. in Mancos shale. Hole still dusting good. No water so far. Decided to reduce hole size to 6³/₄" and drill ahead before setting surface casing to check for possible water; so went back in hole with Bit #4 (6³/₄" - HTC-W7-J). Encountered no water down to 400' so decided to run surface casing. Came out of hole and picked up 9⁵/₈" bit to clean out large hole to 219' for casing. Bit #4 (HTC-W7-J) made 181' (219' to 400') in 5 hrs. Drilled at avg. rate of 36 ft/hr.
- July 11: Cleaned out 9⁵/₈" hole to 219' and came out of hole. Ran 5 jts. of 7⁵/₈" J-55, 26.40# casing, and landed casing at 218' (K.B.). Cemented casing with 90 sks. of cement. (Plug down at 3:15 A.M.) Waiting on cement. Nipped-up to drill ahead. Began drying-up hole with air.
- July 12: Drilled 400' to 805' (405'). Went back in hole with 6¹/₂" bit due to one joint of heavy 7⁵/₈" casing with an I.D. of 6⁵/₈". (Bit #5 was a 6³/₄" bit and wouldn't go down casing; bit came out of hole pinched.) Drilled out cement and finished drying up hole. Began drilling ahead at 1:00 P.M. Drilling at avg. rate of 30 ft/hr.
- July 13: Drilled 805' to 1886' (1081'). Drilling at avg. rate of 45 to 50 ft/hr.
- July 14: Drilled 1886' to 3058' (1172'). Drilling at avg. rate of 45 to 50 ft/hr.
- July 15: Drilled 3058' to 4111' (1053'). Drilling at avg. rate of 45 to 50 ft/hr. Checked B.O.P. for closure. Pressured up with air to 220#. Had no leaks. Accumulator motor burned out so couldn't open pipe rams. Replaced motor with shale shaker motor.

- July 16: Drilled 4111' to 4268' (157'). Had reverse drilling break at 4162' which is probable top of first Ferron sand. Had a 3 ft. gas flare on connection at 4173' for 1 sec. Had 3 ft. gas flare for 1 sec. on connection at 4205'. Hit coal bed at 4207' to 4212' (5 ft. of coal). Drilled to 4220' and shut-off air compressors and waited for 2 hrs. to check gas flow. No gas to surface during this period. Started air-compressors and had 20 ft. gas flare for 1 sec. Began drilling ahead. Drilling at avg. rate of 12 to 15 ft/hr. in Ferron sand. Had a 3 ft. gas flare for 1 sec. on connection at 4236'. Hole quit dusting at 4255'. Drilled to 4268' and bit began locking-up. Made rd-trip at 4268' for Bit #7. Bit #6 (HTC-H7-J) made 3868' (400' to 4268') in 87 $\frac{3}{4}$ hrs. Drilled at avg. rate of 44 ft/hr. Rigged up mist-pump.
- July 17: Drilled 4268' to 4556' (288'). Drilling ahead with air-water-soap mist. No increase in air pressure after trip, so very small amount of moisture in hole. Had 30 ft. gas flare for 20 secs. when circulation was resumed after trip. Encountered a thick sandstone from 4270' to 4324' which was hard and tight at the top but had fair to good porosity in lower part. Sand had good oil stain, some black oil streaks, good odor, and brn. to yellow fluorescence with a live cut. Decided to check fluid rise in hole and possible oil entry. Shut-down injection pump and blew hole for 2 $\frac{3}{4}$ hrs. Shut-off air for 4 $\frac{1}{2}$ hrs. Had no gas to surface. Began circulation with air and had no pressure increase (circulating at 110#). Had 30 ft. gas flare for 20 secs. Resumed drilling ahead with air-mist. (Oil entry and/or water into hole must be very small or nil.) Drilling ahead at avg. rate of 30 ft/hr.
- July 18: Drilled 4556' to 4762' (206'). Drilling ahead at avg. rate of 20 ft. per hr. in Tununk member.

siltstone and siliceous shale. Encountered top of Dakota sandstone at about 4690'. (Sand bed is about 15 ft. thick - 4690' to 4705'.) Sand had fair porosity but had no gas or shows. Estimate top of Cedar Mt. formation at 4710'. Top portion is bentonitic grey-green shale. Pipe began sticking at 4731'; so circulated and cleaned hole for 2 hours. Drilled ahead to 4762' and couldn't make connection; so pulled 3 stds. and began mixing mud. Pumped mud in hole and stuck pipe before circulation was obtained. Pumped-in about 200 bbls of mud. Tried to work pipe loose for 7 hrs.

- July 19: Decided to try pumping loose, so called B-J cementers at Vernal. B-J pumped up to 3800# pressure and formation broke down. Pumped into formation at 2600# to 1800#. Pumped in about 150 bbls of mud and water. Worked pipe up about 30 feet and couldn't go any farther; so called Dia-log to free-point and back-off. Determined that pipe was stuck at 4355' and below. (Bottom of pipe is at 4675' - about 90 ft. off bottom.) Backed-off pipe at 4325'. Pulled up one ft. above back-off point and began circulating and cleaning hole. Circulated for four hours waiting on fishing tools.
- July 20: Circulated for 2 more hours and then came out of hole to pick up bumper subs (two) and jars. Went back in hole and screwed into top of fish. Began jarring down on fish. Jarred fish down 8½ feet. Backed-off at top of fish again and circulated hole for 1½ hours.
- July 21: Jarring fish downward and circulating periodically. Jarred fish down about 13 more feet (21½' total). No free travel.
- July 22: Jarring fish downward and circulating periodically. Jarred fish down another 12½ feet and started to get some free travel (about 6 feet). Worked pipe up and down for ½ hr., and it came loose. Started

out of hole. Hole was tight for first five stands or about 350 feet. Had called Schlumberger to log hole above fish; and pipe came loose just as Schlumberger arrived on location, so released them and sent them back to Vernal.

- July 23: Laid down fishing tools. Went back in hole with Bit #8 and began cleaning out hole to bottom. Bit #7 (Smith F4) made 494' (4268' to 4762') in 24 hrs. Drilled at avg. rate of 20½ ft/hr. Continued circulating and drilling bridges and fill back to bottom.
- July 24: Drilled 4762' to 4823' (61'). Cleaning out to bottom. Worked on mud pump for 4 hrs. Installed new liners and swabs. Got hole cleaned out to bottom at 4:40 P.M. and began drilling ahead in bentonitic shale and thin quartzitic sand beds. Drilling at avg. rate of 9 ft/hr. Mud wt. is 9.2#/gal.; viscosity of 45 secs./qt. and pH of 11.5.
- July 25: Drilled 4823' to 4985' (162'). Drilling at rate of 6 to 7 ft/hr. Encountered a hard quartzitic to c.g. ss with flat ang. Xls. at 4860' to 4885'. Has a faint brown stain but no fluor. or cut.
- July 26: Drilled 4985' to 5015' (30'). Reached total depth at 4 A.M. Circulated for 1 hr. and pulled 18 stds. Went back to bottom and had 30 ft. of fill, so circulated for 1½ hrs. and started out of hole at 8:30 A.M. for logging. Ran Dual-Induction; Sonic - F-log; and Density logs. Finished logging at 11:30 P.M. Went in hole with collars. Bit #8 (HTC-J33) made 253' (4762' to 5015') in 34 hrs. Drilled at avg. rate of 7½ ft/hr.
- July 27: Laid down collars. Went in hole with drill pipe and installed cement plugs as follows:
Plug #1 - 4750' to 4600' - 25 sacks
Across Dakota formation.

Plug #2 - 4400' to 4100' - 50 sacks
Across Ferron sandstone.

Plug #3 - 250' to 150' - 20 sacks
Across bottom of surface casing.
Put 5 sacks cement with well marker in top of
surface casing. Began rigging down.

GEOLOGIC REPORT
ON
WILLARD PEASE OIL & GAS CO.
PRICE #3 - MESA WELL
CARBON COUNTY, UTAH

General Geology

The Willard Pease Oil & Gas Co. Price #3 - Mesa well was located and drilled on the Helper Unit and was intended to be an offset location to the S.D. King #1 Deadman well in Sec. 19 - 13S - 11E. The first location for the subject well was in the SW. NW. of Section 20 - 13S - 11E; but the district office of the Bureau of Land Management wanted the site changed to the NE. NE. SE. of Section 19.

The S.D. King well in the NE. NW. of Section 19 recovered some gas on two different drill stem tests of the Ferron sand section and the electric log of the well indicated some thick, well developed sands with good porosity. The Ferron, however, was drilled with mud in this well and the sands were probably contaminated and damaged thus inhibiting the natural flow of gas. It was therefore felt that an offset well, if drilled with air and by so doing eliminating the possibility of formation damage, could encounter appreciable gas flows in the Ferron section.

Due to the depth commitments imposed by the farmoutor, Mesa Petroleum Company, it was necessary to drill the well to the top of the Morrison formation or to a depth of 5000 feet, whichever was at the lesser depth. This depth would insure penetration of the Dakota sand and some of the upper Cedar Mountain sands, if any were present.

To date, only the Ferron sandstone section in the Mancos formation has produced hydrocarbons (natural gas) in the wells drilled in the nearby area. The Clear Creek gas field, producing from the Ferron sandstone, is located on

the east flank of the Wasatch Plateau, about 25 miles west of the subject well. A very small and shallow gas field, Miller Creek, with wells completed in the basal Ferron sands and upper Tununk siltstones is located about 15 miles south of the Price #3 well. Some CO₂ gas has been produced from the Navajo sandstone in the Farnham Dome structure about 15 miles southeast of the well site. The Ferron, therefore, was the principle objective in the subject well. No natural gas or oil have been produced or found in commercial quantities in the area thus far in the Dakota, Cedar Mountain, Morrison or Entrada formations.

The Price #3 - Mesa well was located at the base of the Book Cliffs and in an area of gentle surface dips. Mesaverde and upper Mancos sediments are exposed near the well site and dip about 3°-4° to the northwest. There are no apparent faults in the surface beds around the well site; but it has been found that in most areas along the Book Cliffs and at the southern end of the Uinta Basin that there are a great number of faults present which effect the lower Mancos and older formations and which are not evident in the Mesaverde and younger rocks. The number of these faults is so great that any well location chosen at random without benefit of geophysical data has a 50-50 chance of being on or too near a fault for successful completion. It has been found thru experience that these faults are very critical and can make the difference between success and failure. The fault zones tend to reduce the natural porosity and permeability of the sand reservoirs by the introduction of clay minerals and gouge material and the fault planes are often flooded with fresh water, thus making successful completion of wells in their vicinity problematical.

The subject well is about 3½ to 5½ miles northeast of the Price #1 and Price #2 wells, respectively; and reference is hereby made to the geologic reports on these wells. Many of the comments and much of the discussion in these reports are applicable and pertinent to the subject well and general area.

Drilling History

A complete daily drilling history of the Price #3 - Mesa well precedes this section of the report.

Unlike the Price #1 and Price #2 wells, the upper portion of the Price #3 well was drilled dry with air. No water was encountered in the upper Mancos and the Ferron sands were drilled dry with no water which could damage the sands and inhibit the natural flow of gas. Whereas the sands appeared to have fair porosity, they were quite dirty and full of clay minerals; thus the flow of gas was slow and limited.

Like the Price #1 and Price #2 wells, considerable trouble was encountered in the subject well in drilling the Cedar Mt. section below the Dakota. Air-mist drilling failed to clean the hole and keep it open below the Dakota formation, requiring conversion to mud at about 4762'. While converting to mud, the drill string became stuck in the hole. It took several days (4½ days) to fish and pull the drill string out of the hole and to clean the hole back to bottom. The rest of the hole, from 4762' to total depth at 5015', was then drilled using mud for circulation. This cut down the penetration rate to about 6 to 7 ft. per hour.

Because of the gas shows in the Ferron sands and the obvious oil saturation in some of the samples, an elaborate attempt was made to test the section thru open hole procedures. Several hours were allowed for gas flows and/or fluid accumulation, without recovering any continuous flow of gas or an appreciable quantity of oil. The sands were obviously very tight and have low permeability. The electric logs later confirmed this and indicated porosities of less than 10% (most of the sand had porosities of less than 6%). Obviously the clay minerals in the sand and slight induration decreased the porosity below productive levels.

Stratigraphy of Well

The subject well was spudded in the top of the Mancos formation. Typical dark gray to black marine calcareous shales with thin beds of argillaceous limestone were drilled down to about 4100 ft. Due to a misunderstanding continuous samples of the drill cuttings were not taken until a depth of 4150' had been reached; thus details on the stratigraphy of the upper portion of the hole from sample examination are lacking. However, the electric logs show nothing of great interest in the upper Mancos section.

The top Ferron sand was encountered at about 4162' due to a reverse drilling break at this point. The sand was very fine grained, bentonitic, and inclined to quartzitic. Indicated porosity was poor to fair. A small amount of gas was recovered. A sand at 4190' to 4205' was very fine-grained with rounded grains and had oil stain, fluorescence and good cut and odor; and may have had some gas due to a 3 ft. gas flare for 1 second on a connection at 4205'. A coal bed, 5 ft. thick, was drilled between 4207' and 4212'. Another sand at 4212' to 4230' also had good oil shows, but appeared to be very fine grained and limited in porosity. Continuous thin-bedded sands with interfingering carbonaceous shale and coal beds were drilled between 4240' and 4270'. An almost continuous sand body was drilled between 4270' and 4330' with minor shale breaks. This sand was light brown in color, argillaceous, very-fine-grained, and had streaks of black live oil thruout. The sand had a good odor, cut, and fluorescence; but again good and clean porosity was lacking. Some oil, however, did bleed into the hole and the dust returns ceased and tight places began building up in the hole. No quantity of free oil was ever recovered from the hole.

The Dakota formation was very thin, 4690' to 4705', and the sand was medium-grained and friable with rounded grains, but had no shows of hydrocarbons. The sand appeared wet but the air-mist circulation pressure did not rise appreciably at this point.

The Cedar Mountain formation below the Dakota had the usual thick beds of bentonite causing considerable drilling problem and necessitated conversion to mud. Several beds of hard, quartzitic, clear to white sandstone, five to thirty feet thick, were penetrated in the portion of the Cedar Mountain that was drilled; but none of these had any apparent porosity or hydrocarbon shows.

The formations with their tops, thicknesses, and datum points which were encountered in the Price #3 - Mesa well, as determined from the electric logs, are as follows:

<u>Formation</u>	<u>Depth to Top</u>	<u>Thickness</u>	<u>Datum</u>
Mancos	Surface	4108'	6695' K.B.
(Ferron)	4108'	256'	2587'
(Tununk)	4364'	326'	2331'
Dakota	4690'	15'	2005'
Cedar Mountain	4705'	—	1990'
Total Depth	5015'	—	—

Comparison of the datum points at the top of the various formations between the subject well and the S.D. King well, about one mile to the northwest, show that the subject well was about 15 ft. lower structurally on the top of the Ferron member and about 40 ft. lower on the top of the Dakota and Cedar Mountain formations.

Similar comparison with the Price #1 well, about 3½ miles to the southwest, shows that the subject well is about 1117 ft. lower structurally on the top of the Ferron member and about 1150 ft. lower on the top of the Dakota and Cedar Mt. formations.

A detailed description of the samples from the well from 4150 ft. to total depth is attached hereto.

Conclusion and Recommendations

The results of the Price #3 - Mesa well were very disappointing; but the extensive oil and gas shows found in the Ferron

member were encouraging, and suggest that there is a possibility of finding an oil and/or gas field in the area. The lack of porosity in the Ferron sands in the well precluded successful completion of the well. It is believed that this lack of porosity was probably due to proximity of the well site to a fault zone.

Some free oil was seen on the top of the mud in the first circulation when conversion to mud was made. The amount was small, but it was good evidence that oil production might be possible in areas where porosity was better and further removed from possible faults.

The Dakota sand in the subject well was better developed and more porous than in the other two Price wells drilled by Willard Pease Oil & Gas Company, but it appeared to be wet and had no hydrocarbon shows. It could be prospective in a good structural position.

Because of the quite clear and conclusive evidence that the well was near a fault, it was felt that drilling the well beyond the depth commitment of 5000 feet would be a waste of time and money. All the Cedar Mountain and Morrison sands below the bottom of the hole would probably be tight, contaminated, and slightly indurated like the upper sands.

It is strongly recommended that before any further drilling is accomplished in the area that some detailed geophysical work be done to outline the favorable structural areas and to locate the fault traces. It is essential that the latter be done, because of the large number of faults that are common in the region and a well located on or near a fault is doomed for failure. Without the geophysical work, a random well location has a 50-50 chance of being near a fault zone.

Prior to the drilling of the Price #3 - Mesa well, it was felt that the natural gas found in the Ferron sands in the area was probably originating from coal zones; but the clear evidence of oil in these sands in the subject well indicates

that petroliferous gas is possible; and expands the prospects of natural gas reservoirs beyond the coal areas. The potential of the region for possible oil and gas prospects in both the shallow and deeper strata have been indicated and discussed in the previous well reports; so the area should not be abandoned without careful consideration. However, details on the geology and possible structure are lacking and this information needs to be obtained prior to the consideration of any further drilling plans.

W. Don Quigley
W. Don Quigley
Consulting Geologist
AAPG Cert. #1296

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

SUBMIT IN TRIP STATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-9139

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

Price-Mesa #3

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

NE. SE. SEC. 19-13S-11E

12. COUNTY OR PARISH 13. STATE

Carbon

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 **Dry**

2. NAME OF OPERATOR

Willard Pease Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 548, Grand Junction, Colorado 81501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)

At surface

686 25' from E-line & 2432' from S-line

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6685' grd.; 6695' K.B.

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) **Clean-up**

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.)*

Subject well was abandoned and plugged on July 27, 1974 in accordance with the approved plan granted by U.S.G.S. on July 25, 1974 orally. Your letter of Oct. 3, 1974 requested further work (clean-up and seeding) on location. Our representatives met with the BLM people at Price on Nov. 20, 1974 and this work was accomplished according to their requests and approval. Apparently there is not good communication between the various offices concerned. B.L.M. didn't inform you that the work was done.

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

SIGNED W. Ron Gingles

TITLE Cons. Geol.

DATE Mar. 12, 1975

(This space for Federal or State office use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY: