

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO

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

RECEIVED

AUG 27 1969

COLO. OIL & GAS CONS. COMM.

5. LEASE DESIGNATION AND SERIAL NO.

GAS CONS. COMM.

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. RESVR. Other _____

2. NAME OF OPERATOR
OCCIDENTAL PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR
902 Patterson Building, Denver, Colorado - 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 660' FNL, 660' FEL, Section 33-21S-48W
At top prod. interval reported below
At total depth

14. PERMIT NO. 69-221 ✓ DATE ISSUED 5/8/69

6. IF ALLOTTEE OR TRIBE NAME



7. U

8. FARM OR LEASE NAME
Schneider

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
NE NE Sec. 33-21S-48W

12. COUNTY OR PARISH Bent 13. STATE Colorado

15. DATE SPUNDED 7/19/69 16. DATE T.D. REACHED 8/9/69 17. DATE COMPL. (Ready to prod.) 8/11/69 D & A 18. ELEVATIONS (DF, REB, RT, GR, ETC.) 3971' GR, 3980' KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5469' 21. PLUG, BACK T.D., MD & TVD - 22. IF MULTIPLE COMPL., HOW MANY - 23. INTERVALS DRILLED BY → ROTARY TOOLS XX CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) D & A 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Sidwall Neutron "F" Log, Dual Induction-Laterolog, Porosity Log, Proximity Log-Microlog 27. WAS WELL CORED No

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"	20#	307' KB	12-1/4"	225 sx regular cement	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) D & A 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	FJP
	HHM
	JAM
	IID

33. PRODUCTION DATE FIRST PRODUCTION D & A 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
2 copies of logs run, 2 copies of Geological Report

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

SIGNED Russell A. Pomeroy TITLE Manager DATE 8/26/69

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, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			<p><u>See attached Geological Report.</u></p>

38.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

DAMAGED

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COLO. OIL & GAS CONS. BOARD

SCANNED

OCCIDENTAL PETROLEUM CORPORATION

#1 SCHNEIDER

NE NE Section 33,
Township 21 South - Range 48 West
Bent County, Colorado

GEOLOGICAL REPORT

Harry E. Hinman, Jr.
Petroleum Geologist
Security Life Building
Denver, Colorado

OPERATOR: Occidental Petroleum Corporation
WELL NAME: #1 Schneider
LOCATION: NE NE Section 33, T.21 S., R.48 W.,
 Bent County, Colorado
ELEVATION: 3971' Ground 3980' K.B.
SURFACE CASING: Ran 9 joints (296.6') of 8-5/8" casing set
 at 307' K.B. with 225 sacks cement.
SPUD DATE: July 19, 1969
COMPLETED: August 11, 1969 (D & A)
CONTRACTOR: L & F Drilling Company, Rig #1, Lamar, Colorado
 Dale Carberry, L & F Toolpusher
 Merl Hunt, Occidental Toolpusher
MUD LOGGER: Tilley Well Logging Service, Lamar, Colorado
 Engineers: Jim Mabry and Marshall Tilley
MUD: Eagle Mud Company, Casper, Wyoming
CORES: None
DRILL STEM TESTS: Virg's Testers, Lamar and Sterling, Colorado
LOGS: Schlumberger Dual Induction Laterlog,
 Gamma Ray-Neutron, Caliper ("F" log) and
 Proximity Log.
TOTAL DEPTH: 5469' Driller 5467' Schlumberger

FORMATION TOPS:

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Stone Corral	1932'	+2048'
Pennsylvanian	3072'	+ 908'
Lansing	3505'	+ 475'
Marmaton	3980'	0
Cherokee	4126'	- 146'
Morrow	4613'	- 633'
Keyes	4820'	- 840'
Mississippian	4888'	- 908'
Spergen	5200'?	-1220'?
Warsaw	5238'?	-1258'?
Osage	5280'?	-1300'?
Arbuckle	5406'?	-1426'?

DAILY LOG OF OPERATIONS:

July 19, 1969: Spudded well at 3:30 P.M.
 July 20, 1969: Ran surface casing and W.O.C.
 July 21, 1969: 765' Drilling
 July 22, 1969: 1390' Drilling
 July 23, 1969: 1975' Drilling
 July 24, 1969: 2349' Drilling
 July 25, 1969: 2586' Drilling
 July 26, 1969: 2985' Drilling
 July 27, 1969: 3390' Drilling
 July 28, 1969: 3700' Drilling
 July 29, 1969: 3912' Tripping
 July 30, 1969: 4140' Tripping
 July 31, 1969: 4300' Drilling
 August 1, 1969: 4595' Drilling
 August 2, 1969: 4925' Drilling
 August 3, 1969: 5050' Drilling
 August 4, 1969: 5080' Running DST #2
 August 5, 1969: 5105' Running DST #3
 August 6, 1969: 5205' Drilling
 August 7, 1969: 5327' Tripping
 August 8, 1969: 5412' Tripping
 August 9, 1969: 5469' Logging
 August 10, 1969: 5469' Running DST #4
 August 11, 1969: Plugged well at Total Depth

PLUGS:
 #1 5100' - 4985' with 30 sacks cement
 #2 307' - 212' with 25 sacks (base surface casing and 10 sacks on top)

BIT RECORD:

<u>No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Depth</u> <u>Out</u>	<u>Footage</u>	<u>Hours</u>	<u>Dev.</u>
Sur.	12-1/4	STC	DT-J	317'	317'	6-1/2	1/4°
1	7-7/8	STC	DT-J	653'	336'	7-3/4	1/4°
2	"	Reed	YT3J	1030'	377'	11-1/4	3/4°
3	"	"	YT3J	1390'	360'	12-1/2	1/2°
4	"	"	YT1TR	1820'	430'	14-1/4	1-1/2°
5	"	"	YT1TR	2140'	320'	15-1/2	1-1/2°
6	"	"	"	2360'	220'	13-1/2	1-1/2°
7	"	"	"	2586'	226'	14-3/4	1-1/2°
8	"	"	"	2900'	314'	12-1/4	1-1/2°
9	"	"	"	3220'	320'	15-1/2	1-1/2°
10	"	"	"	3500'	280'	15-1/2	1°

BIT RECORD: (Cont'd)

<u>No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Depth Out</u>	<u>Footage</u>	<u>Hours</u>	<u>Dev.</u>
11	7-7/8	Reed	YS1R	3743'	243'	16-1/2	
12	"	"	"	3912'	169'	11	1°
13	"	"	"	4140'	228'	18-1/4	
14	"	"	YS1GR	4390'	250'	18-1/2	1°
15	"	"	"	4696'	306'	11-1/4	
16	"	"	YS1R	4934'	238'	16	1-1/4°
17	"	Smith	4J3	5253'	319'	44-1/2	
18	"	Reed	YHR	5327'	74'	12	
19	"	"	SC4SJ	5412'	85'	16-1/4	1/4°
20	"	"	YHWGR	5469'	75'	11-1/2	

DRILL STEM TESTS:

DST #1 5064'-5080' Misrun (did not reach total depth)

DST #2 5064-5080'
15 min. pre-blow, 60 min. initial shut-in
120 min. open, 60 min. final shut in.

Blow: Weak to fair 2" blow in pre-flow, weak blow
in 13 min. increasing to fair blow (1½")
dead in 100 min. on test.

Recovered: 60' gas in pipe
1' free oil

210' water cut mud

Resistivity .76 at 70°F, B.H.T. 132°F

	<u>Initial</u>	<u>Final</u>
Flow Pressure:	77#	111#
Shut-in Pressures:	1097#	934#
Hydrostatic Pressures:	2495#	2462#

DST #3 5086'-5105'
15 min. pre-flow, 60 min. initial shut-in,
120 min. open, 60 min. final shut-in

Blow: Strong blow in 5 min. in pre-flow, weak blow
in 5 min. increasing to fair blow in test

Recovered: 360' gas in pipe
90' oil flecked mud
120' oil flecked water cut mud

Resistivity 2.4 at 70°F B.H.T. 132°F

	<u>Initial</u>	<u>Final</u>
Flow Pressures:	55#	111#
Shut-in :	1097#	1086#
Hydrostatic " :	2517#	2462#

DRILL STEM TESTS: (Cont'd)

DST #4 5062'-5096'
 10 min. pre-flow, 30 min. initial shut-in,
 120 min. open, 60 min. final shut-in
Blow: Fair blow on pre-flow, weak blow in 3 min.
 increasing to fair blow, decreasing toward
 end of test

Recovered: 450' muddy filtrate water

Resistivity .47 at 78°, R.M.F. .58 at 60°, R.M. 1.2 at 62°
 B.H.T. 130° F

	<u>Initial</u>	<u>Final</u>
Flow Pressures:	66#	222#
Shut-in " :	1086#	1076#
Hydrostatic " :	2709#	1606#

GEOLOGICAL REMARKS:

The #1 Schneider encountered the Pennsylvanian and Mississippian formation members structurally higher than the Frankfort #1 Hardy (28-21S-48W) located 3/4 of a mile to the north. A comparison of structural tops shows the Pennsylvanian 5' high, Lansing 11' high, Marmaton 7' low, Cherokee flat, Morrow 8' low, and the Mississippian 31' high to the Hardy well.

Two intervals believed to be the Lower Mississippian St. Louis Formation (5062-5096') revealed good oil staining and fluorescence in the samples and calculated approximately 24' of total porosity in the logs. However, these intervals appear to be tight as only oil and water cut mud was recovered in the drill stem tests. There were no other significant oil or gas shows in the #1 Schneider, which was plugged and abandoned at a total depth of 5469' in the Arbuckle Formation.



Harry H. Hinman, Jr.
 Petroleum Geologist

SAMPLES:

The samples are on file with the American Stratigraphic Co. in Denver, Colorado and are described as follows from 3,000' to total depth.

SAMPLES: (Cont'd)

<u>Depth</u>	<u>Description</u>
3000-3070'	Shale: red, green-gray, black and siltstone: red, occasional trace limestone: white-light gray, hard, dense.
3070-3100'	Limestone: white-gray-tan, micro-crystalline, hard, dense
3100-3140'	Limestone: as above, and siltstone: red-brown, soft
3140-3180'	Shale: red-gray, silty and sandy
3180-3200'	Sandstone: white-gray, very fine grain, med. hard, tight, no shows
3200-3250'	Shale: green-gray, slightly sandy, trace limestone: white-gray finely crystalline, chalky
3250-3260'	Sandstone: light gray, fine grain, quartzitic, fair porosity, no shows
3260-3280'	Shale: as above and sandstone: as above
3280-3290'	Chert: tan-gray, hard
3290-3310'	Shale: as above and sandstone: gray-white, glauconitic
3310-3370'	Limestone: gray-tan, finely crystalline, oolitic, hard, dense, no shows and shale: gray-green-red, silty
3370-3420'	Shale: red-green, silty and sandy
3420-3440'	Limestone: white, chalky, finely crystalline, slightly oolitic, tr.vuggy porosity, no shows
3440-3460'	Chert: tan-opaque, hard
3460-3500'	Shale: gray-green, shale: red, trace sandstone: gray-white, fine grain, no shows
3500-3540'	Limestone: tan-gray, finely crystalline, hard, dense, slightly chalky
3540-3560'	Shale: gray-black, silty, carbonaceous and limestone: as above
3560-3580'	Sandstone: red-gray, very fine grain, silty, no shows
3580-3600'	Limestone: white-tan, finely crystalline, oolitic in part, hard, dense no shows
3600-3640'	Limestone: as above, trace chert: white-tan
3640-3660'	Limestone: gray-tan, very finely crystalline, slightly oolitic with trace oolitic porosity, no shows
3660-3700'	Limestone: as above, some oolitic porosity, no shows and Shale: gray-red
3700-3740'	Limestone: gray-tan, finely crystalline, slightly oolitic with some oolitic porosity, no shows

SAMPLES: (Cont'd)

3740-3760' Limestone: white, chalky, hard, dense
3760-3800' Shale: dark gray-black, medium hard, and chert:
white-opaque
3800-3840' Chert: as above and shale: gray-black, silty
3840-3860' Circulate 1 Hour: Lost some circulation and mud
Limestone: tan-gray, finely crystalline, very
oolitic with good oolitic and vuggy porosity,
no stain, fluorescence, or cut, looks wet
3860-3910' Limestone: tan-dark gray, finely crystalline,
hard, dense, no shows
3910-3950' Limestone: as above, and trace sandstone: gray,
very fine grain, tight
3950-4000' As above, and shale: dark gray-black, silty
4000-4030' As above, mostly cavings
4030-4050' Limestone: gray-dark gray, finely crystalline,
slightly oolitic, slightly dolomitic, hard,
dense, no shows
4050-4060' Chert: brown-opaque, hard
4060-4100' Dolomite: gray-brown, limey, finely crystalline,
hard, dense, no shows
4100-4120' Limestone: tan-brown, lithographic, finely cry-
stalline, no shows
4120-4160' Limestone: as above and shale: black, carbonaceous
4160-4200' As above, no shows
4200-4250' Limestone and Dolomite: gray-tan, slightly oolitic,
interbedded, hard, dense, no shows, slightly
fossiliferous and pellicoidal
4250-4300' As above, some black shale
4300-4320' Chert: gray-opaque, hard
4320-4340' Shale: black, carbonaceous and chert: as above
4340-4360' Shale: black, carbonaceous
4360-4380' Limestone: brown-tan, micro-crystalline, hard,
dense
4380-4560' Shale: as above and limestone: tan-brown, finely
crystalline, hard, dense, no shows
4560-4600' Dolomite: dark brown, micro-crystalline, hard,
dense, slightly argillaceous
4600-4650' Shale: black-dark gray, slightly carbonaceous
4650-4690' Shale: as above, and trace limestone: tan-brown,
micro-crystalline, no shows
4690-4850' Shale: gray-green-black, waxy, occasionally glau-
conitic
4850-4900' Limestone: tan-buff, micro-crystalline, slightly
fossiliferous, hard, dense, no shows

SAMPLES: (Cont'd)

- 4900-4940' Limestone: tan-buff, slightly sandy, with trace of micro-oolites, no shows
- 4940-5010' Limestone: as above, coarsely oolitic with occasional trace chert: tan-opaque
- 5010-5020' Limestone: tan, micro-crystalline, oolitic, no stain or cut, faint yellow fluorescence in few grains
- 5020-5060' Limestone: white-tan, coarsely oolitic, sub lithographic, dense, no shows
- 5060-5080' Circulate 1½ Hours: Dolomite: brown-dark brown, oolitic, with some oolite and trace vuggy porosity, slight brown stain, faint yellow fluorescence and cut (DST #2)
- 5080-5100' Circulate 1½ Hours: Dolomite; as above with fair brown stain, good yellow fluorescence and cut, some oolitic porosity (DST #3)
- 5100-5120' Limestone: dark brown-tan, micro-crystalline, slightly fossiliferous, hard, dense, no shows
- 5120-5130' Chert: gray-white, opaque
- 5130-5140' Shale: gray-black, medium hard
- 5140-5160' Limestone: buff, finely crystalline, fossiliferous and oolitic, no shows
- 5160-5200' Dolomite: tan-gray, finely succristic, and chert: tan-opaque
- 5200-5260' Dolomite: as above, slightly limey, no shows, hard, dense
- 5260-5280' Limestone: tan-buff, dolomitic, very finely crystalline, hard, dense, no shows
- 5280-5285' Sandstone: white, coarse grained, with abundant quartz crystals, no shows
- 5285-5300' Limestone: as above and shale: black-dark gray, carbonaceous
- 5300-5320' Dolomite: tan-dark brown, micro-crystalline, limey, slightly succristic, hard, dense, no shows
- 5320-5340' Chert: shite-blue-opaque, hard, fossiliferous
- 5340-5380' Dolomite and chert: as above, no shows
- 5380-5400' Dolomite: as above with trace intercrystalline porosity, no shows
- 5400-5420' Dolomite: gray-tan, finely crystalline, finely succristic, occasionally oolitic, hard, dense, no shows, slightly limey.
- 5420-5440' Dolomite: as above, slightly sandy, hard, dense, no shows
- 5440-5450' Chert: blue-opaque, hard
- 5450-5469' Dolomite: tan-gray, coarsely crystalline, with dull mineral fluorescence, finely succristic, slightly oolitic, hard, dense