

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved by  
Bureau No. 45-37-5.

5. LEASE DESCRIPTION AND SERIAL NO.

NM18463 JUL 13 1982

6. IF INDIAN, NATION OR TRIBE NAME

OIL CON. COM.  
DIST. 3

7. UNIT AGREEMENT

8. FARM OR LEASE NAME

Federal

9. WELL NO.

3-43

10. FIELD AND POOL, OR WILDCAT

Lybrook Gallup

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

Sec. 3, T23N, R8W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

## 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

Kenai Oil &amp; Gas Inc.

## 3. ADDRESS OF OPERATOR

1675 Larimer Street Suite 500 Denver, CO 80202

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

At surface 1830' FSL &amp; 940' FEL

At top prod. interval reported below

At total depth NESE

## 14. PERMIT NO.

## DATE ISSUED

## 15. DATE SPUDDED

1-22-82

## 16. DATE T.D. REACHED

1-30-82

## 17. DATE COMPL. (Ready to prod.)\*

4-22-82

## 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

7023' GR 7031' KB

## 19. ELEV. CASINGHEAD

7028'

## 20. TOTAL DEPTH, MD &amp; TVD

5700'

## 21. PLUG, BACK T.D., MD &amp; TVD

5669'

## 22. IF MULTIPLE COMPL., HOW MANY\*

## 23. INTERVALS DRILLED BY

## ROTARY TOOLS

0-5700'

## CABLE TOOLS

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

5594'-5264' Gallup

## 25. WAS DIRECTIONAL SURVEY MADE

Yes

## 26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Induction, FDC-CNL, Spectralog

## 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"	24#	279' KB	12 1/4"	200 sxs. Class B	None
4 1/2"	9.5#	5700' KB	7 7/8"	1st stage 275 sxs. 50-50poz	None
				DV Tool@4450' 2nd stage 300 sxs. 65-35poz	50 sxs-
				DV Tool@2050' 3rd stage 325 sxs. 65-35poz	Class B

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	30. TUBING RECORD
None					SIZE DEPTH SET (MD) PACKER SET (MD)
					2 3/8" 5609' None

## 31. PERFORATION RECORD (Interval, size and number)

5594', 5549-52, 5525-30, 5516-20, 5508-12, 5499-5502, 5489-96, 5485-88, 5476-81, 5457-64, 5436-39, 5418-23, 5378-98, 5370-73, 5362-66, 5350-58, 5334-36, 5321-25, 5310-14, 5286-91, 5264-73,

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5594-5418	1400 gals, 7 1/2% HCL, 65,000 gals
750'	foam, 98,000#20-40, 32,000#10-2
5378-5264'	1000 gals, 7 1/2% HCL, 64,080 gals
750'	Foam, 85,000#20-40, 28,000#10-2

## 33. .40", 248 shots

## PRODUCTION

## DATE FIRST PRODUCTION

4-17-82

## PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

Flowing, Swabbing

## WELL STATUS (Producing or shut-in)

Shut-in

## DATE OF TEST

4-22-82

## HOURS TESTED

3

## CHOKE SIZE

Open

## PROD'N. FOR TEST PERIOD

OIL—BBL.

37.5

## GAS—MCF.

73

## WATER—BBL.

0

## GAS-OIL RATIO

1947

## FLOW. TUBING PRESS.

35 psi

## CASING PRESSURE

## CALCULATED 24-HOUR RATE

OIL—BBL.

300

## GAS—MCF.

584

## WATER—BBL.

0

## OIL GRAVITY-API (CORR.)

40

## 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Vented during test to be sold at common sale point-

## TEST WITNESSED BY

Dave Howell

## 35. LIST OF ATTACHMENTS

Geological Report

3-23

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

## SIGNED

## TITLE

Manager of Production

## DATE

6/24/82

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

NMOCG

dick harnly  
consulting petroleum geologist  
102 Sullivan Ave, Durango Colorado, 81301, 303-247-1518

WELLSITE GEOLOGIC REPORT

KENAI OIL & GAS INC  
Federal 3-43  
ne se 3-T23N-R8W  
San Juan County, New Mexico

Prepared by: Dick Harnly

dick harnly  
consulting petroleum geologist  
1932 easttown ave, durango colorado, 81301, 303-247-1518

OPERATOR: Kenai Oil & Gas Inc.

WELL: Federal #3-43

FIELD: Escrito Nageezi, Gallup

LOCATION: ne se 3-T23N-R8W  
940 FEL, 1830 FSL  
San Juan County, New Mexico

DRILLING CONTRACTOR: Young Drilling Co., Rig 2  
Pusher: Gary Hawkins

MUD LOGGING: Durango Well Logging  
Logger: Mark Harnly

WELLSITE GEOLOGY: Dick Harnly

MUD: Shiprock Mud Co.  
Scott Smith

LOGGING: Schlumberger  
J. Keane, C. Badowski

TESTING: No cores or tests

FORMATION TOPS (from "E" logs)

Elevations: 7018 GL, 7031 KB

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Pictured Cliffs	1830	+5201
Lewis	1928	+5103
Cliff House	3302	+3729
Point Lookout	4113	+2918
Mancos	4395	+2636
Gallup	5246	+1785
Total Depth(Schlumberger)	5698	+1333
Total Depth(Drilled)	5700	+1331

Note: For Bit Record and Mud Properties see mud log.

## WELLSITE GEOLOGY & MUD LOGGING

Starting at a depth of 2500 feet these services were performed by representatives of Durango Well Logging . Mud logging operations were conducted by Mark Harnly under the supervision of the wellsite geologist. The services provided by this one man mud logging unit included preparation of the drill cutting samples for examination, monitoring of the gas detection and analysis equipment and preparation of the mud log with lithologic interpretation by the geologist. Wellsite geologic services were performed by Dick Harnly. Samples of the drill cuttings were caught by members of the drilling contractor's crews. The samples were of a fair to good quality except where noted.

## OIL & GAS SHOWS

Mud logging and wellsite geologic services were started at 2500 feet and with the exception of several shows of methane, from coals, no indications of hydrocarbons were detected above the Point Lookout formation.

In the upper portion of the Point Lookout formation a medium grained sandstone was found to exhibit a good to fair yellow fluorescence in about 50% of the sample from 4165 to 4180 feet. This calcareous sandstone yielded a fair yellow white cut fluorescence and a total gas reading was recorded from this interval as 12 units of total gas... 7 units of methane, 3 units of ethane and a trace of propane. Deeper in this formation, 4375-79 feet, a very fine grained, argillaceous sandstone exhibited a fair spotty yellow fluorescence and a fair to poor yellow slightly green cut fluorescence. Total gas recorded from this zone reached 10 units... composed of 7 units of methane, 2 units of ethane

and a trace of propane. This thin, tight, slightly calcareous sandstone may react to proper stimulation at completion time.

No shows of hydrocarbons were detected in the Mancos formation.

In the Gallup four shows of hydrocarbons were noted in the samples and/or recorded on the gas detection equipment. The uppermost zone of interest, 5254-65 feet, contained a very fine grained silty sandstone with a fair yellow fluorescence and a slow milky cut fluorescence. Gas from this zone was recorded as 11 unit of total gas... 6 units of methane, 3 units of ethane, 1 unit of propane and a trace of butane.

The second show noted in the Gallup was recorded by the gas detection equipment between 5370 and 5385 feet. Here a maximum gas reading of 28 units containing 14 units of methane, 8 units of ethane, 2 of propane and a trace of butane. No shows were found in the samples, suggesting a very friable sandstone.... this assumption is based in part by the fast rate of penetration (1 minute per foot). This interval presented the best evidence of hydrocarbons encountered in the drilling operation. An other zone was noted in the samples 5445-55 feet as evidenced by a trace of a very fine grained tan sandstone. This sandstone exhibited a good bright yellow fluorescence with a fair bleeding blue white cut fluorescence and a gas reading of 14 units, 10 units of methane, 2 ethane and a trace of propane. The small percentage of show in this sample was due to an abundance of "cavings" caused by the slow rate of drilling in most of the Gallup zone. The final show detected was found in a trace of very fine grained sandstone with a poor yellow fluorescence and a poor milky cut fluorescence.... no gas was detected coming from this zone. The credibility of the value of this sample show was also influenced by a very high percentage of cavings due to the high viscosity (60-72) and the slow rate of penetration. This show 5600-05 may be valid or cavings.