

FRAC  - 10/6  
 New Location...   
 Drill Deeper...   
 Abandonment...

Company CABOT OIL & GAS CORP. OF W. VA.  
 Address Box 628 Charleston W. Va.  
 Farm Etta R. Prichard  
 Tract 26 Acres 101 7/8 Lease No. 2176  
 Well (Farm) No. 2 Serial No. 874  
 Elevation (Spirit Level) 991.21  
 Quadrangle Wayne SE  
 County Wayne District Grant  
 Engineer T.S. Flournoy  
 Engineer's Registration No. 269  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date June 18, 1953 Scale 1" = 500'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. WAY-907-Frac

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

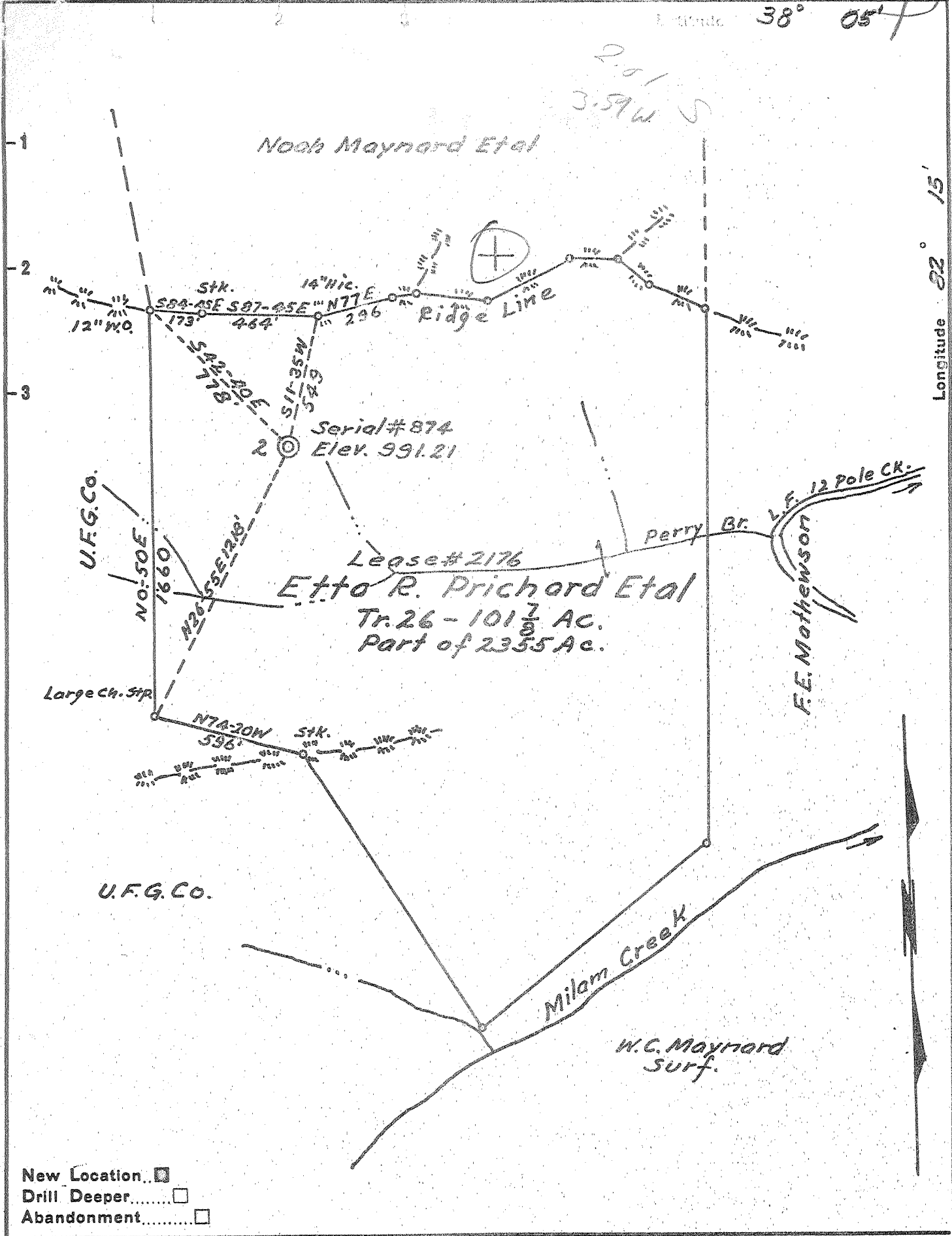
OCT 11 1953

47-099

-OWWO- 6-6 Mary-Cove Creek (232)  
 DEEP WELL

38° 05' 15"

Longitude 82° 15'



- New Location...
- Drill Deeper.....
- Abandonment.....

Company OWENS, Libbey-Owens Gas Dept  
 Address Box 4158 Charleston & W. Va.  
 Farm Etto R. Prichard  
 Tract 26 Acres 101 7/8 Lease No. 2176  
 Well (Farm) No. 2 Serial No. 874  
 Elevation (Spirit Level) 991.21 SF  
 Quadrangle Wayne  
 County Wayne District Grant  
 Engineer T.S. Flournoy  
 Engineer's Registration No. 269  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date June 18, 1953 Scale 1" = 500'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. WAY-907

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

Sample (MI 24-E) (1401-1612) 21012-3500  
 5-6-232 Deep Well



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION /

adrangle Wayne

mit No. 907

WELL RECORD

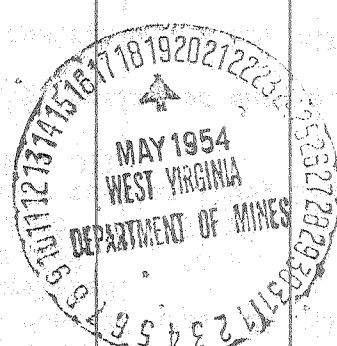
Oil or Gas Well Gas  
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPARTMENT  
Address P. O. Box 4158, Charleston 4, W. Va.  
Name Etta R. Pritchard et al Acres 101-7/8  
Location (waters) \_\_\_\_\_  
Well No. 2 (Serial # 874) Elev. 991.21  
District Grant County Wayne  
The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_  
Other rights are owned by Etta R. Pritchard et al  
Address Wayne, W. Va.  
Drilling commenced 2-12-54  
Drilling completed 5-5-54  
Shot 5-13-54 From 2560 To 3677  
Shot 6800# Detonite  
Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ total Inch  
Volume B.L. & B.L. 79M; Br. Sha. & Cornif. 29M; 108 Cu. Ft.  
Back Pressure B.L. & B.L. 350# lbs. 2 1/2 hrs. hrs.  
Shale & Cornif. 205# bbls., 1st 24 hrs.  
Flow water 295 feet \_\_\_\_\_ feet  
Total water 1010 feet 1081 feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
18			
10			Size of
<del>8-5/8"</del> 8-5/8"	484' 8"	484' 8"	
<del>7"</del> 7"	1534'	1534'	Depth set
<del>5 1/2"</del> 5 1/2"	1715'	1715'	
8			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
COAL WAS ENCOUNTERED AT 243 FEET 36 INCHES  
FEET INCHES FEET INCHES  
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
ay Soil	Yellow	Soft	0	10			
nd	Grey	Med.	10	40			
ate	White	Soft	40	45			
nd	White	Med.	45	78			
ate	Dark	Soft	78	118			
nd	Grey	Med.	118	123			
ate	Dark	Soft	123	156			
nd	White	Med.	156	210			
ate	White	Med.	210	243			
al	Black	Soft	243	246			
nd	White	Med.	246	330			
ate	White	Soft	330	398			
nd	White	Med.	398	454			
ate	Dark	Soft	454	510			
nd	Light	Med.	510	540			
roken Sand	Dark	Soft	540	574			
ate	Dark	Soft	574	580			
nd	Light	Med.	580	615			
nd	Dark	Soft	615	625			
ate	Dark	Soft	625	645			
me	Light	Med.	645	653			
nd	Light	Med.	653	678			
ate	Dark	Soft	678	715			
me Shell	Dark	Med.	715	742			
ate	White	Soft	742	752			
nd	White	Med.	752	838			
ate	Dark	Soft	838	849			
ate	White	Soft	849	889			
me	White	Med.	889	895			
nd	White	Med.	895	935			
nd	Dark	Med.	935	963			
nd	Light	Med.	963	1037			
nd	White	Hard	1037	1129			
me Shell	Dark	Hard	1129	1144			
nd	White	Hard	1144	1191			
ate	Black	Soft	1191	1199			
ell	Grey	Hard	1199	1223			
nd	White	Hard	1223	1257			
					(OVER)		
					Gas 1217	Show	



Water at 295 1/2 BPH

6 1/2 Coils of water at 1010'  
Water hole filling up at 1081'  
Water level 440 at 1129'.

Location	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	
Sl. & Shells	Dark	Med.	1257	1296			
Shell	Grey	Hard	1296	1301			
Maxton	White	Hard	1301	1393			
Little Lime	Grey	Hard	1393	1412			
Pencil Cave	Grey	Soft	1412	1414			
Big Lime	Light	Hard	1414	1427			
Sl. break	White	Soft	1427	1430			
Big Lime	Grey	Hard	1430	1453			
Big Lime	White	Hard	1453	1615	Oil Show 1453 - 1459'		
Injun Sand	Red	Soft	1615	1654	Gas 1559-1562	16.7 M	
Injun Sand	White	Med.	1654	1672	Gas 1568	88 M	
Injun Sand	Grey	Hard	1672	1696	Test 1596	71 M	
Slate	Dark	Soft	1696	1699	Oil, 1612	3 gal. in 6 hr. test	
					Test 1618	.68 M	
					Shut down 22 hrs.,	20 gal. of oil accumulated.	
					Test 1639	66 M	
					Gas 1656	97 M	
Slate	Dark	Med.	1699	1712	48 hour test at 1699,	4 gal. water, 17 gal. Oil.	
Lime Shell	Grey	Hard	1712	1715			
Slate	Dark	Soft	1715	1721	Ran 5 $\frac{1}{2}$ " casing on shoe at 1715'.		
Slate	Light	Soft	1721	1766	5x7 casinghead, 9 hr. R.P. 350#.		
					3-31-54 Casinghead open for 23 hours		
					Final open flow	79 M	
					Turned into line 3-31-54.		
Slate	Light	Soft	1766	1818			
Sl. & Shells	Light	Soft	1818	1848			
Slate	Light	Soft	1848	1918			
Sl. & Shells	Light	Soft	1918	1952			
Slate	Light	Soft	1952	2019			
Sl. & Shells	Light	Med.	2019	2084			
Slate	Light	Soft	2084	2184			
Br. Shale	Brown	Soft	2184	2209			
Berea	Grey	Med.	2209	2224	Gas 2219'	16.7 M	
Sl. & Shells	Light	Med.	2224	2237			
Shell	Grey	Hard	2237	2250			
Slate	Light	Soft	2250	2270			
Shell	Light	Med.	2270	2276			
Br. Sha. & Shls.	Brown	Soft	2276	2324			
Br. Shale	Brown	Soft	2324	2334			
Sl. & Shells	Light	Med.	2334	2419			
Slate	Light	Med.	2419	2454			
Lime	Grey	Hard	2454	2484			
Slate	Light	Soft	2484	2716			
Sl. & Shs.	Light	Soft	2716	2765			
Slate	Light	Soft	2765	2912			
Br. Shale	Brown	Soft	2912	2936			
Sl. & Shs.	Grey	Med.	2936	2961			
Br. Shale	Brown	Soft	2961	2967			
Sh. & Shls.	Grey	Med.	2967	2982			
Br. Shale	Brown	Med.	2982	2999			
Br. Shale	Brown	Soft	2999	3072			
Slate	Light	Med.	3072	3081	Test 3081'	11.0 M	
Br. Shale	Brown	Med.	3081	3222	Gas 3091'	12.2 M	
Sl. & Shls.	Light	Med.	3222	3234			
Slate	White	Soft	3234	3273			
Lime	White	Med.	3273	3301			
Slate	White	Soft	3301	3357			
Sl. & Shls.	White	Med.	3357	3388			
Slate	White	Soft	3388	3452			
Sl. & Shls.	Dark	Med.	3452	3485			
Slate	White	Soft	3485	3500			
Br. Shale	Brown	Soft	3500	3575			
Cornif. Lime	Grey	Hard	3575	3678			
	Total Depth			3678	(CONT.)		

Date May 18, 1954

APPROVED OWENS, LIBBEY-OWENS GAS DEPT. Owner

By \_\_\_\_\_ (Title)

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION /A

## WELL RECORD

Permit No. 907

Oil or Gas Well GAS  
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPT.  
 Address P. O. Box 1158, Charleston 1, W. Va.  
 Farm Etta R. Pritchard Acres 101-7/8  
 Location (waters) \_\_\_\_\_  
 Well No. \_\_\_\_\_ Elev. \_\_\_\_\_  
 District \_\_\_\_\_ County \_\_\_\_\_  
 The surface of tract is owned in fee by \_\_\_\_\_  
 Address \_\_\_\_\_  
 Mineral rights are owned by Etta R. Pritchard et al  
 Address Wayne, W. Va.  
 Drilling commenced 2-12-54  
 Drilling completed 5-5-54  
 Date Shot 5-13-54 From 2560 To 3677  
 With \_\_\_\_\_  
 Open Flow /10ths Water in \_\_\_\_\_ Inch  
 /10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft.  
 Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
 Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer _____
13			
10			Size of _____
8 1/2			
6 1/2			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_

COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
		Total Depth After Shot		3019	Test 3678	10.6 M	
					Shot 5-13-54 with 6800# Detonite, from 2560 to 3677'.		
					Test before shot - 10.6 M		
					Test 15 Min. A. S.	823 M	
					Test 1 Hr. " "	316 M	
					Test 24 Hrs. " "	29.3 M	
					5-14-54 - Cleaned out	3019 - 3075	
					Test 3025	28.2 M	
					Test 3075	22.1 M	
					5-15-54 - Cleaned out	3030 - 3588	
					Final open flow:		
					Big Lime & Big Injun	79 M	
					Br. Shale	29 M	
					Total	108 M	
					Well shut-in in 5 1/2" casing		
					24 hour pressures:		
					Big Lime & Big Injun	350#	
					Shale & Corniferous	205#	



1) Date: August 25, 19 83  
 2) Operator's Well No. E.R. Pritchard #2  
 3) API Well No. 47 099 0907-FRAC  
 State County Permit

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION  
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil  / Gas  /  
 B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )  
 5) LOCATION: Elevation: 991.21 Watershed: Perry Branch  
 District: Grant County: Wayne Quadrangle: Wayne 15', Kiahsville 7 1/2'  
 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT Robert E. Horrell  
 Address P.O. Box 628 Address P.O. Box 628  
Charleston, WV 25322 Charleston, WV 25322  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Kenneth Butcher Name UNKNOWN  
 Address RFD #1 Address \_\_\_\_\_  
Barboursville, WV 25504  
 10) PROPOSED WELL WORK: Drill  / ~~Drill deeper~~ / Redrill  / Stimulate  /  
 Plug off old formation  / Perforate new formation  /  
 Other physical change in well (specify) \_\_\_\_\_  
 11) GEOLOGICAL TARGET FORMATION, Big Lime, Injun  
 12) Estimated depth of completed well, 1750 feet  
 13) Approximate trata depths: Fresh, 295 feet; salt, \_\_\_\_\_ feet.  
 14) Approximate coal seam depths: 243-246 Is coal being mined in the area? Yes  / No  /

15) CASING AND TUBING PROGRAM WORKOVER

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds Oilwell
Fresh water									Hookwall
Coal	8-5/8"		24#				484'		Sizes 3 1/2 x 6-5/8
Intermediate	7"		20#				1534'		
Production	5 1/2"						1715'	Pulled	Depths set 2242'
Tubing	3 1/2"						2245'	Pull	
Liners	4 1/2"					Proposed	1750'		Perforations: Top Bottom
	2-3/8"					Proposed	1700'		

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-099-0907-FRAC Date October 6, 19 83

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires October 6, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee:
<u>T.S.</u>	<u>T.S.</u>	<u>T.S.</u>	<u>T.S.</u>	<u>11713</u>

Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

17-35  
(Rev 8-81)



65

**RECEIVED**  
JUN 1 - 1984  
OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date May 22, 1984  
Operator's  
Well No.                      #2  
Farm E. R. Pritchard  
API No. 47 - 099 - 0907 Frac

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil      / Gas X / Liquid Injection      / Waste Disposal      /  
(If "Gas," Production X / Underground Storage      / Deep      / Shallow X /)

LOCATION: Elevation: 991.21 Watershed Perry Branch  
District: Grant County Wayne Quadrangle Wayne 15, Kiahsville

7 1/2

COMPANY Cabot Oil & Gas Corp. of W. Va.  
ADDRESS P.O. Box 628, Charleston, WV 25322  
DESIGNATED AGENT Robert E. Horrell  
ADDRESS P.O. Box 628, Charleston, WV 25322  
SURFACE OWNER Dept. of the Army, Huntington Div.  
Kyger Corps of Engineers/Attn: Ronald G.  
ADDRESS 502 8th Street  
Huntington, WV 25701  
MINERAL RIGHTS OWNER Etta R. Pritchard et al  
ADDRESS Wayne, WV  
OIL AND GAS INSPECTOR FOR THIS WORK Kenneth  
Butcher ADDRESS RFD #1, Barboursville, WV  
25504  
PERMIT ISSUED 10/6/83  
~~WORKOVER~~  
~~DRILLING~~ COMMENCED 10/24/83  
~~WORKOVER~~  
~~DRILLING~~ COMPLETED 11/10/83

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7	Pulled 121.25'	1409'	
5 1/2			
4 1/2		1690.70'	153 cu.ft
3 1/2	Pulled	---	
2		1659.16'	
Liners used		Seating collar @ 1639 19' perf jt. on bottom	

GEOLOGICAL TARGET FORMATION Big Lime and Injun Depth                      feet  
Depth of completed well 1705 PBT feet Rotary      / Cable Tools       
Water strata depth: Fresh      feet; Salt      feet  
Coal seam depths:      Is coal being mined in the area?     

OPEN FLOW DATA  
Producing formation Big Lime and Injun Pay zone depth      feet  
Gas: Initial open flow      Mcf/d Oil: Initial open flow show Bbl/d  
4 Hr. Final open flow 290 Mcf/d Final open flow      Bbl/d  
Time of open flow between initial and final tests      hours  
Static rock pressure 340 psig (surface measurement) after 168 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation      Pay zone depth      feet  
Gas: Initial open flow      Mcf/d Oil: Initial open flow      Bbl/d  
Final open flow      Mcf/d Oil: Final open flow      Bbl/d  
Time of open flow between initial and final tests      hours  
Static rock pressure      psig (surface measurement) after      hours shut in

JUN 25 1984

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Pulled 3-1/2" tubing and packer out of hole. 10/27/83 - Rigged up McCullough. Set Model S bridge plug @ 1705'. Dumped 2 sks. sand and 1 sk. calseal on top. 7" csg. now set @ 1409'. Pulled 6 jts. of 7" casing 121.25'. Ran 55 jts. of 4-1/2" (1690.70'), set @ 1690.70' G.L. HOWCO, cemented with 130 sks. Class A 3/4 of 1% CFR-2, 2% gel, 3% CaCl<sub>2</sub>. 10/30/83 - Rigged up McCullough. LTD 1673'. Top of cement 984'. Perforated Injun in acid 1641-1656' (15 holes). 11/01/83 - Rigged up HOWCO. Broke down Injun with 500 gal. 15% HCL @ 2600#. Foam frac with 30,000# 20/40 sand (max. conc. 2-1/2#/gal.) 170,000 SCF N<sub>2</sub>. AIR 20.8 BPM with 10,000 SCF N<sub>2</sub>/min. ATP 1957#. Total fluid 173 bbls. (138 bbls. sand laden). Flowed back thru 1/2" choke. 11/02/83 - Rigged up McCullough. Perforated Big Lime (18 holes), 1471-73' (2 holes), 1476-82' (7 holes), 1553-57 (5 holes), 1560-62 (4 holes). HOWCO. Brokedown Big Lime @ 2900#, acid fraced Big Lime with 30#/bbl. gel system, 3,000 gals. 28% acid, 23,000# 20/40 sd. (Max. sand concentration 3#/gal.) AIR 15.2 BPM. ATP 2152#. Total fluid 335 bbls., S/L 265 bbls. ISIP 1860#, 5 minutes 1230#, 15 minutes 1070#. Flowed 2 hrs. and went dead.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
See attached original well record.					

(Attach separate sheets as necessary)

Cabot Oil & Gas Corporation of W. Va.

Well Operator

By: Robert E. Hanel

Date: May 22, 1984

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."