

Company CABOT OIL & GAS CORP OF WV

Address P.O. Box 628, Charleston, W.Va

Farm Putnam Co. Unit # WV-31

Tract \_\_\_\_\_ Acre: 772 Lease No. 3-464

Well (Farm) No. 38 Serial No. 1104

Elevation (Spirit Level) 737'

Quadrangle Kenna NW

County Putnam District Union

Engineer Logan McDonald

Engineer's Registration No. 610

File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_

Date 5-5-43 Scale 1" = 1320'

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

WELL LOCATION MAP  
FILE NO. Put-241-Frac.

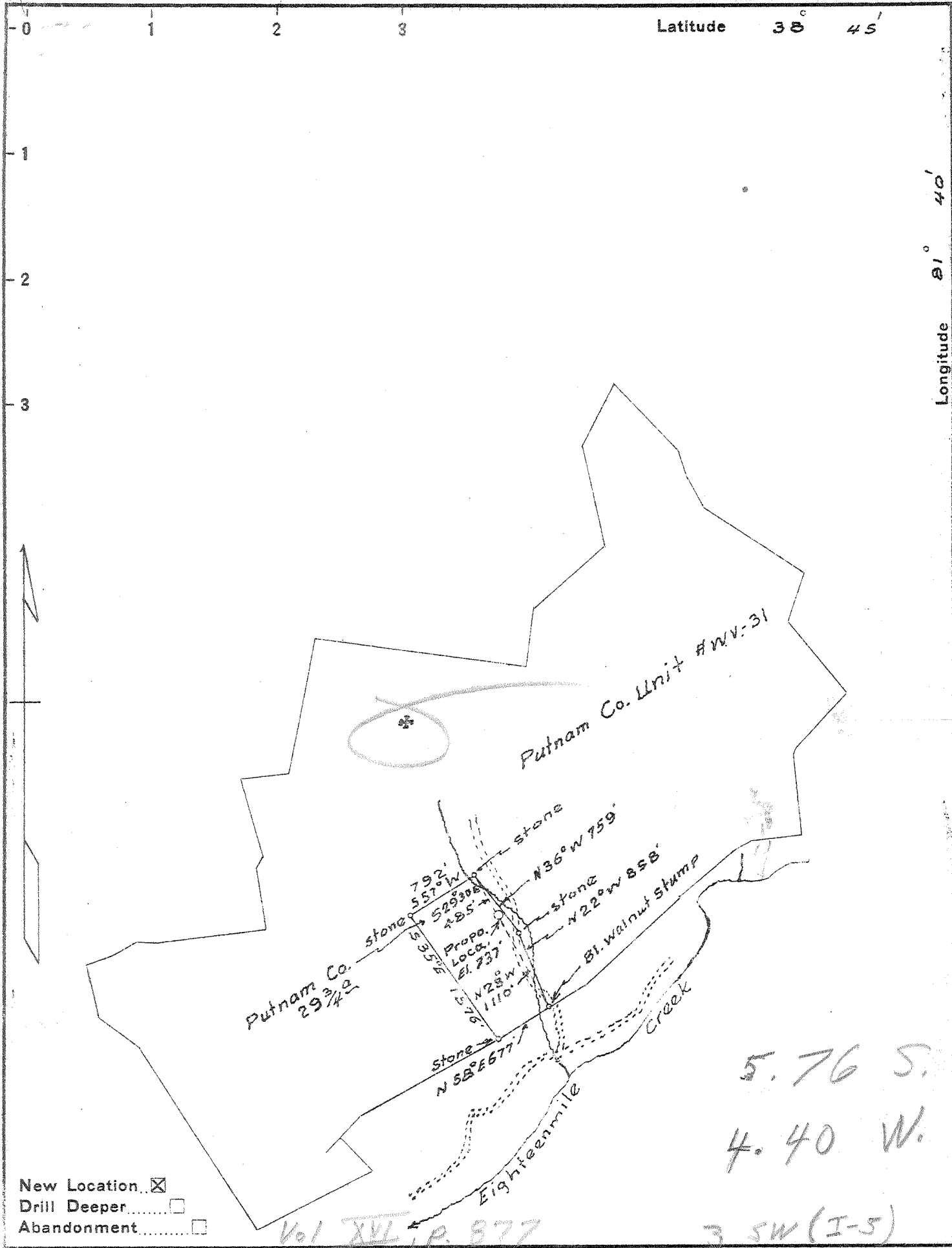
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

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

JUL 16 1984

owwo - Deep Well 66 Elk Fork (Sissonville) (192)

A.



5.76 S.  
4.40 W.

Vol XL, P. 877

3 SW (I-5)

New Location   
 Drill Deeper   
 Abandonment

Company Godfrey L. Cabot, Inc.  
 Address 900 Union Bldg. Charleston, W. Va.  
 Farm Putnam Co. Unit # WV-31  
 Tract \_\_\_\_\_ Acre 772 Lease No. 3-464  
 Well (Farm) No. 38 Serial No. 1104  
 Elevation (Spirit Level) 737'  
 Quadrangle Kenna - NW  
 County Putnam District Union  
 Engineer Lugan McDonald  
 Engineer's Registration No. 610  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 5-5-43 Scale 1" = 1320'

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

WELL LOCATION MAP  
 FILE NO. Put-241

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6-6 Elk Poca (Sissonville) (192)

Deep Well

Tract 158

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Put 241  
Kenna Quad.  
Company  
Address  
Farm  
Location  
Well No  
District  
Surface  
Mineral  
Commenced  
Completed  
Date shot  
Volume  
Rock Pressure  
Fresh water  
Salt Water

Gas Well  
CASING & TUBING

Godfrey L. Cabot, Inc.  
Charleston, W.Va. 10½(35.75) 224 224 (1)  
Putnam Company Acres 8(25.55) 907 907 (2)  
7(24) 2090 2090 (3)  
38--Ser. 1104 Elev. 737' 5½(15.50) 2818 4813 (4)  
Union Putnam County

1/2" coupling casing shoe  
8" x 12" casing shoe  
7" OD casing shoe & aquagel.  
July 30, 1943  
Nov. 27, 1943  
11-29-43 -with 30 qts. 4897 to 4919 5½" OD B.H.  
B.S. 36 MCF; 80 Min. A.S. 520 MCF Packer #20958  
A.S. 1770 lbs. in 20 hrs. (Oriskany) and aquagel.  
Hole full at top 15'; 220' 2 blrs. pr. hr.  
1060' 2 blrs. pr. hr.; 1582; 1588' H.F.

Lime	0	15	GAUGES IN ORISKANY SAND- B.S.
Red Rock	15	208	4898 show
Sand	208	218	4904-07 189 M
Red Rock	218	223	4911 119 M
Slate	223	228	4936 119 M
Red Rock	228	307	4943 94 M
Pink Rock	307	328	4958 73 M
Red Rock	328	362	GAUGES IN ORISKANY - A.S.
Slate	362	435	Before shot 45 M
Red Rock	435	563	3 Mins. A.S. 615 M
Sand	563	608	10 Mins. A.S. 600 M
Red Rock	608	700	20 Mins. A.S. 577 M
Blue Shale	700	730	80 Mins. A.S. 520 M
Lime	730	760	
Red Rock	760	775	Gas 1500-03
Blue Shale	775	800	Show gas 3110-13
Red Rock	800	840	Gas 4898-4901 Show
Blue Shale	840	860	
Sandy Shale	860	875	

PRODUCING SAND RECORD

Big Dunkard	890	945	Oriskany 4898 to 4907 <u>189</u> MCF
Slate	945	1060	(best gauge)
Lime	1060	1075	
Slate	1075	1090	
Sand	1090	1262	
Lime	1262	1300	
Slate & Shells	1300	1500	
Salt Sand	1500	1776	
Big Lime	1776	1942	
Injun Sand	1942	2008	
Sand & Lime Shells	2008	2077	
Lime	2077	2088	
Lime & Slate	2088	2093	
Lime & Slate	2093	2210	
Slate & Shells	2210	2425	
Brown Shale	2425	2430	
Berea Sand	2430	2465	
Slate & Shells	2465	2695	
Lime	2695	2710	
Slate	2710	2727	
Slate & Shells	2727	3680	
Brown Shale	3680	3740	
White Slate	3740	3900	
Brown Shale	3900	4040	
White Slate	4040	4090	
Brown Shale	4090	4180	
White Slate	4180	4550	
Brown Shale	4550	4794	
Corniferous Lime	4794	4896	SLM
Oriskany Sand	4896	4915	SLM
Lime	4915	4926	
Sand	4926	4954	
Lime	4954	4955	
TOTAL DEPTH		4955	

$$\begin{array}{r} 4794 \\ 737 \\ \hline 4057 \end{array}$$

$$\begin{array}{r} 4891 \\ 737 \\ \hline 4154 \end{array}$$

$$\begin{array}{r} 4954 \\ 737 \\ \hline 4217 \end{array}$$

R.P. 1958-1400 #  
Fract  
1-17-58  
20 M Before

RECEIVED



FD-35 (Rev 8-61)

OCT 15 1984

OIL & GAS DIVISION DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date October 11, 1984 Operator's Well No. #38 Farm Putnam API No. 47 - 079 - 0241-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: 737 Watershed Barn Hollow of Eighteenmile Creek District: Union County Putnam Quadrangle Kenna 7 1/2'

COMPANY Cabot Oil & Gas Corporation of WV ADDRESS P.O. Box 628, Charleston, WV 25322 DESIGNATED AGENT Robert F. Horrell ADDRESS P.O. Box 628, Charleston, WV 25322 SURFACE OWNER Mr. Delmer L. Pritt & Mrs. Beulah M. Pritt ADDRESS Route 1, Box 222, Given, WV 25245 MINERAL RIGHTS OWNER Kanawha Valley Bank Frank A. Hardy, et al ADDRESS c/o Trust Dept., P.O. Box 1793 Charleston, WV 25326 OIL AND GAS INSPECTOR FOR THIS WORK Jerry Holcomb Rural Rt. #1 - Box 28 Hamlin, WV 25523

Table with 4 columns: Casing & Tubing Size, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2 1-1/2 and Liners used.

PERMIT ISSUED July 13, 1984 WORKOVER COMMENCED 9/13/84 WORKOVER COMPLETED 10/3/84

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

GEOLOGICAL TARGET FORMATION Huron Shale Depth 3674-4164 feet Depth of completed well PBD 4300 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 Huron Shale Pay zone depth 3674-4164 feet Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d 4 hr. Final open flow 507 Mcf/d Final open flow Bbl/d Time of open flow between initial and final tests hours Static rock pressure 810 psig (surface measurement) after 96 hours shut in (If applicable due to multiple completion--)

NOV 13 1984

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

9/13/84 - MIRU Pool Well Service. 9/16/84 - R/U McCullough, shot off pipe one jt. above pkr.  
 9/22/84 - Pulled 3-1/2" EUE tbg. Total 154 jts. 3-1/2" 4768.30'. Set permanent BP @ 4773'. Dumped 1-1/2 sks. Cal-Seal on BP to plug back Oriskany. Ran GR & bond logs from 4757-2390'. 9/24/84 - Shot squeeze perfs @ 4340' (8 holes). Set HOWCO E-Z drl. cement retainer @ 4300'. 9/25/84 - Squeezed w/50 sks. 50/50 Poz 3/4 of 1% CFR2. 9/26/84 - Perf. Huron Shale: 3674', 3674', 3676', 3955', 3962', 4000', 4074', 4077', 4091', 4106', 4121', 4132', 4136', 4155', 4164'. 9/27/84 - Open flow thru 2" after 4 hrs. 10/10 = 133 MCF/D.  
 9/28/84 - Ran 115 jts. 2-7/8" EUE tbg. w/ HOWCO RTTS pkr. to 3651.40'. R/U Dowell. Broke down shale @ 2400 psi. Treated w/1,500,000 SCF N<sub>2</sub>. AIR 30,000 SCF/min N<sub>2</sub>. ATP 3600 psi. MTP 3600 psi. ISIP 1600 psi, 15 min. 1400 psi. Release thru 1". 10/2/84 - TOOH w/2-7/8" EUE tbg. 10/3/84 - Ran 128 jts. 1-1/2" tbg. to 4185.05'. Seating nipple @ 4151.75' w/perf jt.

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 WEST VIRGINIA  
Well Operator

By: Robert E. Stennell

Date: October 11, 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 ... encountered in the drilling of ..."



1) Date: June 22, 19 84  
 2) Operator's Well No. Putnam #38  
 3) API Well No. 47 - 079 - 241 - 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 X /  
 B (If "Gas", Production X / Underground storage        / Deep        / Shallow X)  
 5) LOCATION: Elevation: 737' Watershed: Barn Hollow of Eighteenmile Creek (K16)  
 District: Union County: Putnam Quadrangle: Kenna 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 Jerry Holcomb Name UNKNOWN  
 Address Rural Rte. #1 - Box 28 Address         
Hamlin, WV 25523 824-3337  
 10) PROPOSED WELL WORK: Drill        / Drill deeper        / Redrill        / Stimulate         
 Plug off old formation X / Perforate new formation X /  
 Other physical change in well (specify) PLUG BACK ORISKANY  
 11) GEOLOGICAL TARGET FORMATION, HURON SHALE OIL & GAS DIVISION  
 12) Estimated depth of completed well, 4480 feet DEPT. OF MINES  
 13) Approximate strata depths: Fresh, 220 feet; salt, 1060 feet.  
 14) Approximate coal seam depths: N/R Is coal being mined in the area? Yes        / No X

**RECEIVED**  
 JUN 25 1984  
 OIL & GAS DIVISION  
 DEPT. OF MINES

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	10-3/4		35			EXISTING	224	ON SHOE	Kinds	
Fresh water	8		25			EXISTING	907	ON SHOE		
Coal									Sizes	
Intermediate	7		24			EXISTING	2090	ON SHOE		
Production	5-1/2		15.5			EXISTING	4813	ON PACKER	Depths set	
Tubing	3				PULL	EXISTING	4909	ON PACER		
Liners									Perforations:	
	1-1/2					PROPOSED	4500		Top	Bottom

1. Spot cement plug 4909-4770'.  
 2. Set cement retainer @ 4480'.  
 3. Squeeze cement 5-1/2" casing from 4500-3500'.

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-079-0241-FRAC Date July 13, 1984

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 July 13, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

BLANKET	Agent: <u>LP</u>	Plat: <u>MD</u>	Casing: <u>MD</u>	Fee: <u>013-311</u>
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*[Signature]*  
 Administrator, Office of Oil and Gas

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

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File