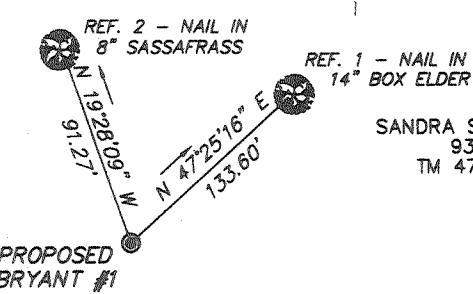


**REFERENCES N.T.S.**



NOTE: NO POSSIBLE WATER SOURCES LOCATED WITHIN 1000' OF PROPOSED LOCATION.  
 (+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No. 8723-560  
 DRAWING No. BRYANT #1  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION SPOT ELEV. AT ROAD INTERSECTION EL. = 620

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES  
 (SIGNED) William J. Whitman R.P.S.  
 R.P.E. \_\_\_\_\_ R.P.S. 646



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 NITRO, WV

DATE APRIL 9 19 97  
 OPERATOR'S WELL No. BRYANT #1  
 API WELL No. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 841.35 WATER SHED WOLF RUN OF POND CREEK  
 DISTRICT STEELE COUNTY WOOD  
 QUADRANGLE POND CREEK, W. VA.

SURFACE OWNER G. W. BRYANT ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER G. W. BRYANT LEASE ACREAGE \_\_\_\_\_  
 LEASE No. \_\_\_\_\_

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
 FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_

WELL OPERATOR CABOT OIL & GAS CORP. DESIGNATED AGENT JOHN ABSHIRE  
 ADDRESS P.O. BOX 1473 ADDRESS P.O. BOX 1473  
CHARLESTON, W. VA. CHARLESTON, W. VA.

MAY 30 1997

DEEP 11911 6-6 256

Date: 11-Nov-97  
 API # 47-107-01586

**State of West Virginia  
 Division of Environmental Protection  
 Section of Oil and Gas  
 Well Operator's Report of Well Work**

Well name: Bryant, Gary W. Operator Well No.: G.W. Bryant #1

LOCATION: Elevation: 841.35 Quadrangle: Pond Creek  
 District: Steele County: Wood  
 Latitude: 800 Feet South of 39 Deg. 5 Min. 0 Sec.  
 Longitude: 10,500 Feet West of 81 Deg. 37 Min. 30 Sec.

Company: Cabot Oil & Gas Corporation  
400 Fairway Drive: Suite 400  
Coraopolis, PA 15108-4308

Agent: John Abshire  
 Inspector: Glen Robinson  
 Permit Issued: 5/30/97  
 Well Work Commenced: 6/10/97  
 Well Work Completed: 7/2/97  
 Verbal Plugging  
 Permission granted on:  
 Rotary X Cable Rig  
 Total Depth (feet) 4804'  
 Fresh Water Depths (ft) 92'  
 Salt Water Depths (ft) 800'  
 Is coal being mined in area (Y / N)?  
 Coal Depths (ft)

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up Cu. Ft.
9-5/8"	665'	665'	250 sks Neat
7"	1885'	1885'	300 sks Neat
4-1/2"	4768'	4768'	115 sks RFC

**OPEN FLOW DATA**

Producing formation Oriskany Pay zone depth (ft) 4668'-4688'  
 Gas: Initial open flow 358 MCF/d Oil: Initial open flow N/A Bbl/d  
 Final open flow 189 MCF/d Final open flow N/A Bbl/d  
 Time of open flow between initial and final tests 5 Hours  
 Static rock pressure 1440 psig (surface pressure after 63 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock pressure \_\_\_\_\_ psig (surface pressure after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: **CABOT OIL & GAS CORPORATION**

By: *Ray Prudnick, Jr.*  
 Date: 11-17-97

**OPEN FLOW DATA**

Perf'd Oriskany from 4668'-4688'. Broke down with 250 gals 15% HCl acid and treated H<sub>2</sub>O. Breakdown pressure 2450 psi. Performed water frac with 30,000# 20/40 mesh sand. ATP 2450 psi. ATR 15.5 bpm. ISIP 2500 psi.

<b>FORMATION</b>	<b>TOP</b>	<b>BOTTOM</b>	<b>REMARKS</b>
Silt/Shale	0	670	
Sand	670	710	
Shale	710	1160	
Sand/Silt	1160	1710	
B. Lime	1710	1804	
Injun	1804	1820	
Silt/Shale	1820	2278	
Berea	2278	2280	
Shale	2280	4574	
Onondaga	4574	4674	
Oriskany	4674	4700	
Limestone	4700	4804 - TD	

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Cabot Oil & Gas Corporation
2) Operator's Well Number: G.W. Bryant #1
3) Elevation: 841.35
4) Well Type: a) Oil / or Gas X /
b) If Gas: Production X / Underground Storage /
Deep X / Shallow /
5) Proposed Target Formation(s): Oriskany
6) Proposed Total Depth: 4775 feet
7) Approximate fresh water strata depths: 370', 595'
8) Approximate salt water depths: 990', 1175', 1416', 1645', 1794'
9) Approximate coal seam depths: N/A
10) Does land contain coal seams tributary to active mine? Yes / No X /
11) Proposed Well Work: Drill and complete a gas well.
12) Based on Jackson 978, 992 and 994

Issued 05/30/97
Expires 05/30/99

RECEIVED
Environmental Protection
Office of Oil & Gas
Permitting

CASING AND TUBING PROGRAM

Table with 7 columns: TYPE, SPECIFICATIONS (Size, Grade), FOOTAGE INTERVALS (Weight per ft., For Drilling, Left in Well), and CEMENT (Fill-up). Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

PACKERS: Kind \_\_\_\_\_
Sizes \_\_\_\_\_
Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

- Fee(s) paid: Well Work Permit Reclamation Fund WPCP
Plat WW-9 WW-2B Bond Agent
(Type)

23602

1900902462
13

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

- 4) Surface Owner(s) to be served: 5) (a) Coal Operator:
- (a) Name Gary W. Bryant Name Not Operated  
 Address 13534 Gatewood Avenue Address \_\_\_\_\_  
Chesapeake, WV 25315
- (b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
 Address \_\_\_\_\_ Name Gary W. Bryant  
 Address 13534 Gatewood Avenue  
Chesapeake, WV 25315
- (c) Name \_\_\_\_\_ Name \_\_\_\_\_  
 Address \_\_\_\_\_ Address \_\_\_\_\_
- 6) Inspector Glen Robinson (c) Coal Lessee with Declaration  
 Address P.O. Box 1 Name \_\_\_\_\_  
Belleville, WV 26133 Address \_\_\_\_\_  
 Telephone (304)- 543-0735

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)  
 I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:

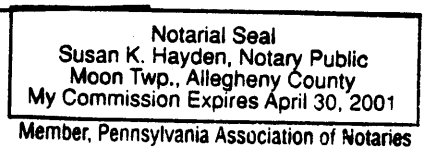
- \_\_\_\_\_ Personal Service (Affidavit attached)  
X Certified Mail (Postmarked postal receipt attached)  
 \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.  
 I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.  
 I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Cabot Oil & Gas Corporation  
 By: John W. [Signature]  
 Its: Geologist  
 Address 400 Fairway Drive Suite 400  
Coraopolis, PA 15108  
 Telephone (412)299-7000

Subscribed and sworn before me this 6<sup>TH</sup> day of MAY, 1997

Susan K. Hayden Notary Public  
My commission expires APRIL 30, 2001





STATE OF WEST VIRGINIA  
**OIL AND GAS CONSERVATION COMMISSION**  
 #10 McJUNKIN ROAD  
 NITRO, WEST VIRGINIA 25143-2506

May 21, 1997

Division of Environmental Protection  
 Office of Oil and Gas  
 Nitro, West Virginia

Re: Application for Permit #47-107-01586 drill deep well.

COMPANY: Cabot Oil and Gas Corporation

FARM: G. W. Bryant #1

COUNTY: Wood DISTRICT: Steele QUAD: Pond Creek

The application of the above company is Approved for Oriskany.  
 (Approved or Disapproved)

Applicant has complied with the provisions of Chapter twenty-two, eight (22-8), of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1.) Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owner; **yes**

2.) Provided a tabulation of all deep wells within one mile of the proposed location, including the Api number of the deep well, well name, and the name and address of operator and; **\*yes**

3.) Provided a plat showing that the proposed location is a distance of **469** feet from the nearest unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

*Brett Loflin (ce)*

Brett Loflin  
 Engineer

\* 3,300 feet to 47-107-01186