

10,090' LATITUDE 38° 50' 00"

Jamie 12/2/97 & 4/6/98

NOTE: NO WELLS WITHIN 3000 FEET.

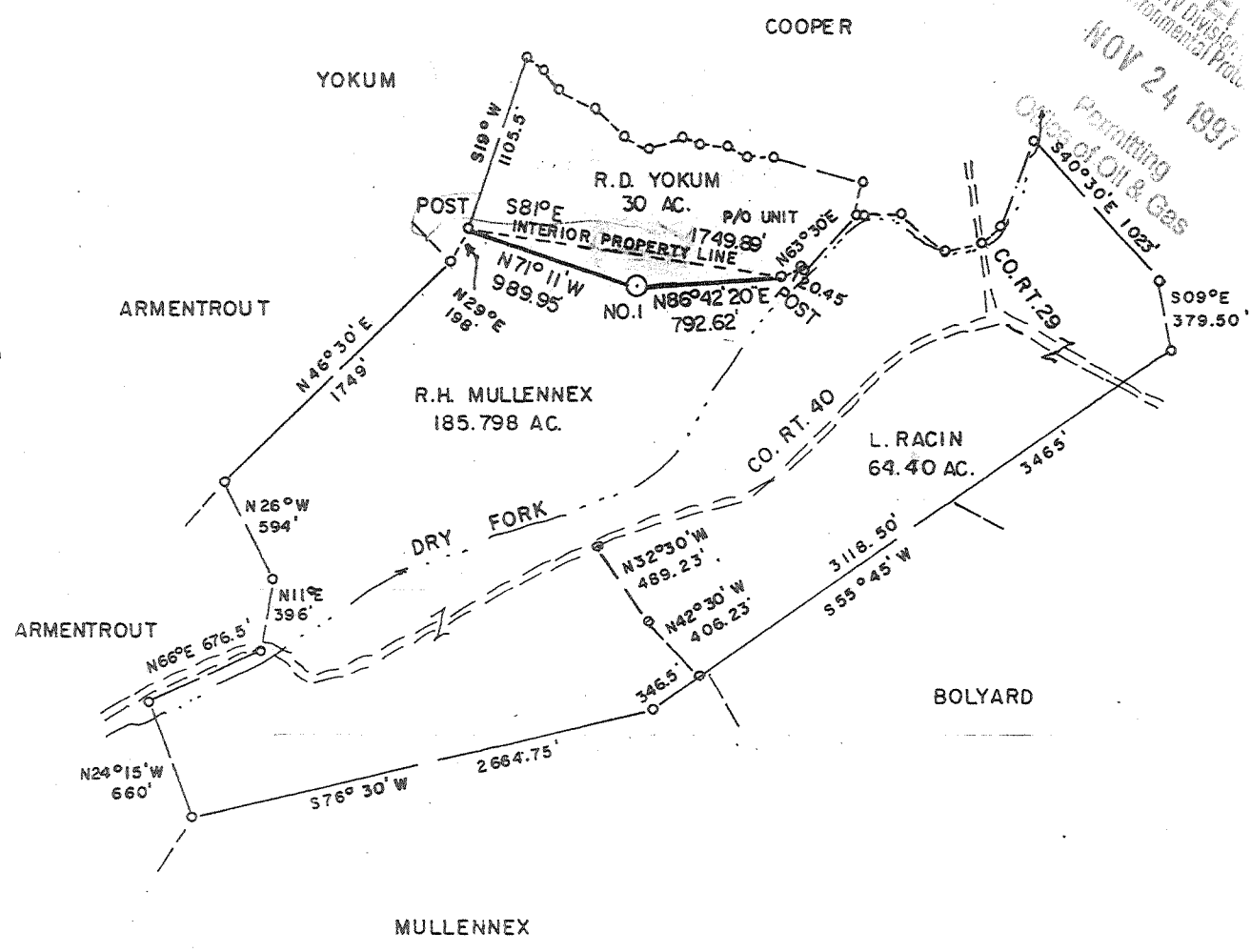
0.405 1.88W

WELL REFERENCES:
N74°E, 186' TO 20" LOCUST
N30°E, 177' TO FENCE POST

RECEIVED
WV Division
Environmental Protection
NOV 24 1997

LONGITUDE 79° 32' 30"

NORTH

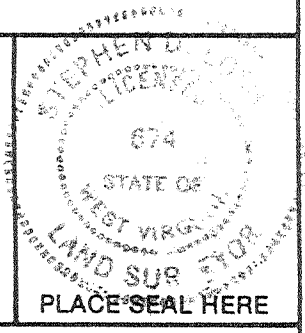


LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION Rd. inter. 2000' E of location Elev. = 2693'

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 ENERGY.
(SIGNED) _____
R.P.E. _____ L.L.S. 674
Stephen D. Losh



WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 McJUNKIN ROAD
NITRO, WEST VIRGINIA 25143-2506



DATE October 13, 19 97
OPERATOR'S WELL NO. Mullenex #1
API WELL NO. 47-083-01149-P
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 3046.01' WATER SHED Dry Fork
DISTRICT Dry Fork COUNTY Randolph

QUADRANGLE Whitmer 7.5 min.
SURFACE OWNER Roy H. Mullenex ACREAGE 185.798
OIL & GAS ROYALTY OWNER Roy H. Mullenex LEASE ACREAGE 186
LEASE NO. 47-10363

PROPOSED WORK: DRILL 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 Oriskany ESTIMATED DEPTH 8550'
WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT John Abshire
ADDRESS Rt. 3, Box 583 ADDRESS Rt. 3, Box 583
Clarksburg, WV 26301 Clarksburg, WV 26301

FORM WV-6

COUNTY NAME RANDOLPH
PERMIT 1149-P

DEEP WELL

1-0 000

Janice
12/2/97

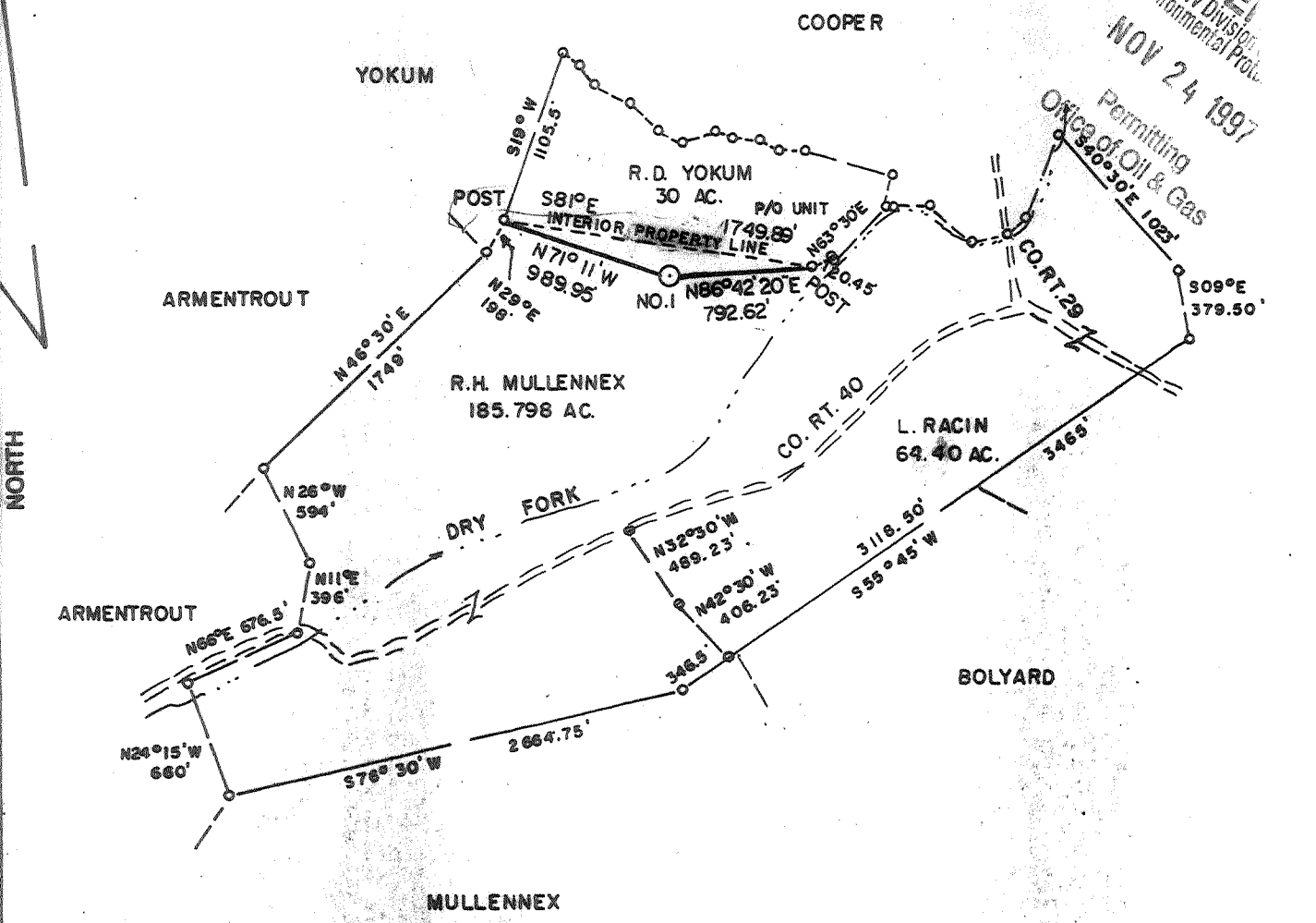
NOTE: NO WELLS
WITHIN 3000 FEET.

0.425
1.905

WELL REFERENCES:
N74°E, 186' TO 20" LOCUST
N30°E, 177' TO FENCE POST

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Environmental Prot.
NOV 24 1997

Permitting
Office of Oil & Gas
N46°30'E 1025'

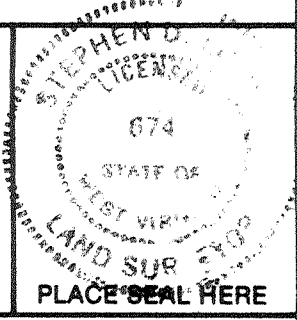


LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018

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FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Rd. inter. 2000' E of location Elev. = 2693'

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 (SIGNED) _____
 R.P.E. _____ L.L.S. 674
 Stephen D. Losh



WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 #10 McJUNKIN ROAD
 NITRO, WEST VIRGINIA 25143-2506



DATE October 13 19 97
 OPERATOR'S WELL NO. Mullennex #1
 API WELL NO. 47-083-01149
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 3046.01' WATERSHED Dry Fork
 DISTRICT Dry Fork COUNTY Randolph
 QUADRANGLE Whitmer 7.5 min.

SURFACE OWNER Roy H. Mullennex ACREAGE 185.798
 OIL & GAS ROYALTY OWNER Roy H. Mullennex LEASE ACREAGE 186
 LEASE NO. 47-10363

PROPOSED WORK: DRILL 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 Oriskany ESTIMATED DEPTH 8550'
 WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT John Abshire
 ADDRESS Rt. 3, Box 583 ADDRESS Rt. 3, Box 583
Clarksburg, WV 26301 Clarksburg, WV 26301

DEC 05 1997

COUNTY NAME PERMIT

083-1149

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

24646

- 1) Well Operator: Cabot Oil & Gas Corporation 8145 (2) 678
- 2) Operator's Well Number: Mullenex #1¹⁴⁹ 3) Elevation: 3046.1
- 1) Well Type: a) Oil ___ / or Gas X /
b) If Gas: Production X /Underground Storage ___ /
Deep X / Shallow ___
- 5) Proposed Target Formation(s): Oriskany 475
- 6) Proposed Total Depth: 8550 feet
- 7) Approximate fresh water strata depths: 259', 450'
- 8) Approximate salt water depths: none expected
- 9) Approximate coal seam depths: none
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Drill and complete an Oriskany gas well
- 12) Based on Randolph 1139

Issued 12/03/97
Expires 12/03/99

RECEIVED
WV Division of
Environmental Protection
NOV 24 1997
Permitting
Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For Drilling	Left in Well	
Conductor	13-3/8"	L.S.	54.5#	40'	40'	30 sks (GFS)
Fresh Water						
Coal	9-5/8"	J-55	36#	1500'	1500'	500 sks (CTS)
Intermediate	7"*	J-55	20#	3000'	3000'	450 sks (CTS)
Production	4-1/2"	N-80	11.6#	8500'	8500'	100 sks
Tubing						
Liners						

38581011.3
38581011.2.2

38581011.1

*7 is optional, at company's discretion. To be run only if water below the 9-5/8" casing causes problems drilling well to TD.

PACKERS: Kind _____
Sizes _____
Depths set _____

1900003300

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)

1) Date November 18, 1997
2) Operator's well number
Mullennex #1
3) API Well No 47 - 083 - 1149
State County Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

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Environmental Protection

NOV 24 1997

Permitting
Office of Oil & Gas

4) Surface Owner(s) to be served
(a) Name Roy H. Mullennex
Address Box 206
Whitmer, WV 26296
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator
Name Not Operated
Address _____
(b) Coal Owner(s) with Declaration
Name Roy H. Mullennex
Address Box 206
Whitmer, WV 26296
Name _____
Address _____

6) Inspector Craig Duckworth
Address Box 107, Davisson Route
Gassaway, WV 26624
Telephone (304) 626-0789

(c) Coal Lessee with Declaration
Name _____
Address _____

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**
 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)
 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 [Signature]
Its Geologist
Address 400 Fairway Drive Suite 400
Coraopolis, PA 15108
Telephone (412)299-7000

Subscribed and sworn before me this 18th day of November, 19 97

My commission expires [Signature] Notary Public
April 30, 2001

Notarial Seal
Susan K. Hayden, Notary Public
Moon Twp., Allegheny County
My Commission Expires April 30, 2001
Member, Pennsylvania Association of Notaries



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

November 25, 1997

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

Re: Application for Permit #47-083-01149 to drill deep well.

COMPANY: Cabot Oil and Gas Corporation

FARM: Roy H. Mullenex #1

COUNTY: Randolph DISTRICT: Dry Fork QUAD: Whitmer

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; **none**

3.) Provided a plat showing that the proposed location is a distance of **989** 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
Engineer

WR-35

Date: 2-Oct-98
API # 47-083-01149

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

Farm name: Mullennex, Roy H. Operator Well No.: Mullennex #1

LOCATION: Elevation: 3,046.01 Quadrangle: Whitmer
District: Dry Fork County: Randolph
Latitude: 2,110 feet South of 38 DEG. 50 MIN. 0 SEC.
Longitude: 10,090 feet West of 79 DEG. 32 MIN. 30 SEC.

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

Agent: John Abshire
Inspector: Phil Tracy
Permit Issued: 12/3/97
Well Work Commenced: 1/14/98
Well Work Completed: 3/8/98
Verbal Plugging
Permission granted on:
Rotary X Cable _____ Rig
Total Depth (feet) 8174'
Fresh Water Depths (ft) 172', 952'
Salt Water Depths (ft) _____
Is coal being mined in area (Y / N)? N
Coal Depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up Cu. Ft.
13-3/8"	52.35'	52.35'	15 sks Class "A"
9-5/8"	1538'	1538'	515 sks Class "A"
2-7/8"	7863'	320'	

*Plugged and abandoned under continuous operation

OPEN FLOW DATA

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

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: 12-16-98

JAN 04 1999

RAN 01149

DEC 26 1998

OPEN FLOW DATA

Set packers on 2-7/8" tubing @ 7772' and 7792'. Performed acid frac in open hole between packers. Broke down with 500 gals 28% acid and 38 bbls of treated fluid. BDP: 2900 psi. Treated with 2500 gals of 28% acid @ 8 bpm. ATP: 4300 psi. MTP: 4600 psi. ATR: 8.2 bpm. ISIP: 2800 psi. No gas.

FORMATION	TOP	BOTTOM	REMARKS
KB	0	10	
Sand/Shale	10	2246	
Shale/Silt	2246	2794	
Sand	2794	2848	
Sand/Shale	2848	3138	
Sand	3138	3246	
Shale/Sand	3246	3971	
Sand/Shale	3971	4790	
Shale/Silt	4790	6398	
Sand	6398	6446	
Shale	6446	7162	
Tully	7162	7182	
Shale/Lime	7182	7394	
Upper Marcellus	7394	7486	
Purcell	7486	7539	
Lower Marcellus	7539	7592	
Onondaga	7592	7642	
Huntersville	7642	7722	
Needmore	7722	7767	
Oriskany	7767	7962	
Helderberg	7962	8174	