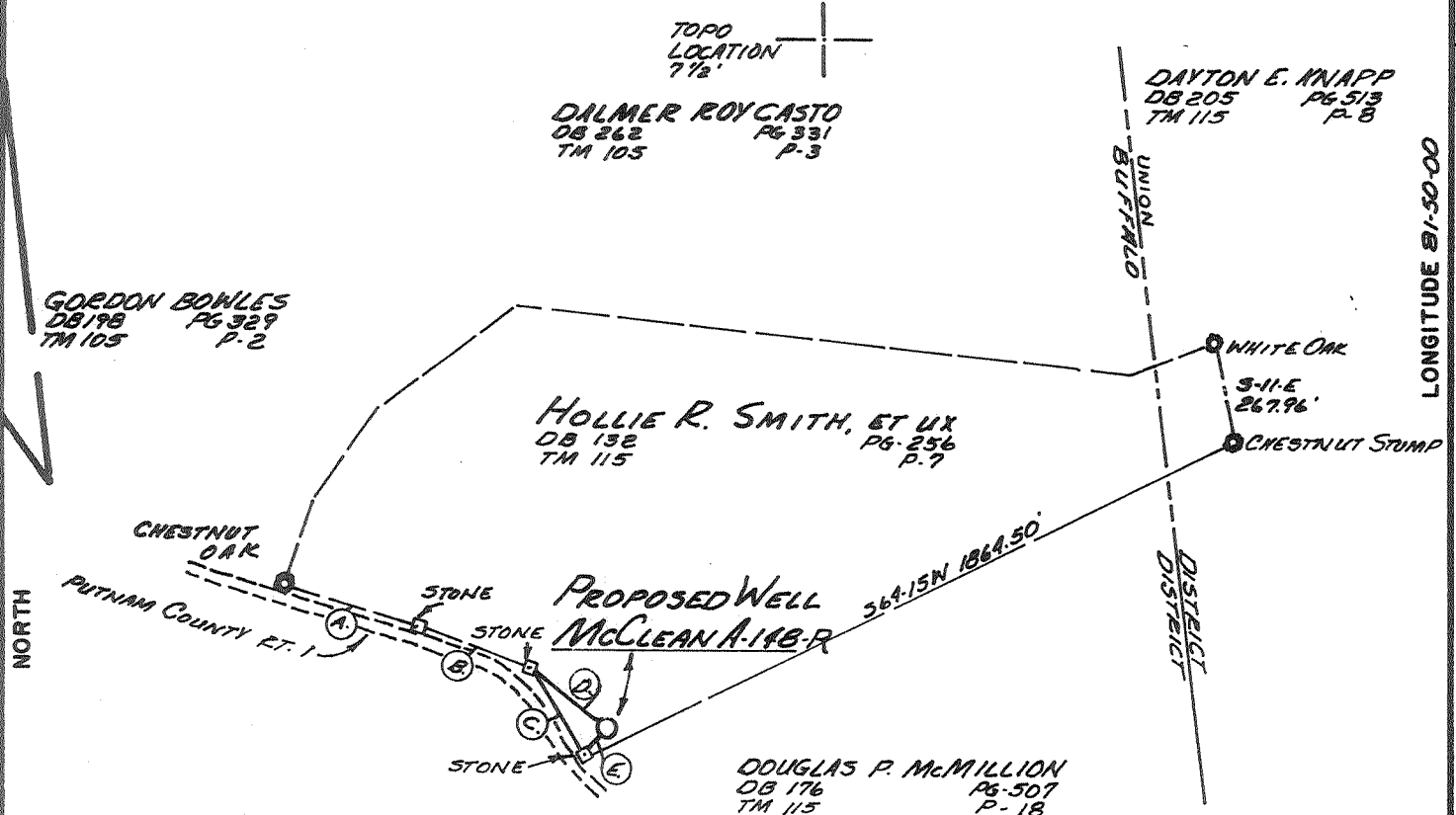


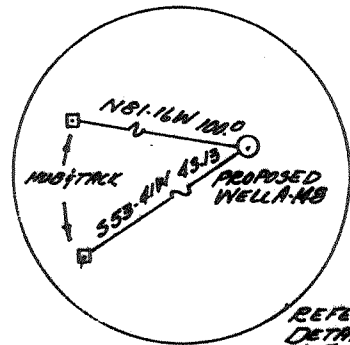
*Jamie 12/14/89*

2100

LONGITUDE 81-50-00



- (A) N73°W 361.02'
- (B) N69°15'W 301.62'
- (C) N31°15'W 289.94'
- (D) S41°00'E 286.96'
- (E) S63°20'W 78.16'

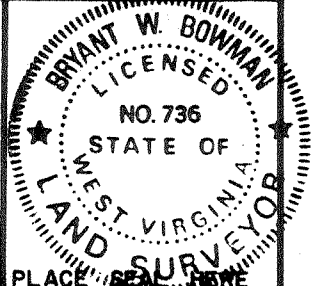


REFERENCE DETAIL NO. SCALE

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1-500  
 MINIMUM DEGREE OF ACCURACY 1-500  
 PROVEN SOURCE OF ELEVATION BM - EL. 1090  
NW 1/4 OF LOCATION

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) Bryant W. Bowman  
 R.P.E. \_\_\_\_\_ L.L.S. 736



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



DATE SEPTEMBER 22, 1989  
 OPERATOR'S WELL NO. McCLEAN A-148-R  
 API WELL NO.

47 - 079 - 1128 - Frac  
 STATE COUNTY PERMIT

Department of Mines  
 Oil & Gas Division

*Plug*

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

LOCATION: ELEVATION 1098 WATER SHED BEECH BRANCH  
 DISTRICT BUFFALO COUNTY PUTNAM  
 QUADRANGLE ELMWOOD

SURFACE OWNER HOLLIE R. SMITH, ET UX ACREAGE 92.05  
 OIL & GAS ROYALTY OWNER T.L. McCLEAN HRS. CABOT OIL & GAS CORP. LEASE ACREAGE 24.610+  
 LEASE NO. 47-0560

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

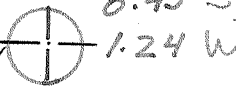
PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ORISKANY/DEVONIAN SHALE ESTIMATED DEPTH 4-750'  
 WELL OPERATOR CABOT OIL & GAS CORP. OF W.V. DESIGNATED AGENT DAVID G. McCLUSKEY  
 ADDRESS P.O. Box 1473 ADDRESS P.O. Box 1473  
CHARLESTON, W.VA. 25325 CHARLESTON, W.VA. 25325

DEEP WELL

PUT 1126 - FRAC

June 19/4/89

TOPO LOCATION 7/2'



DALMER ROYCASTO DB 262 TM 105 PG 531 P-3

DAYTON E. KNAPP DB 205 TM 115 PG 513 P-8

GORDON BOWLES DB 198 TM 105 PG 329 P-2

HOLLIE R. SMITH, ET UX DB 132 TM 115 PG 256 P-7

DOUGLAS P. McMILLION DB 176 TM 115 PG 507 P-18

UNION DISTRICT BUFFALO

LONGITUDE 81-50-00

NORTH

CHESTNUT OAK

PUTNAM COUNTY ET. I

STONE

STONE

STONE

PROPOSED WELL McCLEAN A-148-R

564.15W 1864.50'

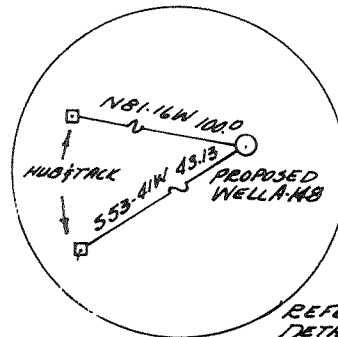
WHITE OAK

5-11-E 267.96'

CHESTNUT STUMP

- (A) N73°W 361.02'
- (B) N69°15'W 301.62'
- (C) N31°15'W 269.94'
- (D) S41°00'E 286.96'
- (E) S63°26'W 78.16'

Winfield C

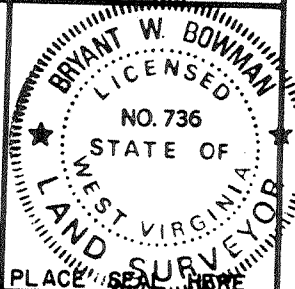


REFERENCE DETAIL NO. SCALE

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1-500  
 MINIMUM DEGREE OF ACCURACY 1-500  
 PROVEN SOURCE OF ELEVATION B.M. - EL. 1090  
N.W. OF LOCATION

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) Bryant W. Bowman  
 R. P. E. \_\_\_\_\_ L. L. S. 736



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



Department of Mines  
 Oil & Gas Division

DATE SEPTEMBER 22, 1989  
 OPERATOR'S WELL NO. McCLEAN A-148-R  
 API WELL NO. 47-079-1128-Frac  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_)  
 LOCATION: ELEVATION 1048 WATER SHED BEECH BRANCH  
 DISTRICT BUFFALO COUNTY PUTNAM  
 QUADRANGLE ELMWOOD Winfield 15'C

SURFACE OWNER HOLLIE R. SMITH ET UX ACREAGE 92.05  
 OIL & GAS ROYALTY OWNER J.L. McCLEAN HES. & CABOT OIL & GAS CORP. LEASE ACREAGE 24.610+-  
 LEASE NO. 47-0560

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 DEISKANY/DEVONIAN SHALE ESTIMATED DEPTH 4750'  
 WELL OPERATOR CABOT OIL & GAS CORP. WV DESIGNATED AGENT DAVID G. McCLUSKEY  
 ADDRESS P.O. Box 1473 ADDRESS P.O. Box 1473  
CHARLESTON, W.VA. 25325 CHARLESTON, W.VA. 25325

CODE \_\_\_\_\_ CARD \_\_\_\_\_ PLOT

0.45  
1.24



DALMER ROYCASTO  
DB 262 PG 331 P-3  
TM 105

DAYTON E. KNAPP  
DB 205 PG 513 P-8  
TM 115

GORDON BOWLES  
DB 198 PG 329 P-2  
TM 105

HOLLIE R. SMITH, ET UX  
DB 132 PG 256 P-7  
TM 115

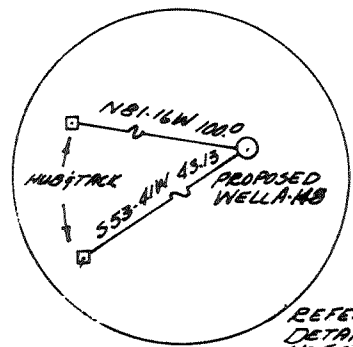
WHITE OAK  
3-11-E  
267.96'

CHESTNUT STUMP

PROPOSED WELL  
McCLEAN A-148-R

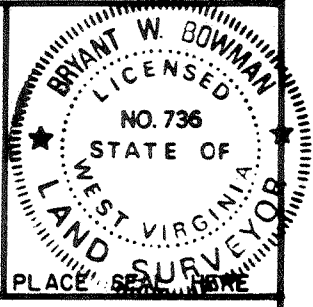
DOUGLAS P. McMILLION  
DB 176 PG 507 P-18  
TM 115

- (A) N73°W 361.02'
- (B) N69°15'W 301.62'
- (C) N31°15'W 269.99'
- (D) S47°00'E 286.96'
- (E) S63°20'W 78.16'



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1:500  
 MINIMUM DEGREE OF ACCURACY 1:500  
 PROVEN SOURCE OF ELEVATION BM - EL. 1090  
NW OF LOCATION

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) Bryant W. Bowman  
 R.P.E. \_\_\_\_\_ L.L.S. 736



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE SEPTEMBER 22, 19 89  
 OPERATOR'S WELL NO. McCLEAN A-148-R  
 API WELL NO. 47-079-1128  
 STATE COUNTY PERMIT

Department of Mines  
Oil & Gas Division

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS", PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_)  
 LOCATION: ELEVATION 1048 WATER SHED BEECH BRANCH  
 DISTRICT BUFFALO COUNTY PUTNAM  
 QUADRANGLE ELMWOOD 338 Winfield 15 PC5  
 SURFACE OWNER HOLLIE R. SMITH ET UX ACREAGE 92.05  
 OIL & GAS ROYALTY OWNER T.L. McCLEAN HES. CABOT OIL & GAS CO. LEASE ACREAGE 24.610+-  
 LEASE NO. 47-0560  
 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/DEVONIAN SHALE ESTIMATED DEPTH 4750'  
 WELL OPERATOR CABOT OIL & GAS CORP OF W.VA. DESIGNATED AGENT H. BAIRD WHITEHEAD  
 ADDRESS P.O. BOX 628 ADDRESS P.O. BOX 628  
CHARLESTON, W.VA. CHARLESTON, W.VA.

NOV 13 1989

RECEIVED

FEB 21 1985



OIL & GAS DIVISION State of West Virginia
DEPT. OF MINES Department of Mines
Oil and Gas Division

Date February 19, 1985
Operator's
Well No. A-148
Farm McLean
API No. 47 - 079 - 1128

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

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

LOCATION: Elevation: 1048' Watershed Beech Branch
District: Buffalo County Putnam Quadrangle Elmwood 7-1/2

COMPANY Cabot Oil & Gas Corporation of WV
ADDRESS Box 628, Charleston, WV 25322
DESIGNATED AGENT David G. McCluskey
ADDRESS Box 628, Charleston, WV 25322
SURFACE OWNER See Attached List
ADDRESS
MINERAL RIGHTS OWNER See Attached List
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Russell
Beall ADDRESS Box 160, Philippi, WV 26416
PERMIT ISSUED 11/3/84
DRILLING COMMENCED 11/8/84
DRILLING COMPLETED 12/15/84
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

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

GEOLOGICAL TARGET FORMATION Oriskany Devonian Shale Depth 4984-4999 2740-5089 feet
Depth of completed well 5089 feet Rotary XX / Cable Tools
Water strata depth: Fresh 180,222 feet; Salt feet
Coal seam depths: 771 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Oriskany Pay zone depth 4972-4992 feet
Gas: Initial open flow - - Mcf/d Oil: Initial open flow - - Bbl/d
Final open flow (40) Mcf/d Final open flow - - Bbl/d
Time of open flow between initial and final tests - - hours
Static rock pressure 1770 psig (surface measurement) after - - hours shut in
(If applicable due to multiple completion--)

(Continue on reverse side)

MAR 04 1985

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
 Perforated Oriskany 2 JSPF at 4972', 4986', 4988', 4990' & 4992', (10 holes). Dumped 250 gal, 15% HCL. Pumped 160 bbl pad of 30#/1,000 gal gel system. Broke down Oriskany at 3880 psi. Treated with 17 sks 20/40 at 1/2# per gal, 38 sks 1# per gal, 76 sks 1.5# per gal, 126 sks 2# per gal, & 42 sks 2.5# per gal. AIR 10.5 bpm. ATP 4200 psi. TF 693 bbl. S/L 482 bbl. AIR N<sub>2</sub> 3,000 SCF/min. Total N<sub>2</sub> 185,600 SCF. ISIP 4500 psi, 5 min 3850 psi, 10 min 3660 psi, 15 min 3550 psi.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			0	630	All measurements from KB.
Sand			630	650	
Shale			650	1003	
Sand			1003	1018	
Shale			1018	1136	
Sand and Shale			1136	1605	
Shale			1605	1795	
Sand			1795	1842	
Shale			1842	1880	
Sand			1880	1934	
Shale			1934	1986	
Sand			1986	2068	
Big Lime			2068	2174	
Shale			2174	2247	
Big Injun			2247	2343	
Shale			2343	2698	
Sunbury			2698	2720	
Berea			2720	2740	
Shale			2740	3911	
Huron			3911	4353	
Shale			4353	4585	
Rhinestreet			4585	4906	
Onondoga			4906	4984	
Oriskany			4984	4999	
Helderberg			4999	T.D.	
DTD			5095' KB		
LTD			5089' KB		

(Attach separate sheets as necessary)

CABOT OIL & GAS CORPORATION OF WEST VIRGINIA

Well Operator

By: David G. McCluskey

Date: February 19, 1985

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."

Issued 12/18/89

Expires 12/18/91 Page of

FORM WW-2B

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

8150 338  
149  
of West Virginia

- 1) Well Operator: CABOT OIL & GAS CORPORATION
- 2) Operator's Well Number: McLean 148-R 3) Elevation: 1048'
- 4) Well type: (a) Oil    / or Gas x /  
(b) If Gas: Production x / Underground Storage    /  
Deep    / Shallow x /
- 5) Proposed Target Formation(s): Huron Shale (44)
- 6) \* Proposed Total Depth: 3911-4353 feet
- 7) \* Approximate fresh water strata depths: 180', 222'
- 8) \* Approximate salt water depths: None reported.
- 9) \* Approximate coal seam depths: 771'
- 10) Does land contain coal seams tributary to active mine? Yes    / No x /
- 11) Proposed Well Work: Plug back Oriskany/Onandaga. Perforate and complete Lower Huron Shale.

12)\* Based on Well Operator's Report. API #47-079-1128

**CASING AND TUBING PROGRAM**

*Permanent Plug Back with Permit  
See Drawing with Permit*

TYPE	SIZE	GRADE	WEIGHT per ft.	FOOTAGE For drilling	INTERVALS Left in well	CEMENT Fill-up (cu. ft.)
Conductor	13-3/8"	N/A	48	36	36	Circulate to Surf 10 sks
Fresh Water	9-5/8"	N/A	32	827	827	290 sks CTS
Coal						420 sks CTS
Intermediate	7"	N/A	20	2424	2424	
Production	4-1/2"	N/A	N/A	5039	5039	100 sks TOC 3060'
Tubing	1-1/2"	N/A	N/A		4973	
Liners	N/A					

**RECEIVED**  
NOV 30 1989

PACKERS : Kind N/A  
Sizes     
Depths set   

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

19229  
31  
Fee(s) paid:    Well Work Permit    Reclamation Fund    WPCP  
Plat    WW-9    WW-2B    Bond    Agent   

(Type)

NOV 30 1989

Page 1 of  
Form WW2-A  
(09/87)  
File Copy

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1) Date: November 29, 1989  
2) Operator's well number  
McLean A-148R  
3) API Well No: 47 - 079 - 1128 -FRAC  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Margaret M. Smith  
Address General Delivery  
Robertsburg, WV 25172  
(b) Name Douglas P. McMillion  
Address Rt. 1 Box 33  
Robertsburg, WV 25172  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Jerry Tephabock  
Address Rt. 1 Box 101A  
Ripley, WV 25271  
Telephone (304)- 372-6805

5) (a) Coal Operator:  
Name NOT OPERATED  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Appalachian Mining Co.  
Address Attn. Bernie Mason  
3516 River Lane Dr., Chas, WV 25306  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(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  
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B 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:

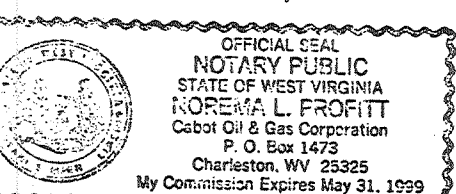
- \_\_\_\_\_ Personal Service (Affidavit attached)
- x Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B 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: David A. McChesney  
Its: Drilling Superintendent  
Address P. O. Box 1473  
Charleston, WV 25325  
Telephone (304) 347-1600



Subscribed and sworn before me this 29th day of November, 1989

Norema L. Proffitt Notary Public  
My commission expires May 31, 1989





2) Operator's Well No. McLean A-148-R  
3) API Well No. 47 - 079 - 1128  
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: 1048 Watershed: Beech Branch  
District: Buffalo County: Putnam Quadrangle: Elmwood 7 1/2
- 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT David G. McCluskey  
Address P.O. Box 628 Address P.O. Box 628  
Charleston, WV 25322 Charleston, WV 25322
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Jerry Holcomb  
Address Rural Rt. 1, Box 28  
Hamlin, WV 25523 824 3337
- 9) DRILLING CONTRACTOR: Name UNKNOWN  
Address RECEIVED
- 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate   
Plug off old formation  / Perforate new formation  0077.6, 1984  
Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION: Oriskany - Devonian Shale
- 12) Estimated depth of completed well, 4750 feet
- 13) Approximate strata depths: Fresh, \_\_\_\_\_ feet; salt, 800, 2000 feet
- 14) Approximate coal seam depths: 771 Is coal being mined in the area? Yes  / No

OIL & GAS DIVISION  
DEPT. OF MINES  
RECEIVED

15) CASING AND TUBING PROGRAM

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	16		65			30	30	10 sks.	Kind:
Fresh water	9-5/8		36			820	820	275 sks.	Neat CTS
Coal									Sizes:
Intermediate	7		20			2500	2500	400 sks.	Neat CTS
Production	4-1/2		11.60			4750	4750	200 sks. or	Depth set
Tubing								req by Rule	15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-079-1128 Date November 3, 19 84

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 November 3, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>30</u>	<u>MW</u>	<u>TS</u>	<u>TS</u>	<u>13946</u>

Margaret J. Lamm  
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



RECEIVED  
MAR 09 1990  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas  
Well Operator's Report of Well Work

Farm name: SMITH, MARGARET M., ETAL Operator Well No.: McLEAN A-148R  
Location: Elevation: 1048.00' Quadrangle: ELMWOOD

District: BUFFALO County: PUTNAM  
Latitude: 2400 Feet South of 38 Deg. 40 Min. 0 Sec.  
Longitude: 6550 Feet West of 81 Deg. 50 Min. 0 Sec.

Company: CABOT OIL & GAS CORPORATION  
P. O. Box 1473  
Charleston, WV 25325

Agent: DAVID G. MCCLUSKEY

Inspector: JERRY TEPHABOCK

Permit Issued: 12/18/89

Well Work Commenced: 1/3/90

Well Work Completed: 2/9/90

Verbal Plugging \_\_\_\_\_

Permission granted on: \_\_\_\_\_

Rotary Cable Rig \_\_\_\_\_

Total Depth (feet) 5089 (Workover)

Fresh water depths (ft) 180, 222

Salt water depths (ft) N/A

Is coal being mined in area (Y/N): N

Coal Depths (ft): 771

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 13-3/8"	47'	47'	10 sks CL-A
9-5/8"	837'	837'	290 sks CL-A
7"	2433.70'	2433.70'	420 sks CL-A
4-1/2"	5049'	5049'	100 sks CL-A
1-1/2"		4326'	
Bridge Plug @	4870'		

OPEN FLOW DATA

Producing formation Huron Shale Pay zone depth (ft) 3920-4350  
Gas: Initial open flow - MCF/d Oil: Initial open flow - Bbl/d  
Final open flow 133 MCF/d Final open flow - Bbl/d  
Time of open flow between initial and final tests 432 Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after 4 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 BUT 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: David G. McCluskey  
Date: 3/7/90

MAR 19 1990

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

Perforate Huron Shale 3920'-4350' 1 SPF (23 holes). Set CIBP @ 4870'. Dump 25 sks of CalSeal w/ bailer @ 4870'. Break down perms w/ 1000 gal 7.5% HCl & 75,200 scf N<sub>2</sub> @ 24,000 scfm in 80Q foam. BDP 1900#. ISIP 1500#. Treated w/ 747,800 scf N<sub>2</sub> & 140,000# 20/40 sand. SITP 480# & SICP 490#. FINAL TEST - 4 hr OF 10/10 H<sub>2</sub>O 2", 133 mcf.

FORMATION

TOP

BOTTOM

WORKOVER

9937

SCB R L 10/1

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: SMITH, MARGARET M., ETAL Operator Well No.: McLEAN A-148-R

LOCATION: Elevation: 1048.00 Quadrangle: ELMWOOD  
District: BUFFALO County: PUTNAM  
Latitude: 2400 Feet South of 38 Deg. 40 Min. 0 Sec.  
Longitude 6550 Feet West of 81 Deg. 50 Min. 0 Sec.

Well Type: OIL \_\_\_\_\_ GAS X

Company: Cabot Oil & Gas Corporation  
P. O. Box 1473  
Charleston, WV 25325-1473

Coal Operator \_\_\_\_\_  
or Owner \_\_\_\_\_

Agent: David McCluskey

Coal Operator \_\_\_\_\_  
or Owner \_\_\_\_\_

Permit Issued: 03/26/92

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of \_\_\_\_\_ ss.

Bill Shreve and C. E. McClure being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Glen R. Robinson Oil and Gas Inspector representing the Director, say that said work was commenced on the \_\_\_\_\_ day of April, 1992, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
6% Gel	4600	4374		
CL-A CMT	4374	3750	13-3/8" 47	47
6% Gel	3750	3018	9-5/8" 837	837
CL-A CMT	3018	2860	7" 2,433	2,433
6% Gel	2860	2513	4-1/2" 2,990	2,059
CL-A CMT	2513	2413	1-1/2" 5,049	0
6% Gel	2413	896		
CL-A CMT	896	796		
6% Gel	796	121	CIBP @ 4,870	w/ 25 SKS Calce
CL-A CMT	121	0		

Description of monument: Casing monument w/ API#  
and that the work of plugging and filling said well was completed on the 30 day of April, 1992.

And further deponents saith not.

Sworn and subscribe before me this 8th day of July, 1992  
My commission expires: \_\_\_\_\_

C. E. McClure  
Bill Shreve  
Louise Miller  
Notary Public

Reviewed →  
Oil and Gas Inspector: Glen R. Robinson DEC 14 1992