

New Location
 Drill Deeper
 Abandonment

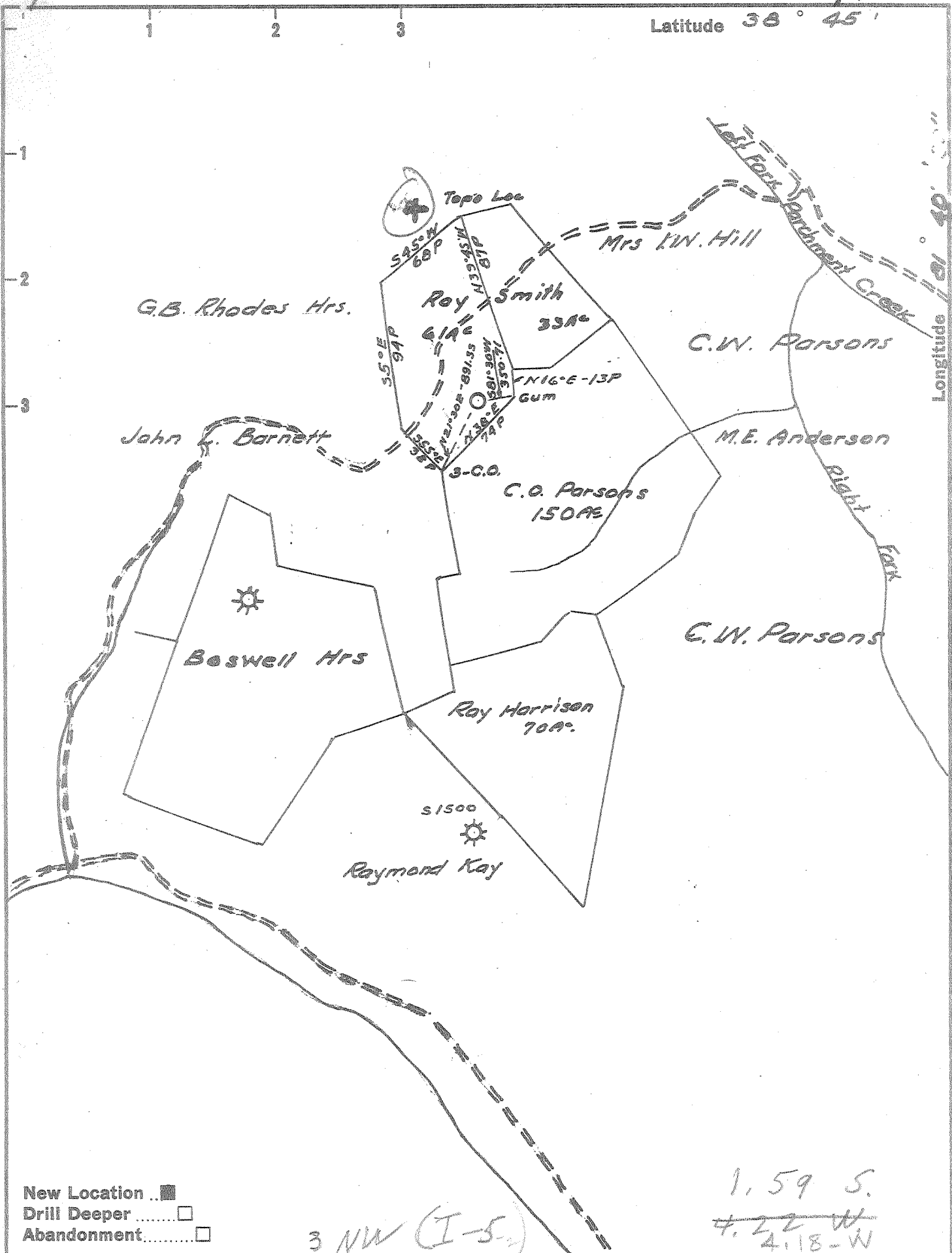
Rework 9/28/84

Company Cabot Corporation
 Address Box 1473 Charleston W.Va.
 Farm Ray Smith et al - Units Wv-91
 Tract _____ Acres 94 Lease No. 3-1128
 Well (Farm) No. 1 Serial No. 1524
 Elevation (Spirit Level) 1015.87
 Quadrangle Kenna NW
 County Jackson District Ripley
 Engineer Ray Boothe
 Engineer's Registration No. 3204
 File No. _____ Drawing No. _____
 Date 4-19-61 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. JAC-1022-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.



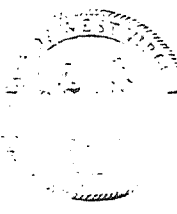
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 Address Box 1473 Charleston W.Va.
 Farm Roy Smith et al - Units NW-91
 Tract _____ Acres 94 Lease No. 3-1128
 Well (Farm) No. 1 Serial No. 1524
 Elevation (Spirit Level) 1015.87
 Quadrangle Kenna-NW
 County Jackson District Ripley
 Engineer Roy Borton
 Engineer's Registration No. 3204
 File No. _____ Drawing No. _____
 Date 4-19-61 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. JAC-1022

+ 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.

WV-35
(REV 6-81)



Date October 24, 1984
Operator's
Well No. #1
Farm Ray Smith
API No. 47 - 035 - 1022

State of West Virginia
Department of Mines
Oil and Gas Division

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE
OCT 25 1984
OIL & GAS DIVISION

RECEIVED

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

LOCATION: Elevation: 1015.87 Watershed
District: Ripley County Jackson Quadrangle Kenna

COMPANY Cabot Oil & Gas Corporation of WV
ADDRESS Box 628, Charleston, WV 25322
DESIGNATED AGENT Robert E. Horrell
ADDRESS Box 628, Charleston, WV 25322
SURFACE OWNER C. Shirley & Lessie Pearl Donnelly
ADDRESS Upson Down, Rt. 1 S, Donnelly Road
Oak Hill, WV 25901
MINERAL RIGHTS OWNER C. Shirley Donnelly
ADDRESS Upson Down, Rt. 1 S, Donnelly Road
Oak Hill, WV 25901
OIL AND GAS INSPECTOR FOR THIS WORK Jerry
Tephabock ADDRESS Rt. 1, Box 101-A, Ripley, WV
25271
PERMIT ISSUED 9/28/84
WORKOVER
DRILLING COMMENCED 10/3/84
WORKOVER
DRILLING COMPLETED 10/13/84
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2	Squeezed	w/150 sks	4600-4010
4 1/2			
3			
2	Pulled Ran	5166' 4417.60'	w/seating nipple
Liners used			

GEOLOGICAL TARGET FORMATION Huron Shale Depth 4218-4427 feet
Depth of completed well PBTD 4548 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 4218-4427 feet
Gas: Initial open flow - - Mcf/d Oil: Initial open flow - - Bbl/d
4 hr. Final open flow 327 Mcf/d Final open flow - - Bbl/d
Time of open flow between initial and final tests - - hours
Static rock pressure 1080 psig (surface measurement) after 72 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

NOV 19 1984

(Continue on reverse side)

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

MIRU Pool Well Service. Pulled 165 jts 2-3/8" 10 rd tbg total 5166'. Set permanent bridge plug @ 5100' w/1 sk Calseal. Shot squeeze perfs @ 4600'. Set HOWCO EZ SV retainer @ 4550'. Squeezed w/150 sks. 50/50 poz 2% gel, 3% CaCl₂, 1/4# flake/sk. R/U McCullough, ran GR & Cmt Bond Logs. LTD 4548'. TOC 4010'. Good bond. Perf Huron Shale from 4218, 4235, 4254, 4262, 4290, 4312, 4326, 4334, 4342, 4348, 4354, 4363, 4378, 4391, 4420, 4427 (16 holes). Ran 2-7/8" EUE tbg w/RTTS pkr. R/U B. J. Hughes, pumped 500 gals 15% HCL. Broke down Huron Shale @ 2000 psi. ISIP after breakdown 1600 psi. Pumped 1,023,000 SCF N₂ pad @ 29,000 SCF/min. Treated w/30,000# 20/40 @ 2#/gal. AIR 6 bpm liquid. AIR of N₂ 10,000 SCF/min. Total 24 bpm foam. ATP 3200 psi. TF 140 bbls. S/L 125 bbls. Total N₂ 1,245,000 SCF. ISIP 1800 psi, 15 min. 1450 psi. Pulled 2-7/8" tbg & pkr. Ran 2-3/8" EUE tbg, 141 jts. = 4417.60' set @ 4415.60'. Ran broach.

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. Howell

Date: October 24, 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 all encountered in the drilling of a well."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION / 0

Quadrangle Kenna

Permit No. JAC-1022

WELL RECORD

Oil or Gas Well GAS

(KIND)

Company Cabot Corporation
Address Charleston, W. Va.
Farm Ray Smith Acres 94
Location (waters) _____
Well No. 1, Serial 1524 Elev. 1015.87
District Ripley County Jackson
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by Ray Smith
Address Given, W. Va.
Drilling commenced June 13, 1961
Drilling completed October 12, 1961
Date Shot _____ From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume 353,000 Cu. Ft.
Rock Pressure 1525 lbs. 24 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
13"	155	155	Kind of Packer _____
10"	1602	1602	
10			Size of _____
8 1/4"	2359	2359	
6 5/8"			Depth set _____
5 3/8" 1/2"	5152	5152	
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE 5 1/2" No. Ft. _____ Date _____
Cemented with 50 sacks.

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

WELL FRACTURED 10/16/61 with 22,500# of sand and 32,000 gallons of gelled water.

RESULT AFTER TREATMENT Open flow not taken. Production: 1,600 M - 240# line pressure.

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water: _____ Feet Salt Water 1305, 1385, 1843 Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Rock			0	30			
Sand & Red Rock			30	90			
Shale			90	102			
Sand			102	137			
Red Rock			137	155			
Shale			155	170			
Red Rock			170	246			
Sand			246	260			
Red Rock			260	282			
Shale			282	295			
Sand			295	305			
Red Rock			305	395			
Shale			395	416			
Sand			416	447			
Red Rock			447	520			
Sand - 12 Pits. Sand			520	560			
Red Rock			560	640			
Slate & Shell			640	685			
Red Rock			685	715			
Slate & Shell			715	906			
Red Rock			906	920			
Sand			920	950			
Red Rock			950	984			
Sand			984	1046			
Shale			1046	1068			
Red Rock			1068	1103			
Sand			1103	1200			
Slate & Shell			1200	1296			
Sand			1296	1410	S. Water	1305	1 blr./hr.

Formation	Color	Hard or Soft	Top / 0	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale			1410	1432	S. Water	1385	2 blrs./hr.
Sand			1432	1510			
Slate & Shell			1510	1546			
Sand			1546	1570			
Slate & Shell			1570	1612			
Sand			1612	1652			
Slate & Shell			1652	1834			
SALT SAND			1834	2026	Oil	1836	
Lime			2026	2051	S. Water	1843	2 blrs/hr.
Sand - 2			2051	2122			
BIG LIME			2122	2232			
INJUN			2232	2356			
Slate & Shell			2356	2688			
Brown Shale			2688	2698			
BEEEA			2698	2715			
Slate & Shell			2715	4188			
Shale, Brown - 441			4188	4265			
Slate & Shell			4265	4352			
Shale, Brown			4352	4447			
Slate & Shell			4447	4810			
Shale, Brown			4810	4908			
Shale, Black - HAMILTON & MARCELLUS			4908	5069			
CORNIFEROUS - 463			5069	5158			
ORISKANY			5158		Gas	5166-70;	353 Mcf.
TOTAL DEPTH			P	5173			
				475			
			5069	5158			
			1016	1016			
			4053	4142			

Date November 2, 19 61

APPROVED CABOT CORPORATION, Owner

By [Signature]
Gen. Supt. (Title)

WELL RECORD

SERIAL NO. 1524 OPERATING DISTRICT PN Map Square Lot No. Warrant No. 50-30 31
 FARM Ray Smith NO. 1 LEASE NO. WV-91
 COUNTY Jackson TAX DISTRICT Ripley STATE W. Va.
 DRILLING COMMENCED June 13, 1961 DRILLING COMPLETED October 12, 1961

CONTRACTOR Company tools ADDRESS _____
 ROCK PRESSURE RECORD _____ PRODUCING SAND RECORD _____

Oriskany	Sand	1525	lbs. in	24	hrs.	Oriskany	Sand, from	5166	to	5170	Init. Prod.	353	M. C. F. Gas
	Sand		lbs. in		hrs.		Sand, from		to		Init. Prod.		M. C. F. Gas
	Sand		lbs. in		hrs.		Sand, from		to		Init. Prod.		M. C. F. Gas

OPEN FLOW Time, Condition: Not taken CASING RECORD

Water	Mercury in	inch opening	SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	HOW CASING SET
Volume			13"	48#	155	155	
24 HOUR PRODUCTION TEST AFTER TUBING			10"	32.75	1602	1602	Shoe.
1,600 M. C. F.	240	Line Pressure	8"	32-24#	2359	2359	Shoe.
Bbls. Oil		in 24 Hours	5 1/2"	20#	5152	5152	Cemented with 50 sacks.
BED AND SHUT IN	Date	<u>10/30/61</u>	2"	4.6	5207 5166	5207 5166	
Maker, Size	Kind						
Depth	Size Anchor						

fr. Top 5155 Bottom 5163 FRACTURE RECORD (see below*)

Acid Shot with _____ from _____ to _____ Date _____

ELEVATION: 1016 Gauge Before { Acid Shot } Gauge Min. Hrs. After { Acid Shot }

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	REMARKS
Red Rock		0	30					FRACTURED 10/16/61 with 22,500#
Sand and Red Rock		30	90					of sand and 32,000 gallons
Shale		90	102					of gelled water.
Sand		102	137					
Red Rock		137	155					
Shale		155	170					
Red Rock		170	246					
Sand		246	260					
Red Rock		260	282					
Shale		282	295					
Sand		295	305					
Red Rock		305	395					
Shale		395	416					
Sand		416	447					
Red Rock		447	520					
Sand		520	560					
Red Rock		560	640					
Slate & Shell		640	685					
Red Rock		685	715					
Slate & Shell		715	906					
Red Rock		906	920					
Sand		920	950					
Red Rock		950	984					
Sand		984	1046					
Shale		1046	1068					
Red Rock		1068	1103					
Sand		1103	1200					
Slate & Shell		1200	1296					
Sand		1296	1410			S. Water	1305	1 blr. /hr.
Shale		1410	1432			S. Water	1385	2 blrs. /hr.
Sand		1432	1510					
Slate & Shell		1510	1546					
Sand		1546	1570					
Slate & Shell		1570	1612					
Sand		1612	1652					
Slate & Shell		1652	1834					

RECEIVED

OCT 25 1961

OIL & GAS DIVISION DEPT. OF MINES

NOV 19 1961

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	REMARKS
SALT SAND		1834	2026			Oil	1836	Show.
Line		2026	2051			S. Water	1843	2 blrs./hr.
Sand		2051	2122					
BIB LEE		2122	2232					
INJUN		2232	2356					
Slate & Shell		2356	2688					
Brown Shale		2688	2698					
BEREA		2698	2715					
Slate & Shell		2715	4188					
Shale, Brown		4188	4265					
Slate & Shell		4265	4352					
Shale, Brown		4352	4447					
Slate & Shell		4447	4810					
Shale, Brown		4810	4908					
Shale, Black		4908	5069	5069				
CORNIFEROUS		5069	5158					
ORISKANY		5158				Gas	5166-70; 353 Mcf.	
TOTAL DEPTH			5173	5173				

TOTAL DEPTH

DATE _____

APPROVED _____

FOREMAN



1) Date: August 3, 19 84
 2) Operator's Well No. Ray Smith #1
 3) API Well No. 47 - 035 - 1022-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: 1015.87 Watershed: Left Fork of Harbortment Creek 03249
 District: Ripley County: Jackson Quadrangle: Kenna 7.5'
 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT Robert F. Horrell
 Address P.O. Box 628 Address P.O. Box 628
Charleston, West Virginia 25322 Charleston, West Virginia 25322
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Jerry Tephabock Name UNKNOWN
 Address Rt. 1 - Box 101-A Address
Ripley, WV 25271
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X /
 Plug off old formation X / Perforate new formation X /
 Other physical change in well (specify) Plug back Oriskany. Squeeze cement 5-1/2" csg.
 11) GEOLOGICAL TARGET FORMATION, Huron Shale
 12) Estimated depth of completed well, 4500 feet
 13) Approximate strata depths: Fresh, N/R feet; salt, 1305, 1385 feet.
 14) Approximate coal seam depths: N/R Is coal being mined in the area? Yes / No X /

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	13		48			EXISTING	155'		RECEIVED AUG 6 1984 DEPT. OF MINES OIL & GAS DIVISION Perforations:
Fresh water									
Coal	10		32			EXISTING	1602'		
Intermediate	8		32 & 24			EXISTING	2359'		
Production	5-1/2		20			EXISTING	5152'	50 sks.	
Tubing	2		4.6			TO BE PULLED	5166'		
Liners									
	2-3/8		4.6			PROPOSED	4500'		Top Bottom

- (1) Cement plug 5173-5100'. Gel1 (5100-4500'). (3) Squeeze cement 5-1/2" 4550-4050'.
 (2) Set cement retainer @ 4500'.

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-035-1022-FRAC Date September 28, 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 September 28, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>30</u> <u>BLANKET</u>	Agent: <u>ls</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>013-492</u>
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Margaret J. Hase
 Administrator, Office of Oil and Gas

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