

New Location .
 Drill Deeper
 Abandonment

PARTIAL PLUG + FRAC CHDR

Company Cabat Corporation of W. V.
 Address Box 628, Charleston Wva 25322
 Farm C.W. Parsons (Unit Wv 93)
 Tract _____ Acres 202 Lease No. 3-1087
 Well (Farm) No. 2 Serial No. 1534
 Elevation (Spirit Level) 1009.15
 Quadrangle Kenna NW 415'
 County Jackson District Ripley
 Engineer Roy Broth
 Engineer's Registration No. 3204
 File No. _____ Drawing No. _____
 Date 5-15-62 Scale 1" = 660'

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

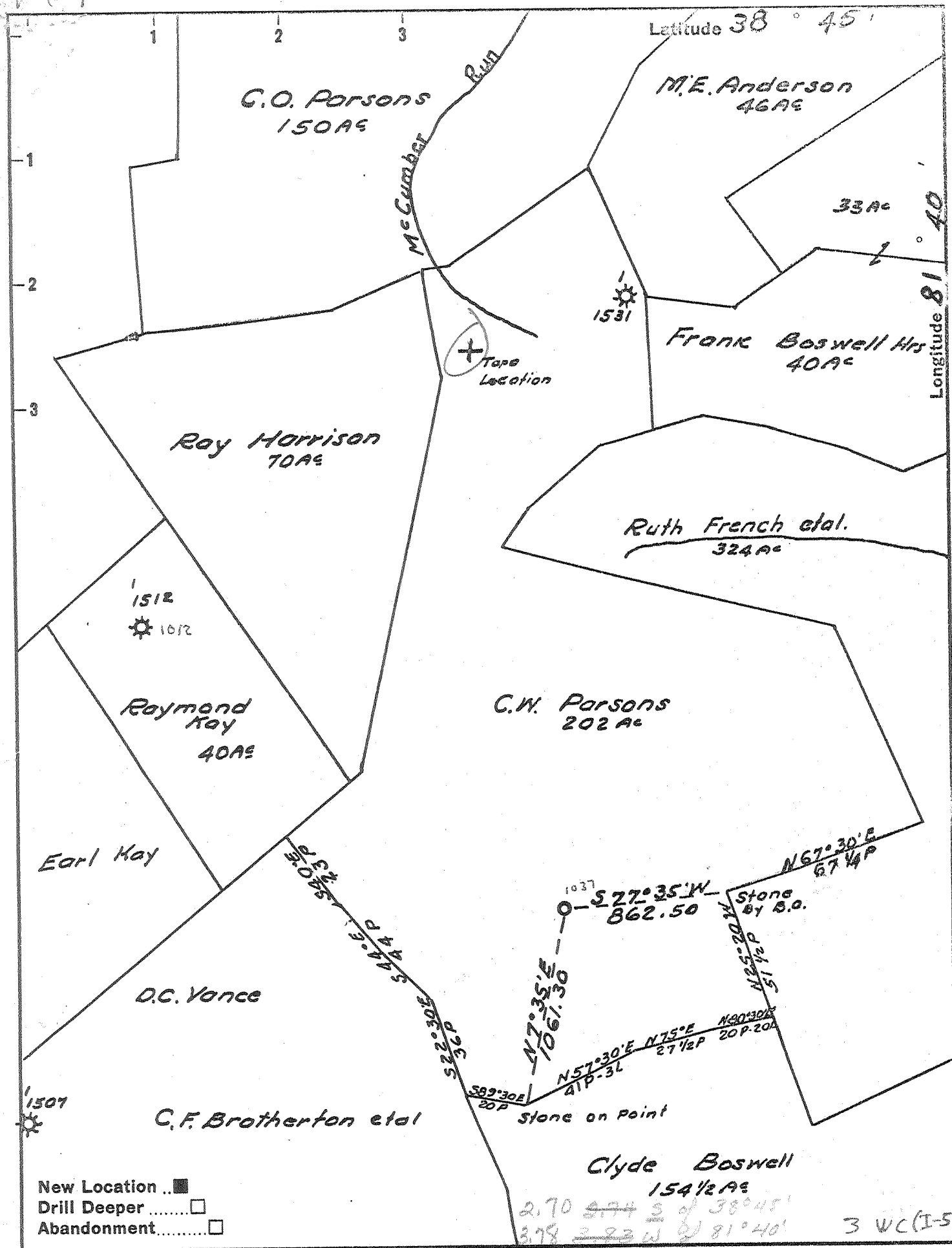
WELL LOCATION MAP
 FILE NO. JAC-1037-PP-Frac.

+ 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 2 1984

MA-4



New Location ..
 Drill Deeper
 Abandonment

Company Cabot Corporation
 Address Box 1473 Charleston W Va
 Farm C.W. Parsons (Unit Wv 93)
 Tract _____ Acres 202 Lease No. 3-1087
 Well (Farm) No. 2 Serial No. 1534
 Elevation (Spirit Level) 1009.15
 Quadrangle Kenna-NW
 County Jackson District Ripley
 Engineer Roy Boster
 Engineer's Registration No. 3204
 File No. _____ Drawing No. _____
 Date 5-15-62 Scale 1" = 660'

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

WELL LOCATION MAP
 FILE NO. JAC-1037

+ 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.

No Samples 6-6 3K 192 DEEP WELL



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 8

Quadrangle KENNA

Permit No. Jac-1037

WELL RECORD

Oil or Gas Well GAS
(KIND)

Company Cabot Corporation
Address Charleston, W. Va.
Farm C. W. Parsons Acres 202
Location (waters) _____
Well No. 2, Serial 1534 Elev. 1009
District Ripley County Jackson
The surface of tract is owned in fee by G. W. Parsons
Address Given, W. Va.
Mineral rights are owned by C. W. Parsons
Address Given, W. Va.
Drilling commenced 8-1-62
Drilling completed 11-20-62
Testing completed: From 1-17-63 To _____
Date Shot _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure 1100 lbs. 24 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13	298	298	
10	1597	1597	Size of
8 1/4	2342	2342	
6 3/8			Depth set
5 1/2	5158	5158	
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

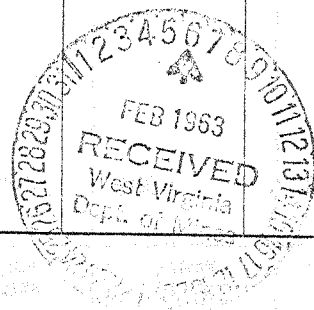
CASING CEMENTED 5 1/2" SIZE 300 No. Ft. 11/5/62 Date

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

WELL FRACTURED ORISKANY fractured 11/26/62 with 45,520 gals. of water with 4% acid and 40,000# sand. Treatment pressure 4000#; injection rate 31.3 BPM. Open flow before treatment RESULT AFTER TREATMENT 42 Mcf. Open flow A/F not taken; production rate 209 Mcf (1 1/2# line pr.)
ROCK PRESSURE AFTER TREATMENT _____
Fresh Water 112'; 1009' Feet Salt Water 1820-26 Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	10			
Sand			10	24			
Red Rock			24	72			
Sand			72	118	F. Water	112	1/2 bkr. 2 hrs.
Slate			118	120			
Red Rock			120	170			
Slate			170	227			
Red Rock			227	299			
Slate			299	324			
Sand			324	340			
Red Rock			340	380			
Sand			380	440			
Red Rock			440	465			
Sand			465	500			
Red Rock			500	535			
Lime			535	550			
Red Rock			550	667			
Slate			667	714			
Lime			714	734			
Red Rock			734	744			
Slate			744	762			
Red Rock			762	800			
Sand			800	812			
Red Rock			812	830			
Sand			830	843			
Red Rock			843	872			
Sand			872	920			
Red Rock			920	943			
Slate & Shells			943	960			
Sand			960	980			

(over)



Formation	Color	Hard or Soft	Top δ	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Rock			980	995			
Sand			995	1025	F. Water	1009	1/2 blr/hr
Slate & Shells			1025	1040			
Red Rock			1040	1070			
Lime			1070	1100			
Red Rock			1100	1120			
Lime			1120	1137			
Shale			1137	1180			
Sand			1180	1330	Oil	1270	Show.
Shale			1330	1346			
Sand			1346	1473			
Shale			1473	1480			
Sand			1480	1575			
Slate & Shells			1575	1600			
Broken Sand			1600	1660			
Slate			1660	1691			
Sand			1691	1710			
Slate & Shells			1710	1727			
Sand			1727	1757			
Slate			1757	1816			
SALT SAND			1816	2057	Oil	1816-20	Show.
Lime <i>Biglime</i>			2057	2201	S. Water	1820-26	Hole full.
INJUN			2201	2337			
Lime			2337	2386			
Sand <i>W&R</i>			2386	2445			
Slate			2445	2647			
Brown Shale			2647	2693			
BEREA			2693	2698	Gas	2694	42 Mcf decr. to 28 Mcf-
Slate & Shells			2698	3940			
Brown Shale <i>-441</i>			3940	3961			
Slate & Shells			3961	4132			
Lime			4132	4166			
Slate & Shells			4166	4200			
Brown Shale			4200	4241			
Slate			4241	4325	Gas	4273-4311	39 Mcf decr. to 28 Mcf
Brown Shale			4325	4440			
Slate & Shells			4440	4560			
Brown Shale			4560	4595			
Slate & Shells			4595	4838			
Brown Shale			4838	5080			
CORNIFEROUS <i>-463</i>			5080 <i>5090 E</i>	5181 <i>5184 E</i>			
ORISKANY			5181 <i>5194 E</i>	5206 <i>5193 E</i>			
Lime			5206 <i>5193 E</i>	5220 <i>5201 E</i>			
ORISKANY <i>Held</i>			5220 <i>5201 E</i>	5224 <i>5215 E</i>	Gas	5220-22	42 Mcf
Lime <i>?</i>			5224 <i>5215 E</i>				
TOTAL DEPTH				5224			

485

Date February 5, 1963

APPROVED CABOT CORPORATION, Owner

By H.J. Simmons, Jr. (Title) Gen. Supt.

GODFREY L. CABOT, INC.

WELL RECORD

SERIAL NO. **1534** OPERATING DISTRICT **FW** Map Square Lot No. **49-31** Warrant No.
 FARM **C. W. Parsons** NO. **2** LEASE NO. **27-93**
 COUNTY **Jackson** TAX DISTRICT **Ripley** STATE **W. Va.**
 DRILLING COMMENCED **8-1-62** DRILLING COMPLETED **11-20-62**
 Testing Completed: **1-17-63**
 CONTRACTOR **Company tools** ADDRESS

ROCK PRESSURE RECORD				PRODUCING SAND RECORD			
Criskany	Sand	1100 lbs. in	2 1/2 hrs.	Criskany	Sand, from 5220 to 5223	Init. Prod. 42	M. C. F. G.
	Sand	lbs. in	hrs.	Perea	Sand, from 269 1/2 to	Init. Prod. 28	M. C. F. G.
	Sand	lbs. in	hrs.	Slate	Sand, from 4311 to 4273	Init. Prod. 30	M. C. F. G.

OPEN FLOW Time, Condition: **Not taken**

Water	Mercury in	inch opening	SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	HOW CASING SET
Volume	M. C. F.		13"	49	298	298	
24 HOUR PRODUCTION TEST AFTER TUBING							
209	M. C. F.	1127	Line Pressure	8"	24	2342	2342
	Bbls. Oil	in 24 Hours	5 1/2	177	5158	5158	Cemented w/45 bags (300)
TUBED AND SHUT IN							Date Dec 4 1962
Packer, Size	Kind						
Set, Depth	Size Anchor						

CRISKANY FRACTURED (SEE CELL 104)

Perf. Top Bottom Shot with Acid from to Date

ELEVATION: **1009** 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
Soil		0	10					
Sand		10	24					
Red Rock		24	72					
Sand		72	118			F. Water	112	1/2 blr. in 2 hrs.
Slate		118	120					
Red Rock		120	170					
Slate		170	227					FRACTURED 11/26/62 with 45,520 gallons of water with 4% acid and 40,000# sand. Treatment pressure 4000#. Injection rate 31.3 BPM
Red Rock		227	299					
Slate		299	324					
Sand		324	340					
Red Rock		340	380					
Sand		380	410					
Red Rock		410	465					
Sand		465	500					
Red Rock		500	535					
Line		535	550					
Red Rock		550	667					
Slate		667	714					
Line		714	734					
Red Rock		734	744					
Slate		744	762					
Red Rock		762	800					
Sand		800	812					
Red Rock		812	830					
Sand		830	843					
Red Rock		843	872					
Sand		872	920					
Red Rock		920	943					
Slate & Shells		943	960					
Sand		960	980					
Red Rock		980	995					
Sand		995	1025			F. Water	1009	1/2 blr. /hr.
Slate & Shells		1025	1040					
Red Rock		1040	1070					
Line		1070	1100					
Red Rock		1100	1125					

RECEIVED
 AUG 31 1984
 OIL & GAS DIVISION
 DEPT. OF MINES

SERIAL NO. **1534** FARM **C.W. Parsons** NO. **2** OPERATING DIST. **FW** MAP SQUARE **49-31** LOT NO. **100A** WARRANT NO. **100A**

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	REMARKS
air		1120	1137					
Shale		1137	1180					
Sand		1180	1330			Oil	1270	Show.
Shale		1330	1346					
Sand		1346	1473					
Shale		1473	1480					
Sand		1480	1575					
Slate & Shells		1575	1600					
Broken Sand		1600	1660					
Slate		1660	1691					
Sand		1691	1710					
Slate & Shells		1710	1727					
Sand		1727	1757					
Slate		1757	1816					
SALT SAND		1816	2057			Oil	1816-20	Show.
Lime		2057	2201			S. Water	1820-26	Hole full.
DRUSE		2201	2337					
Lime		2337	2386					
Sand		2386	2445					
Slate		2445	2647					
Brown Shale		2647	2693					
PEREA		2693	2698			Gas	2694	42 Mcf, decreased to 28 Mcf
Slate & Shells		2698	3940					
Brown Shale		3940	3961					
Slate & Shells		3961	4132					
Lime		4132	4166					
Slate & Shells		4166	4200					
Brown Shale		4200	4241					
Slate		4241	4325			Gas	4273-4311	39 M decreased to 30 Mcf
Brown Shale		4325	4440					
Slate & Shells		4440	4560					
Brown Shale		4560	4595					
Slate & Shells		4595	4838					
Brown Shale		4838	5080					
CORNIFEROUS		5080	5181					
CRISKANY		5181	5206					
Lime		5206	5220					
CRISKANY		5220				Gas	5220-22	42 Mcf
TOTAL DEPTH			5224					

DATE

APPROVED

FOREMAN

RECEIVED



AUG 31 1984

Date August 28, 1984

FD-35
(Rev 6-61)

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

Operator's
Well No. #2
Farm C. W. Parsons
API No. 47 - 035 - 1037-PP-
FRAC

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: 1009.15' Watershed McGrosky Run of Wolf Creek
District: Ripley County Jackson Quadrangle Kenna 7-1/2

COMPANY Cabot Oil & Gas Corporation of WV
ADDRESS Box 628, Charleston, WV 25322
DESIGNATED AGENT H. Baird Whitehead
ADDRESS Box 628, Charleston, WV 25322
SURFACE OWNER See Attached List
ADDRESS
MINERAL RIGHTS OWNER C.W. & Mildred Parsons
ADDRESS Given, WV 25245
OIL AND GAS INSPECTOR FOR THIS WORK Jerry
Tephabock ADDRESS Rt.1, Box 101-A, Charleston
WV 25322
PERMIT ISSUED June 26, 1984
WORKOVER
DRILLING COMMENCED July 19, 1984
WORKOVER
DRILLING COMPLETED July 31, 1984
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	from 4550-	4226'
4 1/2			
3			
2-3/8"		4386.35'	
Liners used		w/seating collar	
		@ 4385'	

GEOLOGICAL TARGET FORMATION Huron Shale Depth 4262-4434 feet
Depth of completed well PBTD 4520 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 4262-4434 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
4 hr. Final open flow (94) Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure 600 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

1984

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 R/U HOWCO. Spotted Class A cement, 3% CaCl₂, 1/4# flocele plug from 5214-5089', 6% gel plug from 5089-4489'. Shot squeeze perfs from 4550-51'. Set HOWCO EZSV cement retainer @ 4520'. Squeezed 5-1/2" w/200 sks. 50/50 poz, 2% CaCl₂, 1/2 of 1% CFR₂. Ran Gamma Ray, Cement Bond log. TOC 4290'. Shot squeeze perfs from 4260-61. Bullhead squeezed 5-1/2 w/50 sks. 50/50 poz., 2% CaCl₂, 1/2 of 1% CFR₂. Chased plug w/wireline to 3890'. Maximum squeeze pressure 1500 psi. Could not displace all cement. Drilled out plug and cement. R/U McCullough. Ran Gamma Ray, Cement bond log 4509-3800'. Top of cement 4226'. Perforated 4262-69' (4 holes), 4310, 4314, 4322, 4340, 4344, 4358, 4363, 4372, 4388, 4404, 4426, 4434 (12 holes). Ran 2-7/8" tubing and RTTS packer to treat. Pressured up on annulus to 500 psi w/N₂. Pumped 500 gals. 15% HCL. B/D w/N₂ @ 2620 psi. ISIP 2130#. Pumped 100 bbls. foam pad. Treated Shale w/90,000# of 20/40. 6-1/2 BPM treated H₂O and 13,500 SCF N₂/min. for 75 quality foam. AIR 26 BPM foam. ATP 3650#. Maximum treating pressure 4020. Maximum sand concentration 2#/gal. Total fluid 424 bbls., S/L 400 bbls. Total

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
N ₂ 925,000.	ISIP 1410#, 5 min	- 970#, 10 min.	- 920#, 15 min.	- 880#.	Released thru 1/8" choke. Ran 140 jts. of 2-3/8" 10 V EUE (4386.35'). Seating collar set @ 4385.85'.
See Attached Original Well Record					

(Attach separate sheets as necessary)

CABOT OIL & GAS CORPORATION OF WEST VIRGINIA

Well Operator

By: W. E. ...

Date: August 28, 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 coal, encountered in the drilling of a well."



1) Date: May 31, 19 84
 2) Operator's Well No. C.W. Parsons #2
 3) API Well No. 47 - 035 - 1037-PP-
 State County Permit FRAC

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: 1009.15' Watershed: McGrosky Run of Wolf Creek (0324)
 District: Ripley County: Jackson 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 Tephabock Name UNKNOWN
 Address Rt. 1 - Box 101-A Address _____
Ripley, WV 25271

10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) Plug Back Oriskany

11) GEOLOGICAL TARGET FORMATION, Huron Shale
 12) Estimated depth of completed well, 4650 feet
 13) Approximate trata depths: Fresh, 112, 1009 feet; salt, _____ feet.
 14) Approximate coal seam depths: NR Is coal being mined in the area? Yes No

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	298	ON SHOE	Kinds
Fresh water	10		32.75			EXISTING	1597	ON SHOE	
Coal									Sizes
Intermediate	8		24			EXISTING	2342	ON SHOE	
Production	5-1/2		17			EXISTING	5158	45 sks. (300' set)	
Tubing									Perforations:
Liners									Top Bottom
	1-1/2		2.75	X		PROPOSED	4350'		

(1) Spot cement plug 5224-5140' and gel to 4650'. (3) Squeeze cement 5-1/2" csg. 4400-3800'.
 (2) Set permanent bridge plug and cal seal @ 4650'.

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-035-1037-PP-FRAC Date June 26, 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 June 26, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BLANKET</u>	Agent: <input checked="" type="checkbox"/> <u>LA</u>	Plat: <u>MJ</u>	Casing: <u>MJ</u>	Fee: <u>013-033</u>
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[Signature]
 Administrator, Office of Oil and Gas

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