

RECEIVED OCT 21 1983

TV-35 (Rev 8-81)

OIL & GAS DIVISION DEPT. OF MINES

Pepar Total 1993 Coil 20



Sinie of Mest Airginia Pepartment of Mines Gil und Cas Division

Date	Octob	er 18	, 198	3	
	tor's No. Wa	tson		Unit	#3
Farm					مانان باست. مانان باست.
API N	lo47	04	7	0869	,

WELL OPERATOR'S REPORT

OF

DRILLING,	FRACTURING	AND/OR	STIMULATING,	OR	PHYSICAL	CHANGE

WEIL TYPE: Oil / Gas XX/ Liquid Injection (If "Gas," Production / Underground				Llow/)
LOCATION: Elevation: 1693.42' Watershed	Jeb Branc	h of Tug F	'ork	•
District: Browns Creek County McDowe				
CHROCOLOGY CONTRACTOR		•	. ,	
COMPANY Cabot Oil & Gas Corporation of WV	•			• • •
ADDRESS P.O. Box 628, Charleston, WV 25322	Caşing	Used in	Left	Cement fill up
DESIGNATED AGENT Richard P. Parsons	Tubing	Drilling	in Well	Cu. ft.
ADDRESS P.O. Box 628, Charleston, WV 25322	Size		·	-
SURFACE OWNER Pocahontas Land Corp. Mr. C.L. Helmick - Box 1517	20-16 Cond.			
ADDRESS Bluefield, WV 24701	11-3/4 3:3:3:0:x	630	630	
MINERAL RIGHTS OWNER James E. Watson III et al Trustees, Room 810, 1st National Bank ADDRESS Bldg., Fairmont, WV 26554	9 5/8			
ADDRESS Bldg., Fairmont, WV 26554	8 5/8	1420 40'	1420.40'	550 sks.
OT AND GAS INSPECTOR FOR THIS WORK Rue	7	1420.40		
Schoolcraft ADDRESS pineville. WV 24874	5 1/2			
PERMIT ISSUED June 9, 1983	4 1/2	6289.56'	6289.56'	425 sks.
DRILLING COMMENCED 6/21/83	3:			
DRILLING COMPLETED 7/15/83	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR RE-DRKING. VERBAL PERMISSION OBTAINED ON	Liners used			
GEOLOGICAL TARGET FORMATION Huron Shale		, . Dep	th 585	⁰ feet
Depth of completed well 6850 feet F	otary_x	/ Cabl	e T∞ls_	
Water strata depth: Fresh feet;	Salt	feet		* ,
Coal seam depths:	Is coal	being min	ed in the	area?
OPEN FLOW DATA	<i>*</i>			
Producing formation Devonian Shale	Pas	v zone den	th 4359-	.6238 feet
Gas: Initial open flow 0 Mcf/d			•	
Final open flow 223 Mcf/d	•			
Time of open flow between init:				
Static rock pressure 120# psig(surface			distriction of the same of the	
(If applicable due to multiple completion	•	•		
Second producing formation	_	y zone der	oth	feet
Gas: Initial open flow Mcf/d				
Final open flow Mcf/d				
Time of open flow between init				
Static rock pressure psig(surface				
	•			everse side

401)

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

R/U McCullough, T.D. 6254 K.B. Ran Gamma Ray, Correlation from 4450 to 4100 Perforated 19 holes from 5713-6238. Treated Devonian Shale with 900 sks. of 20/40 sand, 893,000 standard cubic feet nitrogen. AIR 40 bbls. per minute. Breakdown pressure 1800#. Average treating pressure 2999#. ISIP 1180#. Perforated Devonian Sand, 4359-4369, 6 holes, 4598-4608, 6 holes. Brokedown with 500 gal. 15% HCL at 1800#. Treated with 450 sks. of 20/40 sand, 367,000 standard cubic feet nitrogen.

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
			all sait water, coar, orr and go
Sand	0	70	
Shale	70	110	
Sand	110	150	
Shale	150	180	
Sand	180	230	
Shaley Sand	230	270	
Shale	270	305	
Sand	305	360	
Shale	360	390	
Sand	390	450	•
Shale	450	475	
Sand	475	530	
Shaley Sand	530	630	
Shale	630	670	
Sand	670	690	
Shale	690	730	
Sand	730	760	
Shaley Sand	760	820	· ·
Shale	820	850	
Sand	850	950	-
Shaley Sand	950	1250	Tops from E-Logs.
Pride Shale	1250	1440	
Ravencliff Sand White - Hard	1440	1560 .	
Shaley Sand Grey - Med.	1560	1580	
Shale Grey - Med.	1580	1600	
Avis Limestone Dk. Grey - Med.	N. Contract of the Contract of	1650	
Limey Shale Red - Soft	1650	1750	
Shale Green - Med.	1750	1770	
Shale (Limey) Grey & Red - Med.	8	1810	
Sand Brown - Med.	1810	1820	•
Limestone Black - Hard	1820	1830	
Shale Black - Soft	1830	1840	
Sandy Shale Grey & Red - Med.	1840	1920	
Sand Grey - Hard	1920	1960	
Shale Grey & Red - Med.	1960	2045	
Sandy Shale Grey & Red - Med.	2045	2220	
Shale Red - Med.	2220	- 2305	

(Attach separate sheets as necessary)

CABOT	OIL &	GAS CO	RPORATION	OF WEST	VIRGINIA	
Wel	l Oper	ator /				
	DI	M				
By:	<u> </u>	<u>ta</u>	m			
Date:	Octob	er 20,	1983			

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 that, encountered in the drilling of a well."

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Shaley Sand	Grey	Med.	2305	2312	
Shale	Red	Med.	2312	2420	
Shaley Sand (Maxton)			2420	2460	S/G TSTM
Shale	Grey	Med.	2460	2480	
Sand	Grey	Hard	2480	2490	
Shale	Grey	Med.	2490	2540	
7.imestone	Grey	Hard	2540	2580	
Shale	Grey	Soft	2580	2590	
Sand	White	Hard	2590	2630	
Shale	Grey	Med.	2630	2710	
Shaley Lime	Grey	Hard	2710	2800	
Limey Shale	Grey	Med.	2800	2870	
Shaley Lime	Grey & Brown	n Hard	2870	2960	
Shale	Grey	Med.	2960	2990	
Big Lime	Grey & Brown	n Hard	2990	3560	
Shale	Red	Soft	3560	3620	
Sandy Shale	Grey	Soft	3620	3830	
Shale	Grey	Soft	3830	4160	
Sunbury Shale	Black	Soft	4160	4200	
Berea (Shaley)	Grey	Hard	4200	4240	S/G TSTM
Shale	Grey	Soft	4240	4310	
Shaley Sand	Grey & White	e Med.	4310	4410	S/G TSTM
Shale	Grey	Med.	4410	4470	
Sandy Shale	Grey	Med.	4470	4560	
Shale	Grey	Med.	4560	4590	a /a mamu
Shaley Sand	Grey	Med.	4590	4620	S/G TSTM
Shale 🗽	Grey	Soft	4620	5490	
Upper Heron Shale	Black & Gre	***	5490	5710	
Lower Heron Shale	Black	Soft	5710	5750	
Shale	Grey	Soft	5750	6100	
Shaley Sand	Grey	Med.	6100	6140	
Shale	Grey	Soft	6140	6230	
Shaley Sand	Grey	Med.	6230	6250	
Shale	Grey	Soft	6250	6310	,
Rhinestreet Shale	Black	Soft	6310	6650 6730	
Marcellus Shale	Black	Soft	6650	6720 6786	
Onondaga Limestone	-	Hard	6720	6786	
Oriskany Sand	White	Hard	6786	6802 6850	
Limestone	Grey	Hard	6802	0030	

Helderberg

L.T.D.6850°

FORM IV-2 (Obverse) (Revised 3-61)



Well No.	#3	
Farm	Watson	
API #47	-047 -0869	
Date	December 7,	1981

STATE OF WEST VIHIGINIA

OFFICE OF OIL AND GAS - DEPARTMENT OF MINES OIL AND GAS WELL PERMIT APPLICATION WELL TYPE: OIL / Gas_xx_/ (If "Gas", Production / Underground Storage / Deep / Shallow XX/ LCCATION: Elevation: 1693.42' Watershed: Jeb Branch of Tug Fork District: Adkin County: McDowell Quadrangle: Welch WILL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Richard P. Parsons Address P.O. Box 628 Address P.O. Box 628 Charleston, WV 25322 OH AND GAS et al ROYALTY OWNER James E. Watson III Trustees COAL OPERATOR Cannelton Industries Inc. Address Room 810, 1st Nat'l Bank Bldg. Address Attention: Robert Fullerton Fairmont, WV 26554 Superior, WV 24886 1982.73 Acreage COAL OWNER(S) WITH DECLARATION ON RECORD: SURFACE OWNER Pocahontas Land Corp. NAME Pocahontas Land Corp. Address P.O. Box 1517 - Attn: C. L. Helmick Address P.O. Box 1517 - Attn: C. L. Helmick Bluefield, WV 24701 Bluefield, WV 24701 Acreage 1982.73 NAME Address FIELD SALE (IF MADE) TO: NAME THE Address COAL LESSEE WITH DECLARATION ON RECORD: NAME ----Address OIL AND GAS INSPECTOR TO BE NOTIFIED: NAME Rue Schoolcraft Address P.O. Box 706 Pineville, WV 24874 Telephone 304-732-7245 The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease XX / other contract __ / dated March 15, 19 81, to the undersigned well operator from ___ Edgar N. Jaynes et al Trustees ___ . (If said deed, lease, or other contract has been recorded:) Recorded on ___ _____, 19___, in the office of the Clerk of County Commission of County, West Virginia, in _____Book at page: ____ & A permit is requested as follows: PROPOSED WORK: Drill XX / Drill Deeper / Redrill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify) --planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code \$22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1613 WASHINGTON ST., E. CHARLESTON, WV 25311 Telephone - 304/348-3092

	CABOT	OIL AND GAS CORPORATION Well Operator	* 1
	71/01/20	Well Operator	- 10 - 10 - 164
	By:	12 Mouron	
1	ts: Distr	rict Drilling Superintendent	

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

	ACTUAL I	NFORMAT	TION MUST	T-BE S			RM IV-35	UPON COMPLET	ION
DRILLING	CONTRACT	OR (IF	KNOMN)		Unkno	own			
		Д	Nddress_						, ,
Арргох Арргох	ted dept inate wa imate co	h of co ter str al seam	ompleted ata dept depths:	hs: 523	4500 Fresh (open)) fee , 50 613' (op X / No	feet; : en)	ry_xx / Cab salt,	le tools/ feet。
CASING AN		PROGRA	M						
CASING OR TUBING TY			CIFICATI Weight	ONS		FOOTAGE	INTERVALS	CEMENT FILL	7 PACKERS
TODING II		Grade	per fit	1 New	lUsed	ling	Vell	UP OR SACKS	1
Conductor	16			X	1	50	50	50	Kinds
Fresh wat		1							
Coal	11-3/4			Х		650	650	315 CTS	Sizes
Intermed.		<u> </u>		X		1400	1400	300 C75	?
Productio	n 4-1/2	<u> </u>		X		4500	4500	5 175 . 0-	Depths set
Tubing		-		ļ		1		Vinte 7"	
Liners		ļ		 					Perforations:
			ļ	 	-				Top Bottom
				-	 				:
For 822- requests A se when some of the W. V. for dr. operations he	TIV-9, -4-12b as wired by -4-8a frond well. esparate in the fracts ght and in the Kalon in the Code, the illing	"Reclam nd Regu Code 8 om the Form IV uring of is note POSTED accordance by This	ation Pl lation 2 22-4-12a owner of -2 shall r stimul d as suc AT THE N ce with Ch n is hereby permit shale y 8-25-8	an" a 3, (i 4, and 5, and 6 any 6 not 6 ating 6 no 6 Control 6 Con	epplicant (v) unled (v) in water be required the Fo	able to the less previous of application well or continuities for the part	ie reclamo iously pai ible, the welling u fracturi of the wo	ition required on the sac consent required within 200 feature	me well, the fee uired by Code eet of the pro-
or c is a he unders ocation h rea of the igned has	igned co as exami well lo no obje	see who sued wi al oper ned thi ocation ction t	has received thin fif ator some propose, the we do not he would with a	orded teen / own ed we ll lo rk pr	a dec (15) d W A I er ell loc ocation oposed	laration lays of re VER lessee ation. In has been to be do	under Cod ceipt the / of t If a mine n added to one at thi	the \$22-4-20, reof: the coal und map exists to the mine map is location.	any coal owner if the permit er this well which covers the ap. The underprovided the irginia Code and
****		, ·)	•			***************************************			- e
					Ву	/:			

DRILLING CONTRACTOR:



1)	Date:	May 20,	, 19
2)	Operator's		

Well No._ 47 3) API Well No. Permit County

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

					OIL AND	GAS WELL PEI	RMIT A	PPLICATION		
4)	WELL TYPE:	A Oil		_/ Gas _	XX /					
.,		B (If "	Gas". Pro	duction		/ Undergrou			_/ Deep	/ Shallow/)
5)	LOCATION:	Elevat		693.42 kin		Watershed County:		cDowell	Ouadrangle:	Welch 7}'
6)	WELL OPERA		·		s Corp.	of W.Va.		DESIGNATED		ard P. Parsons
	Address	P.	O. Box					Address	P.O. Box 62	
		_	mes E.	water	Water Control of the	t al			Charleston, Cannelton	
7)	OIL & GAS ROYALTY OV	VNER I	rustee	S			12)	COAL OPERAT	TOR Charles	R. Wayne Gen-Mgr-
	Address	Room		st Nat	'l Bank	Bldg.		Address		Valley Square
		1982.		V 265	134		12)	COAL OWNER	Charlesto	
8)	Acreage SURFACE OW	- 1	ocahon	tas La	ind Corp		13)	-	The state of the s	RATION ON RECORD:
	Address	Mr. C		elmick	and the second	17		Address		elmick - Box 1517
		1982.		WV 24	791				Bluefield, 1	W 24701
9)	Acreage FIELD SALE							Name		
9)	Address	(IF MADI	E) 10:			ny dakama		Address	e Seleyes Consider	TO LEAD AND LEADING TO
							14)	COAL LESSEE	WITH DECLARA	TION ON RECORD:
10)	OIL & GAS IN	NSPECTO	R TO BE	NOTIFIE	D			Name	I/A	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Name	P.0	. Вож	706				Address	CARALLE SE ANN	
	Address	Pin	eville	, WV	24874					
15)	PROPOSED V	VORK:				/ R			ture or stimulate	
							ate new	formation		
10	CEOLOGICA	TARCE			ge in well (s	specify)				
16)	GEOLOGICA 17) Estimated				6890		eet		substanti amenda	
	18) Approxim				_	feet;		SE 100 - 100 - 100	feet.	
	19) Approxim	ate coal se	am depths:	523	,613	I	s coal be	ing mined in the	area? Yes	/ No/
20)	CASING AND	TUBING	PROGRA	AM						
					10	II FOR	OT LOT IN		II CENTENT FULLUD	II DACVERS
	CASING OR TUBING TYPE	Size	SPE Grade	CIFICATION Weight per ft.	New Used		1	TERVALS Left in well	OR SACKS (Cubic feet)	PACKERS
	Conductor	13-3/9	J-55	54.5	X Osci	100		100	50 sks	Kinds
	Fresh water				Acres lates			RECORDER SEE		
	Coal	0 5 76		10.77				3450	250 -2-	Sizes
	Intermediate	4-1/9	J-55	24.0	X	1450		1450 6890	350 sks	
	Production	2-3/8	J-55	4.6	X			6890		Depths set
	Liners								G N C N C N C N C N C N C N C N C N C N	Perforations:
										Top Bottom
011	THE A COUNTY	I DIGITE							* 2-Stage Co	mont Joh
21)	EXTRACTION Check and pro-			wing:						
					continuing	contract or contr	acts by	which I hold the	right to extract oil	or gas.
	A THE RESERVE OF THE PARTY OF T			-4-1-(c) (1)	through (4)	. (See reverse si	de for s	pecifics.)		
22)				arket the o	il or gas base	ed upon a lease o	r other c	ontinuing contrac	ct or contracts provid	ding for flat well royalty or any
										me of oil or gas so extracted,
TE .	produced or ma			No L	anded If the	answer is Ves	vou mai	use Affidavit Fo	orm IV-60	
23)	Required Copie	es (See rev	erse side.)							
24	Copies of this	Permit A	pplication	and the en	nclosed plat	and reclamation	plan ha	ve been mailed b	by registered mail or	delivered by hand to the above
	Mines at Char				il lessee on c	or before the day	or the	maining or delive	ry or this remit A	pplication to the Department
	Notary:		paget.				S	igned:	1 House	many of the second
	My Commission	Expires	MARKET STATE	ALBE DES TO	1777			Its: Dist	rict Drillin	ng Superintendent
						OFFICE AND	T C			Carlo Constitution
						OFFICE US DRILLING				
Per	mit number					DRILLING	ILK	VAL 1		19
										ate
qui (R	rements subject tefer to No. 10) P	to the con-	ditions cor constructi	ntained her	ein and on s, locations	the reverse hereo	of. Not permitte	ification must be discount work In addition	given to the Distric	ance with the pertinent legal re the Oil and Gas Inspector. or his contractor shall notify the
	mit expires	reords	may 73	1704					prior to that date an	d prosecuted with due diligence

Bond:	Agent:	Plat:	Casing	Fee	THA
				211 54	Administrator, Office of Oil and Gas