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	FORM W W-2B					Page	of		
				OF WEST					
	DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION								
	l) Well Operator			ration 81			. 78		
	ty with Operator		o day od.pe	149	<u> </u>		*		
	2) Operator's W	ell Number:	Marstiller #	2		^	3169.36`		
6	4) Well Type:	a) Oil _	/ or	Gas X	/	Exper	d (0/24/97 à 10/24/99		
24469		b) If Gas	· Proc	duction X	/Underg	round Storage			
24		5, 11 0 40		Deep X		Shallow			
	5) Proposed Tar	get Formation(s)	: Oriska	any 475			\$77.7.1 () \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
	6) Proposed Tot	al Depth:	2 85	75	feet		007		
	, .					a.r. 2001 2 <i>mm</i>	Offic Popular		
	7) Approximate	fresh water strat	ta depths:			25', 200', 377			
	8) Approximate	salt water depth	s:			N/A			
	9) Approximate	coal seam depth	5:			N/A			
	10) Does land con	tain coal seams t	wihntam to	active mine) Vac	/ No	X /		
	10) Does land cor	itain cuai seams i	nibutary to	active innie:	163	7 110			
	11) Proposed We	ll Work: <u>Dri</u>	ll and compl	ete a gas well					
	12) Based on Rand	oipn 1139	CASING A	AND TUBIN	G PROGRA	M			
				:					
	TYPE	SPECI	FICATION		1	E INTERVAL			
		Size	Grade	Weight per ft.	For Drilling	Left in Well	Fill-up (cu. ft.)		
	Conductor	13-3/8"	L.S.	54.5#	80'	80'	80 sks (GFS)		
	Fresh Water	9-5/8"	J-55	36#	1600'	1600'	530 sks (CTS)		
	Coal								
	Intermediate	*7"	J-55	20#	3000'	3000'	460 sks (CTS)		
	Production	4-1/2"	N-80	11.6#	8525'	8525'	100 sks		
	Tubing	·							
	Liners								
	*7" may be run, a	t company's dis	cretion, if v	vater is foun	d below 9-5	/8" casing tha	t causes problems		
	drilling to TD								
	PACKERS:	Kind							
	() k	Sizes							
	1	Depths set							
۱ لم :	J								
		<u> </u>							
16	/w 2	A				ly			
16	2	□Well Wo	For Offic	ce of Oil and	Gas Use On eclamation F		□WPCP		
3.5	√ M ☐ Fee(s) paid:		For Offic rk Permit	ce of Oil and	Gas Use On		□WPCP □Agent		
3.5	√ M ☐ Fee(s) paid:		For Offic rk Permit	ce of Oil and	Gas Use On		·		
3.5	√ M ☐ Fee(s) paid:		For Offic rk Permit	ce of Oil and	Gas Use On eclamation F		·		
2.2	√ M ☐ Fee(s) paid:		For Offic rk Permit	ce of Oil and	Gas Use On eclamation F		·		

Page 1	ge l ofll)								
Form WW-2A			2)	Operator's well number				
6/94)					Mars	tiller #2			
FILE	COPY		3)	API Well No	47 -	083	- 1143	
				,		State	County	Permit	
								8.	
			ST VIRGINIA - B				'NT	•	
		DIVISIO	N OF ENVIRONM	ENTA	AL PROTEC	CTION			
			OFFICE OF OIL	LAN	D GAS			* **	
		NOTICE AND	APPLICATION FO	OR A	WELL WOL	R PER	MIT	$x_{ij} = x_{ij}$	
		NOTICEAND					VALL	13. 14	
4)	Surface Ov	vner(s) to be served		5)	(a) Coal Ope				
	(a) Name	David S. Marstiller	•		Name _	Not Oper	ated 🤫	7	
	Address	4 Mills Road			Address _			() A	
		Gaithersburg, MD	20877						
	(b) Name	Linda J. Warner	***		(b) Coal Ow	ner(s) wi	th Declarati	on ·	
	Address	15225 Breedens R	oad		` /	` '	Marstiller		
	71441033	Doswell, VA 2304				4 Mills Re			
	(a) Mama	Doswell, VA 2304	. /				urg, MD 20	1277	
	(c) Name					Linda J. V		10//	
	Address							1	
							eedens Roa	<u>a</u>	
						······································	VA 23047		
6)	Inspector	Phillip Tracy			(c) Coal Les	ssee with	Declaration		
	Address	Route 2, Box 37-A	7		Name _				
		Montrose, WV 26	283		Address _				
	Telephone	(304) 626-0787	7						
	-		OBICO BIABOTOR AT	D () X () X	ייי ירי אול המרשות אירורייי	רופינט יופי∕יפיום	[A 78".		
		10 IHE PERS	ON(S) NAMED A	BUVE	IARENU	IICE ID	<u>A1:</u>		
			er continuing contract of						
X			l by Chapter 22, Article						
	•		oter 22 of the West Virg					d application,	
a locati		companying document		on	the above name	ed parties, t	oy:		
		rsonal Service (Affidavi		31					
		runed Man (Posunarke blication (Notice of Pub	d postal receipt attached	1)					
		•	***************************************						
		_	22-6 and 38 CSR 11-13	8, and I	agree to the ter	ms and cor	iditions of any	permit issued	
under 1	this application					· c		A - A - A - A - A - A - A - A - A - A -	
1:			have personally examin						
• •			at based on my inquiry of true, accurate and comp		marviquais mu	neuratery re	sponsiole for	ootaning the	
111101111			t penalties for submitting		information, in	cluding the	possibility of	fine and	
impris	onment.		, , , , , , , , , , , , , , , , , , ,	-6	,		,		
. %			Well Ope	erator	Cabot Oil &	Gas Corp	oration ,	`	
				Ву	Stay	Srud	nick	b	
				Its	Drilling Mar	nager			
			Ac	ddress	400 Fairway		ite 400		
	*	• 1			Coraopolis,				
			Tele	phone		00			
Subsc	ribed and swo	rn before me this	17th day of		September	. 19	97		
		Dusau Ka	Houder		Notary Pub	olic	Notarial S	eal	
Му со	mmission exp	oires _	/ / /	April	30, 2001	I Mo	an K. Hayden, Non Twp., Allegh	env County 1	
								s April 30, 2001	
						INTERPORT	LOUR AMBING WER	ociation of Notaries	



STATE OF WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION

#10 McJUNKIN ROAD NITRO, WEST VIRGINIA 25143-2506

October 22, 1997

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

Re: Application for Permit #47-083-01143 to drill deep well.

COMPANY: Cabot Oil and Gas Corporation

David S. Marstiller #2 FARM:

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;
- 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; *yes
- Provided a plat showing that the proposed location is a distance of 400+ 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.

*4,900 feet to 47-083-01139 5,050 feet to 47-083-01142P

8	K	ID	2	1

Date: 19-Oct-98 API # 47-083-01143 X

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

					Well No.: N	1arstiller #2	
LOCATION:	Elevation:	3,174.11	Qu	adrangle:	Whitmer		
	District:	Dry Fork		_	County: Ra	ndolph	
	Latitude:	3,000	feet South of	38 DE	EG. 52	MIN.	30 SEC.
	Longitude:	400	feet West of	79 DE	EG. 32	MIN.	30 SEC.
Company: Cabot		•		Casing	Used	Left	Cement
	airway Drive: S			&	in	III	Fill up
Corao	polis, PA 1510	8-4308		Tubing Size	Drilling	Well	Cu. Ft.
Agent:		John Abshi	re	Size			
Inspector:		Phil Tracy	V	13-3/8"	58'	58'	15 sks
Permit Issued:	***************************************	11/26/97					Class "A"
Well Work Comm	nenced:	2/18/98		- W. J. J			
Well Work Comp	oleted:	3/12/98		9-5/8"	1628`	1628`	550 sks
Verbal Plugging							Class "A"
Permission grante	***************************************						
Rotary X		Rig		4-1/2"	8333.	8333'	260 sks
Total Depth (feet)		8370'					Class "A"
Fresh Water Dept	ths (ft)	100'		•			
			,		Linda Control of the		
Salt Water Depth:	s (ft)						
	-						
Is coal being mine	ed in area (Y / N	1)?					
Coal Depths (ft)	***************************************						
		*					
OPEN FLOW DA	\TA						Contestingent and an area
							RECEIVE Office of one 2
Producing formati	ion	Oriskany		y zone depth (` '	- 8188	RECEIVE Office of On & O Permitting
Producing formati Gas: Initial open	ion	MCF/d	Oil: I	nitial open flo	ow N/A	Bbl/d	Unico of 03 & (Permitting
Producing formati Gas: Initial open Final open fl	ion flow 1.704 low 3.916	MCF/d MCF/d	Oil: I	nitial open flo	N/A N/A	Bbl/d Bbl/d	Unico of Oil & (
Producing formati Gas: Initial open Final open fl Time of op	flow 1.704 low 3.916 en flow betw	MCF/d MCF/d een initial	Oil: I and final	nitial open flo inal open flo tests	N/A N/A 16	Bbl/d Bbl/d Hours	Unico of 03 & (Permitting
Producing formati Gas: Initial open Final open fl Time of op	flow 1.704 low 3.916 en flow betw	MCF/d MCF/d een initial	Oil: I	nitial open flo inal open flo tests	N/A N/A	Bbl/d Bbl/d	NOV 0 9 15
Producing formati Gas: Initial open Final open fl Time of ope Static rock pressu	flow 1.704 low 3.916 en flow between 2.850	MCF/d MCF/d een initial	Oil: l I and final face pressure	nitial open flo inal open flo tests	N/A N/A 16 48	Bbl/d Bbl/d Hours	NOV 0 9 15
Producing formations: Initial open Final open flower of operations of the Estatic rock pressures open flower producing fas: Initial open	flow 1.704 low 3.916 en flow betwee 2.850 g formation flow	MCF/d MCF/d een initial	Oil: l I and final face pressure Pay	nitial open florinal open florina open	N/A N/A 16 48	Bbl/d Bbl/d Hours	NOV 0 9 15
Producing formations: Initial open Final open flower of open flower of the Etatic rock pressures open flower final open flower f	flow 1.704 low 3.916 en flow between 2.850 g formation flow	MCF/d MCF/d een initial psig (sur MCF/d MCF/d	Oil: l and final face pressure Pay Oil: l	nitial open florinal open florinal open floring zone depth (nitial open florinal open	N/A N/A 16 48	Bbl/d Bbl/d Hours Hours	NOV 0 9 15
Time of operation of operation of the Static rock pressures of the Second producing Gas: Initial open fluid op	flow 1.704 low 3.916 en flow betwee 2.850 g formation flow	MCF/d MCF/d een initial psig (sur MCF/d MCF/d	Oil: l and final face pressure Pay Oil: l	nitial open florinal open florinal open floring zone depth (nitial open florinal open	N/A N/A 16 48	Bbl/d Bbl/d Hours Hours Bbl/d	NOV 0 9 15
Producing formati Gas: Initial open Final open fl Time of open Static rock pressu Second producing Gas: Initial open Final open fl Time of open	flow 1.704 low 3.916 en flow between 2.850 g formation flow low en flow between flow between	MCF/d MCF/d een initial psig (sur MCF/d MCF/d een initial	Oil: l and final face pressure Pay Oil: l	nitial open florinal open flor	N/A N/A 16 48	Bbl/d Bbl/d Hours Hours Bbl/d Bbl/d	NOV 0 9 15
Producing formati Gas: Initial open Final open fl Time of open Static rock pressu Second producing Gas: Initial open Final open fl Time of open Static rock pressu	flow 1.704 low 3.916 en flow between 2.850 g formation flow low en flow between	MCF/d MCF/d een initial psig (sur MCF/d MCF/d een initial psig (sur	Oil: I and final face pressure Pay Oil: I and final face pressure	nitial open florinal open flor	N/A N/A 16 48 (ft) OW	Bbl/d Bbl/d Hours Hours Bbl/d Bbl/d Hours Hours	William of Oil & C Permitting NOV 0 9 19 WY Division of Carlotter of Carlotter and C
Producing formations: Initial open from Final	flow 1.704 low 3.916 en flow between g formation flow low en flow between flow flow flow flow flow flow flow flow	MCF/d MCF/d een initial psig (sur MCF/d MCF/d een initial psig (sur	Oil: I and final face pressure Pay Oil: I and final face pressure	initial open florinal open flo	N/A N/A 16 48 (ft) OW PERFORATED	Bbl/d Bbl/d Hours Hours Bbl/d Bbl/d Hours Hours Hours	WOV 0 9 19 WY Division of Environment From

For: CABOT OIL & GAS CORPORATION

RAND 1143X

OPEN FLOW DATA

Perf'd 2^{nd} Bench of Oriskany from 8178' - 8188'. Borke down with 250 gals of 28% HCl acid and displaced with 50 bbls H₂O. BDP: 6200 psi. ISIP: 3000 psi. Frac'd with 1,325 bbls 30# x-link gel with 105,000# sand. ATP: 3850 psi. MTP: 4470 psi. ATR: 22 bpm. ISIP: 3800 psi.

FORMATION	TOP	воттом	REMARKS
KB	0	10	
Sand/Shale	10	2449	
Shale/Silt	2449	2671	
Sand	2671	2682	
Shale/Silt	2682	2964	
Sand/Shale	2964	3530	
Shale/Sand	3530	5080	
Shale	5080	6324	
Sand	6324	6345	
Shale	6345	6918	
Sand	6918	6932	
Shale	6932	7530	
Tully	7530	7558	
Shale/Lime	7558	7806	
Upper Marcellus	7806	7851	
Purcell	7851	7876	
Lower Marcellus	7876	7924	
Onondaga	7924	7996	
Huntersville	7996	8053	
Needmore	8053	8082	
Oriskany	8082	8292	
Helderberg	8292	8370 - TD	