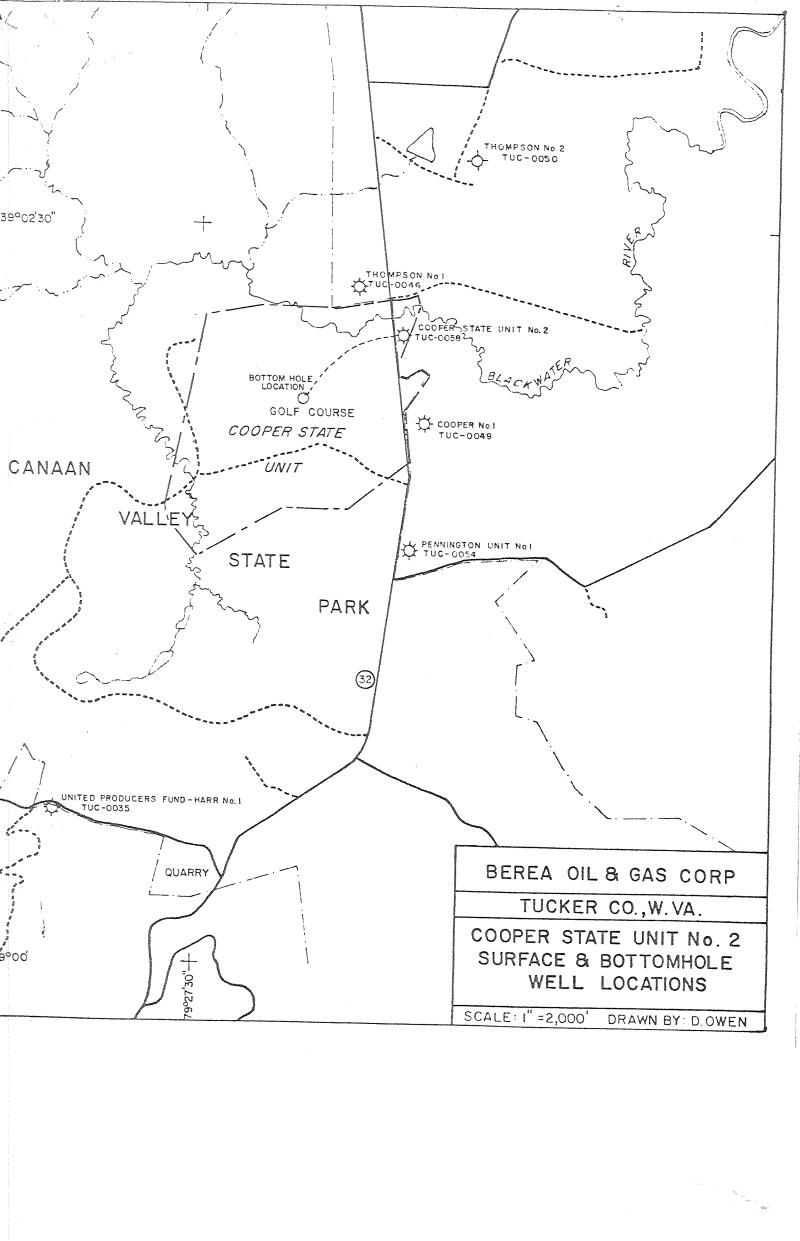


deviated hole

deep well

6-6 Canaan Valley



IV-35 (Pev 8-81) NOV 3 1982

WFILL TYPE: Oil - / Gas X / Liquid Injection / Waste Disposal

CIL & GAS DIVISION Late of Mest Mirginia

Department of Mines
Oil and Cas Division

Date	00	tob	er	29	€,	198:	2	
Oper								
Well	No.	. Co	ope	er	St	ate	Unit	#2
Farm	Co	ope	r S	Sta	ite	Un:	it	
API	No.	47	_	09	93	(0058	

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

ICCATION:	(If "Gas," Elevation:	3227 K					<u>x</u> /Shai	llow	/)
	District:						Blackwate	er Fall:	- s 7⅓
	Anadispalen			······································					
CONTRAIN D	Berea Oil & Ga	ıs Corp.						·	
ADDRESS_I	PO Box 299, Br	idgeport,	WV 26330	-	Casing	Used in	Left	Cement fill u	
DESIGNATE	D AGENT Mark	V. Schumac	cher		Tubing	Drilling	in Well	Cu. f	-
	PO Box 299, Br	**************************************	WV 26330	modulus	Size 20"		20'		PERSONAL
	WNER Merlin H			outies	20-16 Cond. 16"		51'	230	sks
ADDRESS B	ox 23, Rt. 1,	Davis, WV	26260	outurp	13 3/8" XXXXXX	246'	235.85	200	sks
MINERAL R	ughts owner_	same		onica,	9 5/8	3099'	3068'	310	
ADDRESS_				willows	8 5/8				
OIL AND	AS INSPECTOR	FOR THIS V	ORK Robert	-	7	<u> </u>			
Stewart	ADDRESS_	Box 345, J	ane Lew WV		5 1/2				-
PEPMIT IS	SSUED 6/3/8:	2	TVŽINOSIO 1000-100 1000-100 100 100 100 100 100 1	www		00001	00701	/ 20	1
DPILLING	COMMENCED 6	/19/82		owerio	4 1/2	8888'	8870'	430	SKS
DRILLING	COMPLETED 9	/21/82			2 3/8" X 2 X		8623'		
CONTINUO	CABLE: PLUGG US PROGRESSION G. VERBAL PE	N FROM DRI	LLING OR	al (Conto	Liners used				
GEOLOGICA	AL TARGET FOR	MATION	Oriskany			Dep	th 8500	£	et.
Dept	th of complete	ed well	3888 f e	et F	lotary X	/ Cabl	e T∞ls		
Wate	er strata dep	th: Fresh	5, 23, 70, 106, 215 f€	et;	Salt 292	 5 feet	***************************************		
	l seam depths							area?	No
OPEN FLOW	√ DATA								
	ducing format	ion Orisk	cany		Pay	zone dep	th 8672-8	756 <u>f</u>	eet
	: Initial op								
	Final open	childringscoder.				-			
	-		ow between						Ť
Sta	tic rock pres	•							: ir
<u> </u>	applicable d	-	WINDOWS CO. L. S.			•	***************************************		
•	ond producing		•			, zone dep	th	f	:eet
	: Initial op								
			Mc						
			ow between						
Sta	tic rock pres						-		: ir
	-						rue chipp		

(PEVEPSE)

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

10/9/82: Perf ORISKANY: 8672-8678' (8 shots) 8713-8718' (4 shots) 8750-8756' (4 shots)

10/14/82: Frac ORISKANY with 6500 gals 5% acid @ 35 BPM @ 5000#. ISIP 3200#, 5 min 2800#. 240 bbls. flush.

Total water 1245 bbls.

WELL LOG

			REMARKS				
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET					
			and salt water, coal, oil and gas				
Formations from Driller's Daily Rep	ort:						
Fill	0	17	3" wtr @ 15'				
Lime	17	62	6" str wtr @ 23'				
Shale	62	85	2" str wtr @ 70'				
Lime	85	120	5" str wtr @ 106'				
Sand & Shale	120	170					
Lime	170	195					
Sand	195	515	7" wtr @ 215'				
Sand & Shale	515	797					
Red Rock & Shale	797	951					
Sand	951	1209					
Sand & Shale	1209	1710	• -				
Red Rock & Shale	1710	1827	·				
Sand & Shale	1827	3099	Hole damp @ 2925'				
Formations from Compensated Densit	Log:	- New York	To the second se				
Sand	1800	1875					
Shale	1875	1904					
Sand	1904	1934					
Shale	1934	2090	V 0				
Sand	2090	2130					
Sand & Shale	2130	2160					
Shale	2160	2174	Danistadholo				
Sand	2174	2192	Deviated hole -				
Shale	2192	2460	son attached shoot				
Sand	2460	2515	COO addocate				
Sand & Shale	2515	2600					
Shale	2600	2615					
Sand	2615	2630					
Shale & Siltstone	2630	2825					
Sand	2825	2950					
Shale & Siltstone	2950	3100					
Shale	3100	3125					
Shale & Siltstone	3125	3205					
Shale & Sirescone	3205	3230					
Shale & Siltstone	3230	3570					
Shale & Sirestone	3570	3685					
	3685	3710					
Siltstone	, ,	J/10					

- continued on P. 2 -(Attach separate sheets as necessary)

BEREA OIL & GAS CORP.

Well Operator

October 29, 1982 Date:

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 entity, encountered in the drilling of a well."

berea oil & gas corp.

69 Delaware Avenue • 711 Chemical Bank Building • Buffalo, New York 14202-3878

(716) 842-0711

DIRECTIONAL SURVEY

COOPER STATE UNIT #2

DEPTH(ft.)	DEVIATION ANGLE	TRUE BEARING
3160	2°00¹	South
3180	2°30'	s 39 W
3211	4°00°	s 65 W
3243	5°15'	N 89 W
3275	7°30 °	N 85 W
3306	9°30 °	N 79 W
3337	10°00'	N 61 W
3400	12°30'	N 59 W
3433	13°30'	N 66 W
3497	14°45 '	N 86 W
3528 ·	15°15'	N 81 W
3560	17°15'	N 83 W
3592	19°00'	West
3625	20°15'	S 84 W
3695	22°45'	s 72 W
3727	22°00'	s 79 W
3766	23°00'	S 81 W
3790	25°15'	S 82 W
3821	27°00'	S 82 W
3853	27°45'	S 87 W
3885	28°15'	West
3918	30°15'	N 86 W
3998	29°00'	s 77 W
4061	29°15'	S 77 W
4124	29°15'	s 77 W
4595	30°00'	s 72 W
5877	30°15'	s 67 W
6195	32°00'	s 76 W
6354	33°00'	s 66 W
6810	28°15'	s 37 W
7479	26°00'	s 30 W
8010	24°00 °	S 30 W
8384	10°00'	s 35 W
	1°30'	S 04 W
85 75	£ 30	

Branch Offices

One Berea Plaza Routes 50/76 Bridgeport, West Virginia 26330 304 - 842-6931 jc 10/26/82

208 South LaSalle Street Suite 821 Chicago, Illinois 60604 312 - 346-8318

FORM IV-2 (Obverse) (12-81)

TELEPHONE: (304) 348-3092



Date: May 28	, 19 ₈₂
Operator's Well No. Cooper	State Unit #2
API Well No. 47	093 0058

County State

Permit

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

TT ANTO C	AC WEIT.T.	DERMITT	APPLICATION
JID MND G		* ************************************	

	OIL AND GAS W	VELL PERMIT APPLICATION
VELL TYPE:	Oil X / Gas X /	
		/ Underground storage/ Deep X / Shallow/)
LOCATION:		Watershed: Blackwater Falls
		County:Quadrangle:Blackwater Falls
WELL OPERATO	OR Berea Oil & Gas Corp.	DEGIONATED ACTIVE ACTIVE
Address	170 W. High Avenue	4.11
Address		D 11
OIL & GAS	New Philadelphia, OH	H4003
	NER <u>See attached</u>	COAL OPERATOR
Address		Address
	410.05	COAL OWNER(S) WITH DECLARATION ON RECORD:
Acreage	mn Morlin Pronet	Name 'N/A RECES VED
SURFACE OWN	Merlin Propst	
Address	Box 23, Rt. #1	Address <u>JUN - 3 1982</u>
	Davis, WV 26260	WAY DEPARTMENT OF MINES
Acreage	8	
FIELD SALE (IF MADE) TO:	Address
Address		<u> </u>
		COAL LESSEE WITH DECLARATION ON RECORD:
OIL & GAS IN	SPECTOR TO BE NOTIFIED	Name
Name	Robert Stewart	Address
Address	Box 345, Jane Lew, WV	7
	Phone: (304)884-7782	2
The undersion	ed well operator is entitled to operate for	or oil or gas purposes at the above location under a deed/ lease
		19, to the undersigned well operator from
other contract	/ dated,	, to the undersigned wen operator nom
	ease, or other contract has been reco	
Recorded on Se	e attached, 19, in the offi	ice of the Clerk of the County Commission of County, West
Va., in	Bookat page	A permit is requested as follows:
PROPOSED V	WORK: Drill X / Drill deeper	/ Redrill / Fracture or stimulate /
		/ Perforate new formation/
	Other physical change in wel	I (specify)
	omer physical change in wer	Australia de la Companya de la Compa
	-planned as shown on the v	work order on the reverse side hereof. The state of the s
The above nam		oal lessee are hereby notified that any objection they wish to make or are required to
		ment of Mines within fifteen (15) days after the receipt of this Application by the
Department.	722-7-3 must be med with the Departit	in the state of th
•	Permit Application and the enclosed pla	at and reclamation plan have been mailed by registered mail or delivered by hand to
•	• •	I lessee on or before the day of the mailing or delivery of this Permit Application to
	of Mines at Charleston, West Virgin	
_		170 W. High Avenue
GEOPHYSICAL	IT COPIES OF ALL LOGS DIRECTLY	New Philadelphia, OH 44663
TO:		Well Operator
	IIA OIL AND GAS	11/m - Man operation
CONSERV. SION		By William X Culter
1615 WASHING CHARLESTON	TON STREET EAST WV 25311	Its Vice President, Land

FORM IV-2 (Reverse) (12-81)

PROPOSED WORK ORDER

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

Address SECLOCICAL TARGET FORMATION. Address Estimated depth of completed well. Approximate water state depths: Fresh. 40 feet; salt. 2900 feet. Approximate coal seam depths: N/A is coal being mined in the area? Yes / No / Approximate coal seam depths: N/A is coal being mined in the area? Yes / No / CASING AND TUBING PROGRAM EASING AND TUBING PROGRAM FOR TUBING PROGRAM EASING AND TUBING PROGRAM FOR TUBING PROGRAM EASING AND TUBING PROGRAM FOR TUBING PROGRAM EASING PROGRAM FOR TUBING PROGRAM EASING PROGRAM FOR TUBING PR	Spirible co	NITO A CT	טס (וב	KNOW	1)					
Estimated depth of completed well,	KILLING CO	IN I KACI	UK (IF	VMOMI						
Estimated depth of completed well, 8500' feet Rotary X / Cable tools / Approximate water strata depths: Fresh, 40 feet; salt, 2900 feet. Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No X / ASING AND TUBING PROGRAM ASING AND TUBING PROGRAM APPROXIMATE COAL SERVICE AND ASING AND TUBING PROGRAM ASING AND TUBING AND TUBING AND TUBING PROGRAM ASING AND TUBING AND TUBING PROGRAM ASING AND TUBING AND TUBING PROMITS AND TUBING PROGRAM ASING AND TUBING AND TUBING PROGRAM ASING AND TUBING AND TUBING PROMITS AND TUBING PROGRAM ASING AND TUBING AND TUBING PROMITS AND TUBING PROM										,
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Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No x / ASING AND TUBING PROGRAM ASING AND TUBING PROGRAM SPECIFICATIONS Size Grade Part 1 New Uses For drilling Lett it well Conductor Constitution Con	Estimated	depth o	of comp	leted wel	1,	85	00' fe	et Rotary	X / Cab	le tools/
PACKERS CASING AND TUBING PROGRAM PACKERS CASING AND TUBING PROGRAM PACKERS COBINETY FIRE Size	Approxir	nate wate	er strata	depths:	Fresh	ı, <u>'</u>	40 feet	; salt,	2900 feet.	
PACKERS CUSING OR USING TYPE Size Grade Part New Uses Footnotes Left in well Copt Co	Approxi	nate coal	seam d	epths:	N	/A	ls coa	l being mined	in the area? Yes	/ No <u>x</u> /
Conductor 13 3/8 II40 48 X 250' 250' to Surface Kinds Fresh Water Conductor 13 3/8 II40 48 X 250' 250' to Surface Kinds Fresh Water Conductor 13 3/8 II40 48 X 250' 250' to Surface Kinds Fresh Water Conductor 14 3 3/8 II40 48 X 250' 250' to Surface Kinds Fresh Water Conductor 14 3 3/8 II40 48 X 250' 250' to Surface Kinds Fresh Water Conduction 14 5 N80 11.6 X 9100' 3100' 1000' Fillup Conduction 14 5 N80 11.6 X 9100' 9100' 1000' Fillup Conduction 14 5 N80 11.6 X 9100' 9100' 1000' Fillup Conduction 15 N80 11.6 X 9100' 9100' 1000' Fillup For or o	CASING AND	TUBING	PROG	RAM						
Conductor 13 3/8 H40 48 X 250' 250' to Surface Kinds Fresh Water Coal N/A Steep Coal N/A St					···					
Conductive 13 3/8 B40 48 X 250' 250' Co. Surface Minds Frieth Mater Cost N/A Sizes	CASING OR	SPE	CIFICAT	IONS	ı	OLIGO I	FOOTAGE	INTERVALS		PACKERS
Intermediate 9 5/8 J55 36 X 3100' 3100' 1000' Fillup Depths set Tooling 2 3/8 J55 4.7 X 9000' 9100' 1000' Fillup Depths set Tooling 2 3/8 J55 4.7 X 9000' Perforations: Tooling 2 3/8 J55 4.7 X 9000' Perforations: Tooling 3 J6 J55 4.7 X 9000' Perforations: Tooling 4 J6 J55 4.7 X 9000' Perforations: Tool Bottom NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filled with the Department, accompanied by (i) a plat in the form prescribed by Regulation II. (ii) a bond in one of the forms prescribed by Regulation II. (ii) a bond in one of the forms prescribed by Regulation II. (ii) a bond in one of the forms prescribed by Regulation II. (ii) a bond in one of the forms prescribed by Regulation III. (ii) a bond in one of the forms prescribed by Regulation III. (ii) a bond in one of the forms prescribed by Regulation III. (ii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Code 3/2 4-4.8 in the form III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (iii) a bond in one of the forms prescribed by Regulation III. (ii		Size	Grads		New	Used	For drilling	Left in well		
Intermediate 9 578 J55 36 X 3100' 3100' 1000' Fillup Production 4½ N80 11.6 X 9100' 9100' 1000' Fillup Depths set Fushing 2 378 J55 4.7 X 9000' Part of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11. (ii) a bond in one of the forms prescribed by Regulation 12. or in less thereof the other socytode 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required of Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required of Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required of Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required by Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required of Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required of Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required for Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required for Code 52.4-12b and Regulation 23. (iv) unless previously paid on the same well, the fee required by Code 52.4-12b and Regulation 24. (iv) unless previously paid on the same well and the overner of any water well or dwelling within 200 feet of the proposed well. A separate Form Iv-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. HIS PREMIT MUST BE POSTED AT THE WELL SITE. LIL PROVISIONS ERNO IN ACCORDANCE WITH CHAPTER 22. TRICLE 4 OF THE W. NA CODE, THE LOCATION IS HEREBY OFFIRM THE PROVISIONS ERNO IN ACCORDANCE WITH CHAPTER 22. The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded	Conductor	13 3/8	H40	48	X		250	250'	to surface	Kinds
Intermediate 9 5/8 J55 36 X 3100¹ 3100¹ 1000¹ Fillup Perforation: 14½ N80 11.6 X 9100¹ 9100¹ 1000¹ Fillup Depths set Top Bottom NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the form prescribed by Regulation 12, or in line thereof the other security allowed by Code 2.24-4.2 (iii) must be reclamation required by Code 5.22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fer required by Code 5.22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fer required by Code 5.22-4-2. (aii) and (v) if applicable, the consent required by Code 5.22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well. A separate Form Iv-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. INSPERMIT MUST BE POSTED AT THE WELL SITE. ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 22, ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 22, ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 22, ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 24. ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 27. ILL PROVISIONS EERING IN ACCORDANCE WITH CHAPTER 29. ILL PROVISIONS EERING IN ACCORD	resh Water									
NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lew thereof the other security along the provides paid on the same well, the fee required by Code 522-412a, and (v) if applicable, the consent required by Code 522-45a from the owner of any water well or dwelling within 200 feet of the proposed well. A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. HIS PERMIT MUST BE POSTED AT THE WELL SITE. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 24. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 24. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 25. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 26. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 26. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 27. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 26. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 27. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 26. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 26. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 27. LE PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 27. LE PROVISIONS BEING IN ACCORDANCE WITH CHA	Coal	N/A	Tarris Art Allia							Sizes
Trubing 2 3/8 J55 4.7 X 9000¹ NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof tile other security allowed by Code 5 22-4.2, (ii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code 5 22-4.1 and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code 5 22-4.1 and (v) figuribable, the consent required by Code 5 22-4.5 afrom the owner of any water well or dwelling within 200 feet of the proposed well. A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. HIS PERMIT MUST BE POSTED AT THE WELL SITE. LI PROVISIONS EEING IN ACCORDANCE WITH CHAPTER 24, LI PROVISIONS EEING IN ACCORDANCE WITH CHAPTER 24, LI PROVISIONS EING IN ACCORDANCE WITH CHAPTER 24, LI PROVISIONS BANK IN ACCORDANCE WITH CHAPTER 24. LI PROVISIONS EING IN ACCORDANCE WITH CHAPT	ntermediate	9 5/8	J55	36	X		3100'	3100'	1000' Fillup	
NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2. (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable, the consent required by Code § 22-4-12b, and (iv) if applicable the consent required by Code § 22-4-12b, and (iv) if applicable the consent required by Code § 22-4-12b, and (iv) if applicable the proposed well. A separate Form Iv-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. HIS PERMIT MUST BE POSTED AT THE WELL SITE. LIL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22. LIL P	Production	41/2	N80	11.6	X		9100'	9100'	1000' Fillup	Depths set
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the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code \$22.4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code \$22.4-12a, and (v) if applicable, the consent required by Code \$22.4-8 from the owner of any water well or dwelling within 200 feet of the proposed well. A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. HIS PERMIT MUST BE POSTED AT THE WELL SITE. LL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, LL PROVISIONS HAVE NOT CODE, THE LOCATION IS HEREBY THE following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof. WAIVER The undersigned coal operator / owner / lessee / of the coal under this well location has examined proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine rather undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with applicable requirements of the West Virginia Code and the governing regulations.					J	/				
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Date: , 19								Ву		

Date: .	October 29	_, 1982
perato Vell No	or's o. Cooper State Un	nit #2
NPI We	ll No. <u>47 - 093</u> State County	-0058 Permit

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

WELL OPERATOR'S REPORT OF INITIAL GAS-OIL RATIO TEST

WELL OPERATOR Berea Oil & Gas Corp. Address PO Box 299 Bridgeport, WV 26330 DESIGNATED AGENT Thomas E. Rile Address PO Box 299 Bridgeport, WV 26330 Bridgeport, WV	у, Р.Е.
Address PO Box 299 Address PO Box 299 Regides and the 20220	
Bridgeport, WV 26330 Bridgeport, WV	
	26330
GEOLOGICAL TARGET FORMATION: Oriskany Depth 8500	• feet
Perforation Interval 8672-8756	feet
GUIDELINES FOR TESTING:	
1- A minimum of gas vented or flared 2- A 24 hour preflow into pipelines or tanks 3- Uniform producing rate during the 24 hour test per test period 4- Measurement standards as for Form IV-39, "Report of Annual Production" (see Regula 5- Separate Form IV-36 for each producing formation in a multiple completion	sion Si.Ol)
TEST DATA	
START OF TEST-DATE TIME END OF TEST-DATE TIME DURATION OF TEST 10/29/82 7:00 AM 10/29/82 9:00 AM 2 hrs.	***************************************
TUBING PRESSURE CASING PRESSURE SEPARATOR PRESSURE SEPARATOR TEMPERATURE	
65 475 N/A N/A OIL PRODUCTION DURING TEST GAS PRODUCTION DURING TEST & SALINITY	-
$\frac{00}{100}$ bbis. 75 Mcf 0 bbis N/A	
OIL GRAVITY N/A PRODUCING METHOD (Flowing, pumping, gas lift, etc.) Flowing	Principal of the Control of the Cont
GAS PRODUCTION MEASUREMENT METHOD FLANGL TAF PIPE TAP L-10 Open flow POSITIVE CHOKE CRITICAL FLOW PROVER X ORIFICE DIAMETER PIPE DIAMETER (INSIDE DIAM.) NOMINAL CHOKE SIZE - IN.	
DIFFERENTIAL PRESSURE RANGE MAX. STATIC PRESSURE RANGE PROVER & ORIFICE DIAM IV.	
DIFFERENTIAL STATIC GAS GRAVITY (Air-1.0) MEASURED ESTIMATED	-
GAS GRAVITY (AIr-1.0) FLOWING TEMPERATURE GAS TEMPERATURE 51 °	
24 HOUR COEFFICIENT. 24 HOUR COEFFICIENT	
PRESSURE - psi	a
DAILY OIL DAILY WATER DAILY GAS GAS-OIL RATIO	- Mariana - American
0 bbls. 0 bbls. 900 Mcf. SCFATE	
Berea Oil & Gas Corp.	
By: Anna & Rilay	
Its: Manager of Engineering	

Cooper State Unit #2 47-093-0058

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STUDIATING, PHYSICAL CHARGE, EIC.

C TITLE

WEIL ICG

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FORMATION COLOR HARD	OR SOFT	TOP FEET	BOTTOM FLET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Continued from P. 1				
Shale		3710	3742	
Sand		3742	3748	
Shale		3748	3780	
Sand		3780	3788	
Shale & Siltstone		37 88 ·	3955	
Sand		3955	4000	
Siltstone		4000	4030	
Shale		4030	4060	
Siltstone		4060	4090	• .
Shale		4090	4230	
Siltstone		4230	4236	
Shale		4236	4398	
Siltstone		4398	4682	_
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Siltstone		4708	4740	sol no sheet
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Shale		5020	5270	- Sel Co
Siltstone		5270	5336	Messal ^O
Shale		5336	5360	
Siltstone	47	5360	5410	
Shale	Fig.	5410	5174	
Siltstone		5174	5552	
Shale		5552	5580	
Siltstone		5580	5650	
Shale		5650	5675	
Siltstone		5675	5700	
Shale		5700 6060	6060 608 5	
Siltstone Shale		6085	6332	
Shale		6332	7006	Noll dealled on flood creek or
Siltstone		7006	7038	Well drilled on fluid 6550' to T
Shale		7038	7852	
Tully Limestone		7852	7884	
Hamilton Shale		7884	8170	
Marcellus Shale		8170	8362	
Onondaga Limestone		8362	8412	
Huntersville Chert		8412	8456	
Needmore Shale		8456	8500	LTD 8865'

BEREA OIL & GAS CORP.

Well Operator

By: mod Johnworther U.F

Date: October 29, 1982

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 only, encountered in the drilling of a well."