



DEC 2 9 1989

# State of West Virginia DEPARTMENT OF ENERGY Division of Oil and Gas

### Well Operator's Report of Well Work

Farm name: BERWIND LAND COMPANY Operator Well No.: BERWIND LAND 27 LOCATION: Elevation: 2417.00 Quadrangle: WHITESVILLE CROOK District: County: BOONE 10000 Feet South of 37 Deg. 55Min. 0 Sec. 5470 Feet West of 81 Deg. 32 Min. 30 Sec. Latitude: Longitude Company: NATURAL RESOURCE MANAGEME 681 ANDERSON DR. FOSTER PLAZA 6 | Casing | Used in | Left **[Cement** PITTSBURGH, PA -15220-0000 FF | Mary Mary Mary | Ma Tubing | Drilling | in Well | Cu. Ft. Agent: DAVE CASH Size Inspector: JERRY HOLCOMB 13 3/8" 301 30' conductor 02/14/89 Permit Issued: 05/06/89 Well work Commenced: Well work Completed: 05/22/89 9 5/8" 1,331 1,331' CTS Verbal Plugging Permission granted on: Rotary x Cable Total Depth (feet) 4,136' 4 1/2" 257 cuft 4,136' Fresh water depths (ft). 205' Salt water depths (ft) 3,195' Is coal being mined in area (Y/N)? Y Coal Depths (ft): 190, 313, 400, 517, 763, 789, 850, 945, 998, 1,065, 1,253. OPEN FLOW DATA Pay zone depth (ft) 3,902' Producing formation Weir Sand Gas: Initial open flow 103 MCF/d Oil: Initial open flow - Final open flow 2,900 MCF/d .Final open flow - Time of open flow between initial and final tests - Static rock Pressure 540 psig (surface pressure) after \_ Bbl, Bbl, Hou: none Pay zone depth (ft) MCF/d Oil: Initial open flow Second producing formation\_ Gas: Initial open flow\_\_\_\_ MCF/d Bbl, Final open flow Final open flow\_ Time of open flow between initial and final tests Hou · Hou Static rock Pressure\_ \_psig (surface pressure) after NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORAT INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WE LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATION INCLUDING COAL ENCOUNTERED BY THE WELLBORE. For: NATURAL RESOURCE MANAGEMENT CORP. William A. Straslicka, Regional Engineering Mgr. Date: 05/25/89

FORM WW-2B

# STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

		<u> </u>	Jene L Dinit L	<u> </u>	ا الاستعارة	A same
1) Well Ope	erator:	Natural Resou	rce Management	Corporation 3	4550, /, (	676
2) Operator	's Well	Number:_	Berwind Land #	‡27	3) E1	evation: 2417!
4) Well typ	oe: (a)	0il_/	or Gas	s <u>x</u> /		
	(b)	If Gas:		n <u>x</u> / Undergr P/	ound Storag Shallo	
5) Proposed	l Target	Formation	n(s): Berea	.:		
6) Proposed	d Total D	epth:	4400	feet		
7) Approxim	mate fres	h water s	trata depi	ths:	·	
8) Approxim	nate salt	water de	pths:	2380'		
9) Approxim	mate coal	seam dep	oths: 160'.	280', 400', 530'	, 540', 770', 840	', 950', 1070',
						es <u>X</u> /No/
11) Proposed	i Well Wo	rk: Drill	and fracture s	timulate. Mu	Well.	
12)				, 0.10		
<b>,</b>		CASIN	IG AND TUB	ING PROGRAM		
TYPE	<u>s</u>	PECIFICAT	TIONS	FOOTAGE IN	TERVALS	CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	13-3/8"		48	30'	<u> </u>	
Fresh Water	<u> </u>					383P18-113
Coal	9-5/8"		32.3	13201	1320'	CTS
<u>Intermediate</u>						38CSK18-11-00
Production	4-1/2"		10.5	4400'	4400'	39CSP19-/// As Required
Tubing						
Liners	<u> </u>				\$ 1 mm / m	
	zes				0) 50	ZELV E
Deg	oths set				(2 <b>(3)</b> FE	R T 0 1883 C
Fee(s) [	eaid:		on of Oil a	and Cas Use	Only DIVISIO DEPARTM amation Fun	MENT OF ENERGY
Moist C	WW-9	H ww.	.2B A	Bond Dell	meet	Agent

(Type)

WR-38 15-Jan-98 API #47-005-01500-P

#### STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to retained by the Well Operator and the third copy (and extra copies if required) be mailed to each coal operator at the respective address.

Farm name: BERWIND LAND COMPANY Operator Well No.: BERWIND #27

LOCATION: Elevation: 2,417.00 Quadrangle: Whitesville

> District: CROOK County: BOONE

37 Deg. 55 Min. Latitude: 10000 Feet South of 0 Sec. Longitude: 5470 Feet West of 81 Deg. 32 Min. 30 Sec.

Well Type: OIL \_\_ GAS \_ Х

Company: Eastern American Energy Corp. Coal Operator: Performance Coal Co.

501 56th Street C/O Massey Coal Services

Charleston, WV 25304 Agent:

P O Box 750

WOINS

John Paletti

01/29/97

Dunbar, WV 25064 Berwind Land Company

Coal Owner: 100 One Valley Square Charleston, WV 25301

AFFIDAVIT

STATE OF WEST VIRGINIA

Permit Issued:

County of Boone SS:

Dowell Schlumberger, and Mark Jenkins (EAEC) being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and Richard Campbell, Oil and Gas Inspector representing the Director, say that said work was commenced on the 10th day of February, 1998, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT	
15 sxs Class A	3900'	3700'	2315' 4-1/2" csg	1823' 4-1/2"	
60 sxs Class A	2300'	2100'		1331' 9-5/8"	
CIBP set 1485'					
115 sxs Thixo.	1485'	1000'			
400 sxs Class A	1000'	surface			

Description of monument: 4' of 4-1/2" casing with API number and that the work of plugging and filling said well was completed on the 11th day of February, 1998.

And further deponents saith not. EAEC

Mark Jenkins, Drilling Supervisor

R

Mark Jenkins, Drilling Supervisor for EAEC, sworn and subscribed before me on this the 17th day of February, 1998. My commission, expires January 25

OFFICIAL SEAL NOTARY PUBLIC E OF LYEST VIRGINI KAREN S. ARBAUGH P.O. BOX 820011 St GLENVILLE, WV 26361 St Commission Emires Jan 28 1008 St

Notary Public:

Gas Inspector:

Page 1 of 10 Form WW2-A (09/87) File Copy

1) 2) DIVISION OF OIL & GAS DEPARTMENT OF ENERGY 3) Date: <u>December 20, 1988</u> Operator's well number

Operator 5

Berwind Land #27

API Well No: 47 - 005 - 1500

State - County - Permit

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

## NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4)	Surface Owner(s) to be served:	5) (a) Coal Operator:
• ,	(a) Name Berwind Land Company	Name Peabody Coal Company
	Address 1050 One Valley Square	Address P. O. Box 1233
	Charleston, WV 25301	Charleston, WV 25324 Attn: Mike Eddie
	(b) Newwer Attn: Raymond C. Brainard	(b) Coal Owner(s) with Declaration
	Address	Name Berwind Land Company
		Address 1050 One Valley Square
	(c) Name	Charleston, WV 25301
	Address	Name Attn: Raymond C. Brainard
		Address
6)	Inspector Jerry Holcomb	(c) Coal Lessee with Declaration
0 /	Address Rt 2, Box 159, Hwy #34	Name Peabody Coal Company
	Hamlin, WV 25523	Address P. O. Box 1233
	Telephone (304) - 824-5963	——————————————————————————————————————
	161ephone (304) = 624-3963	Charleston, WV 25324 Attn: Mike Eddie
	MO MUE DEDGOM/O) MANDO AD	OUT MAKE HOME OF MILLS
	TO THE PERSON(S) NAMED ABO	OVE TAKE NOTICE THAT:
	Included is the lease or leases or	other continuing contract or
contr	acts by which I hold the right to	extract oil and gas OR
<u> </u>	Included is the information require	ed by Chapter 22B, Article 1,
Secti	on 8(d) of the Code of West Virgin	ia (see page 2)
	I certify that as required under C	hapter 22B of the West Virginia Code
I hav	e served copies of this notice and	application, a location plat and
ассоп	panying documents pages 1 through	7 on the shove named narties by
	$\frac{1}{x}$ Personal Service (Affidavit as	
	Certified Mail (Postmarked post	
	Publication (Notice of Publication	
	rubileacion (Notice of Publica	etion accached;
	I have read and understand Chapter	220 and 20 CCD 1110 and I amen
to th	e terms and conditions of any perm	it issued under this sellication
CO C11	T cortify under manufact of law that	it issued under this application.
£:1	included penalty of law that	t I have personally examined and am
Tamit	iar with the information submitted	on this application form and all
attac	nments, and that based on my inqui	ry of those individuals immediately
respo	nsible for obtaining the information	on, I believe that the information
is tr	ue, accurate, and complete.	
	I am aware that there are signification	ant penalties for submitting false
infor	mation, including the possibility	
	7.7	Natural Resource Management Corporation
	By: Tobut	/ · Council Robert T. Golier
	Its:	Vice President and Eastern Region Manager
	Address	681 Andersen Dr., Foster Plaza VI
		Pittsburgh, PA 15220
	Telephone	(412) 921-3700
Supsc	ribed and sworn before me this AAH	NOTARIAL SEAL DECEMBER, 1988
$\nearrow$ .	LOUISE	L BUGNA, NOTARY PUBLIC
لالاسكي	GREEN TRE	BORO ALLEGHENY COUNTY Notary Public
Му со	minission expires	SSION EXPIRES NOV. 19, 1992
	Member, Pen	nsylvania Association of Notaries

# DETAILS OF FERFORATED INTERVALS, FRACTURING, PHYSICAL CHANGES

Perforated Weir Sand from 3,898' - 3,941' with 28 shots. Fractured with 500 gal. of HCl; 500 gal. of MeOH; 722 bbls of 25 lb. gel water, 613 sks of 20/40 sand and 250 scf/bbl N2. AIP = 898 psi. AIR = 23.7 BPM. Breakdown @ 606 psi. ISIP 441 psi.

## WELL LOG

FORMATION COLOR HARD/SOFT	; TOP FEET	1 BOTTOM FEET	1 REMARKS
			•
Sand & Shale	75	190	•
Coal	190	195	•
Sand & Shale	195	313 318	hole wet at 205; 1 1/2" of water
Coal	313	<b>\$</b> 400	note were de sur , a live es masse
Shale Coal	400	410	1
Sand & Shale	410	449	:
Sand -	449	517	
Coal	517	J 520	
Sand & Shale	520	: 763	
Coal	. 763	766	<b>!</b> .
Sand & Shale	766	789	•
Coal	789	793	•
Sand & Shale	793	. ( 851	
Coal	851	855	•
Sand & Shale	855	945 950	
Coal	945	1 998	
Sand	950 998	1,001	
Coal .		1,060	
Sand & Shale	1,001 1,060	1,072	
Coal Sand	1,072	1,115	
Sand & Shale	1,115	1,253	
Coal	1,253	1,262	•
Sand_	1,262	1,347	
Shale ·	1,347	1,392	•
Sand - Gray	1,392	1,436	
Sand & Shale	1,436	1,665	
Shale & Sand	1,665	1,783	
Sand & Shale	1,783	1,876	
Shale & Sand	1,876	1,969	•
Sand & Shale	1,969	2,027	
Shale .	2,027	2,032	
Sand & Shale	2,032	2,119	<b>;</b>
Sand & Shale	2,119	2,441	<b>!</b>
Shale	2,441	2,446	
Sand	2,446	2,477	
Sand & Shale	2,477	2,587	•
Sand .	2,587	2,620 2,686	· •
Sand & Shale	. 2,620	. 2,745	•
Sand .	2,686 2,745	2,869	
Sand & Shale		2,931	••
Shale & Sand . Shale & Red Rock Shale	2,869 2,931	2,994	
Red Rock Shale	.2,994	3,056	•
Sand & Shale	3,056	3,098	
Sand	3,098	3,235	hole damp at 3,195
Shale	3,235	3,252	
Sand	3,252	3,354	
Shale	3,354	3,414	
Little Lime	3,414	3,469	
Shale	3,469	3,474	•
Big Lime	3,474	.17 3,790	
Shale	3,790	3,895	
Upper Weir	3,895	3,950	gas check at 3,960 - no show
Shale Lower Weir "A"	- 3,950 4,070	4,070 4,074	das cliscy at 3/300 - 110 allow
Lower Weir "A"	4,070		