

DEC 1 5 1989

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

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

Well Operator's Report of Well Work

Farm name: PARDEE LAND COMPANY

Operator Well No.: 80-S-117551

LOCATION: Elevation: 1794.30

Quadrangle: LORADO

District:

TRIADELPHIA

County: LOGAN

Latitude:

12240 Feet South of 37 Deg. 50Min. 0 Sec.

Longitude 7850 Feet West of 81 Deg. 37 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.

P. O. BOX 391

ASHLAND, KY 41114-0000

Agent: FORREST BURKETT

Inspector: TIM BENNETT

Permit Issued:

03/10/89 08/27/89

Well work Commenced:

Well work Completed:

11/30/89

Verbal Plugging

Permission granted on:_Rotary_K___Cable____

Total Depth (feet) 6282

Rig

Fresh water depths (ft) Hole wet @ 262

Approximate 674 Salt water depths (ft) approximate

Is coal being mined in area (Y/N)? N Coal Depths (ft): Not noted during drl'g

-					
emas estimates	Casing &	Used in		Cement Fill Up	
(00000000 enterent)	Tubing	Drilling	in Well		
-	Size		CO MARCIO ARRICO ARRICO MARCIO		
SSEED GARRIES CO.	16"	31'	31 '	17.7	
pedat eliablood company spea	8 5/8"	2184	2184 °	820	
con eccretion entitions and	5 1/2"	6260'	62601	692	
s evenus cuatora est	1.9" @ 60 1.9" @ 3!	81' KB w/ADL-	1 Pkr @ 355	0'	

OPEN FLOW DATA

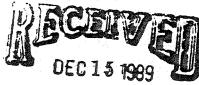
Producing formation	Devonian Shale	Pay zone depth (ft)	4320-6100
Gas: Initial open flow	30 MCF/d Oil:	: Initial open flow	Bb1/d
Final open flow	259 MCF/d	Final open flow	Bbl/d
Time of open flow	between initial	and final tests 3	Hours
Static rock Pressure	<u>475</u> psig (surf	face pressure) after 72	Hours
	L. Weir		3502-3514
Second producing forma	tion B. Lime	Pay zone depth (ft)	3243-3261
Gas: Initial open flow	26 MCF/d Oil:	Pay zone depth (ft): Initial open flow	Bb1/d
Final open flow	311 MCF/d	Final open flow	Bbl/d
Time of open flow	between initial	and final tests 3	Hours
Static rock Pressure	<u>510</u> psig (surf	face pressure) after 72	Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: ASHLAND EXPLORATION, INC.

me Stohens J. L. Stephens, Engineering Tech Dec'ember 12, 1989

FORMATION	TOP	BASE	jajna (j. etjaris). Kingo (k. etjaris)
Sand & Shales	0	1348	
Lower Lee Sand	1348	2073	
Sand & Shales	2073	2195	
Ravenscliff	2195	2226	•
Shale .	2226	2276	
Avis LS	2276	2311	
Shale	2311	2351	
Stray Maxton	2351	2401	
Sand & Shales	2401	2624	
Middle Maxton	2624	2647	
Shale	2647	2672	2878 QU
Stray & Lower Maxton	2672	2826	
Shale	2826	2851	LH 1835
Little Lime	2851	2930	A lake
Pencil Cave	2930	2938	3 17
Big Lime	2938	3283	4 5/2 E-6
Shale	3283	3380	(X
Upper Weir	3380	3410	an the
Shale	3410	3493	J. Comment
Lower Weir	3493	3530	•
Shale	3530	3744	
Coffee Shale	3744	3763	in Raise
Berea	3763	3786	PRUDIT
Devonian Shale	3786	6257	
Onondaga LS	6257	TD	
			OEC 1.5 19



DIVISION OF OIL & GAS

DEPARTMENT OF ENERGY

DTD 6282 LTD 6276

WELL TREATMENT

Perf L. Dev. Shale 26H/5836-6100. 75 Quality foam frac using 500 gal 13% inh Fe acid, 92,500# 20/40 sand & 830,000 SCF N_2 @ 28,000 SCF/min. ISIP after breakdown 2630#. BD @ 3360#, ATP 2900# @ 54 bpm foam rate, MTP 3360#, ISIP 2000#, 15 min 1810# & TF 404 bbls.

Perf U. Dev. Shale 25H/4892-5396. 75 Quality foam frac using 1000 gal 6 1/2% inh Fe acid, 1000 gal 25% treated Methanol, 83,000# 20/40 sand & 650,000 SCF N₂ @ 25,000 SCF/min. BD @ 2100#, ATP 2150# @ 55 bpm foam rate, MTP 2310#, ISIP 1500# 15 min 1360# & TF 387 bbls.

Perf faulted Dev. Section 16H/4424-4432 & 10H/4320-4330, 21 MCF/D after perforating.

Perf L. Weir 25H/3502-3514. 75 Q foam frac using 500 gal 15% fe inh acid, 66,000# 20/40 sand & 335,000 SCF N2 @ 8100 SCF/min. BD @ 2100#, ATP 1350# @ 25 bpm foam rate, MTP 2100#, ISIP 960#, 15 min 880# & TF 350 bbls.

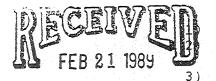
Perf Big Lime 37H/3243-3261. Acidize Big Lime using 2000 gal 15% HCl and 2000 gal 28% HCl & displace w/75 bbl. treated wtr. BD @ 1750#, ATP 390# & ISIP 0#.

bould 3/10/89 Expores 3/10/91
Page 1 of 1

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION 2750 Additional Transfer Tra

T) MeTT O	perator: _A		loration, in		J. J. 110	
Pardee Land Company 2) Operator's Well Number: 80, Serial #117551 3) Elevat						
4) Well ty	ype: (a)	0il_/	or Gas	5_X/		
	(b)	If Gas:	Production Deep	n_X/ Undergr p/	cound Storage Shallov	<u> </u>
5) Propose	Proposed Target Formation(s): Berea					
6) Propose	Proposed Total Depth: 3914'KB feet					
7) Approxi	Approximate fresh water strata depths: 674'KB					
8) Approx	imate salt	water de	epths: 21			
9) Approxi	imate coal	seam dep		Alma - Elev. ss - Elev.		Gas - Elev. 1320 Worked)
10) Does la	and contai	n coal se	eams tribut	ary to acti	ive mine? Ye	es/ No/
11) Propose	ed Well Wo	rk:	ill Sh	mulate,	New Well	
12)						
	•	CASIN	IG AND TUBI	ING PROGRAM		
TYPE	S	PECIFICAT	CIONS	FOOTAGE IN	ITERVALS	CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	12 3/4	LS	42.0	30	30	CTS
Fresh Water					4	365818-11.2.2
Coal-						383KNU 111 all
<u>Intermediate</u>	8 5/8	J55	24.0	2189	2189	CTS
Production_	4 1/2	J55	10.5	3914	3914	SICKIB-II.I As Needed
	2 3/8	J55	4.7		3864	Siphon
Liners						
	nd		***************************************		92	CIEILVIEII
	zes pths set					EB 21 1989
	F	en Diviso	n of Oil a	and Gas, Use		SION OF OIL & GAS
Fee(s)	paid:	Well W	ork Permit	Recl	DEPAR amation Fund.	RTMENT OF ENERGY
Plat 9	# WW-9 (WW-	·2B	Bond 508la	inket	Agent
U U	•	•	0	(Type)	~

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Date: February 17, 1989

Operator's well number

<u>Pardee Land Co. #80, Serial #117551</u> API Well No: 47 - <u>045</u> - <u>1136</u>

State - County - Permit

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4)	Surface O	wner(s) to be served:	5) (a) Coal Operator:
	(a) Name	Pardee Land Company	Name <u>Buffalo Mining Company</u>
	Address _	1510 Two Mellon Bank Center	Address Box 429
		Philadelphia, PA 19102	Lyburn, WV 25632
	(b) Name		(b) Coal Owner(s) with Declaration
	Address _		Name Same as No. 4(a)
			Address
	(c) Name		
			Name
			Address
6)	Inspector	Tim Bennett	(c) Coal Lessee with Declaration
		525 Tiller St.	Name Same as No. 5(a)
		Logan, WV 25601	Address
	Telephone	(304)- <u>792-7075</u>	
			OUD MAKE MOREON MUAM.
		TO THE PERSON(S) NAMED AB	JVE TAKE NUTICE THAT:
	Included	is the lease or leases or	other continuing contract or
contr		hich I hold the right to	
			ed by Chapter 22B, Article 1,
Secti	on 8(d) o	f 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	ve served	copies of this notice and	application, a location plat, and
accom	nanving d	ocuments pages 1 through	2 on the above named parties, by:
		onal Service (Affidavit a	
		ified Mail (Postmarked po	
		ication (Notice of Public	
	I have re	ad and understand Chapter	22B and 38 CSR 11-18, and I agree
to th			it issued under this application.
			t I have personally examined and am
famil	iar with	the information submitted	on this application form and all
			ry of those individuals immediately
			on, I believe that the information
		ate, and complete.	
No.			ant penalties for submitting ralse
infor	mation, i	ncluding the possibility	of fine and imprisonments
	•	Well Operator	Ashland Exploration, Ind)
		By: J. T. Mell:	
			Eastern Region
		Address P.O. Bo	
			1. KY 41114
		Telephone <u>(60</u> 0	5) 329-5450
Subsc	ribed and	sworn before me this 17	
	1/ich: 1	V. Norto	Motory Dublic
Мусс	ommission	expires November 23, 199	Notary Public
	'- -		**************************************