





Well Operator's Report of Well Work

Farm name, MANDISH, BRANKO

Operator Well No.: W.R. JOHNSON #1

LOCATION:

Elevation: 980.00 Quadrangle: SMITHBURG

District: MCCLELLAN

County: DODDRIDGE Latitude: 1840 Feet South of 39 Deg. 22Min. 30 Sec. Longitude 3490 Feet West of 80 Deg. 40 Min. 0 Sec.

Company: PETROLEUM DEVELOPMENT COR

P. O. BOX 26

BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD

Permit Issued: 10/27/92
Well work Commenced: 11/30/92

Well work Completed: 12/06/92

Verbal Plugging

Permission granted on:

Rotary × Cable Total Depth (feet) 52391

Fresh water depths (ft)

Salt water depths (ft)

n/a

Is coal being mined in area (Y/N)? N Coal Depths (ft): 110-115; 505-510

Casing     &     Tubing	Used in Drilling		Cement  Fill Up  Cu. Ft.
Size			
11_3/4"	176'	176'	105 sks
8 5/8"	1685	1685'	  410 sks
4 1/2"	5203	5203'	  550 sks
manage granes			

OPEN FLOW DATA

Producing formation	Benson	Pay zone depth (	ft) <sup>5070.5-5073.5</sup>
Gas: Initial open flow	v 84 MCF/d Oil	: Initial open flow	O Bbl/d
Final open flow	176 MCF/d	Final open flow	0 Bbl/d
Time of open flow	v between initial	and final tests	Hours
Static rock Pressure_	260 psig (sur	face pressure) after	72 Hours
Second producing forma	ation Big Injun	Pay zone depth (	ft)2014-2034
Gas: Initial open flow			
Final open flow <sub>cc</sub>	-mingled MCF/d	Final open flow	Bbl/d
		and final tests	Hours
Static rock Pressure_	psig (sur	face pressure) after	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: PETROLEUM DEVELOPMENT CORP.

Recorded\_\_

Eric R. Stearns By:

Date: <u>March 17, 1</u>993

### Johnson #1

STAGE	FORMATION	PERFS	80/100 SKS	SKS	GAL	(MCF)
lst	Benson	13(5070.5-5073.5)	500	400	500	64
2nd	Big Injun	20(2014-2034)	500	400	500	60

### WELL LOG

			REMARKS: FRESH & SALT
FORMATION	TOP FEET BO'	TTOM FEET	WATER, COAL, OIL & GAS
KB - GL	0 1 4	10	
sand, shale, RR	1.0	1752	1" Stream H2O @ 171'
Maxon	1752	1823	Coal 110-115; 505-510
sand, shale	1823	1885	
Little Lime	1885	1905	
sand, shale	1905	1935	
Big Lime	1935	2007	
sand, shale	2007	2014	
Keener	2014	2045	
sand, shale	2045	2050	gas chk @ 2040' Odor
Big Injun	2050	2128	
sand, shale	2128	2241	gas chk @ 2165' 20/10-2"H20
Weir	2241	2353	gas chk @ 2352' 10/10-2"H20
sand, shale	2353	2502	-
Berea	2502	2533	
sand, shale	2533	2693	gas chk @ 2571' 10/10-2"H20
Gordon	2693	2646	
sand, shale	2646	3011	gas chk @ 2760' 10/10-2"H20
5th	3011	3051	
sand, shale	3051	3372	gas chk @ 3202' 10/10-2"H20
Warren	3372	3410	-
sand, shale	3410	3516	
Speechley	3516	3779	
sand, shale	3779	4253	gas chk @ 4012' 40/10-2"H20
Bradford	4253	4360	
sand, shale	4360	4578	
Riley	4578	4947	
sand, shale	4947	5061	gas chk @ 5017' 4/10-2"H20
Benson	5061	5122	gas chk @ 5071' 6/10-2"H20
sand, shale	5122	5227	Driller TD 4/10-2"H2O
•		A STATE OF THE PARTY OF THE PAR	DC's 12/10-1"H2O
		(5239)	Logger TD
		approximate the second	

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

		MELL M	ORK PERMIT	<u>APPLICATIO</u>	N	
1) Well O	perator:_		Petroleum De	්රවර් evelopment Corpo	pration 3820	0 (5) 61
						levation: 980'
4) Well t	ype: (a)	0il/	or Gas	5 <u>X</u> /		
	(b)	If Gas:	Production Deep	n <u>X</u> / Underg	round Storac Shalle	ge/ ow <u>*</u> /
5) Propose	ed Target	Formatio	n(s): Bens	son Sand 435		
6) Propose	ed Total D	epth:	5500	feet		
7) Approxi	imate fres	h water	strata depi	ths:25, 15	5, 235, 470, 1375,	1475, 1560
8) Approxi	imate salt	: water d	epths: None	Reported		
9) Approxi	imate coal	. seam de	pths: None	Reported		
10) Does la	and contai	n coal s	eams tribut	tary to act	ive mine?	/es/ No <sup>X</sup>
11) Propose	ed Well Wo	ork:	& stimulate new			
12)						
				ING PROGRAM		
TYPE	S	PECIFICA'	TIONS	FOOTAGE I	NTERVALS	CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
<u>Conductor</u>	11 3/4	H-40	42#	30/150	/150	
Fresh Water						
Coal						
Intermediate	8 5/8	H-40	20/23	1180/1650	1180/1650	Surface
Production	4 1/2	J-55	10.5	5500	5500	400 sks
Tubing					٠	
Liners						WY June 6 of invironmental Protection
PACKERS : Ki						OCT 1 4 92
	zes pths set					Permitting Mice of Oil & Con
16424	F	or Diviso	on of Oil a	ınd Gas Use	**************************************	
Fee(s)	ative.	Marika	Work Dormit			

Bond

Page	1 of		1)	Date: 0	ctober 1, 1992	
	WW2-A		2)	Operator'	s well number R Johnson #1	
(09/	0/)		31	ADT Wall	No: 47 - 017	- 3006
			3,	ALL 1 WELL	State - County	
					2	
			ATE OF WEST			
		DEPARTMENT OF	ENERGY, DI	VISION OF	OIL AND GAS	
		NOTICE AND APP	TICATION F	OR A WELL	WORK PERMIT	
					<u> </u>	
4 )	Surface 0	wner(s) to be s	served:		al Operator:	
	(a) Name	Branko Mandish	abta Dd	Name		
	Address _	Wher(s) to be s Branko Mandish 3629 Marland Heid Weirton, WV 2600	62	Address _		
	(b) Name			(b) Coal	Owner(s) with De	claration
	Address		Whenever the Committee of the Committee Section Sec	Name No	Declaration on file	
				${\tt Address}\_$		
	(c) Name					
	Address _			Name		
	***************************************		<del></del>	Address _		
6)	Inspector	Mike Underwood Rt. 2, Box 135 Salem, WV 26426		(c) Coal	Lessee with Decl	aration
	Address _	Rt. 2, Box 135		Name		
				Address _		
	Telephone	(304) - 782-104	: 3			
		TO THE PERSON(S	I NAMED AF	OVE TAKE N	יייבר דיים איי	
		<u> </u>	// 2/22/2000 22	<u>,                                    </u>	101101111111	
					ntinuing contract	or
		hich I hold the				
XX Cook	. Included	is the informat	ion requir	ed by Char	oter 22B, Article	1,
Sect		f the Code of W			ige 2) B of the <u>West Vir</u>	cinia Code
I ha					ion, a location p	
acco	mpanying d	ocuments pages	1 through	on the	above named par	ties;by:
		onal Service (A				
		ified Mail (Pos				
	- Publ	ication (Notice	or Public	ation atta	acnea)	
	I have re	ad and understa	and Chapter	22B and 3	38 CSR 11-18, and	I agree
to t					under this appli	
					personally examin	
					application form	
					se individuals im leve that the inf	
		ate, and comple		.om, r ber	reve chac che ini	Olmacion
				ant penalt	ies for submitti	ng false
Linke	rmation, i	ncluding the po	ossibility	of fine and	d imprisonment.	
01 1111	OFFICIAL		l Operator		Development Corporat	lon
E & . 5	NOTARY STATE OF WE	ST VIRGINIA	Geologi			
	SHARON J. I	SON ST. & Adda		Box 26		·
No. Marke	BRIDGEPORT, My Commission Expire	. WV 26330 🔏	Bridge	eport, WV 2		
		Tele	* · · · · · · · · · · · · · · · · · · ·	(304) 842-62		
Subs	cribed and	sworn before r	ne this ls	st gay of -	October	, 19 <u>92</u>
		· ·	( Man)	Lernar	AT _ A	are Dublic
***************************************		evnires Januar	2000	7	NOE	ary Public

WR-35 Rev (5-01) DATE: 03/20/08

API #: 47-017-03996 - =

# State of West Virginia Department of Environmental Protection Office of Oil and Gas

## Well Operator's Report of Well Work

Farm name: Timothy Pitts	Operato	or Well No.: W.	R. Johnson 1	
LOCATION: Elevation: 980.00	Quadrangle: Smithburg			
District: McClellan	Count	y: Doddridge		
Latitude: 1840 Feet South of 39			. 30	Sec.
Longitude 3490 Feet West of 80	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			<del>-</del>
		141111	<u></u> 5cc.	
Company: Petroleum Development Corporation		P Province Commission		
Address: 120 Genesis Boulevard	Casing	Used in	Left	Jement
Bridgeport, WV 26330	8	Drilling	1 - 27-77	Fill Up
Agent: Alan H. Smith		nritiid		Cu. Ft.
Inspector: Mike Underwood	Size			
Date Permit Issued: 06/12/2007	777			***************************************
Date Well Work Commenced: 7/24/07	11_3/4"	176	176'	105 sks_
Date Well Work Completed: 8/3/07	l			
Verbal Plugging:	8 5/8"	1685 '	16851	410 sks
Date Permission granted on:				
Rotary X Cable Rig	4 1/2"	5203'	5203'	550 sks
Total Depth (feet): 5239'	THE THE REST NAME AND ADDRESS OF PARTY AND	-		
Fresh Water Depth (ft.): 171				support sing
			- <del> </del>	· · · · · · · · · · · · · · · · · · ·
Salt Water Depth (ft.):	600			
Is coal being mined in area (N/Y)? N	Comment of the Commen			
Coal Depths (ft.): 110-115; 505-510				
ODEN ELOW DATA				
OPEN FLOW DATA  Producing formation Benson			770 5 5073 5	
Gas: Initial open flow 84 MCF/d Qil	: Initial o	ne depth (ft) <sup>50</sup> pen flow 0	Bb1/d	
Time of open flow between initial	Final ope	n flow n	Bb1/d Hours	
Static rock Pressure 260 psig (sur	face pressu	re) after	Hours	
Second producing formation Big Injun	Pay zo:	ne depth (ft)2	014-2034	
Gas: initial open flow MCF/d Oil	.: Initial o	nen flow	Bbl/d Bbl/d	
Final open flow <u>co-mingled MCF/d</u> Time of open flow between initial Static rock Pressurepsig (sur	and final	tests	Hours	
			Hours	
Third formation Gordon		one depth (ft)_2		
Gas: Initial open flow MCF/d Oil: Init				
	open flow	Bbl/d		
Time of open flow between initial and final		Hours		
Static rock Pressure100psig (surface p	ressure) after	72Hours		
NOTE: ON BACK OF THIS FORM PUT TH	TE EOLLOW	NG. 1) DETAI	I C OF BEDE	OD 4 TED
INTERVALS, FRACTURING OR STIMULATING,	IE FULLOWI	CHANCE ETC	LS OF PERF	JRATED
LOG WHICH IS A SYSTEMATIC DETAILED GI	LINDICALLA LINDICALLA	CRANGE, EIC RECODD OF A	. 4). THE WE	LLL
INCLUDING COAL ENCOUNTERED BY THE WE	TI BORE	KECOKD OF A	LL FUKMA I	IUNS,
16	LLIUNE.			
Signed:				
By: Alan H. Smith			ga. in	18. M. Jan J. M. Marine
Date: 03-20-08	-			W 0 2 20.

### Johnson #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
lst	Benson	13(5070. <b>5-5</b> 073.5)	500	400	500	64
2nd	Big Injun	20(2014-2034)	500	400	500	60

#### WELL LOG

TOP FEET BOTTOM FEET   WATER, COAL, OIL & GAS			REMARKS: FRESH & SALT
Sand, shale, RR 10 1752 1823 Coal 110-115; 505-510 1752 1823 Coal 110-115; 505-510 1752 1823 Coal 110-115; 505-510 1752 1823 1885 1885 1885 1885 1885 1895 1885 1895 189	FORMATION	TOP FEET BOTTOM FEET	WATER, COAL, OIL & GAS
Sand, shale, RR 10 1752 1823 Coal 110-115; 505-510 1752 1823 Coal 110-115; 505-510 1752 1823 Coal 110-115; 505-510 1752 1823 1885 1885 1885 1885 1885 1895 1885 1895 189	VP - CT.	0 10	
Maxon sand, shale 1823 1885 1905 sand, shale 1905 1935 2007 sand, shale 1905 1935 2007 sand, shale 2004 2045 2050 gas chk @ 2040			1" Stream H2O @ 171'
Sand, shale Little Lime Sand, shale Light Shale Lime Sand, shale Light Shale L			
Little Lime sand, shale Big Lime sand, shale Little Lime lips			
Sand, Shale Big Lime Sand, Shale Reener Sand, Shale Rig Injun Sand, Shale Sand, Sande Sand, Shale Sand, Sand Sand Sand Sand Sand Sand Sand Sand			
Big Lime			
Sand, Shale Keener Sand, Shale Reener Sand, Shale Sig Injun Sig In	sano, share		
Keener         2014         2045         gas chk @ 2040¹ Odor           Sand, shale         2050         2128         gas chk @ 2165¹ 20/10-2*H20           Sand, shale         2128         2241         gas chk @ 2352¹ 10/10-2*H20           Weir         2241         2353         gas chk @ 2352¹ 10/10-2*H20           Berea         2502         2533         2693         gas chk @ 2571¹ 10/10-2*H20           Sand, shale         2693         2646         gas chk @ 2760¹ 10/10-2*H20         2693         2646         3011         3051			
sand, shale       2045       2050       gas chk @ 2040 dor         Big Injun       2050       2128         sand, shale       2128       2241       gas chk @ 2165 20/10-2"H20         Weir       2241       2353       2502         sand, shale       2353       2502       2533         sand, shale       2533       2693       gas chk @ 2571 10/10-2"H20         Gordon       2693       2646       3011       gas chk @ 2760 10/10-2"H20         sand, shale       3051       3372       gas chk @ 3202 10/10-2"H20         sand, shale       3051       3372       3410         sand, shale       3410       3516       3779         sand, shale       3779       4253       gas chk @ 4012 40/10-2"H20         Bradford       4253       4360       4578         sand, shale       4360       4578       4947         sand, shale       4947       5061       gas chk @ 5017' 4/10-2"H20         Benson       5061       5122       gas chk @ 5071' 6/10-2"H20         sand, shale       5061       5122       Driller TD 4/10-2"H20         DC's 12/10-1"H20	sand, shale		
Big Injun sand, shale Weir sand, shale Weir sand, shale Berea sand, shale Serea sand, shale Sand, shale Serea sand, shale Sand			cas chk @ 2040  Odor
Sand, shale  Weir  Sand, shale	sano, snare		gab om c artis
Weir sand, shale 2353 2502 2502 2502 2502 2502 2503 2502 2503 2604 2502 2503 2604 2503 2604 2503 2604 2503 2604 2503 2604 2504 2504 2504 2504 2504 2504 2504 25	Rid Tulini		gas chk @ 2165; 20/10-2*H20
Sand, shale 2353 2502 2533 2602 2533 2634 2534 2534 2534 2534 2534 2535 2693 2646 2571' 10/10-2"H20 2693 2646 2693 2646 2693 2646 2693 2646 2760' 10/10-2"H20 2693 2646 27			gas chk @ 2352' 10/10-2"H20
Berea 2502 2533 gas chk @ 2571' 10/10-2"H20 2607don 2693 2646 3011 gas chk @ 2760' 10/10-2"H20 5th 3011 3051 sand, shale 3051 3372 gas chk @ 3202' 10/10-2"H20 Warren 3372 3410 sand, shale 3410 3516 Speechley 3516 3779 sand, shale 3779 4253 gas chk @ 4012' 40/10-2"H20 Bradford 4253 4360 sand, shale 4360 4578 Riley sand, shale 4360 4578 Riley sand, shale 4947 5061 gas chk @ 5017' 4/10-2"H20 Benson 5061 5122 gas chk @ 5071' 6/10-2"H20 sand, shale 5061 5122 gas chk @ 5071' 6/10-2"H20 pc's 12/10-1"H20			
Sand, shale 2533 2693 gas chk @ 2571' 10/10-2"H20 2693 2646 3011 gas chk @ 2760' 10/10-2"H20 2760' 3011 3051 3051 3051 3051 3051 3051 3051			
Gordon 2693 2646 3011 gas chk @ 2760' 10/10-2"H20 5th 3011 3051 3372 gas chk @ 3202' 10/10-2"H20 8and, shale 3372 3410 sand, shale 3410 3516 3779 sand, shale 3779 4253 gas chk @ 4012' 40/10-2"H20 8radford 4253 4360 8rad, shale 4360 4578 Riley 4578 4947 sand, shale 4947 5061 gas chk @ 5017' 4/10-2"H20 8enson 5061 5122 gas chk @ 5071' 6/10-2"H20 5122 5227 Driller TD 4/10-2"H20 DC's 12/10-1"H20		2502 2503	gas chk @ 2571' 10/10-2"H20
Sand, shale 2646 3011 gas chk @ 2760' 10/10-2"H20 5th 3011 3051 3051 3051 3051 3051 3051 3051		2555 2646	9
5th     3011     3051     3051     3372     gas chk @ 3202' 10/10-2"H20       warren     3372     3410     3410     3516       sand, shale     3410     3516     3779     3516     3779       sand, shale     3779     4253     gas chk @ 4012' 40/10-2"H20       Bradford     4253     4360       sand, shale     4360     4578       Riley     4578     4947       sand, shale     4947     5061     gas chk @ 5071' 4/10-2"H20       Benson     5061     5122     gas chk @ 5071' 6/10-2"H20       sand, shale     5122     5227     Driller TD 4/10-2"H20       DC's 12/10-1"H20			gas chk @ 2760' 10/10-2"H20
sand, shale     3051     3372     3410       warren     3372     3410       sand, shale     3410     3516       Speechley     3516     3779       sand, shale     3779     4253     gas chk @ 4012' 40/10-2"H20       Bradford     4253     4360       sand, shale     4360     4578       Riley     4578     4947       sand, shale     4947     5061     gas chk @ 5017' 4/10-2"H20       Benson     5061     5122     gas chk @ 5071' 6/10-2"H20       sand, shale     5122     5227     Driller TD 4/10-2"H20       DC's 12/10-1"H20	sand, share	2040 3041	942 0411 0 01 00
Warren 3372 3410 3516 3716 3516 3779 3516 3779 3779 3779 3779 3779 3779 3779 377		3011 3031 3011 3031	gas chk @ 3202' 10/10-2"H20
sand, shale     3410     3516       Speechley     3516     3779       sand, shale     3779     4253     gas chk @ 4012' 40/10-2"H2O       Bradford     4253     4360       sand, shale     4360     4578       Riley     4578     4947       sand, shale     4947     5061     gas chk @ 5017' 4/10-2"H2O       Benson     5061     5122     gas chk @ 5071' 6/10-2"H2O       sand, shale     5122     5227     Driller TD 4/10-2"H2O		2021 3712	gab one c book any and a
Speechley 3516 3779		2410 2516	
sand, shale     3779     4253     gas chk @ 4012 ' 40/10-2"H20       Bradford     4253     4360       sand, shale     4360     4578       Riley     4578     4947       sand, shale     4947     5061     gas chk @ 5017' 4/10-2"H20       Benson     5061     5122     gas chk @ 5071' 6/10-2"H20       sand, shale     5122     5227     Driller TD 4/10-2"H20       benson     5122     5227     Driller TD 4/10-2"H20	sand, share		
Bradford 4253 4360 sand, shale 4360 4578 Riley 4578 4947 sand, shale 4947 5061 gas chk @ 5017' 4/10-2"H20 Benson 5061 5122 gas chk @ 5071' 6/10-2"H20 sand, shale 5122 5227 Driller TD 4/10-2"H20 DC's 12/10-1"H20	Speeculey		gas chk 0 40121 40/10-2 8820
Sand, shale 4360 4578 Riley 4578 4947 sand, shale 4947 5061 gas chk @ 5017' 4/10-2"H20 Benson 5061 5122 gas chk @ 5071' 6/10-2"H20 sand, shale 5122 5227 Driller TD 4/10-2"H20 DC's 12/10-1"H20	sand, shale		903 000 6 4000 40/20 2 2000
Riley 4578 4947  Riley 4578 4947  sand, shale 4947 5061 gas chk @ 5017' 4/10-2"H20  Benson 5061 5122 gas chk @ 5071' 6/10-2"H20  sand, shale 5122 5227 Driller TD 4/10-2"H20  DC's 12/10-1"H20			
sand, shale     4947     5061     gas chk @ 5017 4/10-2 h20       Benson     5061     5122     gas chk @ 5071 6/10-2 h20       sand, shale     5122     5227     Driller TD 4/10-2 h20       DC's 12/10-1 h20		4360 4578	
sand, shale 5122 5227 Driller TD 4/10-2"H20 DC's 12/10-1"H20	Riley	45/8 494/	mag oble 0 5017! 4/10-2#H20
sand, shale 5122 5227 Driller TD 4/10-2"H20 DC's 12/10-1"H20			-na chiz 4 50711 6/10-211120
DC's 12/10-1"H20			Dei 110 & 00 4 / 10 - 2   H20
DC S 12/10-1 H20	sand, shale	5122 5227	DETTTEL ID 4/ TO-2 HEA
5239 Logger TD		***	DC - S TS\ TO-T . USO
		5239	rodder in