

Hours

State of West Virginia Division of Environmental Protection

Reviewed	MG
Recorded	

Well

Section o	T UII all	IQ GdS		Reviewed
Operator's	Report	of Well	Work	Recorded

Farm name: CROWN CONSTRUCTION

Operator Well No.: ICC D45-S140561

LOCATION:

Elevation: 1968.42

Quadrangle: BARNABUS

District: LEE

County: MINGO

Latitude: 10200 Feet South of 37 Deg. 42 Min. 30 Sec. Longitude: 9450 Feet West of 82 Deg. 2 Min. 30 Sec.

ASHLAND EXPLORATION, INC.

P. O. BOX 391, A1-6

ASHLAND, KY 41114-0391

Agent:

Company:

B. E. WIDENER

Inspector: OFIE HELMICK

Permit Issued: 05/21/92 Well work Commenced: 06/09/92 Well work Completed: 08/03/92 Verbal Plugging: Permission granted on: Rotary X Cable Rig __5817 Total Depth (feet) ____ Fresh water depths (ft) Damp 102' Salt water depths (ft)

Is coal being mined in area (Y/N)? N Coal Depths (ft): None noted

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			·
20"	77'	77'	Driven
16"	102'	102'	124
11 3/4"	1082'	1082'	802
8 5/8"	2651'	2651'	778
5 1/2" 1.9" @ 1.9" @	5797' 5572'KB 3421'KB	5797' w/ R-4 pki	597 ~ @ 3464

OPEN FLOW DATA

Time of open flow between initial and final tests ____ Static rock pressure _____740#_ psig (surface pressure) after _____72 Second producing formation Big Lime Pay zone depth (ft) 3299-3411 Gas: Initial open flow 60 MCF/d Oil: Initial open flow --- Bbl/d Final open flow 4149 MCF/d Final open flow --- Bbl/d

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

Time of open flow between initial and final tests _____

Static rock Pressure _____670#__ psig (surface pressure) after _____

AUS 21 1997 For: ASHLAND EXPLORATION, ING James L. Stephens, Eng. Tech.

Formation on Rock Type	TOP	BASE
Sand and Shale Lee formation Pennington formation U. Maxton 2624-2658 M. Maxton 2901-3008 L. Maxton 3104-3126 Little Lime	0 1694 2576 3164	1694 2576 3164 3213
Big Lime Borden formation Sunbury Shale Berea Devonian Shale Onondaga Ls	3213 3429 4020 4061 4078 5800	3429 4020 4061 4078 5800 TD
NTN 5917		

DTD 5817 LTD 5803

11%" casing cemented to surface by grouting 50 sx after primary job. 8%" casing cemented to surface on primary job.

Well Treatment

Perf Rhinestreet 18H/5550-5738. N₂ frac using 250 gal $7\frac{1}{2}\%$ fe acid, 805,000 scf N₂ @ 96,500 scf/min. BD @ 2530#, ATP 3400#, MTP 3460# and ISIP 2450#.

Perf Huron 22H/5012-5324. N_2 frac using 400 gal $7\frac{1}{2}\%$ fe acid, 804,000 scf N_2 @ 98,000 scf/min. BD @ 3610#, ATP 3300#, MTP 3770# and ISIP 1900#.

Perf U. Dev. Shale 18H/4153-4544. N_2 frac using 550 gal $7\frac{1}{2}\%$ fe acid, 800,000 scf N_2 @ 99,000 scf/min. BD @ 2830#, ATP 2700#, MTP 3140# and ISIP 1950#.

Perf Big Lime 29H/3299-3411. 65 quality foam acidize Big Lime using 500 gal 15% fe acid, 5500 gal 28% fe acid and 284,000 scf $\rm N_2$ 0 8500 scf/min. BD 0 2530#, ATP 2000# 0 15 BPM foam rate, MTP 1275# and ISIP 1275#.

059-1164

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION Office or Oaks Association 1) Well Operator: Ashland Exploration, Inc. Island Creek Coal Co. Operator's Well Number: <u>D-45, Serial #140561</u> 3) Elevation: <u>1968.4</u> 2) 4) Well type: (a) Oil__/ or Gas X/ If Gas: (b) Production_X/ Underground Storage__/ Deep / Shallow X/ Proposed Target Formation(s): Devonian Shale 5) 6) Proposed Total Depth: 5900'KB feet Approximate fresh water strata depths: 1078'KB (Map WV-12) 7) Approximate salt water depths: 1328'KB (Map WV-12) 8) Approximate coal seam depths: Depth 1008', Island Creek Seam, Mined Not 9) Pillared Does land contain coal seams tributary to active mine? 10) Yes___/ No_X_/ 11) Proposed Well Work: Drill and Stimulate New Well 12) CASING AND TUBING PROGRAM TYPE **SPECIFICATIONS** FOOTAGE INTERVALS CEMENT Size Grade Weight For Left in Fill-up per ft. drilling well (cu.ft.) Conductor 16 LS 36.91 30 30 CTS Fresh Water 38CSR1811.3 38CSR18 11.2. Coal 11 3/4 H40 42.0 1068 1068 Intermediate 8 5/8 J55 24.0 2590 2590 CTS Production 5 1/2 J55 15.5 5900 5900 AS NEEDED Tubing 1.9 J55 2.76 5850 SIPHON Liners PACKERS : Kind Sizes Depths set For Division of Oil and Gas Use Only

Plat

Fee(s) paid:

Environ.

FORM : '-2;

WW-9 (

Well Work Permit

Reclamation Fund

WPCP

Agent

	1 of 2	ensk De green skalender	1)	Date: May 1, 1992
	WW2-A		2)	Operator's well number
(09/	87)	makad 1		<u>Island Creek Coal D-45, Serial #140561</u> API Well No: 47 - <u>059 - 1164</u>
		2 333 C		API Well No: 47 - 059 - 1164
				State - County - Permit
		STATE OF	WEST	VIRGINIA
		DEPARTMENT OF ENERG	Y, DI	VISION OF OIL AND GAS
		NOTION AND AND AND AND AND AND AND AND AND AN		
		NOTICE AND APPLICAT	ION F	OR A WELL WORK PERMIT
4)	Surface O	wner(s) to be served	•	5) (a) Coal Operator:
	(a) Name (rown Construction & Renc	vation	Name N/A
	Address _	Box 294X		Address
-		Delbarton, WV 25670		
	(b) Name		********	(b) Coal Owner(s) with Declaration
				Name <u>Island Creek Coal Company</u>
	(c) Name			Address P.O. Box 840
	Address		Commence of the Assessment	NameHolden, WV 25625
				Address
<i>C</i> \	.			
6)	Inspector	Ofie Helmick		(c) Coal Lessee with Declaration
	Address _	P.O. Box 218		Name
	Telephone	Fanrock, WV 24834 (304)- <u>732-9135</u>		Address
	-			
		TO THE PERSON(S) NAM	ED AB	OVE TAKE NOTICE THAT:
	T 7 - 7 - 7			
Cont	included	is the lease or leas	es or	other continuing contract or
Y.	facts by w	is the information x	t to	extract oil and gas <u>OR</u> ed by Chapter 22B, Article 1,
Sect.	ion 8(d) o	f the Code of West V	irain	ia (see page 2)
	I certify	that as required un	der C	hapter 22B of the West Virginia Code
I ha	/e served	copies of this notice	e and	application, a location plat and
accor	mpanying d	ocuments pages 1 thr	ough	2 on the above named parties by:
	Pers	onal Service (Affida	vit a	ttached)
	X Cert	ified Mail (Postmark	ed po	stal receipt attached)
	- Pubi	ication (Notice of P		ation attached)
	I have re	ad and understand Ch	apter	22B and 38 CSR 11-18, and I agree
to the	ne terms a	nd conditions of any	perm	it issued under this application.
	I certify	under penalty of lag	w tha	t I have personally evamined and am
tami.	llar with	the information subm	itted	on this application form and all
alla	inments, a	nd that based on my	inaui:	rv of those individuals immediately
is to	THE SCORE TO	ate, and complete.	rmati	on, I believe that the information
	I am awar	e that there are sign	nific	ant penalties for submitting false
info	mation, i	ncluding the possibi	lity	of fine and imprisonment.
		Well Opera	ator .	Ashland Exploration, Inc.
				ks W. Wen then BXC
		Its: Op		
		Address _		nd, KY 41114
		Telephone		
Subsc	ribed and	sworn before me this	<u> </u>	day of
	11. b.	11/1/1		
My Co	ommission o	W. Molla	1007	Notary Public
ات لاد،	vinint 99 I OH	expires November 23,	<u> 1774</u>	