

Reviewed. Recorded.

01-Jul-92 API #47-045-01190

James L. Stephens, Engineering Tech.

State of West Virginia Division of Environmental Protection Section of Oil and Gas

	Well Operator's Repo	rt or well	work			
Farm name:	GEORGIA PACIFIC CORP	Operator Well No.: COLE 1SN140341 Quadrangle: HOLDEN RECEIVED WY Division of Wy Division of Protection				
LOCATION:	Elevation: 1765.60	Quadrangle	: HOLDEN	REC	Division of Protection	
	District: ISLAND CREEK Latitude: 9800 Feet South of 37 De Longitude: 5500 Feet West of 82 Deg	g. 47 Min.	. 47 Min. 30 Sec.		r. n. i melli	
Company:	ASHLAND EXPLORATION, INC.			Offic	Permitting George of Oil & George	
company.	P. O. BOX 391, AI-6 ASHLAND, KY 41114-0391	Casing & Tubing	Used in Drilling	Left	Cement	
Agent:	B. E. WIDENER					
Inspectors	OFIE HELMICK	Size		. J. 1		
inspector.	OF TE HELITOR	16"	47°	47	11.8	
Permit Issu Well work C Well work C Verbal Plug	ed: 07/02/92 ommenced: 09/04/92 ompleted: 02/25/93	11 3/4"	1112'	1112'	267	
Permission granted on: 8 5/8" 2945' 98 Total Depth (feet) 5598 8 5/8" 2945' 98						
Fresh water 355 damp	depths (ft)	5 1/2"	5574'	5574°	655	
3" stream Is coal bei	depths (ft) 0 2750 ng mined in area (Y/N)? N (ft): 52-654, 1040-1045	2 3/8"	@ 5476°			
OPEN FLOW DATA Dev. Shale Producing formation Big Lime Gas: Initial open flow 60 MCF/d Final open flow 847 MCF/d Time of open flow between initial and final tests Static rock pressure 650# psig (surface pressure) after 72 Hours						
Secon Gas: Time Stati	Id producing formation None Initial open flow MCF/d Final open flow MCF/d of open flow between initial and fine c rock Pressure psig (s	Pay Oil al tests _ surface pre	zone depti : Initial Final opers	n (ft) open flow oen flow er	Bb1/d Bb1/d Hours	
FRACTURING	BACK OF THIS FORM PUT THE FOLLOWI OF STIMULATING, PHYSICAL CHANGE, ET COLOGICAL RECORD OF ALL FORMATIONS, I	C. 2.) THE	E WELL LOG	WHICH IS	A SYSTEMATIC	

AŞHLAND EXPLORATION, INC.

By: Date:

Formation or Rock Type	Top	Base
Sand and Shale (base Lee Sand)	· · · · · · · · · · · · · · · · · · ·	1702
Pennington	1702	2929
U. Maxton	2730	2800
L. Maxton	2880	2902
Little Lime	2929	2987
Big Lime	2987	3250
A 🚃 🖈 🛴 🐝	3250	3744
Sunbury Shale	3744	3780
Berea	3780	3802
Devonian Shale	3802	5590
Onondaga Lime	5590	T.D.

Drillers TD 5597 Loggers TD 5593

85/8 and 113/4 cmt't to surface on primary job.

- AFT - 830

Perf the L. Dev. Shale w/ SF HCG 1SPF: 5472, 5465, 5461, 5452, 5434, 5432, 5430, 5423, 5420, 5411, 5408, 5401 (12 holes total). Dumped 200 gal 8% HCl-Fe acid. N_2 frac'd the L. Dev. Shale w/ 811,000 scf N_2 @ 73,000 scf/min. BD 3943, ATP 3991, MTP 4123, ISIP 2495, 5 min 2099.

Perf the L. Huron w/ SF HCG 1SPF: 5062, 5054, 5043, 5025, 5022, 4996, 4992, 4980, 4961, 4958, 4926, 4910, 4884, 4863, 4824, 4808, 4806, 4788, 4771, 4768 (20 holes total). Set Arrow RBP @ 5105' KB. N_2 frac'd the L. Huron w/ 300 gal 8% HCl-Fe acid and 811,000 scf N_2 @ 100,000 scf/min. BD 4260, ATP 3950, MTP 4260, ISIP 2557, 5 min 1486.

Perf the U. Dev. Shale w/ SF HCG 1SPF: 4399, 4369, 4349, 4309, 4243, 4205, 4202, 4127, 4125, 4119, 4070, 4005, 3989, 3982 (14 holes total). N_2 frac'd the U. Dev. Shale w/ 500 gal 8.4% HCl-Fe acid and 854,000 scf N_2 @ 99,100 scf/min. BD 4152, ATP 3490, MTP 4152, ISIP 1911, 5 min 1309.

Perf Big Lime w/ 4" HCG 2SPF @ 2H/3160, 6H/3119-3121, 4H/3068-3069, 10H/3056-3060 (22 total shots). Acidize Big Lime using 2000 gal 30% HCl-Fe acid and 400 gals. 16% HCl-Fe acid. BD @ 2110, ATP 2300, ATR @ 16 BPM, 65Q foam, MTP 2590, ISIP 2160, TF 83.



WW-2B STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION Page 1 of 1 Expres 7/2/94

1)	Well Opera	tor:	Ashland	Explorati	lon, Inc.	2705 (5) 401		
2)			Island	Creek-Alb	ert H. Cole	≥ Unit 1	ation: <u>1765.6</u>		
4)	Well type:	(a) Oi	1/	or G	as <u>X</u> /				
	(b) If Gas: Production_X/ Underground Storage/ Deep/ Shallow_X/								
5)	Proposed T	arget For	mation(s): <u>Devo</u> i	nian Shale	:			
6)	Proposed Total Depth: 5586'KB feet								
7)	Approximat	e fresh w	ater str	ata depths	s: <u>93′KB</u>				
8)	Approximat	e salt wa	ter dept						
9)	Approximat	e coal se	am depth:	Dorothy s: <u>Cedar</u> (/ Seam - 30 Grove Seam	6' - Mined - 1037' - N	Out Mined Out		
10)									
11)	$\frac{1}{1} = \frac{1}{1} = \frac{1}$								
12)									
CASING AND TUBING PROGRAM									
	TYPE	SP	ECIFICAT	IONS	FOOTAGE	INTERVALS	CEMENT		
	TYPE	Size	ECIFICAT: Grade	Weight per ft.	For drilling	Left in well	Fill-up		
Cond	TYPE			Weight	For	Left in			
l		Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu.ft.)		
l	ductor	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu.ft.)		
Fres	ductor	Size	Grade LS	Weight per ft. 39.61	For drilling 30	Left in well	Fill-up (cu.ft.) CTS		
Fres Coal	ductor sh Water	Size 16 11 3/4	Grade LS H-40	Weight per ft. 39.61	For drilling 30 .	Left in well 30	Fill-up (cu.ft.) CTS		
Fres Coal	ductor sh Water lermediate duction	Size 16 11 3/4 8 5/8	Grade LS H-40 J-55	Weight per ft. 39.61 42.0 24.0	For drilling 30 . 1097 2491	Left in well 30 1097 2491	Fill-up (cu.ft.) CTS		
Fres Coal Inte	ductor sh Water l ermediate duction ing	Size 16 11 3/4 8 5/8 5 1/2	LS H-40 J-55 J-55	Weight per ft. 39.61 42.0 24.0 15.5	For drilling 30 . 1097 2491	Left in well 30 1097 2491 5586	Fill-up (cu.ft.) CTS CTS CTS AS NEEDED		
Fres Coal Inte Proc	ductor sh Water lermediate duction ing ers RS : Kind Sizes	Size 16 11 3/4 8 5/8 5 1/2 1.9	LS H-40 J-55 J-55	Weight per ft. 39.61 42.0 24.0 15.5	For drilling 30 . 1097 2491	Left in well 30 1097 2491 5586	Fill-up (cu.ft.) CTS CTS CTS AS NEEDED		

Page	1 of 2	The second second	1) Date:	June 15, 1992	
Form	WW2-A	NN 1 6 92	2) Operato	r's well number s	erial #14034
(09/	87)	JUN 1 0	Island C	reek-Albert H. Cole U	nit l Well l
		Fermitting G23	3) API Wel		
		Cape of Oll C		State - County	- Permit
			WEST VIRGINI	A	
		DEPARTMENT OF ENERG			
			·		
		NOTICE AND APPLICAT	ION FOR A WEL	L WORK PERMIT	
4)	Curtico O	wner(s) to be served	. 5) (-)	Coal Operator:	
3 /		Georgia-Pacific Corp.		N/A	
		erry Crouse, General Del			
		Wyoming, WV 24898			
	(b) Name	184-978-8-1949-11	(b) Coa	l Owner(s) with De	
			Name	Island Creek Coal Com	
	(c) Name		Address	P.O. Box 840	
	Address		Name	Holden, WV 25625	
			Address		
6)	Inspector	Ofie Helmick		l Lessee with Dec	
		P.O. Box 218		N/A	
	Telephone	Fanrock, WV 24834 (304) - 732-9135	Address		
		TO THE PERSON(S) NAM	ED ABOVE TAKE	NOTICE THAT:	
cont	Included	is the lease or leas hich I hold the righ	es or other c	continuing contract	tor
X	Included	is the information r	c to extract equired by Ch	anter 228. Article	<u> </u>
Sect	ion 8(d) o	f the Code of West V	irqinia (see	page 2)	,
	I certify	that as required un	der Chapter 2	2B of the West Vi	rginia Code
I ha	ve served	copies of this notic	e and applica	tion, a location p	plat, and
		ocuments pages 1 thr			
		onal Service (Affida ified Mail (Postmark			
	Publ	ication (Notice of P	ed postar rec	tached)	
	I have re	ad and understand Ch	apter 22B and	38 CSR 11-18, and	d I agree
to t	hė terms a	nd conditions of any	permit issue	d under this appl:	ication.
:	I certify	under penalty of la	w that I have	personally examin	ned and am
		the information subm nd that based on my			
		r obtaining the info			
		ate, and complete.			
		e that there are sig	nificant pena	lties for submitt:	ing false
info	rmation, i	ncluding the possibi			
				Exploration, Inc.	·
			rk Parks ///./ erations Manage		<u> </u>
			.O. Box 391		
		A	shland, KY 411	14	
0 3-			606-329-5989		
SUDS	ribed and	sworn before me thi	s <u>loth</u> day of	June	, 19 <u>92</u>
	1/110	1. Sonta		Nos	tary Public
My C	ommission	expires November 2	3. 1994	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	e a mare a gament