





16-Nov-93 API # 47-039-4485F

MAR 0 2 1995

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

Well Operator's Report of Well Work

Permitting Office of Oil & Gas

Farm name: BUCKSKIN COUNCIL BOYSCOUT

Operator Well No.: BSA #1

Location:

Elevation: 1,350.37

Quadrangle: CHARLESTON EAST

District: MALDEN

County: KANAWHA

Latitude: 13050 Feet South of 38 Deg. 20 Min. Sec.

Longitude: 8000 Feet West of 81 Deg. 30 Min.

Company: CABOT OIL & GAS CORPORATION

400 FAIRWAY DRIVE, SUITE 400

CORAOPOLIS, PA 15108

Agent: DAVID G. MCCLUSKEY

Inspector: <u>CARLOS HIVELY</u> Permit Issued: 11/16/93 Well Work Commenced: 11/18/93 Well Work Completed: 12/20/93 Verbal Plugging Permission granted on: Rotary X Cable Total Depth (feet) Rig 6750′ Fresh water depths (ft) 200 Salt water depths (ft) 1040 Is coal being mined in area (Y/N)? y Coal Depths (ft): 396-400

Casing &	Used in	Left	Cement Fill Up
Tubing	Drilling	in Well	Cu. Ft.
20"	24′	24′	N/A
13-3/8"	696′	696 <i>′</i>	N/A
9-5/8"	1999′	1999′	
	BACK TO	1953' IN SI	EPTEMBER

#### OPEN FLOW DATA

	ing formation <u>INJUN</u>			(ft) <u>1924-1942</u>
Gas:	Initial open flow	MCF/d	Oil: Initial	open flow <u>N/A</u> Bbl/d
	Final open flow <u>377</u>	MCF/d	Final op	en flow <u>N/A</u> Bbl/d
	Time of open flow between	initial and	final tests	4 Hours
Static	rock Pressure160	_ psig (surf	ace pressure) aft	ter <u>16</u> Hours
Second	Producing formation		Pay zone depth	(ft)
Gas:	Initial open flow	MCF/d	Oil: Initial	open flow Bbl/d
	Final open flow	MCF/d	Final ope	en flow Bb1/d
	Time of open flow between	initial and	final tests	Hours
Static	rock Pressure	nsia (surf	ace pressure) aft	ter 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: CABOT OIL & GAS CORPORATION

2/27/95 Date:

## DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf Injun from 1924-1942. Break down Injun w/750 gals 15% hcl, displaced w/35,000 SCF  $\rm N_2$ ; BDP - 2623#; Surface ISIP - 2500 psi. Foam frac w/80,000# 20/40 mesh sand in 750 foam.

FORMATION	ТОР	BOTTOM
TOP SOIL	0	5
SAND & WATER	5	204
SHALE	204	208
SAND	208	348
SAND & SHALE	348	396
COAL	396	400
SAND	400	
SAND & SHALE		412
	412	597
SAND	597	602
SAND & SHALE	602	656
OPEN MINE	656	659
SAND & SHALE	659	724
SAND & SHALE	724	1070
SAND	1070	1165
SAND & SHALE	1165	1217
SAND & SHALE	1217	1316
SAND & SHALE	1316	1326
SAND	1326	1418
SHALE	1418	1423
SAND & SHALE	1423	
SAND		1460
SAND & SHALE	1460	1572
	1572	1620
LIME	1620	1918
INJUN	1918	1936
SAND & SHALE	1936	2007
SHALE	2007	2290
SAND & SHALE	2290	2853
SHALE	2853	5137
ONONDAGA	5137	5236
ORISKANY	5236	5258
HELDERBERG	5258	5544
SALINA	5544	5630
TONOLOWAY	5630	6000
NEWBURG	6000	6040
MCKENZIE	6040	
ROSE HILL		6250
CACAPON	6250	6562
SHALE	6562	6596
	6596	6624
SECOND RED	6624	6628
SHALE	6628	6650
THIRD RED	6650	6654
SHALE	6654	6670
TUSCARORA	6670	6738
SHALE	6738	6750
TD		6750
		0,00

VR-38 25-Aug-92

MA DIVISIO Environmen'ai

### STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION SECTION OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

partial plus

AFFIDAVIT SCHOOL CONTROL OF STREET O					
respective addresses.					
Farm name: BOY SCOUTS (BU			Well No.:213		
LOCATION: Elevation: 13 District: MA Latitude: 13 Longitude 80	LDEN	COL AF 38 T	ncy: KANAWI Deg. 20 Min.	0 Sec.	
Well Type: OILGA	S <u>X</u>				
Company: Columbia Natural Rep. 0. Box 6070 Charleston, WV 25	<u> </u>	Coal Ope or Owne	erațor r 		
Agent:Joseph Campbell		Coal Ope	eratorr		
Permit Issued: 08/25/92					
	AFFIDA	AVIT			
STATE OF WEST VIRGINIA, County of KANAWHA  first duly sworn accordi	and _	Mily sose and s	ay that the	Mu y are exp	being erienced
first duly sworn according the work of plugging	and filling o	il and ga	s wells and	were emp	loyed by
in the work of plugging the above named well of and filling the above we gas Inspector represer commenced on the the well was plugged and the well	operator, and ell, and Carl	participa os W. Hivel	ted in the	WOIK OI	l and
Gas Inspector represer	ting the Di	rector	say that	said wo	rk was
commenced on the	1111 /4 day o	£ 2207 -	Owing mann	er:	C110 C
the well was plugged an	nd filled in FROM	TO	PIPE REMO	VED I	EFT
TIPE	6727	Surface			
Gel Latex Cement	6727	6227			
Gel	6227	5720 '			
Latex Cement	5720'	5220'		6001 213	77
Gel	5220'	4600 <b>'</b>	Cut 4-1/2" 4	600' 212	. /
Cement	4600	4500 <b>'</b>			
Gel	4500'	3497	Cut 7"	<del></del>	1.1 Esta
Cement	3497'	3397 <b>'</b>	-!! 0750!	- <del>\</del>	5991
	3397'	<u> 2750'                                     </u>	Cut 7" 2750'	14	199 (
	(continued	on next pa	age)	$\searrow$	
Description of monu and that the work the 25th day of 5ep	tember, 19		00		oleted or

OFFICIAL SEAL NOTARY PUBLIC

My commission expires:\_

Sworn and subscribe before me this

STATE OF WEST VISIBILATION OF LAND Gas Inspector:

TYPE	FROM	ТО	PIPE REMOVED LEFT	
Cement Gel	2750° 2650°	2650° 2109° 1953°	Well plugged back to 1953'	
Cement	2109'	1900	Top hole purchased by Cabot Cor	р.
		3		

RECEIVED
W Division of
Environmental Protection

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7/20



IV-35 (Rev 8-81) FEB 23 1988

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

# Stude of West Virginia

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Bep	arin	uend c	Alines	
(Dil	nup	Ges	Phision	

Date	Febru	<u>iary 18.</u>	1988
Operato	or's		
Well No	)	21377	
Farm B	uckskin	Council	of B.S.A.
API No.	47	039 -	4485

WELL OPERATOR'S REPORT

OF

DRILLING.	FRACTURING	AND/OR	STIMULATING,	OR	PHYSICAL	CHANGE

WELL TYPE: Oil / Gas X / Liquid Injection (If "Gas," Production X / Undergrou	/ Wast nd Storag	e Disposa e/ Deep	l/ p_X_/ Sha	llow/)
LOCATION: Elevation: 1350.37 Watershed	Spring For	k of Campbe	ells Creek	
District: Malden County Kan	-			
The special section of the section o				
COMPANY Columbia Natural Resources, Inc.				
ADDRESS P. O. Box 1273, Charleston, WV 25325	Cacina	Used in	<u>Ieft</u>	Cement
DESIGNATED AGENT Joseph E. Campbell	Caşing Tubing	Drilling		fill up Cu. ft.
ADDRESS P. O. Box 1273, Charleston, WV 25325	Size			
SURFACE OWNER Buckskin Council of B.S.A., Inc.	20-16 Cond.	24	24	36
ADDRESS 2829 Kanawha Blvd., Charleston, WV 25311	13-10"	704	704	675
MINERAL RIGHTS OWNER Buckskin Council of B.S.A., I	9· 5/8	1,999	1,999	855
ADDRESS 2829 Kanawha Blvd., Charleston, WV 25311	8 5/8			
OIL AND GAS INSPECTOR FOR THIS WORK 233 Pinch Ridge Road	7	5,349	5,349	236
233 Pinch Ridge Road  Carlos Hively ADDRESS Flkview. WV 25071	5 1/2			
PERMIT ISSUED 5-28-87	4 1/2	6,688	6,688	227
DRILLING COMMENCED 8-11-87	3	<u> </u>		
DRILLING COMPLETED 12-2-87	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED	Liners			•
CN	used			
GEOLOGICAL TARGET FORMATION Tuscarora		Dept	<u>th 673</u>	8 feet
Depth of completed well 6750 feet R	otary <u>x</u>	/ Cable	e Tools_	
Water strata depth: Fresh 200 feet;				
Coal seam depths: 396-400	Is coal	being mine	ed in the	area? Yes
OPEN FLOW DATA				
Producing formation Tuscarora	Pay	zone dept	th 6725-6	734 feet
Gas: Initial open flow 150 Mcf/d	Oil: Ini	tial open	flow	Bbl/d
Final open flow 809 Mcf/d				
Time of open flow between initi				
Static rock pressure 1360 psig(surface	neasuren	ent) after	- 72 hou	rs shut in
(If applicable due to multiple completion-				
Second producing formation				
Gas: Initial open flow Mcf/d				
Final open flowMcf/d				
Time of open flow between initi				
Static rock pressure psig(surface	measureme	nt) after	hou	rs slu 29 1988
		(Contir	ue on re	

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Acid treatment 500 gals. of HF & HCl at 28%.

Second frac 500 gals. 28% HF; total 846 bbls. of gel water, 58,800# 20/50 sand.



WELL LOG

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

						REMARKS	
FORMATION	COLOR	HARD OR	SOFT	TOP FEET	BOLLOW LEEL		on of all fresh
Top Soil				0	5		
Sand & W				5	204	Fresh Water at 20	0'
Shale	14 001			204	208		
Sand				208	348		
Sand & S	Shale			348	396		
Coal				396 ′	400	Coal	
Sand •				400	412		
Sand & S	Shale			412	597		
Shale				597	602		
Sand & S	Shale			602	656		
Open Mir				656	659		
Sand & S				659	724		
Sand & S				724	1070	Salt Water at 104	0'
Sand				1070	1165		
Sand & S	Shale			1165	1217		
Sand				1217	1316	•	
Sand & :	Shale			1316	1326		
Sand				1326	1418		
Shale				1418	1423		
Sand &	Shale			1423	1460		
Sand				1460	1572		
Sand &	Shale			1572	1620		
Lime				1620	. 1918		
Injun				1918	1936		
Sand &	Shale			1936	2007		
Shale				2007	2290		
Sand &	Shale			2290	2853		
Shale				2853	5137		•
Onondag	a			5137	5236		;
Oriskan	y			5236	5258		
Helderb	erg			5258	5544		
Salina				5544	5630		
Tonolow				5630	6000		
Newburg				6000	6040		
McKenzi				6040	6250		
Rose Hi				6250	6562		
Cacapon	!			6562	6596		
Shale				6596	6624	·	
Second	Red			6624	6628		
Shale				6628	6650		
Third R	led			(Attach sepa	irate sliests	as necessary)	
Shale				6654	6670		
Tuscard	ra			6670	6738		
Shale	<u>~</u>			6738	6750	COLUMBIA NATURAL RE	SOURCES, INC.
3.1 continues o 11 cm 1 cm				Wall	Operator	COLUMNIA TOTAL	

Drillers I.D. 6750' Loggers T.D. 6658'

By: Journ Constell
Date: 2-19-88

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including over the smalling of a well."



	Well NO.	47	<b>039</b>	4485
2)	Operator's Well No	21377		
1)	Date: Fo	ebruary 23		17. 8/

#### STATE OF WEST VIRGINIA

## DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

OF	OIL & GAS	APPLICATION FOR A WELL WORK PERMIT
	m = = = 1 = = = = 1 / 1	

	VISION O	FOIL &	GAS IERGY		AP	PLICATI	ON FOR A WELL	WORK PERMIT			
ا سلا فيما	WELL TYPE	A Oil		/ Gas	<u> </u>				V		
<b>⇔</b> ∫	AA TOTOT TO TE TE T	B (If	"Gas", P	roduction	X	<u> </u>	/ Underground st	orage	_/ DeepX	/ Shallow _	/)
5)	LOCATION		ation:	1350	37		Watershed:	Spring For	k of Campbells	, <u>creek</u>	n Eact 200
				87 7		_7	County:	Kanawha O	39 Quadrangle:	,nariesto	II Last & D I
6)	WELL OPE	RATOR	olumbi	ia Nati	ural	Resode	:Inc./0460	7) DESIGNATED	AGENT Joseph	E. Campu	<u> </u>
O)	Address	Р.	0. Box	<u>&lt; 12/3</u>				Address	1 . U. DUX	15/5	
	Charleston, WV 25325					325			<u>Charlestor</u>	1, WV 25	323
8)	OIL & GAS						9) DRILLING CONTRACTOR:				
۷,	NameCarlos Hively						Name				
	Address 233 Pinch Ridge Road							Address			
	, , , , , , , , , , , , , , , , , , , ,	Elk	view,	WV 2	5071					. /	
100	DDODOSET			Drill	Χ	/ Drill			/ Stimulate	X/	
10) PROPOSED WELL WORK: Drill A Drill deeper Redrill Stitute  Plug off old formation Perforate new formation /							/				
							well (specify)				
111	GEOLOGIC	ጉለ፤ ፕልዩር	SET FOR	MATION.	T	uscaro	ra 🥦 💮				
11)	12) Estimat	ed denth o	of complete	ed well.	U	200	feet	- Frost W	LATER MAP		
	12) Estimate					594,5	160 Geet; salt	- Fresh h	feet.		V
	14) Approx					,	1059 Is co	al being mined in th	e area? Yes	/ No	/
	CASING A				AZC	76	0 \$ 1979				
		IND LODE		CIFICATIONS		ا کے	FOOTAGE	NTERVALS	CEMENT FILL-UP	PACK	ERS
	SING OR JBING TYPE			∦ Weight	9	Used	For drilling	Left in well	OR SACKS (Cubic feet)		
		Size	Grade	per ft.	New X	Usea	401	40'	To surface 4	Kinds	
Con	ductor	20"		-	ļ		690 400	6904001	To surface	1 Per K	ule 15.05
Fres	h water	3-3/8	1	<del> </del>	X		2100'	2100'	To surface	Sizes	
Coa	l	9-5/8		<del> </del>	X		5360'	1. 100	10 301 1099		
Inte	rmediate	7"		<del> </del>	X_			6900	190 SKS 0	Denth Ats	REQUIREY
Proc	duction	4-1/2		<del> </del>	X_	1	6900'	W ICC	BY RULE		
Tub	ing			-		1	· · · · · · · · · · · · · · · · · · ·		WI HAGE	Perforations:	
Line	<b>L.</b> 3									Тор	Bottom
				<u> </u>	-	1					
					<del> </del>	-					
					<u> </u>	100				И	
							OFFICE LICE	ONLV			
		,					OFFICE USE				
	•						DRILLING PI	CHOMIN .	7.0	0.0	97
_			47-(	039-44	85					7 28	19 87
	rmit number_								Da		
Th	is permit cove	ering the w	vell opera	tor and we	ell locat I herein	ion showr and on th	below is evidence e reverse hereof	of permission gran	nted to drill in accordangiven to the District Oil well operator or his cor	and Gas Inspendent	ertinent legal re- ector. (Refer to
Th	e permitted w	ork is as o	lescribed i	in the Not	ice and	Application	on, plat, and reclar	nation plan, subjec	t to any modifications a	ina conditions	specified on the
rev	verse hereof.								ed prior to that date and		
Pe	rmit expires .		nay	28, 1	707		unless we	ill work is commend	ed prior to that date and	i prosecuted	
`							<u> </u>				
	Bond:	Agen	t:	Plat:	Cas	ing	Fee WHC	SAR	Other		1
				42	1	スピ	20,440	114	<del>Y // /</del> // /		
1				r			<b>–</b> 1	//	1/11/	Krock	
						1 .11. 1	ontion (man		W. H. St.	TUV	
N	OTE: Keep	one copy	of this per	mit posted	at the	ariting io	ocauon,	Director D	ivision of Oil	and Gas	File
						4 -	DOT TO A BUTTE COL	V for inclarations	to the well operator.		

FORM WW-2B STATE OF WEST VIRGINIA Permitting DEPARTMENT OF ENERGY, DIVISION OF OIL WELL WORK PERMIT APPLICATION expres !!! Well Operator: Cabot Oil & Gas Corporation Operator's Well Number: \_\_\_\_BSA #1 \_\_\_\_\_\_3) Elevation:1350.37 Oil\_\_/ or Gas\_x/ Well type: (a) If Gas: Production\_x/ Underground Storage\_ Deep / Shallow X/ Proposed Target Formation(s): Big Injun 5) Proposed Total Depth: 6750 feet 6) Approximate fresh water strata depths: 200 7) Approximate salt water depths: \_\_\_\_\_1040 8) Approximate coal seam depths: \_\_\_\_\_\_ none 9) 10) Does land contain coal seams tributary to active mine? Yes x / No\_\_ Proposed Well Work: P&A Tuscarora and complete Big Injun 11) \*Existing 12) CASING AND TUBING PROGRAM TYPE SPECIFICATIONS FOOTAGE INTERVALS CEMENT Weight For Left in Fill-up Size drilling Grade per ft. well (cu. ft.) 16" 24' 241 Conductor 704' 13-3/8" 704' Fresh Water 9-5/8" 1999' 1999' Coal 7" 5349' 53491 Intermediate 66881 6688' 4-1/2" Production Tubing Liners PACKERS : Kind Sizes Depths set

Fee(s)

9 - WW - 9

Well Work Permit

Reclamation Fund

WPCP

For Divison of Oil and Gas Use Only

(Type)

Form	1 of WW2-A	Entro	1) 2)	Date: October 13, 1993 Operator's well number
(10-9	1)	M 2 mars	3)	BSA #1  API Well No: 47 - 039 - 4485-FRAC
		Malcon A Chi to Be		State - County - Permit
			STATE OF WEST	
	DIVISIO	N OF ENVIRO	NMENTAL PROTE	CTION, OFFICE OF OIL AND GAS
		NOTICE AND	APPLICATION F	OR A WELL WORK PERMIT
4)	Surface Ov	ner(s) to b	e served:	5) (a) Coal Operator: Name Not Operated
	Address	Buckskin Coun Boy Scouts of	America	Address
	2829 Kana	wha Blvd, Char	leston, WV $2531$	0
	(b) Name _		·	(b) Coal Owner(s) with Declaration
	Address			Name Buckskin Council Address Boy Scouts of America
	(c) Name			2829 Kanawha Blvd, Charleston, WV 25310
	Address			Name
				Address
6)	Inspector	Carlos Hively	7	(c) Coal Lessee with Declaration
0,	Address	223 Pinch Ric	ige Road	Name
		Elkview, WV	25071	Address
	Telephone	(304)- 965-6	5069	
		TO THE PERSO	ON(S) NAMED AI	SOVE TAKE NOTICE THAT:
<u>x</u> Secti I hav	Included : on 8(d) of I certify re served of panying do Person certify responds to the panying do Publication in the publication in the panying do	the infor the Code of that as requored to the Code of	mation requiref West Virginguired under Cois notice and es 1 through (Affidavit a Postmarked poice of Publice	stal receipt attached) ation attached)
famil attac respo	e terms and I certify diar with the character of the control of th	nd condition under penal the informat nd that base	s of any perm ty of law tha ion submitted d on my inqui the informati	22B and 38 CSR 11-18, and I agree it issued under this application. t I have personally examined and am on this application form and all ry of those individuals immediately on, I believe that the information
	I am aware	e that there	are signific	ant penalties for submitting false of fine and imprisonment.
THITOL	.macion, in		ell Operator	CABOT OIL & GAS CORPORATION
			y:	Done Dale
			ts:	Drilling Manager
		A	ddress	Three Gateway Center, Suite 2000
		<del>T</del>	elephon <b>e</b>	Pittsburgh, PA 15222-1011 (412) 594-7000
Subsc	ribed and	sworn befor		412) 394-7000 4n day of OCTOBER, 1993
				hia M. Bewles Notary Public
My co	m <del>mission (</del>	ynires	Cyro	1991
	Cynthia M. B Chartiers Two	starial Seal owles, Notary Public ., Washington County Expires June 17, 1996	JUNE OIL	)