





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

015-2426

DIVISION OF OUR POAG CEMARTERITO REMAYWELL Operator's Report of Well Work

Farm name: .Concorde Corporation

Operator Well No.: 21691

LOCATION:

Elevation: 1430' Quadrangle: Clendenin

District: Union

Latitude: 950

County: Clay .
Feet South of 38 Deg. 25 Min. - Sec. Longitude 11,625 Feet West of 81 Deg. 15 Min. -

P. 🗣. Box 6070

CHARLESTON, WV 25362

Company: COLUMBIA NATURAL RESOURCE

Agent: JOSEPH E. CAMPBELL

Inspector: . Homer Dougherty

Permit Issued: 6-3-88

Well work Commenced:

June 21, 1988 Well work Completed: July 7, 1988

Verbal Plugging

Permission granted on:

Rotary X Cable Total Depth (feet)

Fresh water depths (ft)

Salt water depths (ft) 1700-1800

Is coal being mined in area (Y/N)? N Coal Depths (ft): 620-624

Casing	Used in	Left	Cement  Fill Up
Tubing	Drilling	in Well	Cu. Ft.
Size			
16"	35	25	5
and deprivate the second secon		monacce of	***
1]_3/4"_	340	330	156
<u>8-5/8"</u>	<u> </u>	   2472	     628
4-1/2"_	6218	     6218	960

OPEN FLOW DATA

Producing formation	Injun/Weir	Pay zone der	oth (ft) 233	4-2418
Gas: Initial open flow	<pre>- MCF/d Oil:</pre>	Initial open f	low -	Bbl/c
Final open flow	1010 MCF/d	Final open flow	4 <u> </u>	Bbl/d
Time of open flow				
Static rock Pressure	465 psig (surf	ace pressure) a	Eter <u>136</u>	Hours
Second producing format		Pay zone der		
Gas: Initial open flow	MCF/d Oil:	Initial open fl	Low	Bbl/c
Gas: Initial open flow Final open flow	MCF/d Oil: MCF/d	Initial open fl Final open flow	Low	Bbl/d
Gas: Initial open flow	MCF/d Oil: MCF/d between initial	Initial open fl Final open flow and final tests	ow	

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.

<u>Vice President, Drilling & Production Operations</u>

For: COLUMBIA NATURAL RESOURCES, INC.

DEPARTMENT OF

## Formation:

Surface Sand & Shale Sand Shale	0 - 15 15 - 35 35 - 53 53 - 60	
Sand Shale	60 <b>-</b> 350 350 <b>-</b> 370	1/4" water @ 65'
Sand & Shale Coal	370 <b>-</b> 620 620 <b>-</b> 624	1/4" water @ 540'
Sand & Shale Salt Sand Sand Shale	624 - 1260 1260 - 1908 1908 - 2070	3" water @ 1700'-1800'
Sand Lime Sand	2070 - 2110 2110 - 2310 2310 - 2334	
Injun Sand & Shale Marcellus Shale Onondaga Lime	2334 - 2418 2418 - 5521 5521 - 6103 6103 - 6234	Plug back T.D. 2500'
Oriskany Lime Sand Sand & Lime Lime	6234 - 6264 6264 - 6280 6280 - 6325 6325 - 6365	T.D. 2418

Well was plugged back to final T.D. of 2500' 6-8-89.

1) Set mechanical Bridge Plug @ 6175', cemented to 2700'.

2) Set Baker NC-1 plug @ 2500' and cemented to 2000'.

Treated Injun/Weir as follows:

Perf'd w/Alpha Jet (4 holes) 2468-2470.

Weir - 2404'-2418'

Fraced w/500 gal. 15% HCl acid, filled up & broke down w/75 qual. foam @ 3900#. Treating & flush water 217 bbls. Total N $_2$  used 456,000 scf; total sand 500 sks. Avg. press. 2980 psi, Avg. rate 24.5 BPM.

Injun - 2334'-2352'

Fraced w/1000 gal. 15% HCl acid, filled up & broke down w/75 qual. foam @ 2570#. Treating & flush water 203 bbls. Total N $_2$  386,000 scf. Total sand 500 sks, Avg. press. 2940 psi, Avg. rate 31 BPM.



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

		WELL WO	K PERMIT	APPLICATION		7 000
1) Well Ope	rator:	Columb	ia Natural R	esources, Inc	10460,5	1299
			21691-			vation: 1430.3
		And the second	or Gas		er in the second of the second	Vaito de la composição de
	An Alleganian services as	f Gas:	Production Deep	X/ Undergr	ound Storage Shallow	
5) Proposed	Target F	ormation	(s):	Oriskany 😃	15	· ·
6) Proposed Food Clay 310, 7) Approxim 3 Ju. Map.				feet 2164, 2165/ hs: 90'-	2407 160', 336'	
					200 300 11	10/8/7011 7
					1/	59.681, 734-73
					ive mine? Ye	s/ No_X_/
11) Proposed	Well Wor	ck: Drill	3 FRACE 1	lew Well		
12)				NG PROGRAM		
TYPE	S	PECIFICAT	IONS	FOOTAGE II	NTERVALS	CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	20"	H-40	54#	20'	20'(5)	20'
Fresh Water		<b></b>	4004	-	_	38CSA19-11.B
Coal	13-3/8"	H-40	48#	325'	325 0/5	38CSR10-112. 230'
Intermediate	8-5/8"	H-40	24#	2450'	2450 GS	640'
Production	4-1/2"	J-55	11.6#	5800'	5800'	738CSK18-11,1
Tubing	2-3/8"	J <b>-</b> 55	4.6#	-	5800	COCOCO COCOCO
Liners					N. B. C.	BUVE
PACKERS : Ki	nd I	None			UL MA	Y 1 8 1988
Si	zes_ oths set					N OF OIL & GAS LENT OF ENERGY
For Divison of Oil and Cas Use Only    Fee(s) paid:   Well Work Permit Reclamation Fund   WPCP						
Plat Se	WW-9	Ww.	-2B	Bond <u>5834</u>	(Type)	_ Agent

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1	3~4

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	MAY	18	1988		2	)
DIV	ISION	OF	OIL & (	BAS	3	)
DEP	ARTME	NT	OF ENE	RGY	•	

Date:	May 6, 1988	
Operator's	well number	
	21691-TPI	

API Well No: 47 - 015 - 2426 State - County - Permit

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

1)

## NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4)	Surface Owner(s) to be served:	5) (a) Coal Operator:
•	(a) Name Concorde Corporation /	Name Name
	Address 17787 Scarsdale Way	Address
	Boca Raton, FL 33434	
	(b) Name James P. Betz	(b) Coal Owner(s) with Declaration
	Address 450 Dutch Ridge Road	Name Morgantown Mine Management Corp. /
	Clendenin, WV 25045	Address c/o Porter Creek Coal Company
	(c) Name	Concorde Corporation
	Address	Name P. O. Box 1066
	Address	Address Morgantown, WV
		rade ear morgan comis my
<i>c</i> >	Inspector Homer Dougherty	(c) Coal Lessee with Declaration
6)		Name
	Address Linden Route, Box 3-A	
	Looneyville, WV 25259	Address
	Telephone (304)- <u>927-4591</u>	
		COLUMN TO MANAGE WILLIAM.
	TO THE PERSON(S) NAMED A	BOVE TAKE NOTICE THAT:
Sect:	ve served copies of this notice and mpanying documents pages 1 through Personal Service (Affidavit a X Certified Mail (Postmarked postmarked postmarked Publication (Notice of Publication)	extract oil and gas <u>OR</u> red by Chapter 22B, Article 1, nia (see page 2) Chapter 22B of the <u>West Virginia Code</u> d application, a location plat, and on the above named parties,by: attached) ostal receipt attached) cation attached)
fami attac respo is tr info OF totary PUB Y COMMIS	he terms and conditions of any perm I certify under penalty of law that liar with the information submitted the chments, and that based on my inquitonsible for obtaining the information, accurate, and complete.  I am aware that there are significant in the consibility of the possibility	at I have personally examined and am don this application form and all iry of those individuals immediately ion, I believe that the information cant penalties for submitting false of fine and imprisonment.  Columbia Natural Resources, Inc.  Sident. Drilling and Production Operations P. O. Box 1273 Charleston, WV 25325 304/357-2000 A day of
$\propto$	arry / Jankello	Notary Public
MY C	ommission expires finguest	8,1987
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