PVRC

Department of Mines, Minerals and Energy Division of Gas and Oil

		Permit	#:	25	57				
Operations	Name:	(Powell	River		er Coal		Iron)	VCP3097	
		LVIO							

1128193

Department of Mines, Minerals and Energy
Division of Gas and Oil

DIVISION OF das and Off
P. O. Box 1416
Abingdon, Virginia 24210
703/676-5423
P. O. Box 1416 Abingdon, Virginia 24210 703/676-5423 COMPLETION REPORT WELL TYPE: Oil Gas Coalbed Methane X or Injection well Of GAS & Oil GAS COIN DEPOCATION
\6
Date Well Completed: 11-1-94 Total Depth of Well: DTD=2723 DTD=2720
Attach the Drilling Report, if not previously submitted. In addition, submit any changes in casing or tubing that were
approved after the Drilling Report was submitted.
STIMULATION RECORD
Zone 1: Coal Seams* Formation Stimulated With: 70 Q Foam
$\rm w/5000\#~20/40~\&~13000\#~10/20~sand~-~812930~SCF~N_2~-~406~BF~-~700~gal~7.5\%~HCL~acid$
Perforated: 2169 TO 2625.5 No. of Perforations: 15 Perforation Size: 3 1/8 HSC
Formation Broke Down at: 2199 PSIG Average Injection Rate: 23 BPM
ISIP 3084 PSIG 5 MIN SIP 2806 PSIG Average Injection Pressure 3941 PSI
Date Stimulated 1-7-94
*Greasy Creek, Unnamed "A", Warcreek, L. Horsepen
Zone 2:Coal Seams**Formation Stimulated With:70 Q Foam
Ferrorated: 1001 10 1090 No. 01 Ferrorations. 10 Ferroration Size
Formation Broke Down at: N/A PSIG Average Injection Rate: 28 BPM
ISIP 2096 PSIG 5 MIN SIP 1877 PSIG Average Injection Pressure N/A PSI Date Stimulated $1-7-94$
**Norton, Kennedy, Raven
Zone 3: Coal Seams*** Formation Stimulated With: 70 Q Foam
w/18700# 12/20 & 20/40 sand - 612310 SCF N ₂ - 1571 BF - 600 gal 7.5% HCL acid
Perforated: 771.5 TO 938.5 No. of Perforations: 14 Perforation Size: .34"
Formation Broke Down at: 2056 PSIG Average Injection Rate: 13.35 BPM (45 DH)
rormation broke bown at: 2000 PSIG Average injection Rate: 13.33 BPM (43 DM)
ISIP 1849 PSIG 5 MIN SIP 1623 PSIG Average Injection Pressure 3447 PSIDate Stimulated $11-1-94$
***U. Clintwood, Blair, Dorchester
V V
Zone (1) Coal Seams* & ** 1 6 S40 48
Zone (2) Zone (3) Coal Seams*** 13 6 230 48
Final Production if Gas Zones are CommingledMCFDHours TestedPSIGHours Teste
* Use additional sheets with this format, if more than three (3) zones were stimulated.
Permittee: _EQUITABLE RESOURCES EXPLORATION (Company)
\bigcap \bigcap \bigcap
By: Joseph W. (Signature)

Form DGO-GO-15

Rev. 9/91

Department of Mines, Minerals and Energy Division of Gas and Oil

perations	Name:	PVRC(POWELL	RIVER	COAL	&	IRON)	VCP3097
		Parmit #.	2557				

Department of Mines, Minerals and Energy
Division of Gas and Oil
P. O. Box 1416
Abingdon, Virginia 24210
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DRILLING REPORT

Pursuant to VR-480-05-22.						
JANAUARY month				•		
LOCATION						
County: WISE		Distric	ct:GLADEVILI	LE		
Surface Elevation: 2290						
6250 FT. s.	of Latitude 37°	02' 30" ar	nd <u>8950</u> FT. W.	of Longitude	82° 42'	30"
Attach a final location p	lat as required b	y VR 480-05-22.	1, § 1.36.			
DRILLING DATA						
Date Drilling Commenced: Date Drilling Completed:	12-14-9	3	_ Drilling Contractor	:UNION	DRILLING	;
Date Drilling Completed:	12-20-9	3	Rig Type: X Rota	ry Cable	e Tool	
Total Depth of Well:L	TD=2723 DTD=	2720	-			
GEOLOGICAL DATA						
Fresh Water at: 97	Feet 3" ST	REAM =6₽M=	20 Feet 6"	STREAM 5	+	
578	Feet DA	MP =GP#	50 Feet 5"			
Sate Water at: 1083	Feet 1/8"ST		Feet			
	Feet		Feet			
COAL SEAMS:			**********	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	NING IN AREA	
NAME	TOP	BOTTOM	THICKNESS	YES	<u>MO</u> <u>M</u>	INED OUT
U.CLINTWOOD(SPLIT		803	32			
DORCHESTER NORTON (SPLIT)	937	939	2 37			
			5			
RAVEN	1893	1898	2			
WARCREEK	2490	2492				
L.HORSEPEN	2622	2626	4			
GAS AND OIL SHOWS: NON	E REPORTED					
	DP BOTTOM	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS	TESTED
						

Department	of	Mines,	Minerals	and	Energy
Division of	f G	as and	Oil		

List logs run on wellbore: LDT/GR/TEMP

Operations	Name:	PVRC	(POWELL	RIVER	COAL	&	IRON)	VCP3097
		Р	ermit #:	2557				

Cuttings or samples are $\underline{\hspace{1cm}}$ are not $\underline{\hspace{1cm}}$ available for examination by a member of the Virginia Division of Mineral Resources Cuttings or samples have __ have not X been furnished to the Virginia Division of Mineral Resources

ELECTRIC LOGS AND SURVEYS

Did log disclo	se vertical location of a coal sea	m? Yes X No		
SURVEY RESULTS				
DEPTH	DIRECTION/DISTANCE/DEGREES	DEPTH	DIRECTION/DISTANCE/DEGREES	
OF SURVEY	FROM TRUE VERTICAL	OF SURVEY	FROM TRUE VERTICAL	
140	3/4°	1548	3/4°	
222	3/4°	1609	1/2°	
433	1/4°	1765	BULL'S EYE	
522	3/4°	1951	3/4°	
742	3/4°	2166	3/4°	
784	3/4°	2355	3/4°	
944	1/2°	2538	1/2°	
1143	1/2°	2632	1°	
1333	3/4°	2720	1°	

CASING AND TUBING

	SIZE	TOP	BOTTOM	LENGTH	CEMENT USED (_IN_CU/FT_)	DATE CEMENTED	PACKERS OR BRIDGE PLUGS KIND SIZE SET AT
Conductor	16"		37"	27'			
Surface	11 3/4"		96'	86'			
Water Protection	8 3/9 "		326'	310'	100(118)	12-15-93	3
Coal Protection							
Other Casing and Tubing Left in Well	4 1/2" 2 3/8"		2687 ' 2650	2677 '	540(697)	12-21-93	3

Liners

REMARKS: Shut down, fishing jobs, depths and dates, caving, lost circulation, etc.

Department of Mines, Minerals and Energy Division of Gas and Oil

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		Pe	ermit #:	2557				

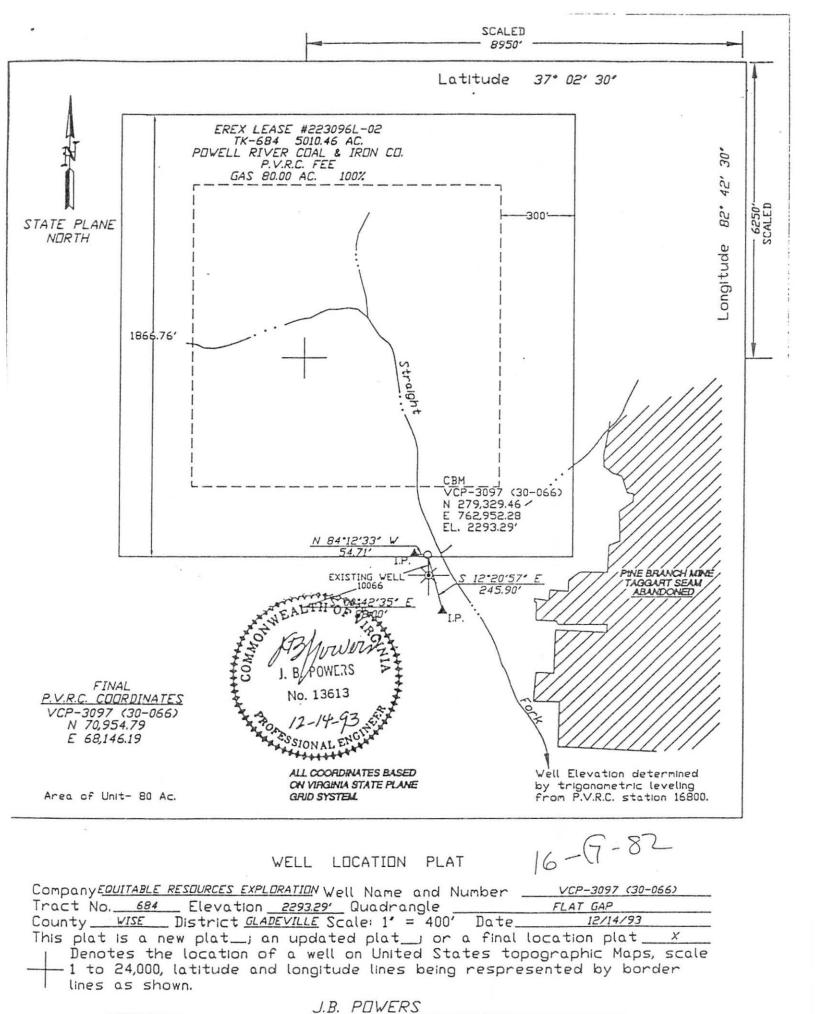
DRILLER'S LOG

Compiled by ____ENGINEERING

GEOLOGIC	GENERAL		DEPT	Н		
AGE	FORMATION LITHOLOGY	COLOR	TOP	BOTTOM	THICKNESS	REMARKS
ENNSYLVANIAN	SAND, SHALE & THIN	COALS	0	771	771	
	UPPER CLINTWOOD CO.	AL (SPLIT)	771	803	32	
	SAND, SHALE & THIN	COALS	803	937	134	
	DORCHESTER COAL		937	939	2	
	SAND, SHALE & THIN	COALS	939	1000	61	
	NORTON COAL (SPLIT)	1000	1037	37	
	SAND, SHALE & THIN	COALS	1037	1893	856	
	RAVEN COAL		1893	1898	5	
	SAND, SHALE & THIN	COALS	1898	2490	592	
	WARCREEK COAL		2490	2492	2	
	SAND, SHALE & THIN	COALS	2492	2622	130	
	LOWER HORSEPEN COA	L	2622	2626	4	
	SAND, SHALE & THIN	COALS	2626	2723	97	
	LOGGER'S TOTAL DEP	TH		2723		

By: Cash (Company)

(Signature)



Licensed Professional Engineer or Licensed Land Surveyor

WS 415

Department of Mines, Minerals and Energy Division of Gas and Oil Operations Name: VCP-3097
Permit No.: 2557

Department of Mines, Minerals and Energy Division of Gas and Oil P.O. Box 1416 Abingdon, VA 24210 (703) 676-5423

PLUGGING AFFIDAVIT

(2) OUT WED
STATE OF VIRGINIA , CITY/COUNTY OF WISE , TO-WIT: Tony Davis (Name) AND Mike Jaskoski (Name) DIVISION OF GAS & OF GAS
They are both experienced in the plugging of wells and participated in the plugging work which is the subject of the Affidavit on the referenced well.
THE PLUGGING WORK WAS FOR THE PURPOSE CHECKED BELOW:
X At the end of production or other use. After drilling, redrilling or deepening was unsuccessful. Partial plugging from the bottom of the hole to feet below the surface, and continued operation by the well operator. Partial plugging from the bottom of the hole to feet below the surface, for development as a water well. Replug Plugging of a corehole.
THE MANNER OF PLUGGING OR REPLUGGING WAS COMMENCED ON
PLUGGING DETAILS
INTERVAL (FROM BOTTOM OF HOLE) FROM TO FORMATION(S) PLUGGING FILLING BRIDGE OPEN HOLE CASING SIZE FILLED LINER
(ATTACH PLUGGING DETAILS IN THIS FORMAT AND A WELL SCHEMATIC ON SEPARATE SHEETS)
Finally, if this affidavit concerns a well that was abandoned after plugging, a permanent marker or permanent offset marker has \underline{X} or has not $\underline{\underline{\hspace{1cm}}}$ been erected.
First Signature Mcchael Plaskoshe Second Signature Long C. Wards
Date
NOTARY PUBLIC Subscribed and sworn to before me a notary public, in and for the 7000 County, Wagunia State, this 26 day of September , 1995.
Jennifer & Poton (Signature) My Commission Expires My 31, 1997

Form DGO-GO-18 Rev. 9/91 phone 95

WELL NO. VCP-3097

DGO PERMIT NO. __2557_

FROM	TO	FORMATIONS	PLUGGING MATERIAL	FILLING MATERIAL	BRIDGING MATERIAL	OPEN HOLE	CASING SIZE	FILLED LINER
2677	2650	Sd, Sh, Thin Coal	N/A	N/A	Sand fill	N/A	4 1/2"	N/A
2650	2100	m .	Class A Cement	N/A	N/A	N/A	4 1/2"	N/A
2100	1951	**	N/A	6% Gel Water	N/A	N/A	4 1/2"	N/A
1951	1550	**	Class A Cement	N/A	N/A	N/A	4 1/2"	N/A
1550	1050	"	N/A	6% Gel Water	N/A	N/A	4 1/2"	N/A
1050	700	"	Class A Cement	N/A	N/A	N/A	4 1/2"	N/A
700	345	п	N/A	6% Gel Water	N/A	N/A	4 1/2"	N/A
345	285	n	Class A Cement	N/A	N/A	N/A	4 1/2"	N/A
285	103	"	N/A	6% Gel Water	N/A	N/A	4 1/2"	N/A
103	Surf	II .	Class A Cement	N/A	N/A	N/A	4 1/2"	N/A

SERVICE CO: Union Drilling and Dowell-Schlumberger

WELLBORE SCHEMATIC

