Cary to 11/4/94

100732

Operations Name: <u>James R. Counts</u> VCP 2976 Department of Mines, Minerals and Energy Permit #: 2657 Division of Gas and Oil REVISED TO SHOW Department of Mines, Minerals and Energy DIRECTIONAL SURVEY RESULTS Division of Gas and Oil P. O. Box 1416 Abingdon, Virginia 24210 703/676-5423 COMPLETION REPORT WELL TYPE: Oil __ Gas __ Coalbed Methane X or Injection __ well Date Well Completed: 8-4-94 Total Depth of Well: LTD=2510 DTD=2509 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 w/15500# 12/20 sand - 716,800 SCF N2 - 1959 BF

 W/13300# 12/20 Sand - /10,000 SCF N2 - 1939 BF

 Perforated:
 1180.5
 TO
 1918
 No. of Perforations:
 15
 Perforation Size:
 .34"

 Formation Broke Down at: 1220 PSIG Average Injection Rate: 12.7 BPM (42 DH) ISIP 2100 PSIG 5 MIN SIP 1827 PSIG Average Injection Pressure 3818 PSIG Date Stimulated 8-4-94 X-Seam, Poco #9 *U. Seaboard "A", U. Seaboard, Greasy Creek, M. Seaboard, U. Horsepen, Warcreek, L. Horsepen Zone 2: ______ Formation Stimulated With: _____ Perforated: ______ TO ______ No. of Perforations: _____ Perforation Size: _____ PSIG Average Injection Rate: Formation Broke Down at: ISIP ______ PSIG _____ MIN SIP _____ PSIG Average Injection Pressure _____ PSIG Date Stimulated Zone 3: ______ Formation Stimulated With: _____ Perforated: ______ TO ______ No. of Perforations: _____ Perforation Size: _____
 Formation Broke Down at:
 PSIG
 Average Injection Rate:

 ISIP
 PSIG
 MIN SIP
 PSIG
 Average Injection Pressure
 PSIG
 Date Stimulated FINAL PRODUCTION: Natural X After Stimulation MCFD HOURS TESTED ROCK PRESSURE HOURS TESTED Zone (1) Zone (2) Final Production if Gas Zones are Commingled 45 MCFD 6 Hours Tested 222 PSIG 48 Hours Tested * Use additional sheets with this format, if more than three (3) zones were stimulated.

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

Form DGO-GO-15 Rev. 9/91 Department of Mines, Minerals and Energy Division of Gas and Oil

Operations	Name:	James	R.	Counts	VCP2976	
		Permit	#:	2657		

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

DRILLING REPORT

Pursuant to VR-480-05-22 Sand Lick August mont	District of					
LOCATION						
County: Dickenson Surface Elevation: 21 5395 FT.	70.01 Elev	vation of Kelly Bushin	t: Sand Lick g: 2180.01 Quadran d 13550 FT. W. o	gle: No	ra de 82°1	5'00"
Attach a final location	plat as requ	ired by VR 480-05-22.1	, § 1.36.			
DRILLING DATA Date Drilling Commenced Date Drilling Completed Total Depth of Well: L	7-21-94		Drilling Contractor: Rig Type: X Rotary			ng
G: OLOGICAL DATA Fresh Water at: 110			Feet			
Salt Water at:		GPM	Feet Feet		SPM .	
COAL SEAMS:		J.	7000		INING I	U ADEA
NAME Greasy Creek L. Horsepen	1359 1825	361 1828	THICKNESS 2 3	YES	NO NO	MINED OUT
L. HOTSEPER	1025	1020				
					-	
GAS AND OIL SHOWS:						
FORMATION	<u>10P</u> <u>BOTT</u> 226		ODOR	PRESSURI	E !	HOURS TESTED

epartment of Mines, Mine	rals and Ene	rgy		Operati	ons Name:Jan			P2976	
division of Gas and Oil						Permit #: 26	57		
outtings or samples are_ outtings or samples have_								eral Resourc	es
LECTRIC LOGS AND SURVEYS	-	EMP/GF							
oid log disclose vertical	l location of	a ccal	seam? Yes	X No					
DF SURVEY FRO 158 1/ 198 1/ 398 1/ 598 1/ 797 3/				1359 1537 1646 1795 1866 2066 2266		ISTANCE/DEGREE	:s		
			CAS	ING AND TUBI	NG				
					CEMENT USED	DATE	PACKERS (OR BRIDGE PLU	UGS
	SIZE	TOP	BOTTOM	LENGTH	(IN CU/FT)	CEMENTED	KIND	SIZE SET	
Conductor	13 3/8"		37'						
Surface									
Water Protection	8 5/8"		308'		110(130)	7-18-94			
Cal Protection									
Other Casing and Tubing Left in Well	4 1/2" 2 3/8"		2459† 2066†	2449'	519(670)	7-21-94			
Liners									
REMARKS: Shut down, fis	hing jobs, d	epths a	nd dates, car	ving, lost c	irculation, etc				

Form DGO-GO-14 Rev. 9/91 Department of Mines, Minerals and Energy Division of Gas and Oil Operations Name: James R. Counts VCP2976

Permit #: _2657

DRILLER'S LOG

compiled by Engineering

GEOLOGIC	GENERAL			DEP	DEPTH		
AGE	FORMATION	LITHOLOGY	COLOR	TOP	BOTTOM	THICKNESS	REMARKS
sylvanian	Sand, Shale	& Thin Coal	S	0	1359	1359	
	Greasy Cree	k Coal		1359	1361	2	
	Sand, Shale	& Thin Coal	s	1361	1825	464	
	Lower Horse	pen Coal		1825	1828	3	
	Sand, Shale	& Thin Coal	ls	1828	2510	682	
	Logger's To	tal Depth			2510		

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

: Joseph W. Jen (Signatu

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