Department of Mines, Minerals Division of Gas and Oil	and Energy O	perations Name: Permit #:	and the second se	Well #: VA File #:	VC3668 DI-0854
	Di	of Mines, Miner, ivision of Gas and P.O. Box 1416 ngdon, Virginia 540/676-5423	1 Oil 24210		
WELL TYPE: Oil Ga	s Coalbed Metha	ane <u>X</u> or Inje	ection well		
Date Well Completed:8/11/9	7 Total Dep	th of Well: <u>LT</u>	D - 2648 DTD - 2	2664	
Attach the Drilling Report; if not the Drilling Report was submitte		In addition, subm	it any changes in casing or	tubing that wer	e approved after
STIMULATION RECORD Zone 1: CC 17200# 12/20 SAND - 771,000 S	DAL SEAMS*	Formation Sti	mulated With:	70Q FOAM	N/
Perforated: 1733		2392.5	No. of Perforations:	16 Si:	ze: 0.34"
	13 PSIG		Average Injection Rate:	17.5 (56)	the second se
	11 PSIG 5 Min SIP:	1424	PSIG Average Injection	Pressure 37	and the second se
Date Stimulated: 8/1	11/97				
* U HORSEPEN, M HORSEPEN	I, C-SEAM, WARCREE	EK, UNNAMED	"C", BECKLEY, L HORSE	EPEN, X-SEAM	I, POCO #5
Zone 2:		Formation Sti	mulated With:		
Perforated:	to:		No. of Perforations:	Siz	ze:
Formation Broke Down at:	PSIG		Average Injection Rate:		
ISIP:	PSIG 5 Min SIP:		PSIG Average Injection	Pressure	
Date Stimulated:					
		-			
Zone 3:		_ Formation Stin	mulated With:	<u></u>	
Perforated:	to:		No. of Perforations:	Siz	e:
Formation Broke Down at:	PSIG		Average Injection Rate:		
ISIP:	PSIG 5 Min SIP:		PSIG Average Injection	Pressure	
Date Stimulated:			toro triongo injoinon		
		-			
FINAL PRODUCTION:	Natura	al X	After Stimulation		
FINAL PRODUCTION.	BOD MCF				URS TESTED
Zone (1)	BOD MICH	D HOOKS IL	KOCKTRESS		URB ILBILD
Zone (2)					
Zone (3)				2526272829	-
Final Production if Gas			15	De	10 Sol
Zones are Commingled	15 MCFD 6	Hours Tester	d 140	PSIG 🔨 48	Hours Tested
*Use additional sheets with this f		e (3) zones were s	21	UL BO	12:24
Permitte	e FOITTARIE PE	SOURCES ENFI	RGY COMPANY	ipany)	
By:	Josef	. a. Chu	17.	lature)	
	0 '				
Form DGO-GO-15 Rev. 9/91				RED	

Department of Mines, M Division of Gas and Oil	inerals and Ener	gy Operat	tions Name: Permit #:	G W SMITH 3422			C3668 -0854
		P. Abingdo	fines, Minera on of Gas and O. Box 1416 n, Virginia 40/676-5423	Oil			
x.		DRIL	LING REPO	RT			
and the second se	2.1, § 1.36, the strict of the onth, 1997.	undersigned Permitte		is report on Well y, Virginia on	VC3668 10 TH	in the day,	
OCATION							
	KENSON	Distri	ct: ERVIN	TON			
	the second s	ev of Kelly Bushing:	the second s	Quadrangle:	NORA		
	the second s	37 05 00	and	11630	Ft. W of Longi	tude 82 20	00 (
PRILLING DATA							
ate Drilling Commence	d: 7/26/97	Drilling	Contractor:	UNION DRILL	LING		
ate Drilling Completed		Rig Typ			tary	Cable Too	ol
otal Depth of Well:	LTD -	2648 DTD -	2664	_		_	
EOLOGICAL DATA							
resh Water at:	180 fee 1394 fee fee	t DAMP	GPM GPM GPM	222	feet 2' feet feet	" STREAM	GPM GPM GPM
alt Water at:	fee fee fee	t t	GPM GPM GPM		feet feet feet		GPM GPM GPM
OAL SEAMS:					MINING IN	IAREA	
AME	TOP	BOTTOM	THICKNESS	YES	NO	the second se	ED OUT
AVEN	985	989	4				
AWBONE	1146	1148	2				
ECKLEY (SPL) HORSEPEN	1954 2009	1958 2011	4 2				
OCO #5 RIDER	2390	2393	3				
AS AND OIL SHOWS:							
FORMATION	<u>TOP</u> <u>BOTT</u> 2500	OM THICKNES		MCFD/BOPD) 84 MCFD	PRESSURE	HOURS	TESTED

1 1

Department of Mines	, Minerals a	nd Energ	y C	perations N	ame: G W SM	ITH	Well #:	VC3668
Division of Gas and (7	nit #: 3422	107.Ker - 1067 10	VA File #:	DI-0854
Cuttings or samples Cuttings or samples ELECTRIC LOGS A	have h	re not ave not YS	-			of the Virginia D of Mineral Resou		eral Resources
List logs run on wellb	ore: _G	R/DEN/	TMP			*		
Did log disclose vertie	cal location	of a coal	seam? Yes	х	No			
SURVEY RESULTS DEPTH OF SURVEY			ANCE/DEGR	EES	DEPTH OF SURVEY	FR	ION/DISTAN OM TRUE VE	CE/DEGREES RTICAL
200 373 400 600 800 1000 1200 1400 1600 1711	1/2° 1/2° 1/2° 1/2° 1/2° 1/2° 1/2° 1/2°				1874 2074 2159 2360 2529 2560	34° 34° 1° 1° 1°		
			CA	SING AND	TUBING			
	SIZE	TOP	BOTTOM	<u>LENGTH</u>		DATE <u>CEMENTED</u>		EERS OR EE PLUGS ZE SET AT
Conductor	11 3/4		45	35	GROUTED			
Surface								
Water Protection Coal Protection	8 5/8		320	310	125(148)	7/27/97		
Other Casing and Tubing Left in Well	4 ½ 2 3/8		2618 2527	2608	570(718)	7/31/97		
Liners								

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

Form DGO-GO-14 Rev. 9/91

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2 of 3

Department of Mines, Minerals and Energy Division of Gas and Oil Operations Name: <u>G W SMITH</u> W Permit #: <u>3422</u> VA

___Well #: ____ VA File #: ____

VC3668 DI-0854

DRILLER'S LOG

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Compiled by: ENGINEERING

		GENERAL		D	EPTH		
AGE	FORMATION	LITHOLOGY	COLOR	TOP	BOTTOM	THICKNESS	REMARKS
PENN	SAND, SHALE &	THIN COALS		0	985	985	
	RAVEN			985	989	4	
	SAND, SHALE &	2 THIN COALS		989	1146	157	
	JAWBONE			1146	1148	2	
	SAND, SHALE &	thin coals		1148	1954	806	
	BECKLEY (SPLI	T)		1954	1958	4	
	SAND, SHALE &	THIN COALS		1958	2009	51	
	L HORSEPEN			2009	2011	2	
	SAND, SHALE &	THIN COALS		2011	2390	379	
	POCO #5 RIDER			2390	2393	3	
	SAND, SHALE &	THIN COALS		2393	2648	255	

LOGGER'S TOTAL DEPTH

2648

Permittee:	EQUITABLE RESOURCES ENERGY COMPANY	(Company)
By:	Joseph a. Chung	(Signature)
	0 .	

