Department of Mines, Minerals and Energy

Operations Name: TBISE

Well #:

VCP3596

Division of Gas and Oil

Permit #: 3237

VA File #: DI-0828

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

## COMPLETION REPORT

WELL TYPE: Oil	Gas	Coalbed Methane	e X or I	njection _	well	DIVIN	EIVED SION OF & OIL	
Date Well Completed:	5/2/97	Total Depth	of Well: _I	LTD - 25	45 DTD - 2	2548		
Attach the Drilling Report; it the Drilling Report was sub-		usly submitted. In	addition, subr	nit any chan	nges in casing or to	ubing that w	ere approved	l after
STIMULATION RECORD Zone 1: 1700# 12/20 SAND - 35000	COAL SE		Formation S	timulated W	Vith:	75Q FOA	M W/	
Perforated:		0:	2169.5	No of Pe	erforations:	13	Size: (	).34"
Formation Broke Down at:		PSIG .	2107.3	_	ge Injection Rate:	6.3 (25.2)	BPM	7.54
ISIP:		SIG 5 Min SIP:	1406		verage Injection	Pressure	3660	
Date Stimulated:	5/19/97	SIG 5 MIN SIT.	1400	- TSIG A	iverage injection	riessure .	3000	
*U HORSEPEN, M HORSE		AM WADCDEEV	LININAMED	"C" DECV	TEV I HODGET	DENI DOCO	47	
RE-STIMULATION	FEN, C-SEA	AIVI, WARCKEEK,	, UNINAMED	C, DECK	LEI, L HORSEI	EN, FOCO	# /	
Zone 1:	COAL SE	******	Formation S	timulated U	Tith.	700 EOA	M W//	
(1900-30 777.37 (177.31)		A STATE OF THE PARTY OF THE PAR	Formation S	ummated w	viui.	70Q FOAL	IVI VV/	-
38900 # 12/20 SD - 753000				NF 60			G:	
Perforated:		0:		_	erforations:		Size:	
Formation Broke Down at:		PSIG		_	ge Injection Rate:	16.9 (56.3		
ISIP:		SIG 5 Min SIP:	1579	_ PSIG A	verage Injection	Pressure	3480	
Date Stimulated:	6/2/97							
Zone 3:			Formation S	timulated W	/ith:			
Perforated:	to	):						
Formation Broke Down at:				No. of Pe	erforations:		Size:	
	P	SIG .		_	erforations:		Size:	
		SIG 5 Min SIP:		- Averag	ge Injection Rate:	Drecure	Size:	
ISIP:		SIG 5 Min SIP:		- Averag		Pressure	Size:	
				- Averag	ge Injection Rate:	Pressure	Size:	
ISIP: Date Stimulated:		SIG 5 Min SIP:		Averag PSIG A	ge Injection Rate: verage Injection	•	Size:	
ISIP:		SIG 5 Min SIP:  Natural		Averag PSIG A	ge Injection Rate: verage Injection After Stimulation			
ISIP: Date Stimulated:		SIG 5 Min SIP:	HOURS	Averag PSIG A	ge Injection Rate: verage Injection		Size:	STED
ISIP: Date Stimulated:		SIG 5 Min SIP:  Natural		Averag PSIG A	ge Injection Rate: verage Injection After Stimulation			STED
ISIP: Date Stimulated: FINAL PRODUCTION:		SIG 5 Min SIP:  Natural		Averag PSIG A	ge Injection Rate: verage Injection After Stimulation			STED
ISIP: Date Stimulated: FINAL PRODUCTION: Zone (1)		SIG 5 Min SIP:  Natural		Averag PSIG A	ge Injection Rate: verage Injection After Stimulation			STED
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2)		SIG 5 Min SIP:  Natural		Averag PSIG A	ge Injection Rate: verage Injection After Stimulation			STED
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2) Zone (3)	P:	Natural BOD MCFD		Averag PSIG A	ge Injection Rate: verage Injection  After Stimulation  ROCK PRESSI	URE 1		
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2) Zone (3) Final Production if Gas	P:	Natural BOD MCFD	HOURS	Averag PSIG A	ge Injection Rate: verage Injection  After Stimulation  ROCK PRESSI	URE 1	HOURS TES	
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2) Zone (3) Final Production if Gas	P:	Natural	HOURS Tes	Averag PSIG A	ge Injection Rate: verage Injection  After Stimulation  ROCK PRESSI	URE 1	HOURS TES	
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2) Zone (3) Final Production if Gas Zones are Commingled  *Use additional sheets with the	22 this format, if	Natural	Hours Tes	Averag PSIG A	ge Injection Rate: verage Injection  After Stimulation  ROCK PRESSI	URE 1	HOURS TES	
ISIP: Date Stimulated:  FINAL PRODUCTION:  Zone (1) Zone (2) Zone (3) Final Production if Gas Zones are Commingled  *Use additional sheets with the	22 this format, if	Natural BOD MCFD  MCFD 6  f more than three (2)	Hours Tes	Averag PSIG A	ge Injection Rate: verage Injection  After Stimulation ROCK PRESSI  350 F	URE PSIG 4	HOURS TES	

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# DRILLING REPORT

KENADY	_ District of the	DICKENSON	Count	y, Virginia on	181	day,
AUGUST	month, 1997.					
LOCATION						
County:	DICKENSON	Distr	ict: KENAI	ΟY		
Surface Elevation:	2322.6	Elev of Kelly Bushing	g: 2332.6	Quadrangle:	CANEY RIDGE	
4100	Ft. S of Latitud	e 37 02 30	and	7700	Ft. W of Longitude	82 25 00
DRILLING DATA						
Date Drilling Com			Contractor:	UNION DRIL	LING	
Date Drilling Comp				X Ro	tary	Cable Tool
Total Depth of Wel	1: LTD -	2545 DTD -	2549	_		
GEOLOGICAL DA	ATA					
Fresh Water at:	284	feet DAMP	GPM	1855	feet DA	MP GPM
		feet	GPM		feet	GPM
		feet	<b>GPM</b>		feet	GPM
alt Water at:		feet	GPM		feet	GPM
		feet	GPM		feet	GPM
		feet	GPM		feet	GPM
COAL SEAMS:					AMINIC DI ADI	
IAME	TOP	воттом т	HICKNESS	YES	MINING IN ARE	MINED OUT
HORSEPEN	1646	1648	2	IES	NO	MINED OUT
VARCREEK	1818	1820	2			
HORSEPEN	1914	1916	2			
OCO#7	2168	2170	2			
OCO #5 RIDER	2280	2282	2			
OCO #2	2430	2435	5			
AS AND OIL SH	OWS:					

Form DGO-GO-14

**FORMATION** 

TOP

**BOTTOM** 

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THICKNESS

IPF (MCFD/BOPD)

**PRESSURE** 

HOURS TESTED

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Cuttings or samples Cuttings or samples

are have are not have not

available for examination by a member of the Virginia Division of Mineral Resources been furnished to the Virginia Division of Mineral Resources

### ELECTRIC LOGS AND SURVEYS

List logs run on wellbore:

GR/ DEN/TMP

Did log disclose vertical location of a coal seam?

Yes

X

No

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### SURVEY RESULTS

DEPTH DIRECTION/DISTANCE/DEGREES OF SURVEY FROM TRUE VERTICAL		DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL			
200	1/40	1400	1°			
210	1/40	1452	1°			
270	1/40.	1600	3/4°			
450	1/2°	1800	3/40			
650	1 1/4°	2000	1/20			
758	l°	2165	1/20			
850	3/4°	2200	3/40			
897	3/4°	2278	3/40			
1015	3/40	2393	1°			
1050	3/40	2400	1°			
1200	1°					

#### CASING AND TUBING

	SIZE	TOP	воттом	LENGTH	CEMENT USED IN CU/FT	DATE CEMENTED	PACKER RIDGE F SIZE	
Conductor					18			
Surface	11 3/4		40	30	GROUTED	5/7/96		
Water Protection  Coal Protection	8 5/8		320	310	160(177)	5/8/97		
Other Casing and Tubing Left in Well	4 ½ 2 3/8		2533 2329.5	2523	545(703)	5/10/97		

Liners

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

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DRILLER'S LOG

Compiled by: ENGINEERING

AGE		ENERAL HOLOGY	COLOR	TOP	EPTH BOTTOM	THICKNESS	REMARKS	
PENN	SAND, SHALE & THIN	COALS		0	1646	1646		
	U HORSEPEN			1646	1648	2		
	SAND, SHALE & THIN	COALS		1648	1818	170		
	WARCREEK			1818	1820	2		
	SAND, SHALE & THIN	COALS		1820	1914	94		
	L HORSEPEN			1914	1916	2		
	SAND, SHALE & ;THIN	COALS		1916	2168	252		
	POCO #7			2168	2170	2		1,417
	SAND, SHALE & THIN	COALS		2170	2280	110		
	POCO #5 RIDER			2280	2282	2		
	SAND, SHALE & THIN	COALS		2282	2430	148		
	POCO #2			2430	2435	5		
S	SAND, SHALE & THIN	COALS		2435	2545	110		
	LOGGER'S TOTAL DE	PTH			2545			

Permittee:

EQUITABLE RESOURCES ENERGY COMPANY

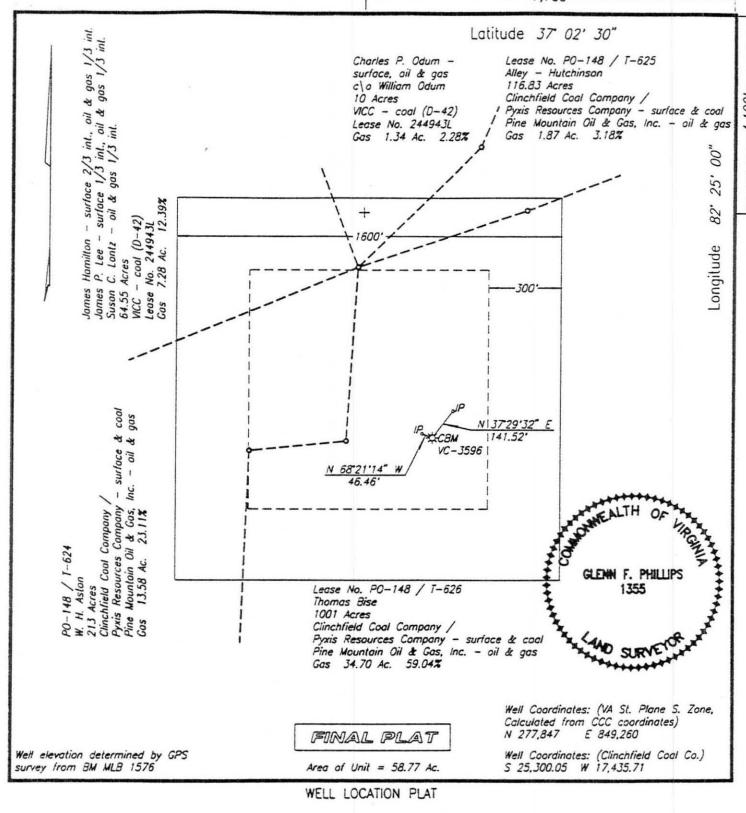
(Company)

By:

(Signature)

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COMPANY <u>Equitable Resources Energy Company</u> WELL NAME AND NUMBER <u>VC-3596</u>
TRACT NO. T-626 ELEVATION 2320.97 QUADRANGLE Caney Ridge
COUNTY <u>Dickenson</u> DISTRICT <u>Kenady</u> SCALE <u>1" = 400'</u> DATE <u>6-25-1997</u>
This Plat is a new plat; an updated plat; or a final location plat _x
_ Denotes the location of a well on United States topographic Maps, scale 1 to
24,000, latitude and longitude lines being represented by border lines as shown.
De Ffillings
DE-11-45

Licensed Professional Engineer or Licensed Land Surveyor