

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

C157

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator OCEAN ENERGY				Lease or Unit Name SHUGART "20" <i>Fed</i>			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10/9/00		Well No. 1	
Completion Date 8/25/00		Total Depth 11861		Plug Back TD 11838		Elevation G 20 18S 31E	
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11861	Perforations: From: 11731 To: 11746		County EDDY	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11498	Perforations: From: To:		Pool <i>N Shugart Morrow</i>	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11498		Formation <i>Morrow</i>	
Producing Thru TUBING		Reservoir Temp. °F 166.5		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2	
L 11509		H 11509		Gg 0.697	%CO ₂ 0.948	%N ₂ 0.555	%H ₂ S N/A
Prover N/A		Meter Run 4.03		Taps FLG		Connection SALES	
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI						2022	N/A
1		4.030 X 2.750	42.2	0.4	57	1939	
2		4.030 X 2.750	41.2	2	59	1862	
3		4.030 X 2.750	44.1	8.2	64	1708	
4		4.030 X 2.750	45.7	31	59	1362	
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}
1							
2	GAS VOLUMES		MEASURED	BY	TOTAL	FLOW	METER
3							
4							
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 59.806 Mcf bbl.		
1					A.P. I. Gravity of Liquid Hydrocarbons 59.2 Deg.		
2	TOTAL	FLOW	METER		Specific Gravity Separator Gas 0.697 XXXXXX		
3					Specific Gravity Flowing Fluid N/A XXXXXX		
4					Critical Pressure 672 P.S.I.A. 671 P.S.I.A.		
5					Critical Temperature 384 R. 401 R		
P _c 2131.3 P _{c2} 4542.4							
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $P_c^2 = 1.94$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.94$		
1		2047	4190.2	352.2			
2		1982.3	3929.5	612.9			
3		1833.1	3360.2	1182.2			
4		1486.2	2208.8	2333.6			
5							
Absolute Open Flow 3.715				Mcf/d @ 15.025	Angle of Slope (°): 45	Slope n: 1	
Remarks: * WELL MADE 2.49 BBLS OF 59.2 API GRAVITY CONDENSATE DURING TEST. /*CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MB		Checked By: BM	