

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-122
Revised October, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Marbob Energy Corporation						Lease or Unit Name Lusk Deep Unit A					
Type Test ☐ XX Initial ☐ Annual ☐ Special						Test Date 02-22-2000		Well No. 14			
Completion Date 02-15-00		Total Depth 12540		Plug Back TD		Elevation		Unit Ltr. - Sec. - TWP - Rge. A 19 19S 32E			
Csg. Size 5.5	Wt. 17	D 4.89	Set At 12540	Perforations: From: To:				County Eddy			
Thg. Size 2.375	Wt. 4.7	D 1.99	Set At 12238	Perforations: From: 12410 To: 12416				Pool			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 12238		Formation Morrow			
Producing Thru Tubing		Reservoir Temp. °F 173		Mean Annual Temp. °F		Baro. Press - P _a 13.2		Connection Pipeline			
L 1250	H 1250	Gg 0.682	%CO ₂ 0.607	%N ₂ 0.516	%H ₂ S 0.0	Prover		Meter Run 4 inch	Taps Flange		

FLOW DATA						TUBING DATA		CASING DATA		Duration Of Flow	
No.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	4"		2.625			68.7	1250		1790	173.4	20.5 Hrs
1.	4"		2.625	19.1	5.2	78.6	1210		1730	173.8	1 Hour
2.	4"		2.625	20.4	9.5	80.6	1110		1630	172.0	1 Hour
3.	4"		2.625	24.6	49	57.0	895		1442	169.0	1 Hour
4.	4"		2.625	27.7	77.6	69.1	680		1260	165.8	1 Hour
5.											

RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	36.66		12.95	32.3	0.982	1.210	580
2.	36.66		17.86	33.6	0.980	1.210	798
3.	36.66		43.03	37.8	1.001	1.210	1968
4.	36.66		56.33	40.9	0.991	1.210	2547
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.				0.948	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.				0.948	Specific Gravity Separator Gas	0.682
3.				0.947	Specific Gravity Flowing Fluid	XXXXXX
4.				0.947	Critical Pressure	P.S.I.A.
5.					Critical Temperature	R.

P _c 1790		P _c ² 3204	
No.	P _i ²	P _w	P _w ²
1.			212
2.			548
3.			1125
4.			1617
5.			

(1) $P_c^2 = \underline{2.848}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.393}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{4710}$

Absolute Open Flow 4710		Mcf/d @ 15.025	Angle of Slope θ: 39	Slope, n: 0.834
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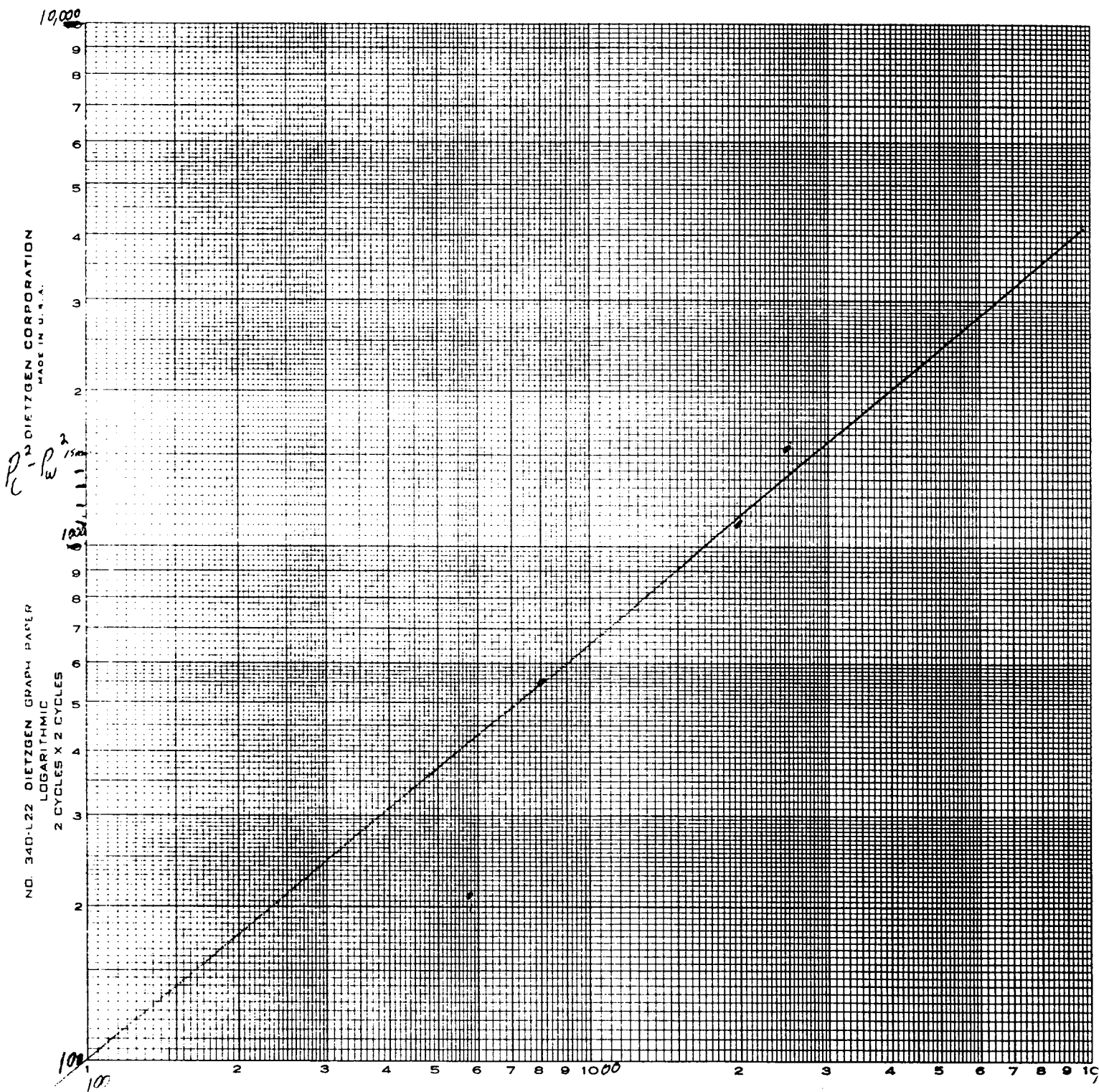
Remarks: **Choke Sizes: Q₁ = 8/64 Q₂ = 12/64 Q₃ = 18/64 Q₄ = 24/64**

Approved By Division	Conducted By: Keltic Services	Calculated By: JJ McGlasson	Checked By:
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MARBOR ENERGY

2-22-2000

LUSK DEEP UNIT #14



Q (MGF)

$Q_1 = 3000$ $\log Q_1 = 3.477$ $\theta = 39^\circ$

$Q_2 = 798$ $\log Q_2 = 2.90$

Wildcat Measurement Service
PO Box 1836
Artesia, New Mexico 88211-1836
Office #505-746-3481
"Quality and Service is our First Concern"

DOS 2.0

Run No. 20222-06
Date Run 02/22/00
Date Sampled 02/22/00

Analysis for: HARBOB ENERGY CORPORATION

GPANGL.L60

Well Name: LUSK DEEP #14

Field:

Sta. Number:

Purpose: SPOT

Sampling Temp: DEG F

Volume/day:

Pressure on Cylinder: 680 PSIG

Producer: HARBOB ENERGY CORPORATION

County: EDDY State: NM

Sampled By: KELTIC SERVICES

Atmos Temp: DEG F

Formation:

Line Pressure: 693.2 PSIA

GAS COMPONENT ANALYSIS

Pressure Base: 14.730

Mol % GPM

Real BTU Dry: 1185

Real BTU Wet: 1165

Real Calc. Specific Gravity: 0.682

Field Specific Gravity: 0.000

Carbon Dioxide CO2 0.607

Standard Pressure: 14.696

Nitrogen N2 0.516

BTU Dry: 1183

BTU Wet: 1162

Methane C1 85.862 14.553

Ethane C2 7.463 1.996

Propane C3 2.705 0.745

Iso-Butane IC4 0.378 0.124

Nor-Butane NC4 0.789 0.249

Iso-Pentane IC5 0.356 0.130

Nor-Pentane NC5 0.367 0.133

Z Factor: 0.9970

N Value: 1.2878

Avg Mol Weight: 19.7018

Avg CuFt/Gal: 56.0431

26 Lb Product: 1.0620

Methane+ GPM: 18.342

Ethane+ GPM: 3.788

Propane+ GPM: 1.792

Butane+ GPM: 1.047

Pentane+ GPM: 0.675

Hexanes Plus C6+ 0.957 0.411

TOTAL 100.000 18.342

REMARKS:

Approved by: KARL HAENY

Tue Feb 22 16:06:38 2000