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State of New Mexico
Minerals and Natural Resources Department

Form C-122
Revised 4-1-1991

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Devon Energy Corp					Lease or Unit Name Southern Cross				
Test Type ☒ Initial ☐ Annual ☐ Special					Test Date 09-25-01		Well No. 32-1		
Completion Date 08-09-01		Total Depth		Plug Back TD		Elevation		Unit Ltr - Sec - TWP - Rge.	
Csg. Size 4.500	Wt. 11.600	d 4.000	Set At	Perforation: From To				County Eddy	
Tbg. Size 2.375	Wt. 4.700	d 1.995	Set At 8256	Perforation: From 8381 To 8467				<i>Antelope Sink</i> <i>Southern Cross</i> Morrow	
Type Well-Single-Bradenhead-G.G. oG.O. Multiple single					Packer Set At 8256		Formation Morrow		
Producing Thru tubing		Reservoir Temp.F 170		Mean Annual Temp.F 70		Baro. Pressure 15.02		Connection 8-31-01	
L 8424	H 8424	Gg .600	% CO ₂ .64	% N ₂ .43	% H ₂ S	Prover		Meter Run flange	Taps

Flow Data					Tubing Data		Casing Data		SIP/Flow Duration (HRS.)
(Prover) No. Line Size x Orifice Size	Press. PSIG	Diff. h _w	Temp. F		Press. PSIG	Temp. F	Press. PSIG	Temp. F	
Shut-in Pressure					1750	90			24
1. 3.07 x .14	391.00	25.00	76		1575	90			1
2. 3.07 x .17	471.00	27.00	84		1470	90			1
3. 3.07 x .19	531.00	38.00	87		1390	90			1
4. 3.07 x .22	475.00	56.00	86		1260	90			1

RATE OF FLOW CALCULATIONS

No.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. FACTOR F _t	Gravity FACTOR F _g	Super Compress. FACTOR F _{pv}	Rate of Flow (Q) MCFD
1.	10.032	100.750	406.0	.9850	1.2911	1.0299	1323.8
2.	10.302	114.554	486.0	.9777	1.2911	1.0341	1540.5
3.	10.302	144.044	546.0	.9750	1.2911	1.0376	1938.3
4.	10.302	165.654	490.0	.9759	1.2911	1.0339	2223.2

No.	P _r	TEMP.	T _r	Z
1.	.602	536	1.513	.9427
2.	.721	544	1.535	.9352
3.	.810	547	1.544	.9288
4.	.727	546	1.541	.9355

Gas-Liquid Hydrocarbon Ratio		Mcf/bbl
API Gravity of Liquid Hydrocarbons		Deg.
Specific Gravity Separator Gas	.600	
Specific Gravity Flowing Fluid		.600
Critical Pressure	674 PSIA	674 PSIA
Critical Temperature	354 R	354 R

$$P_C = 1765.0 \quad P_C^2 = 3115.3$$

No.	P _w	P _w ²	P _C ² - P _w ²
1.	1608.1	2585	529.357
2.	1511.0	2283	832.058
3.	1448.0	2096	1018.652
4.	1337.0	1787	1327.854

$$(1) \frac{P_C^2}{P_C^2 - P_W^2} = \frac{2.346}{\quad} \quad (2) \left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n = \frac{1.687}{\quad}$$

$$AOF = Q \left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n = \frac{3749}{\quad}$$

Absolute Open Flow 3749		Mcf/d @ 15.025	Angle of Slope - 58.5	Slope, n .613
Remarks				
Approved By Division:		Conducted By: "Well Testing"	Calculated By: BPT System	Checked By: