

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator ENRON OIL & GAS COMPANY						Lease or Unit Name Diamond "SM" 36 State					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-29-93		Well No. 2			
Completion Date 3-19-93		Total Depth 15,560		Plug Back TD 15,394		Elevation 3477' GL		Unit Ltr. - Sec. - TWP - Rge. N - 36 - 24s - 33e			
Csg. Size 3 1/2	Wt. 12.95	d 2.750	Set At 15,556	Perforations: From: 14,725 To: 15,343				County Lea			
Tbg. Size None	Wt.	d	Set At	Perforations: From: To:				Pool Pitchfork Ranch			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None				Formation Morrow A & C			
Producing Thru Casing		Reservoir Temp. °F 221 @ 14725'		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection Transwestern			
L 14,725	H 14,725	Gg .633	% CO ₂ 2.14	% N ₂ .47	% H ₂ S -	Prover -	Meter Run 4.026	Taps FLG			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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						None		1394		20 HRS
1.	4 x	.875	360	20.00	69	"		1350		1 HR
2.	4 x	.875	360	49.00	72	"		1291		1 HR
3.	4 x	.875	360	70.00	75	"		1234		1 HR
4.	4 x	.875	370	96.00	74	"		1155		1 HR
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	3.630	86.39	373.2	.9915	1.257	1.034	404
2.	3.630	135.23	373.2	.9887	1.257	1.033	630
3.	3.630	161.63	373.2	.9859	1.257	1.033	751
4.	3.630	191.80	383.2	.9868	1.257	1.033	892
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.55	529	1.44	.936	A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.55	532	1.45	.937	Specific Gravity Separator Gas	.633	XXXXXXXXXX
3.	.55	535	1.46	.938	Specific Gravity Flowing Fluid	XXXXXX	
4.	.56	534	1.46	.937	Critical Pressure	* 678	P.S.I.A. P.S.I.A.
5.					Critical Temperature	* 365	R R

P_c 1407.2 P_c² 1980.2

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.		1363.7	1859.6	120.6
2.		1305.4	1704.2	276.0
3.		1249.0	1560.1	420.1
4.		1171.0	1371.2	609.0
5.				

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{16.420}{1} \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4.052}{1}$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.637$$

Absolute Open Flow <u>1.637</u> Mcfd @ 15.025	Angle of Slope θ <u>63.5</u>	Slope, n <u>.500</u>
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Remarks: * Corrected to 2.14% CO₂

No fluid produced during test

Approved By Division ORIGINAL BY JERRY SEXTON	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: B. Murray
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DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL API NO. 30 025 31798 ✓

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
LG-4235

7. Lease Name or Unit Agreement Name
Diamond SM-36 State

8. Well No. 2

9. Pool name or Wildcat
Pitchfork Ranch (Morrow)

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
OIL WELL ☐ GAS WELL ☒ OTHER

2. Name of Operator
Enron Oil & Gas Company

3. Address of Operator
P. O. Box 2267, Midland, Texas 79702

4. Well Location
Unit Letter N : 990 Feet From The south Line and 1980 Feet From The west Line
Section 36 Township 24S Range 33E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3477' GL

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: ☐
SUBSEQUENT REPORT OF: 4/2/93
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: Frac Job ☒

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

4-8-93 - Frac Morrow "A" Perforations 14,725'-14,735' with 38,564 gals 60% Alcofoam gel and 11,000# 20/40 Interprop plus.

Morrow "A" Perfs 14,725'-14,735'
Morrow "C" Perfs 15,275'-15,343'

4-10-93 - Flowing 1280 MCFD, FTP 330.

I hereby certify that the information shown is true and complete to the best of my knowledge and belief.

SIGNATURE Betty Gildon TITLE Regulatory Analyst DATE 4/12/93
TYPE OR PRINT NAME Betty Gildon TELEPHONE NO. 915/686-3714

(This space for State Use)

APPROVED BY Paul Kautz TITLE Geologist DATE MAY 07 1993

CONDITIONS OF APPROVAL, IF ANY: