1-File
1-C-122

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

AUG 18 1978

O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special	Test Date: 8/11/78	
Company: Gulf Oil Corporation	Connection: Air	
Pool: Undesignated	Formation: Cisco	Unit
Completion Date: 7-26-78	Total Depth: 8680	Plug Back TD: 7972
Elevation: 3614	Farm or Lease Name: Eddy G.X. State Comm.	
Csg. Size: 5 1/2	Wt.: 15 / 17	d:
Set At: 8680	Perforations: From 6772 To 6818	Well No.: # 1
Tbg. Size: 2 3/8	Wt.: 4.7	d:
Set At: 6694	Perforations: From To	Unit: O Sec.: 18 Twp.: 18 Rge.: 25
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 6694	County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 141 @ 6694	Mean Annual Temp. °F: 60°
Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6694	6694	.655	.28	2.20			4	Flange

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							1865				72 Hr
1.	4	X	1.250	600	4.0	85	1745				1 Hr
2.	4	X	1.250	630	8.0	83	1615				1 Hr
3.	4	X	1.250	625	16.0	79	1400				1 Hr
4.	4	X	1.250	625	32.0	78	825				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, Fpv	Rate of Flow Q, Mcfd
1	7.469	49.53	613.2	.9768	1.236	1.057	472
2.	7.469	71.73	643.2	.9786	1.236	1.059	686
3.	7.469	101.05	638.2	.9822	1.236	1.061	967
4.	7.469	142.91	638.2	.9831	1.236	1.061	1376
5.							

NO.	Pr	Temp. °R	Tr	Z
1.	.92	545	1.44	.895
2.	.96	543	1.44	.891
3.	.95	539	1.43	.889
4.	.95	538	1.42	.888
5.				

Gas Liquid Hydrocarbon Ratio 57,887 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 61.6 @ 60 Deg.
Specific Gravity Separator Gas .655 | XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX | .703
Critical Pressure 670 P.S.I.A. | 668 P.S.I.A.
Critical Temperature 378 R | 392 R

P_c 1878.2 P_c^2 3527.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1759.5	3095.8	431.8
2		1631.2	2660.7	866.9
3		1420.2	2017.0	1510.6
4		864.5	747.4	2780.2
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.269

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.152

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1,585

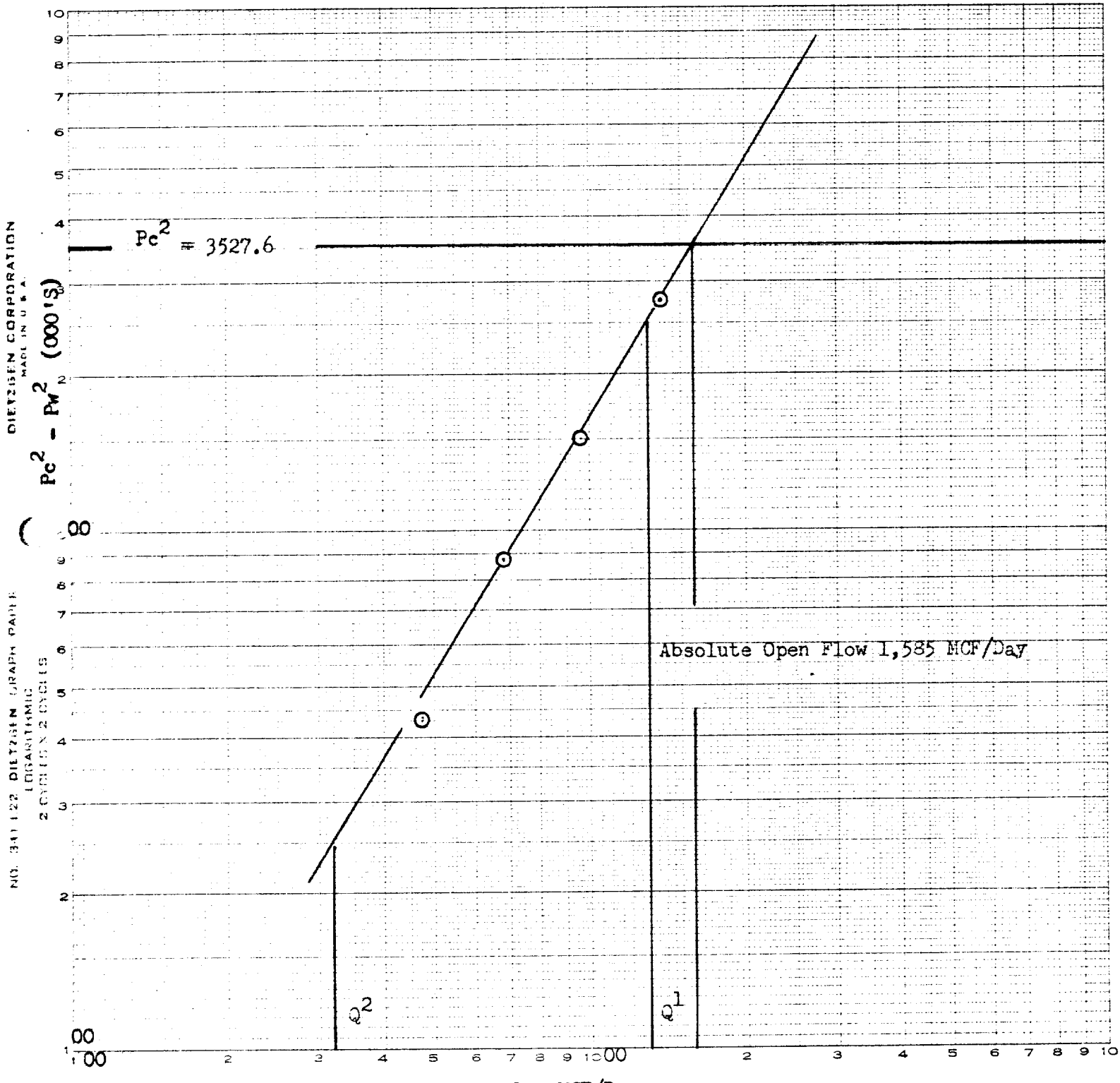
Posted ND-2 + track 8-25-78 EPG

Absolute Open Flow 1,585 Mcfd @ 15.025 | Angle of Slope θ 59.25° | Slope, n .595

Remarks: Produced 2.52 Bbls of distillate during the test

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Larry Davis	Larry Davis	

ompany: Gulf Oil Corporation
Lease: Eddy GX State Comm
Well No: # 1
Field: Undesignated
County: Eddy
Date: 8/11/78



$Q^1 = 1300$; Log Of $Q^1 = 3.113943$
$Q^2 = 330$; Log Of $Q^2 = \underline{2.518514}$
N = .595

El Paso Natural Gas Company

HYDROCARBON ANALYSIS

Form 15-1R (Rev. 12-65)

PERMIAN DIVISION LABORATORY

TYPE ANALYSIS	Pod	Mass Spec.	Chromatograph	Other	Analysis No.

Sample From: Eddy GX State Comm # 1

Owner	State	County
Gulf Oil Corporation	N.M.	Eddy

Location or Field	Formation	Depth From	Depth To
18 - 18 - 25	Cisco		

Date Secured	Secured by	Department
8-11-78	Day	
Date Run	**Run by**	**Checked by**
8-11-78	Bond	

Source Press.	Bomb Press.	Source Temp.	Atmos. Temp.

BTU @ 14.696	Actual	Calculated, Dry	SP. GR. @ 14.696 & 60° F	Actual	Calculated
		1128.92			.655

Hydrogen Sulphide as grs. H_2S/ 100 SCF	Mercaptan as grs. Sulfur/100 SCF	Total	Sweet
.19 grs	00	.19 grs	

VAPOR PRESS. @ 100° F	Actual, Reid	Calculated

COMPONENT		MOLE %	GPM	LIQ. VOL. %
Helium	HE_2			
Hydrogen Sulphide	H_2S			
Carbon Dioxide	CO_2	.28		
Nitrogen	N_2	2.20		
Methane	C_1	85.25		
Ethane	C_2	7.73		
Propane	C_3	3.01		
Iso Butane	IC_4	.38		
Normal Butane	C_4	.76		
Iso Pentane	IC_5	.18		
Normal Pentane	C_5	.17		
Hexane	C_6	.04		
Heptane	C_7			
		100%		

ENGLER	
IBP	% @ 96
5	% @ 140
10	% @ 275
20	End Point
30	Recovery
40	Residue
50	Loss
60	
70	
80	
90	

DISTRIBUTION

REMARKS

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

Form C-122D
Adopted 9-1-65

COMPANY Gulf Oil Corporation LEASE Eddy GX State Comm. WELL NO. # 1 DATE 8/11/78

LOCATION: Unit _____ Section 18 Township 18 Range 25

L 6694 H 6694 L/H 1.000 G mix .703 % CO_2 _____ % N_2 _____ % H_2S _____

d 1.995 F_r .018231 GH 4706 P_{cr} 668 (TABLE IX & X) T_{cr} 392 (TABLE IX & X)

	1st		2nd		3rd		4th			
LINE	1st	2nd	1st	2nd	1st	2nd	1st	2nd		
1 Q_m	.472	.472	.686	.686	.967	.967	1.376	1.376		
2 T_w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T_s (B.H. °R)	601	601	601	601	601	601	601	601		
4 $T = (\frac{T_w + T_s}{2})$	567.5	567.5	567.5	567.5	567.5	567.5	567.5	567.5		
5 Z (Est.)	.759	.747	.769	.756	.790	.775	.864	.850		
6 TZ	430.7	423.9	436.4	429.0	448.3	439.8	490.3	482.4		
7 GH/TZ	10,926	11,101	10,783	10,969	10,497	10,700	9.598	9.756		
8 e^s (Table XIV)	1.506	1.516	1.498	1.509	1.482	1.494	1.433	1.442		
9 $1-e^{-s}$ (Table XIV)	.336	.341	.333	.337	.325	.331	.302	.306		
10 P_t	1758.2	1758.2	1628.2	1628.2	1413.2	1413.2	838.2	838.2		
11 $P_t^2/1000$	3091.3	3091.3	2651.0	2651.0	1997.1	1997.1	702.6	702.6		
12 F_r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231	.018231	.018231		
13 $F_c = F_r$ TZ	7.853	7.729	7.956	7.822	8.173	8.018	8.939	8.794		
14 $F_c Q_m$	3.71	3.65	5.46	5.37	7.90	7.75	12.30	12.10		
15 $L/H (F_c Q_m)^2$	13.7	13.3	29.8	28.8	62.5	60.1	151.3	146.4		
16 $F_w = L/H (F_c Q_m)^2 (1-e^{-s})$	4.62	4.53	9.91	9.71	20.33	19.87	45.73	44.36		
17 $P_w^2 = P_t^2 + F_w$	3095.9	3095.8	2660.9	2660.7	2017.5	2017.0	748.3	747.4		
18 $P_s^2 = e^s P_w^2$	4663.6	4694.2	3987.1	4014.6	2990.6	3012.8	1072.5	1077.6		
19 P_s	2159.5	2166.6	1996.8	2003.6	1729.3	1735.7	1035.6	1038.1		
20 $P = (\frac{P_t + P_s}{2})$	1958.9	1962.4	1812.5	1815.9	1571.3	1574.5	936.9	938.1		
21 $P_r = (P/P_{cr})$	2.93	2.94	2.71	2.72	2.35	2.36	1.40	1.40		
22 $T_r = (T/T_{cr})$	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45		
23 Z (Table XI)	.747	.747	.756	.755	.775	.774	.850	.850		

One copy to be filed in District Office (Work copy acceptable)