NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 12-1-65

RECEIVED
JUN 13 1974
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 4-22-74

Company: R. L. Foree	Connection: NONE		Unit: 16C
Pool: Sams Ranch	Formation: PREMIER Sand		Farm or Lease Name: State Comm
Completion Date: 4-22-74	Total Depth: 1855'	Plug Back TD: 1855'	Elevation: 3601'GL
Csg. Size: 4 1/2" / Wt.: 11.60 / d: 4.000 / Set At: 1833	Perforations: Open Hole From 1833' To 1855'		Well No.: No.1
Tbg. Size: 2 3/8" / Wt.: 4.7 / d: 1.995 / Set At: 1823'	Perforations: Open ended From To		Unit: O / Sec.: 11 / Twp.: 14s / Rge.: 28e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 1823'	County: Chaves
Producing Thru: Tubing	Reservoir Temp. °F: 81° @ 1800'	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
.1844'	-	0.791	0.00	26.70	0.00	X	-	-

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F
SI						
1.	2"		13/64 1/2	150	-	62
2.	2"		12/64 1/2	120	-	70
3.	2"		11/64 1/2	80	-	70
4.	2"		10/64 1/2	40	-	75
5.						

TUBING DATA / CASING DATA

NO.	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	1266		PACKER		90 Hrs
1.	541	62			1.0
2.	818	70			1.0
3.	1080	70			1.0
4.	1130	75			1.0
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	4.279	-	163.2	0.9981	1.124	1.014	794.4
2.	4.279	-	133.2	0.9905	1.124	1.010	647.1
3.	4.279	-	93.2	0.9905	1.124	-	444.0
4.	4.279	-	53.2	0.9859	1.124	-	252.2
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	0.26	522	1.50	0.973
2.	0.21	530	1.53	0.980
3.	0.15	530	1.53	-
4.	0.09	535	1.54	-
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: - Deg.
Specific Gravity Separator Gas: 0.791 / xxxxxxxxx
Specific Gravity Flowing Fluid: xxxxx
Critical Pressure: 620 P.S.I.A. / - P.S.I.A.
Critical Temperature: 347 R / - R

P_c 1369.2 P_c^2 1874.7

NO	P_t^2	P_w *	P_w^2	$P_c^2 - P_w^2$
1	-	590.2	348.3	1526.4
2	-	824.2	679.3	1195.4
3	-	1074.2	1153.9	720.8
4	-	1239.2	1535.6	339.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.288$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.171$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 930.2$

930.2 Mcfd @ 15.025 — [illegible] 52° 33' — [illegible]

Remarks: * DHP @ (1754') 1844' used for pressure calculations

Approved By Commission: | Conducted By: COLEMAN PET.ENG.CO. | Calculated By: Joe A. Coleman | Checked By: Joe A. Coleman

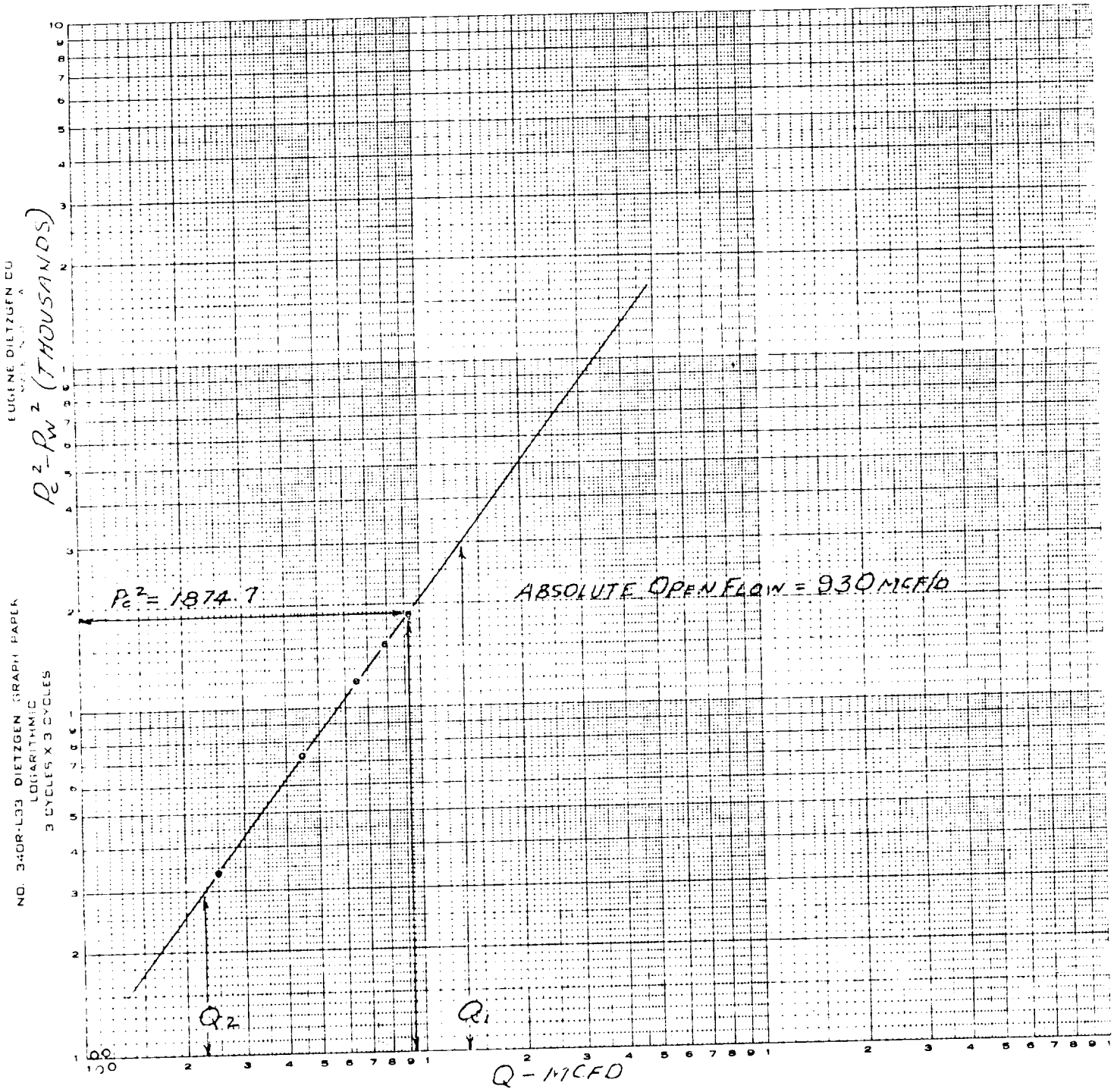
COMPANY A. L. Foree

WELL State Comm, No.1

LOCATION Unit O Sec 11 14 s 2⁰ e

COUNTY Chaves New Mexico

DATE April 22, 1974



$Q_1 = 1330$ MCFD; $\log Q_1 = 3.123885$

$Q_2 = 228$ MCFD; $\log Q_2 = 2.35793$

$n = 0.76592 = 0.766$

COLEMAN PETROLEUM ENGINEERING COMPANY

PHONE 393-3813 3713 W. MARLAND ST. P. O. BOX 1829 HOBBS, NEW MEXICO 88240

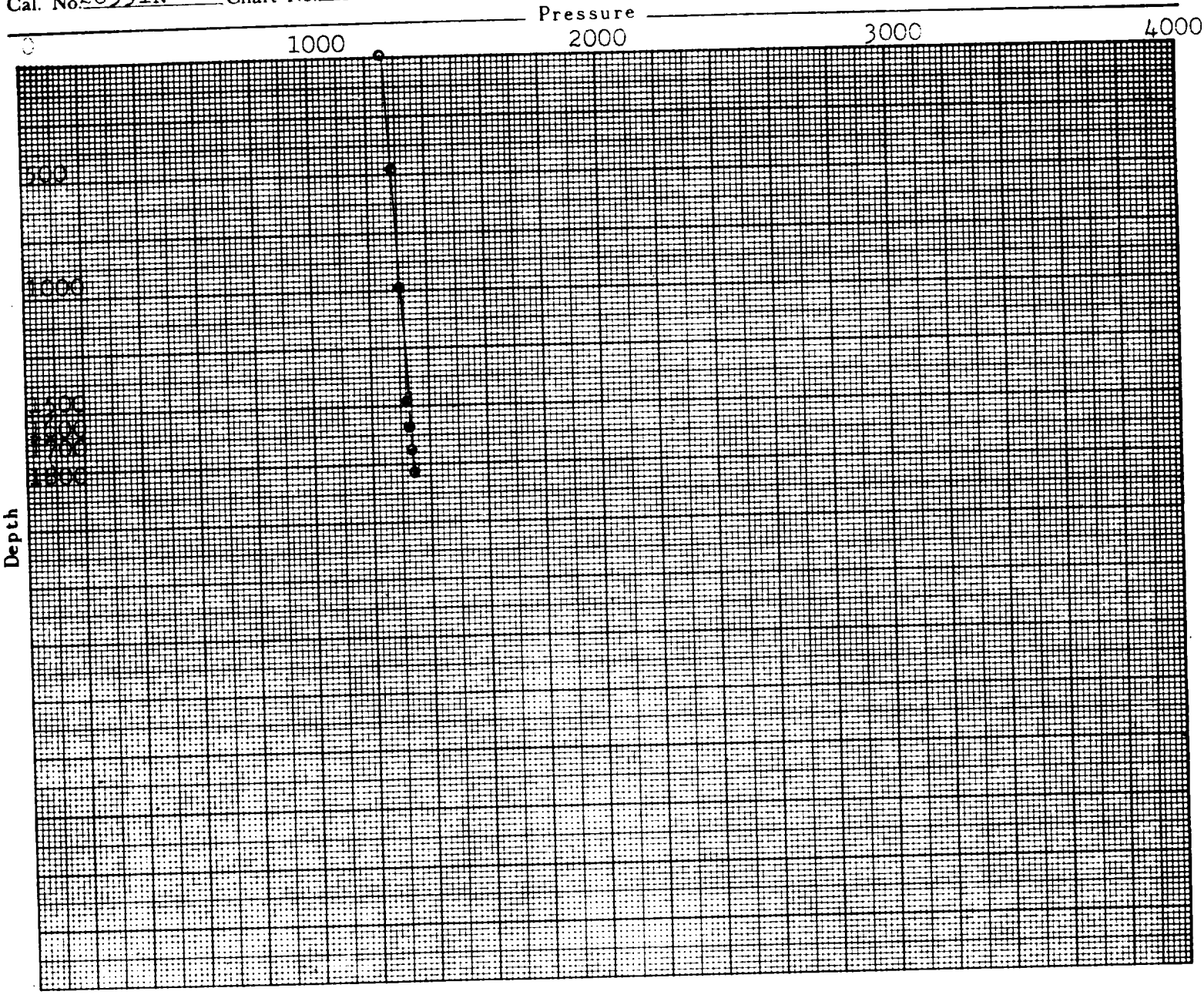
O-11-14-28

BOTTOM HOLE PRESSURE RECORD

OPERATOR R. L. Foree
FIELD Sams Ranch FORMATION Premier SD
LEASE State Comm WELL No.1
COUNTY Chaves STATE New Mexico
DATE 4-22-74 TIME 10:30 Am
Status Shut In Test depth 1800'
Time S. I. 90.0 Hrs Last test date Initial
Tub Pres. 1266DWT BHP last test -
Cas. Pres. PKR BHP change -
Elev. 3601'GL Fluid top NONE
Datum (+1757')** Water top NONE
Temp. @ 81°F Run by Adkins
Cal. No. 20331N Chart No. 1

Depth	Pressure	Gradient
0	1266	-
500	1290	.048
1000	1314	.048
1500	1339	.050
1600	1344	.050
1700	1349	.050
1800	1354	.050
1844(+1757)	1356* **	(.050)

* Extrapolated Pressure
** Mid point of casing perforations



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PHONE 393-3813 3713 W. MARLAND ST. P. O. BOX 1829 HOBBS, NEW MEXICO 88240

April 22, 1974

R. L. Foree
3700 First National Bank Bldg.
Dallas, Texas 75202

RE: Sams Ranch Premier Sand
State Com, No. 1-O-11-14-28
Chaves County New Mexico
4-Point Back Pressure Test,
Gas Sample & Analysis Test

Gentlemen:

In compliance with your instructions, A 4-Point Back Pressure Test was conducted on your State Com, No.1, and the absolute open flow potential was calculated to be 930.2 MCF/D. The average gas production was recorded as 534.4 MCF/D, with 0.00 Bbls D/Day.

The sample taken during the test yielded component percentages as follows:

CARBON DIOXIDE	0.000
NITROGEN	26.703
METHANE	59.186
ETHANE	7.874
PROPANE	3.221
ISO-BUTANE	0.423
NORMAL BUTANE	1.005
ISO-PENTANE	0.273
NORMAL PENTANE	0.374
HEXANES	0.329
HEPTANES	0.612
TOTAL	100.000
CALCULATED Sp. G.	0.7906
CALCULATED BTU Dry	937
CALCULATED BTU wet	921

RECEIVED
JUN 13 1974
O. C. C.
ARTESIA, OFFICE

Enclosures:

JAC/vr

Very Truly Yours
Coleman Petroleum Eng.Co.

Joe A. Coleman

XE-TONE®

OF NEW MEXICO

P. O. Box 1499 PHONE 393-7...

HOBBS, NEW MEXICO 88240

No. 3025
Run No.
Date of Run 4-23-74
Date Secured 4-23-74

CERTIFICATE OF ANALYSIS

Sample of Sam's Ranch State Comm. #1 - R.L. Foree */- 0 - 11-14-28
ecured from Coleman Engineering
t Hobbs, NM Secured by Time Date
ampling conditions Press
Temp.
Premier Sand

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	LIQ. %	G.P.M.
.....			
.....			
.....			
arbon Dioxide	Absent		
ir			
itrogen	26.703		
)xygen			
ydrogen sulfide			
ydrogen			
Aethane	59.186		
thane	7.874		2.100
ropane	3.221		.887
utanes			
so-Butane	.423		.138
N-Butane	1.005		.316
entanes			
so-Pentane	.273		.100
N-Pentane	.374		.135
lexanes	.329		.260
leptanes	.612		
OTAL	100.00		4.071

Calc. Sp. Gr. — 0.7906
Calc. A.P.I. —
Calc. Vapor Press. — PSIA
Sp. Gr. 22.99
Mol. Wt.

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M.
Butanes Calc. G.P.M.
Pentanes Plus. G.P.M.
Ethane Calc. G.P.M.
___ RVP Gasoline G.P.M.

B.T.U./Cu. Ft. @ 14.696 P.S.I.A.
Dry Basis 937
Wet Basis 921

Sulfur Analysis by Titration
Gr./100 Cu. Ft.
Hydrogen Sulfide
Mercaptans
Sulfides
Residual Sulfur
Total Sulfur

Run by Deane Simpson Checked by Approved by Deane Simpson

Additional Data and Remarks