

NEW MEXICO
OIL CONSERVATION COMMISSION
Back Pressure Data Sheet

Form C-122

DEAL COMPLETION

Pool: **Blinbry** Date: **July 2, 1952**

Company: **Markham, Cone & Redfern** Lease: **Eubanks** Well No. **1**

County: **Lea** Sec. **14** Twp. **21 S** Rge. **37 E** Loc. **C SW/4 SW/4 Section 14**

4.950" ID casing set @ **6512'**; **1.995"** ID tubing **2.375"** OD tubing set @ **6431'** on packer
(assumed)

Pay zone from **5510'** to **5655'**; Separator gas gr. **0.700/** Barometer rdg. _____
(assumed) (annular space)

Reservoir temperature **172 °** Produced through: csg. **X** / _____ tbg. _____
(estimated)

Average gas/liquid ratio during test: **60,000** Cu. ft. / bbl / gravity of liquid **70** ° API (est)

Size of meter run or prover: **2-inch critical flow prover**
(Unable to save condensate during test; therefore, gas-liquid ratio and liquid gravity are estimates).

OBSERVED DATA

Wellhead shut-in pressure, P_w Casing **1876.3** Tubing **50*** PSIA
*Tubing pressure that of Drinkard oil zone, flowing)

Run No.	Orifice Size	Orifice x Line	Prover		Coefficient $C/24 \text{ hr}$	Wellhead Pr.		Flowing Temp.	
			Static P_m Paig	Diff. h_w		Casing P_{wc} Abs.	Tubing P_{wc} Abs.	Meter	Wellhead
1	1"		239.5		22.58	252.8			70
2	3/4"		369		12.49	382.3			73
3	1/4"		1,471		1.436	1,484.3			72

DATA FOR PLOTTING CURVE

Run No.	Delivery Rate in MCF per 24 hours (Q)	$P_f^2 - P_s^2$ (thousands)
1	5,381	4,806
2	4,571	4,708
3	2,304	1,883
4		
5		

Absolute Open Flow **5,363** MCF at **15.025 psi PB**

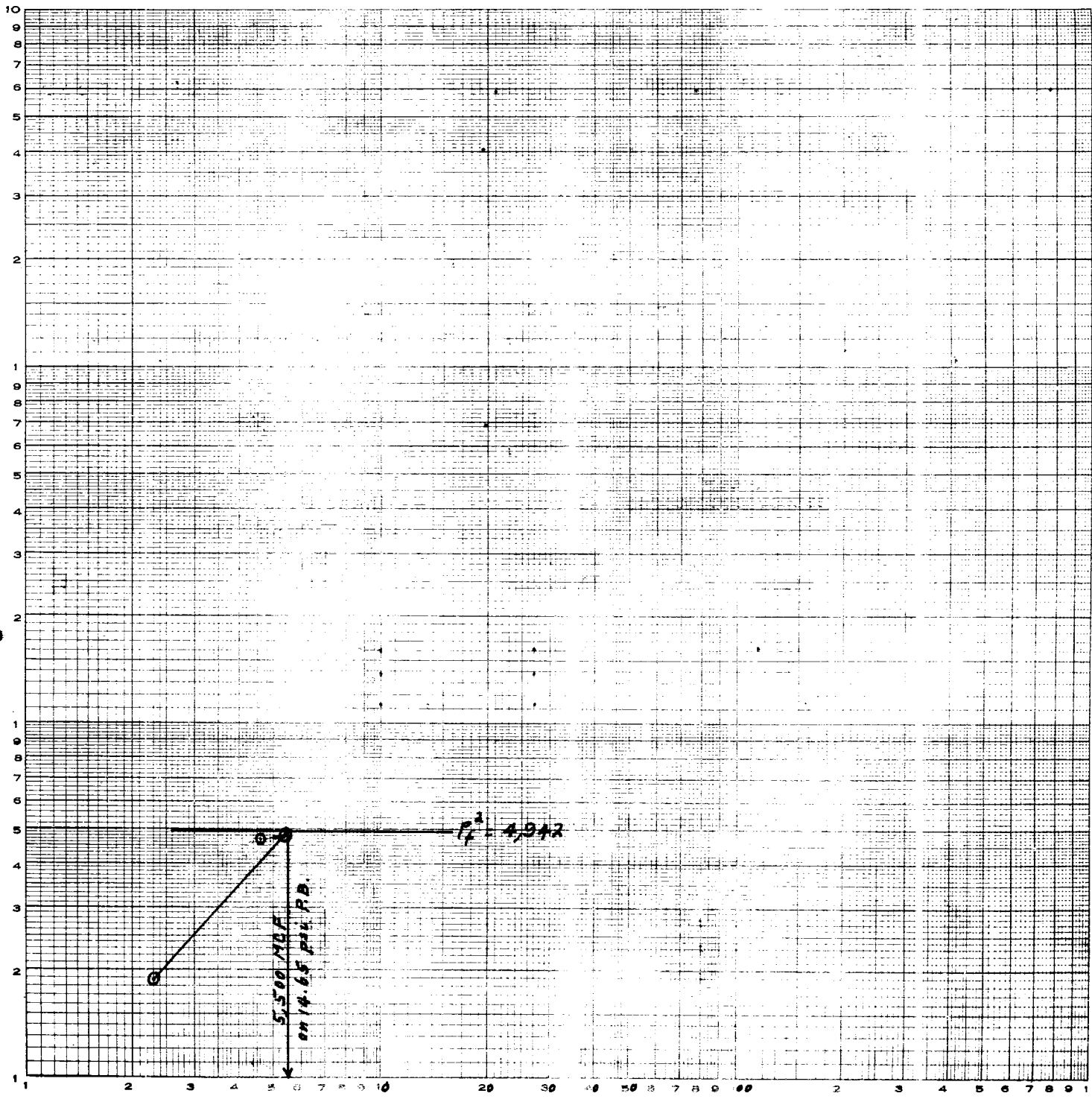
CERTIFICATION: I hereby swear or affirm that, to the best of my knowledge, the information given above is true and correct.

Name: **L. O. Storm** *L.O. Storm* Position: **Engineer**

Company: **Markham, Cone & Redfern** Address: **209 Turner Drive, Hobbs, New Mexico**

Please plot curve on back

$P_1^2 - P_2^2$ in thousands



Q , in MMCF per Day

New Well.....**X**.....
 Workover.....
 Re-Test.....
 Reclassified.....
 Oil to Gas.....

RAILROAD COMMISSION OF TEX. OIL AND GAS DIVISION

Form GWT-1
Back Pressure Test
for Gas Wells

RRC Dist. Field. **Drinkard** Reservoir. **Blinberry** County. **Lea, New Mexico**
 Well Owner. **Marichan, Cone & Redfern** Lease. **Eubanks** Well No. **1**
 Field Office Address. **209 Turner Drive, Hobbs, New Mexico** Location (Nearest town) **Bunice, New Mexico**
 Date of Test. **6-13-52** Acres Pipe Line Conn. **None** Survey. **14-21-37, 660 SAN**
 Gravity (Raw Gas) **(.700) assumed** Avg. Shut-In Temp. **116°F** Bottom Hole Temp. **172°F** @ **5582**
 Size CSG. **5 1/2** " Wt./Ft. Lbs. I. D. CSG. Set at **6512'**
 Size TBG. **2** " Wt./Ft. Lbs. I. D. TBG. Set at **---**
 Prod. Section From. **5510-5655** Avg. Prod. Length, (L) **5582**
 Elevation Date of Completion. **6-13-52** Producing through Tubing through Casing **X**
 Angle of Slope, $\theta =$ **48°** ; $n =$ **2 1/4 Prover** **FIELD DATA** **Annular Space**

Run No.	Time of Run Min.	Choke Size	Coefficient	Shut-In Press PSIA	Choke Temp. °F	Wellhead Press P_w PSIA	Wellhead Flow Temp. °F	P_w^2 (Thousands)
Shut-In (4 days)						1876.3		
1	5 hrs.	1"		239.5		252.8	70	63.91
2	7 hrs.	3/4"		369		382.3	73	146.15
3	6 1/2 hrs.	1/2"		1,471		1484.3	72	2,203.15
4								
5								

VOLUME CALCULATIONS

Run No.	Size Line Fig.-Tap	Size Orifice	Motor Coeff. 24 Hrs.	Static Pm	Diff. h _w	Flow Temp. °F	Temp. Factor F_T	Gravity Factor F_g	Compress Factor F_{pv}	Volume MCF/Day
1		1"	22.58	252.8		70	.9905	.9258	1.028	5,381
2		3/4"	12.49	382.3		73	.9877	.9258	1.047	4,571
3		1/2"	1.436	1484.3		72	.9887	.9258	1.181	2,304
4										
5										

Gas Liquid Hydrocarbon Ratio..... MCF per Bbl.

PRESSURE CALCULATIONS

Gravity of Liquid Hydrocarbons..... Deg.

Gas produced into pipe line during..... MCF.

$$(D e_{ff})^{8/3} = \dots 36.403 \dots \sqrt{T} = \sqrt{576} = 24.00$$

$$C = \frac{1118 \times (D e_{ff})^{8/3}}{\sqrt{T}} = \frac{1118 \times 36.403}{24.00} = 1695.7$$

$$\sqrt{GL} = \sqrt{.7(5582)} = 62.506 \dots \frac{\sqrt{GL}}{C} = \frac{62.506}{1695.7} = 0.03686$$

$$G_{mix} =$$

Run No.	R	R^2 (Thousands)	P_i	P_w/P_i	F	K	$S = \frac{1}{Z}$	E^{KS}	P_F/P_S a	P_F^2/P_S^2 a	$P_F^2 - P_S^2$
Shut-In											
1	198.3	39.323	321.3	.787	.898	.1130	1.219	1.148	369.9	136	4,806
2	168.5	28.392	417.8	.915	.959	.1206	1.225	1.159	484.2	234	4,708
3	84.9	7.208	1486.7	.998	.999	.1257	1.293	1.1765	1749.1	3059	1,883
4											
5											

OPEN FLOW TEST:

Shut-In Press	1863	Psig	
Time Shut-In	(4 days) 96	Hrs.	
Producing Through			
In. H ₂ O	In. Hg.	Psig.	
Time	Reading	Time	Reading
15		25	
20		30	

Absolute Open Flow..... 5,500 MCF/Day
(14.65 PB)

Comm: 5,363 MCF/D (15,025 P.3)

Conn:

Co:

Other: Test Run by C. M. Cole (EPNG)

Signatures

(See Reverse Side) Calculated by F. G. Bernard (EPNG)

REMARKS:

AFFIDAVIT

STATE OF TEXAS

COUNTY OF.....

BEFORE me, the undersigned authority, on this day personally appeared.....
....., known to me to be the person whose name is subscribed to this instru-
ment, who, after being by me duly sworn on oath, states that he is employed by or associated with.....
..... in the capacity of.....;
that these tests were made by affiant or under the supervision of affiant; that the test data and factual data
shown hereon are true and correct; and that no pertinent matter inquired about in said report has been
omitted.

Subscribed and Sworn to before me on this the.....day of....., 19.....

Notary Public in and for.....
County, Texas

MADRID, CONE, & REDFERN - EIDANK #1
 LER CO.; SEC. 14 - Twp 21E - R. 37E; 66° 34' W

