

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

RAILROAD COMMISSION OF TEXAS  
OIL AND GAS DIVISION

JOBS OFFICE CCC  
Form GWT-1  
Back Pressure Test  
for Gas Wells  
(Rev. 9-28-53)  
APR 5 AM 9:25

RRC Dist. Dallas-Mount Field Grayburg Reservoir Grayburg County Log  
Operator Simclair Oil & Gas Company Lease M.S. Berryman Well No. 1  
Field Office Address 520 East Broadway - Hobbs, New Mexico  
Date of Test 3-25-56 Acres 10 Pipe Line Conn. None Survey -  
Gravity (Raw Gas) 0.732 Avg. Shut-In Temp. 530 Bottom Hole Temp. 352 @ 3548'  
Size CSG. 7" Wt./Ft. 24 Lbs. I. D. CSG. 6.135 Set at 3785'  
Size TBG. 2-1/2" Wt./Ft. 6.5 Lbs. I. D. TBG. 2.441 Set at 3850'  
Prod. Section From 3548' - 3648' Avg. Prod. Length, (L) 3548'  
Elevation 3991' Date of Completion 3-18-56 Producing through Tubing X through Casing -  
Angle of Slope,  $\theta = 4/6$ ;  $n = 9.66$  FIELD DATA Packer set @ 3506'

Run No.	Time of Run Min.	Choke Size	Coefficient	Choke Press PSIA	Choke Temp. °F	Wellhead Press P <sub>w</sub> PSIA	Wellhead Flow Temp. °F	P <sub>w</sub> <sup>2</sup> (Thousands)
Shut-In	24 Hours					1070	66	1143
1	240					983	68	966
2	240					842	68	709
3	240					768	68	590
4	240					708	68	501
5								

2" Critical Flow Prover

VOLUME CALCULATIONS

Run No.	Size Line Fig.-Tap	Size Orifice	Meter Coeff. 24 Hrs.	Static P <sub>m</sub>	Diff. h <sub>w</sub>	Flow Temp. °F	Temp. Factor F <sub>ts</sub>	Gravity Factor F <sub>g</sub>	Compress Factor F <sub>cp</sub>	Volume MCF/Day
1		1/8"	.742	983		68	.9924	.9053	1.136	342
2		3/16"	.783	842		68	.9924	.9053	1.114	660
3		1/4"	1.001	768		68	.9924	.9053	1.304	823
4		1/4"	1.400	708		68	.9924	.9053	1.094	974
5										

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

PRESSURE CALCULATIONS

Gravity of Liquid Hydrocarbons..... Deg.

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

$$(D e_{ff})^{8/3} = 20.896 \quad \sqrt{T} = \sqrt{510} = 22.33$$

$$C = \frac{1118 \times (D e_{ff})^{8/3}}{\sqrt{T}} = \frac{1118 \times 20.896}{22.33} = 520$$

$$\sqrt{GL} = \sqrt{3548 \times .732} = 50.96$$

$$\frac{\sqrt{GL}}{C} = \frac{50.96}{520} = .0980$$

$$G_{mix} = .732$$

Run No.	R	R <sup>2</sup> (Thousands)	P <sub>1</sub>	R <sub>w</sub> /P <sub>1</sub>	F	K	S = 1/Z	E <sup>KS</sup>	P <sub>F</sub> a	P <sub>F</sub> <sup>2</sup> a	P <sub>F</sub> <sup>2</sup> - P <sub>S</sub> <sup>2</sup>
Shut-In						.0904	1.320	1.117	1806	1454	
1	33.5	1.1	984	.999	.999	.0902	1.297	1.114	1106	1223	231
2	64.7	4.2	845	.996	.996	.0901	1.277	1.112	843	983	999
3	86.7	6.5	772	.995	.997	.0901	1.260	1.111	663	768	706
4	95.5	9.1	714	.992	.996	.0900	1.257	1.110	600	640	614
5											

OPEN FLOW TEST:

Shut-In Press.....		Psig.....	
Time Shut-In.....		Hrs.....	
Producing Through.....			
In. H <sub>2</sub> O.....		In. Hg.....	
Psig.....			
Time	Reading	Time	Reading
15		25	
20		30	

Absolute Open Flow..... 1700 MCF/Day

Comm: .....

Conn: .....

Co: .....

Other: .....

Signatures

(See Reverse Side)

\*If Field is unnamed or name has not been accepted by the Commission's Austin Office give the name of the nearest town and the distance and direction the well is located from that town.

.....Miles in a ..... Direction from.....

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