

New Well
 Workover E. O. Carson # 19
 Re-Test
 Reclassified
 Oil to Gas

RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

Form GWT-1
Back Pressure Test
for Gas Wells

RRC Dist. Field Reservoir Blinberry County Lea, New Mexico
 Well Owner Magnolia Petroleum Company Lease E. O. Carson Well No. 19
 Field Office Address Box 727, Kermit, Texas Location (Nearest town) Alunice, New Mex.
 Date of Test 1-20-56 Acres Pipe Line Conn. Survey
 Gravity (Raw Gas) Avg. Shut-In Temp. 81°F Bottom Hole Temp. 95 @ 5537'
 Size CSG. 5 1/2" Wt./Ft. 17.0 Lbs. I. D. CSG. 4.892 Set at
 Size TBG. 2" Wt./Ft. 4.7 Lbs. I. D. TBG. 1.995 Set at
 Prod. Section From 5527 - 5546 Avg. Prod. Length. (L) 5537
 Elevation Date of Completion Producing through Tubing through Casing X
 Angle of Slope, $\theta =$ 45 ; $n =$ 1 FIELD DATA

Run No.	Time of Run Min.	Choke Size	Coefficient	Choke Press PSIA	Choke Temp. °F	Wellhead Press P _w PSIA	Wellhead Flow Temp. °F	P _w ² (Thousands)
Shut-In						1327	64°	3338
1	120	16/64	1.470	1193	66	1193	66	1423
2	120	18/64	1.885	1084	64	1084	64	1175
3	120	20/64	2.340	1007	68	1007	68	1014
4	120	22/64	2.866	962	65	962	65	925
5								

VOLUME CALCULATIONS

Run No.	Size Line Fig.-Tap	Size Orifice	Meter Coeff. 24 Hrs.	Static P _m	Diff. h _w	Flow Temp. °F	Temp. Factor F _{tr}	Gravity Factor F _g	Compress Factor F _{cp}	Volume MCF/Day
1							.9943	.8950	1.187	1852
2							.9963	.8950	1.175	2141
3							.9921	.8950	1.157	2422
4							.9952	.8950	1.150	2824
5										

Gas Liquid Hydrocarbon Ratio MCF per Bbl.

PRESSURE CALCULATIONS

Gravity of Liquid Hydrocarbons Deg.

Gas produced into pipe line during

$$(D e_{ff})^{8/3} = \dots 36.403 \dots \sqrt{T} = \sqrt{541} = \dots 23.26 \dots \text{MCF.}$$

$$C = \frac{1118 \times (D e_{ff})^{8/3}}{\sqrt{T}} = \frac{1118 \times 36.403}{23.26} = \dots 1,749.72 \dots$$

$$\sqrt{GL} = \sqrt{.749 \times 5537} = \dots 64.40 \dots \frac{\sqrt{GL}}{C} = \frac{64.40}{1,749.72} = \dots .0368 \dots$$

$$G_{mix} = .749$$

Run No.	R	R ² (Thousands)	P _i	P _w /P _i	F	K	S = 1/Z	E ^{KS}	P _F a	P _F ² a	P _F ² - P _S ²
Shut-In				1	1	0.1484	1.518	1.250	2273	5167	
1	68.15	4.6	1195	.998	.999	0.1436	1.533	1.246	1489	2217	2950
2	78.79	6.2	1087	.997	.999	0.1439	1.520	1.244	1352	1828	3339
3	89.13	8.0	1011	.996	.998	0.1430	1.493	1.237	1249	1560	3607
4	103.92	10.8	967	.995	.998	0.1435	1.506	1.241	1200	1440	3727
5											

OPEN FLOW TEST:

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

Absolute Open Flow 3,900 MCF/Day

Comm:

Conn:

Co:

Other:

Signatures

(See Reverse Side)

REMARKS:

AFFIDAVIT

STATE OF TEXAS

COUNTY OF Wichita }

BEFORE me, the undersigned authority, on this day personally appeared James A. Logan, Jr.
....., 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.....
Magnolia Petroleum Company..... in the capacity of Gas Engineer.....;
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 25 day of January, 1956.

My commission expires

June 1, 1957

W. F. Lincoln
Notary Public in and for Wichita County, Texas
County, Texas