

New Well

Workover

Re-Test

Reclassified

Oil to Gas

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISIONForm GWT-1
Back Pressure Test
for Gas Wells

RRC Dist. Field Tubb Reservoir Tubb County Lea, New Mexico
 Well Owner Magnolia Petroleum Company Lease E. O. Carson Well No. 19-T
 Field Office Address Box 727, Kermit, Texas Location (Nearest town) Eunice, New Mex.
 Date of Test 1-20-56 Acres Pipe Line Conn. Survey
 Gravity (Raw Gas) .737 Avg. Shut-In Temp. 545° Bottom Hole Temp. 104°F @ 6114
 Size CSG. 5 1/2" Wt./Ft. 18# Lbs. I. D. CSG. 4.905 Set at 8173
 Size TBG. 2" Wt./Ft. 4.7# Lbs. I. D. TBG. 1.995 Set at 6045'
 Prod. Section From 6066-6174 Avg. Prod. Length, (L) 6120
 Elevation Date of Completion Producing through Tubing X through Casing

Angle of Slope, $\theta =$; $n =$ 3

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						1869	66	
1	120	16/64	1.470	1555	65	1555	65	2418
2	120	18/64	1.885	1402	67	1402	67	1966
3	120	20/64	2.340	1195	65	1195	65	1428
4	120	22/64	2.866	1032	66	1032	66	1065
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_T	Gravity Factor F_g	Compress Factor F_{pw}	Volume MCF/Day
1						65	.9952	.9023	1.237	2,539
2						67	.9933	.9023	1.219	2,887
3						65	.9952	.9023	1.179	2,960
4						66	.9943	.9023	1.157	3,070
5										

Gas Liquid Hydrocarbon Ratio MCF per Bbl.

PRESSURE CALCULATIONS

Gravity of Liquid Hydrocarbons Deg.

Gas produced into pipe line during

$$(D e_{ff})^{8/3} = .6310 \dots \sqrt{T} = \sqrt{545} = 23.347 \dots$$

$$C = \frac{1118 \times (D e_{ff})^{8/3}}{\sqrt{T}} = \frac{1118 \times .6310}{\sqrt{545}} = 7054.6 \dots = 302.2$$

$$\sqrt{GL} = \sqrt{.737 \times 6120} = 67.16 \dots \frac{\sqrt{GL}}{C} = \frac{67.16}{302.2} = .2222$$

$$G_{mix} = .737$$

Run No.	R	R^2 (Thousands)	P_1	R_w/R_1	F	K	$S = \frac{1}{Z}$	E^{KS}	$\frac{P_F}{P_S} a$	$\frac{P_F^2}{P_S^2} a$	$P_F^2 - P_S^2$
Shut-In											
1	564.2	318.3	1654	.9401	.970	.1513	1.515	1.266	2366	5598	
2	641.5	411.5	1542	.9092	.956	.1491	1.510	1.252	2079	4322	1276
3	647.7	420.6	1364	.8761	.940	.1466	1.496	1.245	1698	2883	2715
4	682.2	465.4	1237	.8343	.920	.1435	1.479	1.236	1529	2338	3260
5											

OPEN FLOW TEST:

Shut-In Press. Psig			
Time Shut-In Hrs.			
Producing Through			
In. H_2O In. Hg. Psig			
Time	Reading	Time	Reading
15		25	
20		30	

Absolute Open Flow 3,950 MCF/Day

Comm:

Conn:

Co:

Other:

Signatures

(See Reverse Side)

REMARKS:

DUPLICATE

AFFIDAVIT

STATE OF TEXAS

COUNTY OF Seickler }

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.

James A. Logan, Jr.

Subscribed and Sworn to before me on this the 25 day of January, 1956

Jan 1, 1957

W. F. Linnen

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