STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

L CONSERVATION DIVISIO
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
FEB 28 1983
O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

c/5 File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 10/13/82	
Company: Liberty Oil & Gas Corporation		Connection: None			
Pool: Burton Flats — Wildcat		Formation: Morrow			Unit
Completion Date: ~~10/6/82~~ 10-15-82	Total Depth: ~~11650'~~ 11,950		Plug Back TD: 11650'	Elevation: 3265'GL	Farm or Lease Name: Lee Federal
Csg. Size: 5½"	Wt.: 20.0	d: 4.778	Set At: 11,944 ~~11650'~~	Perforations: From 11452' To 11534'	Well No.: 1
Tbg. Size: 2 3/8"	Wt.: 4.7	d: 1.995	Set At: 11397'	Perforations: Open Ended From To	Unit: E; Sec.: 25; Twp.: 20s; Rge.: 28e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 11397'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: –	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
11493'	–	0.6119	0.885	0.350	–	–	2.900	F

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g. DWT	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							3370	60	PACKER		70.0 hrs
1.	2.90	4/64	1.00	265	8	87	3330	72			1.0 hr
2.	2.90	5/64	1.00	265	17	86	3305	70			1.0 hr
3.	2.90	6/64	1.00	300	43	86	3235	73			1.0 hr
4.	2.90	7/64	1.00	300	72	87	3130	73			1.0 hr
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	4.801	47.18	278.2	0.9750	1.278	1.021	288.17
2	4.801	68.77	278.2	0.9759	1.278	1.021	420.43
3	4.801	116.05	313.2	0.9759	1.278	1.023	710.87
4	4.801	150.17	313.2	0.9750	1.278	1.023	919.02
5							

NO	P_t	Temp. °R	T_r	Z
1	0.42	547	1.53	0.960
2	0.42	546	1.53	0.960
3	0.46	546	1.53	0.956
4	0.46	547	1.53	0.956
5				

Gas Liquid Hydrocarbon Ratio 194.874 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 54.4 Deg.
Specific Gravity Separator Gas 0.6119 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 674 P.S.I.A. – P.S.I.A.
Critical Temperature 358 R – R

P_c 4801.2 P_c^2 23051.5

NO	P_t	P_w *	P_w^2	$P_c^2 - P_w^2$
1		4770.2	22754.8	296.7
2		4732.2	22393.7	657.8
3		4654.2	21661.6	1389.9
4		4548.2	20686.1	2365.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 9.745$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.538$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3251.6$

Post ID-3
3-11-83
Comp + BK

Absolute Open Flow 3235 Mcfd @ 15.025 | Angle of Slope θ 60°58' | Slope, n 0.555

Remarks: * BOTTOM HOLE PRESSURE @ (-8228) 11493' USED FOR PRESSURE CALCULATIONS
WELL PRODUCED 0.50 BBLS CONDENSATE IN 4.0 HOURS = 3.0 BC/D

Approved By Division	Conducted By:	Calculated By:	Checked By:
	JARREL WELL TESTING INC	JOE A. COLEMAN	PE #2208 JOE A. COLEMAN