NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

c)

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6/8/74	
Company: Great Basins Petroleum Co. & American Fuels Corp.			Connection: None		
Pool: Antelope Ridge			Formation: Morrow		Unit
Completion Date: 3/2/74	Total Depth: 14,210		Plug Back TD: 14,118	Elevation: 3505 DF	Farm or Lease Name: Antebellum Unit
Csg. Size: 5 1/2 / Wt.: 20.0 / d: 4.778 / Set At: 14,207			Perforations: From 13,476 To 13,454		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.50 / d: 2.441 / Set At: 13,197			Perforations: From Open End To		Unit: N / Sec.: 21 / Twp.: 23S / Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 13,197		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 178 @ 13,465	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
13,197	13,197	.588	0.64	0.33	0.00		X	Flange

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						7082	78		Choke	72
1.	4	X 2.5	500	7	90	6805	80		8/64	1
2.	4	X 2.5	500	24	80	6460	88		12/64	1
3.	4	X 2.5	575	54	75	5920	84		18/64	1
4.	4	X 2.5	970	56	85	5870	88		24/64	1
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	32.64	59.94	513.2	.9723	1.304	1.034	2565
2.	32.64	110.98	513.2	.9818	1.304	1.036	4802
3.	32.64	178.22	588.2	.9859	1.304	1.043	7800
4.	32.64	234.65	983.2	.9768	1.304	1.066	10899
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	0.76	550	1.57	.936
2.	0.76	540	1.54	.931
3.	0.88	535	1.53	.919
4.	1.46	545	1.56	.880
5.				

Gas Liquid Hydrocarbon Ratio: TSTM Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: - Deg.
Specific Gravity Separator Gas: .588 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 350 R ____ R

P_c 7095.2 P_c^2 5084.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		6828	46622	3720
2		6509	42367	7975
3		6030	36361	13981
4		5561	30925	19417
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.601$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.819$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 21,988$

Absolute Open Flow: 21,988 Mcfd @ 15.025 | Angle of Slope θ: 51° 1' | Slope, n: .809

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
John W. Runyan	W. J. Harris	Donna Holler	