

VAPOR

CHROMATOGRAPH CALCULATION



PHILLIPS PETROLEUM COMPANY

Recd 2-23-77
G-36

Sample From		GAS WELL		MOUNTAIN STATE PET CORP	
Well #1		HONDO STATE 1650N 1650W 36-14-27		N. Mex	
Field		Buffalo Valley		Formation	
		ATOKA-MARROW		TYPE TRAP	
Date Secured		2-14-77		Secured By	
		EGC		CHOKE	
Date Run		2-17-77		Run By	
		JB-DT		FLOW TUB PRESS	
Gauge Press.		580#		R. GVTY	
		580#		580#	
Baro. Press.		580#		PURPOSE	
		580#		SURVEY	
GAS Temp.		62°		Atmos. Temp.	
		62°		52°	

SULPHUR - GRS. PER 100 cu. Ft.		Hydrogen Sulphide		CO ₂ 2.00%		Total		Sweet	
SW-60A									
COMPONENT	STO.	CALCULATION	UNCORRECTED MOL %	CORRECTED MOL %	GPM & FACTOR	BTU FACTOR	SA GVTY FACTOR	SUPER COMP FACTOR	
Helium	.48	He ₂					.1382	.0170	
Hydrogen Sulphide		H ₂ S				.637.0	1.1765	.0985	
Carbon Dioxide	1.09	CO ₂		2.00			1.5175	.0640	
Nitrogen	4.97	N ₂	1.17	1.15			.9672	.0164	
Methane	69.73	C ₁	88.47	87.28		1009.7	.5539	.0436	
Ethane	9.28	C ₂	6.01	5.93	1.581	1768.8	1.0382	.0917	
Propane	6.37	C ₃	2.16	2.13	2.585	2517.5	1.5225	.1342	
Isobutane	3.01	IC ₄	.31	.31	.101	3252.7	2.0068	.1744	
Normal Butane	3.00	C ₄	.55	.54	.170	3262.1	2.0068	.1825	
Isopentane	1.00	IC ₅	.17	.17	.062	4000.3	2.4911	.2276	
Normal Pentane	1.03	C ₅	.14	.14	.051	4009.6	2.4911	.2377	
Hexane	2.03	C ₆	.18	.18	.074	4752.9	2.9753	.2830	
Heptane	2.03	C ₇	.17	.17	.077	5575.0	3.5094	.2830	
TOTAL			99.33	100.50	2.103	1517	6.55	.0511	

SUPER-COMPRESSIBILITY CALCULATIONS

$$\frac{1098}{\text{DAY BASIS BTU}} \times .9826 \div \frac{.9974}{(\text{COMP. FACTOR})} = \frac{1082}{\text{SATURATED BASIS BTU}}$$

$$\frac{6.55}{\text{UNCORR. CHLC. SP GVTY}} \times .9996 \div \frac{.9974}{(\text{COMP. FACTOR})} = \frac{.656}{\text{CALC. SP GVTY.}}$$

WELL & HOOD DATA: CALCULATIONS @ 14696 & 60°F.

OIL PRODUCTION 4.00 BOPD (EST)

GAS VOLUME 408 mcf/d

DISTRIBUTION

C. H. Roskamp
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Lab Files