SPR GAS CHROMATOGRAPHIC ANALYSES
Sample ID: West Hackberry, Sour

Date reported 4/19/2010

		Distillate fractions, ASTM D2892		
		C_5-175° F	175-250° F	250-375° F
		Wt. %	Wt. %	Wt. %
* Total **P**araffins		48.14	28.81	23.97
Total **I**so-paraffins		38.21	36.69	33.31
Total **A**romatics		2.64	8.49	24.07
Total **N**aphthenes		11.00	26.01	16.24
Unknowns		0.00	0.00	2.41
Paraffins	C2	0.00	0.00	0.00
	C3	0.02	0.01	0.00
	C4	1.12	0.09	0.03
	C5	24.09	0.68	0.11
	C6	22.64	3.43	0.12
	C7	0.27	18.36	0.52
	C8	0.00	6.24	6.44
	C9	0.00	0.00	8.41
	C10	0.00	0.00	6.71
	C11	0.00	0.00	1.64
	C12	0.00	0.00	0.00
Iso-paraffins	C4	0.08	0.01	0.00
	C5	11.52	0.42	0.07
	C6	23.74	1.76	0.09
	C7	2.86	16.08	0.33
	C8	0.02	17.89	3.47
	C9	0.00	0.53	14.51
	C10	0.00	0.00	10.37
	C11	0.00	0.00	4.43
	C12	0.00	0.00	0.02
Aromatics	C6	2.15	0.66	0.03
	C7	0.50	7.41	0.76
	C8	0.00	0.43	9.53
	C9	0.00	0.00	8.13
	C10	0.00	0.00	5.50
	C11	0.00	0.00	0.12
	C12	0.00	0.00	0.01
Naphthenes	C5	1.93	0.09	0.01
	C6	8.35	4.22	0.13
	C7	0.72	16.37	0.78
	C8	0.00	5.23	3.43
	C9	0.00	0.09	6.84
	C10	0.00	0.00	4.60
	C11	0.00	0.00	0.44
	C12	0.00	0.00	0.00

Debutanization Fraction	
Component	Wt. %
Methane	0.00
Ethane	1.40
Propane	24.84
i-Butane	14.68
n-Butane	51.40
2,2-dimethylpropane	0.16
i-Pentane	5.99
n-Pentane	1.47
C_6+	0.06

From PIANO analysis of whole crude	
Component	Wt. % of crude
Benzene	0.16
Toluene	0.53
Ethylbenzene	0.22
m-Xylene	0.32
p-Xylene	0.12
o-Xylene	0.22

High Temp. Sim. Dist.	
Recovery, Wt. %	°F
IBP:	<97.0
5%:	166.5
10%:	239.1
20%:	338.1
30%:	437.2
40%:	534.9
50%:	629.8
60%:	732.1
70%:	841.2
80%:	958.0
90%:	1132.9
95%:	1234.2
FBP	1338.2
Recovery at °F	Total, Wt.%
180	5.7
380	24.1
480	34.3
650	52.2
800	66.3
1050	85.5
1105	88.7
1328	98.3

* The modified D 5134 gas chromatographic PIAN method used provides for elution and identification of components up to a nominal n-C_{12} (420° F).