



OILFIELD ENVIRONMENTAL & COMPLIANCE, INC.

Client:	SAMPLE ID: 1104129-1
	Date Sampled:
	Date Analyzed:
Attn:	Lab Contact:
Facility:	Meter:
Description:	Pressure: 59 psig
Note: GOR Testing	Temperature: 201 °F

Component	Mole %	Weight %	Liq. Vol %			
Oxygen	0.00	0.00	0.00			
Nitrogen	0.00	0.00	0.00	Total Cut on Free Oil	4.40	Vol. %
Carbon Dioxide	31.31	43.25	26.53	BS&W Water	4.30	Vol. %
Hydrogen Sulfide	0.19	0.20	0.13	BS&W Sediment	0.10	Vol. %
Methane	44.74	22.53	37.65	BS&W Emulsion	<0.05	Vol. %
Ethane	16.63	15.70	22.08			
Propane	0.98	1.36	1.34			
i-Butane	0.78	1.42	1.27			
n-Butane	0.64	1.18	1.01			
i-Pentane	0.92	2.09	1.68	Gas/Oil Ratio =	9.957	scf/STB
n-Pentane	0.35	0.78	0.62			
Cyclohexane	1.69	4.57	2.85			
Heptanes	0.00	0.00	0.00			
Octanes	0.00	0.00	0.00			
Nonanes	1.43	5.75	3.99			
Decanes+	0.00	0.00	0.00			
N-Hexane	0.06	0.16	0.12			
2,2,4-Trimethylpentane	0.28	1.02	0.73			
Benzene	0.00	0.00	0.00			
Toluene	0.00	0.00	0.00			
Ethylbenzene	0.00	0.00	0.00			
Xylene	0.00	0.00	0.00			
Totals	100.0	100.0	100.0			

Reid Vapor Pressure-whole sample =	1.3	psig	
True Vapor Pressure-whole sample (100 °F) =	1.5	psia	Calc.
Specific Gravity-whole sample (60 °F) =	0.9899	g/cc	(Water = 1.000 g/cc)
API Gravity-whole sample =	11.4	API	Calc.
Average Boiling Point-whole sample =	736.3	°F	Calc.
Ave. Molecular Weight-whole sample =	280.0		Calc.
Specific Gravity-Decanes+ (60 °F) =	0.9903	g/cc	(Water = 1.000 g/cc)
API Gravity-Decanes+ =	11.4	API	Calc.
Average Boiling Point-Decanes+ =	770.3	°F	Calc.
Ave. Molecular Weight-Decanes+ =	310.0		Calc.
Specific Gravity-Flashed Gas (60 °F) =	1.0988	g/cc	(air = 1.000 g/cc)
API Gravity-Flashed Gas =	11.4	API	Calc.
Ave. Molecular Weight-Flashed Gas =	31.86		Calc.
Cubic Feet of Gas/Gallon of Liquid ( as Ideal Gas)	53.2	ft <sup>3</sup> /gal.	Calc.
Pounds Gas/Gallon of Liquid	16.3	lb/gal.	Calc.

Methods: EPA 8015/8021B, EPA 18, EPA 15/16, CARB, ASTM D-4007, D-1945, D-2597, D-3588, D-287, D-323  
 All calculations used physical constants from GPA 2145-09 & GPA TP-17 at 14.696 psia and 60 °F.

Julius G. Carstens, Lab Director