

# EMPACT ANALYTICAL SYSTEMS, INC

365 SOUTH MAIN STREET

BRIGHTON, CO 80601

(303) 637-0150

## EXTENDED NATURAL GAS ANALYSIS (\*DHA)

PROJECT NO. : 0312028 ANALYSIS NO. : 03  
 COMPANY NAME : COMPLIANCE PARTNERS ANALYSIS DATE: DECEMBER 7, 2003  
 ACCOUNT NO. : SAMPLE DATE : DECEMBER 4, 2003  
 PRODUCER : WESTERN GAS TO:  
 LEASE NO. : CYLINDER NO. : 0299  
 NAME/DESCRIP : MDU #6  
 \*\*\*FIELD DATA\*\*\*  
 SAMPLED BY: P SCHLAGEL AMBIENT TEMP.:  
 SAMPLE PRES.: 800 SAMPLE TEMP. 80 GRAVITY :  
 COMMENTS : NO PROBE

COMPONENT	MOLE %	MASS %	GPM@ 14.696	GPM@ 14.73
HELIUM	0.004	0.001	---	---
HYDROGEN	0.000	0.000	---	---
OXYGEN/ARGON	0.000	0.000	---	---
NITROGEN	0.117	0.184	---	---
CO2	2.279	5.619	---	---
METHANE	92.971	83.565	---	---
ETHANE	2.852	4.805	0.7610	0.7628
PROPANE	0.910	2.248	0.2502	0.2508
I-BUTANE	0.196	0.637	0.0640	0.0641
N-BUTANE	0.228	0.741	0.0717	0.0719
I-PENTANE	0.093	0.375	0.0339	0.0340
N-PENTANE	0.065	0.261	0.0235	0.0236
HEXANES PLUS	0.285	1.564	0.1187	0.1187
TOTALS	100.000	100.000	1.3230	1.3259

BTEX COMPONENTS MOLE% WT%	BTU @	14.696	14.73
BENZENE 0.009 0.038	NET DRY REAL :	947.15 /scf	949.34 /scf
ETHYLBENZENE 0.001 0.008 LOW	NET WET REAL :	930.64 /scf	932.83 /scf
TOLUENE 0.011 0.058	GROSS DRY REAL :	1049.59 /scf	1052.02 /scf
XYLENES 0.005 0.032 HIGH	GROSS WET REAL :	1031.30 /scf	1033.73 /scf
TOTAL BTEX 0.026 0.136	NET DRY REAL :	20095 /lb	20142 /lb
	GROSS DRY REAL :	22269 /lb	22321 /lb
	DENSITY (AIR=1):		0.6172
	COMPRESSIBILITY FACTOR :		0.99776

(CALC: GPA STD 2145-94 & TP-17 @14.696 & 60 F)

\*DHA (DETAILED HYDROCARBON ANALYSIS/NJ 1993)

: ASTM D6330

THIS DATA HAS BEEN ACQUIRED THROUGH APPLICATION OF CURRENT STATE-OF-THE-ART ANALYTICAL TECHNIQUES.

THE USE OF THIS INFORMATION IS THE RESPONSIBILITY OF THE USER. EMPACT ANALYTICAL SYSTEMS, ASSUMES NO

RESPONSIBILITY FOR ACCURACY OF THE REPORTED INFORMATION NOR ANY CONSEQUENCES OF ITS APPLICATION.

49-013-20123  
 SW NW 1-38-90  
 Fremont County  
 Madden Field  
 Ft. Union Fm.

**EMPACT ANALYTICAL SYSTEMS, INC**

365 SOUTH MAIN STREET

BRIGHTON, CO 80601

(303) 637-0150

E & P /GlyCalc Information

PROJECT NO. :	0312028	ANALYSIS NO. :	03
COMPANY NAME :	COMPLIANCE PARTNERS	ANALYSIS DATE:	DECEMBER 7, 2003
ACCOUNT NO. :		SAMPLE DATE :	DECEMBER 4, 2003
PRODUCER :	WESTERN GAS	TO:	
LEASE NO. :		CYLINDER NO. :	0299
NAME/DESCRIP :	MDU #6		
***FIELD DATA***			
SAMPLED BY:	P SCHLAGEL	AMBIENT TEMP.:	
SAMPLE PRES. :	800	GRAVITY :	
COMMENTS :	NO PROBE	SAMPLE TEMP. :	80

<u>Component</u>	<u>Mole %</u>	<u>Wt %</u>
Helium	0.004	0.001
Hydrogen	0.000	0.000
Methane	0.000	0.000
Carbon Dioxide	2.279	5.619
Nitrogen	0.117	0.184
Methane	92.971	83.565
Ethane	2.852	4.805
Propane	0.910	2.248
Isobutane	0.196	0.637
n-Butane	0.228	0.741
Isopentane	0.093	0.375
n-Pentane	0.065	0.261
Cyclopentane	0.006	0.023
n-Hexane	0.026	0.123
Cyclohexane	0.021	0.100
Other Hexanes	0.066	0.314
Heptanes	0.045	0.258
Methycyclohexane	0.037	0.205
2,2,4 Trimethylpentane	0.000	0.000
Benzene	0.009	0.038
Toluene	0.011	0.058
Ethylbenzene	0.001	0.008
Xylenes	0.005	0.032
C8+ Heavies	0.058	0.405
<b>Subtotal</b>	<u>100.000</u>	<u>100.000</u>
Oxygen	0.000	0.000
<b>Total</b>	<u>100.000</u>	<u>100.000</u>