



PRIMARY DB KEY: NAME/DESCRIP: **MORRIS 13-4**
 LEASE #:
 FIELD/ AREA:

PROJECT NO.: **201908133** ANALYSIS NO.: **13**
 COMPANY NAME: **RENEGADE OIL & GAS COMPANY** ANALYSIS DATE: **AUGUST 27, 2019 14:59**
 OFFICE / BRANCH: **AURORA, CO** SAMPLE DATE: **AUGUST 21, 2019**
 CUSTOMER REF: TO:
 PRODUCER: EFFECTIVE DATE:

FIELD DATA

SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES.: 13 psig PROBE: NO
 FLOW PRES.: psig CYLINDER NO.: 0215
 LAB PRES: psig SAMPLED BY: CODY BAYLIS
 SAMPLE TEMP.: 70 °f SAMPLING COMPANY: RENEGADE
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **.5** ppm
 H2O BY STAIN TUBE: #/mmcf CO2 BY STAIN TUBE: Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.02	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.01	-	-
NITROGEN	1.86	-	-
CO2	3.46	-	-
METHANE	55.07	-	-
ETHANE	13.70	3.6662	3.6862
PROPANE	14.61	4.0273	4.0493
ISOBUTANE	1.44	0.4714	0.4740
N-BUTANE	5.38	1.6972	1.7064
ISOPENTANE	1.21	0.4423	0.4448
N-PENTANE	1.22	0.4423	0.4448
HEXANES+	2.01	0.8727	0.8774
TOTAL	100.00	11.6194	11.6829

BTU @ 60 DEG F

	14.65	14.73
GROSS DRY REAL =	1594.0 /scf	1602.7 /scf
GROSS SATURATED REAL =	1566.1 /scf	1574.8 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	1.0025	
GRAVITY (LB/SCF)	0.07652	
COMPRESSIBILITY FACTOR :	0.99383	

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS

Reference: Per GPA 2172-14 sec 9

The C6+ is derived from the following ratios of C6, C7 & C8+ respectively: **60% 30% 10%**

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