



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-103-10152** NAME/DESCRIP : **120280014 FIGURE FOUR 8011D K18 498**
 LEASE #: **PRODUCTION CASING**
 FIELD/AREA:

PROJECT NO. : **202503106** ANALYSIS NO. : **03**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **APRIL 09, 2025 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **MARCH 13, 2025 13:10**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING, LLC** EFFECTIVE DATE:

*****FIELD DATA*****

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : 219 psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-757**
 LAB PRES: psig SAMPLED BY : **NICK SMITH**
 SAMPLE TEMP. : 30 °f SAMPLING COMPANY: **QB ENERGY**
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **-** ppm mol
 H2O BY STAIN TUBE: **-** #/mmcf CO2 BY STAIN TUBE: **-** Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	d13C % VPDB	dD % VSMOW
HELIUM	0.01	-	-	-
HYDROGEN	0.06	-	-	-
OXYGEN/ARGON	0.01	-	-	-
NITROGEN	0.37	-	-	-
CO2	2.54	-	-8.6	-
METHANE	85.48	-	-41.0	-198
ETHANE	6.84	1.8244	-29.9	-
PROPANE	2.63	0.7248	-27.4	-
ISOBUTANE	0.54	0.1759	-28.4	-
N-BUTANE	0.66	0.2079	-26.8	-
ISOPENTANE	0.26	0.0910	0.0	-
N-PENTANE	0.21	0.0760	0.0	-
HEXANES+	0.38	0.1559	-	-
TOTAL	100.00	3.2559		

BTU @ 60 DEG F

14.65
 GROSS DRY REAL = 1126.9 /scf
 GROSS SATURATED REAL = 1107.2 /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) 0.6741
 GRAVITY (LB/SCF) 0.05146
 COMPRESSIBILITY FACTOR : 0.99720

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%**

The NG Composition File #: **202503106-03-A-383**
 The Isotopic Data File #: **DIG-039425**

Note: Stable isotope results based on multi-point laboratory calibration

Precision δ¹³C < 0.5 ‰ Precision δD < 5.0 ‰

Values in red represent low peak heights. Interpret with caution.

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