



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-045-14659** NAME/DESCRIP : **110165709 EF 12C D31**
 LEASE #: **PRODUCTION CASING**
 FIELD/AREA:

PROJECT NO. : **202507063** ANALYSIS NO. : **02**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **JULY 18, 2025 17:35**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **JUNE 25, 2025**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING, LLC** EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **377** psig PROBE : **NO PROBE**
 FLOW PRES. : psig CYLINDER NO. : **ECA-751**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : **76** °f SAMPLING COMPANY: **QB ENERGY OPERATING, LLC**
 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	0.00	-	-	-
HYDROGEN	0.00	-	-	-
OXYGEN/ARGON	0.01	-	-	-
NITROGEN	0.11	-	-	-
CO2	4.04	-	-5.9	-
METHANE	89.27	-	-36.1	-171
ETHANE	4.67	1.2471	-26.7	-
PROPANE	1.02	0.2798	-24.3	-
ISOBUTANE	0.27	0.0879	-23.7	-
N-BUTANE	0.18	0.0570	-23.0	-
ISOPENTANE	0.11	0.0360	0.0	-
N-PENTANE	0.05	0.0180	0.0	-
HEXANES+	0.28	0.1169	-	-
TOTAL	100.00	1.8427		

BTU @ 60 DEG F

14.65

GROSS DRY REAL = **1043.8** /scf
 GROSS SATURATED REAL = **1025.6** /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) 0.6426
 GRAVITY (LB/SCF) 0.04904
 COMPRESSIBILITY FACTOR : 0.99760

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 #: **202507063-02-A-484**
 The Isotopic Data File #: **DIG-040465**

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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