



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-103-11165** NAME/DESCRIP : **PICEANCE CREEK UNIT 297-12A8**
 LEASE #: **COC - 47666A, 125190177** **INTERMEDIATE CASING**
 FIELD/AREA:

PROJECT NO. : **202409060** ANALYSIS NO. : **02**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **SEPTEMBER 26, 2024 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **SEPTEMBER 11, 2024 12:45**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING, LLC** EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **2** psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : **ECA-700**
 LAB PRES: psig SAMPLED BY : **ANDREW T.**
 SAMPLE TEMP. : **70** °f SAMPLING COMPANY: **QB ENERGY OPERATING**
 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	0.01	-	-	-
OXYGEN/ARGON	0.00	-	-	-
NITROGEN	0.07	-	-	-
CO2	6.67	-	0.0	-
METHANE	86.09	-	-37.1	-174
ETHANE	4.92	1.3112	-28.7	-
PROPANE	1.12	0.3078	-26.5	-
ISOBUTANE	0.29	0.0949	-26.4	-
N-BUTANE	0.22	0.0690	-26.2	-
ISOPENTANE	0.12	0.0400	-25.2	-
N-PENTANE	0.07	0.0250	-26.3	-
HEXANES+	0.42	0.1599	-	-
TOTAL	100.00	2.0078		

BTU @ 60 DEG F

14.65
 GROSS DRY REAL = **1027.5** /scf
 GROSS SATURATED REAL = **1009.5** /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) **0.674**
 GRAVITY (LB/SCF) **0.05144**
 COMPRESSIBILITY FACTOR : **0.99750**

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 #: **202409060-02-A-235**
 The Isotopic Data File #: **DIG-037089**

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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