



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-103-09997** NAME/DESCRIP : **PCU 8-1 4602**
 LEASE #: **PRODUCTION CSG**
 FIELD/AREA:
 PROJECT NO. : **202505077** ANALYSIS NO. : **02**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **MAY 22, 2025 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **MAY 1, 2025**
 CUSTOMER REF: TO:
 PRODUCER : **QB ENERGY OPERATING LLC** EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES. : **543** psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : **ECA-742**
 LAB PRES: psig SAMPLED BY : **NICK CROY**
 SAMPLE TEMP. : °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	0.00	-	-	-
HYDROGEN	0.01	-	-	-
OXYGEN/ARGON	0.00	-	-	-
NITROGEN	0.09	-	-	-
CO2	4.14	-	-2.3	-
METHANE	86.75	-	-38.3	-177
ETHANE	6.07	1.6211	-26.1	-
PROPANE	1.59	0.4368	-23.0	-
ISOBUTANE	0.38	0.1269	-22.8	-
N-BUTANE	0.29	0.0940	-22.1	-
ISOPENTANE	0.16	0.0550	0.0	-
N-PENTANE	0.09	0.0330	0.0	-
HEXANES+	0.42	0.1509	-	-
TOTAL	100.00	2.5177		

BTU @ 60 DEG F

14.65

GROSS DRY REAL = **1073.7** /scf
 GROSS SATURATED REAL = **1054.9** /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) 0.663
 GRAVITY (LB/SCF) 0.05060
 COMPRESSIBILITY FACTOR : 0.99740

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 #: **202505077-02-A-423**
 The Isotopic Data File #: **DIG-039754**

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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