



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-045-14501** NAME/DESCRIP : **110180266 M8 PUCKETT 41D-25D**
 LEASE #: **05-045-14501** **BRADEN HEAD**
 FIELD/AREA: **GRAND VALLEY**

PROJECT NO. : **202511015** ANALYSIS NO. : **01**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **NOVEMBER 18, 2025 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **OCTOBER 16, 2025**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING LLC** EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : 366 psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-767**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : 51 °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 | 0.09 | - | - | - |
| OXYGEN/ARGON | 0.00 | - | - | - |
| NITROGEN | 0.06 | - | - | - |
| CO2 | 2.50 | - | -6.1 | - |
| METHANE | 88.35 | - | -37.3 | -185 |
| ETHANE | 6.21 | 1.6531 | -27.6 | - |
| PROPANE | 1.68 | 0.4618 | -25.3 | - |
| ISOBUTANE | 0.35 | 0.1139 | -25.8 | - |
| N-BUTANE | 0.29 | 0.0910 | -24.2 | - |
| ISOPENTANE | 0.13 | 0.0440 | -24.9 | - |
| N-PENTANE | 0.07 | 0.0250 | 0.0 | - |
| HEXANES+ | 0.26 | 0.1039 | - | - |
| TOTAL | 100.00 | 2.4927 | | |

BTU @ 60 DEG F

14.65
 GROSS DRY REAL = 1085.1 /scf
 GROSS SATURATED REAL = 1066.1 /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) 0.6435
 GRAVITY (LB/SCF) 0.04912
 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 #: **202511015-01-A-563**
 The Isotopic Data File #: **DIG-042228**

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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