



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY:	05-045-10404	NAME/DESCRIP :	300106027 OD34 TIPPING 27-14
LEASE #:			CASING
FIELD/AREA:			
PROJECT NO. :	202501103	ANALYSIS NO. :	02
COMPANY NAME :	QB ENERGY OPERATING, LLC	ANALYSIS DATE:	FEBRUARY 11, 2025 00:00
OFFICE / BRANCH:	PARACHUTE, CO	SAMPLE DATE :	JANUARY 13, 2025
CUSTOMER REF:		TO:	
PRODUCER :	QB ENERGY OPERATING, LLC	EFFECTIVE DATE:	

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

SAMPLE CYCLE:		SAMPLE TYPE:	SPOT
SAMPLE PRES. :	148 psig	PROBE :	NO
FLOW PRES. :	psig	CYLINDER NO. :	ECA-817
LAB PRES:	psig	SAMPLED BY :	MIKE KELLEY
SAMPLE TEMP. :	16 °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	0.00	-	-	-
OXYGEN/ARGON	0.00	-	-	-
NITROGEN	0.06	-	-	-
CO2	1.12	-	-9.0	-
METHANE	91.11	-	-37.2	-180
ETHANE	5.17	1.3811	-27.3	-
PROPANE	1.51	0.4147	-25.8	-
ISOBUTANE	0.31	0.1009	-26.6	-
N-BUTANE	0.32	0.1009	-25.4	-
ISOPENTANE	0.13	0.0440	-26.0	-
N-PENTANE	0.08	0.0330	-24.4	-
HEXANES+	0.19	0.0780	-	-
TOTAL	100.00	2.1526		

BTU @ 60 DEG F

	14.65	
GROSS DRY REAL =	1087.3	/scf
GROSS SATURATED REAL =	1068.3	/scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	0.6226
GRAVITY (LB/SCF)	0.04751
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 #: **202501103-02-A-340**
 The Isotopic Data File #: **DIG-038830**

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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