ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY:	**05-103-11165**	NAME/DESCRIP :	**PICEANCE CREEK UNIT 297-12A8**
LEASE #:	**COC - 47666A, 125190177**		**PRODUCTION CASING**
FIELD/AREA:			
PROJECT NO. :	**202409060**	ANALYSIS NO. :	**01**
COMPANY NAME :	**QB ENERGY OPERATING, LLC**	ANALYSIS DATE:	SEPTEMBER 26, 2024 00:00
OFFICE / BRANCH:	PARACHUTE, CO	SAMPLE DATE :	SEPTEMBER 11, 2024 12:40
CUSTOMER REF:		TO:	
PRODUCER :	QB ENERGY OPERATING, LLC	EFFECTIVE DATE:	

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

SAMPLE CYCLE:			SAMPLE TYPE:	SPOT	
SAMPLE PRES. :	201	psig	PROBE :		
FLOW PRES. :		psig	CYLINDER NO. :	ECA-767	
LAB PRES:		psig	SAMPLED BY :	ANDREW T.	
SAMPLE TEMP. :	70	°f	SAMPLING COMPANY:	QB ENERGY OPERATIN	
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	0.05	-	-	-
CO2	6.59	-	-3.9	-
METHANE	86.13	-	-36.7	-181
ETHANE	4.91	1.3092	-25.9	-
PROPANE	1.13	0.3108	-23.5	-
ISOBUTANE	0.29	0.0949	-24.0	-
N-BUTANE	0.22	0.0690	-23.4	-
ISOPENTANE	0.12	0.0400	-23.0	-
N-PENTANE	0.08	0.0290	0.0	-
HEXANES+	0.48	0.1949	-	-
TOTAL	100.00	2.0478		

BTU @ 60 DEG F		**14.65**	
	GROSS DRY REAL =	1032.0	**/scf**
	GROSS SATURATED REAL =	1014.0	**/scf**

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	0.6756
GRAVITY (LB/SCF)	0.05156
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 #: **202409060-01-A-247**
The Isotopic Data File #: **DIG-037088**

Note:Stable isotope results based on multi-point laboratory calibration
Presicion $\delta^{13}C$ < 0.5 ‰ **Precision δD < 5.0 ‰**
Values in red represent low peak heights. Interpret with caution.