

Gas Composition and Properties

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Effective May 16, 2017 11:24 - May 8, 2018 00:00

Source #: 100203432
Name: COLORADO STATE C-5

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	3.0351		3.8126
Nitrogen, N2	0.5857		0.4683
Methane, C1	36.0463		16.5059
Ethane, C2	18.3825	4.9682	15.7772
Propane, C3	23.7264	6.6057	29.8630
iso-Butane, iC4	2.8123	0.9300	4.6656
n-Butane, nC4	9.9816	3.1801	16.5596
iso-Pentane, iC5	1.6515	0.6104	3.4011
n-Pentane, nC5	1.8386	0.6735	3.7864
Neo-Pentane, NeoC5			
Hexanes Plus, C6+	1.9400	0.8555	5.1603
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	67.373	
Cricondentherm	203.979	
HV, Dry @ Base P, T	1968.32	
HV, Sat @ Base P, T	1934.06	
HV, Sat @ Sample P, T	1834.54	
Relative Density	1.2222	

C6+: 60 - 30 - 10

Totals 100.0000 17.8240 100.0000

Sample

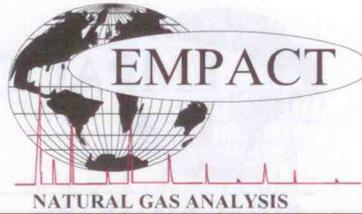
Date: 05/16/2017 Pressure: 20.5
Type: Spot Temperature 130.0
Tech: M. COTNER H2O: lbs/mm
H2S: 2 ppm

Remarks:

Analysis

Date: 05/31/2017 Instrument: 103
Cylinder:
Tech: B. GEHRMAN

Remarks:



PRIMARY DB KEY: NAME/DESCRIP : STATE OF COLORADO C 5
 LEASE #: 05-001-09194
 FIELD/ AREA:
 PROJECT NO. : 201907047 ANALYSIS NO. : 06
 COMPANY NAME : RENEGADE OIL & GAS COMPANY ANALYSIS DATE: JULY 15, 2019 15:21
 OFFICE / BRANCH: AURORA, CO SAMPLE DATE : JULY 9, 2019
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:
*****FIELD DATA*****
 SAMPLE CYCLE: SAMPLE TYPE:
 SAMPLE PRES. : 12 psig PROBE :
 FLOW PRES. : psig CYLINDER NO. : 1082
 LAB PRES: psig SAMPLED BY : CODY BAYLIS
 SAMPLE TEMP. : 80 °f SAMPLING COMPANY: RENEGADE
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: 1 ppm
 H2O BY STAIN TUBE: #/mmcf CO2 BY STAIN TUBE: Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	GPM @ 14.73
HELIUM	0.00	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.00	-	-
NITROGEN	0.37	-	-
CO2	3.04	-	-
METHANE	36.39	-	-
ETHANE	17.99	4.8317	4.8581
PROPANE	22.67	6.2725	6.3067
ISOBUTANE	2.46	0.8085	0.8129
N-BUTANE	9.37	2.9661	2.9823
ISOPENTANE	2.07	0.7601	0.7643
N-PENTANE	2.56	0.9323	0.9374
HEXANES+	3.07	1.3381	1.3454
TOTAL	100.00	17.9093	18.0071

BTU @ 60 DEG F

	14.65	14.73
GROSS DRY REAL =	1998.4 /scf	2009.3 /scf
GROSS SATURATED REAL =	1963.5 /scf	1974.4 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	1.235	
GRAVITY (LB/SCF)	0.09424	
COMPRESSIBILITY FACTOR :	0.99012	

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%

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