



PRIMARY DB KEY: NAME/DESCRIP : SNOWBIRD 13-33
 LEASE #: GAS AT SEPARATOR

PROJECT NO. : 201712120 ANALYSIS NO. : 09
 COMPANY NAME : NIGHTHAWK PRODUCTION COMPANY ANALYSIS DATE: DECEMBER 27, 2017 10:19
 OFFICE / BRANCH: HIGHLANDS RANCH, CO SAMPLE DATE : DECEMBER 20, 2017 12:10
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

FIELD DATA

SAMPLE CYCLE: SAMPLE TYPE: SPOT
 SAMPLE PRES.: 24 psig PROBE : NO
 FLOW PRES.: psig CYLINDER NO. : 1416
 LAB PRES: psig SAMPLED BY : JOHN MOSER
 SAMPLE TEMP.: 84.5 °f SAMPLING COMPANY: EMPACT
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: 5.0 ppm
 H2O BY STAIN TUBE : #/mmcf CO2 BY STAIN TUBE: Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.73	GPM @ 14.65
HELIUM	0.54	-	-
HYDROGEN	0.01	-	-
OXYGEN/ARGON	0.36	-	-
NITROGEN	44.11	-	-
CO2	2.37	-	-
METHANE	23.30	-	-
ETHANE	5.04	1.3523	1.3449
PROPANE	12.38	3.4229	3.4043
ISOBUTANE	2.03	0.6671	0.6635
N-BUTANE	5.85	1.8513	1.8413
ISOPENTANE	1.06	0.3894	0.3873
N-PENTANE	1.28	0.4658	0.4633
HEXANES+	1.67	0.7274	0.7235
TOTAL	100.00	8.8762	8.8281

BTU @ 60 DEG F

	14.73	14.65
GROSS DRY REAL =	1078.8 /scf	1072.9 /scf
GROSS SATURATED REAL =	1060.0 /scf	1054.1 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	1.1073	
GRAVITY (LB/SCF)	0.08452	
COMPRESSIBILITY FACTOR :	0.99619	

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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