



PRIMARY DB KEY: NAME/DESCRIP : **BIG SKY 13-11**
 LEASE #: **GAS AT SEPARATOR**

PROJECT NO. : **201712120** ANALYSIS NO. : **03**
 COMPANY NAME : **NIGHTHAWK PRODUCTION COMPANY** ANALYSIS DATE: **DECEMBER 27, 2017 08:17**
 OFFICE / BRANCH: **HIGHLANDS RANCH, CO** SAMPLE DATE : **DECEMBER 20, 2017 08:40**
 CUSTOMER REF: TO:
 PRODUCER : EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : 27 psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **0450**
 LAB PRES: psig SAMPLED BY : **JOHN MOSER**
 SAMPLE TEMP. : 80.6 °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	0.99	-	-
HYDROGEN	0.05	-	-
OXYGEN/ARGON	0.44	-	-
NITROGEN	50.61	-	-
CO2	4.03	-	-
METHANE	24.87	-	-
ETHANE	3.94	1.0561	1.0504
PROPANE	5.60	1.5465	1.5381
ISOBUTANE	1.21	0.3969	0.3948
N-BUTANE	4.04	1.2762	1.2692
ISOPENTANE	0.98	0.3587	0.3568
N-PENTANE	1.42	0.5155	0.5127
HEXANES+	1.82	0.7918	0.7875
TOTAL	100.00	5.9417	5.9095

BTU @ 60 DEG F

	14.73	14.65
GROSS DRY REAL =	826.5 /scf	822.0 /scf
GROSS SATURATED REAL =	812.1 /scf	807.6 /scf
RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	1.0447	
GRAVITY (LB/SCF)	0.07972	
COMPRESSIBILITY FACTOR :	0.99748	

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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