

Lab #: 657188 Job #: 37837 IS-94649 Co. Job#:
 Sample Name: Pratt 4G / Intermediate CSG Co. Lab#:
 Company: Crestone Peak Resources
 API/Well:
 Container: IsoTube®
 Field/Site Name: Bradenhead Testing
 Location:
 Formation:
 Sampling Point: 434525
 Date Sampled: 2/26/2018 13:45 Date Received: 3/26/2018 Date Reported: 6/01/2018

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0056			
Hydrogen -----	0.0157			
Argon -----	0.640			
Oxygen -----	14.43			
Nitrogen -----	52.82			
Carbon Dioxide -----	0.056			
Methane -----	32.00	-44.56	-307.0	
Ethane -----	0.0066			
Ethylene -----	0.0008			
Propane -----	0.0047			
Propylene -----	0.0093			
Iso-butane -----	0.0018			
N-butane -----	0.0040			
Iso-pentane -----	0.0024			
N-pentane -----	0.0025			
Hexanes + -----	0.0042			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 325

Specific gravity, calculated: 0.858

Remarks: Cost Center 13175931

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.