

Lab #: 836196 Job #: 51729 IS-107464 Co. Job#:
 Sample Name: Ignacio 34-8 #3-18 wellbore Co. Lab#:
 Company: Cottonwood Consulting, LLC
 API/Well:
 Container: IsoFlask
 Field/Site Name: Ignacio 34-8 #3-18
 Location:
 Formation:
 Sampling Point:
 Date Sampled: 7/25/2022 15:00 Date Received: 7/29/2022 Date Reported: 9/22/2022

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0083			
Hydrogen -----	nd			
Argon -----	0.825			
Oxygen -----	17.91			
Nitrogen -----	71.50			
Carbon Dioxide -----	nd			
Methane -----	8.86	-43.30	-185.7	
Ethane -----	0.660	-26.75		
Ethylene -----	nd			
Propane -----	0.154	-25.3		
Propylene -----	0.0001			
Iso-butane -----	0.0268	-26.4		
N-butane -----	0.0270	-24.6		
Iso-pentane -----	0.0065			
N-pentane -----	0.0043			
Hexanes + -----	0.0187			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 108

Specific gravity, calculated: 0.961

Remarks: Carbon of propane, iC4 and nC4 obtained online via GC-C-IRMS.
 Insufficient iC5 and nC5 concentration for carbon isotope analysis.

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. %.