

Lab #: 660665 Job #: 38038 IS-99404 Co. Job#: _____
 Sample Name: Derbonne Relief Well Co. Lab#: _____
 Company: Approach Environmental, LLC Cylinder: 2793
 API/Well: _____
 Container: Cylinder
 Field/Site Name: Derbonne
 Location: _____
 Formation: _____
 Sampling Point: _____
 Date Sampled: 4/11/2018 9:50 Date Received: 4/17/2018 Date Reported: 5/30/2018

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	nd			
Oxygen -----	nd			
Nitrogen -----	0.20			
Carbon Dioxide -----	nd			
Methane -----	98.53	-37.07	-146.4	
Ethane -----	1.12	-23.28		
Ethylene -----	nd			
Propane -----	0.102	-18.51		
Propylene -----	0.0002			
Iso-butane -----	0.0246			
N-butane -----	0.0141			
Iso-pentane -----	0.0053			
N-pentane -----	0.0023			
Hexanes + -----	0.0051			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1023

Specific gravity, calculated: 0.562

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. %.

Lab #: 660666 Job #: 38038 IS-99404 Co. Job#: _____
 Sample Name: Derbonne 27-34 HC #1 AIT Co. Lab#: _____
 Company: Approach Environmental, LLC Cylinder: 3017
 API/Well: _____
 Container: Cylinder
 Field/Site Name: Derbonne
 Location: _____
 Formation: _____
 Sampling Point: _____
 Date Sampled: 4/11/2018 10:15 Date Received: 4/17/2018 Date Reported: 5/30/2018

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	nd			
Oxygen -----	nd			
Nitrogen -----	0.038			
Carbon Dioxide -----	2.25			
Methane -----	97.26	-36.26	-143.7	
Ethane -----	0.424	-27.46		
Ethylene -----	nd			
Propane -----	0.0223			
Propylene -----	nd			
Iso-butane -----	0.0029			
N-butane -----	0.0033			
Iso-pentane -----	0.0007			
N-pentane -----	0.0006			
Hexanes + -----	0.0014			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 995

Specific gravity, calculated: 0.578

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. %.