

Lab #: 815644 Job #: 49955 IS-65777 Co. Job#:
 Sample Name: CS-4.5 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: CarbonSafe ND
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 1/28/2022 14:30 Date Received: 1/31/2022 Date Reported: 3/04/2022

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	0.912				
Oxygen -----	21.10				
Nitrogen -----	77.85				
Carbon Dioxide -----	0.14	-17.0			
Methane -----	0.0003				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	0.0007				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.001

Remarks:

Insufficient methane concentration for isotopic analysis. $\delta^{13}\text{C}$ CO_2 obtained online via GC-C-IRMS. Insufficient CO_2 concentration for ^{14}C 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. %.

Lab #: 815645 Job #: 49955 IS-65777 Co. Job#:
 Sample Name: CS-9 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: CarbonSafe ND
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 1/28/2022 15:00 Date Received: 1/31/2022 Date Reported: 3/04/2022

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	1.02				
Oxygen -----	1.42				
Nitrogen -----	86.27				
Carbon Dioxide -----	11.29	-18.23		8.9 ± 0.1	
Methane -----	0.0006				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	0.0005				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.036

Remarks:

Insufficient methane concentration for isotopic 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. %.

Lab #: 815646 Job #: 49955 IS-65777 Co. Job#:
 Sample Name: CS-15 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: CarbonSafe ND
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 1/28/2022 15:30 Date Received: 1/31/2022 Date Reported: 3/04/2022

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	1.02				
Oxygen -----	0.89				
Nitrogen -----	86.22				
Carbon Dioxide -----	11.87	-17.89		7.4 ± 0.1	
Methane -----	0.0006				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	0.0004				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.038

Remarks:

Insufficient methane concentration for isotopic 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. %.