

Lab #: 235493 Job #: 17407  
 Sample Name/Number: HW12  
 Company: TechLaw, Inc.  
 Date Sampled: 1/26/2012  
 Container: Dissolved Gas Bottle  
 Field/Site Name: A3TA  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 2/03/2012 Date Reported: 2/20/2012

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	na			
Helium -----	0.0434			
Hydrogen -----	nd			
Argon -----	0.115			
Oxygen -----	0.16			
Nitrogen -----	4.54			
Carbon Dioxide -----	0.073			
Methane -----	94.06	-35.90	-196.7	
Ethane -----	0.987	-35.33	-204.0	
Ethylene -----	nd			
Propane -----	0.0221			
Propylene -----	0.0002			
Iso-butane -----	0.0006			
N-butane -----	0.0012			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			
Water -----			-64.6	-9.60

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 972

Specific gravity, calculated: 0.580

Remarks:

\*\*Ethane isotope data added on 4/26/2012.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. Isotopic composition of oxygen is relative to VSMOW, except for carbon dioxide which is relative to VPDB. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.