

Lab #: 159676 Job #: 11238  
 Sample Name: Grace Campbell Co. Lab#:  
 Company: LT Environmental  
 Date Sampled: 3/31/2009  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Rule 318A  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 4/02/2009 Date Reported: / /

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	0.139			
Hydrogen -----	0.0132			
Argon -----	0.678			
Oxygen -----	4.54			
Nitrogen -----	47.95			
Carbon Dioxide -----	0.13			
Methane -----	46.50			
Ethane -----	0.0459			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 472  
 Specific gravity, calculated: 0.784

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%