

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%