

# ANALYSIS REPORT

Lab #: 222948 Job #: 16497  
 Sample Name/Number: 705323 Dahl  
 Company: Colorado Oil & Gas Conservation  
 Date Sampled: 10/04/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Complaint 200323492  
 Location: Las Animas Co., CO  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 10/11/2011 Date Reported: 11/08/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	0.021			
Hydrogen Sulfide -----	na			
Helium -----	na			
Hydrogen -----	na			
Argon -----	1.53			
Oxygen -----	11.49			
Nitrogen -----	86.69			
Carbon Dioxide -----	0.23			
Methane -----	0.0379			
Ethane -----	0.0003			
Ethylene -----	nd			
Propane -----	0.0003			
Iso-butane -----	nd			
N-butane -----	0.0003			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			
Water -----			-71.4	-9.42
Dissolved Inorganic Carbon -		-15.0		

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 0 Specific gravity, calculated: 0.990

## Remarks:

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.68

\*Addition of helium negates the ability to detect native helium or hydrogen.

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