



dig
Dolan Integration Group

Geochemistry for Energy

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Hydrocarbon Gas Composition and Stable Isotopes Data and Interpretation

Job #: 15020413
Lab #: DIG-007175
Client: KP Kauffman
Sample Name: Amoco Charter Schneider B6

Analytical Report



Job #: 15020413
 Lab #: DIG-007175
 Client: KP Kauffman
 Sample Name: Amoco Charter Schneider B6
 Date Sampled: 02/27/15
 Time Sampled:
 Sample Description: Production Gas
 Sampling Notes:
 Date Received:
 Date Analyzed: 03/12/15
 Date Reported: 03/20/15
 Comments:

| Measured Values: | Measured ppm | Analyte mol % ^a | HC mol % | $\delta^{13}\text{C}$ ‰ VPDB | δD ‰ VSMOW | Comments |
|---|--------------|----------------------------|----------|------------------------------|--------------------------|----------|
| Nitrogen (N ₂) | | | - | - | - | |
| Oxygen + Argon (O ₂ +Ar) | | | - | - | - | |
| Carbon Dioxide (CO ₂) | | | - | - | - | |
| Helium (He) | | | - | - | - | |
| Hydrogen (H ₂) | | | - | - | - | |
| Methane (CH ₄) | | 63.60 | 65.03 | -54.1 | -253 | |
| Ethane (C ₂ H ₆) | | 13.50 | 13.80 | -34.7 | na | |
| Propane (C ₃ H ₈) | | 10.80 | 11.04 | -31.3 | na | |
| iso-Butane (C ₄ H ₁₀) | | 1.60 | 1.64 | -33.0 | na | |
| n-Butane (C ₄ H ₁₀) | | 3.90 | 3.99 | -29.8 | na | |
| iso-Pentane (C ₅ H ₁₂) | | 1.20 | 1.23 | -29.6 | na | |
| n-Pentane (C ₅ H ₁₂) | | 1.60 | 1.64 | -29.3 | na | |
| Hexanes + (C ₆ H ₁₄) | | 1.60 | 1.64 | na | na | |

| Calculated Values: | |
|---|-------|
| Total HCs (ppm) | 0 |
| Gas Wetness (mol % C ₂ +/C ₁ +)) | 34.97 |
| C ₁ /(C ₂ +C ₃) (mol/mol) | 3 |

^a Analyte concentrations normalized to 100% (Mol. % is approximately equal to Vol. %)

HC= Hydrocarbons

nd = not detected

na = not analyzed

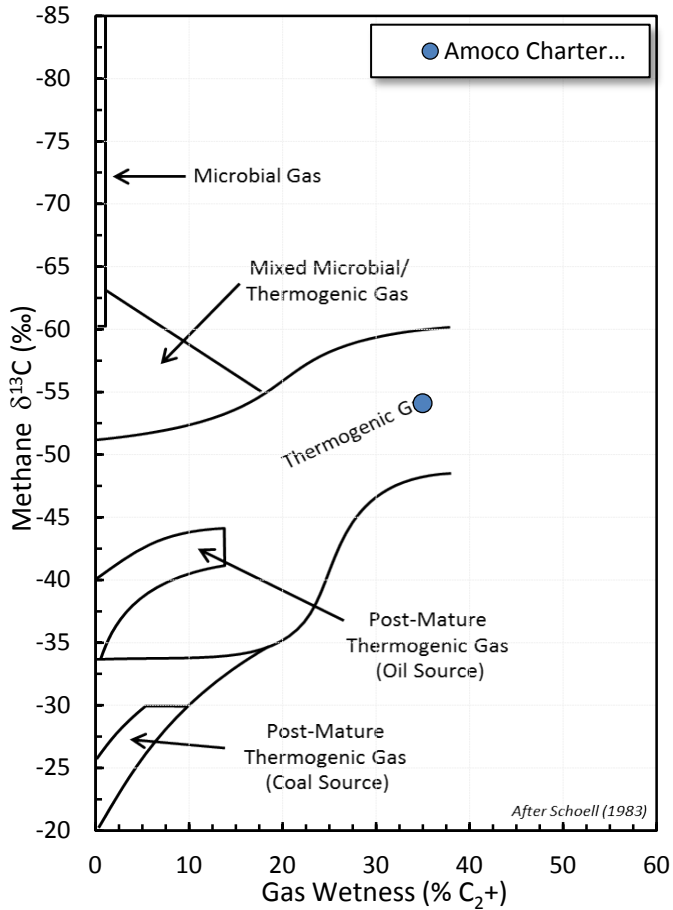
Stable isotope results based on multi-point laboratory calibration

Error $\delta^{13}\text{C}$ < 0.5 ‰

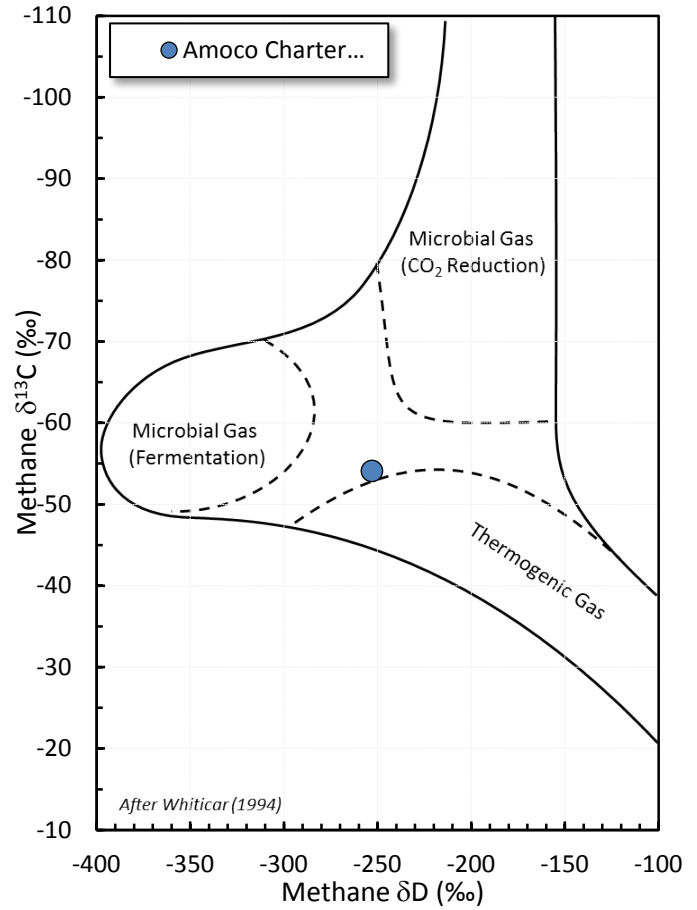
Error δD < 5.0 ‰

Values in red correspond to low peak amplitude; interpret with caution

Methane vs Gas Wetness Genetic Classification



Methane $\delta^{13}\text{C}$ vs δD Genetic Classification Plot



Methane $\delta^{13}\text{C}$ vs $\text{C}_1/(\text{C}_2+\text{C}_3)$ Genetic Classification Plot

