

05-071-09122-0000
Pioneer Lorencito 14-30-34-66
Purgatoire River/Las Animas Co., Colorado, USA

Gas Shale Characterization (GRI Method)
Summary Data

Sample Depth (feet)	Sample ID	Sample Type	Vendor	Matrix Permeability (md)		Sample Density (gm/cm ³)		Porosity (percent)		Gas Saturation ^{4,5} (percent)	Oil Saturation ⁵ (percent)			Water Saturation ^{5,9} (percent)	Notes
				Effective ¹	Absolute ²	Bulk	Grain	Total ³	Gas Filled ⁴		Oil ⁶	OBM Filtrate ⁷	Total ⁸		
4,322.00	-	PLG	CLB	-	4.51E-03	2.539	2.780	10.01	-	-	-	-	-	-	-
4,381.00	-	PLG	CLB	-	3.53E-03	2.559	2.784	9.22	-	-	-	-	-	-	-
4,398.00	-	PLG	CLB	-	3.68E-03	2.529	2.759	9.43	-	-	-	-	-	-	-
4,410.50	-	PLG	CLB	-	5.40E-03	2.503	2.757	10.55	-	-	-	-	-	-	-
4,425.50	-	PLG	CLB	-	3.61E-03	2.542	2.768	9.37	-	-	-	-	-	-	-
4,432.00	-	PLG	CLB	-	8.64E-03	2.537	2.779	9.96	-	-	-	-	-	-	-
4,440.00	-	PLG	CLB	-	4.18E-03	2.537	2.775	9.72	-	-	-	-	-	-	-
4,458.00	-	PLG	CLB	-	5.73E-03	2.528	2.765	9.77	-	-	-	-	-	-	-
4,467.00	-	PLG	CLB	-	4.07E-03	2.528	2.761	9.70	-	-	-	-	-	-	-
4,478.00	-	PLG	CLB	-	5.71E-03	2.559	2.757	8.27	-	-	-	-	-	-	-
4,485.50	-	PLG	CLB	-	4.53E-03	2.534	2.746	8.72	-	-	-	-	-	-	-
4,500.00	-	PLG	CLB	-	3.69E-03	2.518	2.750	9.37	-	-	-	-	-	-	-
4,509.00	-	PLG	CLB	-	4.44E-03	2.510	2.754	9.92	-	-	-	-	-	-	-

Depth = Measured sample depth

Sample Type:

PLG = Core Plug (Not Specified)

Data Vendor:

CLB = Core Laboratories

¹Calculated from measured pressure-decay data using a fresh, crushed (20/35 mesh size) sample. May be suppressed due to OBM (oil based mud) filtrate invasion, if OBM filtrate is present

²Calculated from measured pressure-decay data using a cleaned and dried, crushed (20/35 mesh size) sample

³Includes all interconnected pore space

⁴As measured by GRI method. May be reduced by filtrate invasion

⁵Saturations determined by Dean-Stark technique using a crushed (20/35 mesh size) and dried at 110 °C sample

⁶Calculated using an ambient oil density of 0.800 gm/cm³

⁷Determined using GC fingerprint comparison

⁸As measured by GRI method. May include OBM filtrate, if present

⁹Calculated using a brine concentration of 30,000 ppm with an ambient density of 1.016 gm/cm³

tr = trace

References:

Development of Laboratory and Petrophysical Techniques for Evaluating Shale Reservoirs, Final Report, GRI-95/0496, Gas Research Institute, April 1996