

# Gas Resource Density—Conversion Factors

Convert From: ↓		Convert To:					
		cubic centimeters per square cm	cubic meters per hectare	million cubic meters per square km	thousand cubic feet per acre	million cubic feet per 80 acres	billion cubic feet per square mile
		cm <sub>g</sub> <sup>3</sup> /cm <sub>r</sub> <sup>2</sup>	m <sup>3</sup> /ha	MMm <sup>3</sup> /km <sup>2</sup>	MCF/ac	MMCF/80 ac	BCF/mi <sup>2</sup>
		Multiply By:					
cubic cm per square cm	cm <sub>g</sub> <sup>3</sup> /cm <sub>r</sub> <sup>2</sup>	1	100	0.01	1.429	0.1143	9.146 x 10 <sup>-4</sup>
cubic meters per hectare	m <sup>3</sup> /ha	0.01	1	10 <sup>-4</sup>	1.429 x 10 <sup>-2</sup>	1.143 x 10 <sup>-3</sup>	9.146 x 10 <sup>-6</sup>
million cubic meters per square km	MMm <sup>3</sup> /km <sup>2</sup>	100	10 <sup>4</sup>	1	142.9	11.43	9.146 x 10 <sup>-2</sup>
thousand cubic feet per acre	MCF/ac	0.6997	69.97	6.997 x 10 <sup>-3</sup>	1	0.08	6.400 x 10 <sup>-4</sup>
million cubic feet per 80 acres	MMCF/80 ac	8.747	874.7	8.747 x 10 <sup>-2</sup>	12.5	1	0.008
billion cubic feet per square mile	BCF/mi <sup>2</sup>	1,093	1.093 x 10 <sup>5</sup>	10.93	1,562	125	1

Basic GRD Calculation:

$$\begin{array}{r}
 \text{Net Reservoir Thickness (cm)} \\
 \times \text{ Gas Content (cm}^3/\text{g)} \\
 \times \text{ Density (g/cm}^3\text{)} \\
 \hline
 = \text{ Gas Resource Density (cm}^3/\text{cm}^2\text{)}
 \end{array}$$

All parameters must be on the same measurement basis with respect to ash.

Example: To convert cm<sup>3</sup>/cm<sup>2</sup> to MCF/ac, multiply by 1.429

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