### Table B1. Metric Conversion Factors

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>U.S. Unit</th>
<th>Equivalent in</th>
<th>Metric Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mass</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 short ton</td>
<td>1,000 lb</td>
<td>= 0.907 184 7</td>
<td>metric tons (t)</td>
</tr>
<tr>
<td>1 long ton</td>
<td></td>
<td>= 1.016 047</td>
<td>metric tons (t)</td>
</tr>
<tr>
<td>1 pound</td>
<td></td>
<td>= 0.453 592 37a</td>
<td>kilograms (kg)</td>
</tr>
<tr>
<td>1 pound uranium oxide (lb U3O8)</td>
<td>= 0.384 647b</td>
<td>kilograms uranium (kgU)</td>
<td></td>
</tr>
<tr>
<td>1 ounce</td>
<td></td>
<td>= 28.349 52</td>
<td>grams (g)</td>
</tr>
<tr>
<td><strong>Volume</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 barrel of oil (bbl)</td>
<td>= 0.158 987 3</td>
<td>cubic meters (m³)</td>
<td></td>
</tr>
<tr>
<td>1 cubic yard</td>
<td>1 yd³</td>
<td>= 0.764 555</td>
<td>cubic meters (m³)</td>
</tr>
<tr>
<td>1 cubic foot</td>
<td>1 ft³</td>
<td>= 0.028 316 85</td>
<td>cubic meters (m³)</td>
</tr>
<tr>
<td>1 U.S. gallon</td>
<td>1 gal</td>
<td>= 3.785 412</td>
<td>liters (L)</td>
</tr>
<tr>
<td>1 ounce, fluid</td>
<td>1 fl oz</td>
<td>= 29.573 53</td>
<td>milliliters (mL)</td>
</tr>
<tr>
<td>1 cubic inch</td>
<td>1 in³</td>
<td>= 16.387 06</td>
<td>milliliters (mL)</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 mile</td>
<td></td>
<td>= 1.609 344a</td>
<td>kilometers (km)</td>
</tr>
<tr>
<td>1 yard</td>
<td></td>
<td>= 0.914 4a</td>
<td>meters (m)</td>
</tr>
<tr>
<td>1 foot</td>
<td></td>
<td>= 0.304 8a</td>
<td>meters (m)</td>
</tr>
<tr>
<td>1 inch</td>
<td></td>
<td>= 2.54a</td>
<td>centimeters (cm)</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 acre</td>
<td></td>
<td>= 0.404 69</td>
<td>hectares (ha)</td>
</tr>
<tr>
<td>1 square mile</td>
<td>1 mi²</td>
<td>= 2.589 988</td>
<td>square kilometers (km²)</td>
</tr>
<tr>
<td>1 square yard</td>
<td>1 yd²</td>
<td>= 0.836 127 4</td>
<td>square meters (m²)</td>
</tr>
<tr>
<td>1 square foot</td>
<td>1 ft²</td>
<td>= 0.092 903 04a</td>
<td>square meters (m²)</td>
</tr>
<tr>
<td>1 square inch</td>
<td>1 in²</td>
<td>= 6.451 6a</td>
<td>square centimeters (cm²)</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 British thermal unit (Btu)c</td>
<td>= 1,055.055 852 62a</td>
<td>joules (J)</td>
<td></td>
</tr>
<tr>
<td>1 calorie</td>
<td></td>
<td>= 4.186 8a</td>
<td>joules (J)</td>
</tr>
<tr>
<td>1 kilowattour</td>
<td>1 kWh</td>
<td>= 3.6a</td>
<td>megajoules (MJ)</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>32 degrees Fahrenheit</td>
<td>= 0a</td>
<td>degrees Celsius (°C)</td>
</tr>
<tr>
<td></td>
<td>212 degrees Fahrenheit</td>
<td>= 100a</td>
<td>degrees Celsius (°C)</td>
</tr>
</tbody>
</table>

[a] Exact conversion.
[b] Calculated by the U.S. Energy Information Administration.
[c] The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.
[d] To convert degrees Fahrenheit (°F) to degrees Celsius (°C) exactly, subtract 32, then multiply by 5/9.

Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, see [http://physics.nist/gov/cuu/Units/index.html](http://physics.nist/gov/cuu/Units/index.html).
