

Lithium classification and conversion factors

Source: <http://inonom.freeforums.net/thread/91/lithium-classification-conversion-factors#ixzz4jLoVKrbd>

Lithium grades are normally presented in percentages or parts per million (ppm). Grades of deposits are also expressed as lithium compounds in percentages, for example as a per cent. Lithium oxide (Li₂O) content or per cent. Lithium carbonate (Li₂CO₃) content.

Lithium carbonate equivalent (“LCE”) is the industry standard terminology for, and is equivalent to, Li₂CO₃. Use of LCE is to provide data comparable with industry reports and is the total equivalent amount of lithium carbonate, assuming the lithium content in the deposit is converted to lithium carbonate, using the conversion rates in the table included further below to get an equivalent Li₂CO₃ value in per cent. Use of LCE assumes 100% recovery and no process losses in the extraction of Li₂CO₃ from the deposit.

Lithium resources and reserves are usually presented in tonnes of LCE or Li. To convert the Li Inferred Mineral Resource of 514.8Mt @ 0.20% Li grade (as per the Competent Persons Report dated 2 November 2015) to Li₂O, the reported Li grade of 0.20% is multiplied by the standard conversion factor of 2.153 which results in an equivalent Li₂O grade of 0.43%.

Table: Conversion Factors for Lithium Compounds and Minerals:

Convert from		Convert to Li	Convert to Li ₂ O	Convert to Li ₂ CO ₃	Convert to LiOH
Lithium	Li	1.000	2.153	5.323	3.448
Lithium Oxide	Li ₂ O	0.464	1.000	2.473	1.601
Lithium Carbonate	Li ₂ CO ₃	0.188	0.404	1.000	0.648
Lithium Hydroxide	LiOH	0.290	0.625	1.544	1.000

Some technical terms:

“**cut-off grade**” lowest grade of mineralized material considered economic, used in the calculation of ore resources.

“**Indicated**” or “**Indicated Mineral Resource**” as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource which has been sampled by drill holes, underground openings or other sampling procedures at locations that are too widely spaced to ensure continuity but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable degree of reliability. An Indicated Mineral Resource will be based on more data and

therefore will be more reliable than an Inferred Mineral Resource estimate.

“Inferred” or “Inferred Mineral Resource” as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource for which the tonnage and grade and mineral content can be estimated with a low level of confidence. It is inferred from the geological evidence and has assumed but not verified geological and/or grade continuity. It is based on information gathered through the appropriate techniques from locations such as outcrops, trenches, pits, working and drill holes which may be limited or of uncertain quality and reliability.

“JORC Code” Joint Ore Reserve Committee Code; the Committee is convened under the auspices of the Australasian Institute of Mining and Metallurgy.

“Metallurgical” describing the science concerned with the production, purification and properties of metals and their applications.

“Recovery” proportion of valuable material obtained in the processing of an ore, stated as a percentage of the material recovered compared with the total material present.

Mineral resources are sub-divided into Inferred, Indicated and Measured categories “mineralisation” process of formation and concentration of elements and their chemical compounds within a mass or body of rock.

Measured: a mineral resource intersected and tested by drill holes, underground openings or other sampling procedures at locations which are spaced closely enough to confirm continuity and where geoscientific data are reliably known; a measured mineral resource estimate will be based on a substantial amount of reliable data, interpretation and evaluation which allows a clear determination to be made of shapes, sizes, densities and grades.

Indicated: a mineral resource sampled by drill holes, underground openings or other sampling procedures at locations too widely spaced to ensure continuity but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable degree of reliability; an indicated resource will be based on more data, and therefore will be more reliable than an inferred resource estimate.

Inferred: a mineral resource inferred from geoscientific evidence, underground openings or other sampling procedures where the lack of data is such that continuity cannot be predicted with confidence and where geoscientific data may not be known with a reasonable level of reliability.