



SWEP
PTY. LTD.

ABN 26 005 031 569

**ANALYTICAL
LABORATORIES**

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REPORT ON SAMPLE OF DOLOMITE

FILE NO : 2007153315

DATE ISSUED : 22/07/2020

MIRIWINI LIME PTY LTD
ATT: JENNY & MAX
PO BOX 2
MIRIWINI, QLD 4871

CLIENT ID : MIR010
PHONE : 07 4067 6133

REFERENCE :

REFERENCE ID :

SAMPLE ID : DOLOMITE

PHONE :

ANALYSIS REQUIRED : Full

DATE RECEIVED : 21/07/2020

| ITEMS | ABBREVIATION | UNIT | RESULTS |
|--------------------------|-----------------------------------|-------------|---------|
| TOTAL CALCIUM | Ca | % | 18.5 |
| TOTAL MAGNESIUM | Mg | % | 10.2 |
| TOTAL SODIUM | Na | % | 0.0195 |
| TOTAL POTASSIUM | K | % | 0.0535 |
| TOTAL NITROGEN | N | ppm | 174 |
| TOTAL PHOSPHORUS | P | ppm | 32.5 |
| TOTAL IRON | Fe | ppm | 4480 |
| TOTAL MANGANESE | Mn | ppm | 86.4 |
| TOTAL ZINC | Zn | ppm | 12.3 |
| TOTAL COPPER | Cu | ppm | 5.25 |
| TOTAL COBALT | Co | ppm | 2.12 |
| TOTAL BORON | B | ppm | 6 |
| TOTAL SULPHUR | S | % | 0.00777 |
| TOTAL MOLYBDENUM | Mo | ppm | 0.221 |
| CALCIUM CARBONATE | CaCO ₃ | % | 46.25 |
| | (Calculated from Total Calcium) | | |
| MAGNESIUM CARBONATE | MgCO ₃ | % | 35.7 |
| | (Calculated from Total Magnesium) | | |
| MATERIAL > 2mm | | % | 0 |
| MATERIAL 1.00 - 2.00 mm | | % | 0 |
| MATERIAL 0.85 - 1.00 mm | | % | 0 |
| MATERIAL 0.30 - 0.85 mm | | % | 40 |
| MATERIAL 0.075 - 0.30 mm | | % | 39 |
| MATERIAL < 0.075mm | | % | 21 |
| Electrical Conductivity | | µS/cm | 185 |
| pH | | (1:5 Water) | 9.19 |

| ITEMS | ABBREVIATION | UNIT | RESULTS |
|------------------------------|--------------|------|---------|
| NEUTRALISING VALUE | NV | % | 88.73 |
| EFFECTIVE NEUTRALISING VALUE | ENV | % | 74.53 |
| MOISTURE CONTENT | MC | % | 3.84 |

Notes on Neutralising Value

Neutralising Value is a measure of the amount of acidity a material can neutralise, or in the case of lime, its total liming value. An approximation of Neutralising Value can be made by $\text{CaCO}_3 + (2.5 \times \text{MgO})$.

Effective Neutralising Value is a calculated adjustment of the Neutralising Value, using the fineness of the lime. Lime retained on an 850 μm sieve (the coarser fraction) is estimated to be only 10% effective (fully utilised in the short term). Lime in the 300-850 μm sieve range (medium sized fraction) is estimated to be only 60% effective, while lime passing the 300 μm sieve (finer fraction) is estimated to be 100% effective.

Where a lime has a low Effective Neutralising Value (due to a high proportion of coarse fraction), further grinding should increase its effectiveness to change the pH.

| ITEMS | ANALYTICAL METHODS |
|-------------------------|---------------------------------|
| TOTAL CALCIUM | HCl Evaporation, ICPAES |
| TOTAL MAGNESIUM | HCl Evaporation, ICPAES |
| TOTAL SODIUM | HCl Evaporation, ICPAES |
| TOTAL POTASSIUM | HCl Evaporation, ICPAES |
| TOTAL NITROGEN | Dumas method, LECO |
| TOTAL PHOSPHORUS | HCl Evaporation, ICPAES |
| TOTAL IRON | HCl Evaporation, ICPAES |
| TOTAL MANGANESE | HCl Evaporation, ICPAES |
| TOTAL ZINC | HCl Evaporation, ICPAES |
| TOTAL COPPER | HCl Evaporation, ICPAES |
| TOTAL COBALT | HCl Evaporation, ICPAES |
| TOTAL BORON | HCl Evaporation, ICPAES |
| TOTAL SULPHUR | HCl Evaporation, ICPAES |
| TOTAL MOLYBDENUM | HCl Evaporation, ICPAES |
| CALCIUM CARBONATE | Calculated from Total Calcium |
| MAGNESIUM CARBONATE | Calculated from Total Magnesium |
| Electrical Conductivity | Method 3A1, water extract* |
| pH | Method 4A1, water suspension* |
| MOISTURE CONTENT | Gravimetric method |

* Rayment, G.E. & Lyons, D.J. (2011). Soil Chemical Methods - Australasia. CSIRO Publishing, 150 Oxford Street, Collingwood Vic 3066, Australia.