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**ANALYTICAL
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REPORT ON SAMPLE OF LIME

FILE NO : 2310180318

DATE ISSUED : 13/10/2023

KAVANAGH EXCAVATION & PLUMBING P/L
ATT: EMMA KAVANAGH
P O BOX 552
WARRNAMBOOL, VIC 3280

CLIENT ID : KAV003
PHONE :

SAMPLE ID : BELDAST LIME AND SAND
ANALYSIS REQUIRED : Lime quality

DATE RECEIVED : 9/10/2023

ITEMS	ABBREVIATION	UNIT	RESULTS
Results of analysis on sample on dry weight basis:			
pH (1:5 Water)			8.92
Electrical Conductivity	EC	µS/cm	249.2
TOTAL CALCIUM	Ca	%	35.8
TOTAL MAGNESIUM	Mg	%	1.4
TOTAL SODIUM	Na	%	0.262
AVAILABLE SILICA	Si	ppm	430
CALCIUM CARBONATE	CaCO ₃	%	89.5
	(Calculated from Total Calcium)		
MAGNESIUM CARBONATE	MgCO ₃	%	4.9
	(Calculated from Total Magnesium)		
MOISTURE CONTENT	MC	%	4.94
MATERIAL > 2mm		%	Nil
MATERIAL 1.00 - 2.00 mm		%	0.218
MATERIAL 0.85 - 1.00 mm		%	1.09
MATERIAL 0.30 - 0.85 mm		%	98.69
MATERIAL 0.075 - 0.30 mm		%	Nil
MATERIAL < 0.075mm		%	Nil
NEUTRALISING VALUE	NV	%	95.3
EFFECTIVE NEUTRALISING VALUE	ENV	%	56.56

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.

