

19-August-2011

Koenig Consulting Pty Ltd
TBA

Attention: Ray Koenig

Re: Report – ALS Mineralogy Job No I0588

Dear Ray

Enclosed please find a copy of a report by the undersigned titled 'I0588 Mineralogical Analysis of Tasmanian Magnesite Samples - Provisional Report'. The report has not yet been reviewed by Debra Burrows

If you have any queries about the report please do not hesitate to contact me.

Regards

Eugene Louwrens
Manager – *ALS Mineralogy Pty Ltd*

**I0588
Mineralogical
Analysis of
Tasmanian
Magnesite
Samples -
Provisional
Report**

**Koenig Consulting
Pty Ltd**

August-2011

ALS Mineralogy Pty Ltd

I0588 Mineralogical Analysis of Tasmanian Magnesite Samples - Provisional Report

Eugene Louwrens

Submitted to

Koenig Consulting Pty Ltd

ALS Mineralogy Job No. I0588 - August-2011

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1. INTRODUCTION

Koenig Consulting Pty Ltd has requested ALS Mineralogy to provide quantitative mineral analysis of four magnesite samples from Tasmanian Magnesite Ltd.

The Client has indicated that the samples have a top size of ~4.5mm. The size fractions received included -4.5mm+3.35 mm, -3.35mm+2.36mm, -2.36mm+1.18mm and -1.18mm. . To retain natural *in situ* textures the following three size fractions were analysed: -4.5mm/+3.35mm, -3.35mm/+1.18mm (the -3.35mm+2.36mm and -2.36mm+1.18mm fractions combined) and -1.18mm.

The aim of the analysis was to identify and quantify diluents like silicates and Fe-bearing minerals. The results reported are based on ALS Mineralogy Proposal 11/073 Rev 2 dated 5 July 2011.

The mineralogical investigation was done using the Mineral Liberation Analyser (MLA). The MLA is a scanning-electron microscope fitted with energy dispersive detectors and customised software to determine fully quantitative mineralogical data on an automated basis. The MLA uses a combination of backscattered electron, grey-scale images and characteristic X-rays to determine the mineralogy of the samples.

2. SCOPE

- ALS Mineralogy combined the -3.35mm+2.36mm and -2.36mm+1.18mm fractions of the 4 samples to be analysed. The fifth (high silicate sample) will be held without analysis.
- The Client supplied chemical assay data and size distribution data.
- ALS Mineralogy prepared a number of polished sections of each size fraction.
- ALS Mineralogy analysed the samples using the MLA XBSE method to provide quantitative data including:
 - List of detected Minerals with formulae and compositions,
 - Elemental distributions (e.g. Si and Fe)
 - Mineral abundances,
 - Range of grain size data for all minerals of interest
 - Association data for all minerals of interest.

The client is provided with a "Level 2" report. A Level 2 report includes full data extraction of relevant tables and graphs. No mineralogical or metallurgical interpretation is provided.

3. RESULTS

3.1 Sizing Data

The sizing data is reported in Table 1.

Table 1 Sizing Data (Wt%)

SAMPLE ID#	FRACTIONS	Wt%	SAMPLE ID#	FRACTIONS	Wt%
377	+3.35mm	21.9	381	+3.35mm	29.2
	+1.18mm	48.3		+1.18mm	45.5
	-1.18mm	29.8		-1.18mm	25.3
378	+3.35mm	31.6	379	+3.35mm	28.1
	+1.18mm	44.8		+1.18mm	48.9
	-1.18mm	23.6		-1.18mm	23.1

3.2 Mineral Reference File

The mineral reference file (Appendix 1) lists the compositions used to identify the minerals during this investigation.

3.3 Mineral Abundances

The grouped mineral abundances are summarised in Table 2 to Table 5, and the ungrouped full list of mineral abundances are in Appendix 2. The head values for the data were calculated using the weight distribution data supplied by the client

A graphical comparison of the grouped mineral abundances (head values) is given in Figure 1. Insignificant minerals have been omitted from the graph.

Table 2 Mineral Abundances Sample 377 (Wt%)

Mineral	377 +3.35	377 +1.18	377 -1.18	377 Head
Magnesite	94.83	95.44	92.70	94.49
Dolomite	0.64	0.44	1.30	0.74
Calcite	0.00	0.00	0.00	0.00
Talc	4.52	4.11	5.67	4.66
Quartz	0.01	0.01	0.03	0.02
Other_Silicates	0.00	0.00	0.03	0.01
Sulphides	0.00	0.00	0.05	0.02
Sulphates_Phosphates	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.00	0.23	0.07
Total	100.00	100.00	100.00	100.00

Table 3 Mineral Abundances Sample 378 (Wt%)

Mineral	378 +3.35	378 +1.18	378 -1.18	378 Head
Magnesite	74.90	71.88	74.88	73.54
Dolomite	21.43	24.90	19.56	22.55
Calcite	0.00	0.00	0.00	0.00
Talc	3.61	3.00	5.30	3.74
Quartz	0.01	0.15	0.12	0.10
Other_Silicates	0.00	0.00	0.01	0.00
Sulphides	0.05	0.03	0.07	0.04
Sulphates_Phosphates	0.00	0.04	0.01	0.02
Iron-oxide	0.00	0.00	0.05	0.01
Total	100.00	100.00	100.00	100.00

Table 4 Mineral Abundances Sample 379 (Wt%)

Mineral	379 +3.35	379 +1.18	379 -1.18	379 Head
Magnesite	94.24	93.82	93.41	93.85
Dolomite	2.92	3.90	3.53	3.54
Calcite	0.00	0.00	0.00	0.00
Talc	2.80	2.21	2.97	2.55
Quartz	0.00	0.04	0.00	0.02
Other_Silicates	0.00	0.00	0.01	0.00
Sulphides	0.03	0.03	0.06	0.04
Sulphates_Phosphates	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.00	0.02	0.00
Total	100.00	100.00	100.00	100.00

Table 5 Mineral Abundances Sample 381 (Wt%)

Mineral	381 +3.35	381 +1.18	381 -1.18	381 Head
Magnesite	77.73	88.70	83.47	84.18
Dolomite	17.09	7.15	11.32	11.11
Calcite	0.00	0.00	0.00	0.00
Talc	0.04	0.06	0.04	0.05
Quartz	5.13	4.08	5.11	4.65
Other_Silicates	0.00	0.00	0.01	0.00
Sulphides	0.01	0.01	0.03	0.01
Sulphates_Phosphates	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.01	0.01	0.01
Total	100.00	100.00	100.00	100.00

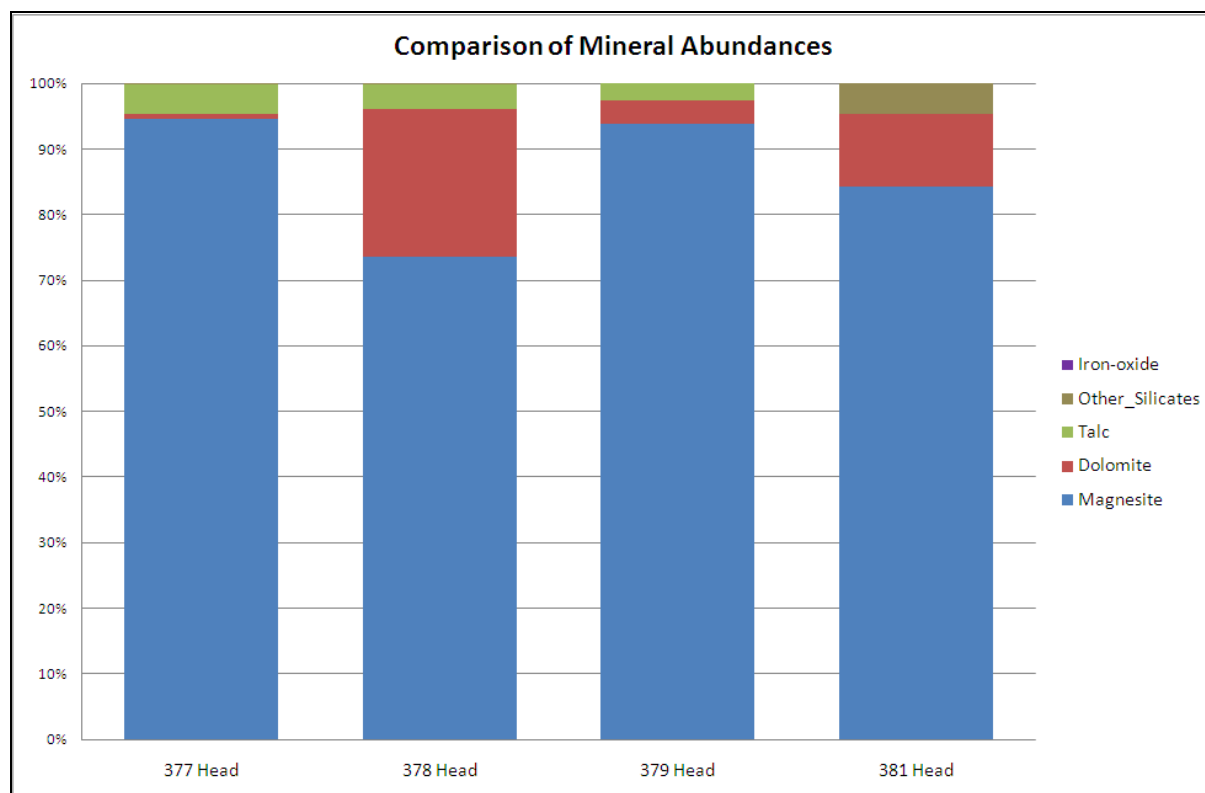


Figure 1 Comparison of Mineral Abundances (Wt%)

3.4 Iron Distribution

The iron distributions are tabulated in Table 6.

Table 6 Iron Elemental Distributions (Wt%)

Mineral	377 +3.35	377 +1.18	377 -1.18	377 Head
Magnesite	99.0	99.6	50.1	77.2
Other_Silicates	0.1	0.1	0.1	0.1
Sulphides	0.9	0.3	6.0	3.0
Iron-oxide	0.0	0.0	43.7	19.7
Total	100.0	100.0	100.0	100.0
Mineral	378 +3.35	378 +1.18	378 -1.18	378 Head
Magnesite	47.2	51.1	44.1	48.0
Dolomite	45.7	43.8	35.4	42.3
Other_Silicates	0.0	0.1	0.2	0.1
Sulphides	7.0	4.9	9.1	6.7
Iron-oxide	0.0	0.0	11.2	2.9
Total	100.0	100.0	100.0	100.0
Mineral	379 +3.35	379 +1.18	379 -1.18	379 Head
Magnesite	92.2	92.5	82.4	89.9
Other_Silicates	0.0	0.0	0.1	0.0
Sulphides	7.7	7.4	12.4	8.8
Iron-oxide	0.0	0.0	5.1	1.3
Total	100.0	100.0	100.0	100.0
Mineral	381 +3.35	381 +1.18	381 -1.18	381 Head
Magnesite	83.6	79.6	60.6	74.7
Dolomite	13.2	16.6	30.3	20.0
Other_Silicates	0.0	0.0	0.2	0.1
Sulphides	2.1	2.1	5.2	3.1
Iron-oxide	1.0	1.7	3.6	2.1
Total	100.0	100.0	100.0	100.0

3.5 Silicon Distribution

The silicon distributions are tabulated in Table 7.

Table 7 Silicon Elemental Distributions (Wt%)

Mineral	377 +3.35	377 +1.18	377 -1.18	377 Head
Talc	99.7	99.7	98.9	99.4
Quartz	0.3	0.3	0.8	0.5
Other_Silicates	0.0	0.0	0.3	0.1
Total	100.0	100.0	100.0	100.0
Mineral	378 +3.35	378 +1.18	378 -1.18	378 Head
Talc	99.8	93.3	96.8	96.4
Quartz	0.2	6.7	3.1	3.6
Other_Silicates	0.0	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0
Mineral	379 +3.35	379 +1.18	379 -1.18	379 Head
Talc	99.9	97.7	99.8	98.9
Quartz	0.1	2.3	0.1	1.1
Other_Silicates	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0
Mineral	381 +3.35	381 +1.18	381 -1.18	381 Head
Talc	0.5	0.9	0.5	0.7
Quartz	99.5	99.1	99.4	99.3
Other_Silicates	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0

3.6 Magnesium Distribution

The magnesium distributions are tabulated in Table 8.

Table 8 Magnesium Elemental Distributions (Wt%)

Mineral	377 +3.35	377 +1.18	377 -1.18	377 Head
Magnesite	96.7	97.1	95.6	96.5
Dolomite	0.3	0.2	0.6	0.3
Talc	3.0	2.7	3.8	3.1
Total	100.0	100.0	100.0	100.0
Mineral	378 +3.35	378 +1.18	378 -1.18	378 Head
Magnesite	86.2	84.5	85.9	85.4
Dolomite	11.0	13.2	10.1	11.8
Talc	2.7	2.3	4.0	2.8
Total	100.0	100.0	100.0	100.0
Mineral	379 +3.35	379 +1.18	379 -1.18	379 Head
Magnesite	96.7	96.7	96.3	96.6
Dolomite	1.4	1.8	1.7	1.7
Talc	1.9	1.5	2.0	1.7
Total	100.0	100.0	100.0	100.0
Mineral	381 +3.35	381 +1.18	381 -1.18	381 Head
Magnesite	90.8	96.5	94.3	94.3
Dolomite	9.1	3.5	5.7	5.6
Total	100.0	100.0	100.0	100.0

3.7 Mineral Grain Sizes

The eighty percent passing data for magnesite, dolomite, talc and Fe Oxide in each sample is presented in Table 9 to Table 12. All data are presented as equivalent ellipse (calculated minor axis) and using the 4SQRT2 sieve series.

The magnesite, dolomite and talc grain size distributions are graphically presented in Figure 2 to Figure 13.

Table 9 Percent Passing Data - Magnesite (µm)

P-value	377 +3.35	377 +1.18	377 -1.18	377 Head
P20	1597	833	105	392
P50	2303	1319	294	1130
P80	2973	1928	579	2085
P-value	378 +3.35	378 +1.18	378 -1.18	378 Head
P20	1440	756	85	402
P50	2101	1265	252	1253
P80	2784	1990	576	2177
P-value	379 +3.35	379 +1.18	379 -1.18	379 Head
P20	1535	951	124	570
P50	2537	1589	358	1495
P80	3208	2500	637	2626
P-value	381 +3.35	381 +1.18	381 -1.18	381 Head
P20	1445	861	96	451
P50	2568	1318	292	1235
P80	3133	1956	653	2386

Table 10 Percent Passing Data - Dolomite (µm)

P-value	377 +3.35	377 +1.18	377 -1.18	377 Head
P20	47	22	31	30
P50	511	59	82	85
P80	707	197	254	303
P-value	378 +3.35	378 +1.18	378 -1.18	378 Head
P20	1077	543	48	228
P50	1833	1184	140	1118
P80	2492	2027	318	2058
P-value	379 +3.35	379 +1.18	379 -1.18	379 Head
P20	168	168	45	101
P50	568	645	132	441
P80	824	1816	445	1272
P-value	381 +3.35	381 +1.18	381 -1.18	381 Head
P20	387	98	51	104
P50	2527	366	153	526
P80	3580	969	412	2605

Table 11 Percent Passing Data - Talc (µm)

P-value	377 +3.35	377 +1.18	377 -1.18	377 Head
P20	30	32	21	25
P50	178	153	53	101
P80	639	502	152	422
P-value	378 +3.35	378 +1.18	378 -1.18	378 Head
P20	24	18	19	20
P50	150	90	50	78
P80	2078	424	183	397
P-value	379 +3.35	379 +1.18	379 -1.18	379 Head
P20	14	11	14	13
P50	37	25	29	29
P80	97	62	77	77
P-value	381 +3.35	381 +1.18	381 -1.18	381 Head
P20	7	11	11	10
P50	38	36	24	32
P80	118	88	43	87

Table 12 Percent Passing Data – Fe Oxide (µm)

P-value	377 +3.35	377 +1.18	377 -1.18	377 Head
P20	4	4	27	27
P50	8	4	53	53
P80	9	4	79	79
P-value	378 +3.35	378 +1.18	378 -1.18	378 Head
P20	6	8	21	21
P50	7	10	35	34
P80	7	11	91	91
P-value	379 +3.35	379 +1.18	379 -1.18	379 Head
P20	5	4	23	23
P50	8	9	42	42
P80	9	9	69	69
P-value	381 +3.35	381 +1.18	381 -1.18	381 Head
P20	8	11	14	12
P50	13	24	20	20
P80	29	57	29	34

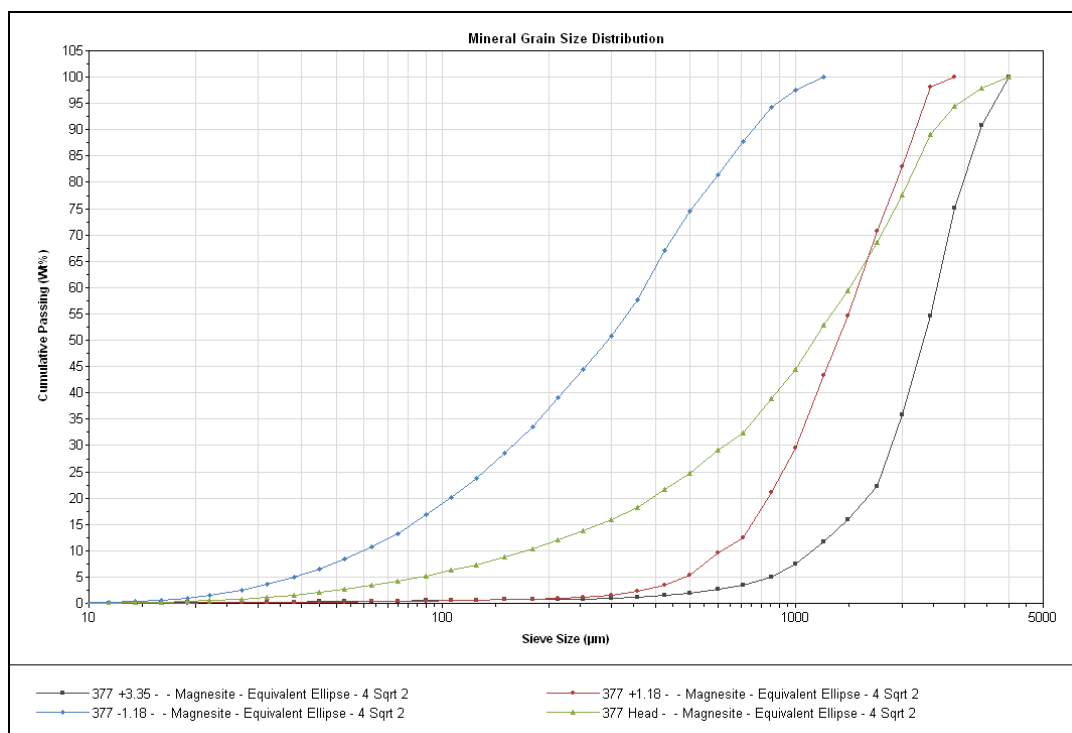


Figure 2 Cumulative Size Distributions of Magnesite – sample 377

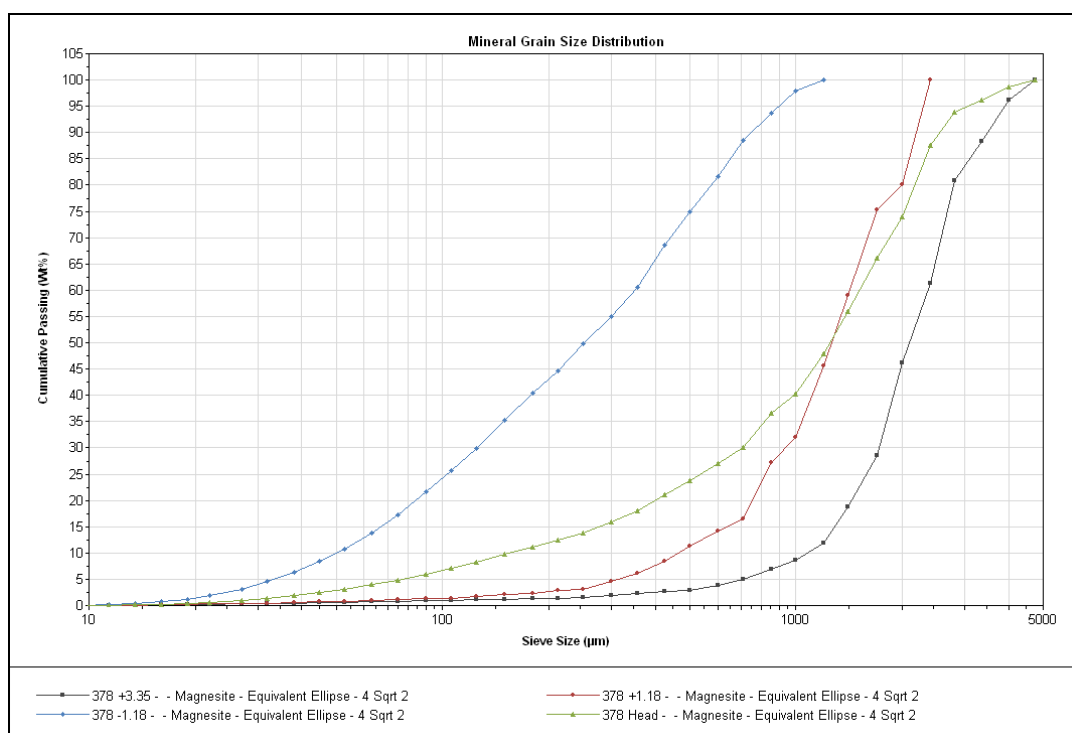


Figure 3 Cumulative Size Distributions of Magnesite – sample 378

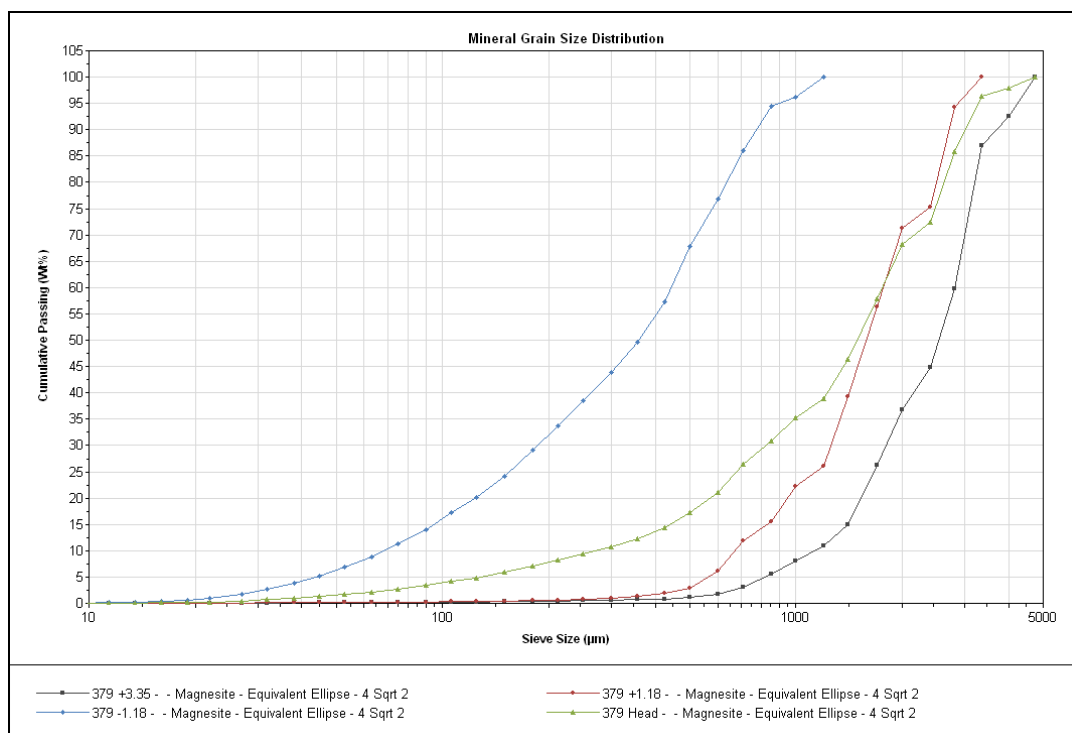


Figure 4 Cumulative Size Distributions of Magnesite – sample 379

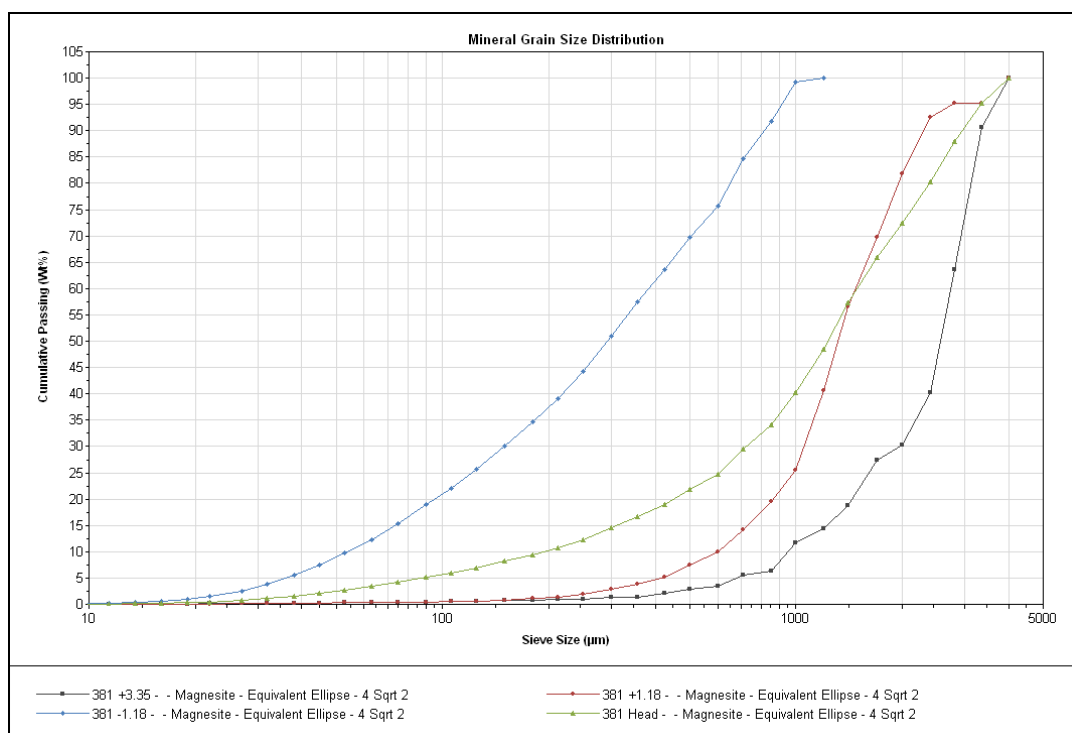


Figure 5 Cumulative Size Distributions of Magnesite – sample 381

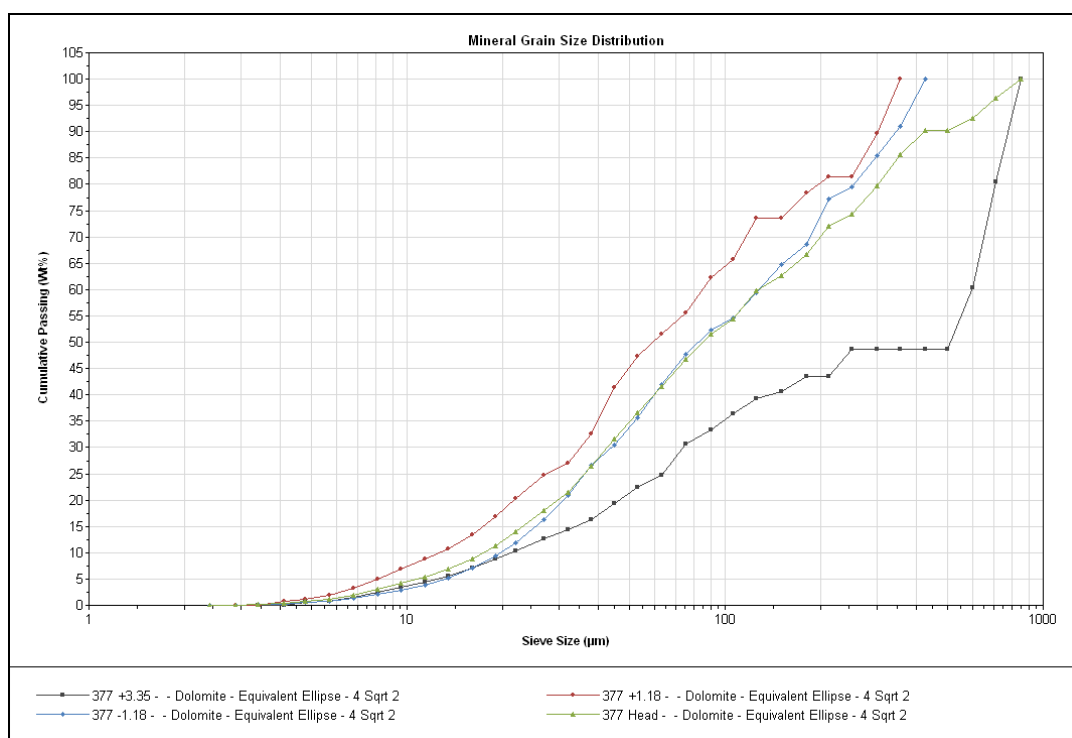


Figure 6 Cumulative Size Distributions of Dolomite – sample 377

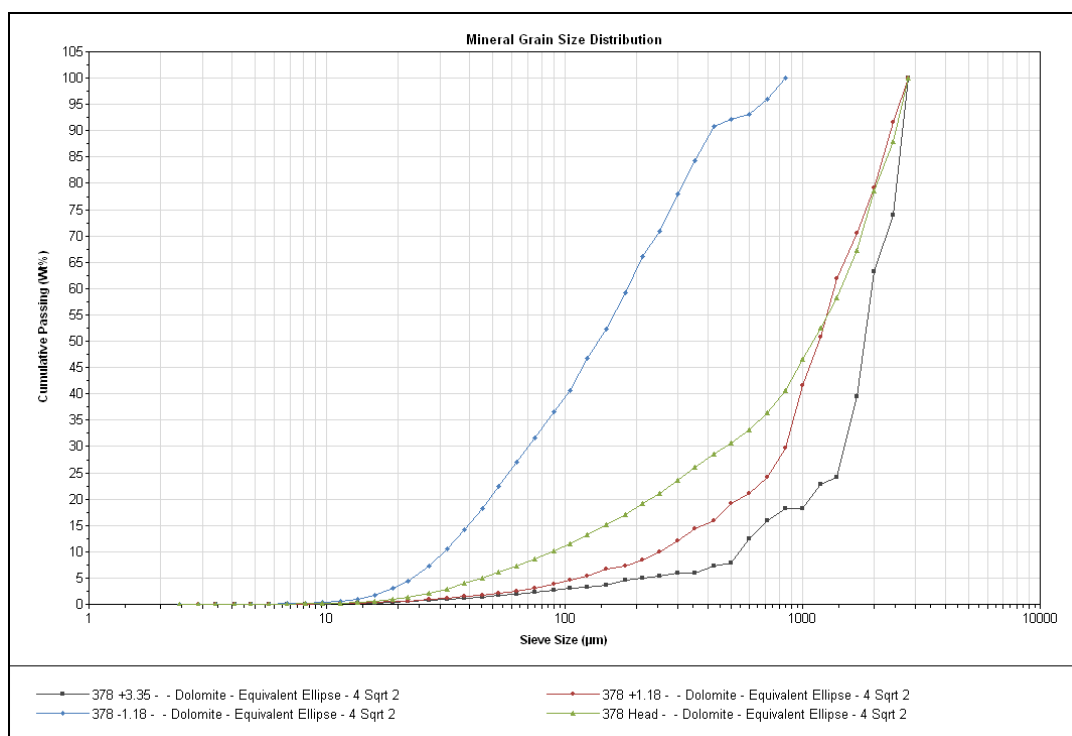


Figure 7 Cumulative Size Distributions of Dolomite – sample 378

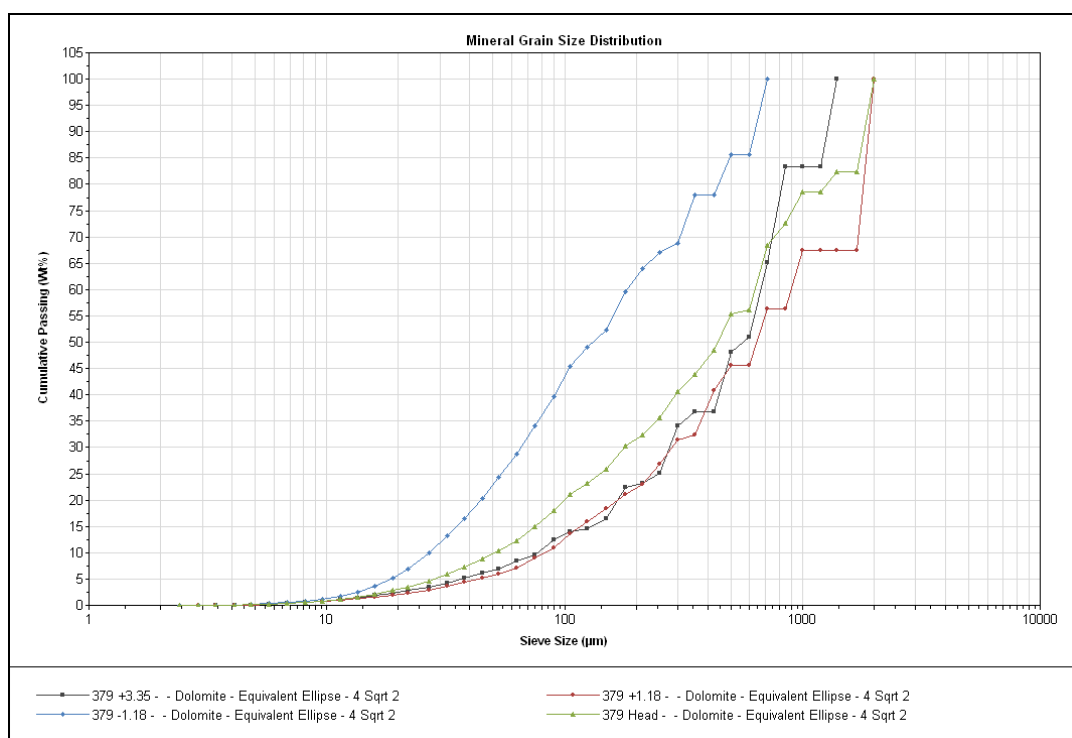


Figure 8 Cumulative Size Distributions of Dolomite – sample 379

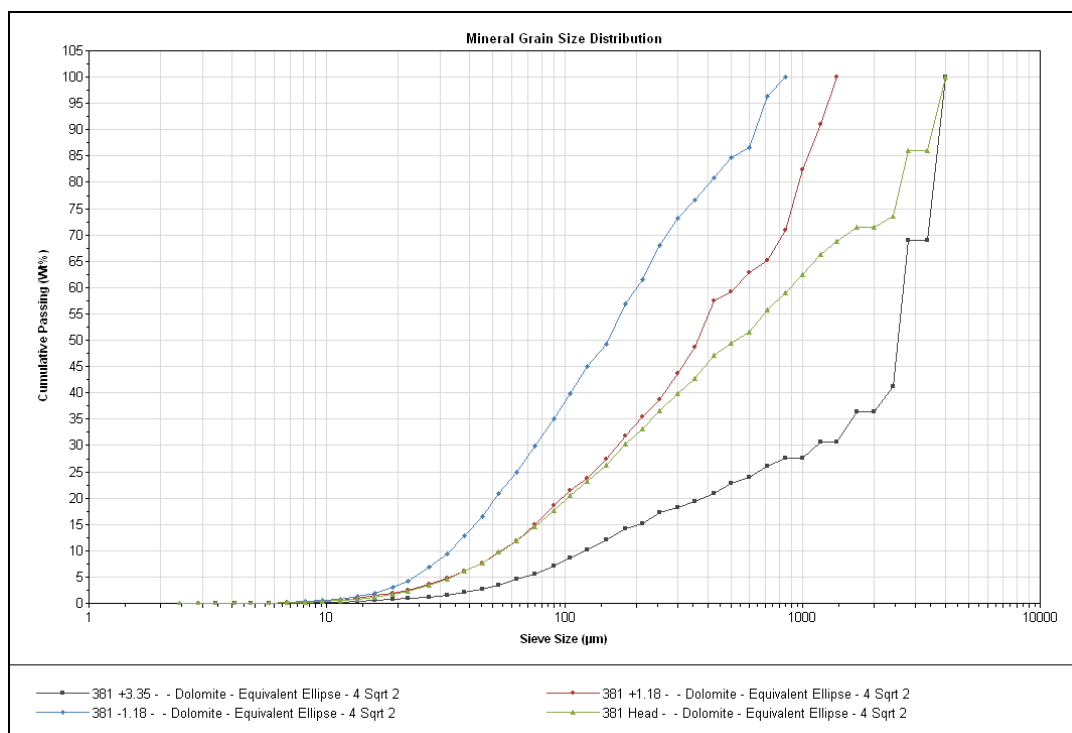


Figure 9 Cumulative Size Distributions of Dolomite – sample 381

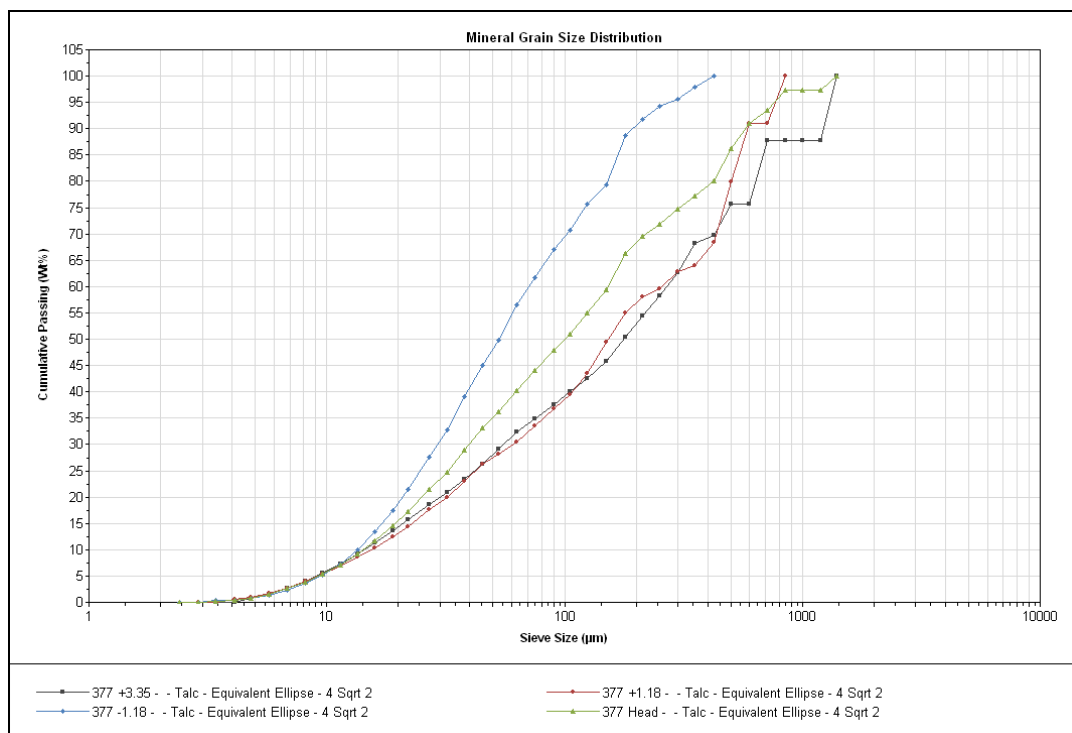


Figure 10 Cumulative Size Distributions of Talc – sample 377

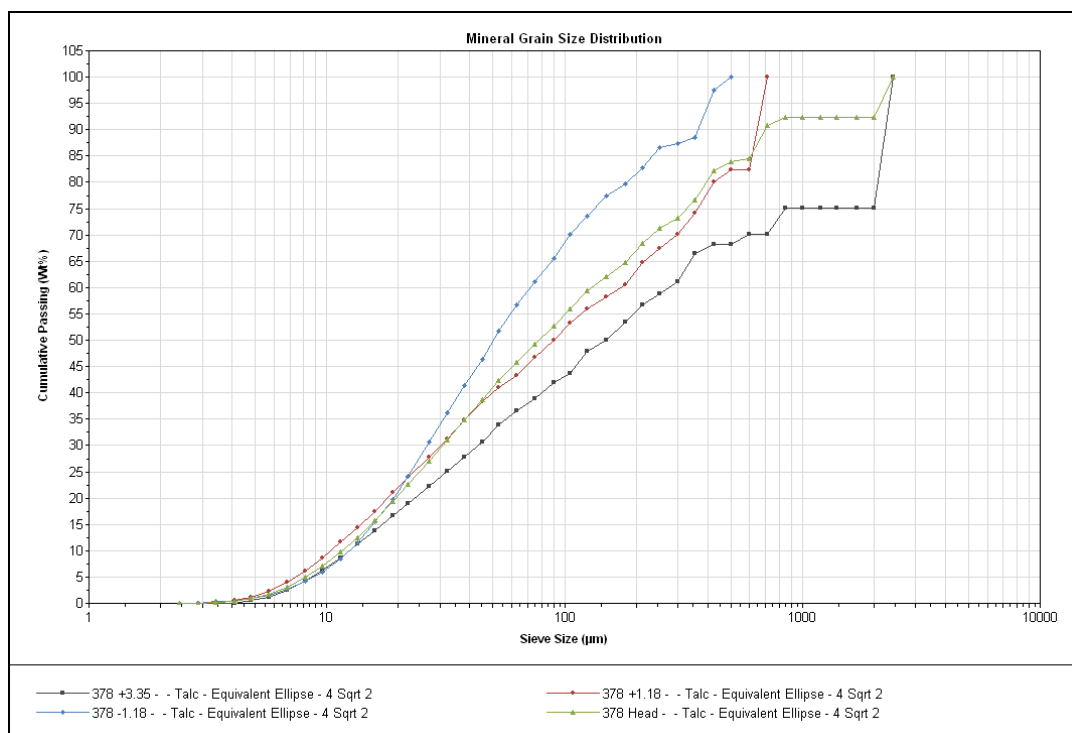


Figure 11 Cumulative Size Distributions of Talc – sample 378

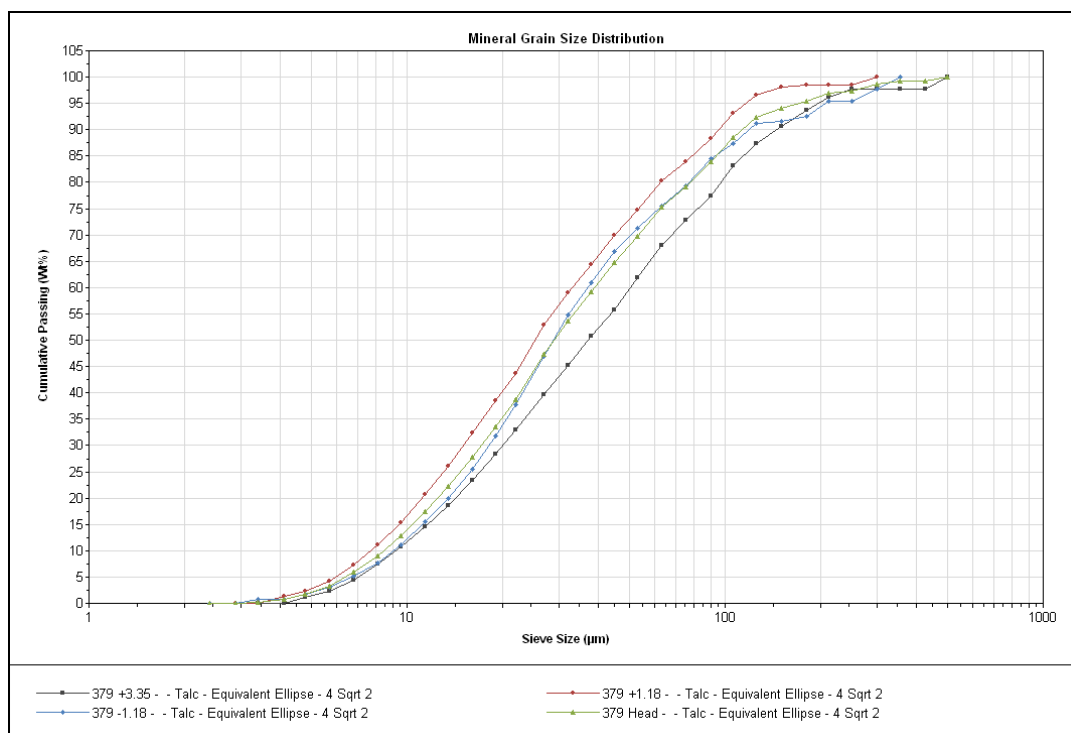


Figure 12 Cumulative Size Distributions of Talc – sample 379

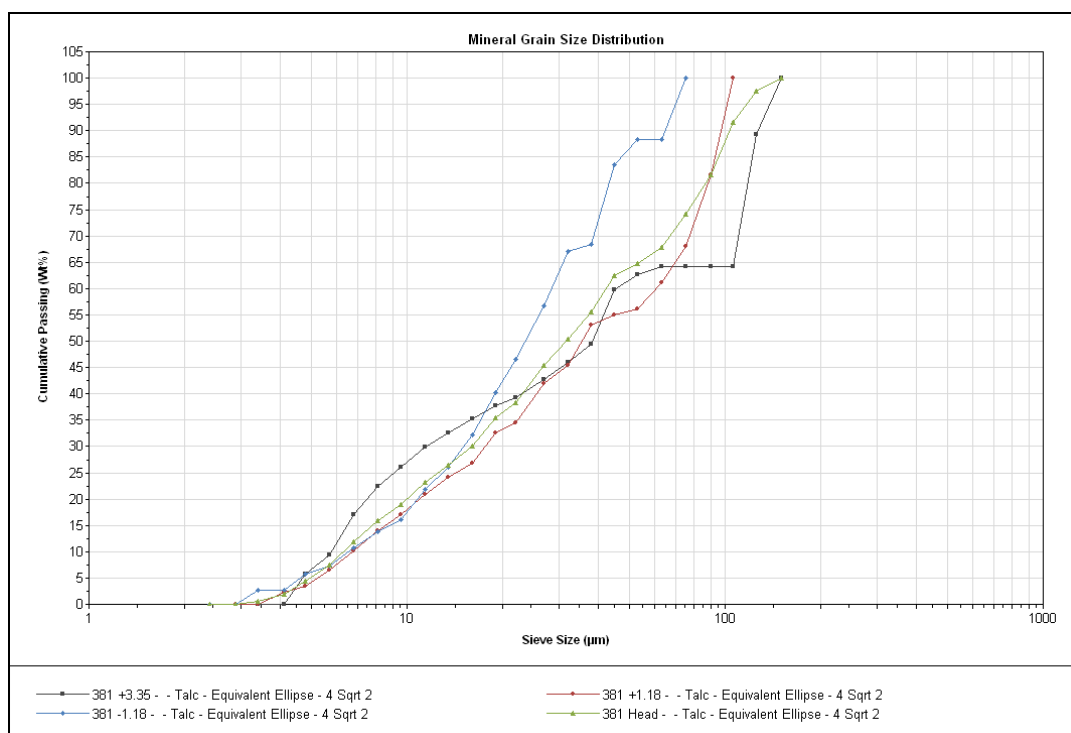


Figure 13 Cumulative Size Distributions of Talc – sample 381

3.8 Mineral Association Data

Mineral association calculates the percentage of the total phase boundary of one mineral in contact with other mineral phases in the sample. The data does not account for the concentration of the phases within each sample (i.e. if the samples are 50 Wt% magnesite then most other phases will show a strong association with magnesite). The modal mineralogy data should be considered when interpreting any association data.

The association data for magnesite, dolomite, talc and Fe Oxide is presented in Table 13 to Table 16. The gangue mineralogy has been grouped for data presentation. The free surface data has been removed from the association data to show the *in situ* associations only and the remaining association percentages normalised to 100% for the representation of the data. The data in Table 13 to Table 16 is read across rows only e.g. the percent association of magnesite with dolomite in sample 377 +3.35 fraction is 8.8 %, with talc 90.7 % etc.

As would be expected given the high magnesite content of the samples there is a strong association of minerals with magnesite. Magnesite had a significant (>61%) association with talc in all samples except 381 where the mineral was more closely associated with dolomite and quartz.

Table 13 Mineral Association Data - Magnesite (%)

Sample	Dolomite	Talc	Quartz	Sulphides
377 +3.35	8.8	90.7	0.4	0.0
377 +1.18	11.5	87.8	0.7	0.0
377 -1.18	13.5	85.4	0.7	0.1
378 +3.35	33.4	65.9	0.2	0.4
378 +1.18	39.5	59.4	0.5	0.5
378 -1.18	37.3	61.4	0.6	0.6
379 +3.35	15.8	83.4	0.1	0.7
379 +1.18	19.1	79.9	0.3	0.7
379 -1.18	22.9	76.2	0.1	0.7
381 +3.35	58.8	2.4	38.2	0.3
381 +1.18	59.8	3.2	36.5	0.4
381 -1.18	64.2	1.6	33.4	0.5

Table 14 Mineral Association Data - Talc (%)

Sample	Magnesite	Dolomite	Quartz
377 +3.35	99.9	0.1	0.0
377 +1.18	99.9	0.0	0.0
377 -1.18	99.5	0.3	0.0
378 +3.35	99.2	0.4	0.1
378 +1.18	99.1	0.5	0.3
378 -1.18	98.4	1.5	0.0
379 +3.35	99.8	0.1	0.0
379 +1.18	99.8	0.2	0.0
379 -1.18	99.6	0.4	0.0
381 +3.35	92.7	1.4	5.8
381 +1.18	96.2	0.4	3.3
381 -1.18	81.6	3.0	15.4

Table 15 Mineral Association Data - Dolomite (%)

Sample	Magnesite	Talc	Quartz	Sulphides
377 +3.35	99.4	0.6	0.0	0.0
377 +1.18	99.6	0.4	0.0	0.0
377 -1.18	97.8	2.1	0.0	0.0
378 +3.35	97.7	0.8	0.0	1.2
378 +1.18	98.0	0.7	0.0	0.7
378 -1.18	96.7	2.4	0.0	0.6
379 +3.35	99.1	0.5	0.0	0.3
379 +1.18	98.4	0.8	0.0	0.5
379 -1.18	98.6	1.2	0.0	0.1
381 +3.35	99.6	0.1	0.1	0.1
381 +1.18	99.7	0.0	0.1	0.1
381 -1.18	99.3	0.1	0.4	0.1

Table 16 Mineral Association Data – Fe Oxide (%)

Sample	Magnesite	Dolomite	Calcite	Talc	Quartz	Other Silicates	Sulphides
377 +3.35	92.2	0.0	0.0	0.0	7.8	0.0	0.0
377 +1.18	100.0	0.0	0.0	0.0	0.0	0.0	0.0
377 -1.18	76.7	1.7	0.0	13.2	5.1	0.3	2.8
378 +3.35	74.2	0.0	0.0	25.8	0.0	0.0	0.0
378 +1.18	52.0	28.2	0.0	19.8	0.0	0.0	0.0
378 -1.18	34.4	42.1	0.0	18.5	0.0	5.0	0.0
379 +3.35	45.6	0.0	0.0	54.4	0.0	0.0	0.0
379 +1.18	83.7	0.0	0.0	0.0	16.3	0.0	0.0
379 -1.18	65.8	0.0	0.0	1.0	0.0	21.1	12.1
381 +3.35	93.7	2.9	0.0	0.0	2.5	0.0	0.9
381 +1.18	88.0	9.2	0.0	0.3	2.5	0.0	0.0
381 -1.18	86.3	10.4	0.0	0.0	3.3	0.0	0.0

3.9 Particle Images

The particle images in Appendix 3 are line-ups designed to illustrate the typical textures of magnesite. All particle images are available on the Client's data CD.

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Appendix 1 Mineral Reference File

Mineral	Density	Formula	Ca (%)	Fe (%)	Mg (%)	Si (%)
Magnesite	3.01	(Mg,Fe,Ca)CO ₃	0.09	0.20	28.64	0.00
Pyrite	5.20	FeS ₂	0.00	46.74	0.00	0.00
Chalcopyrite	4.20	CuFeS ₂	0.00	30.49	0.00	0.00
Sphalerite	4.05	ZnS	0.00	0.00	0.00	0.00
Iron-oxide	5.20	(Fe,V)3O ₄	0.00	71.85	0.00	0.00
Fluorite	3.21	CaF ₂	51.33	0.00	0.00	0.00
Calcite	2.79	CaCO ₃	40.05	0.00	0.00	0.00
Dolomite	2.89	CaMg(CO ₃) ₂	21.73	0.00	13.18	0.00
Dolomite-Fe	2.92	Ca(Mg,Fe,Mn)(CO ₃) ₂	21.32	3.13	11.47	0.00
Apatite	3.20	Ca ₅ (PO ₄) ₃ (OH,Cl,F)	39.17	0.00	0.00	0.00
Anhydrite	2.95	CaSO ₄	29.60	0.00	0.00	0.00
Barite	4.50	(Ba,Sr)SO ₄	0.00	0.00	0.00	0.00
Muscovite	2.80	KAl ₂ (AlSi ₃ O ₁₀)(OH) ₂	0.00	0.00	0.00	21.15
Olivine	3.50	(Mg,Fe,Ca,Mn,Ni) ₂ SiO ₄	0.34	17.04	21.38	18.27
Plagioclase	2.67	(Na,Ca)Al ₁₋₂ Si ₃₋₂ O ₈	5.17	0.00	0.00	28.44
Quartz	2.65	SiO ₂	0.00	0.00	0.00	46.74
Talc	2.69	Mg ₃ Si ₄ O ₁₀ (OH) ₂	0.00	0.00	18.76	32.21

Appendix 2 Mineral Abundances Ungrouped

Mineral	377 +3.35 - Wt%	377 +1.18 - Wt%	377 -1.18 - Wt%	377 Head - Wt%
Magnesite	94.83	95.44	92.70	94.49
Pyrite	0.00	0.00	0.05	0.02
Chalcopyrite	0.00	0.00	0.00	0.00
Sphalerite	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.00	0.23	0.07
Fluorite	0.00	0.00	0.00	0.00
Calcite	0.00	0.00	0.00	0.00
Dolomite	0.64	0.44	1.30	0.74
Dolomite-Fe	0.00	0.00	0.00	0.00
Apatite	0.00	0.00	0.00	0.00
Anhydrite	0.00	0.00	0.00	0.00
Barite	0.00	0.00	0.00	0.00
Muscovite	0.00	0.00	0.02	0.01
Olivine	0.00	0.00	0.00	0.00
Plagioclase	0.00	0.00	0.00	0.00
Quartz	0.01	0.01	0.03	0.02
Talc	4.52	4.11	5.67	4.66
Total	100.00	100.00	100.00	100.00









Mineral	378 +3.35 - Wt%	378 +1.18 - Wt%	378 -1.18 - Wt%	378 Head - Wt%
Magnesite	74.90	71.88	74.88	73.54
Pyrite	0.05	0.03	0.07	0.04
Chalcopyrite	0.00	0.00	0.00	0.00
Sphalerite	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.00	0.05	0.01
Fluorite	0.00	0.00	0.00	0.00
Calcite	0.00	0.00	0.00	0.00
Dolomite	16.80	20.96	15.72	18.41
Dolomite-Fe	4.64	3.94	3.84	4.14
Apatite	0.00	0.00	0.00	0.00
Anhydrite	0.00	0.00	0.01	0.00
Barite	0.00	0.04	0.00	0.02
Muscovite	0.00	0.00	0.01	0.00
Olivine	0.00	0.00	0.00	0.00
Plagioclase	0.00	0.00	0.00	0.00
Quartz	0.01	0.15	0.12	0.10
Talc	3.61	3.00	5.30	3.74
Total	100.00	100.00	100.00	100.00

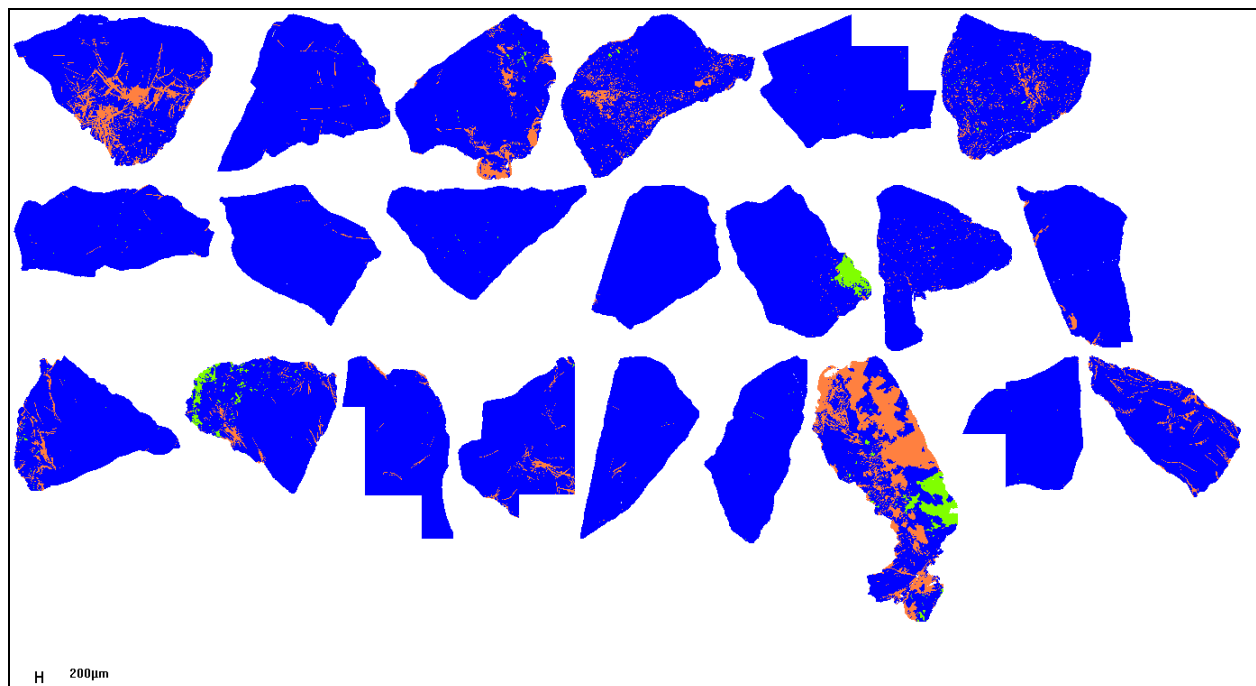
Mineral	379 +3.35 - Wt%	379 +1.18 - Wt%	379 -1.18 - Wt%	379 Head - Wt%
Magnesite	94.24	93.82	93.41	93.85
Pyrite	0.03	0.03	0.06	0.04
Chalcopyrite	0.00	0.00	0.00	0.00
Sphalerite	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.00	0.02	0.00
Fluorite	0.00	0.00	0.00	0.00
Calcite	0.00	0.00	0.00	0.00
Dolomite	2.92	3.90	3.53	3.54
Dolomite-Fe	0.00	0.00	0.00	0.00
Apatite	0.00	0.00	0.00	0.00
Anhydrite	0.00	0.00	0.00	0.00
Barite	0.00	0.00	0.00	0.00
Muscovite	0.00	0.00	0.00	0.00
Olivine	0.00	0.00	0.00	0.00
Plagioclase	0.00	0.00	0.00	0.00
Quartz	0.00	0.04	0.00	0.02
Talc	2.80	2.21	2.97	2.55
Total	100.00	100.00	100.00	100.00

Mineral	381 +3.35 - Wt%	381 +1.18 - Wt%	381 -1.18 - Wt%	381 Head - Wt%
Magnesite	77.73	88.70	83.47	84.18
Pyrite	0.01	0.01	0.03	0.01
Chalcopyrite	0.00	0.00	0.00	0.00
Sphalerite	0.00	0.00	0.00	0.00
Iron-oxide	0.00	0.01	0.01	0.01
Fluorite	0.00	0.00	0.00	0.00
Calcite	0.00	0.00	0.00	0.00
Dolomite	16.31	5.97	8.65	9.67
Dolomite-Fe	0.79	1.18	2.67	1.44
Apatite	0.00	0.00	0.00	0.00
Anhydrite	0.00	0.00	0.00	0.00
Barite	0.00	0.00	0.00	0.00
Muscovite	0.00	0.00	0.00	0.00
Olivine	0.00	0.00	0.00	0.00
Plagioclase	0.00	0.00	0.00	0.00
Quartz	5.13	4.08	5.11	4.65
Talc	0.04	0.06	0.04	0.05
Total	100.00	100.00	100.00	100.00

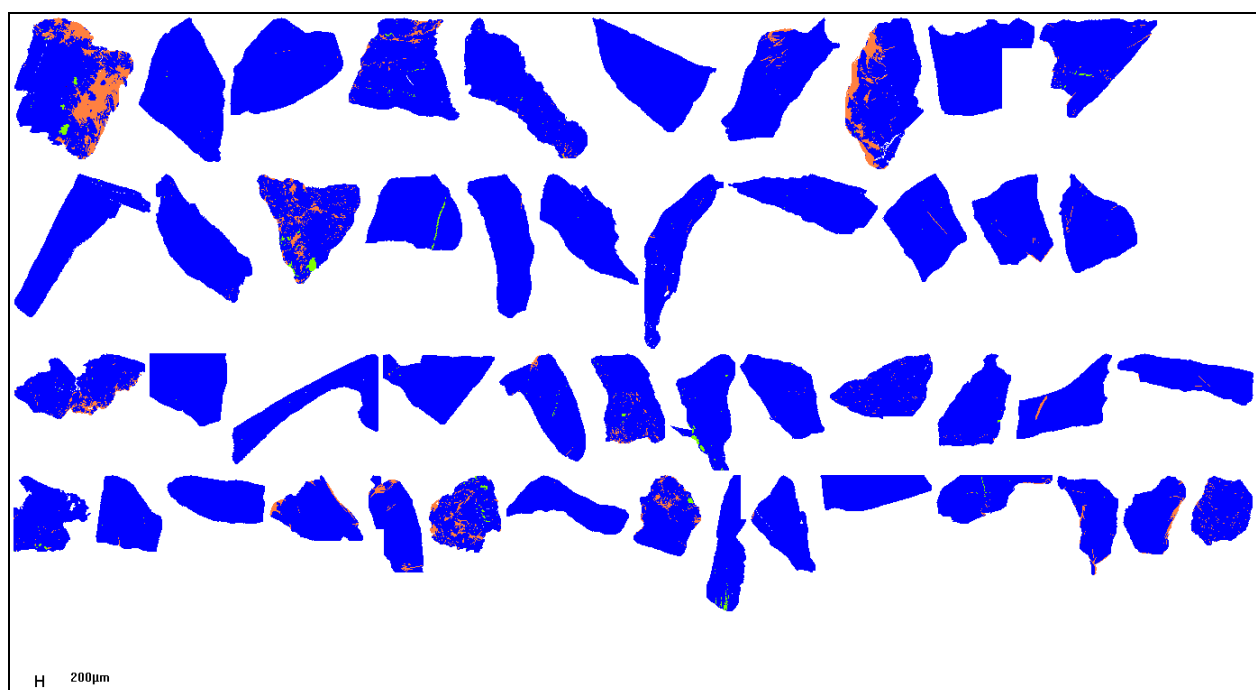
Appendix 3 Particle Images

LEGEND

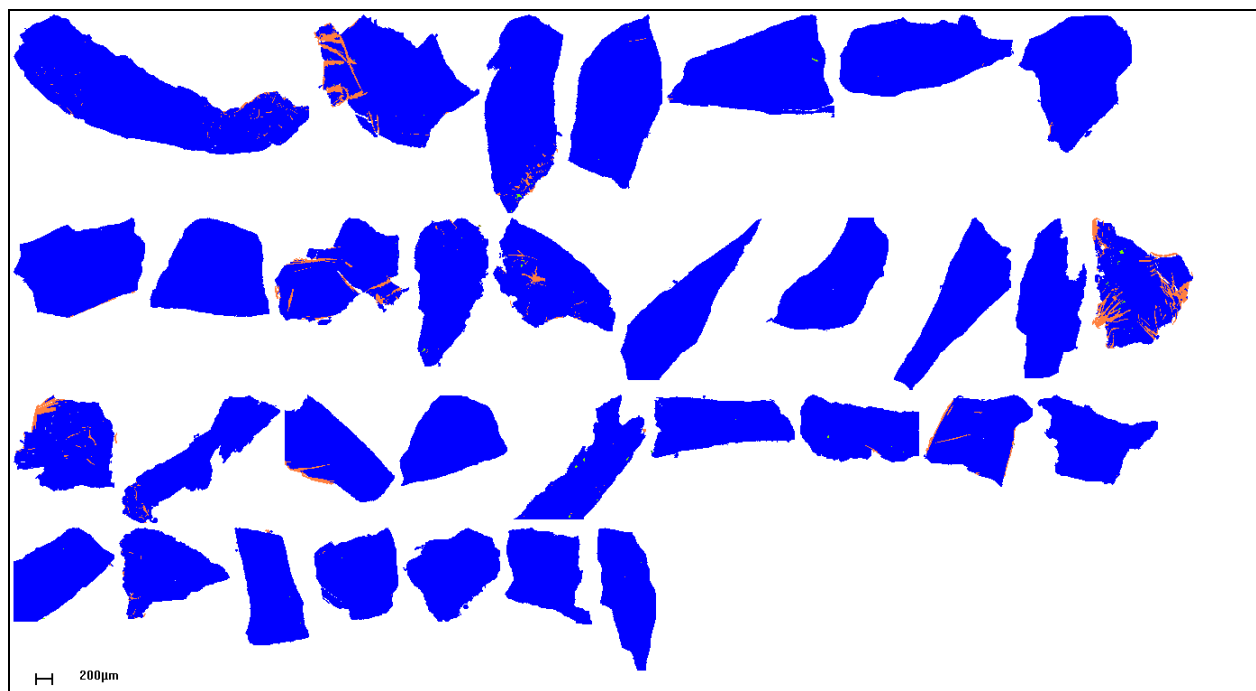
1		Magnesite
2		Dolomite
3		Calcite
4		Sulphides
5		Phos-sulphates
6		Phyllosilicates
7		Other_silicates
8		Others



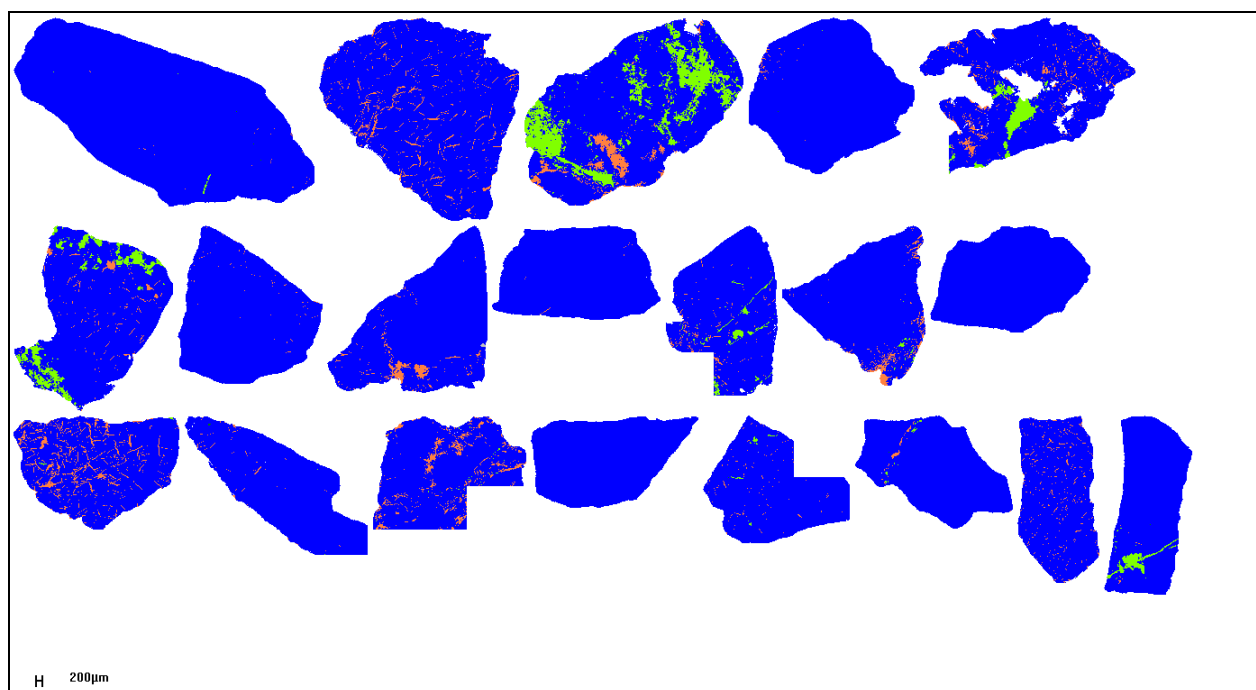
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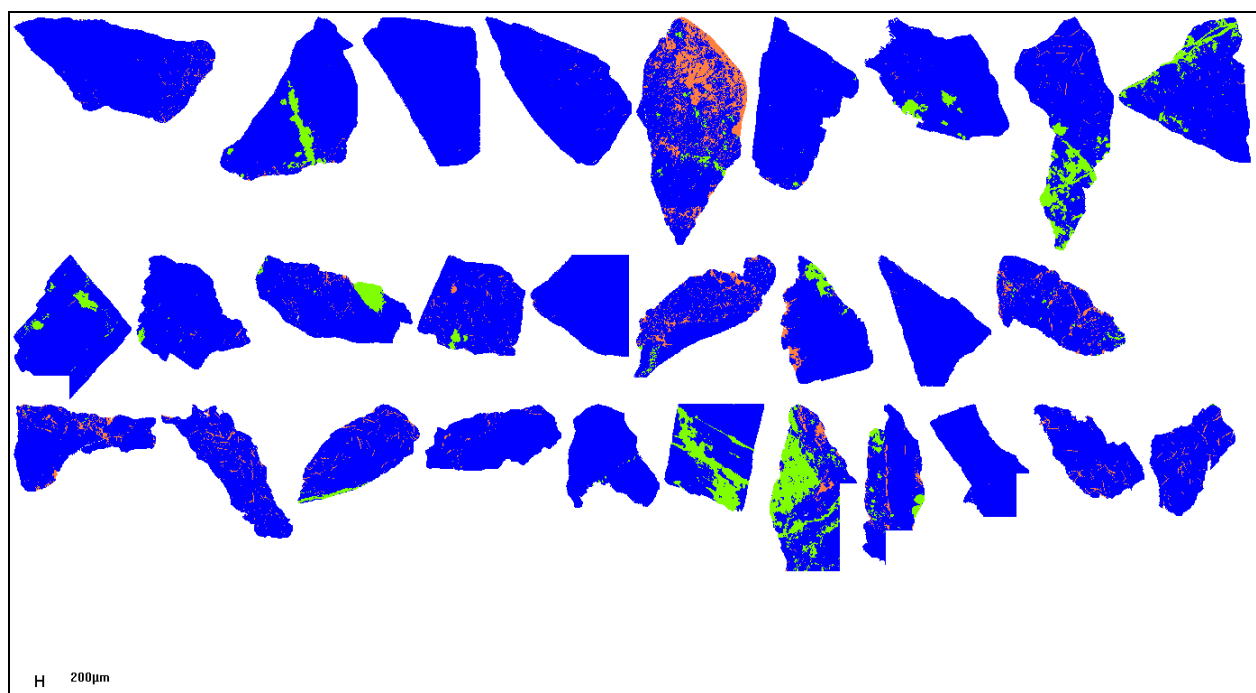
Sample 377 +1.18mm - Magnesite



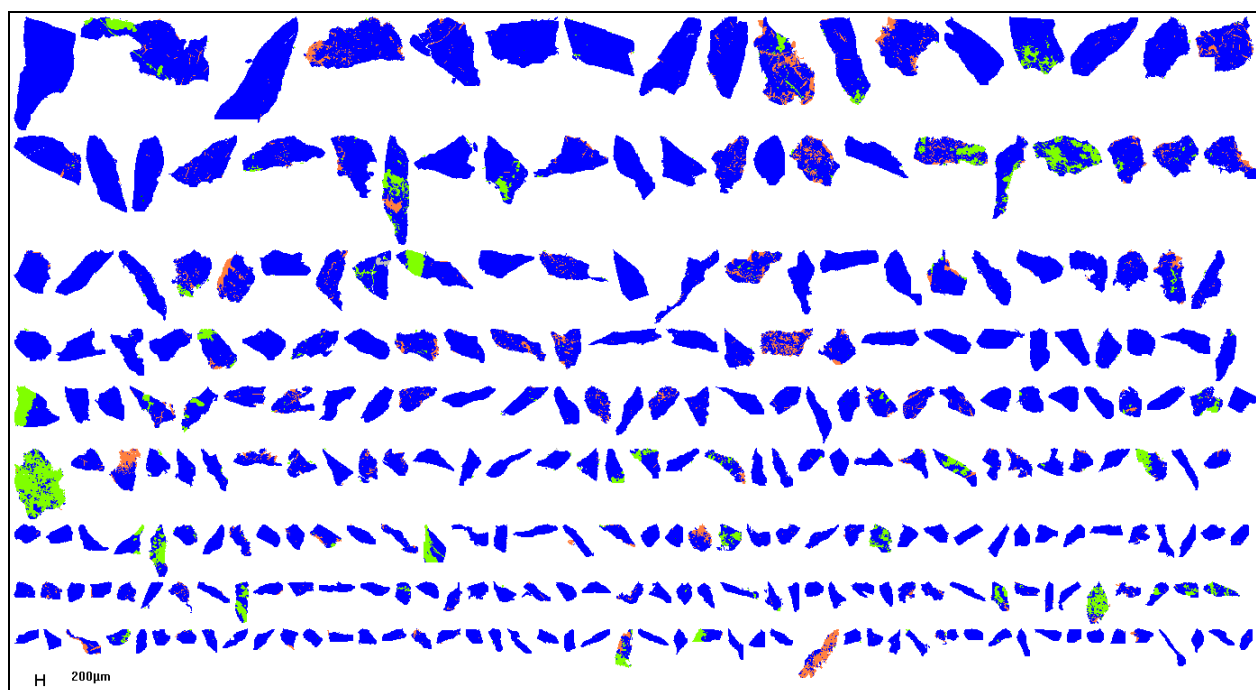
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Sample 378 +3.35mm – Magnesite



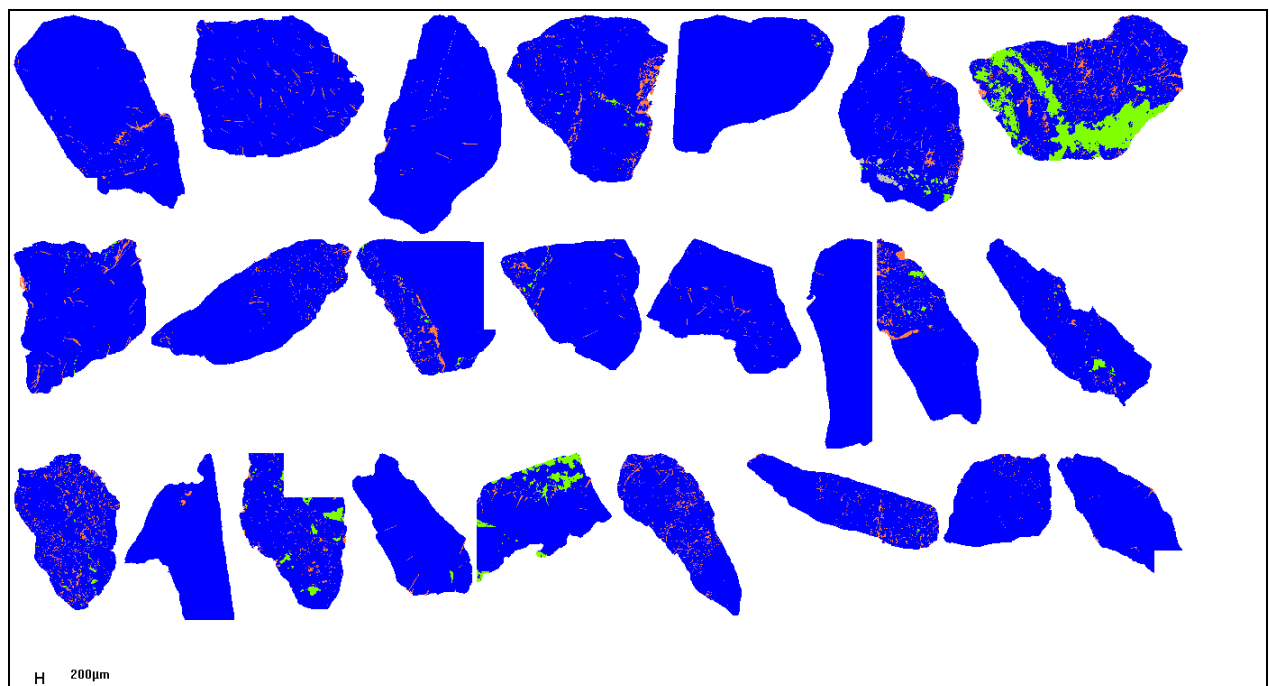
Sample 378 +1.18mm - Magnesite



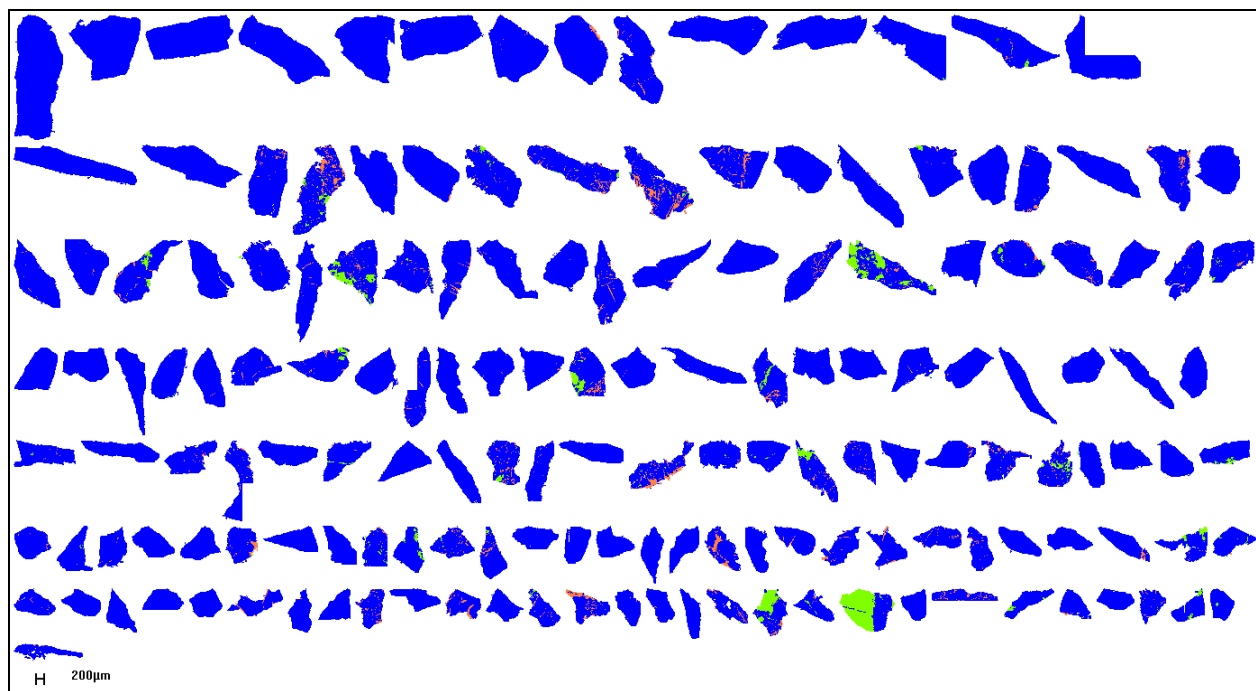
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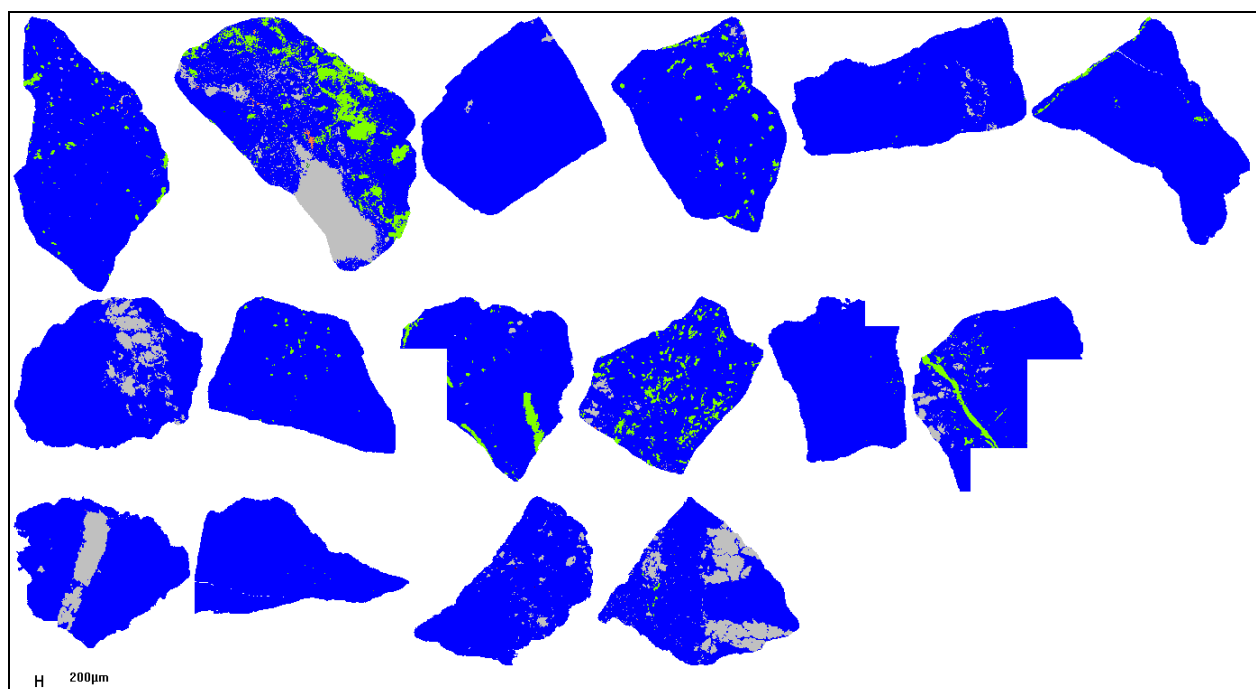
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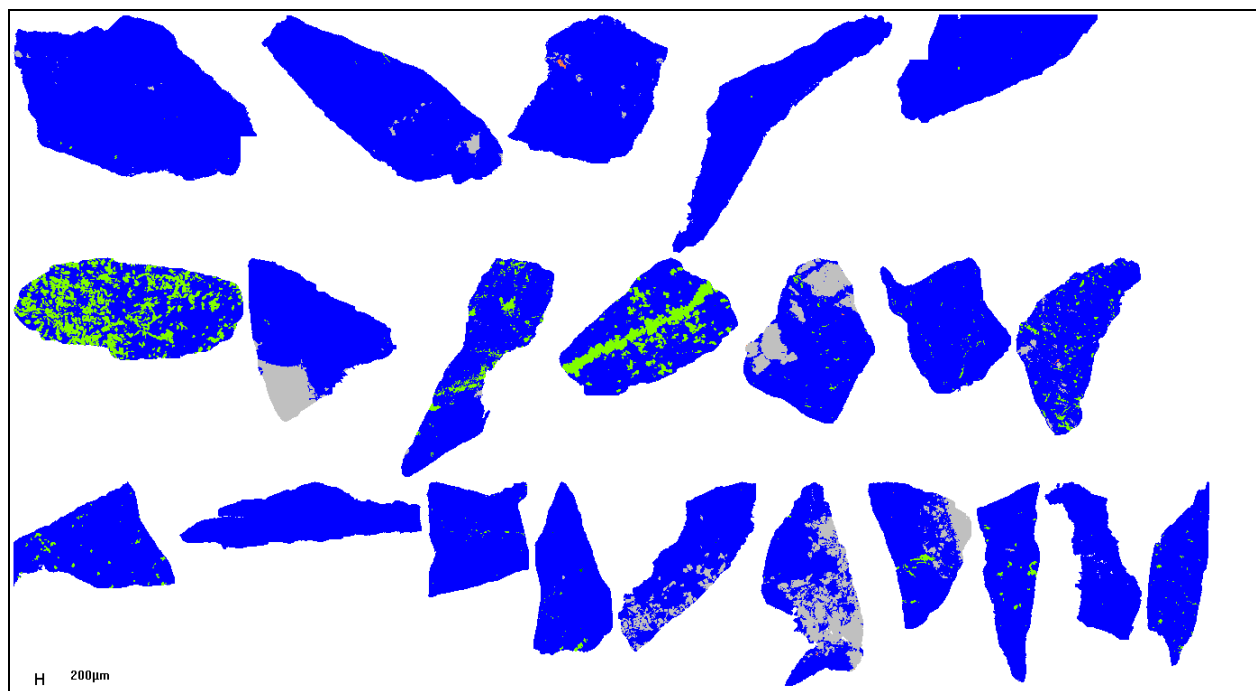
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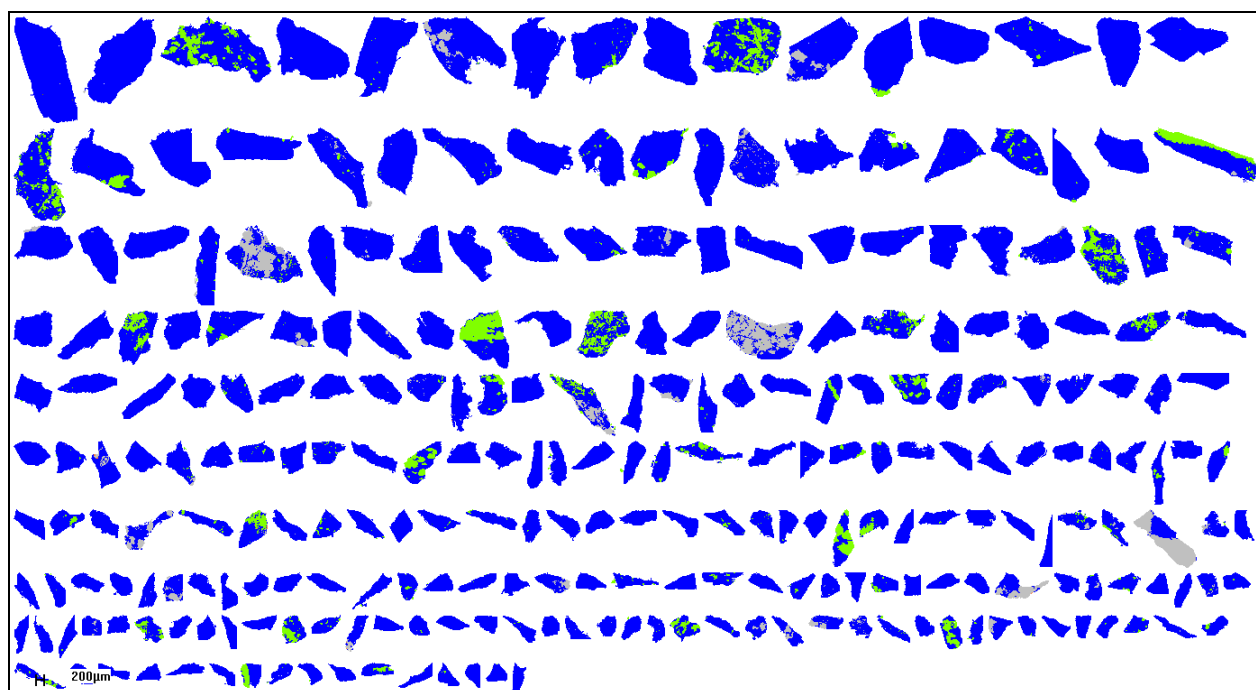
Sample 379 -1.18mm - Magnesite



Sample 381 +3.35mm – Magnesite



Sample 381 +1.18mm - Magnesite



Sample 381 -1.18mm - Magnesite