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Characterization for Konttijärvi Geometallurgical Orientation Study Samples

BATCircle Project Report 03

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Characterization for Konttijärvi Geometallurgical Orientation Study Samples

Abstract
This report is the documentation of characterization of the Orientation Samples in the Konttijärvi geometallurgical case study in the BATCircle project. This report is part of Work Package WP1.2. Included in this report:

- BATCircle experimental design
- The rock type character of the different Orientation Samples
- How they were samples and how they relate back to the Konttijärvi deposit
- Chemical Assay characterization
- X-Ray diffraction XRD
- X-Ray fluorescence XRF
- SEM automated mineralogy MLA
- Mineral profile for each rock type
- All data in appendices

Keywords
BATCircle Project, WP1.2, Konttijärvi, SAP, Geometallurgy

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This report was compiled by Simon Michaux. All other authors listed contributed a part which was incorporated into the whole.

EXECUTIVE SUMMARY

This report details new mineralogical (Chemical Assay, XRF, QXRD & SEM MLA) data for crushed composite core samples from the Konttijärvi Deposit in Finland.

The results confirm the field classification previously developed by Suhanko Arctic Platinum Oy (SAP), based on previous core logging and whole-rock geochemistry, which suggested the samples represent 5 main ore types. Two sub-samples were selected to represent each type, resulting in a total of 10 samples to be studied, as follows:

All five ore types are quite different from each other - in terms of their mineralogy, style of mineralization, and physical properties – making them an ideal suite of extreme end-member ore types typical of the presently-known, commercially-interesting, rocks at Konttijärvi.

Automated SEM-EDS modal analysis (MLA), and QXRD Rietveld data (whole-rock powders from the same samples), are internally consistent, although mineral names reported need to be interpreted to allow corellation.

The Peridotite Marker samples are characteristically talc-rich, in keeping with their original olivine having been replaced to secondary magnesium silicates. The Pyroxenite samples are amphibole-rich, and this is to be expected given that primary pyroxene is known to have been changed into amphibole (tremolite-actinolite) during metamorphism. The Marginal Series Gabbros contain conspicuous plagioclase feldspar. The Transition Zone is marked by the appearance of quartz as a minor phase. Finally, the Basement Gneiss is both plagioclase- and quartz-rich, as expected. Sulphide minerals of particular interest (as they are often associated with PGMs) include: pyrrhotite, chalcopyrite and pentlandite. The most copper-rich (chalcopyrite) sample is SKC-BAS2. The most nickel-rich (pentlandite) and pentlandite-rich samples are SKC-PM2 & SKC-BAS1. These observations confirm previous work by SAP, based on geochemical assays and logging.

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1 INTRODUCTION

This report is one in a series of reports to document work done in the development of the geometallurgy Konttijärvi case study, which is part of Work Package WP1.2 in the BATCircle project. A description and experimental approach of the BATCircle project is shown in Appendix A.

Samples were collected in consultation with Suhanko Arctic Platinum (SAP) staff, which would be the foundation of the geometallurgical Orientation Study (see Section C and D). These samples were to represent the rock texture extremes in which the rest of the deposit is made up of a combination of these samples. If these samples are characterized appropriately, process behaviour can be more effectively planned for.

The collected samples were transported to GTK-Mintec for sample preparation. Part of this sample preparation was to prepare a series of sub-samples, each of which were to be tasked for a specific process separation test. One of these sub-samples for each rock type was to be used to characterize the mineral composition and form of the rock as received (unprocessed). These characterization results would later be used to compare the products of process separation tests on parallel sister samples.

2 KONTTIJÄRVI GEOMETALLURGICAL EXPERIMENTAL OBJECTIVE

In context of mineral processing, both leaching and flotation have been considered as process paths in previous work. Sulphide extraction to be considered is to target both copper (Cu) and nickel (Ni). The geometallurgical objective for this campaign is:

> *Based on geometallurgical studies to refine the metallurgical process route to maximize recovery of minerals into separate Cu/PGE and Ni/PGE/Co concentrates*

2.1 Problems to address:

- Primary question – what is the most useful process path? Flotation, leaching, or a combination of both?
- Can gravity separation and magnetic separation augment the best process path?
- How does this change between rock types?
- How to achieve 80% for palladium recovery, where grain size is below 10 micron and mostly in pentlandite.
- Ni is concentrated at the lower end of the deposit. How to exploit this?
- A useful metallurgical target would be to try and suppress the pyrrhotite, as this would be a penalty element at the smelter.

3 KONTTIJÄRVI DEPOSIT (SAP) GEOLOGY

This geometallurgical approach will be applied to two case studies in the BATcircle Project. One of those BATCircle WP1.2 case studies is the Konttijärvi deposit, owned by Suhanko Arctic Platinum (SAP). Konttjärvi is a lense deposits that is deposited in clear layers, with the deposit 15-80m thick. There are five basic rock types.

- PM
- PYR
- MGB
- TZ
- BAS (quartz)

Minerals of interest could be will be chalcopyrite, pyrrhotite, some pyrite, pentlandite, with a basement of sphalerite. Economic minerals in order of importance Palladium (2g/t), Pt (0.5g/t), Cu (0.16%), Ni (0.08%), Au (0.1g/t), Co, Ag, Rhodium. The platinum group elements (PGE) are the most valuable, palladium (Pd) in particular.

3.1 Konttijärvi Deposit (SAP) Rock Type Descriptions

A description of each of the ten end member rock type extremes is shown in Table 1. Each one of these rock types was sampled (20 to 30kg) to form the Konttijärvi Orientation Sample set.

Table 1: Suhanko Arctic Platinum Oy Konttijärvi mineralised stratigraphy and ore type samples

Stratigraphic Unit	Average Thickness	Lithology Description	Sample Description
Hanging Wall		Gabbroic rocks, ranging from melanocratic to leucocratic varieties, with thinner or minor units of pyroxenites and olivine pyroxenites. Not mineralized.	
Peridotite Marker	15 - 50 m, avg. 25 m	Pyroxenites and olivine pyroxenites at the top, through peridotite in the middle to olivine pyroxenites at the bottom. Olivine has mainly been replaced by talc and magnetite, and pyroxenes by tremolite-actinolite. Euhedral carbonate crystals are common in places.Highly magnetic. Sulphide content, mainly pyrrhotite, increases towards the base. Disseminated chalcopyrite common at base. Sulphides mainly fine grained.	Sample PM1. Typical peridotite marker ore. Metaperidotite - olivine pyroxenite with high PGE and average base metal grades.
			Sample PM2. Typical peridotite marker ore. Metaperidotite - olivine pyroxenite with slightly below average PGE, average Cu, and slightly elevated Ni grades.
Pyroxenite	2 - 10 m, avg. 5 m	Olivine pyroxenite and pyroxenite, chlorite schist at the base. Pyroxenes have been replaced by amphibole (tremolite-actinolite). Grain size typically varies from fine to medium, but also coarse grained variations are fairly common. Low magnetic susceptibility. Fine disseminated sulphides, mainly chalcopyrite, and minor pyrrhotite. Lower part of pyroxenite often low sulhur, bornite bearing zone. Commonly a sharp contact to rocks below.	Sample PX1. Typical pyroxenite ore. Chlorite tremolite rock and chlorite schist at basal part of sampling interval. Fine grained patchy chalcopyrite dissemination with some pyrrhotite. Sulphides are mainly fine grained, in basal part of the sample partially medium grained. High PGE and average base metal grades
			Sample PX2. Typical pyroxenite ore. Chlorite tremolite rock and chlorite schist at basal part of sampling interval. Traces of fine grained chalcopyrite, basal part of sample is bornite bearing. Average PGE grades with low basemetal and very low sulphur grades.
Marginal Series Gabbro	0 - 25 m, avg. 10 m	Gabbronorites, feldspathic pyroxenites, pyroxenites and assimilated hybrid gabbros. Heterogenous zone. Main minerals are amphiboles, plagioclase and chlorite. Grain size typicalle medium to coarse. Assimilation features and basement xenoliths very common. Main sulphides are chalcopyrite, pyrrhotite and pentlandite, which occur as fine to coarse grained disseminations or patchy aggregates.	Sample MS1. Typical melanocratic to pyroxenitic marginal gabbro ore. Granular, medium to coarse grained mela gabbro or pyroxenite. Medium to coarse grained, patchy pyrrhotite and chalcopyrite. Moderate PGE grade, pyrrhotite dominant mineralisation.
			Sample MS2. Typical marginal gabbro ore. Granular,medium to coarse grained gabbro. Patchy, medium to fine grained chalcopyrite and pyrrhotite dissemination. Fairly high PGE and Cu grades. Bornite in the upper part of the sampling interval.
Transition Zone	0 - 40 m, avg. 15 m	Gradational contact between layered intrusion and basement. Heterogenous zone that comprises highly assimilated marginal series rocks, mainly hybrid gabbros, and altered basement rocks. Grain size usually medium to coarse. Typically dominantly mineralized with fine grained disseminated chalcopyrite and pyrrhotite, but also containing coarse grained and patchy sulphide aggregates.	Sample TZ1. Typical heterogenous banded amphibole gneiss type TZ ore. Alternating mafic and felsic bands. Silicate mineral grain size varies from fine to coarse. Dominantly fine grained chalcopyrite and pyrrhotite dissemination. Moderate PGE grade.
			Sample TZ2. Typical heterogenous hybrid gabbro type TZ ore. Mafic, medium to coarse grained. Patchy/blebby chalcopyrite and pyrrhotite, with coarser sulphides often concentrated in leucocratic blotches or veinlets. Low PGE and average base metal grades.
Basement		Archaean basement complex quartz diorites, gneisses and amphibolites, interlayered with possible hybrid gabbros and mafic dykes/sills (related to intrusion?). Texture varies from granular to gneissic and grain size medium to coarse. Main sulphides are pyrrhotite and chalcopyrite, which often occur as pervasive, fine grained disseminations. Pyrite is present in minor amounts. Moving away from the intrusion contact, the amount of pyrite increases as pyrrhotite and chalcopyrite start to disappear.	Sample BAS1. Typical felsic quartz dioritic basement ore type with minor amphibolite. Texture varies from granular to gneissic. Patchy, fine to medium grained chalcopyrite and pyrrhotite dissemination. Pyrrhotite dominant mineralised zone with average PGE and Cu, but high Ni grades.
			Sample BAS2. Typical mafic basement ore type. Medium grained, sheared and banded amphibole gneiss. Strong, fine grained chalcopyrite dissemination, minor pyrrhotite. Chalcopyrite dominant mineralised zone with average PGE, high Cu and low Ni grades.

3.2 Konttijärvi Sample Selection from Drill Core sections

Samples were selected to make up 20 to 30kg of each of the selected 10 rock types observed at the Konttijärvi deposit. The drill holes that were sampled (and at what depths) to deliver 20 to 30kg per rock type is shown in Appendix C & D.

Stratigraphic Unit	Average Thickness	Lithology Description	Sample Description
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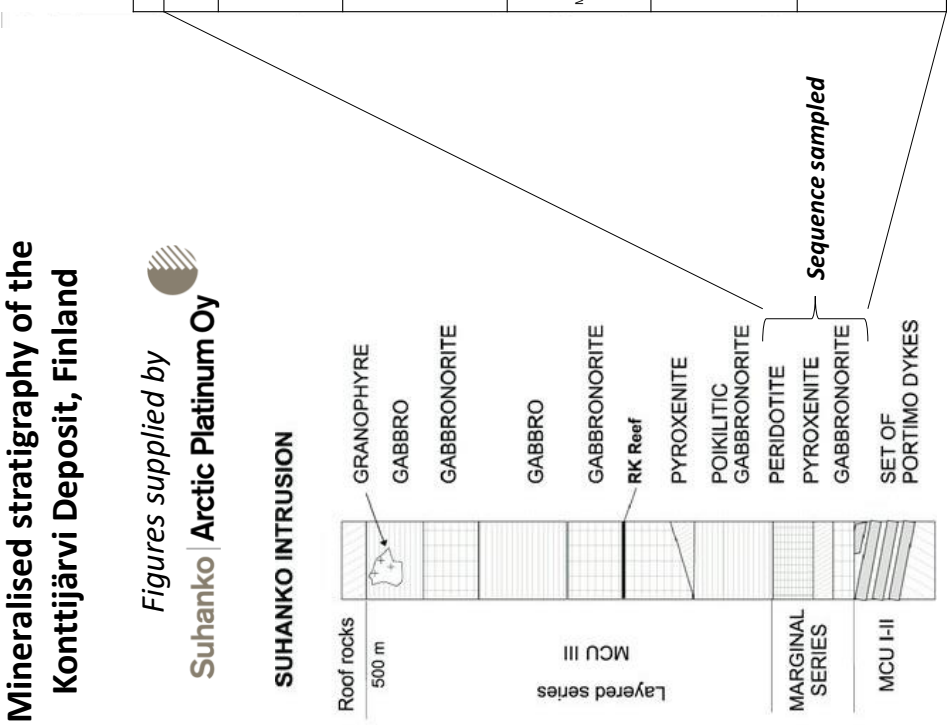


Figure 1. Samples were taken from this part of the stratigraphy

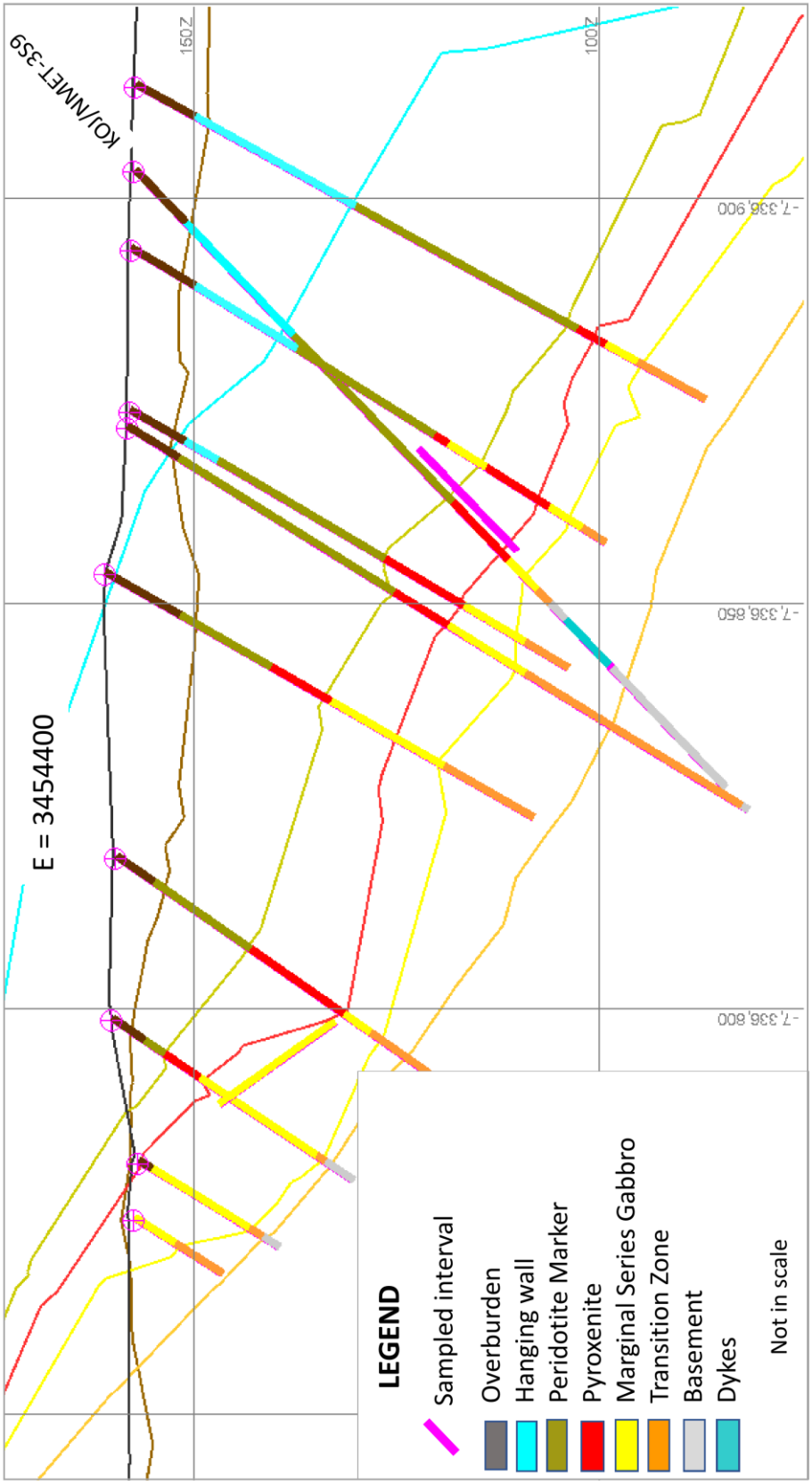


Figure 2. Sample selection from drill hole KOJ/MET-3S9

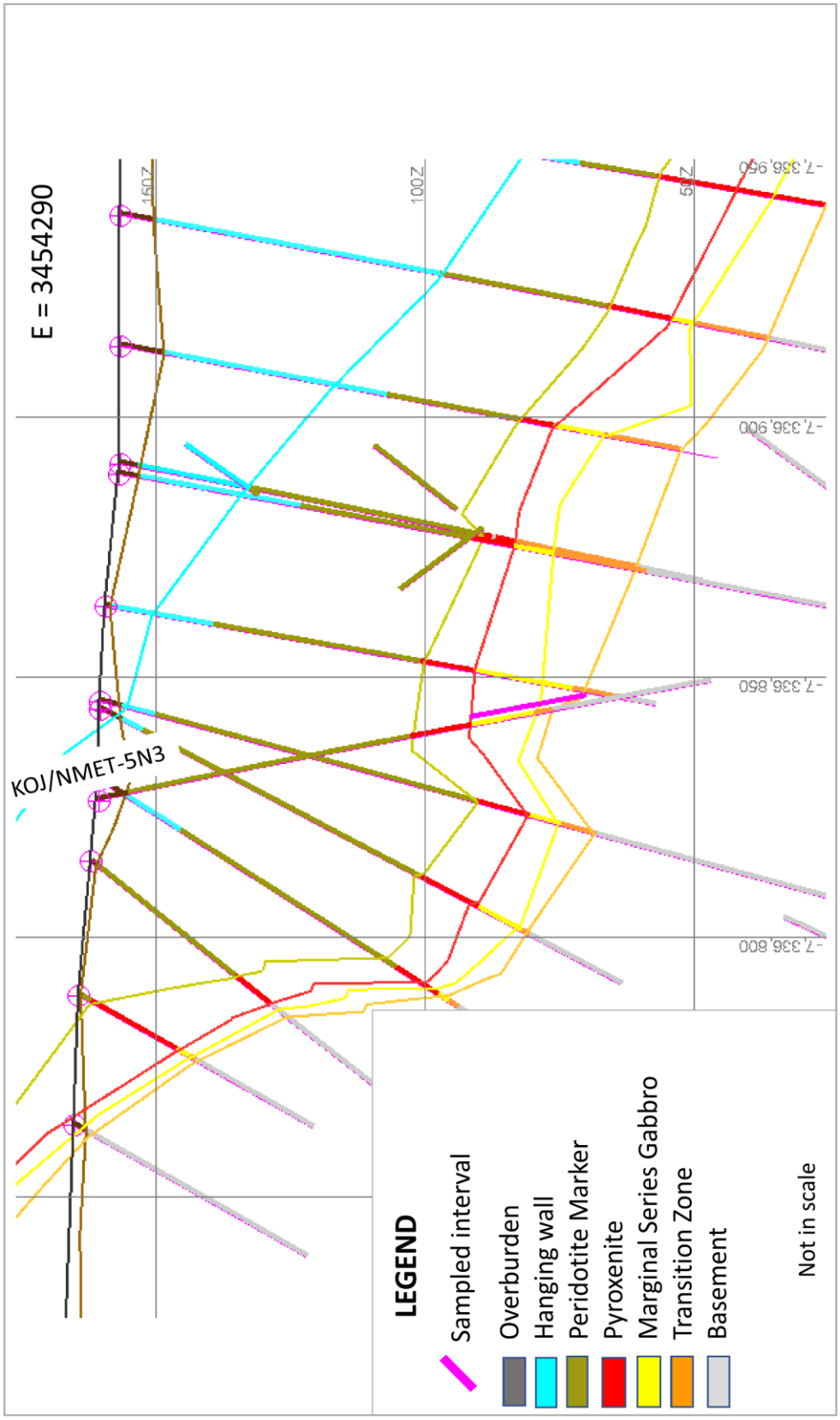


Figure 3. Sample selection from drill hole KOJ/MET-5N3

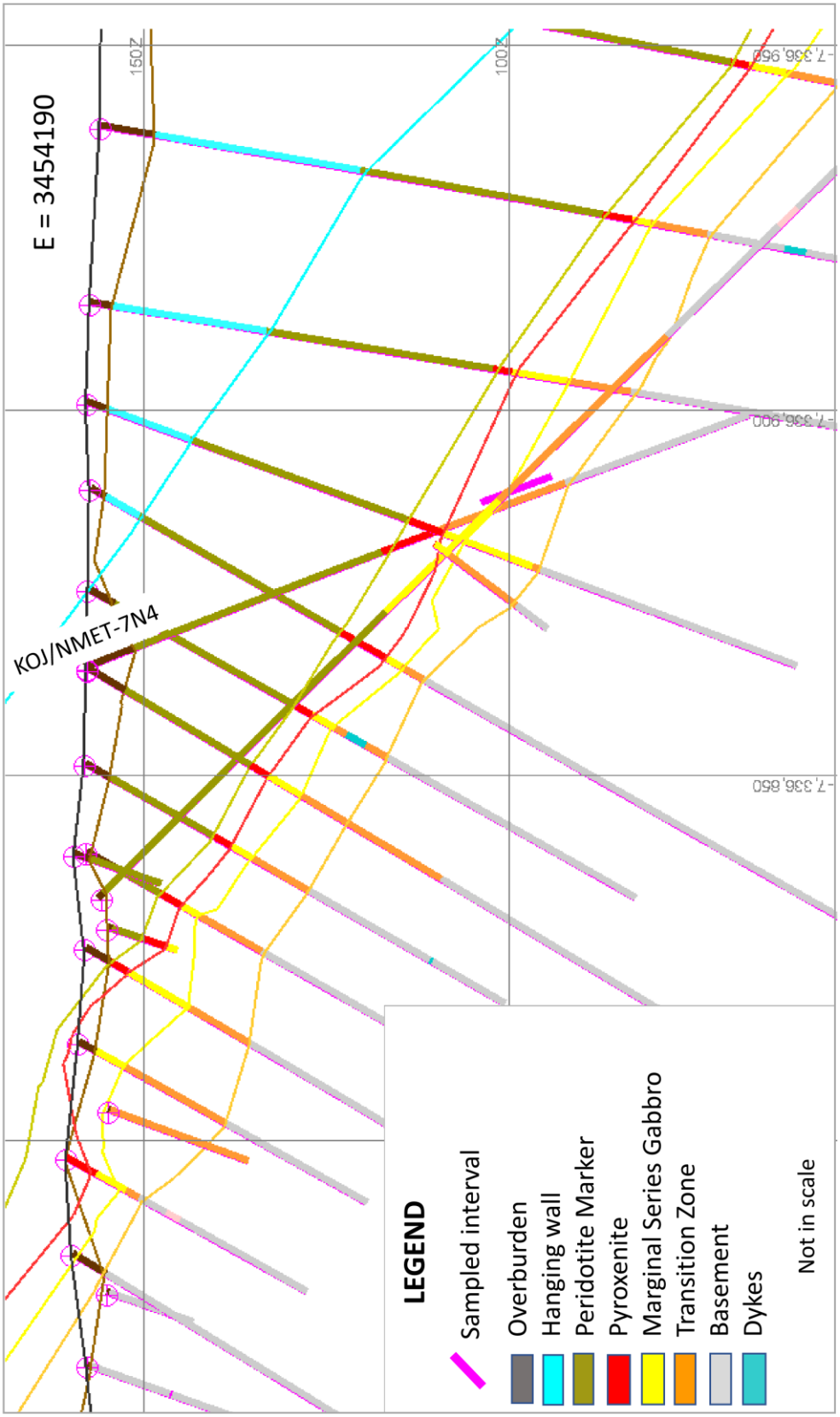


Figure 4. Sample selection from drill hole KOJ/MET-7N4

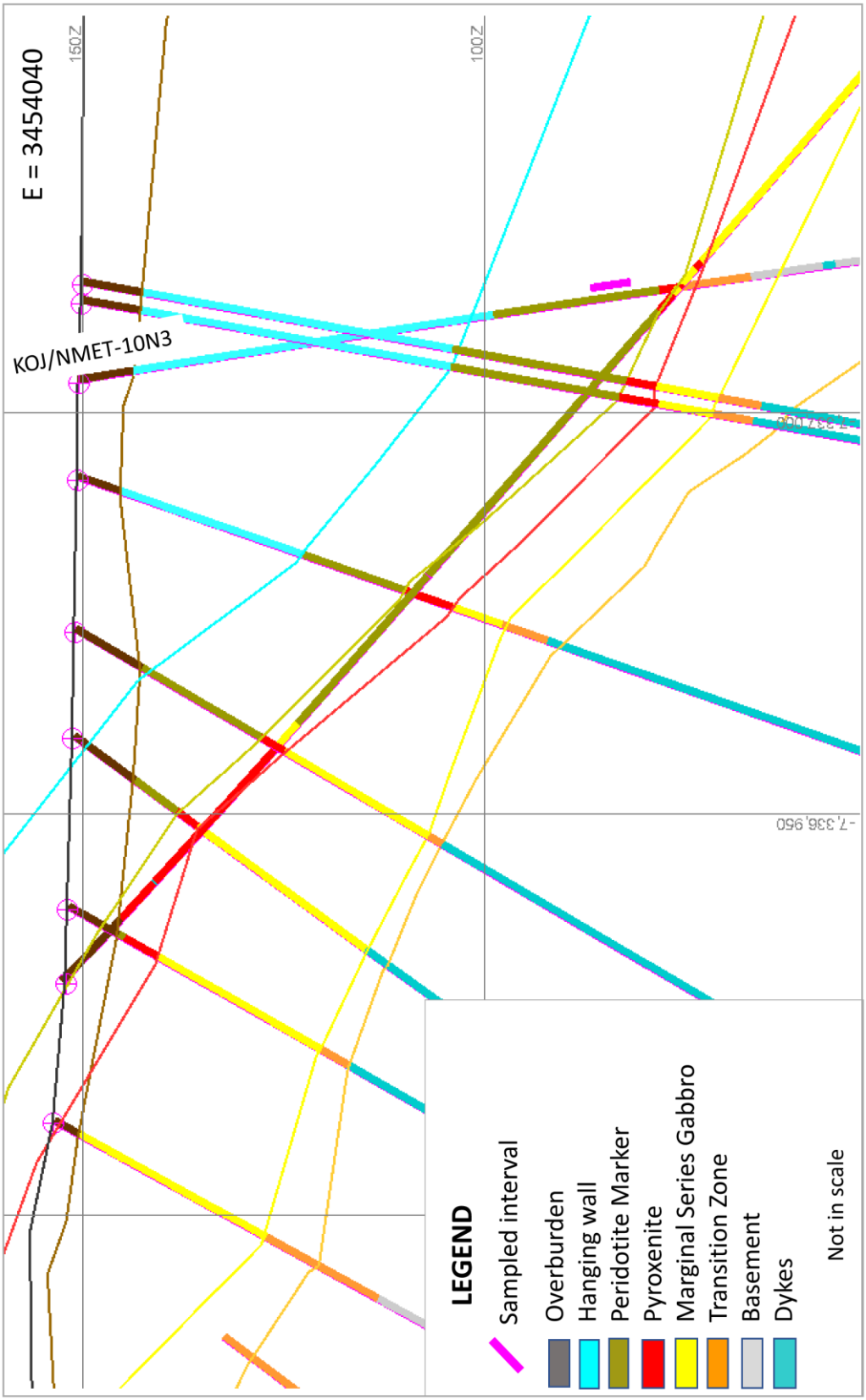


Figure 5. Sample selection from drill hole KOJ/MET-10N3

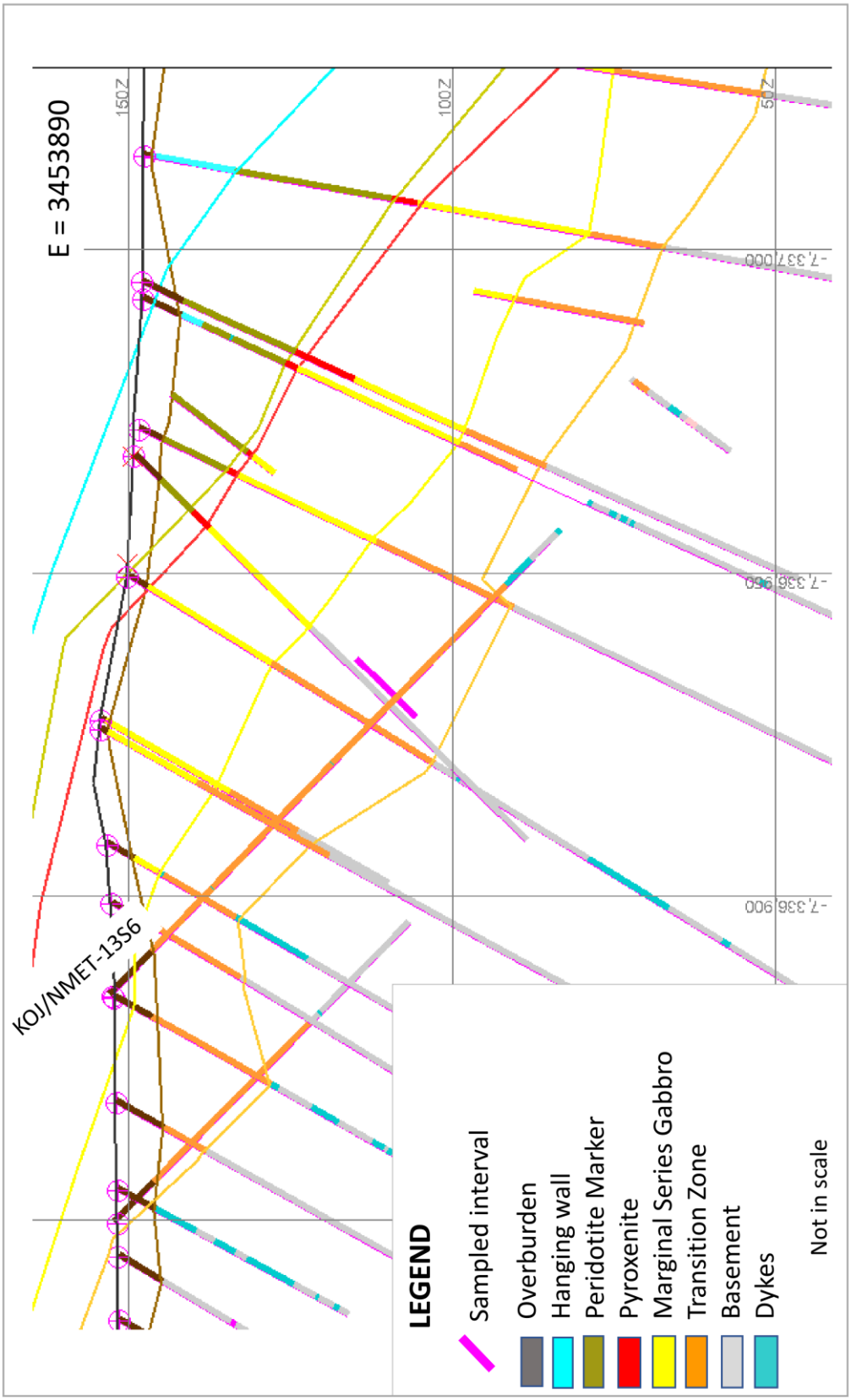


Figure 6. Sample selection from drill hole KOJ/MET-13S6

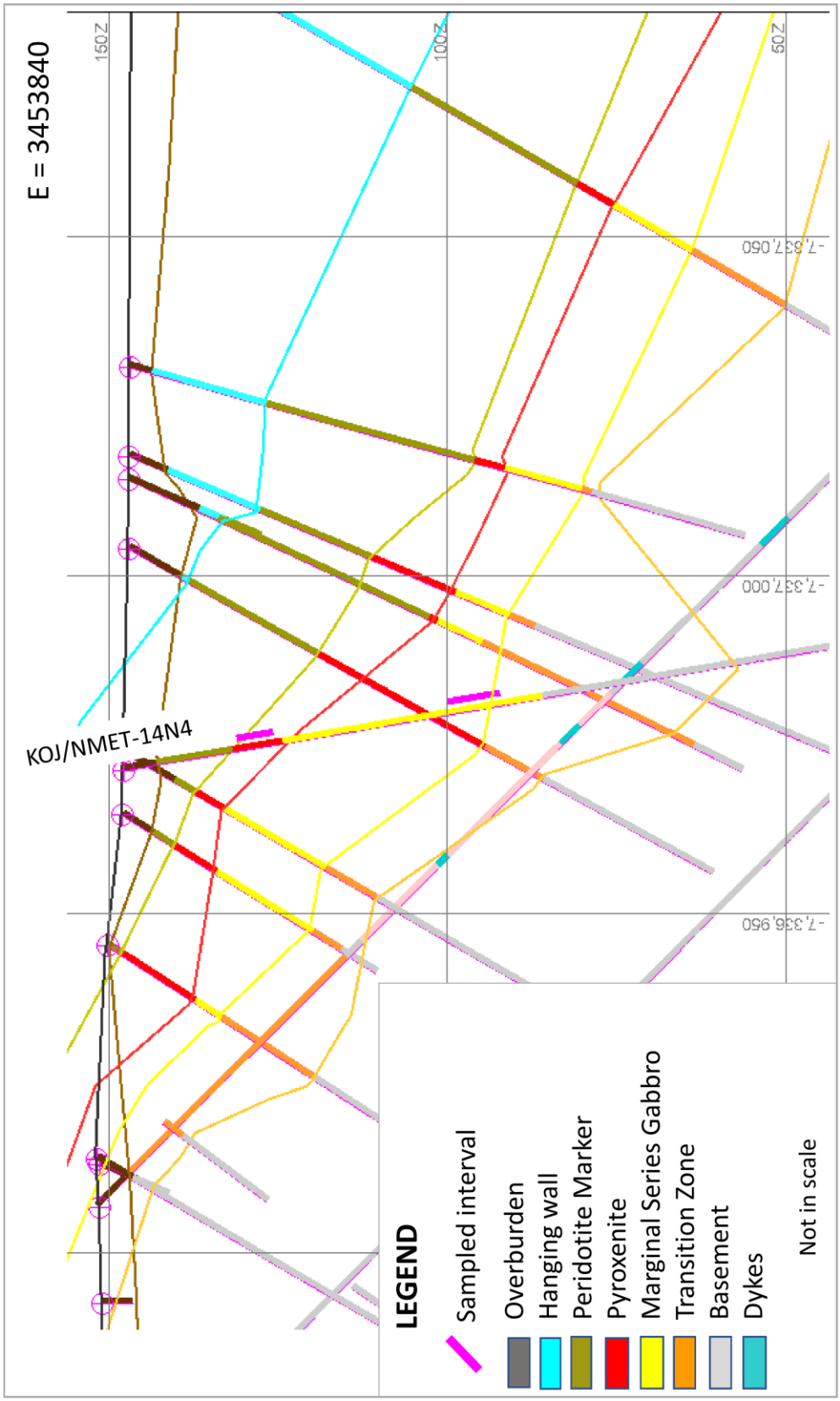


Figure 7. Sample selection from drill hole KOJ/MET-14N4

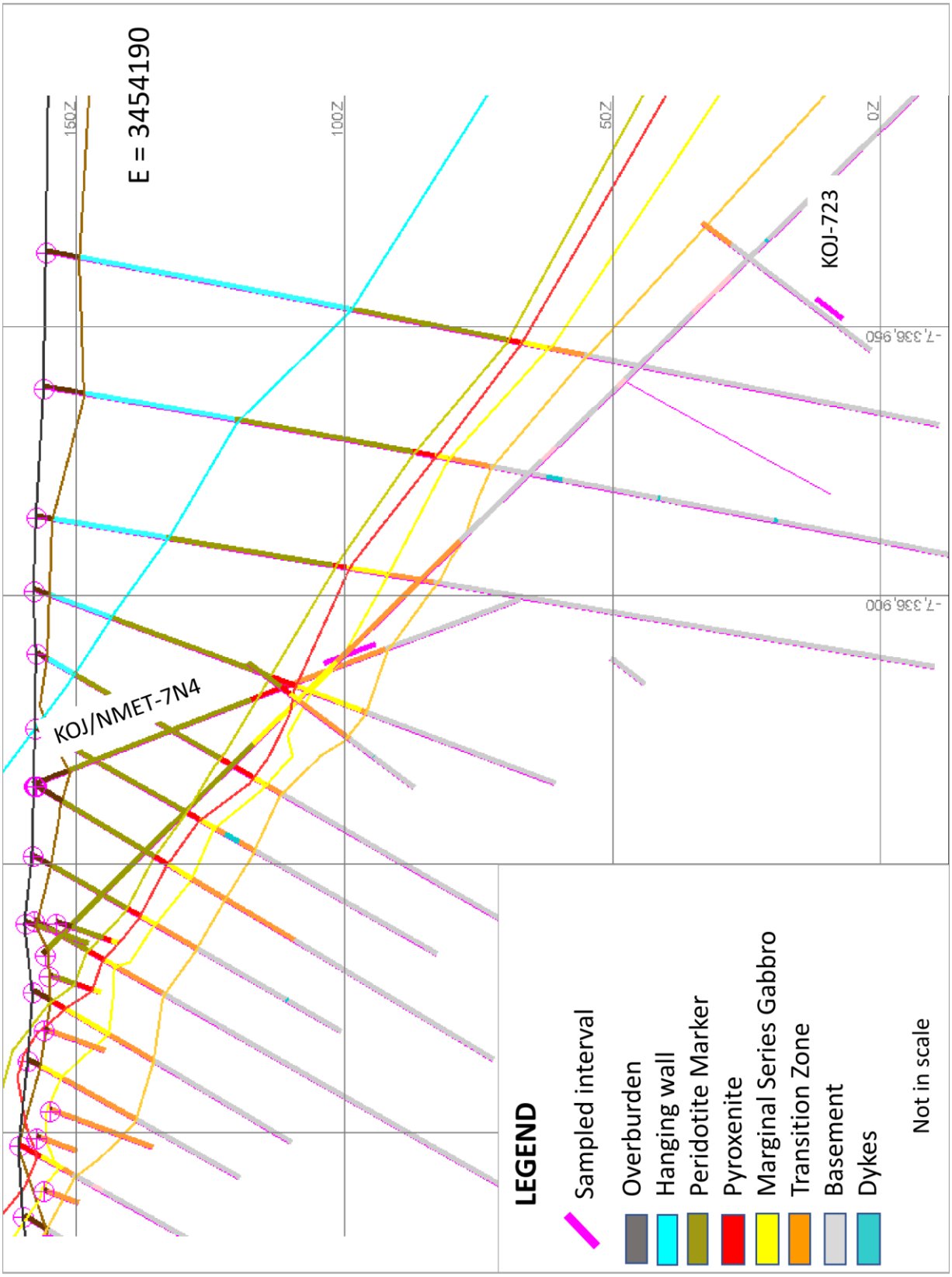


Figure 8. Sample selection from drill hole KOJ/MET-723

4 GENERAL BATCIRCLE EXPERIMENTAL DESIGN STRATEGY

The first part of the experimental procedure that would be carried out for this case study are as follows:

1. Meet with SAP staff and discuss the geology structures of the deposit, then come to an agreement in how many rock type extremes are present in the deposit, which could produce the process behaviour extremes. See Appendices C and D.

2. Select a number of samples that show end member rock texture extremes (the Orientation Study). These samples should reflect all the rock textures encountered in the deposits where all other textures would be a combination of these rock types. The mass of each of these orientation samples should be large enough to do all of the planned process and characterisation tests in a representative manner. In doing so, each test would be done on the same rock type texture (as close as practical). See Appendices C and D.

3. Sample preparation to produce Orientation Samples for process testing. See Appendix E. Crush the sample to 99% mass passing 3.35mm. Rotary divide the sample into representative sub-samples that would be tasked to specific characterization and process separation tests.

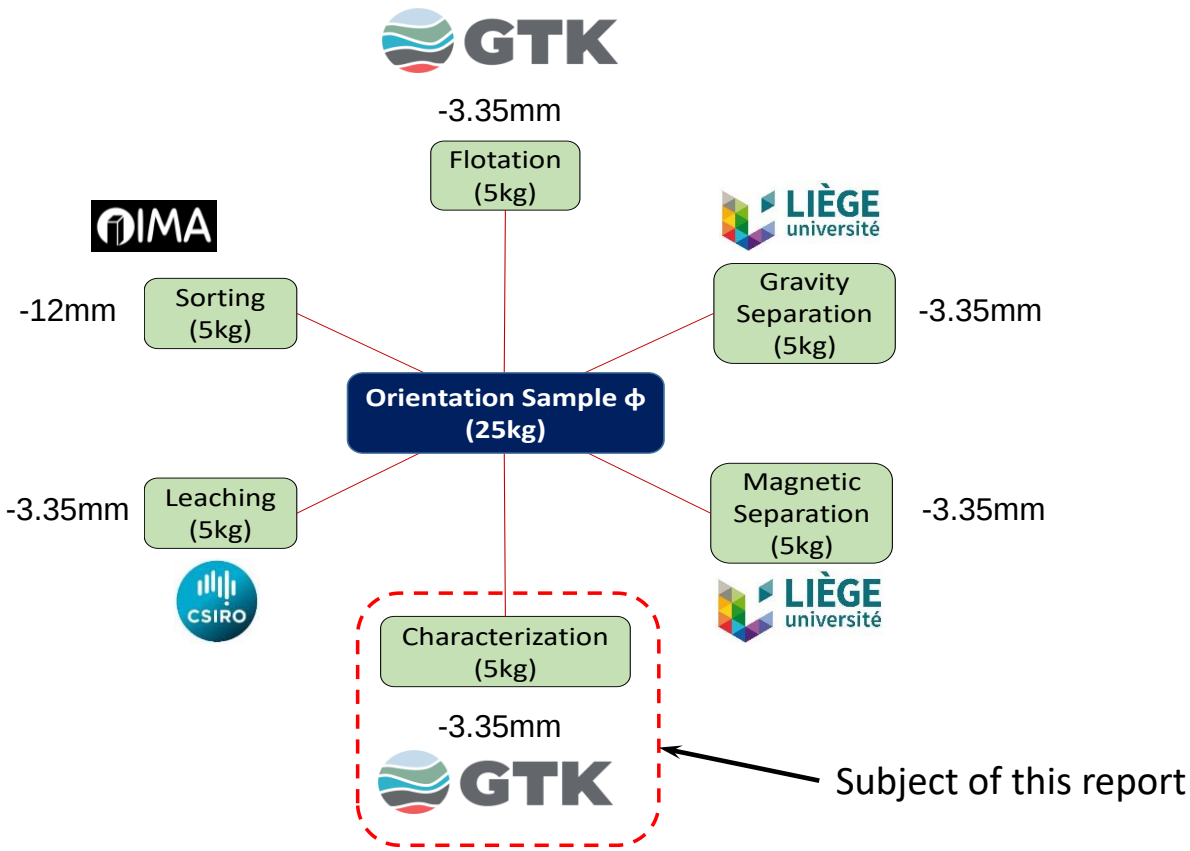


Figure 9. The sample preparation and subsampling of each Orientation Sample for process testing

4. First characterize each orientation sample with a series of methods that will be useful to compare to later test work across the whole geometallurgical campaign. Results are shown in Appendices F, G, H and I.

5. Do a series of detailed process characterisation tests and mineralogy characterisation tests on these small set of samples (gravity separation, flotation, and leaching), that could be made up into several parallel process paths. Characterize the products of each test in context of how the unprocessed samples were characterized.

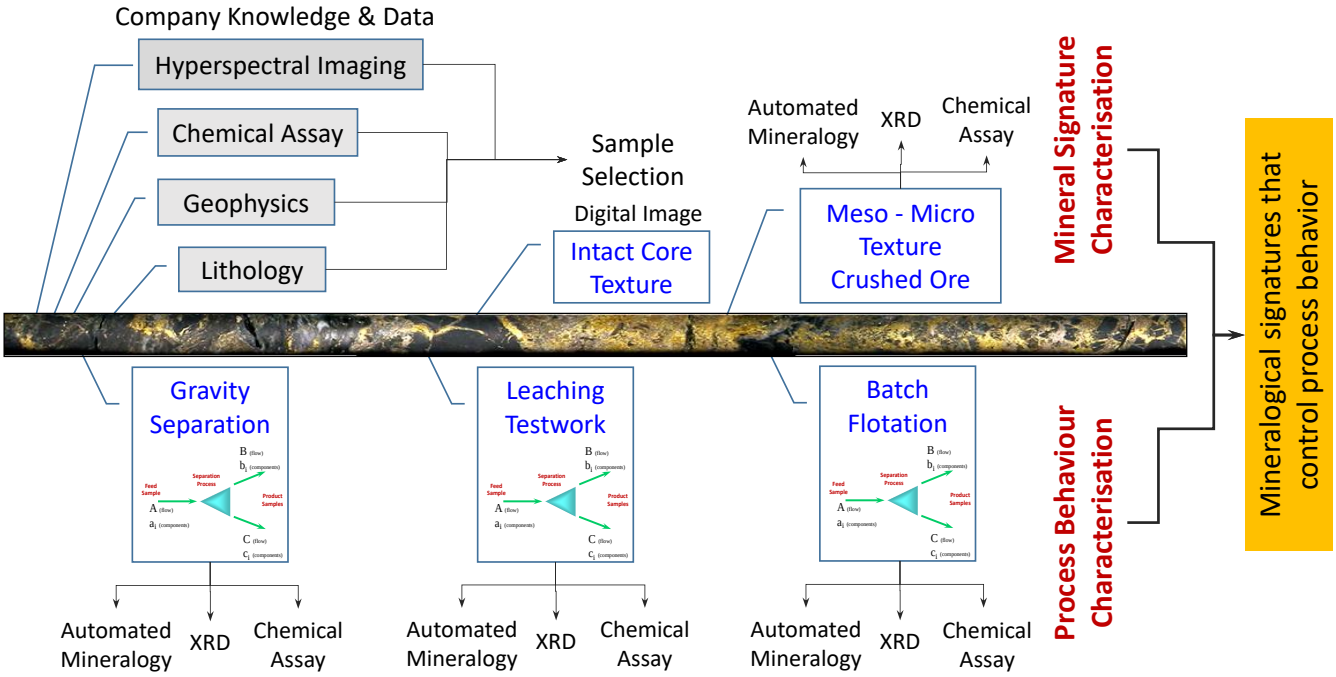


Figure 10. Ideal characterization work to be done on each Orientation Sample

6. Compare the characterized process products to the characterized unprocessed samples (results presented in this report). Assemble all process separation test outcomes and test product characterization data where all process methods applied on the same rock sample can be compared directly. Use the characterization data of the original sample (in this report) as a base reference.

7. Assemble all process separation test data together to model a theoretical process path.

8. Compare all process paths that have been examined for each rock type sample to the appropriate metrics. Determine what the best process path for that rock type is. What is the best for each target metal? What is the best polymetallic path for 2 or 3 target minerals?

9. Compare all process paths in all Orientation Sample rock types for this study. Determine what the best process path for all rock types is in this deposit system. What is the best for each target metal? What is the best polymetallic path for 2 or 3 target minerals?

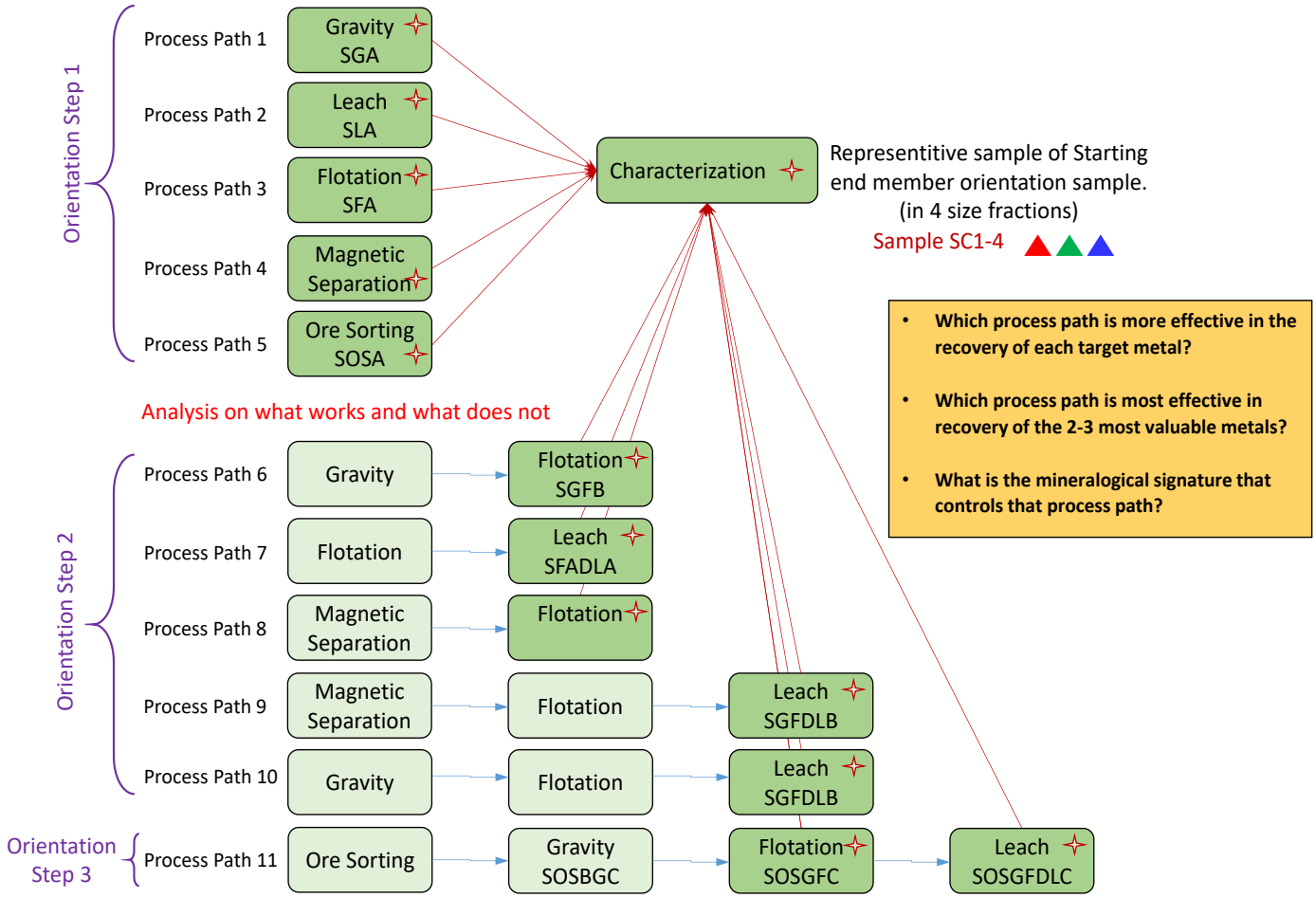


Figure 11. Diagnosis of the best process path for each ore type sample

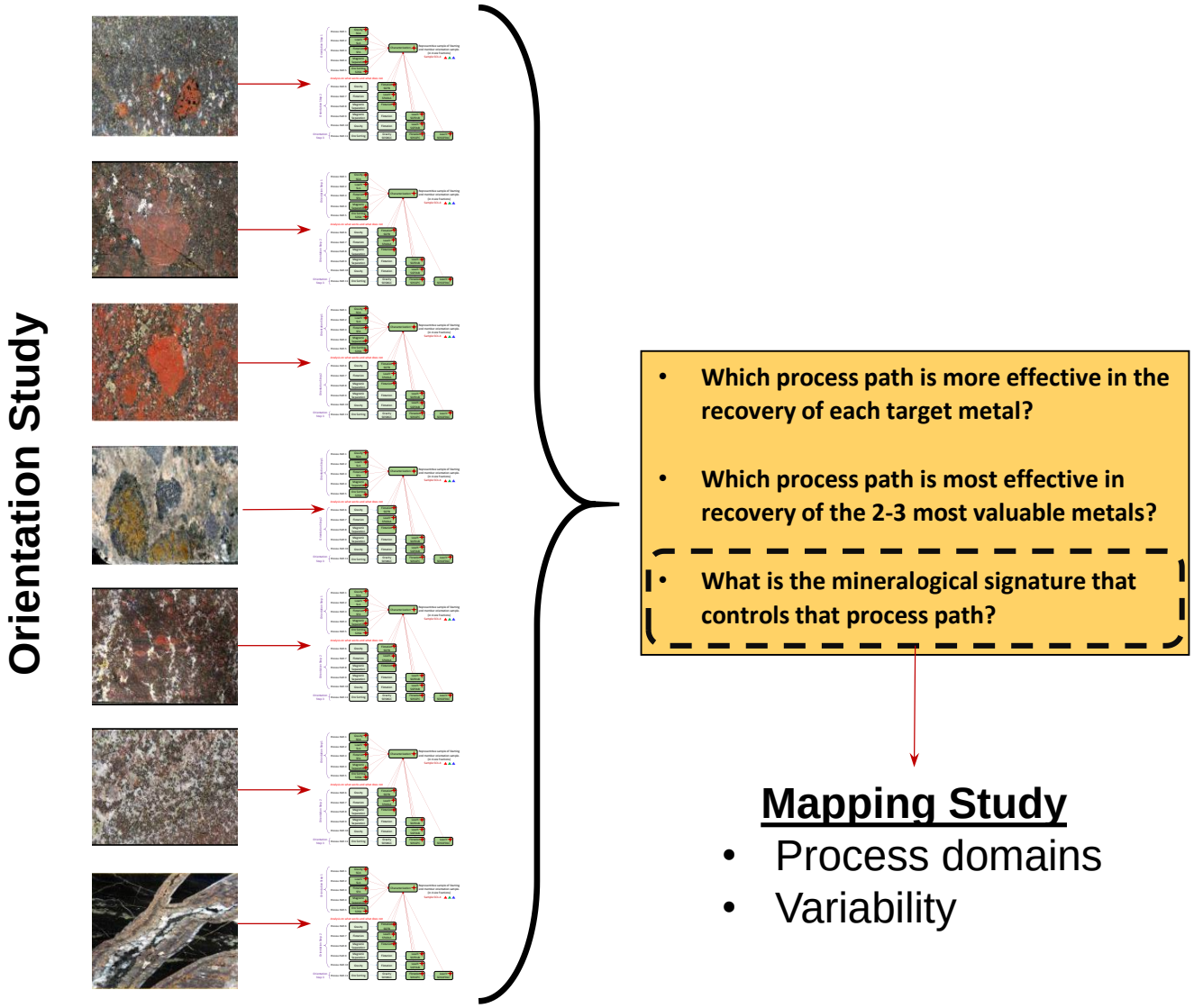


Figure 12. Diagnosis of the best process path for all ore type samples together

5 KONTTIJÄRVI SAMPLE ORIENTATION SAMPLE PREPARATION

Sample selection with SAP staff and delivery to GTK-Mintec (results are in Appendix E).

1. Photograph each sample while still in the core tray
2. Apply Personal Protection Equipment (PPE): dust masks, safety glasses, ear muffs, and steel capped boots
3. Record the net mass of uncrushed core out of the tray for each sample
4. Clean jaw crusher before and after each sample with compressed air and brush
5. Clean each bucket with compressed air and brush
6. Clean floor around crusher and buckets with compressed air and brush
7. Crush sample and collect in a bucket
8. Record net mass of sample after crushing
9. Clean down rotary divider or riffle with compressed air and brush
10. Divide the sample into multiple sub-samples and collect in a cleaned bucket
11. Record the net mass of each sub-sample
12. Put each sub-sample into an appropriately labelled bag
13. Log each sub-sample into sample handling records
14. Store each sample appropriately in a safe place

Conduct data QA/QC, by using recorded net masses between preparation steps. Ideally each crushing step should not lose more than 0.5%. The cleaning steps are to reduce the risk of sample cross contamination.

The labelling protocol is in Appendix B.

6 CHARACTERIZATION OF EACH ORIENTATION SAMPLE

This report is to present the characterization results of the SKC sample series. These SKC samples will be subject to the following procedures:

- Chemical Assays are what a mine site will do routinely. This is the trusted method to define the presence of precious metals content (Pd, Pt, Au, Ag). Ideally a relationship between chemical assays and other tests will be developed to later facilitate an operational routine protocol. (see Appendix F)
- XRF provides bulk element content, again quickly, cheaply and on a small volume sample. (see Appendix G)
- XRD provides bulk mineralogy, quickly and cheaply, and can be done on a relatively small volume sample. XRD will be used to characterize process separation products in later work done, thus will provide a good comparison to the unprocessed samples. (see Appendix H)
- SEM Automated mineralogy is a sophisticated methodology that measures individual particles in context of what minerals are present and in what textural structure are they assembled together. It is this data that will be used to compare flotation and leaching performance against the unprocessed sample. (see Appendix I)

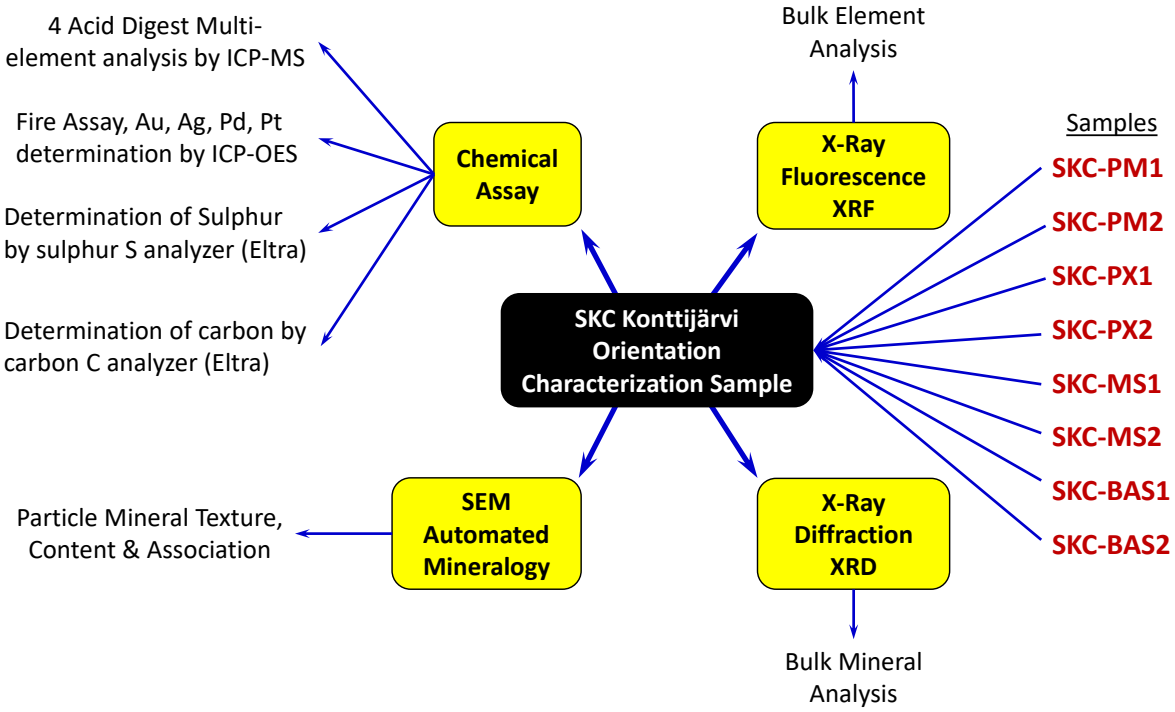


Figure 13. The four kinds of characterization used

7 CHEMICAL ASSAY CHARACTERIZATION OF EACH KONTTIJÄRVI SAMPLE ORIENTATION SAMPLE

The chemical assay results of all 10 samples in comparison is shown in Figures 14 to 18.

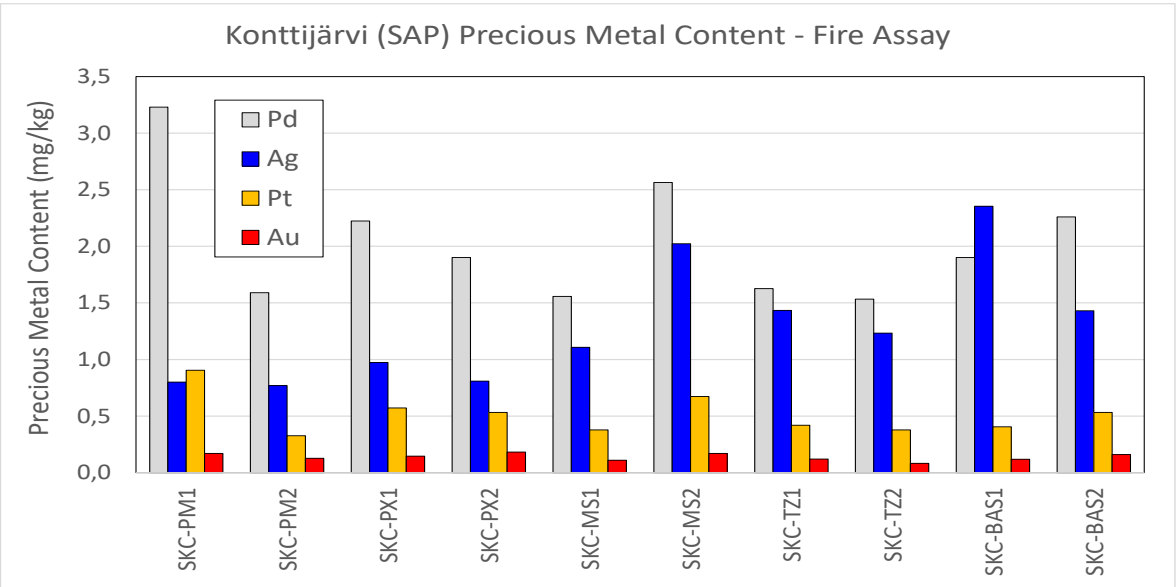


Figure 14. Precious metal content from chemical fire assay measurements for Konttijärvi Orientation Samples (Appendix F)

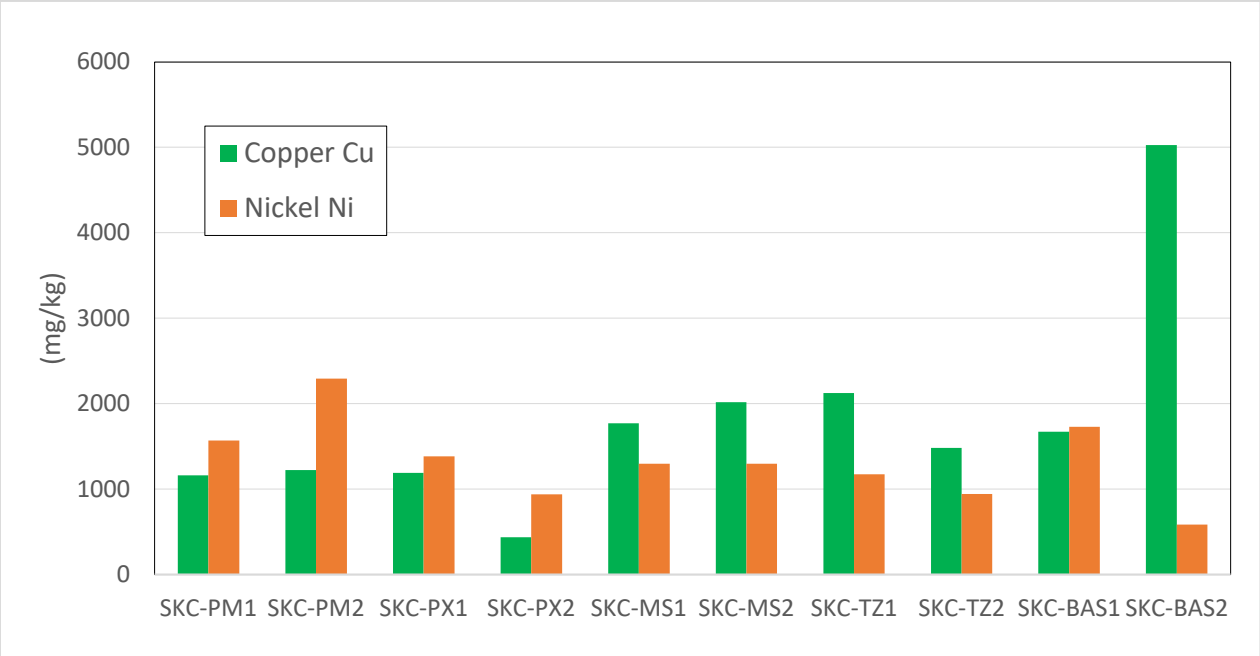


Figure 15. Copper and nickel content
Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) (Appendix F)

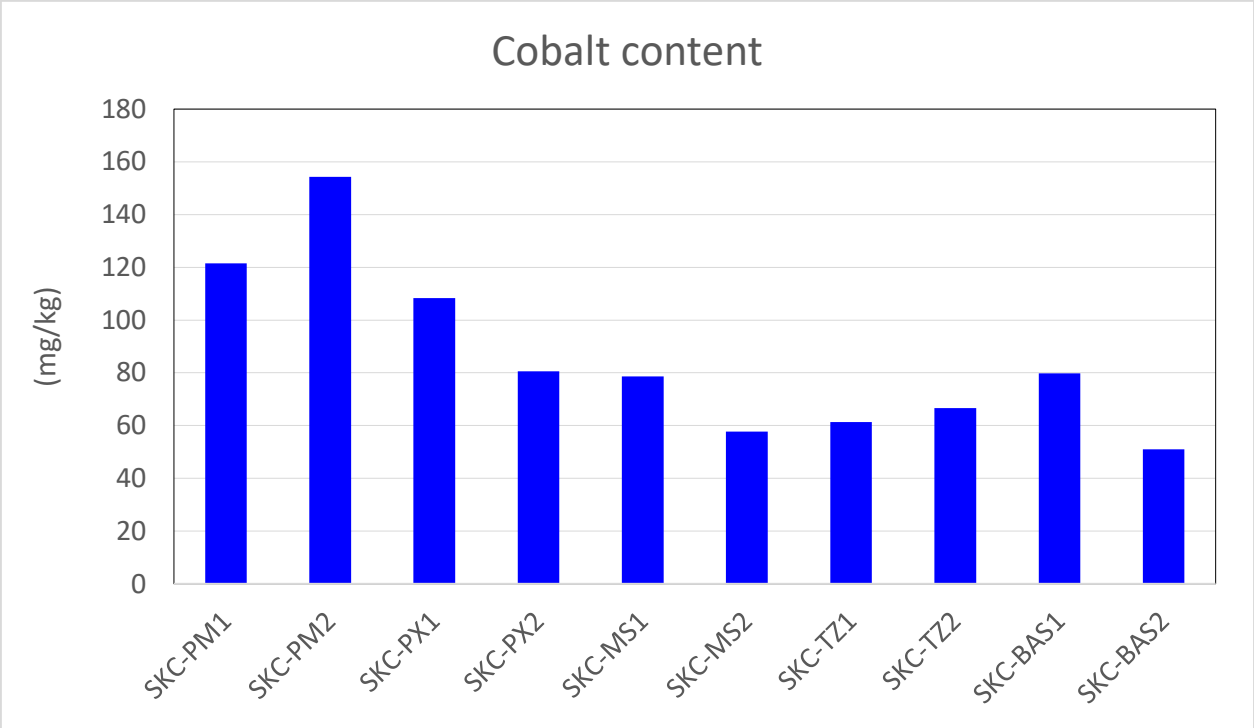


Figure 16. Cobalt content
Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) (Appendix F)

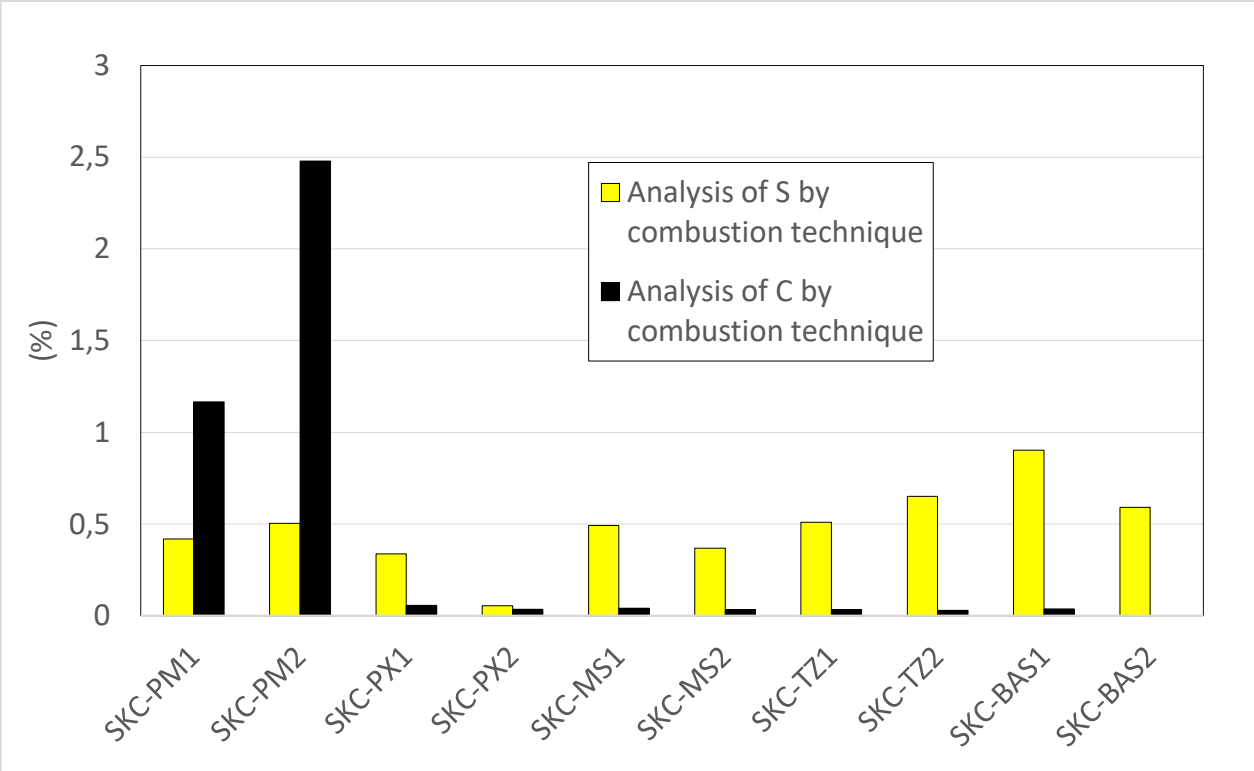


Figure 17. Determination of Sulphur (sulphur analyzer Method Eltra 810L) and Determination of carbon (carbon analyzer Method Eltra 811L) (Appendix F)

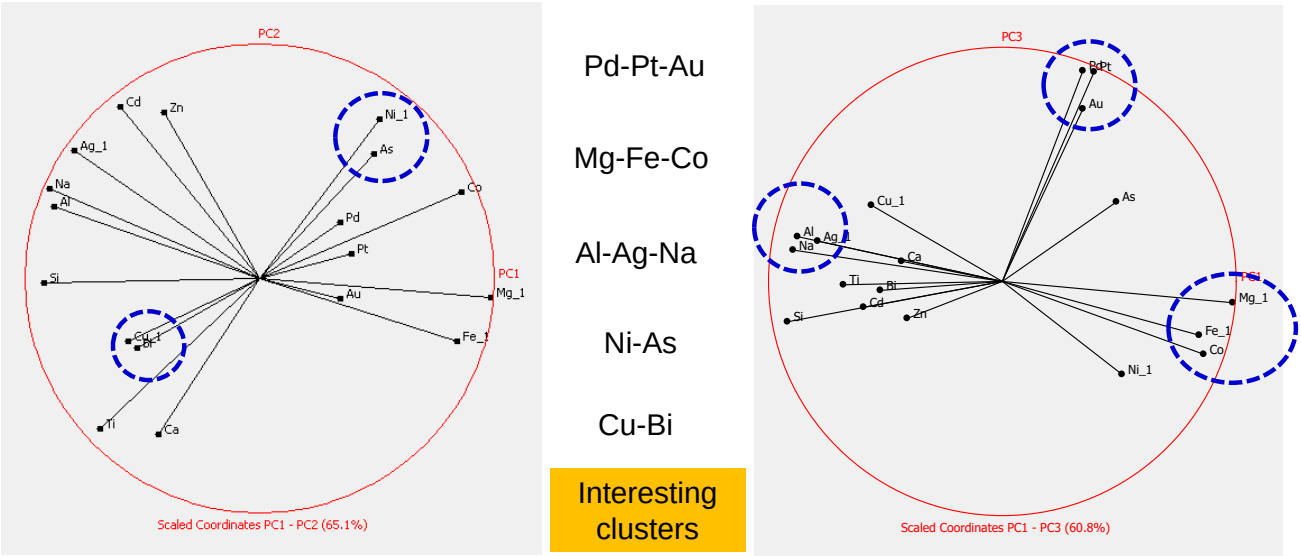


Figure 18. Principle Component Analysis of chemical assay measurements for Konttijärvi Orientation Samples

8 BULK ELEMENT XRF CHARACTERIZATION OF EACH KONTTIJÄRVI SAMPLE ORIENTATION SAMPLE

The bulk mineralogy for the 10 SAP Orientation samples was characterized with XRF by X-Ray Minerals in the United Kingdom and Eurofins Labtium Oy in Finland (the XRF pellet method 180X was used). (see Appendix G)

XRF is an elemental analysis and can chemical elements are present and what are their concentrations. For example the sample contains iron (Fe) and calcium (Ca) in a measured proportion. An X-ray fluorescence (XRF) spectrometer is an x-ray instrument used for routine, relatively nondestructive chemical analyses of rocks, minerals, sediments and fluids. In a laboratory X-ray fluorescence (XRF) spectrometer the emission of characteristic "secondary" (or fluorescent) X-rays from a material that has been excited by being bombarded with high-energy X-rays (Fitton 1997, Potts 1987 and Rollinson 1993).

It works on wavelength-dispersive spectroscopic principles that are similar to an electron microprobe (EPMA). However, an XRF cannot generally make analyses at the small spot sizes typical of EPMA work (2-5 microns), so it is typically used for bulk analyses of larger fractions of geological materials. The relative ease and low cost of sample preparation, and the stability and ease of use of x-ray spectrometers make this one of the most widely used methods for analysis of major, minor and trace elements in rocks, minerals, liquids, solids, oils and sediment.

The best results one can obtain with matrix specific calibrations. For rocks and minerals, typical commercial instruments require a sample constituting at least several grams of material, pressed pellet between 15-20 grams, although the sample collected may be much larger. For XRF chemical analyses of rocks, samples are collected that are several times larger than the largest size grain or particle in the rock. This initial sample then suffers a series of crushing steps to reduce it to an average grain size of a few millimeters to a centimeter, when it can be reduced by splitting to a small representative sample of a few tens to hundreds of grams. This small sample split is then ground into a fine powder by any of a variety of techniques to create the XRF sample. Care must be taken particularly at this step to be aware of the composition of the crushing implements, which will inevitably contaminate the sample to some extent. Ideally powdered sample has grain size at 10µm scale but best results are obtained using glass beads where all grains have been melted in a flux. Sample size for a compressed powder pellet XRF measurement is 10 to 50 grams, but less can be used depending on mineralogical circumstance.

A sub-sample of each of the SAP Konttijärvi Orientation samples was characterized with XRF at X-ray Mineral Services Ltd (United Kingdom).

The sub-sample was finely ground in a planetary ball mill, mixed with Mowiol binder and pressed into a 32mm diameter pellet. The pellet was analysed on a Rigaku NEX-DE energy dispersive XRF spectrometer calibrated using 12 United States Geological Survey (USGS) and 3 African Mineral Standards (AMIS) to represent a range of geological matrix types (see list below).

Table 2. List of USGS and AMIS standards used for the calibration of the instrument

USGS						AMIS		
AGV-2	BCR-2	BHVO-2	BIR-1a	COQ-1	DTS-2b	87	95	96
GSP-2	QLO-1a	SBC-1	SDC-1	SGR-1b	W-2a			

Table 3. Multi-element analysis by X-ray Fluorescence

Element	Limit of Detection	SKC-PM1	SKC-PM2	SKC-PX1	SKC-PX2	SKC-MS1	SKC-MS2	SKC-TZ1	SKC-TZ2	SKC-BAS1	SKC-BAS2
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
V	37	65	66	70	92	117	38	81	85	38	117
Cr	39	746	378	914	1250	850	449	347	601	262	484
Co	10	77	94	80	89	53	ND	ND	25	10	ND
Ni	11	1420	2210	1260	956	1220	1190	1060	810	1490	517
Cu	10	1000	1110	1040	363	1740	1870	2110	1440	1610	4870
Zn	7	80	88	89	114	113	87	85	80	400	128
Ga	3	6	5	6	7	11	17	20	16	29	19
Ge	2	4	ND	ND	ND	3	ND	2	ND	ND	ND
As	5	ND	ND	ND	ND	ND	ND	ND	ND	9	ND
Se	2	3	2	3	ND	4	4	3	3	4	4
Rb	3	5	11	3	5	12	39	12	26	48	19
Sr	30	ND	ND	ND	ND	114	465	489	479	649	375
Y	5	ND	5	6	9	11	ND	7	ND	ND	7
Zr	5	29	31	32	44	41	43	42	37	45	30
Nb	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mo	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sn	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sb	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cs	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ba	56	ND	ND	ND	ND	110	346	229	206	446	183
La	6	ND	ND	ND	ND	8	ND	ND	ND	6	ND
Ce	9	ND	ND	ND	9	16	17	13	10	22	ND
Nd	2	ND	ND	ND	7	ND	ND	ND	ND	6	6
Hf	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pb	5	ND	5	ND	ND	11	24	19	15	106	13
Th	2	ND	5	ND	ND	ND	ND	ND	ND	ND	ND
U	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not determined (abundance < limit of detection)

8.1 X-ray Fluorescence XRF data – loose powder

A sub-sample of each of the SAP Konttijärvi Orientation samples was characterized with XRF at Chemostrat Ltd (a sister company of X-ray Mineral Services Ltd, United Kingdom).

Samples were received in homogenised powdered form, and were analysed in the same condition (no additional preparation took place). They were weighed to 5g using a 5 d.p. balance and transferred into an analysis cup topped with 4-micron Prolene film, through which the analysis was performed.

8.1.1 Instrument Calibration

All XRF analyses were carried out on a Spectro Scout pXRF spectrometer. The sample is excited via direct excitation, through three filters to account for matrix and background interferences. Concentrations of elements present are achieved via a bespoke calibration tailored to what we would expect to see in the sample, automatically applied by the instrument to the spectra. Calibrations are attained using various accepted GeoPT and other in-house standards (see list below) whose composition is obtained via ICP-OES and ICP-MS (Inductively Coupled Plasma – Optical Emission Spectroscopy and Mass Spectroscopy).

In addition, the instrument is also checked for acceptable calibration via an internal standard every sample to account for drift, differing analysis conditions or to detect faulty components.

Table 4. List of GeoPT and in-house standards used for the calibration of the instrument.

WG-1	GSR-03	AC-E	NIST 697	GSS-07	DT-N	BX-N	IF-G
GS-N	MICA Fe-klein	IF-G	NIST 1d	AMIS 0118-klein	DT-N-jch	GSR-05	NCS DC 70003
BHVO-2	BCR-2	OU-6	NIST 120c	AMIS 0180-klein	GSR-01	GSS-04-klein	UB-N
ADS-1	SGR-1b	SdAR-1	ADS-1	NOD-A-1	GSS-03-klein	W-2a	BE-N
WS-E	NOD-P-1	SDC-1	OU-7	BE-N	RGM-2	NIST-88b	DTS-2b
GSP-2 NEW	SyMP-1	GSS-01	WS-E	NIST 697	CG-2	NOD-A-1	GSR-03
Matador 10231.4	SY-3	SDAR-H1	SDO-1	MA-N	BIR-1a	NIST-1C	DNC-1a
GSR-04	AGV-2	ShWYO-1	BHVO-2	NIST 69b	GSR-06	BX-N	BIR-1a
OU-7	NIST-692	GSS-08	MNS-1	NIST 120c	GSS-06	AN	PM-S
SCO-1	SdAR-M2	MDO-G	ZW-C	AMIS 0185	SDO-1	WG-1	GSM-1
GSR-02	DNC-1a	Matador 10232.85	BCR-2	GSS-05	GSS-02-klein	GSS-05	AN-G

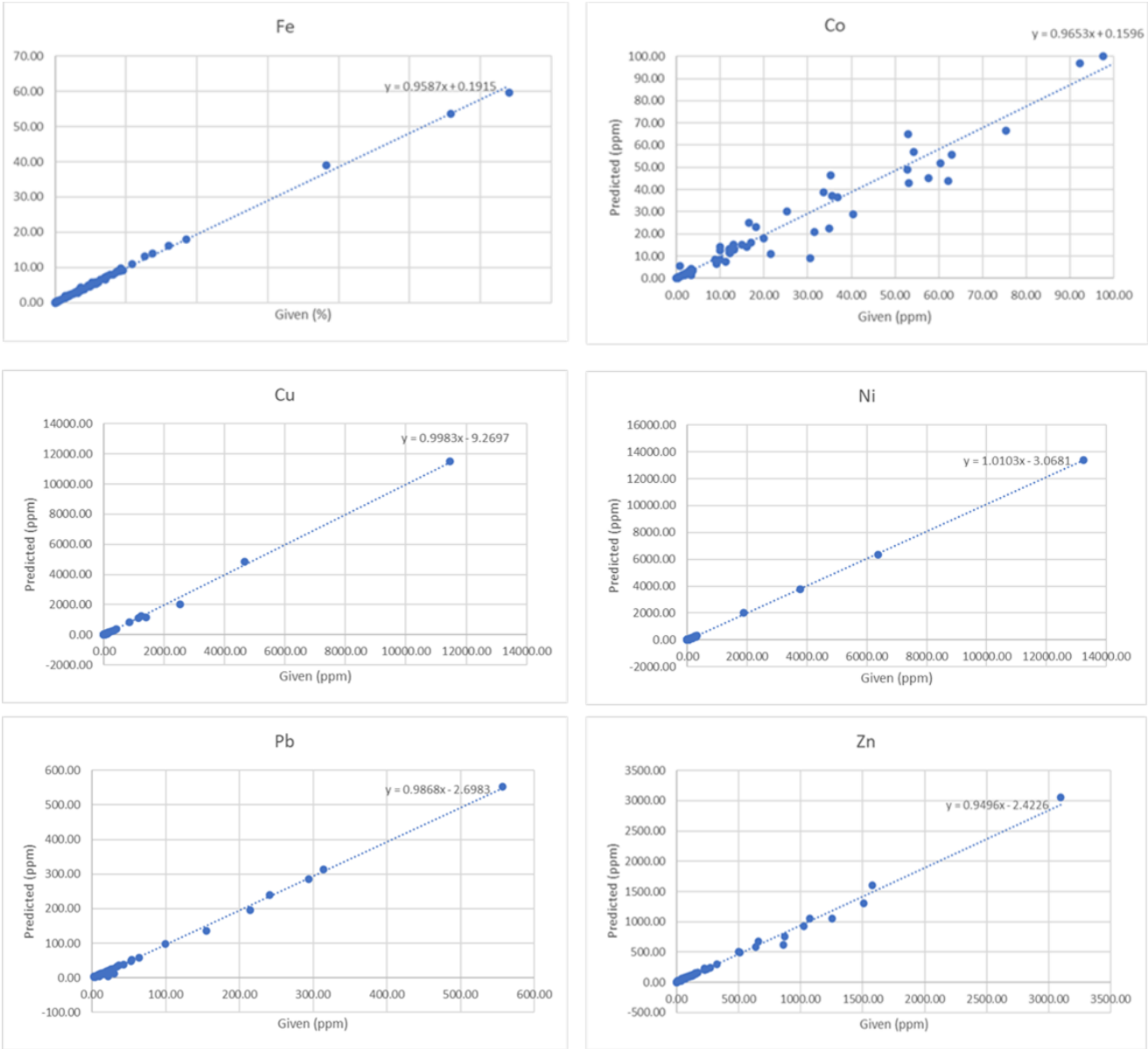


Figure 19. Key Calibration Cross Plots taken directly from the Spectro Scout spectrometer.

Table 5. Multi-element analysis by XRF

		LOD	SKC-PM1	SKC-PM2	SKC-PX1	SKC-PX2	SKC-MS1	SKC-MS2	SKC-TZ1	SKC-TZ2	SKC-BAS1	SKC-BAS2
Al2O3	**%**	**0.0038**	5.25	3.02	5.70	4.55	5.99	15.3	13.6	14.0	18.0	14.6
SiO2	**%**	**0.0011**	48.1	49.9	48.6	50.6	54.9	53.4	56.4	53.1	56.4	53.2
TiO2	**%**	**0.0013**	0.12	0.13	0.15	0.20	0.30	0.16	0.25	0.23	0.18	0.34
Fe2O3	**%**	**0.0003**	12.0	12.9	11.4	12.8	11.3	7.3	8.31	8.30	6.58	10.2
MnO	**%**	**0.0003**	0.13	0.13	0.16	0.29	0.21	0.10	0.12	0.11	0.06	0.15
MgO	**%**	**0.0166**	29.2	32.0	26.9	22.6	17.1	14.0	10.3	13.6	8.08	11.2
CaO	**%**	**0.0021**	5.13	1.94	7.05	8.97	9.90	6.50	8.46	8.47	5.28	7.65
Na2O	**%**	**0.1348**	<LOD	<LOD	<LOD	<LOD	<LOD	2.07	1.83	1.39	3.62	2.09
K2O	**%**	**0.0024**	0.03	0.03	0.04	0.03	0.35	1.15	0.67	0.83	1.74	0.52
P2O5	**%**	**0.0007**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.04	<LOD

		LOD	SKC-PM1	SKC-PM2	SKC-PX1	SKC-PX2	SKC-MS1	SKC-MS2	SKC-TZ1	SKC-TZ2	SKC-BAS1	SKC-BAS2
Cl	**%**	**0.003**	0.04	0.03	0.03	0.02	0.02	0.03	0.03	0.00	0.04	0.02
S	**%**	**0.001**	0.32	0.29	0.28	0.02	0.48	0.34	0.55	0.50	0.70	0.60
As	**ppm**	**0.4**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Ba	**ppm**	**6**	33	6	26	23	108	383	274	237	495	215
Ce	**ppm**	**12**	127	94	59	80	84	87	154	95	131	139
Co	**ppm**	**1.2**	120	152	102	93	84	53	47	56	51	51
Cr	**ppm**	**3**	563	185	737	1017	679	411	271	535	215	358
Cs	**ppm**	**4**	41	36	40	50	37	53	75	46	52	76
Cu	**ppm**	**0.6**	793	719	826	311	1369	1544	1647	1088	1128	3657
Ga	**ppm**	**0.8**	<LOD	3	<LOD	5	<LOD	11	12	13	24	11
Ge	**ppm**	**0.7**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Hf	**ppm**	**3**	9	12	3	20	14	6	9	8	34	109
La	**ppm**	**10**	98	78	105	108	74	123	104	117	116	96
Mo	**ppm**	**0.4**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	2	2	<LOD
Nb	**ppm**	**0.3**	<LOD	<LOD	<LOD	2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Nd	**ppm**	**20**	78	92	105	106	139	53	<LOD	72	<LOD	40
Ni	**ppm**	**0.6**	1176	1574	1038	833	925	873	704	543	900	443
Pb	**ppm**	**0.5**	<LOD	<LOD	<LOD	<LOD	0	14	13	5	81	2
Rb	**ppm**	**0.1**	<LOD	2	2	<LOD	9	41	13	28	52	17
Sb	**ppm**	**6**	9	6	<LOD	<LOD	<LOD	<LOD	6	<LOD	8	<LOD
Se	**ppm**	**0.2**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Sn	**ppm**	**6**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Sr	**ppm**	**0.1**	<LOD	<LOD	<LOD	<LOD	113	489	528	519	693	406
Th	**ppm**	**0.3**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
U	**ppm**	**0.3**	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
V	**ppm**	**5**	29	60	62	100	128	24	35	53	<LOD	76
Y	**ppm**	**0.2**	0	<LOD	1.19	8.19	9.78	<LOD	0.55	<LOD	<LOD	2.89
Zn	**ppm**	**0.4**	73	78	79	103	104	75	70	64	292	106
Zr	**ppm**	**0.2**	13	14	15	29	26	21	23	16	20	13

Figure 20 show the 10 samples compared.

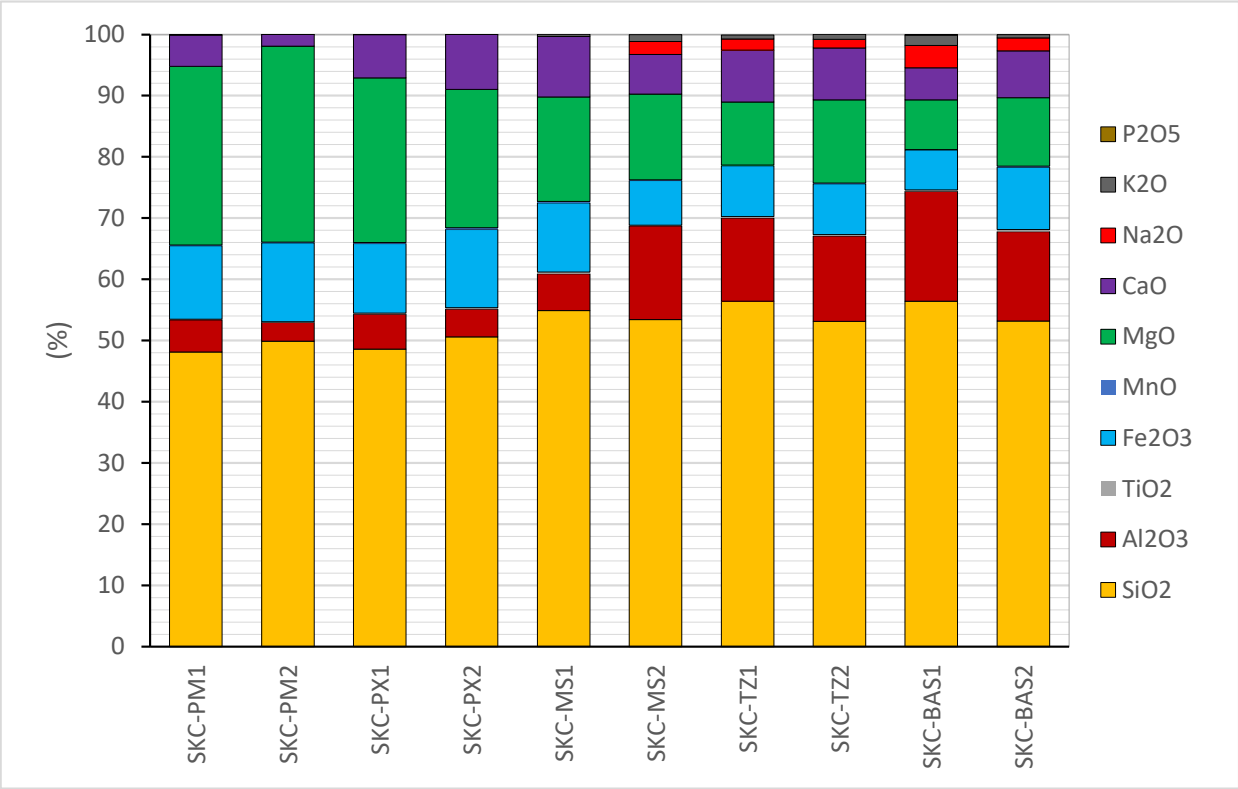


Figure 20. Mineral content from XRF Multi-element analysis (X-Ray Minerals) (Appendix G)

9 BULK MINERAL XRD CHARACTERIZATION OF EACH KONTTIJÄRVI SAMPLE ORIENTATION SAMPLE

The samples bulk mineralogy was characterized with X-ray Diffraction (XRD) by X-Ray Mineral Services Ltd. in the United Kingdom. XRD is a versatile analytical method to analyze material properties like phase composition and proportions of a powder sample. Identification of the phases is achieved by comparing the X-ray diffraction pattern obtained from the sample being measured with a reference database. With one single measurement one can identify mineral phases (qualitative) and their concentrations/proportions (Quantitative). X-rays are generated in a laboratory diffractometer using x-ray tubes with a suitable anode material (Cu, Co etc).

For example, XRD can distinguish between a sample that contains Fe_2O_3 and Fe_3O_4. It can also distinguish between minerals like calcite, aragonite and vaterite (Chang-Zhong et al 2015, Ruffell & Wiltshire 2004, Tammishetti et al 2015, Potts 1987 and Rollinson 1993).

9.1 Whole-rock analysis

A whole-rock and clay fraction XRD analysis was carried out for each Konttijärvi sample. The samples were first disaggregated gently using a pestle and mortar. A 2g split of this material was used for the whole rock analysis: the samples were 'micronised' using a McCrone Micronising Mill to obtain an x-ray diffraction 'powder' with a mean particle diameter of between 5 - 10 microns. The slurry was dried overnight at 80°C, re-crushed to a fine powder and back-packed into a steel sample holder, producing a randomly orientated sample for presentation to the x-ray beam. A powder diffractogram is obtained by counting the detected intensity as a function of the angle between incoming and diffracted x-ray beam.

The whole-rock samples were scanned on a PANalytical X'Pert PRO diffractometer using a CuKα radiation at 40 kV and 40 mA. The diffractometer is equipped with Automatic Divergence Slits (10 mm irradiated area), sample spinner and PIXcel 1-D detector. Scan parameters are from 4.5 to 75° (2θ), at a step size of 0.013 and nominal time per step of 0.2 s (continuous scanning mode).

The goal of the whole-rock sample preparation is to have a random orientation of the grains, allowing unbiased phase quantification and minimizing the error caused by preferred orientation of certain minerals (e.g. mica flakes, feldspar, calcite). The study of a randomly oriented powder will give an approximate proportion of clay minerals present in the sample.

Qualitative analysis on whole rock samples was carried out using two commercial software packages associated with the ICDD database: Traces (v.6) by GBC Scientific Equipment and HighScore Plus (v.4) by PANalytical.

Quantitative X-ray Diffraction (QXRD) was performed using the Rietveld method with BGMN Autoquan software. The Rietveld method is based upon a full-pattern analysis where a computer model allows a theoretical diffractogram to be calculated for any phase mixture. The Rietveld method is able to decipher experimental complications, such as peak overlap and preferred orientation of the crystallites (Post and Bish, 1989). The Konttijärvi samples contain minerals such as chlorite, biotite, talc and amphibole in abundant quantities – these minerals' grains tend to have strong preferred orientation normal to the surface of the sample. The preferred orientation creates a systematic error in the observed diffraction peak intensities, but the Rietveld method has proven to be effective even with samples that contain abundant minerals with a platy or fibrous texture.

Figures 21 and 22 show the XRD results of the 10 SAP Orientation samples.

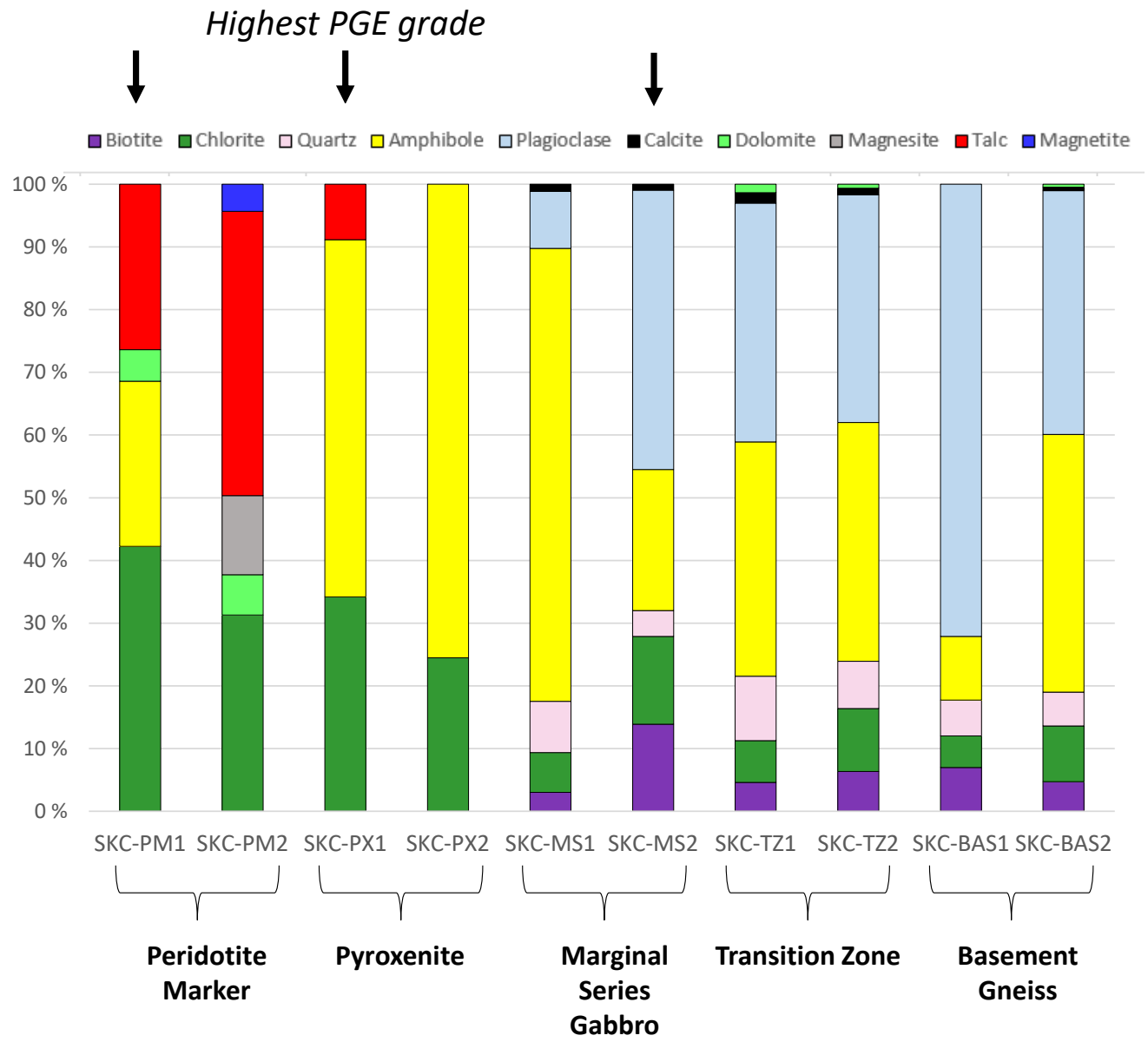


Figure 21. XRD measurement results for Konttijärvi Orientation Samples (Appendix H)

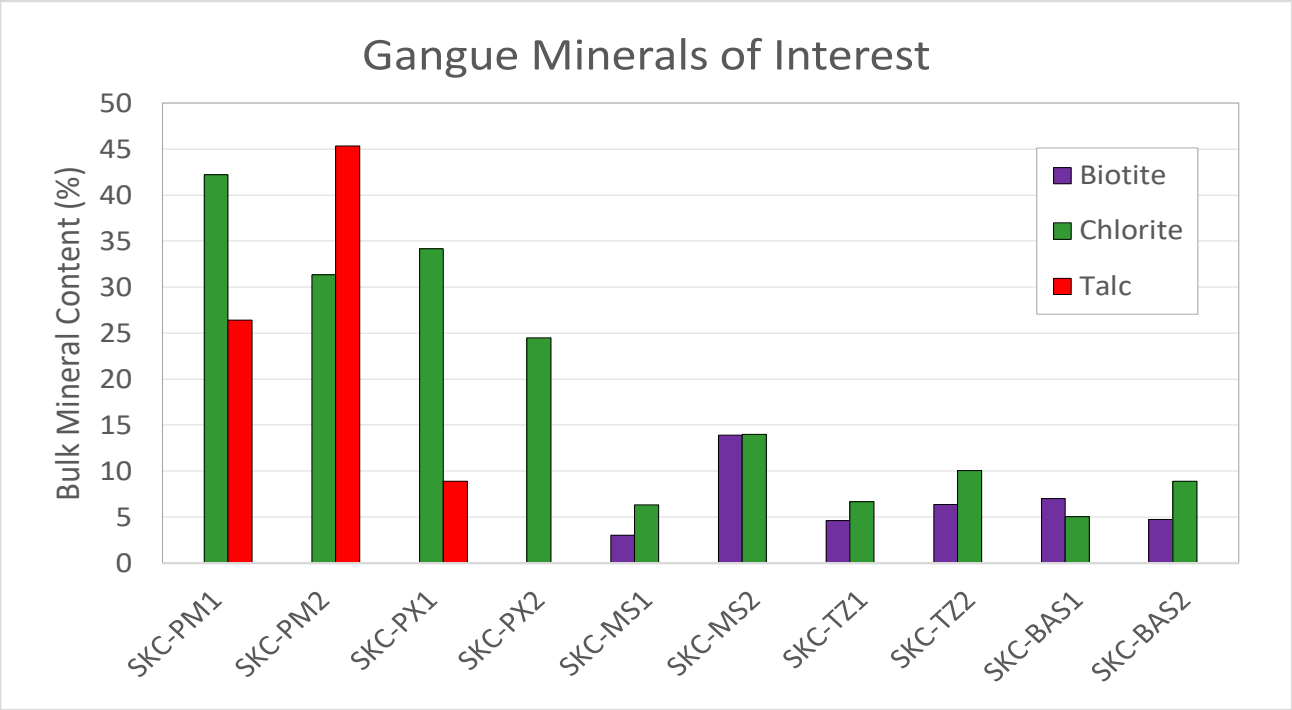


Figure 22. Gangue minerals of interest that may hamper recovery (XRD) (Appendix H)

The accuracy and precision of the mineralogical quantification of the Konttijärvi samples by the Rietveld method was verified against synthetic mixtures of known composition. These mixtures were prepared from appropriate mineral standards to resemble Konttijärvi rocks. This is the only way to check the accuracy and precision of a technique applied to natural samples. In this validation project, most of the minerals were quantified within 2 wt.% absolute error. The accuracy of the XRD results was also cross-checked with the XRF analysis using a mass balance calculation.

Detection limits of XRD vary depending on the mineral's crystallinity, whether other minerals in the sample produce overlapping diffraction peaks, and how the XRD experiment has been set up. The average detection limit for Konttijärvi rock-types is approximately 2%.

9.2 Clay fraction analysis

Although clay minerals can be detected in the whole-rock diffraction pattern, the most satisfactory method for their identification and quantification is to separate out the fine fraction (-2 micron), to produce preferred orientation, which facilitates the identification of the clay minerals (Moore and Reynolds, 1997).

For each Konttijärvi sample, a 5g split of the disaggregated material was taken and weighed accurately. The weight was recorded in a central register for later reference. Separating the <2 micron fraction was achieved by ultrasound and centrifugation.

The total weight of clay extracted was determined by removing a 20-25g aliquot of the final clay suspension and evaporating to dryness at 80°C. The initial and final weights of the beaker used were also recorded in the register.

The clay XRD mount was obtained by filtering the clay suspension through a Millipore glass micro-fibre filter and drying the filtrate on the filter paper. The samples were analysed as an untreated clay, after overnight saturation with ethylene glycol vapour and following heating at 380°C for 2 hours, with a further heating to 550°C for one hour.

Clay filters were scanned on a Philips PW1730 diffractometer using a CuKα radiation at 40 kV and 20/25 mA. Clay filters were scanned from 3 to 35° (2θ) at a step size of 0.05° and 2 s step time.

Identification and characterization of clay minerals in the <2 micron fraction was performed following the guidelines described by Moore and Reynolds (1997), overlaying the diffractograms from the four clay treatments.

Clay quantification was performed on the oriented samples using a Reference Intensity Ratio (RIR) based method. Peak intensities are measured and incorporated into a formula to indicate the relative amounts of clay minerals present. This data is then used to quantify the clay minerals with respect to the whole rock by reference to the total amount of <2 micron clay fraction, which is calculated from the aliquot previously extracted and dried. An indication of the clay minerals' crystallinity was given by assessment of the peak width for each component.

The results of the clay fraction analysis are considered semi-quantitative, whereas the whole-rock are quantitative as they are achieved with a different method that is standard-less (the Rietveld method). Direct correlation between the results of the whole-rock and the clay fraction analyses is not recommended because they were performed using two different methods.

10 AUTOMATED MINERALOGY CHARACTERIZATION OF EACH KONTTIJÄRVI ORIENTATION SAMPLE

The micro-texture of the 10 SAP Orientation samples was characterized using automated mineralogy in a Scanning Electron Microscope (SEM) by GTK-Mintec in Finland. (data is shown in Appendix I)

Automated mineralogy as a characterization tool has advanced considerably. Reliable instrumentation, continuously updated software capabilities and faster data acquisition. Samples are mounted into polished resin blocks and are mapped using a scanning electron microscope (SEM). This method can be good for mapping micro-textures, but it is not as effective for gangue mineralogy in some cases, or with mineralogy with very similar back scattered electron grey scales. However, it is best practice to use complimentary analysis to establish good mineral chemistry with probe work and LA-ICP-MS or Raman, depending on the MOI (Hrstka *et al* 2018, Aylmore *et al* 2018, and Anderson *et al* 2014).

Figure 23. In the foreground is the new FEI Quanta 650 field emission scanning electron microscope, in the background is an older MLA equipment. (Image and copyright: GTK)

10.1 Automated Mineralogy Experimental Procedure

Each sample was sieved into three size fractions – 250+150µm, -150+75µm and -75µm. Three vertical polished block sections were prepared of the coarsest, middle and fine fractions respectively. The polished block sections were prepared according to procedure in order to minimalize the settling effect, and to reduce particle agglomeration.

The material (ore sample prepared to a set grind size in a rod mill) was mixed with fine graphite in 1:1 proportion then, the mixture was moulded with epoxy. After the epoxy solidified, the section was cut into

slices, which were turned for 90° and molded again. Finally, the specimens were polished, and carbon coated.

The SEM system Mineral Liberation Analyzer (MLA) was used to reach the aims of the study. This is an automated mineral analysis system that can identify minerals in different kinds of polished sections, as well as quantify a wide range of mineral characteristics, such as mineral abundance, grain size, mineral liberation and association. MLA combines a large specimen chamber automated Scanning Electron Microscope (SEM), multiple Energy Dispersive X-ray spectrometers (EDS) with state-of-the-art automated quantitative mineralogy software. The software controls SEM and EDS hardware to quantitatively analyze minerals and their characteristics. The present study specimens were measured by the XBSE measurement mode. The mode is an extended liberation analysis method in which each BSE image is collected and segmented to delineate mineral grain boundaries in each particle, then each mineral grain is analysed with one x-ray analysis. The off-line processing generates particle mineral maps from particle segmentation data and x-ray spectra.

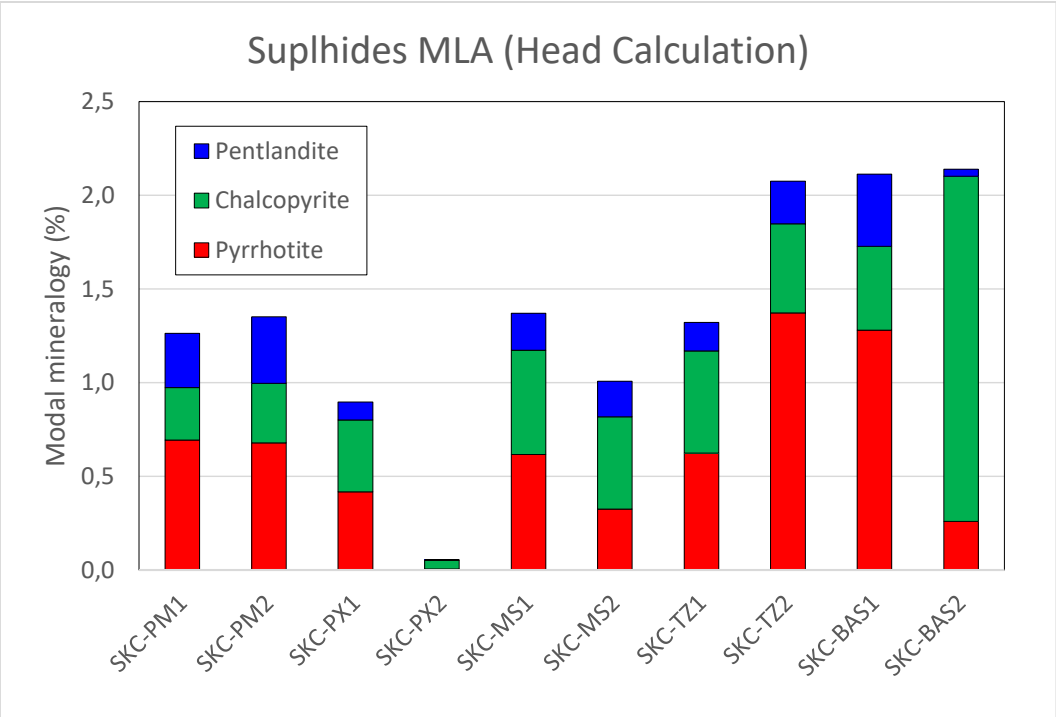


Figure 24. Sulphide minerals measured in Konttijärvi samples
(MLA modal mineralogy head calculation) (Appendix I)

11 MODAL MINERALOGY OF ORE TYPES

This report details new mineralogical (QXRD & MLA) data for crushed composite core samples from the Konttijärvi Deposit in Finland.

The results confirm the field classification previously developed by Suhanko Arctic Platinum Oy (SAP), based on previous core logging and whole-rock geochemistry, which suggested the samples represent 5 main ore types. Two sub-samples were selected to represent each type, resulting in a total of 10 samples to be studied, as follows:

All five ore types are quite different from each other - in terms of their mineralogy, style of mineralization, and physical properties – making them an ideal suite of extreme end-member ore types typical of the presently-known, commercially-interesting, rocks at Konttijärvi.

Automated SEM-EDS modal analysis (MLA), and QXRD Rietveld data (whole-rock powders from the same samples), are internally consistent, although mineral names reported need to be interpreted to allow corellation.

The Peridotite Marker samples are characteristically talc-rich, in keeping with their original olivine having been replaced to secondary magnesium silicates. The Pyroxenite samples are amphibole-rich, and this is to be expected given that primary pyroxene is known to have been changed into amphibole (tremolite-actinolite) during metamorphism. The Marginal Series Gabbros contain conspicuous plagioclase feldspar. The Transition Zone is marked by the appearance of quartz as a minor phase. Finally, the Basement Gneiss is both plagioclase- and quartz-rich, as expected. Sulphide minerals of particular interest (as they are often associated with PGMs) include: pyrrhotite, chalcopyrite and pentlandite. The most copper-rich (chalcopyrite) sample is SKC-BAS2. The most nickel-rich (pentlandite) and pentlandite-rich samples are SKC-PM2 & SKC-BAS1. These observations confirm previous work by SAP, based on geochemical assays and logging.

The following modal mineral assemblages allow the different rock types to be distinguished:

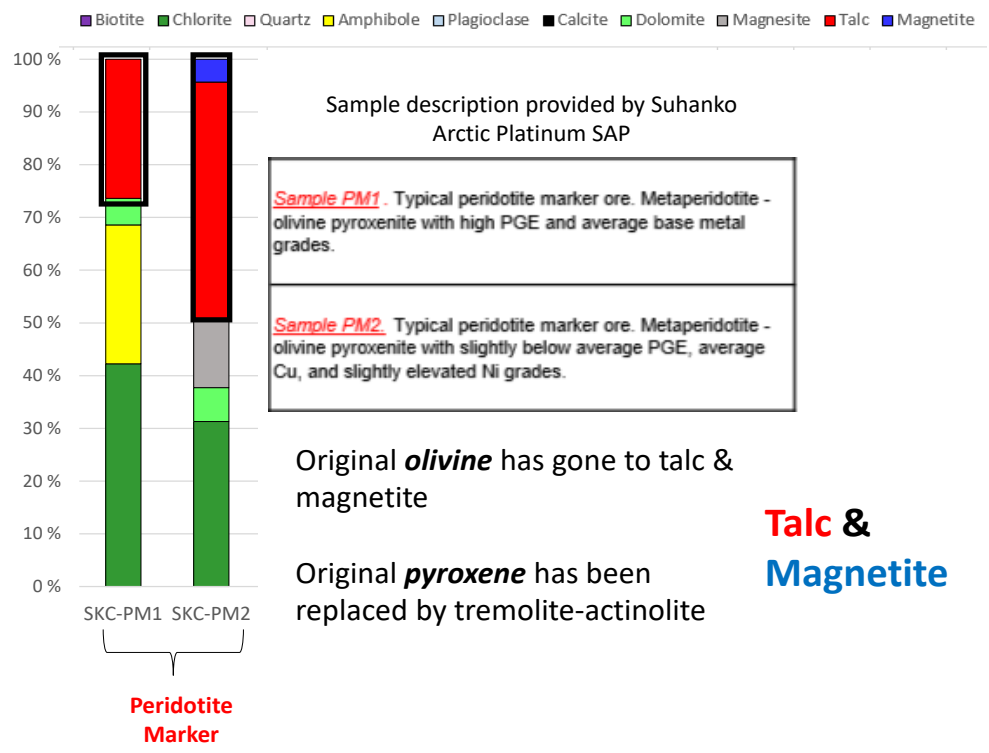


Figure 25. Talc and magnetite in peridotite marker rock types PM1 and PM2

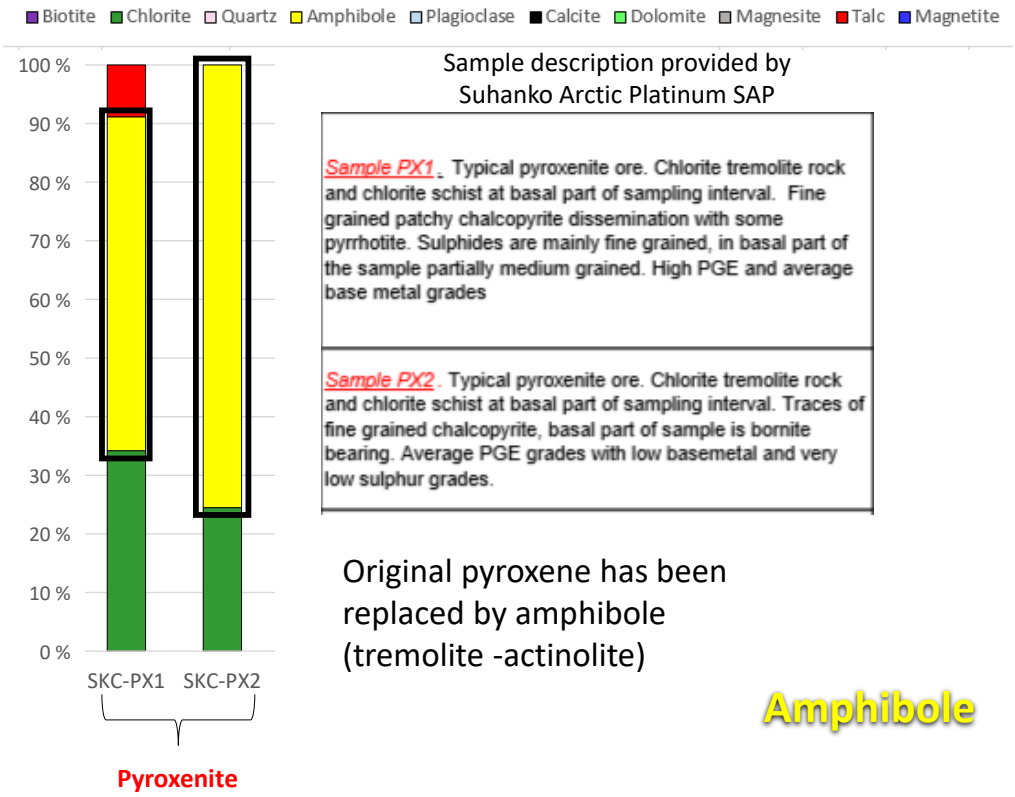


Figure 26. Amphibole in pyroxene marker rock types PX1 and PX2

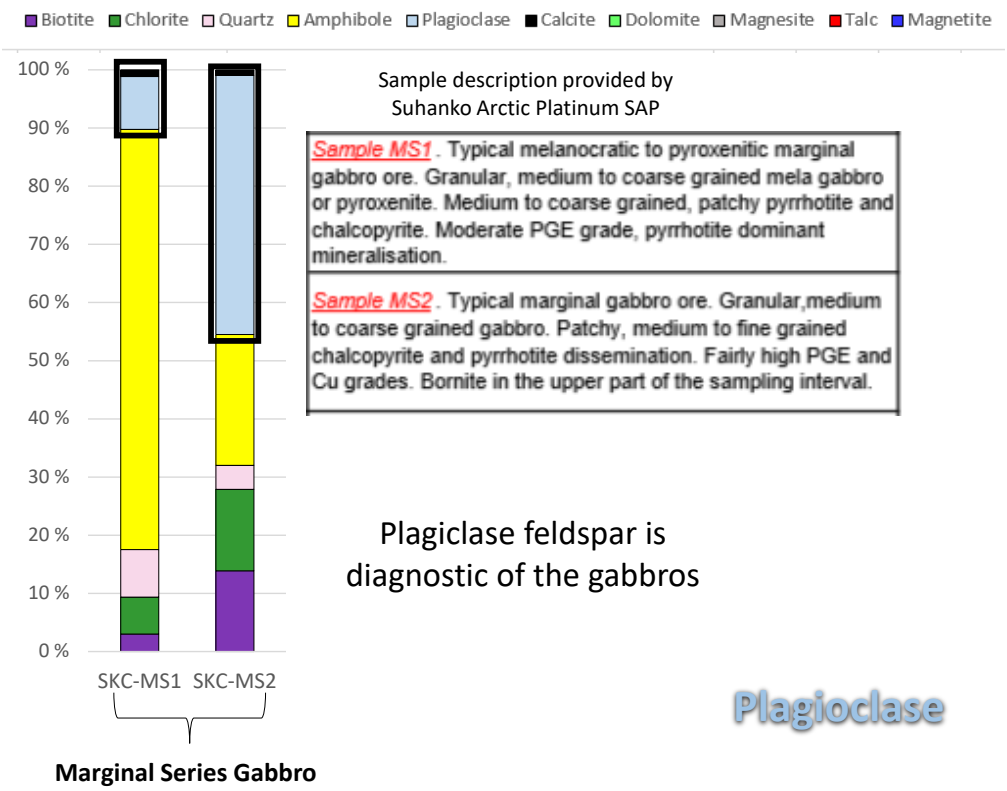


Figure 27. Plagioclase in marginal series gabbro marker rock types MS1 and MS2

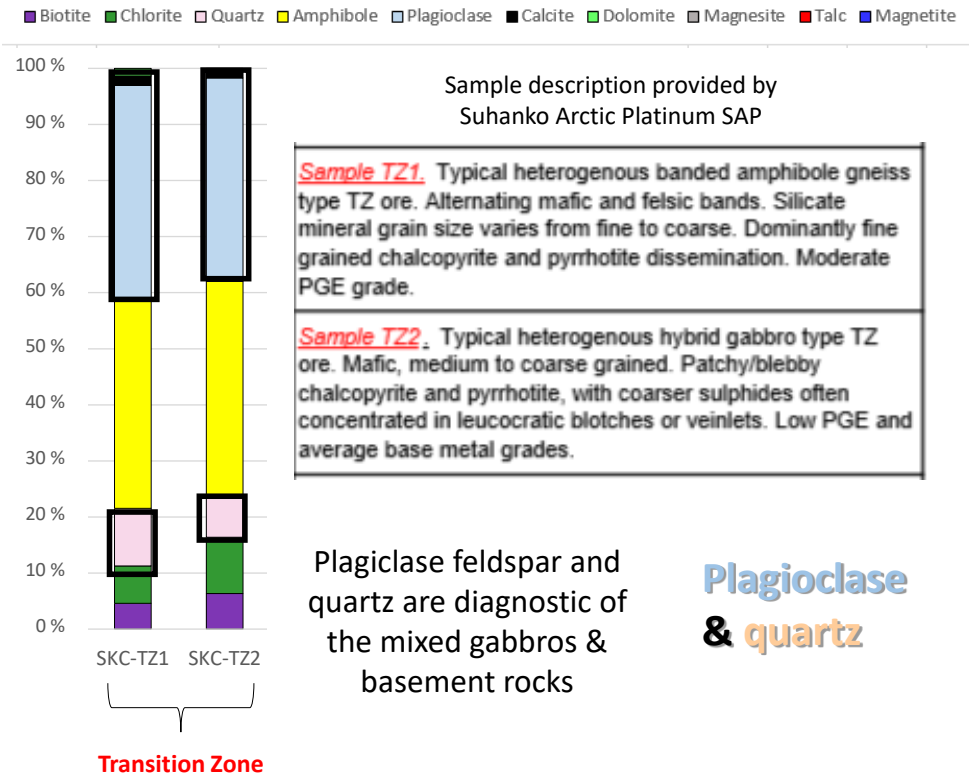


Figure 28. Plagioclase and quartz in transition zone marker rock types TZ1 and TZ2

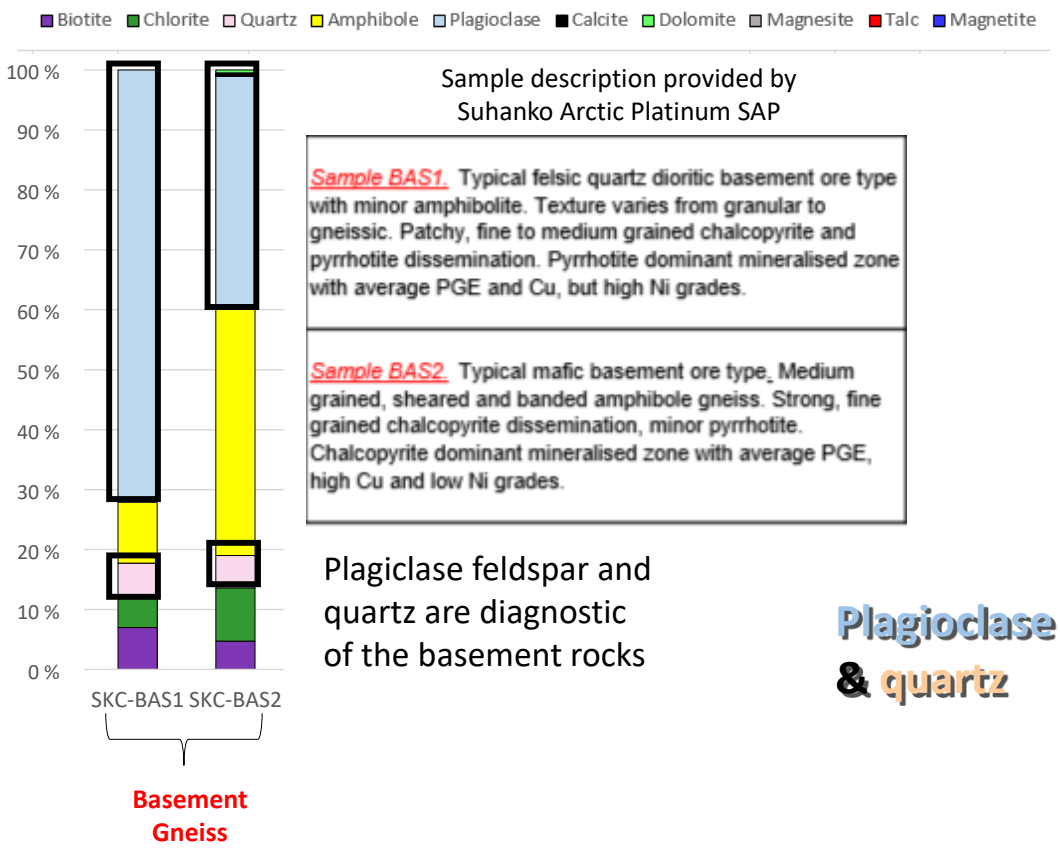


Figure 29. Plagioclase and quartz in basement gneiss marker rock types BAS1 and BAS2

12 KONTTIJÄRVI ORIENTATION SAMPLE MINERAL PROFILE

A compilation of data from the different characterization methods was assembled into a mineral profile for each of the Konttijärvi Orientation Sample.

12.1 Mineral Characterization Summary – PM1

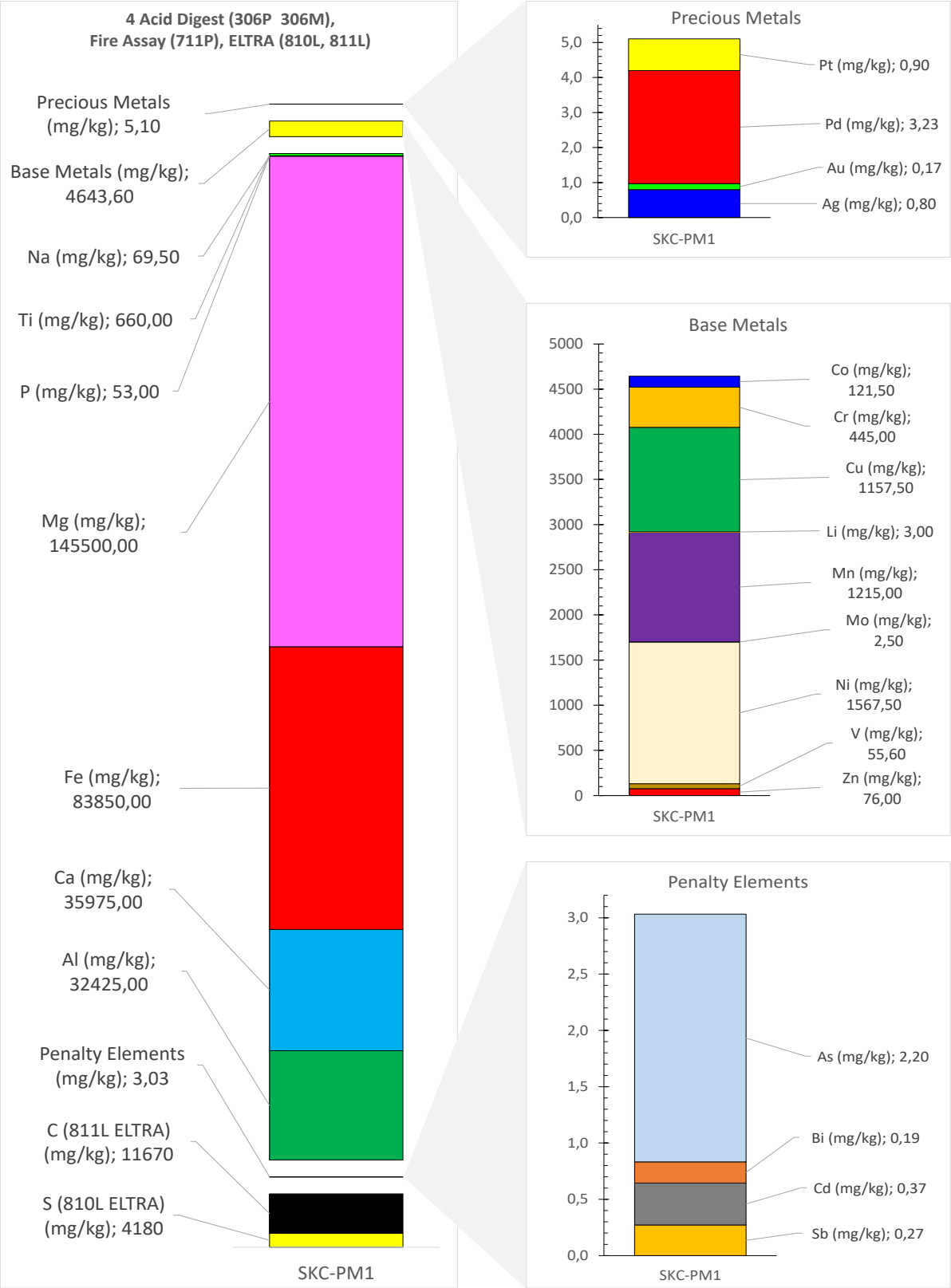


Figure 30. Chemical Assay Summary – PM1 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

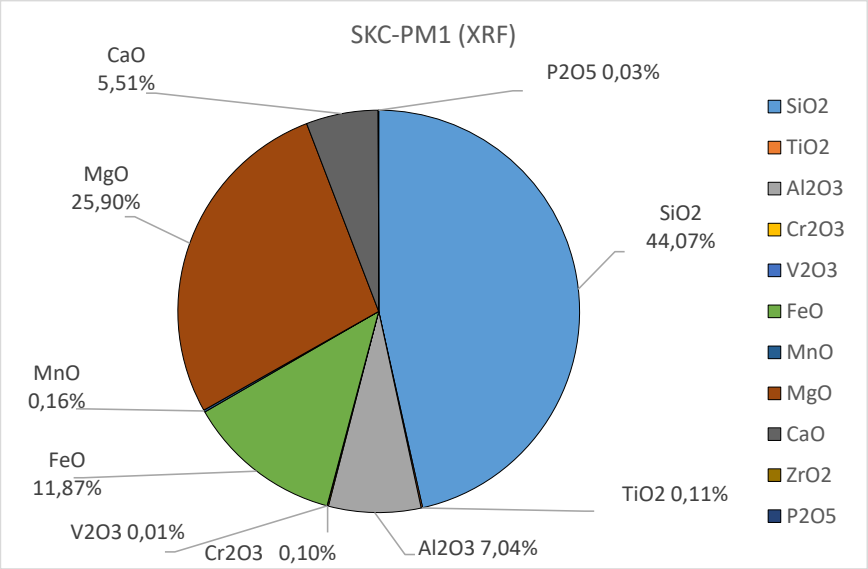


Figure 31. XRF Multi-element mineral analysis Summary – PM1 (Method 180X – Appendix G)

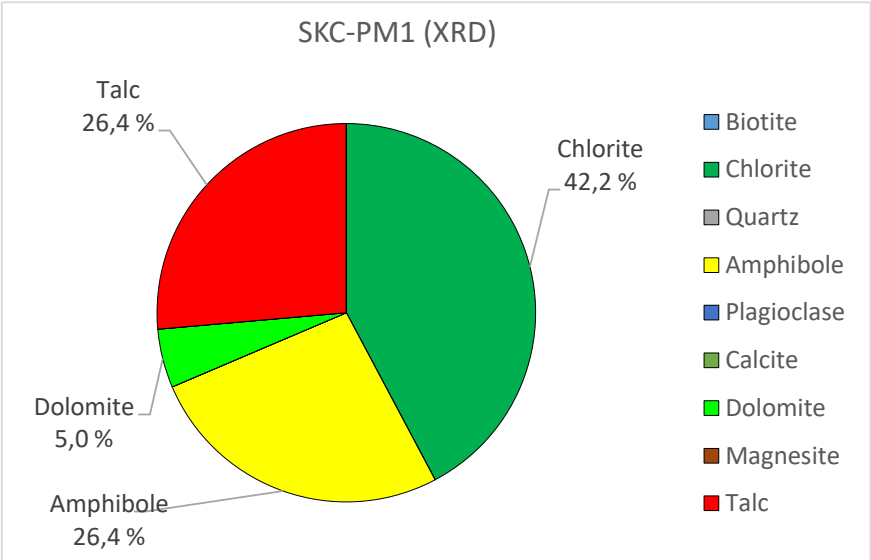


Figure 32. XRD Whole rock Multi-element mineral analysis Summary – PM1 (Appendix H)

Table 6. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – PM1 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Chlorite					Talc			Amphibole	
		% A	% B	Crys	Y		% A	% B		% A	% B
SKC-PM1	6,5	67,4	4,4	W	0		20,4	1,3		12,2	0,8

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

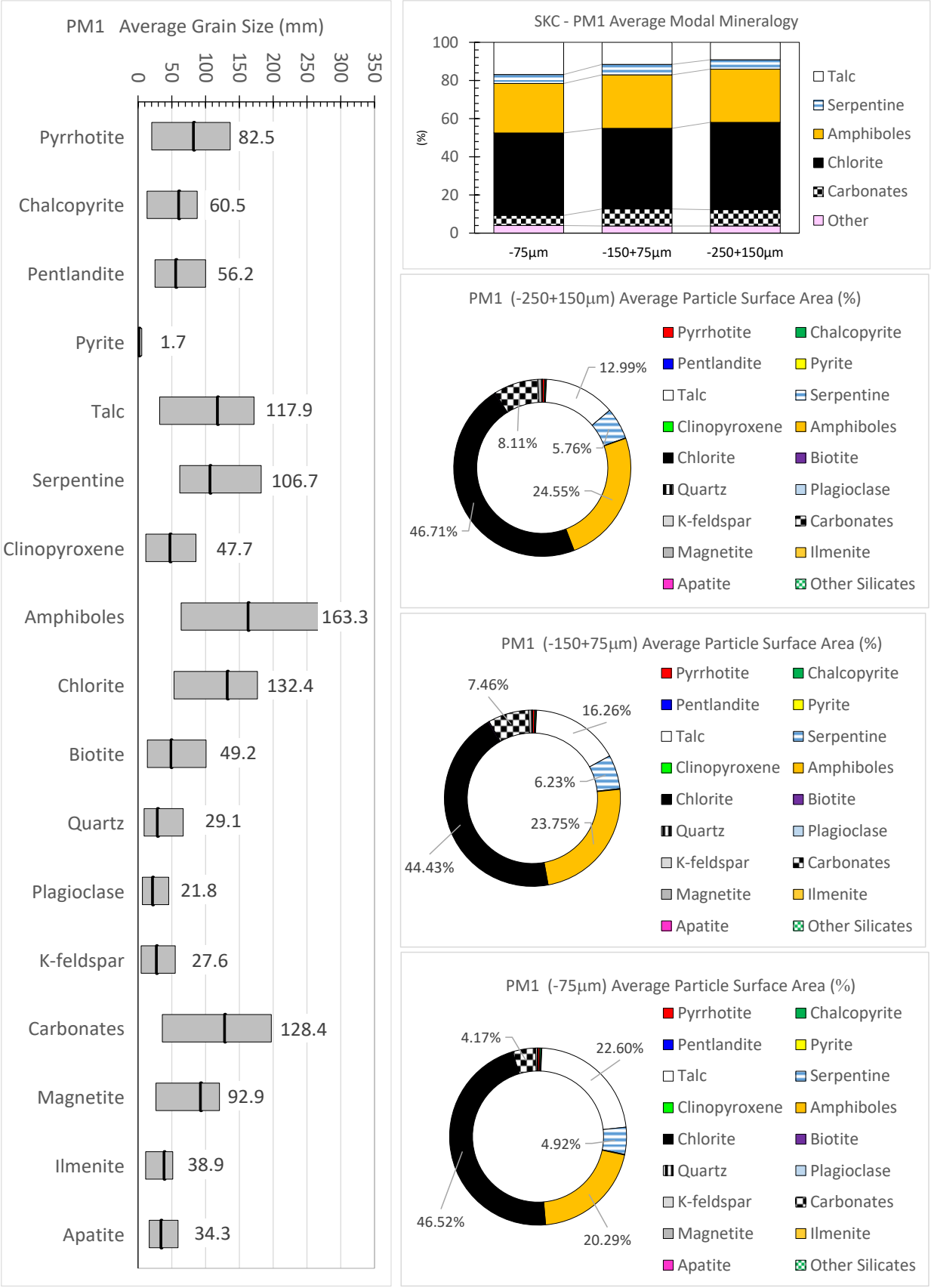
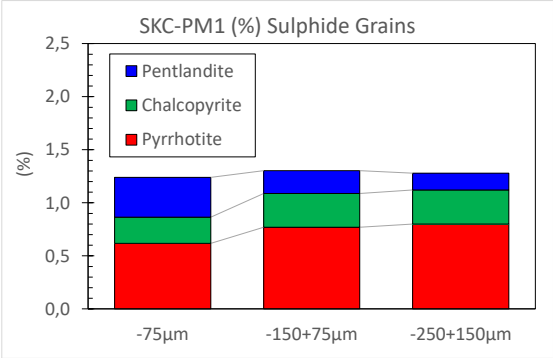
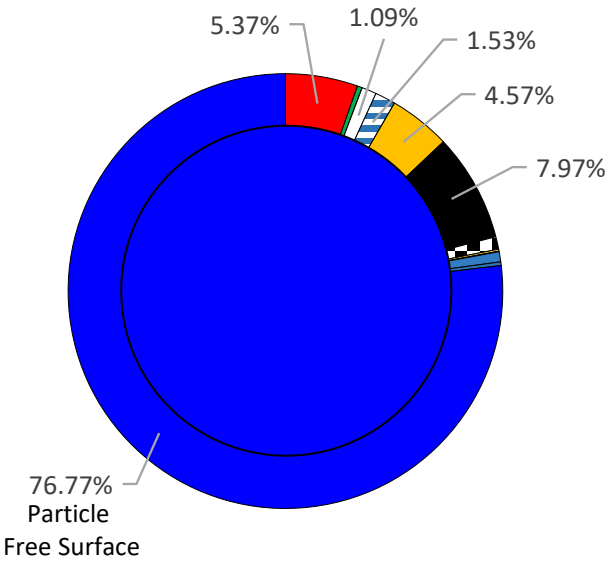


Figure 33. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – PM1 (Appendix I)

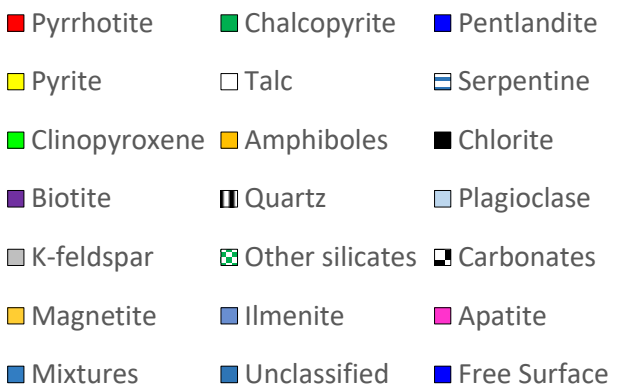


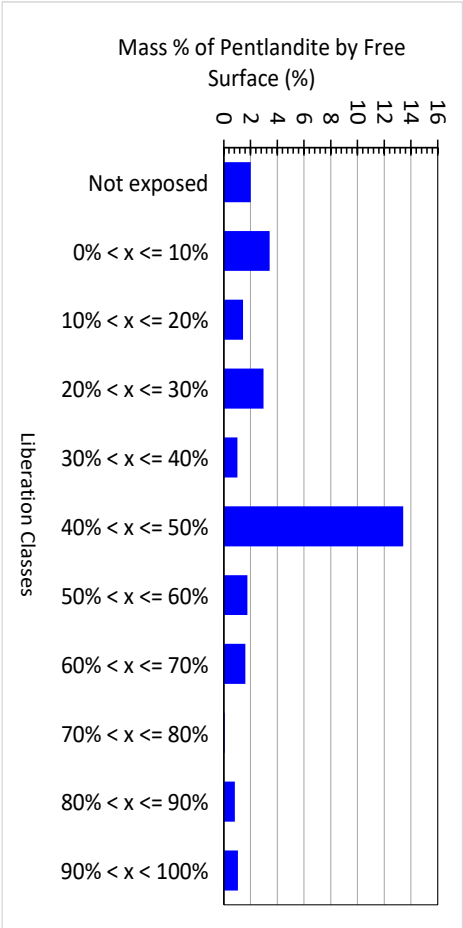


Average Sulphide Mineral Size (µm)

PM1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	64,36	83,38	120,48
-150+75µm	59,07	49,75	57,80
-75µm	25,19	14,70	20,28

PM1 Pentlandite, Average Mineral Association (%)





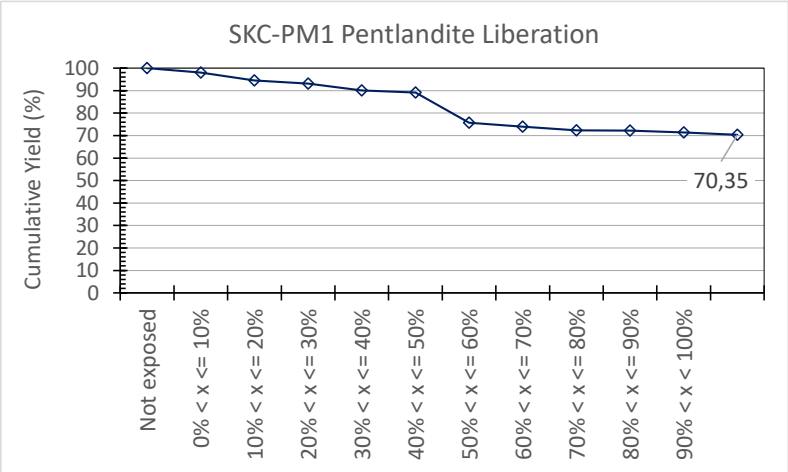
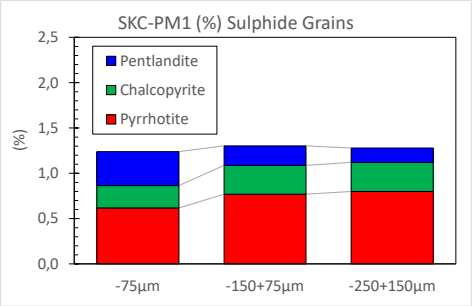
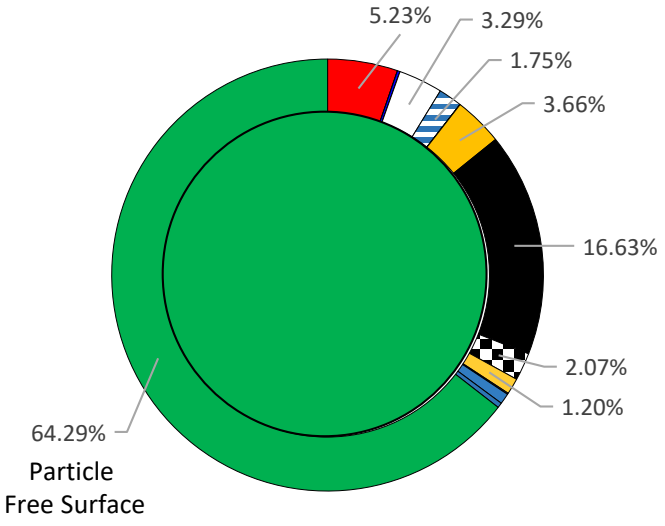


Figure 34. PM1 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

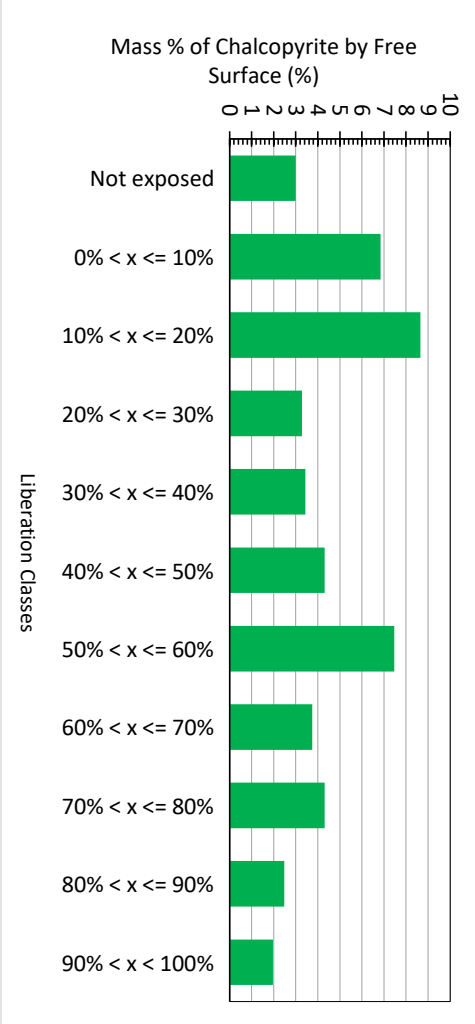


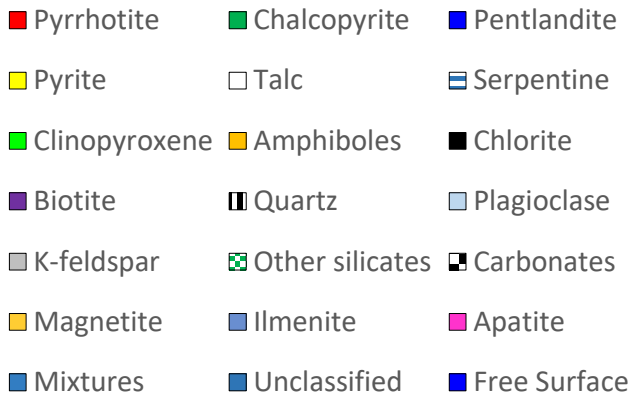
Average Sulphide Mineral Size (µm)

PM1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	64,36	83,38	120,48
-150+75µm	59,07	49,75	57,80
-75µm	25,19	14,70	20,28



PM1 Chalcopyrite, Average Mineral Association (%)





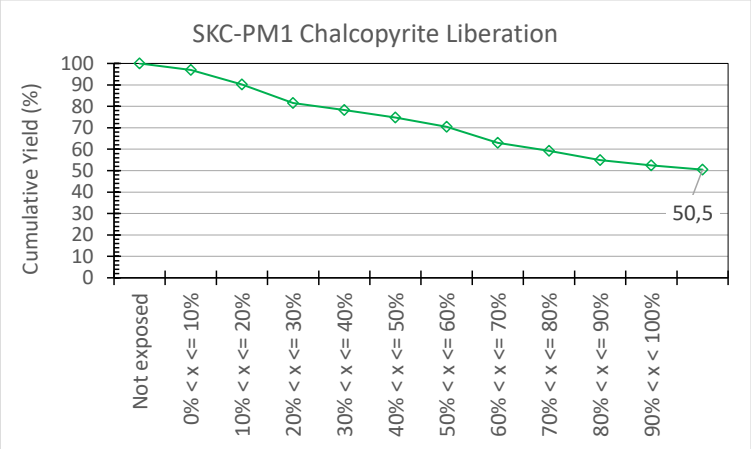
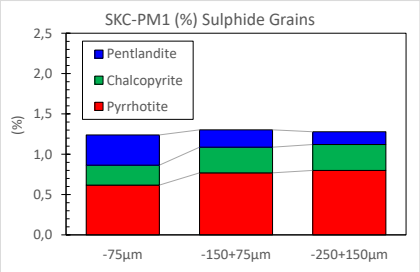
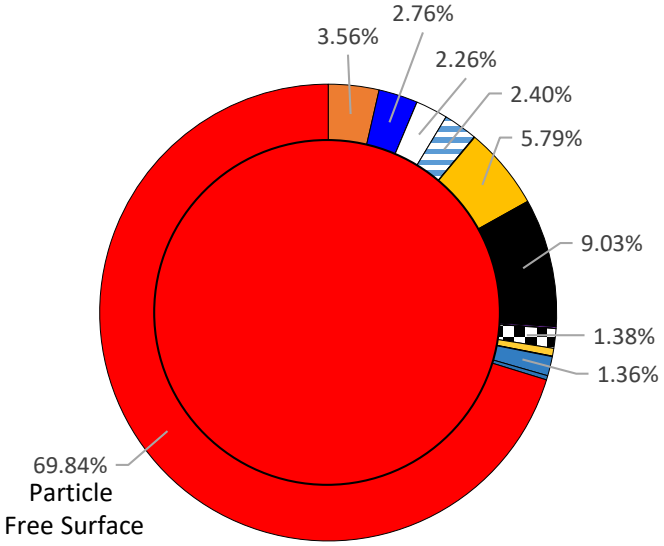


Figure 35. PM1 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)



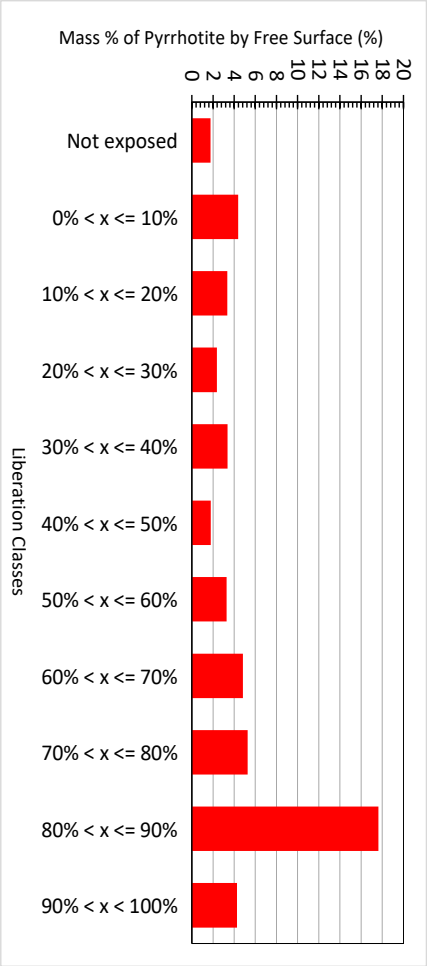
Average Sulphide Mineral Size (µm)

PM1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	64,36	83,38	120,48
-150+75µm	59,07	49,75	57,80
-75µm	25,19	14,70	20,28



PM1 Pyrrhotite, Average Mineral Association (%)

Pyrrhotite, Chalcopyrite, Pentlandite, Pyrite, Talc, Serpentine, Clinopyroxene, Amphiboles, Chlorite, Biotite, Quartz, Plagioclase, K-feldspar, Other silicates, Carbonates, Magnetite, Ilmenite, Apatite, Mixtures, Unclassified, Free Surface



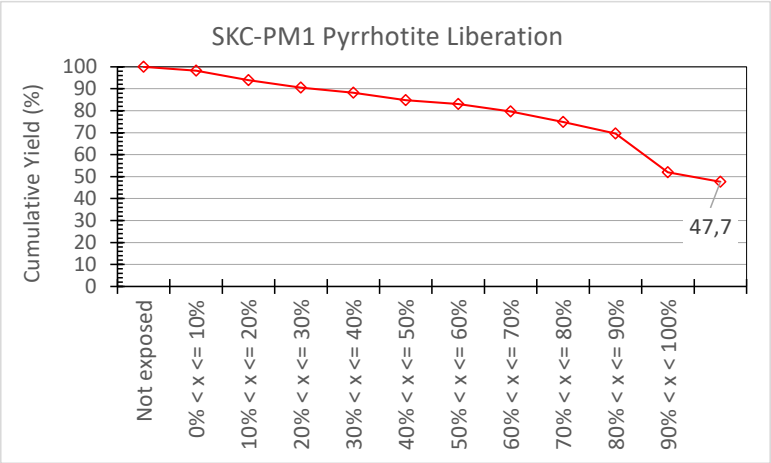


Figure 36. PM1 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.2 Mineral Characterization Summary – PM2

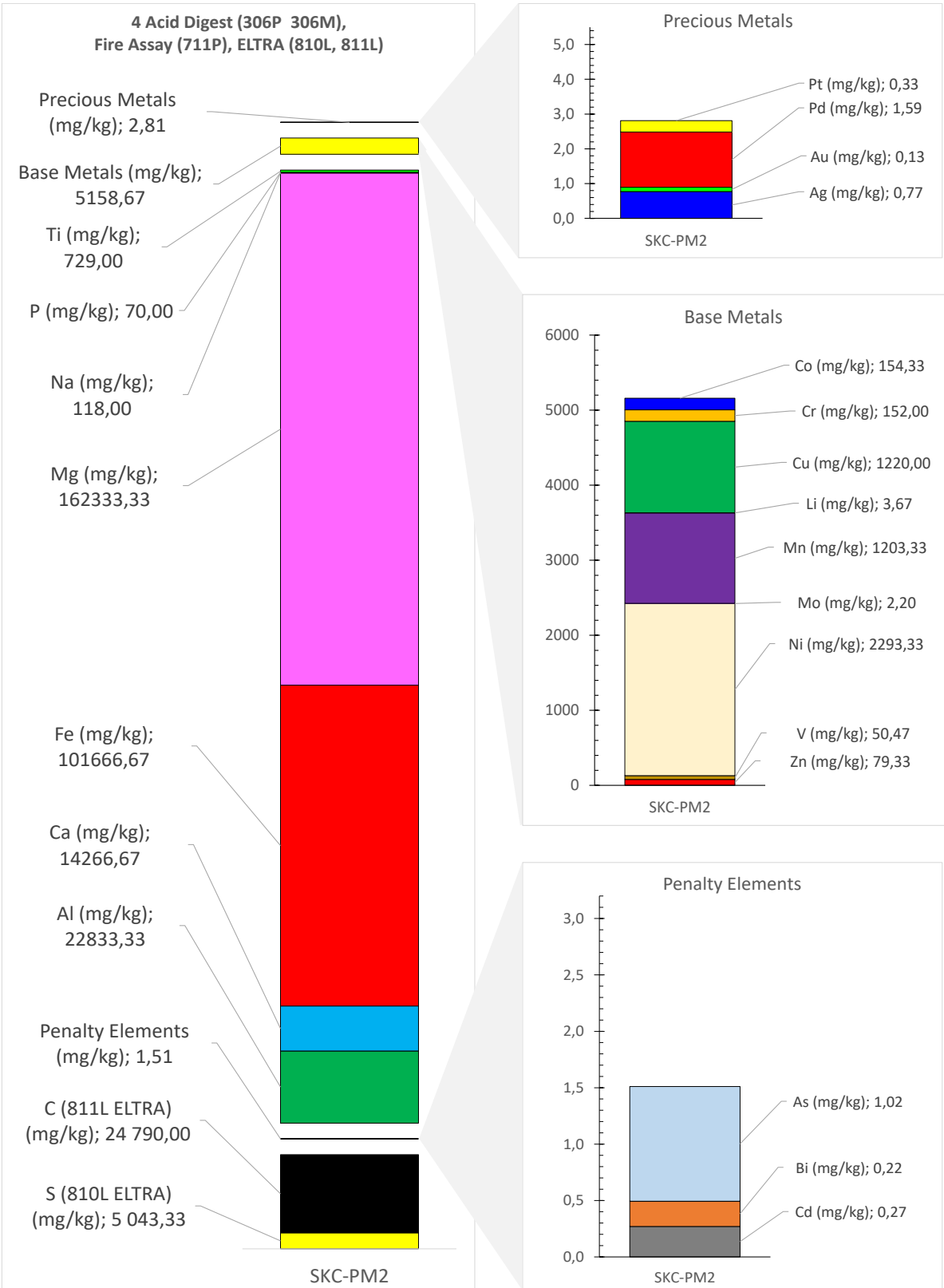


Figure 37. Chemical Assay Summary – PM2 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

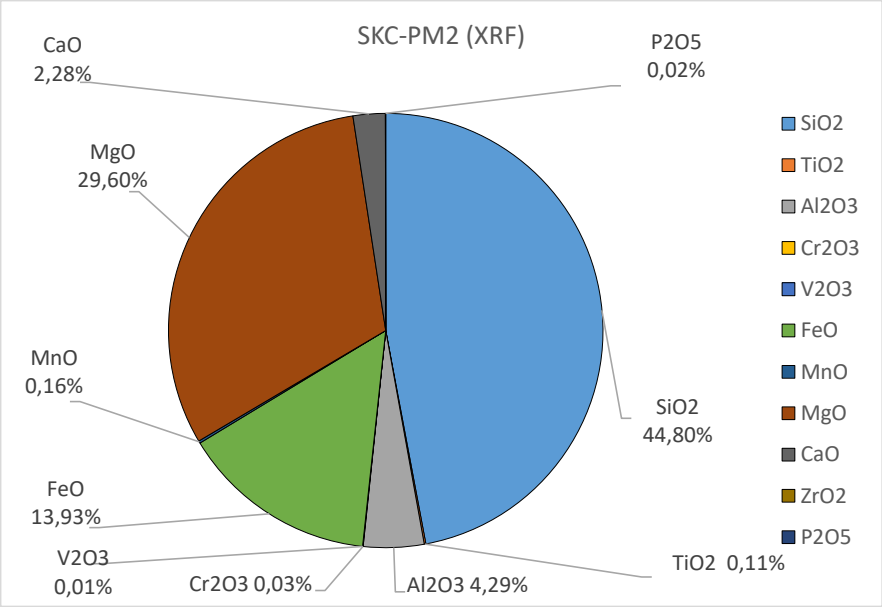


Figure 38. XRF Multi-element mineral analysis Summary – PM2 (Method 180X – Appendix G)

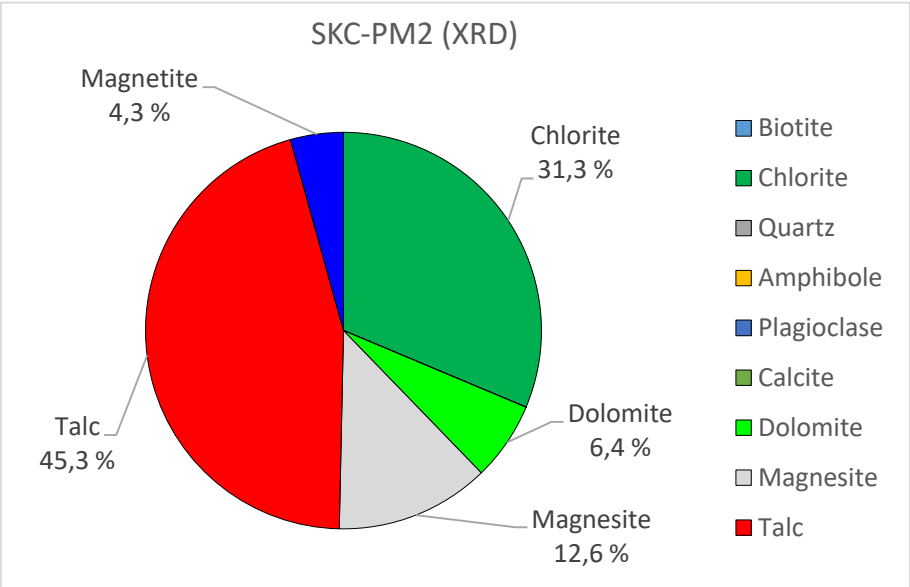


Figure 39. XRD Whole rock Multi-element mineral analysis Summary – PM2 (Appendix H)

Table 7. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – PM2 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Chlorite					Talc			Amphibole	
		% A	% B	Crys	Y		% A	% B		% A	% B
SKC-PM2	6,4	37,4	2,4	W	0		62,6	4,0		0,0	0,0

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

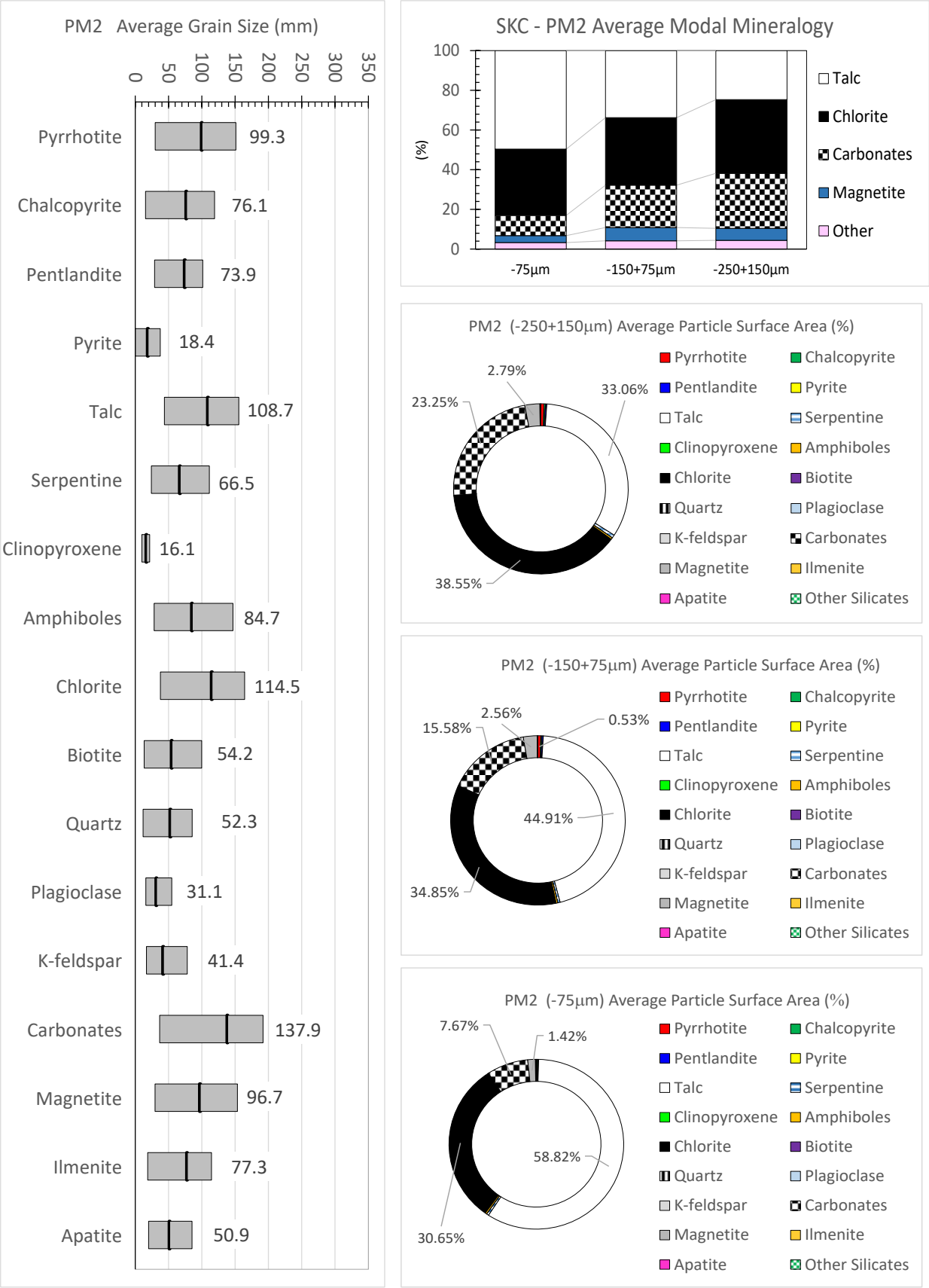
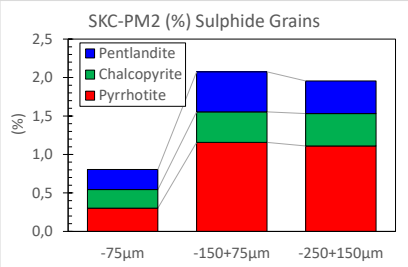
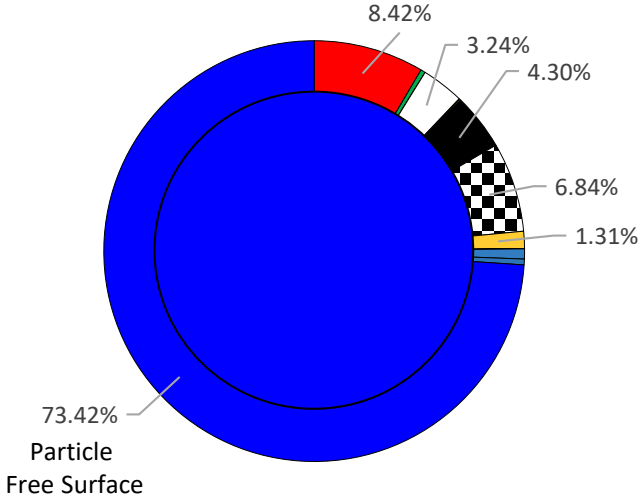


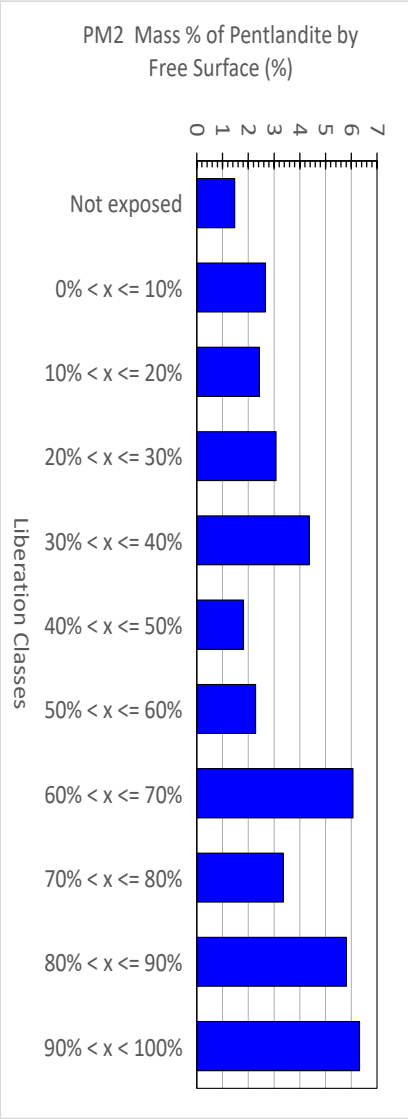
Figure 40. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – PM2 (Appendix I)



Average Sulphide Mineral Size (µm)

PM2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	89,01	105,14	138,45
-150+75µm	74,34	62,82	75,11
-75µm	29,03	15,37	29,86





PM2 Pentlandite, Average Mineral Association (%)

- Pyrrhotite
- Chalcopyrite
- Pentlandite
- Pyrite
- Talc
- Serpentine
- Clinopyroxene
- Amphiboles
- Chlorite
- Biotite
- Quartz
- Plagioclase
- K-feldspar
- Other silicates
- Carbonates
- Magnetite
- Ilmenite
- Apatite
- Mixtures
- Unclassified
- Free Surface

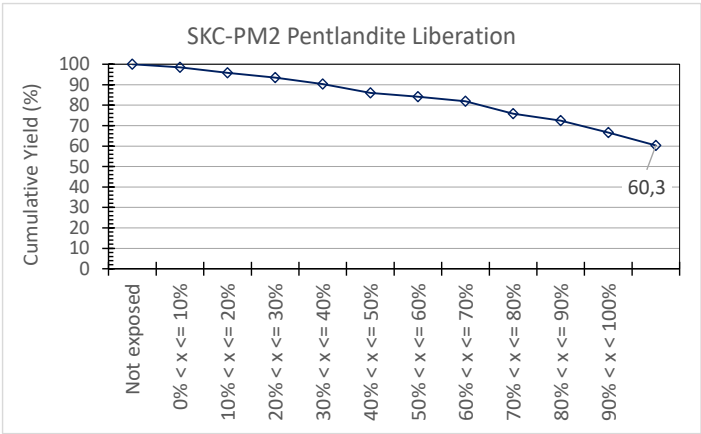
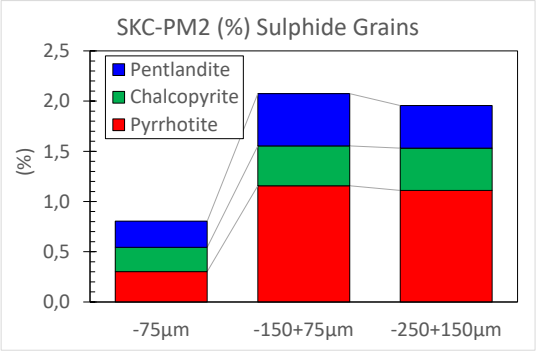
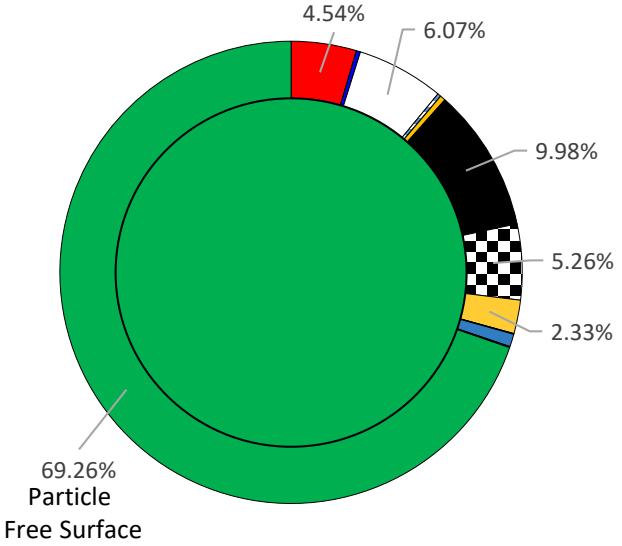


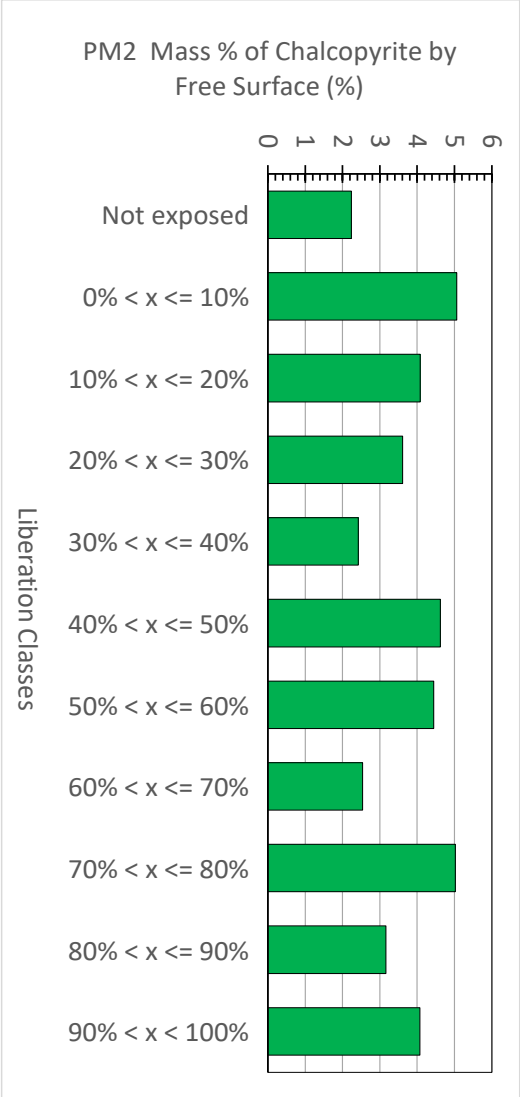
Figure 41. PM2 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

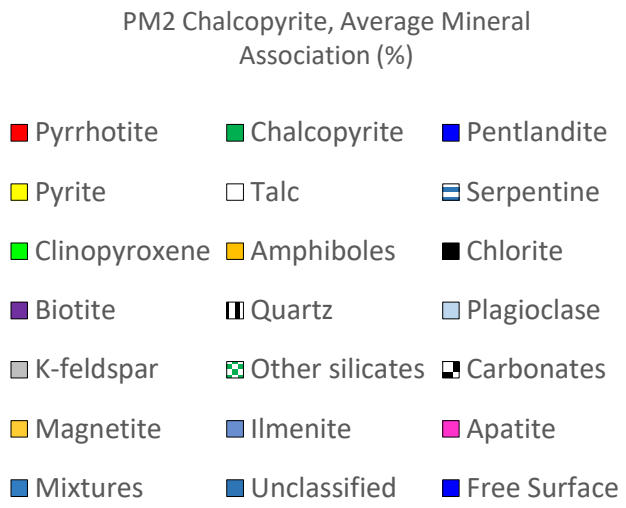




Average Sulphide Mineral Size (µm)

PM2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	89,01	105,14	138,45
-150+75µm	74,34	62,82	75,11
-75µm	29,03	15,37	29,86





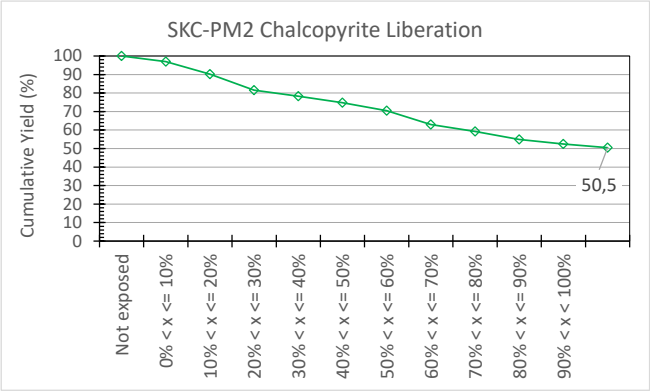
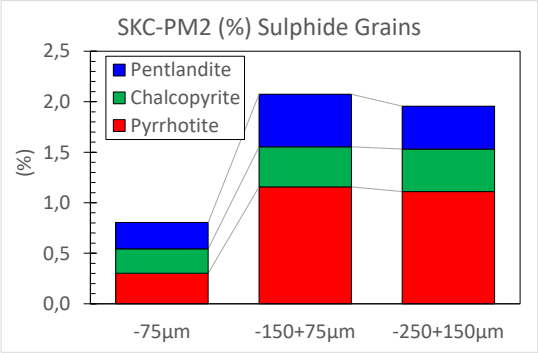
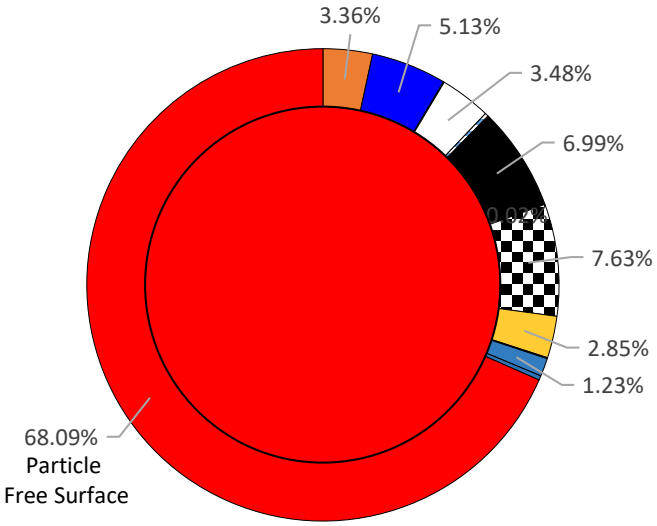


Figure 42. PM2 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

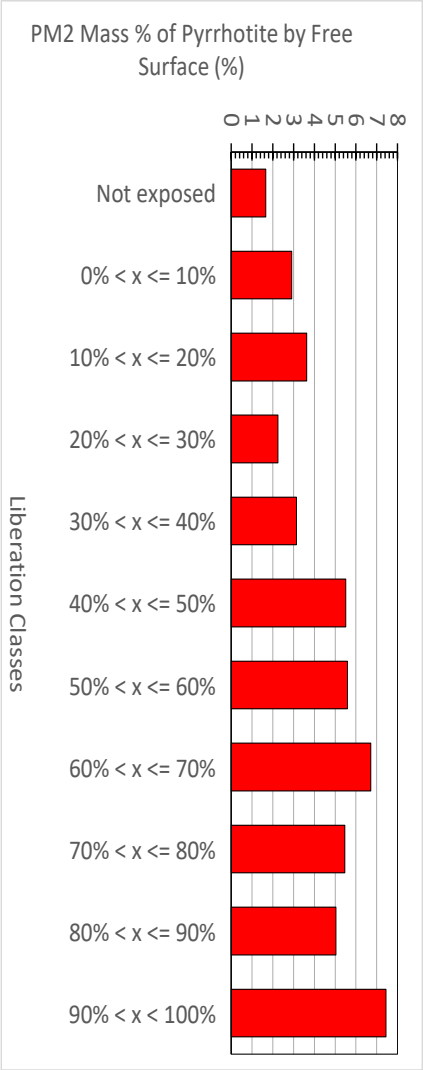


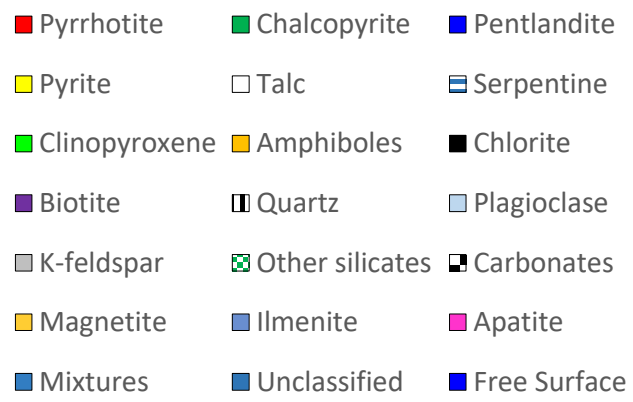
Average Sulphide Mineral Size (µm)

PM2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	89,01	105,14	138,45
-150+75µm	74,34	62,82	75,11
-75µm	29,03	15,37	29,86



PM2 Pyrrhotite, Average Mineral Association (%)





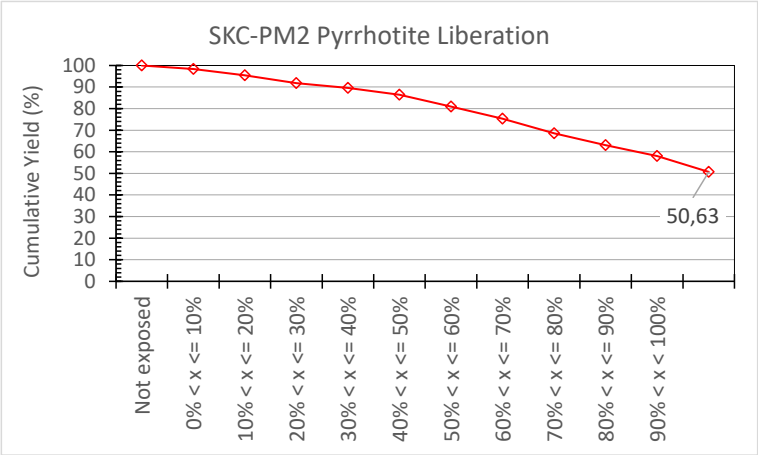


Figure 43. PM2 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.3 Mineral Characterization Summary – PX1

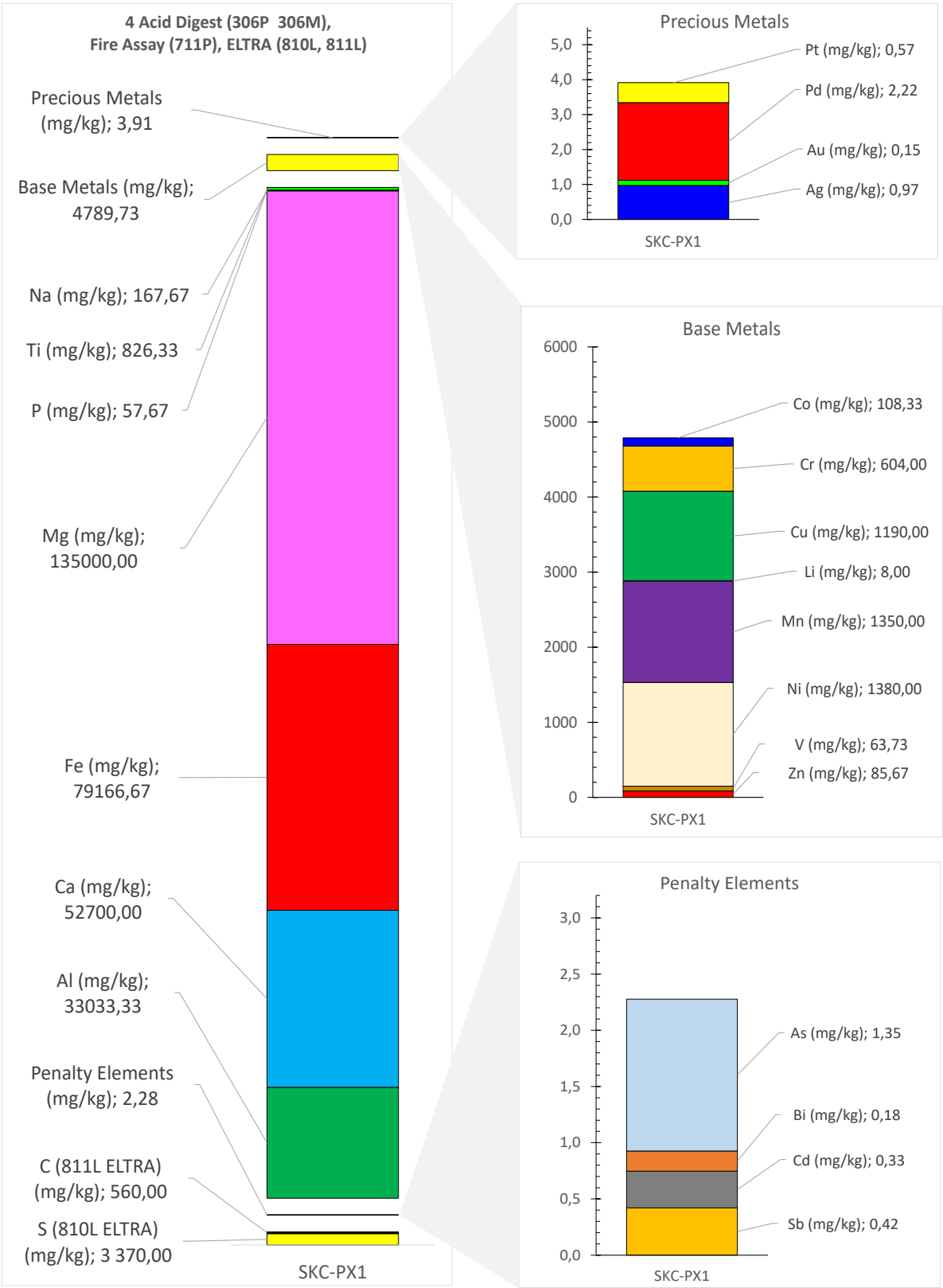


Figure 44. Chemical Assay Summary – PX1 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

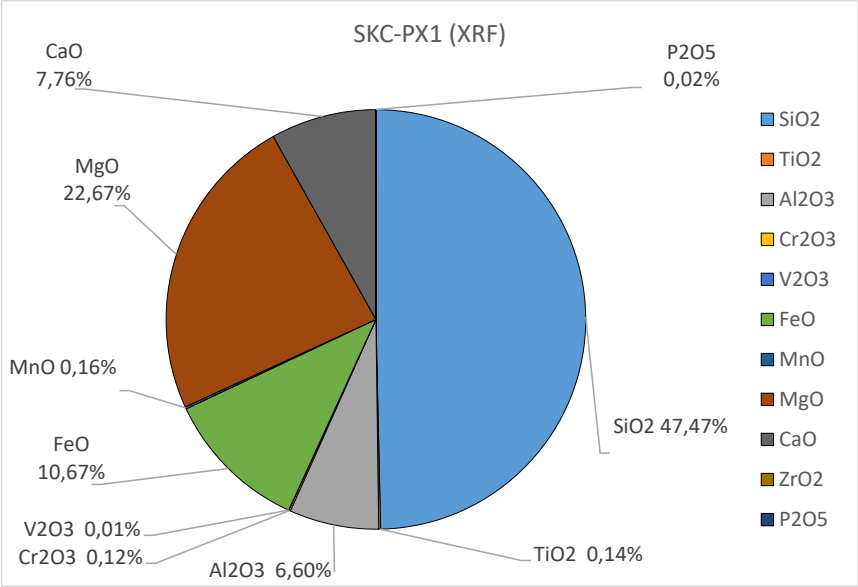


Figure 45. XRF Multi-element mineral analysis Summary – PX1 (Method 180X – Appendix G)

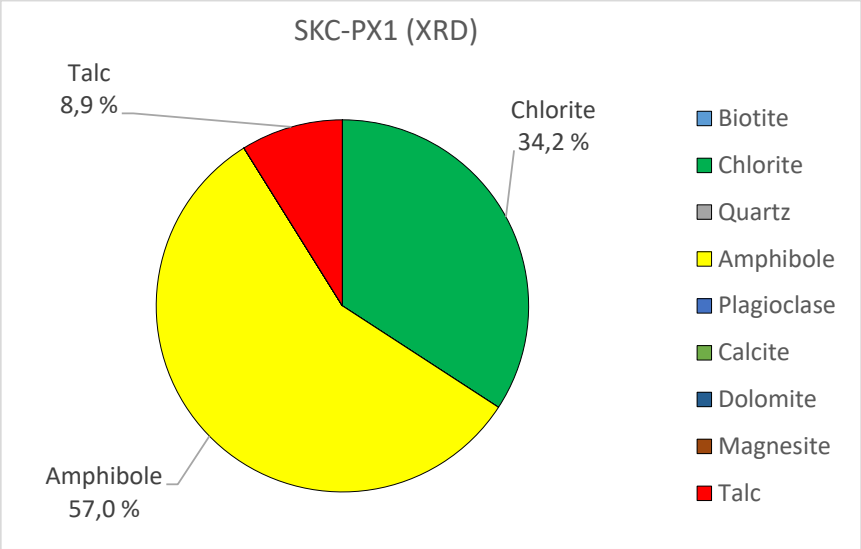


Figure 46. XRD Whole rock Multi-element mineral analysis Summary – PX1 (Appendix H)

Table 8. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – PX1 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Chlorite					Talc			Amphibole	
		% A	% B	Crys	Y		% A	% B		% A	% B
SKC-PX1	4,7	67,3	3,2	W	0		6,3	0,3		26,3	1,2

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

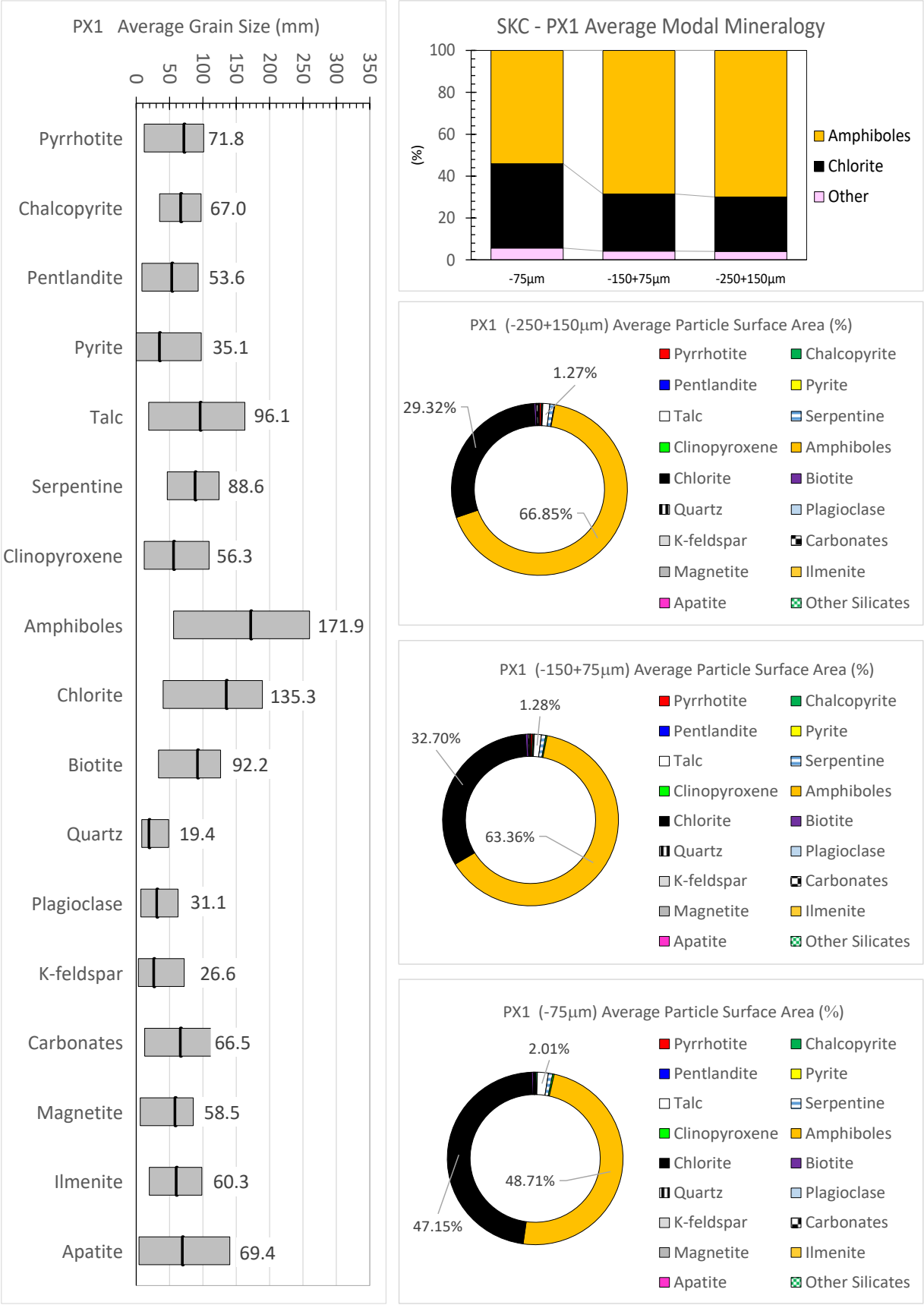
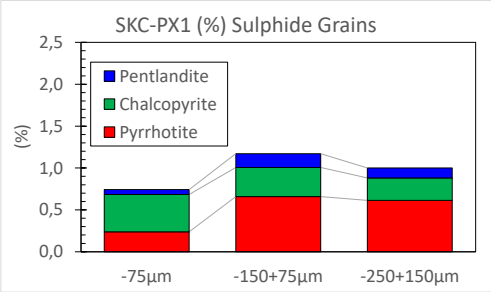
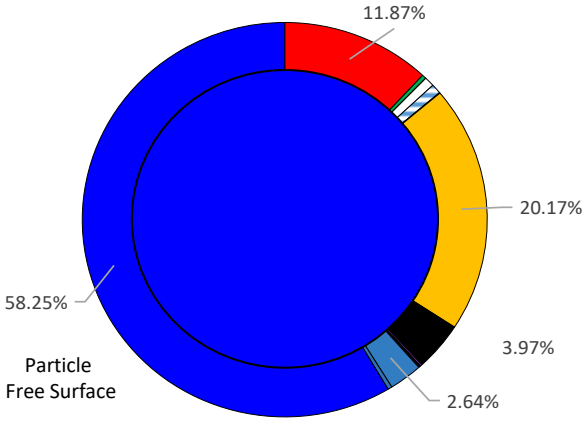


Figure 47. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – PX1 (Appendix I)

1.6.2020

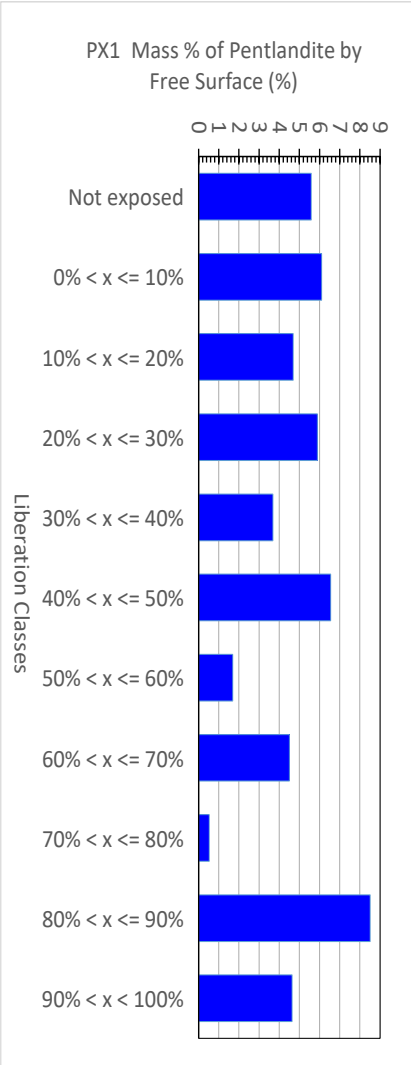


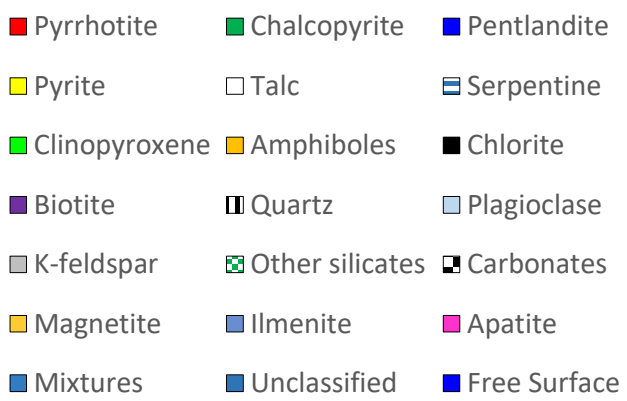


Average Sulphide Mineral Size (µm)

PX1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	73,32	82,26	95,67
-150+75µm	46,62	59,80	69,09
-75µm	8,53	33,00	12,00

PX1 Pentlandite, Average Mineral Association (%)





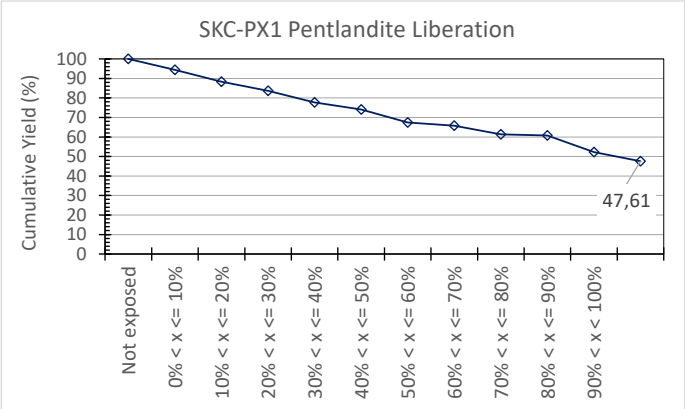
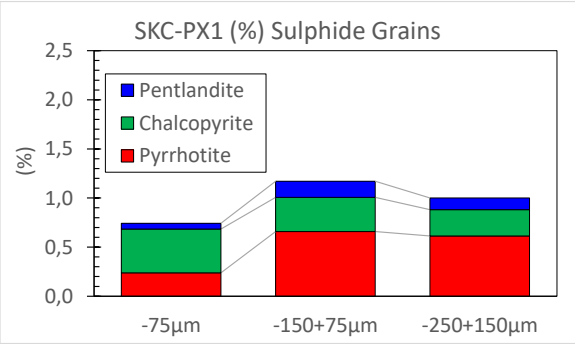
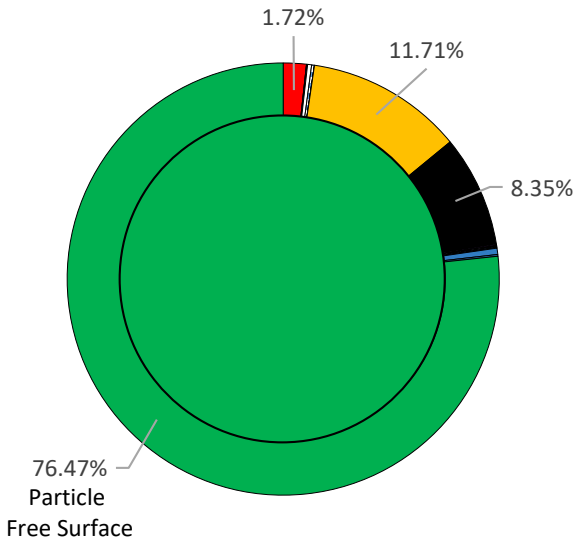


Figure 48. PX1 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

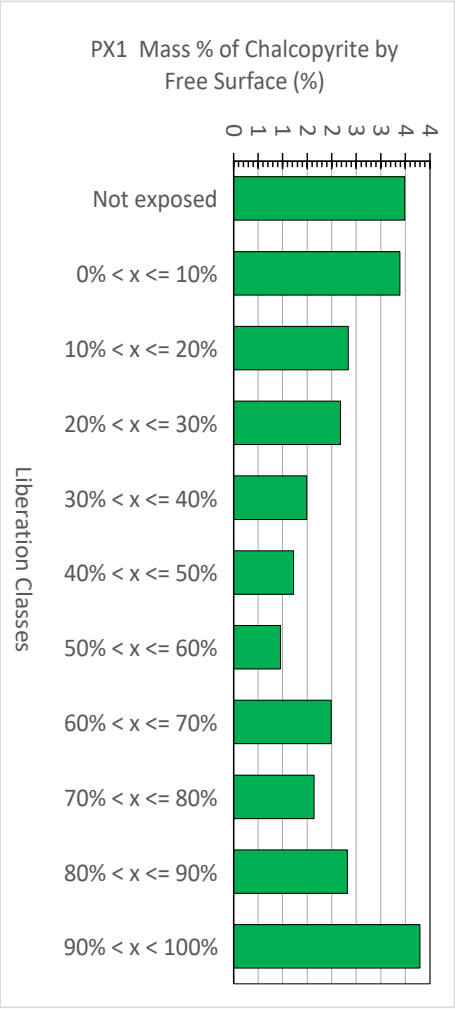


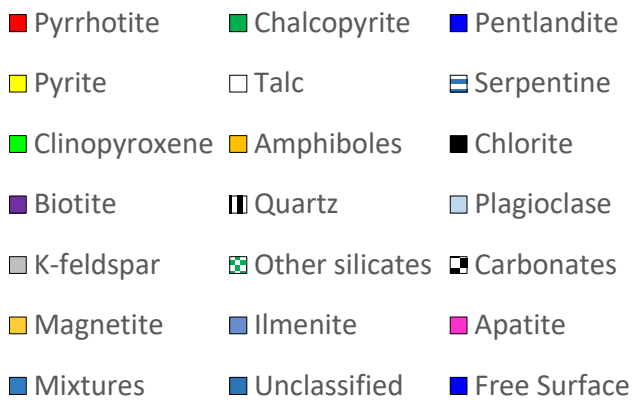


Average Sulphide Mineral Size (µm)

PX1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	73,32	82,26	95,67
-150+75µm	46,62	59,80	69,09
-75µm	8,53	33,00	12,00

PX1 Chalcopyrite, Average Mineral Association (%)





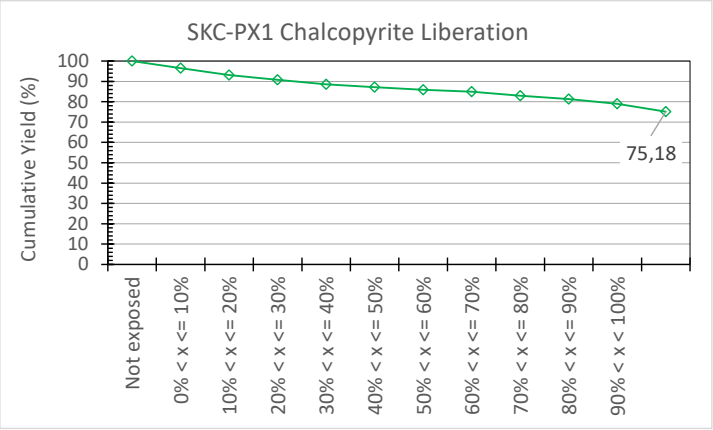
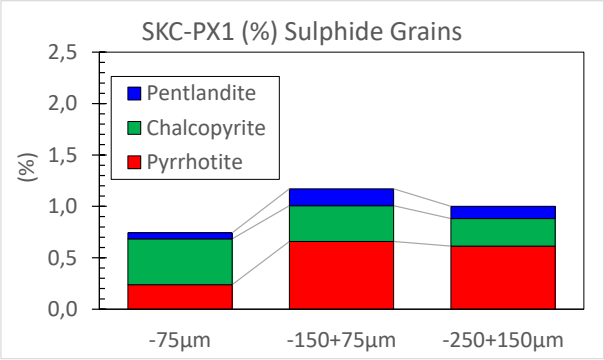
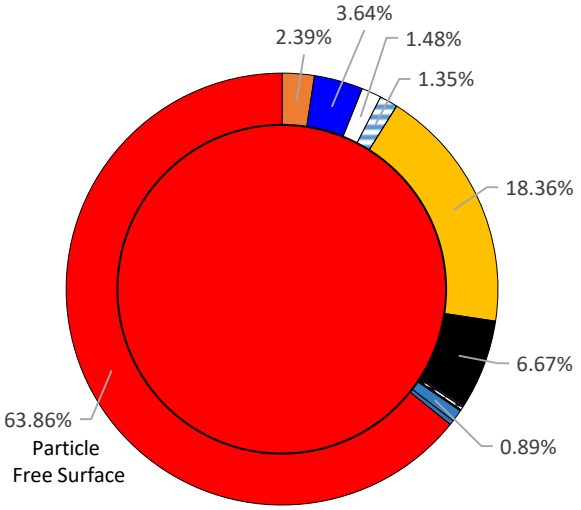


Figure 49. PX1 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

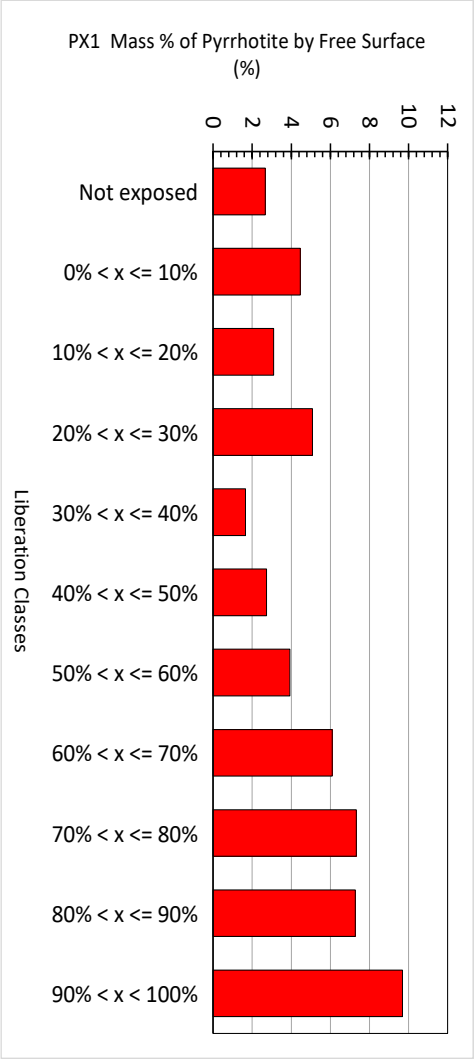


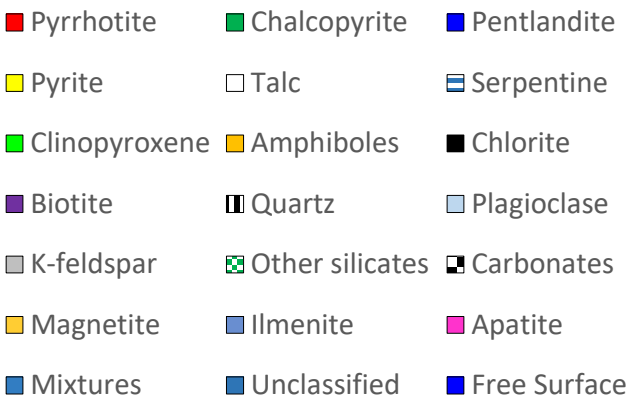


PX1 Pyrrhotite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

PX1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	73,32	82,26	95,67
-150+75µm	46,62	59,80	69,09
-75µm	8,53	33,00	12,00





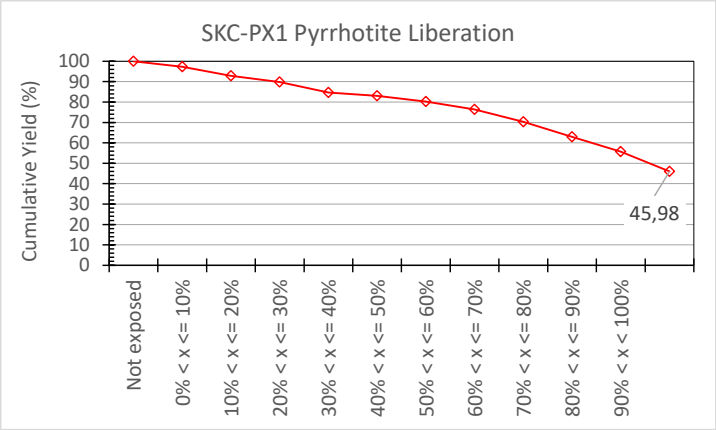


Figure 50. PX1 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.4 Mineral Characterization Summary – PX2

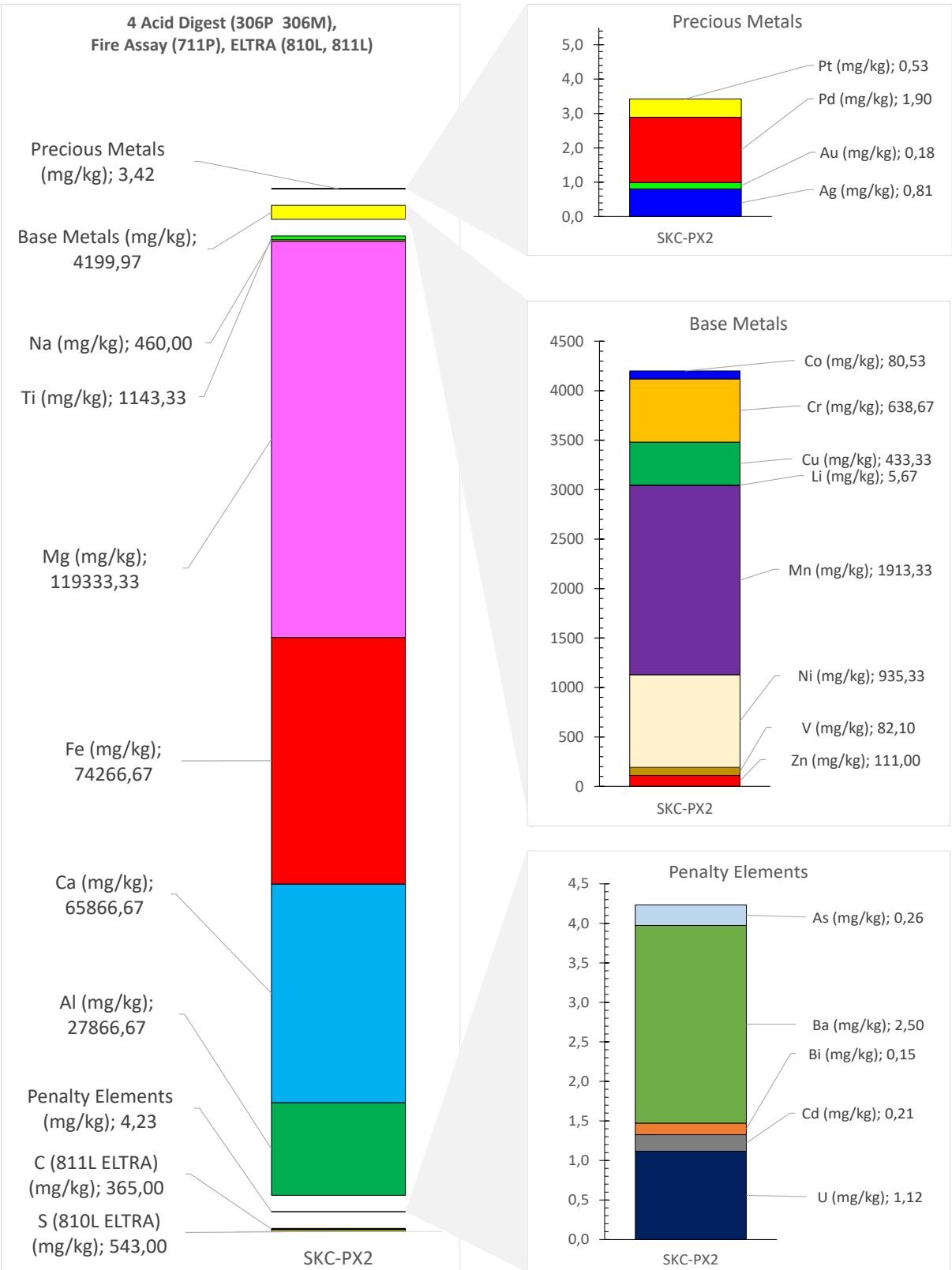


Figure 51. Chemical Assay Summary – PX2 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

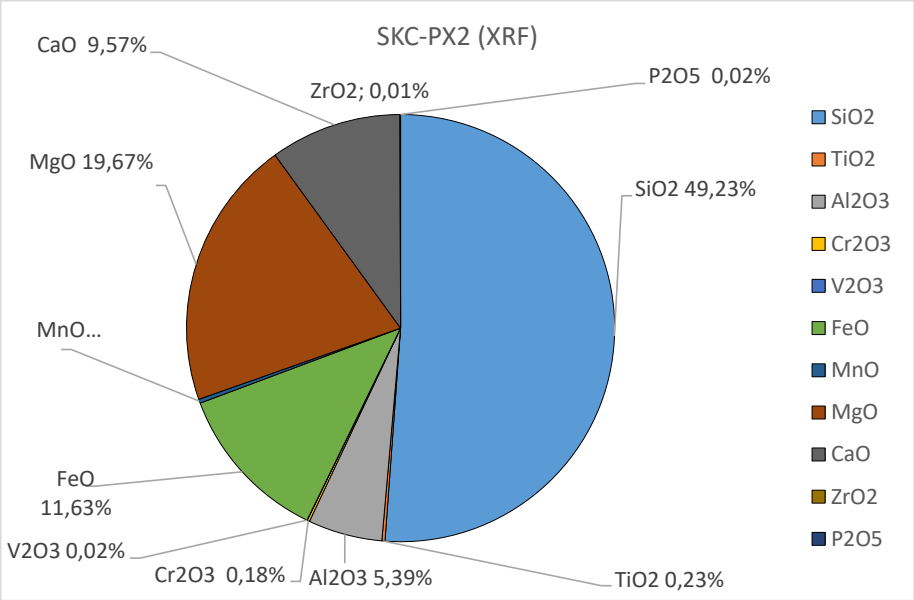


Figure 52. XRF Multi-element mineral analysis Summary – PX2 (Method 180X – Appendix G)

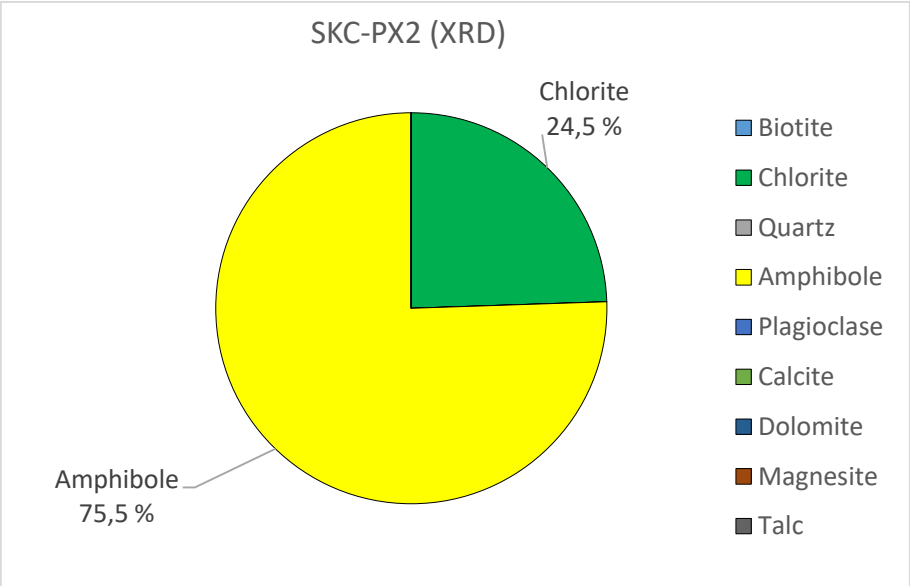


Figure 53. XRD Whole rock Multi-element mineral analysis Summary – PX2 (Appendix H)

Table 9. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – PX2 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Chlorite					Talc			Amphibole	
		% A	% B	Crys	Y		% A	% B		% A	% B
SKC-PX2	5,0	43,3	2,2	W	1		0,0	0,0		56,7	2,8

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

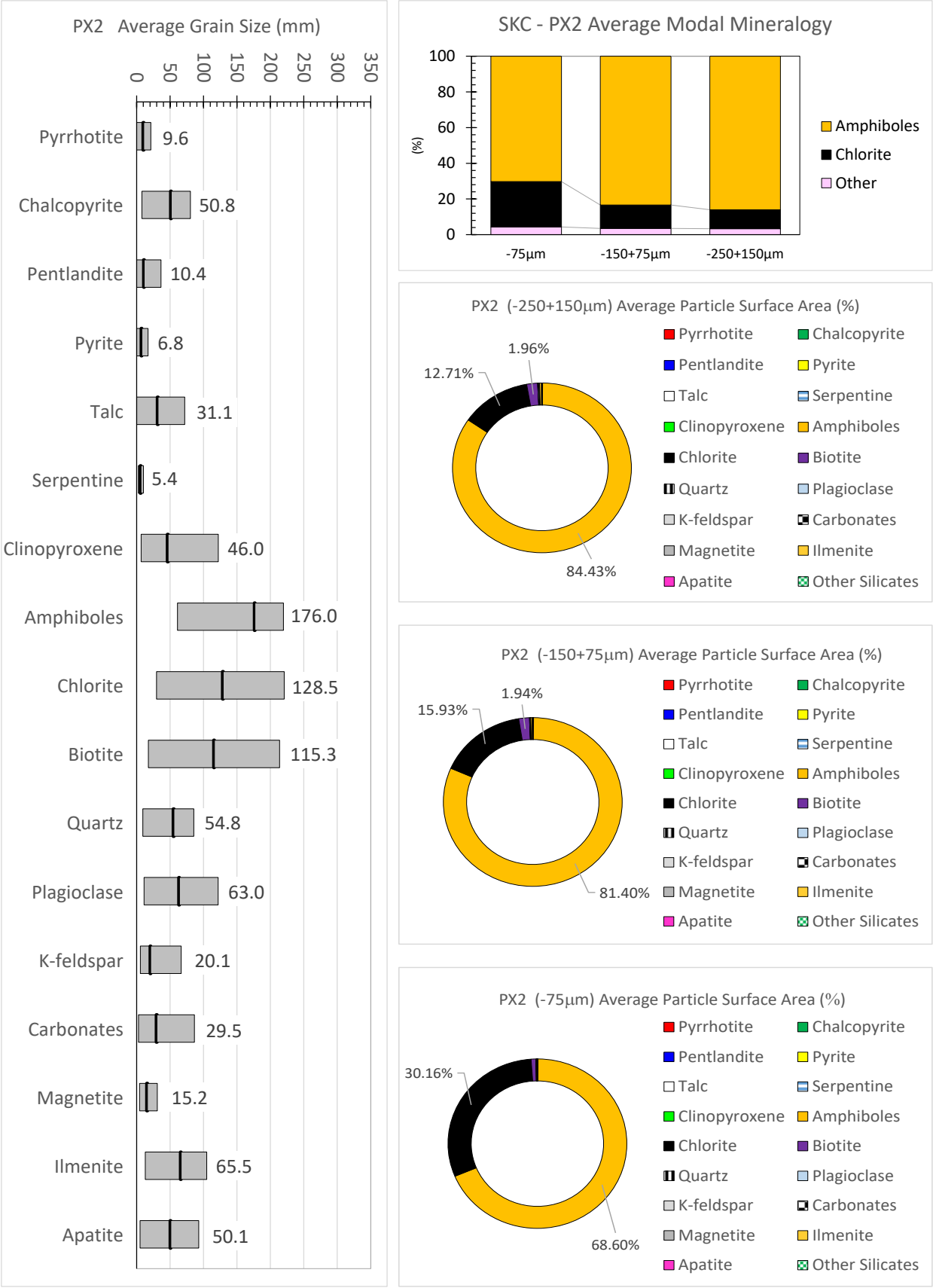
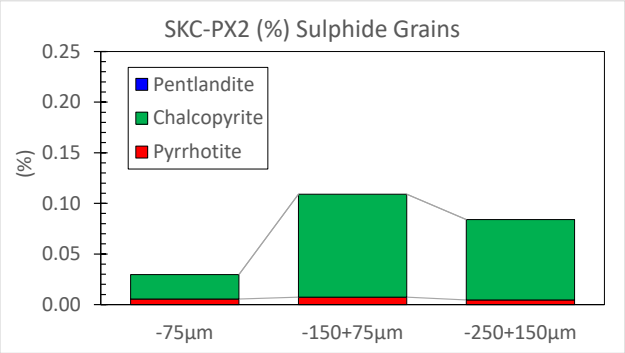
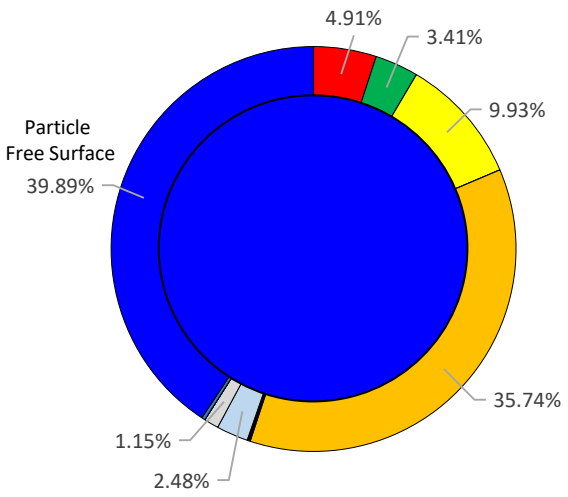


Figure 54. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – PX2 (Appendix I)

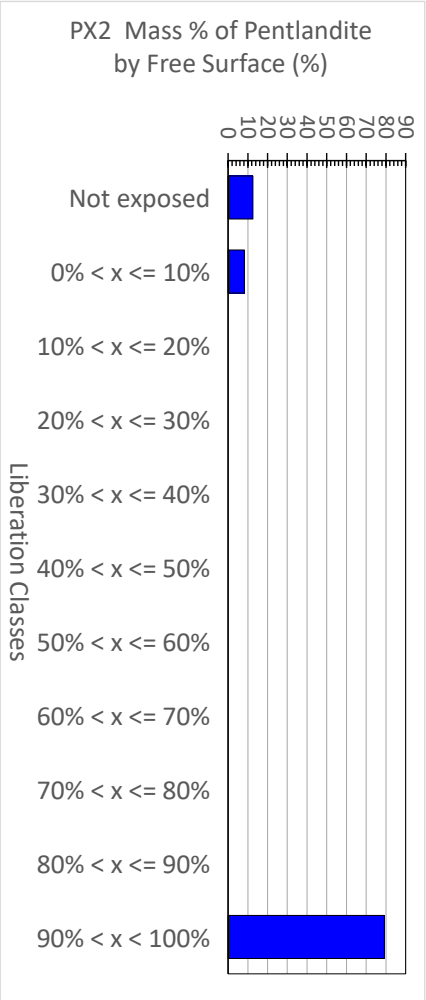


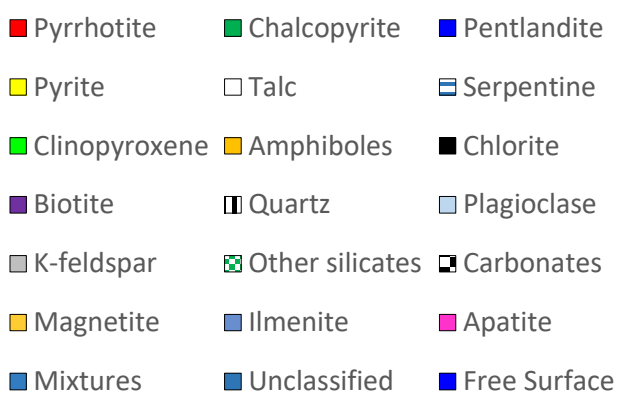


PX2 Pentlandite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

PX2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	17,96	59,24	17,73
-150+75µm	4,26	59,52	9,97
-75µm	0,00	7,87	4,62





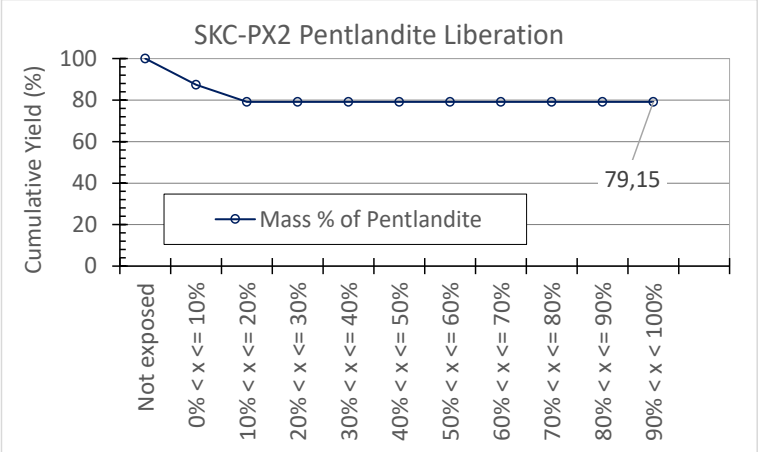
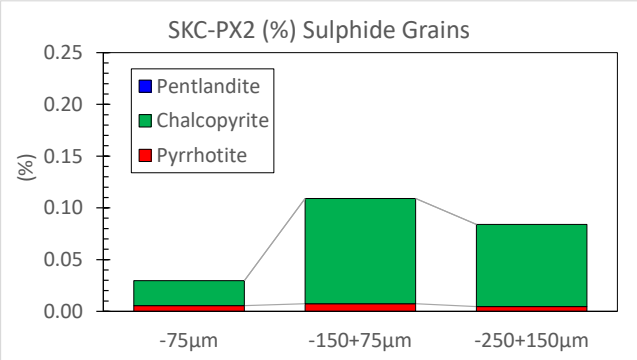
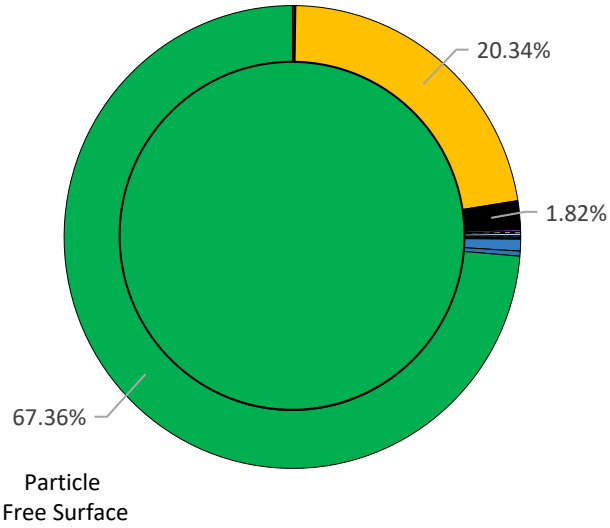


Figure 55. PX2 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

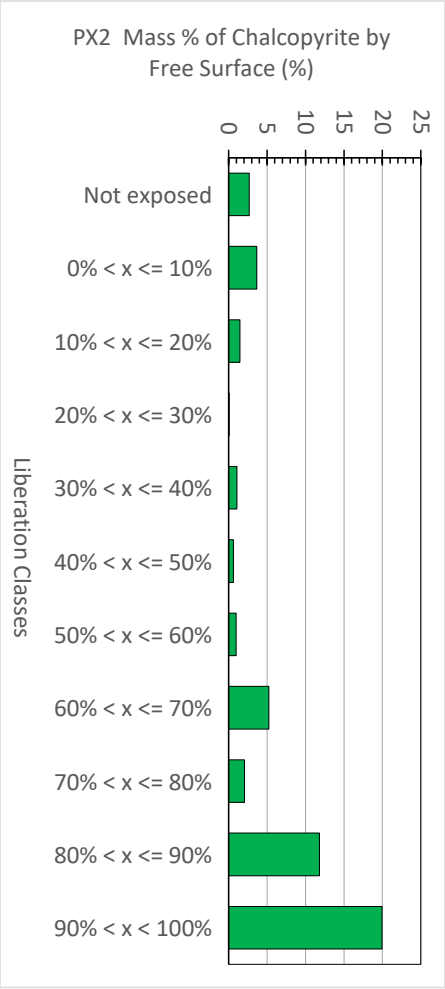


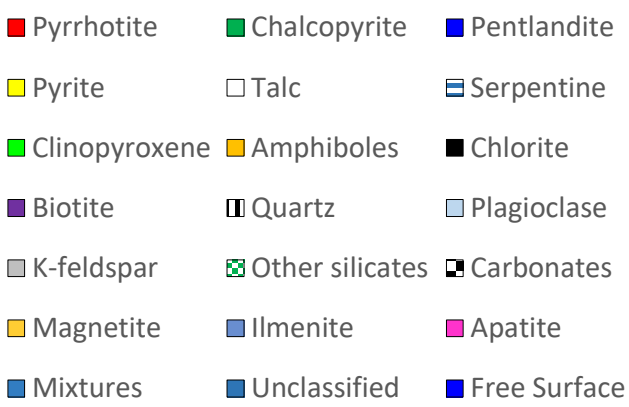


Average Sulphide Mineral Size (µm)

PX2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	17,96	59,24	17,73
-150+75µm	4,26	59,52	9,97
-75µm	0,00	7,87	4,62

PX2 Chalcopyrite, Average Mineral Association (%)





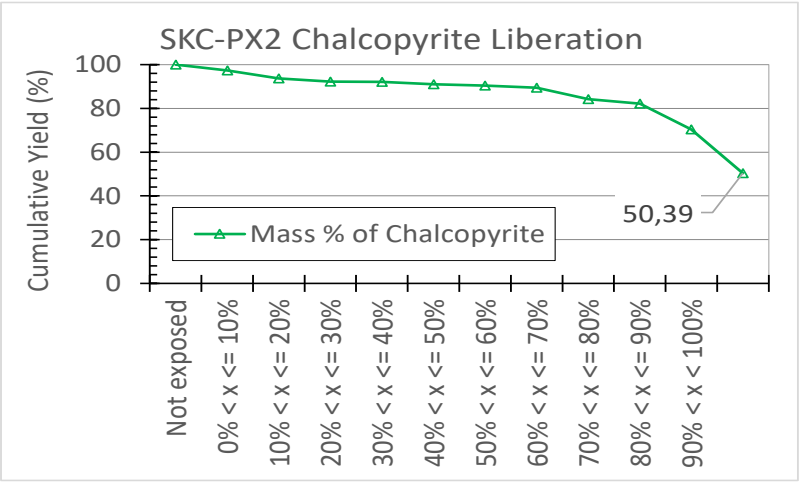
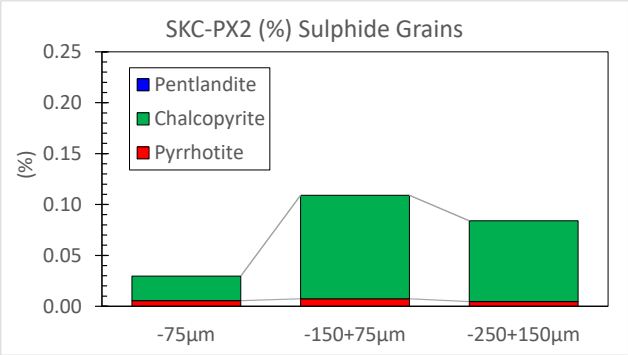
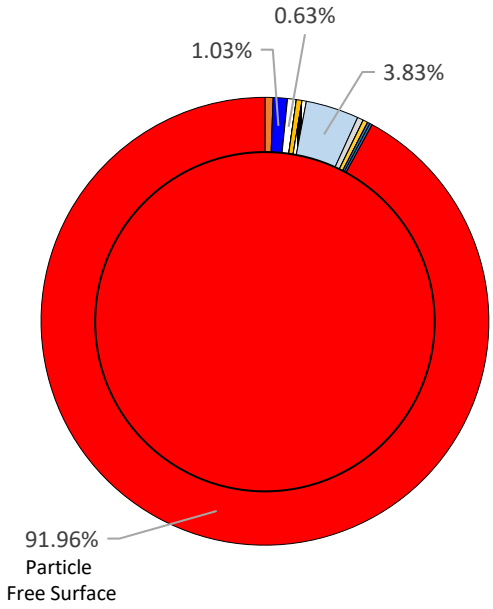


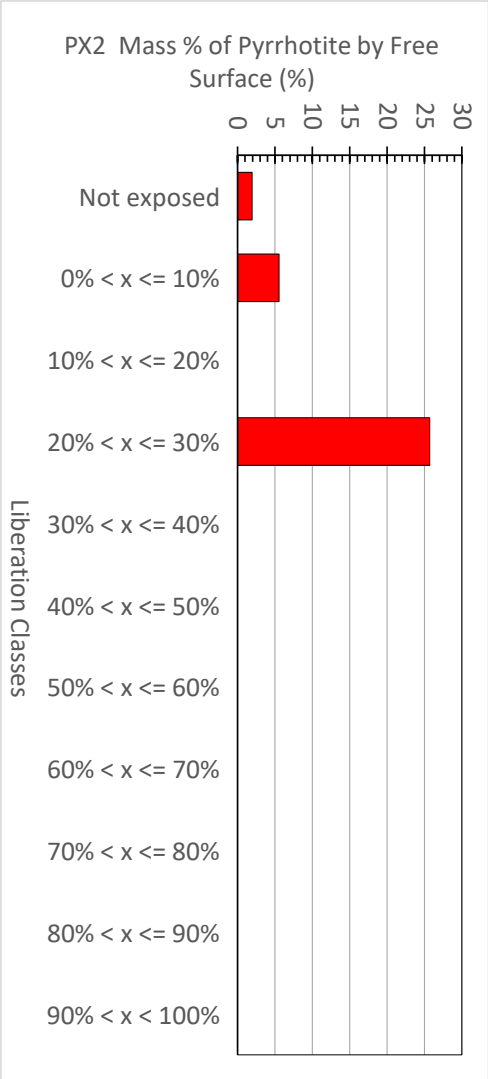
Figure 56. PX2 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

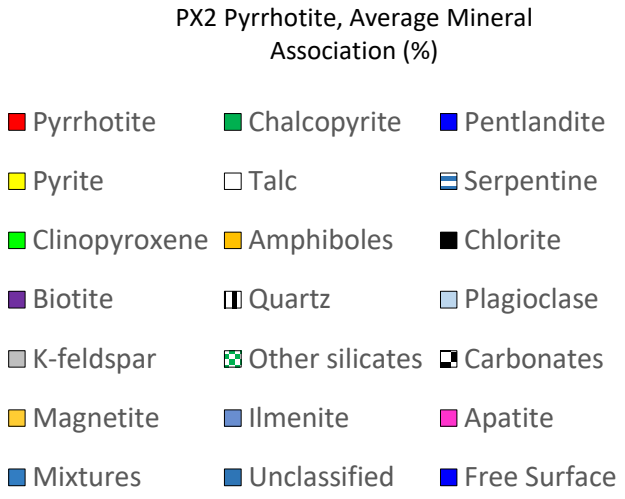




Average Sulphide Mineral Size (µm)

PX2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	17,96	59,24	17,73
-150+75µm	4,26	59,52	9,97
-75µm	0,00	7,87	4,62





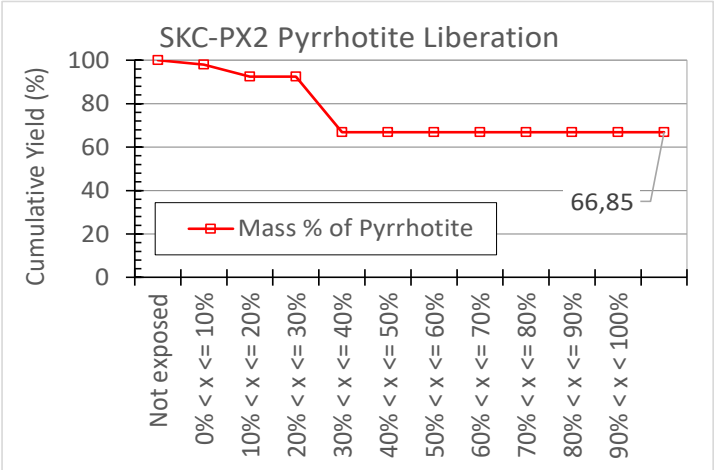


Figure 57. PX2 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.5 Mineral Characterization Summary – MS1

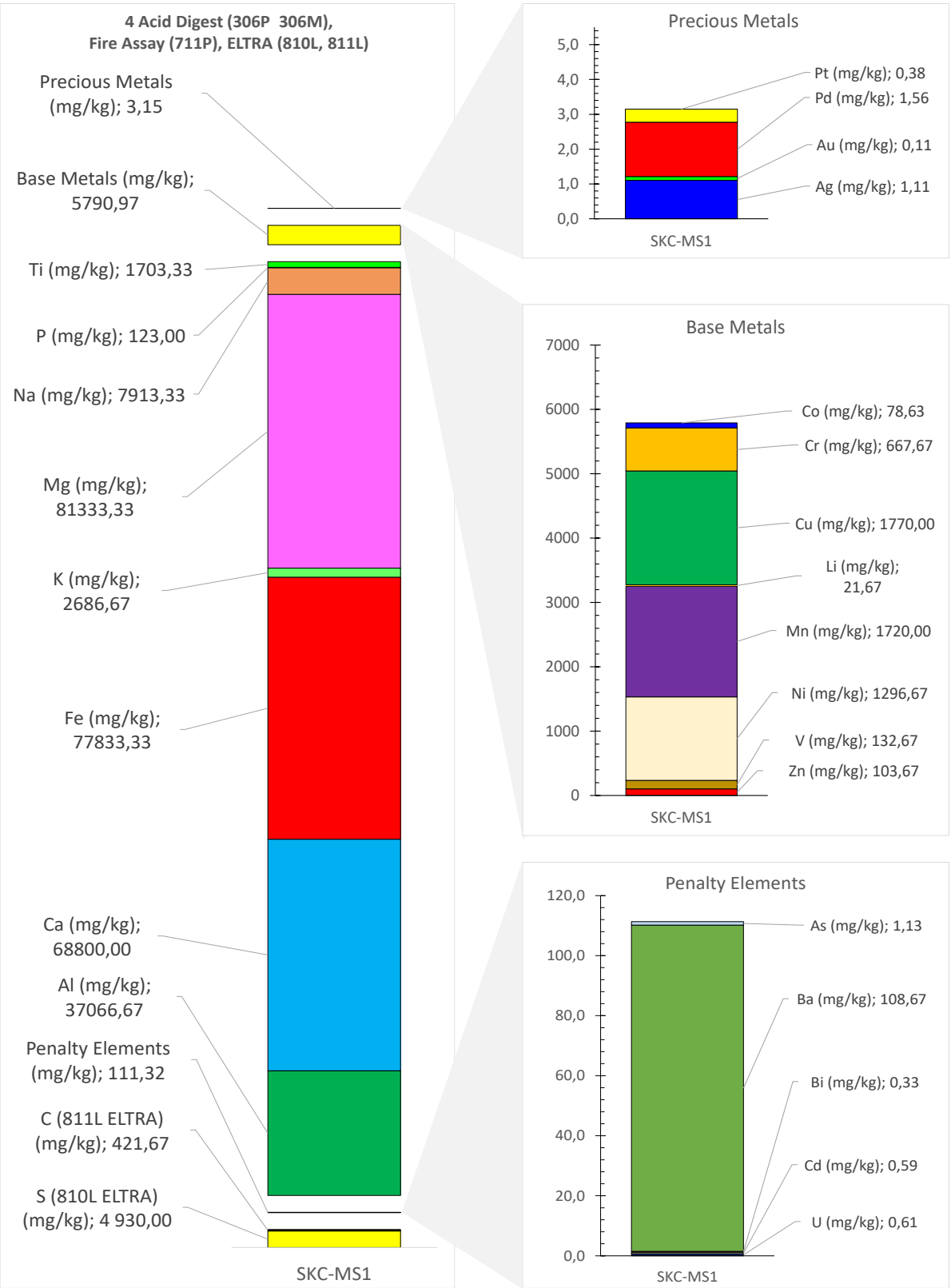


Figure 58. Chemical Assay Summary – MS1 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

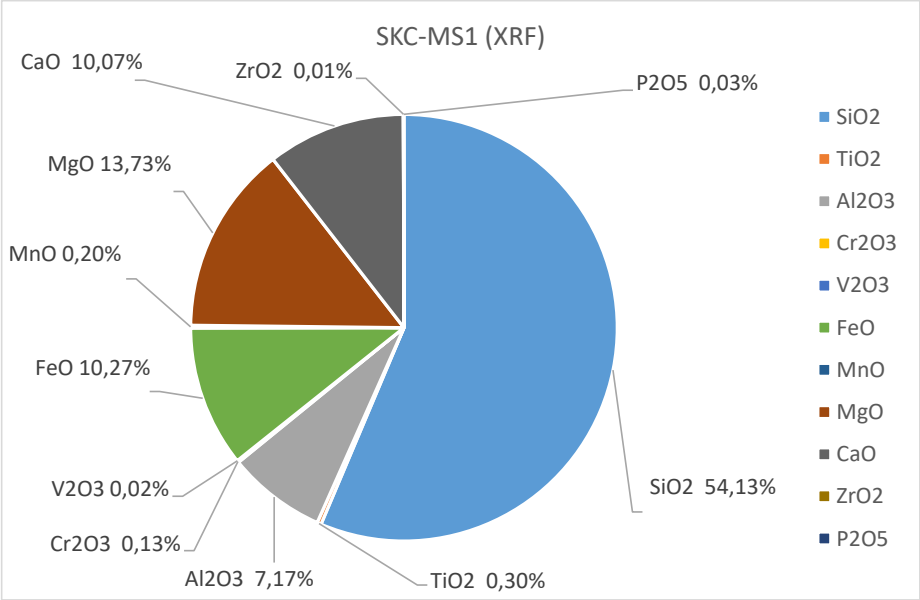


Figure 59. XRF Multi-element mineral analysis Summary – MS1 (Method 180X – Appendix G)

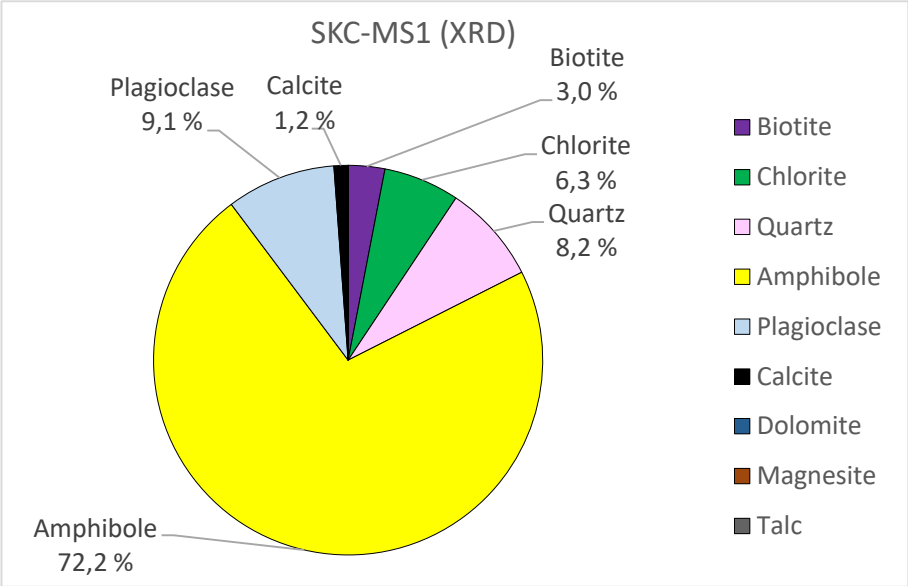


Figure 60. XRD Whole rock Multi-element mineral analysis Summary – MS1 (Appendix H)

Table 10. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – MS1 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Biotite				Chlorite					Quartz			Amphibole			Plagioclase	
		% A	% B	Crys		% A	% B	Crys	Y		% A	% B		% A	% B		% A	% B
SKC-MS1	2,9	TR	TR	P		57,4	1,7	W	1		3,1	0,1		39,5	1,1		0,0	0,0

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

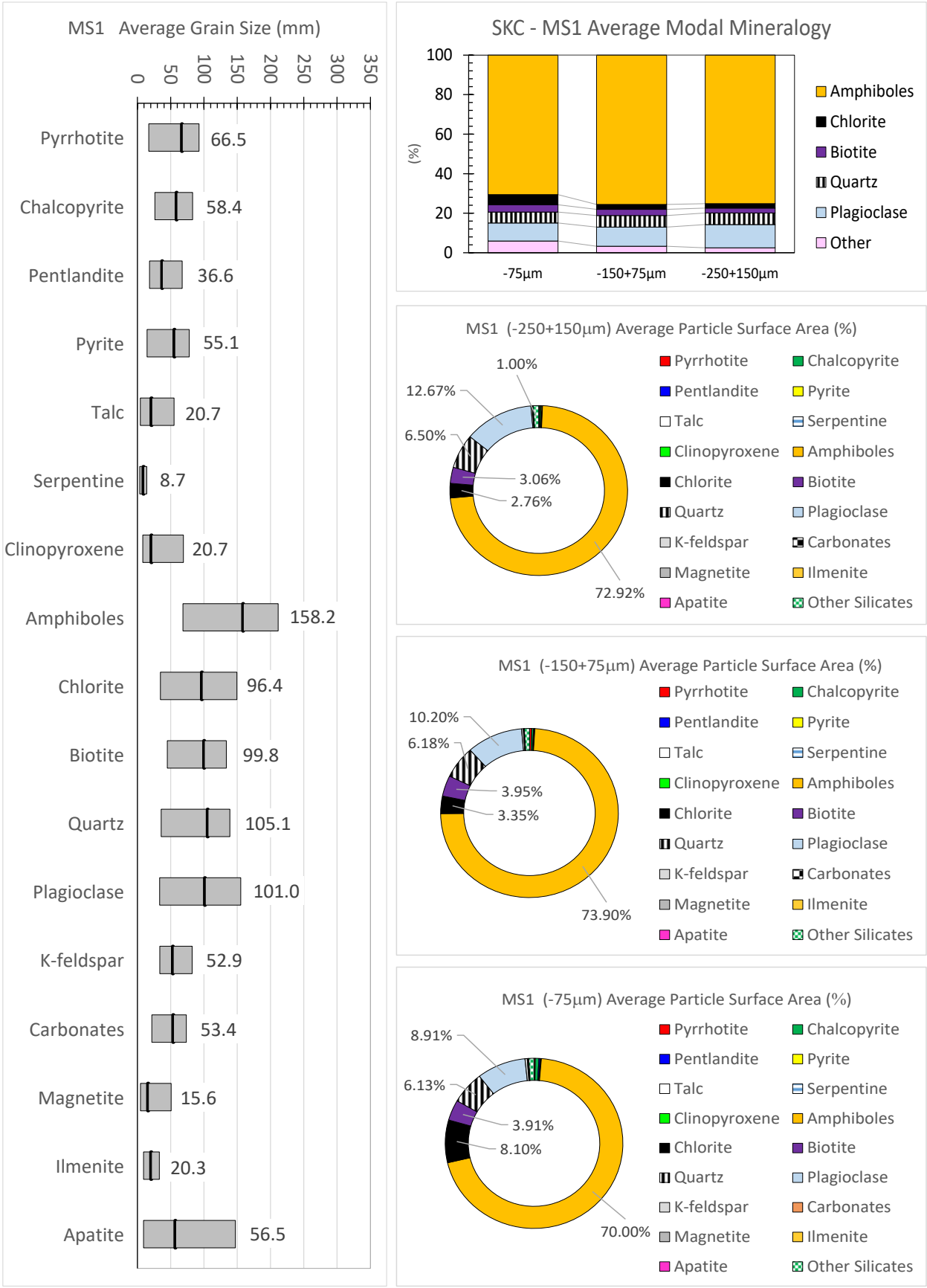
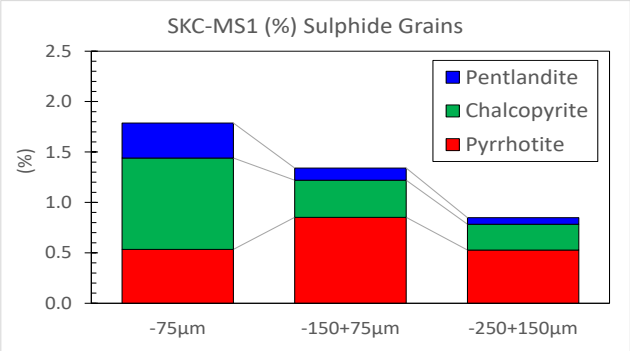
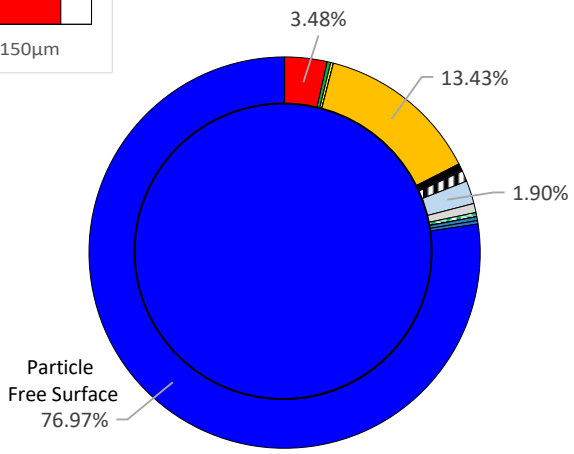


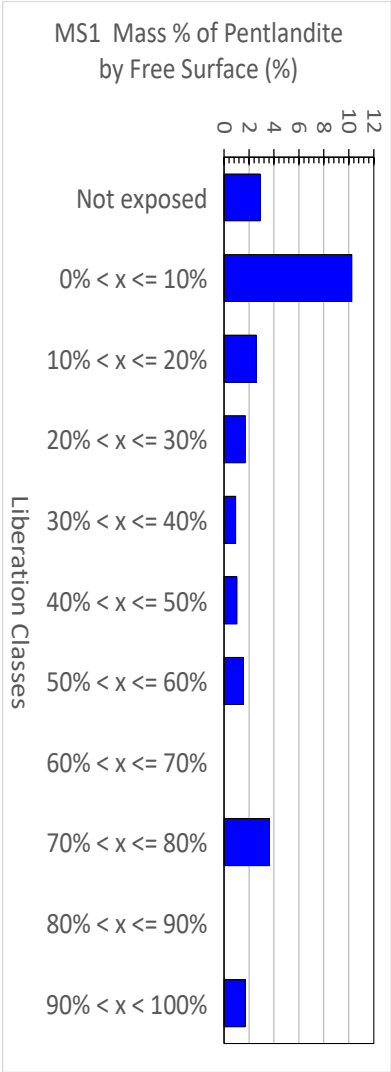
Figure 61. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – MS1 (Appendix I)

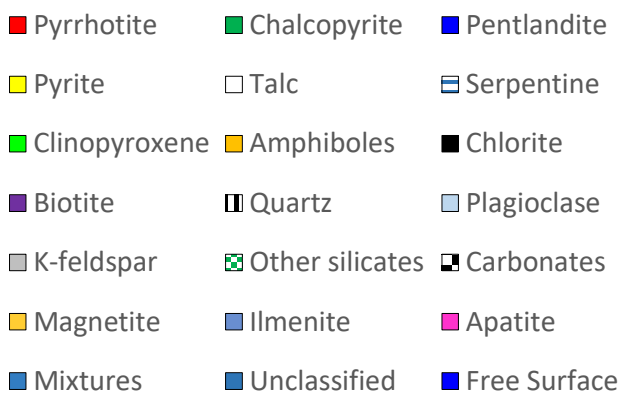


Average Sulphide Mineral Size (µm)

MS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	40,62	68,21	83,18
-150+75µm	40,87	62,02	66,44
-75µm	18,30	26,16	16,99







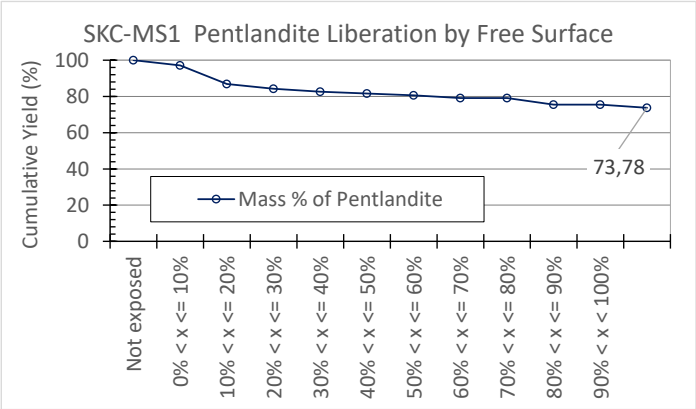
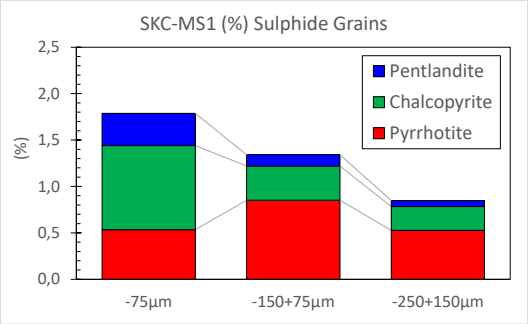
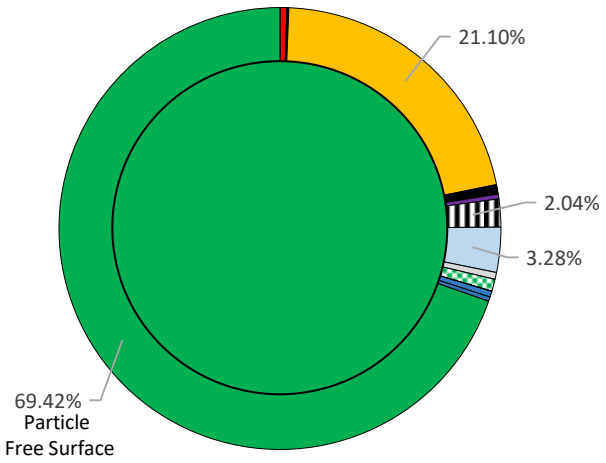


Figure 62. MS1 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

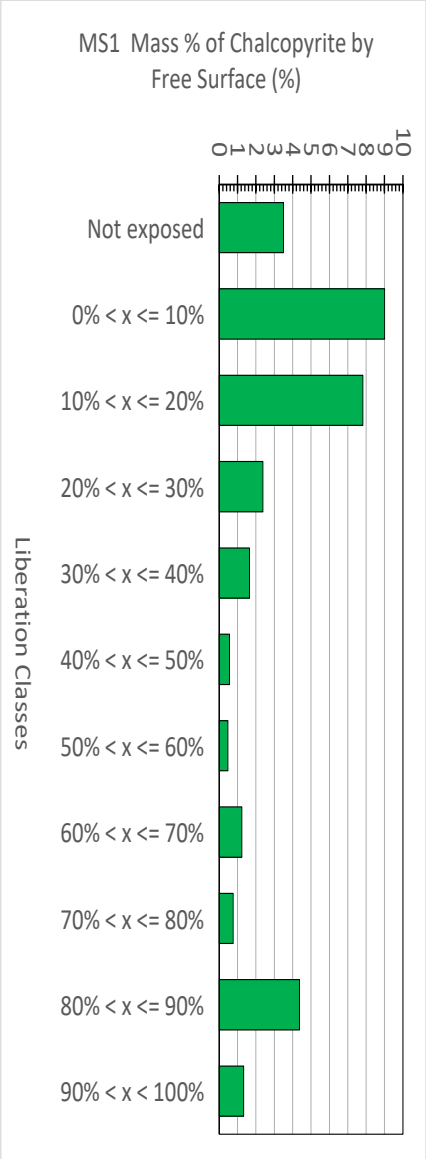
1.6.2020

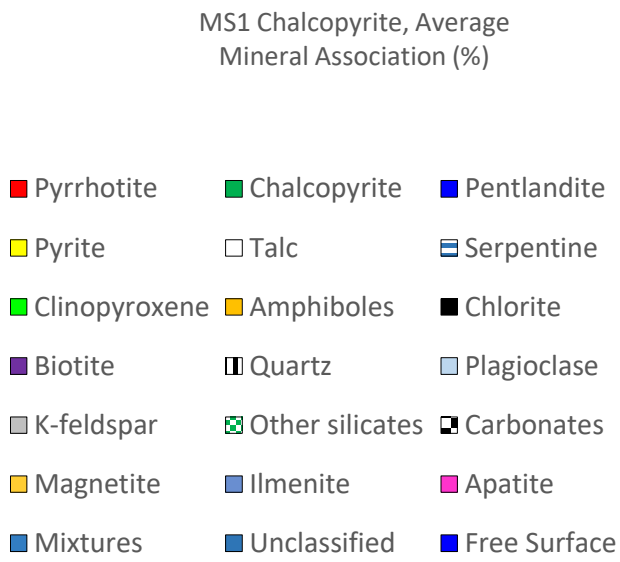




Average Sulphide Mineral Size (µm)

MS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	40,62	68,21	83,18
-150+75µm	40,87	62,02	66,44
-75µm	18,30	26,16	16,99





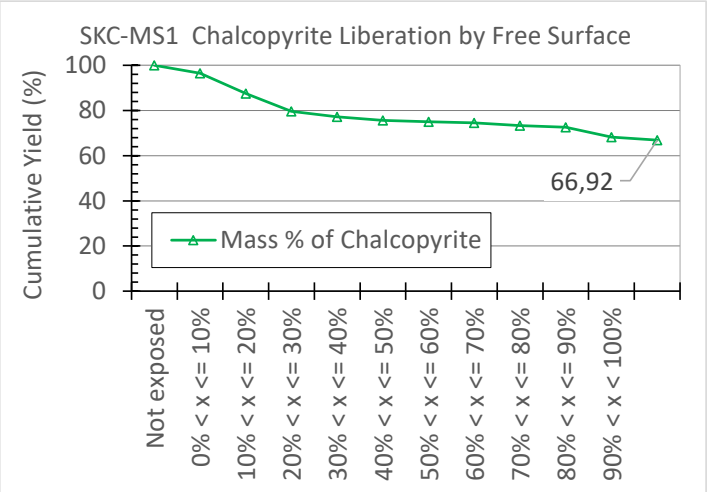
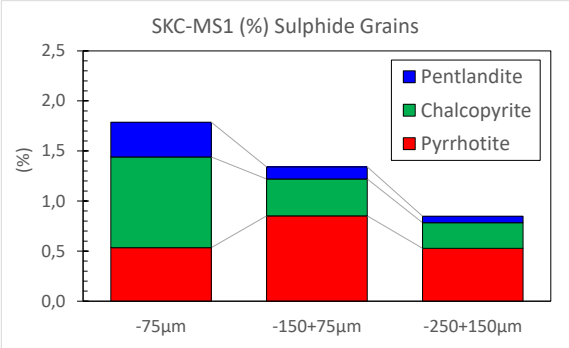
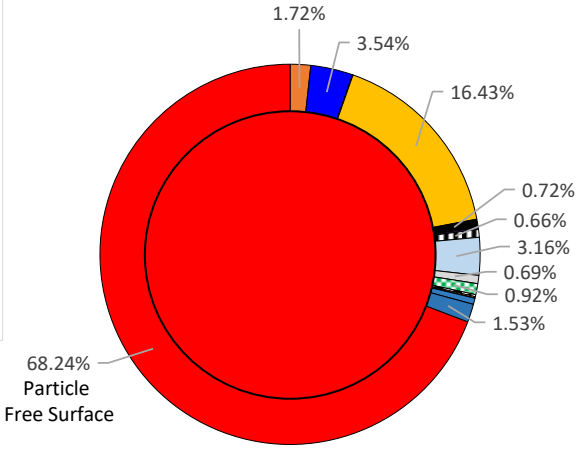


Figure 63. MS1 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

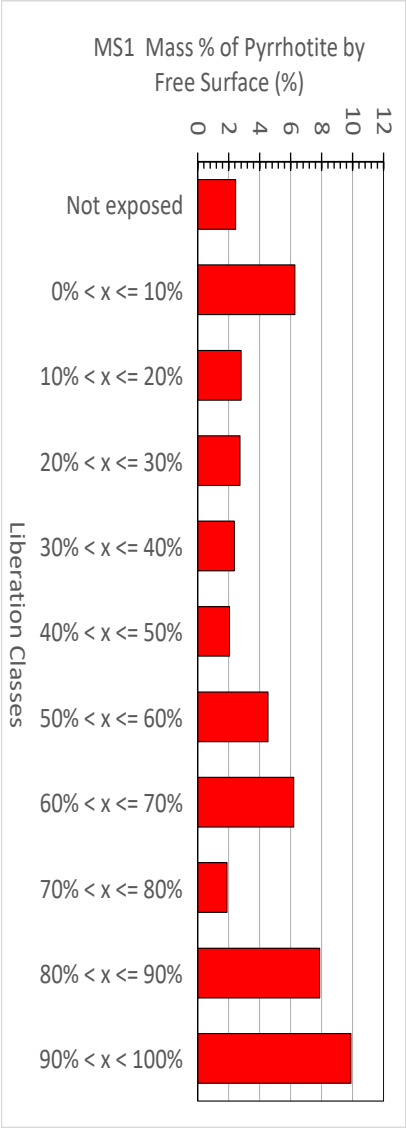


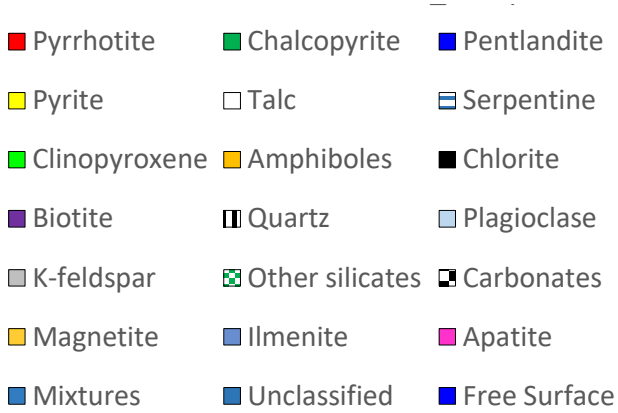
Average Sulphide Mineral Size (µm)

MS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	40,62	68,21	83,18
-150+75µm	40,87	62,02	66,44
-75µm	18,30	26,16	16,99



MS1 Pyrrhotite, Average Mineral Association (%)





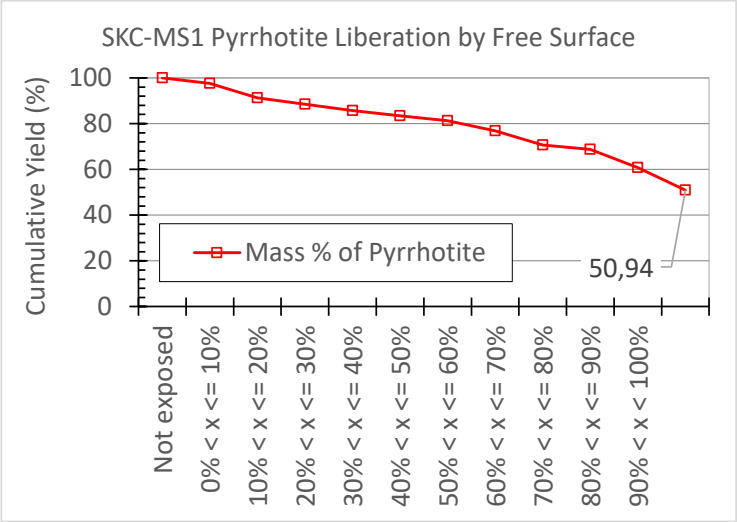


Figure 64. MS1 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.6 Mineral Characterization Summary – MS2

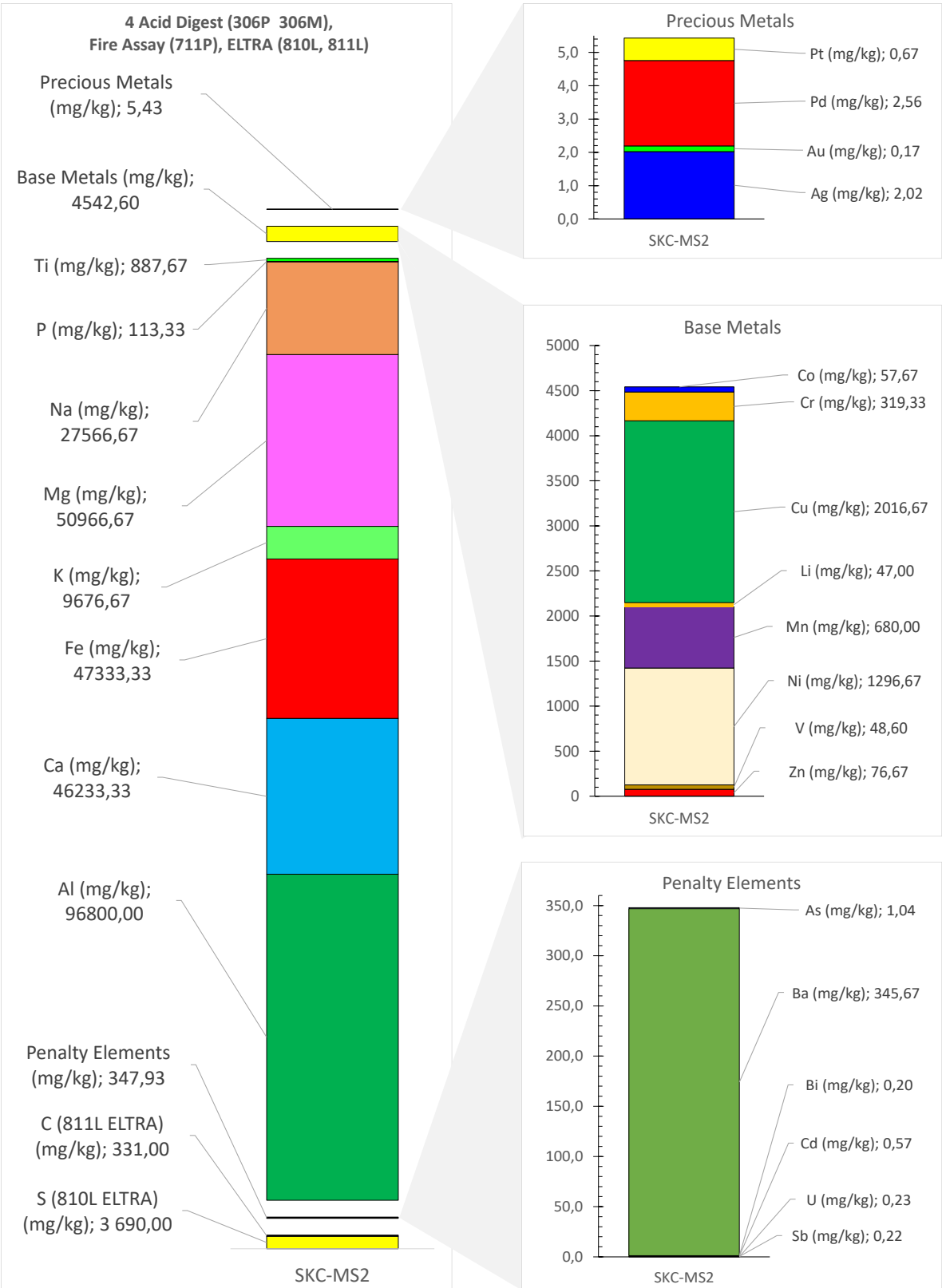


Figure 65. Chemical Assay Summary – MS2 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

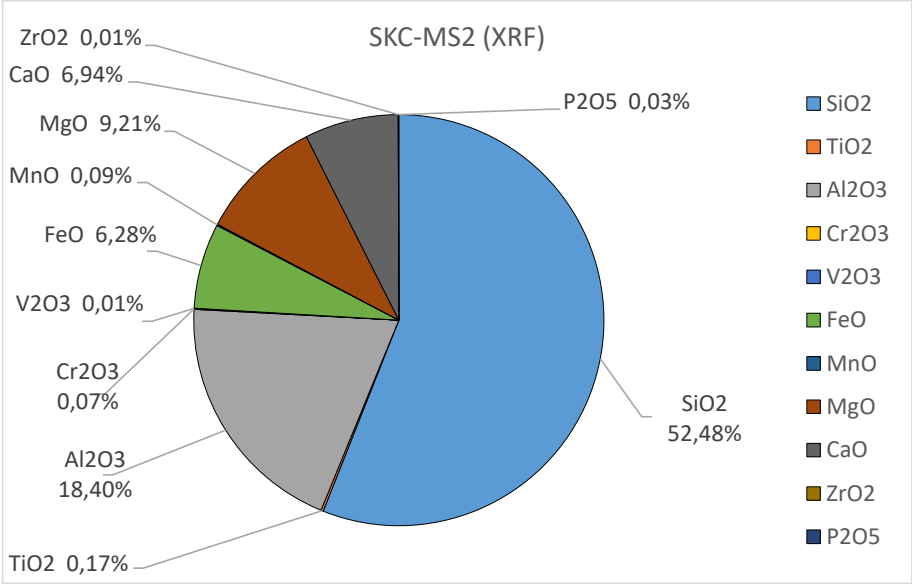


Figure 66. XRF Multi-element mineral analysis Summary – MS2 (Method 180X – Appendix G)

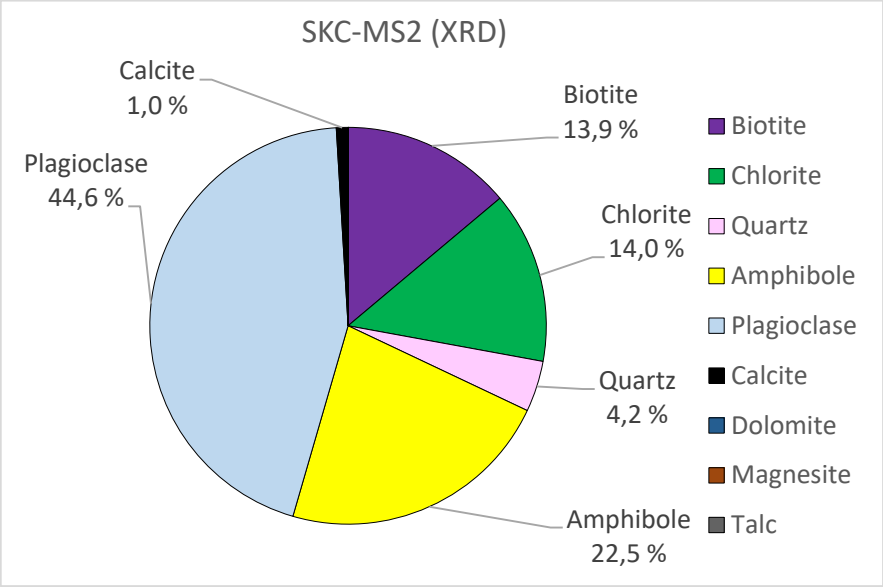


Figure 67. XRD Whole rock Multi-element mineral analysis Summary – MS2 (Appendix H)

Table 11. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – MS2 (Appendix H)

Sample	Wt. % of Ogrinal Sample	Biotite			Chlorite				Quartz		Amphibole		Plagioclase	
	<2µm	% A	% B	Crys	% A	% B	Crys	Y	% A	% B	% A	% B	% A	% B
SKC-MS2	3,1	31,5	1,0	M	34,2	1,0	W	1	0,0	0,0	24,3	0,7	10,0	0,3

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

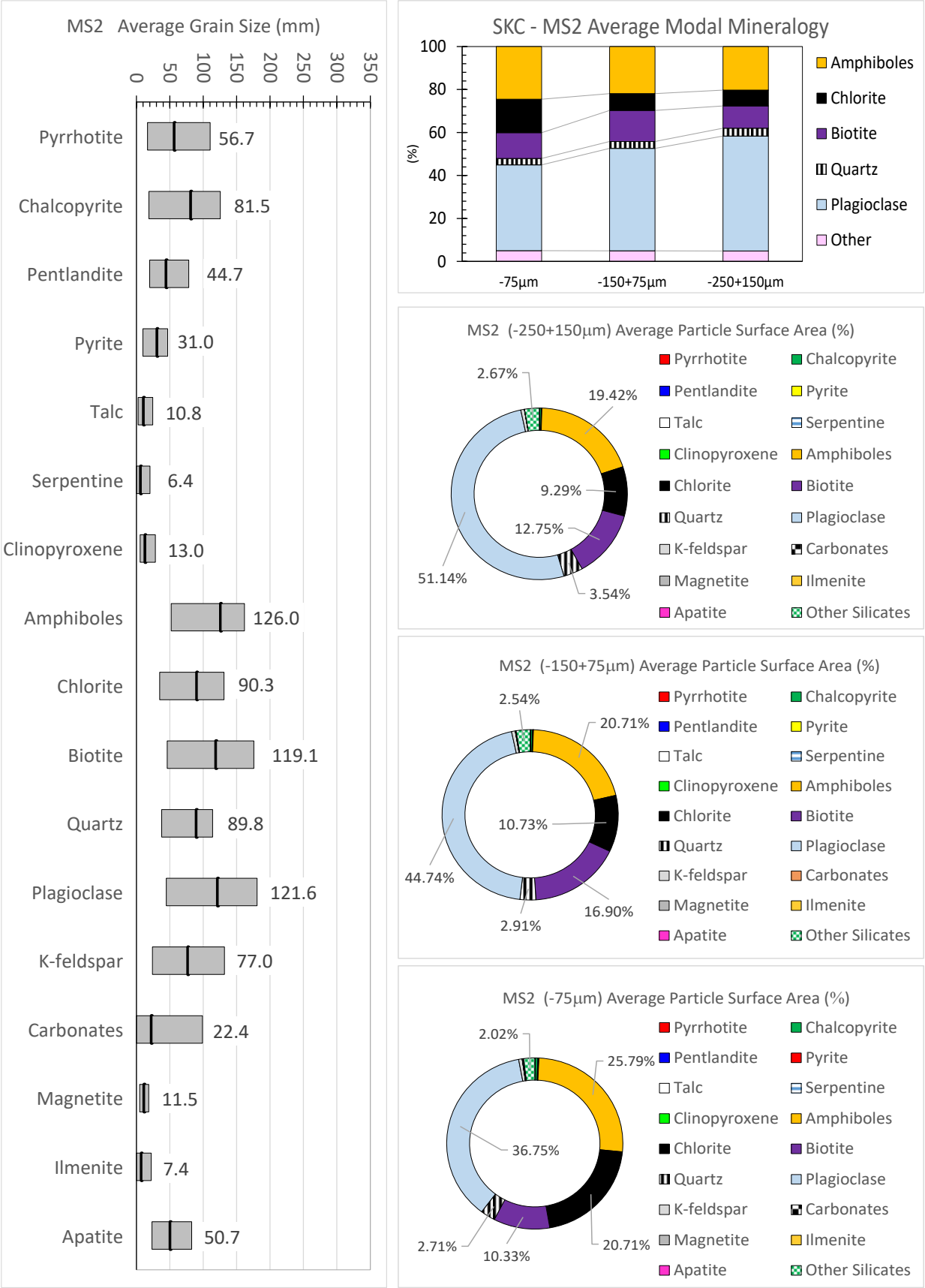
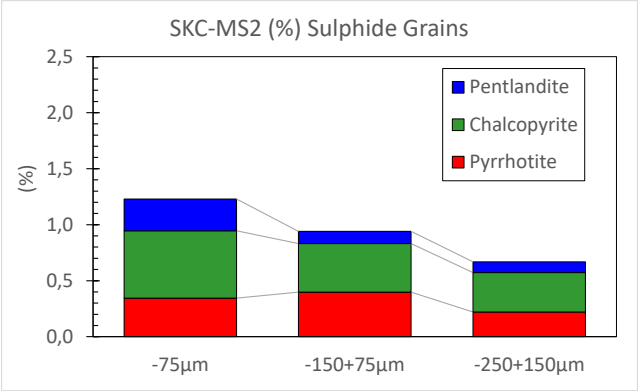
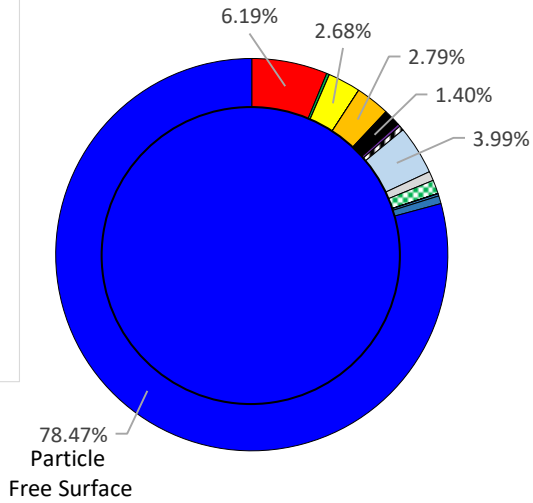


Figure 68. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – MS2 (Appendix I)

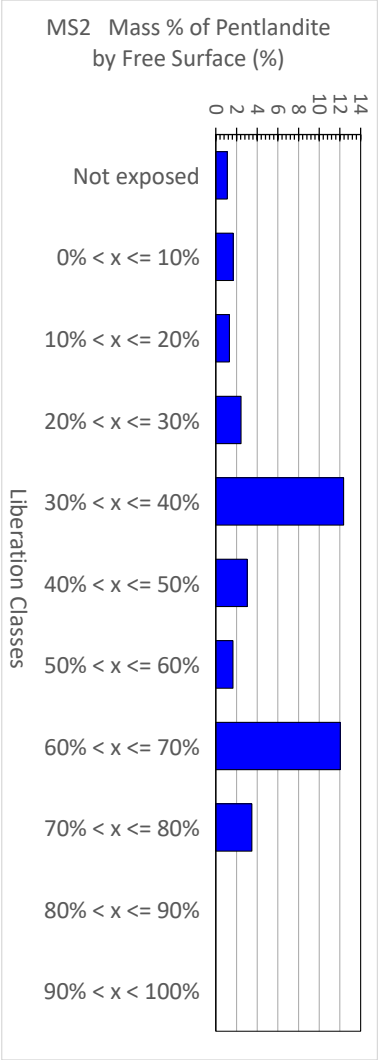


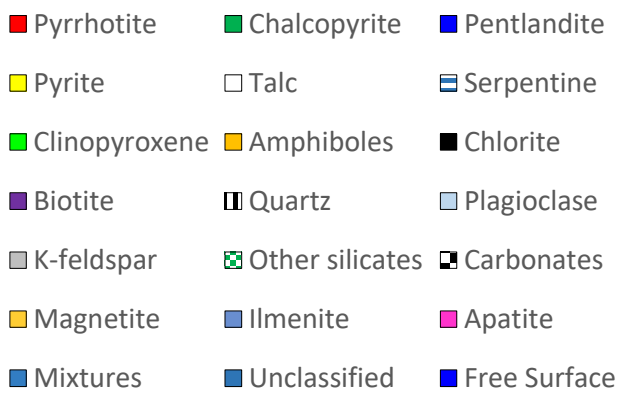


Average Sulphide Mineral Size (µm)

MS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	52,29	104,72	69,15
-150+75µm	45,18	78,05	60,67
-75µm	19,91	18,64	16,64

MS2 Pentlandite, Average Mineral Association (%)





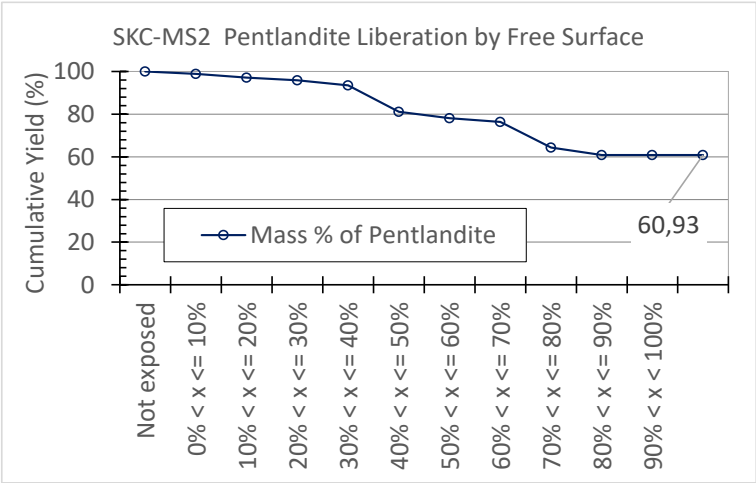
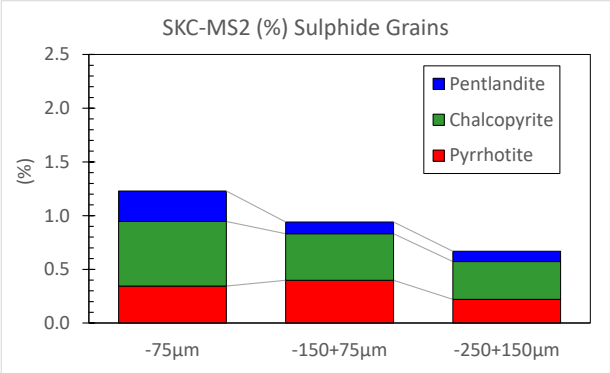
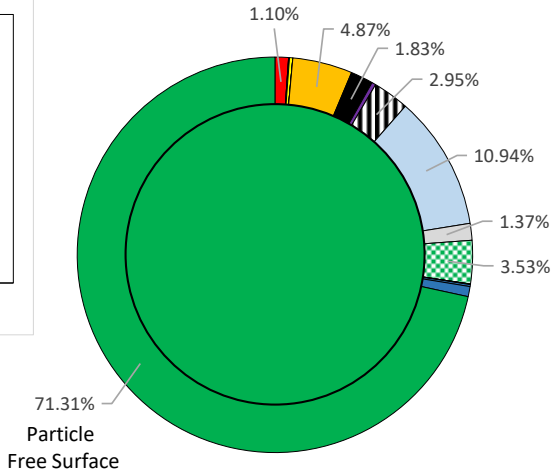


Figure 69. MS2 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

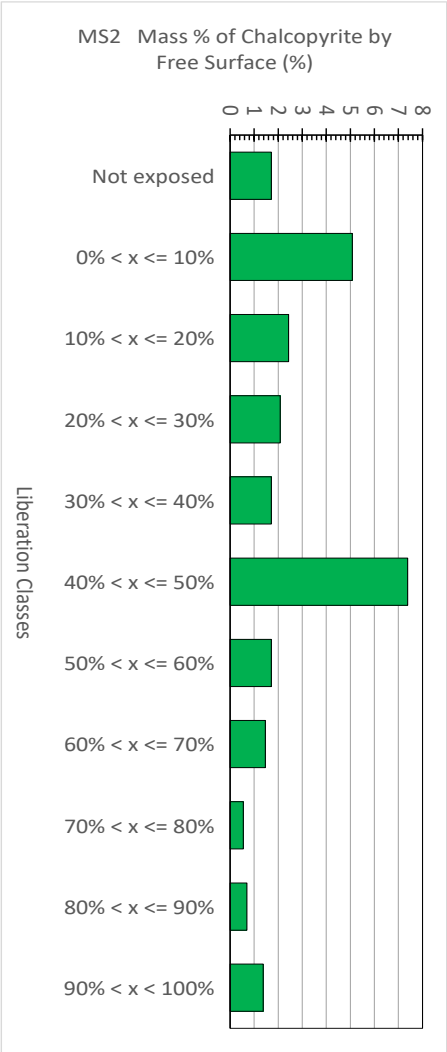


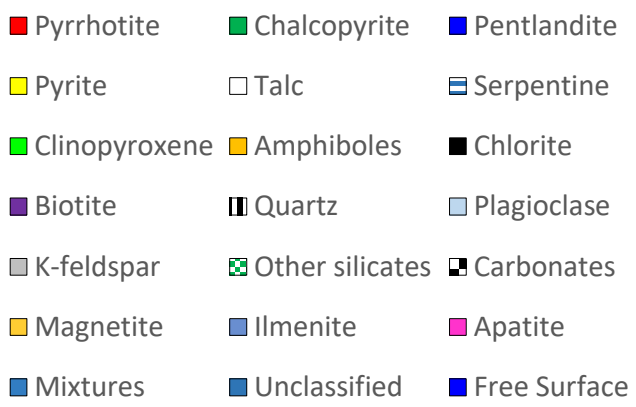


MS2 Chalcopyrite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

MS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	52,29	104,72	69,15
-150+75µm	45,18	78,05	60,67
-75µm	19,91	18,64	16,64





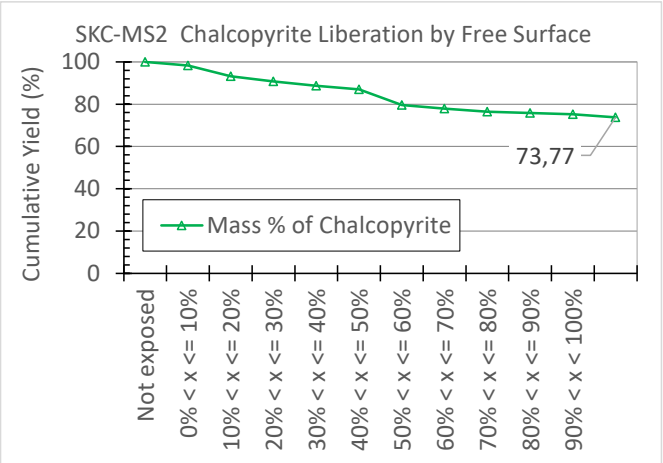
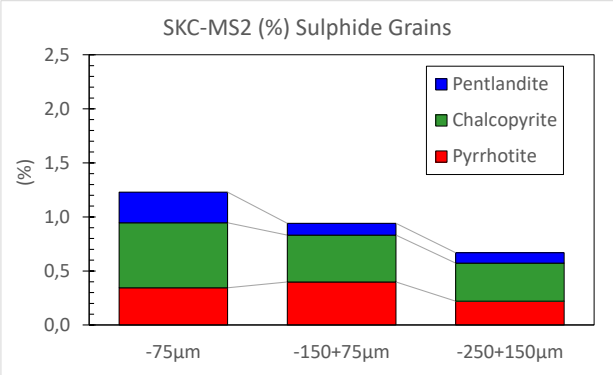
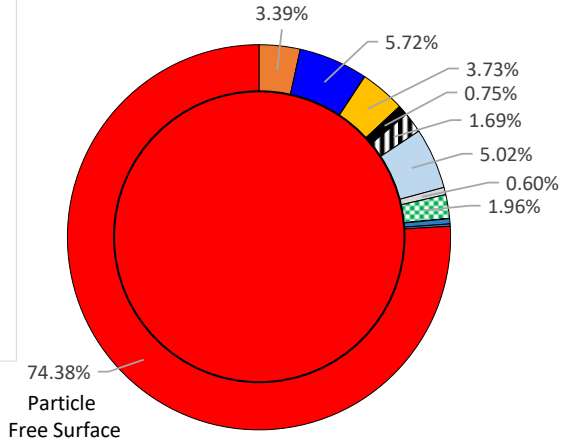


Figure 70. MS2 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

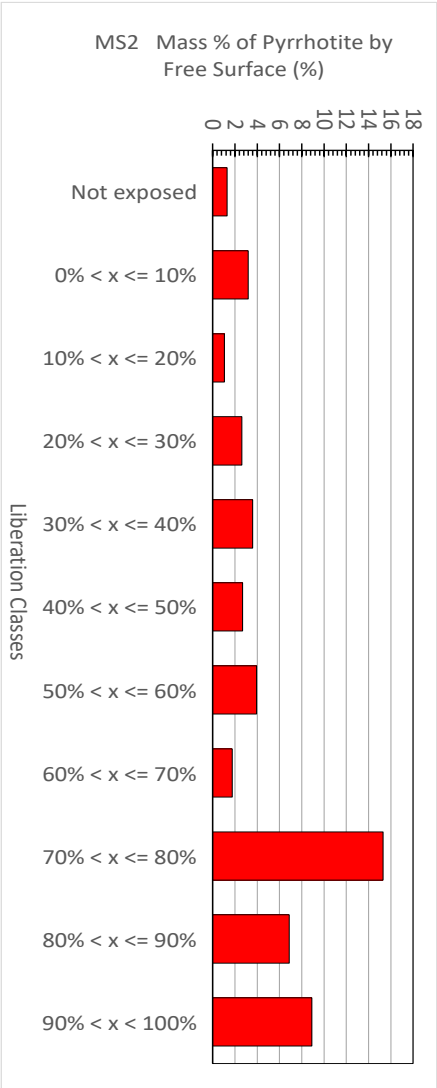


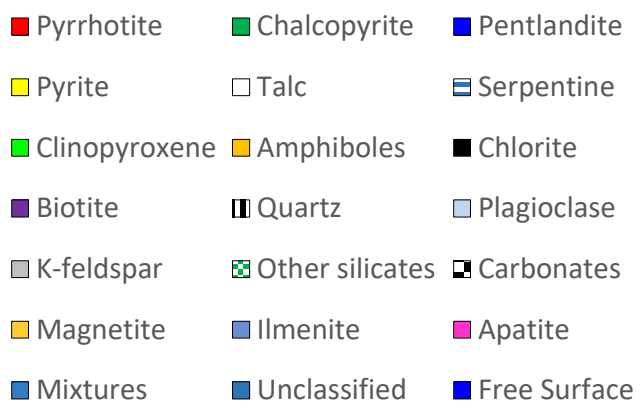


MS2 Pyrrhotite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

MS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	52,29	104,72	69,15
-150+75µm	45,18	78,05	60,67
-75µm	19,91	18,64	16,64





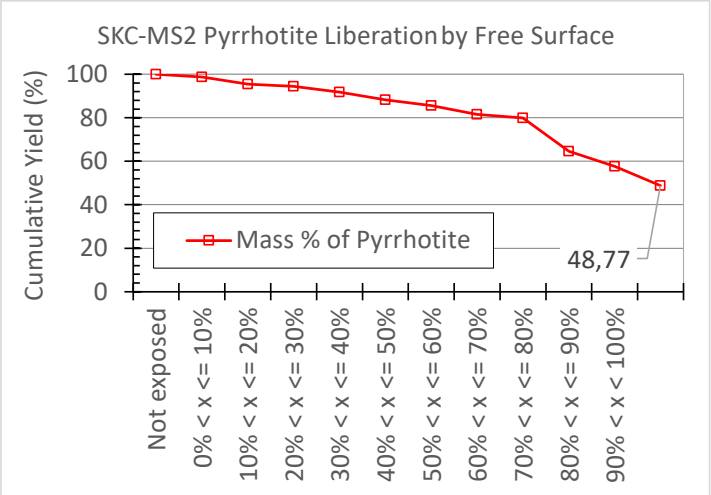


Figure 71. MS2 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.7 Mineral Characterization Summary – TZ1

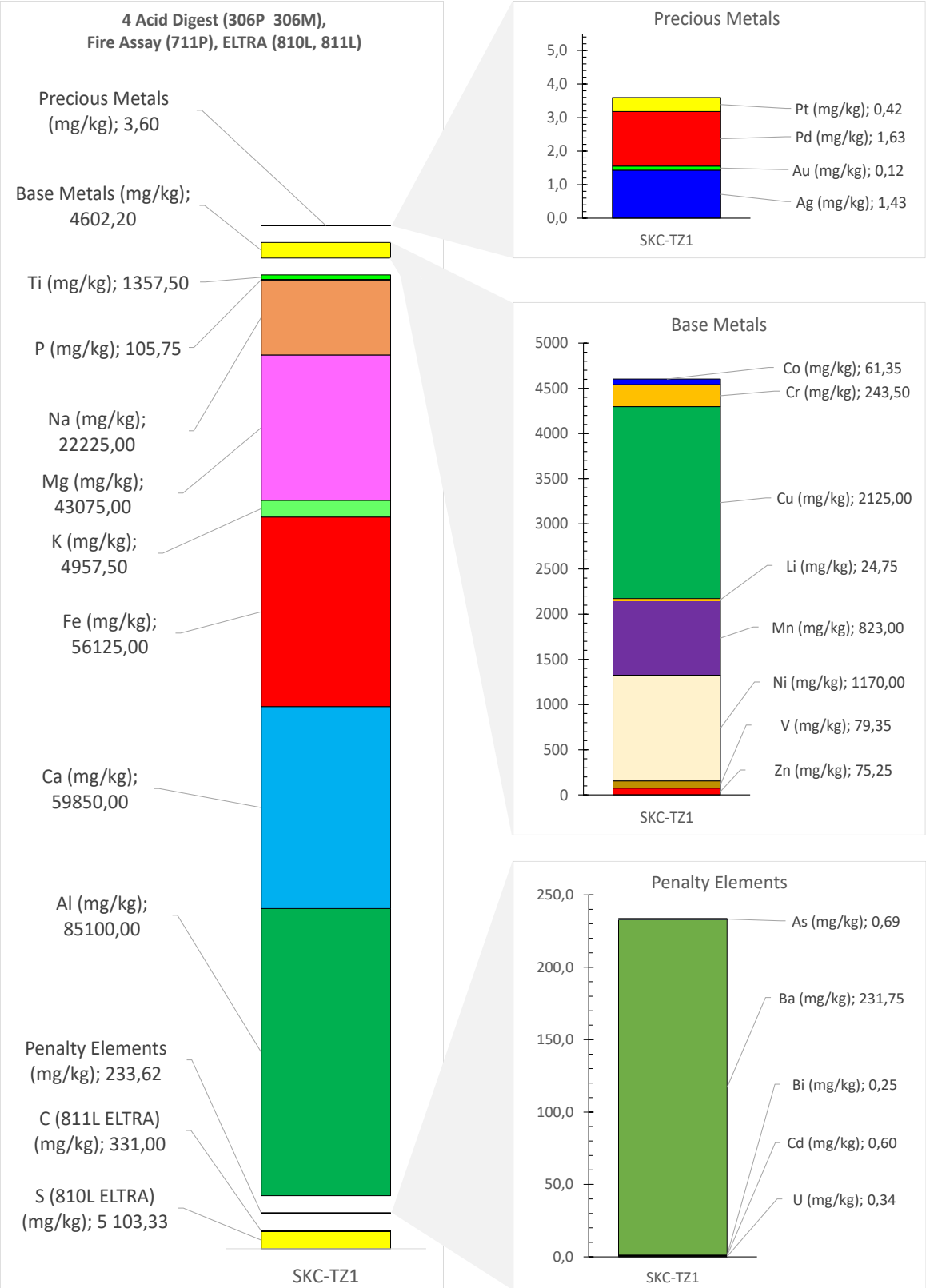


Figure 72. Chemical Assay Summary – TZ1 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

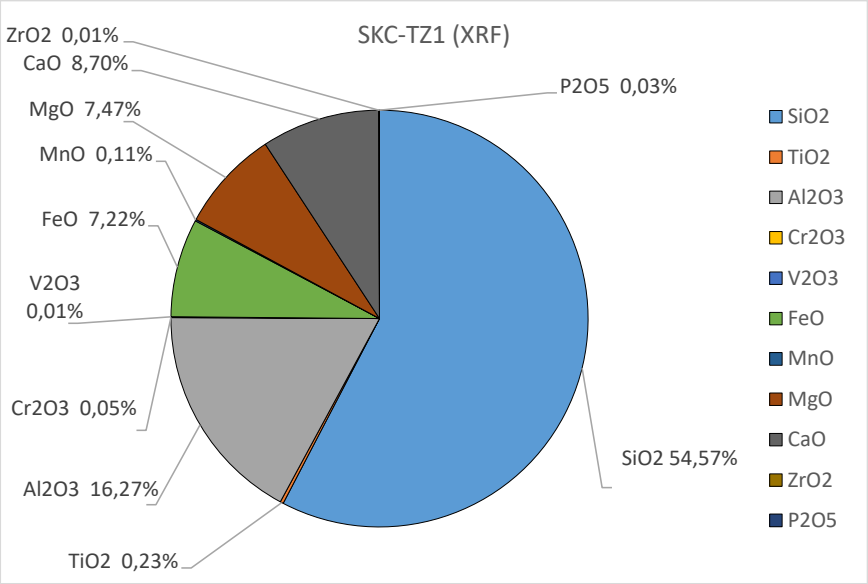


Figure 73. XRF Multi-element mineral analysis Summary – TZ1 (Method 180X – Appendix G)

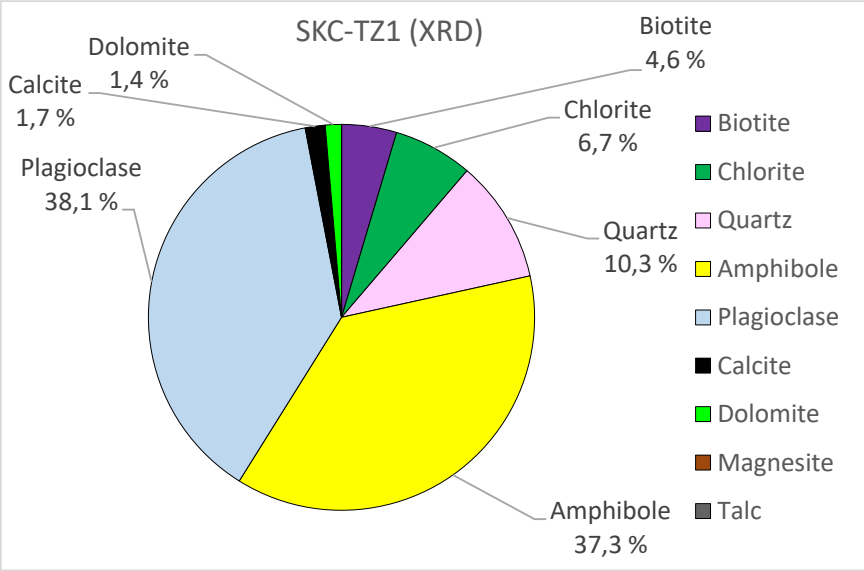


Figure 74. XRD Whole rock Multi-element mineral analysis Summary – TZ1 (Appendix H)

Table 12. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – TZ1 (Appendix H)

Sample	Wt. % of Ogrinal Sample	Biotite			Chlorite				Quartz		Amphibole		Plagioclase	
	<2µm	% A	% B	Crys	% A	% B	Crys	Y	% A	% B	% A	% B	% A	% B
SKC-TZ1	2,5	21,6	0,5	M	35,0	0,9	W	0	4,8	0,1	28,9	0,7	9,8	0,2

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

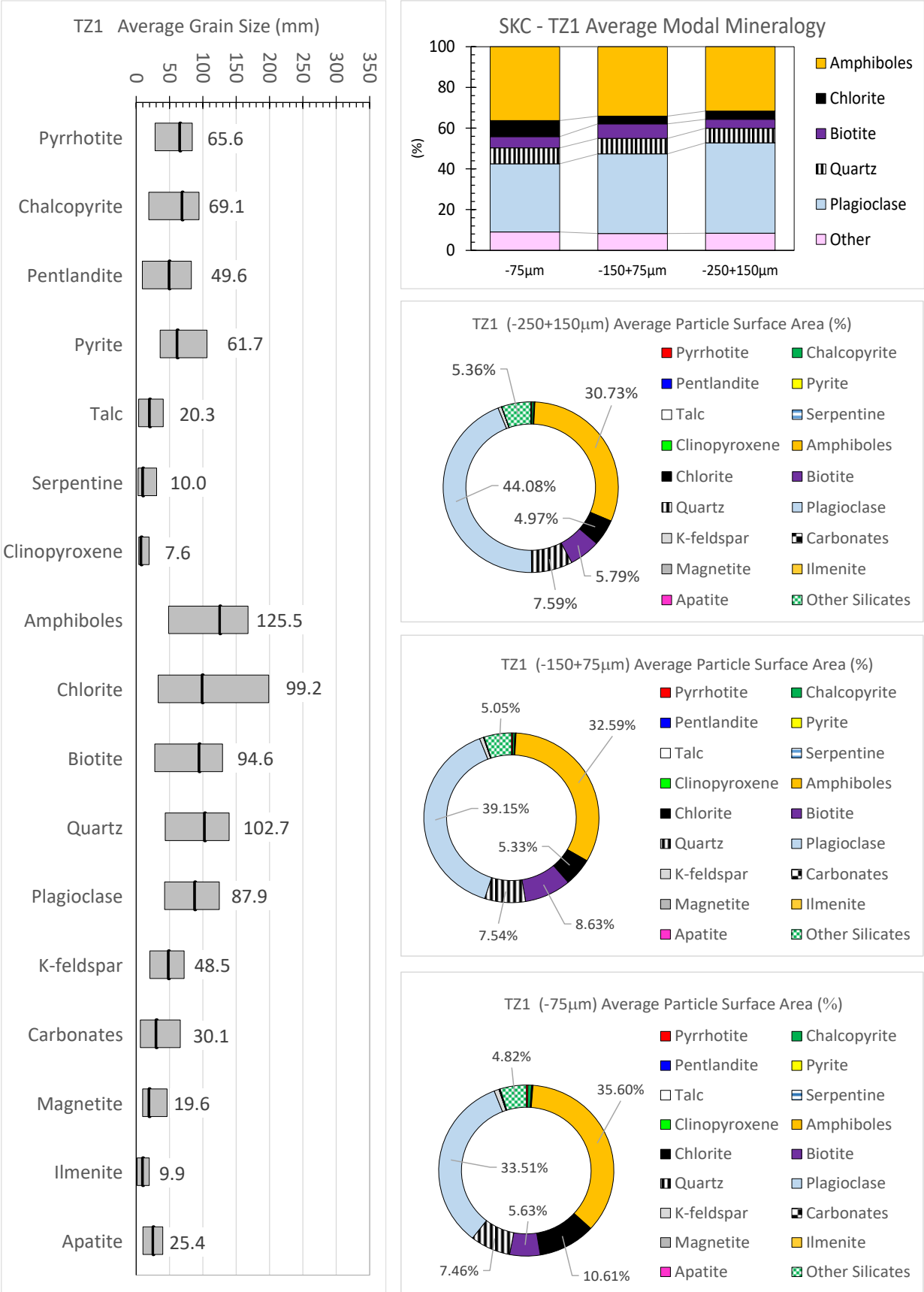
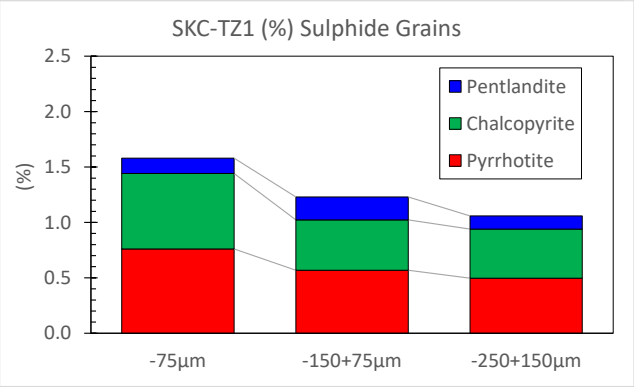
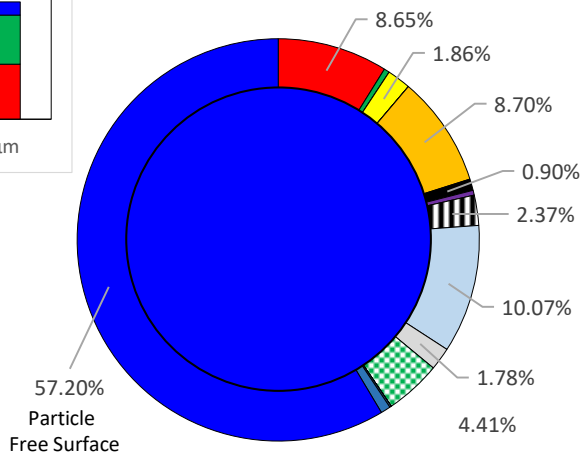


Figure 75. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – TZ1 (Appendix I)

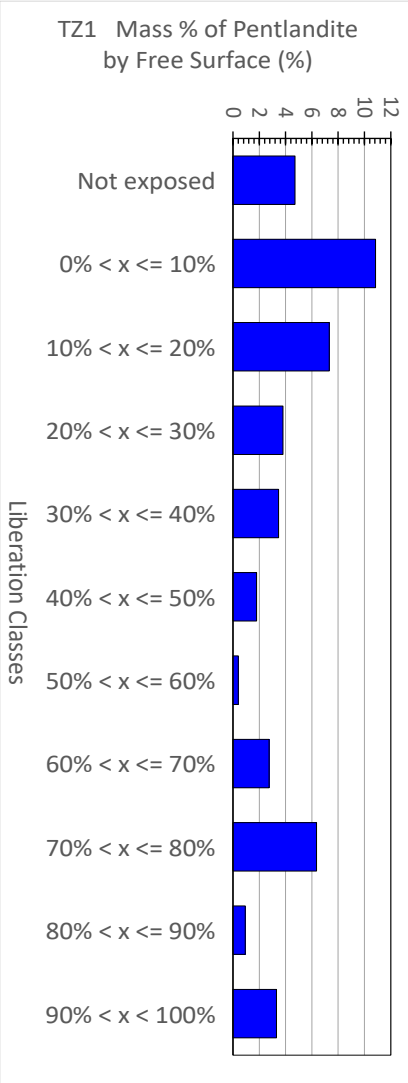


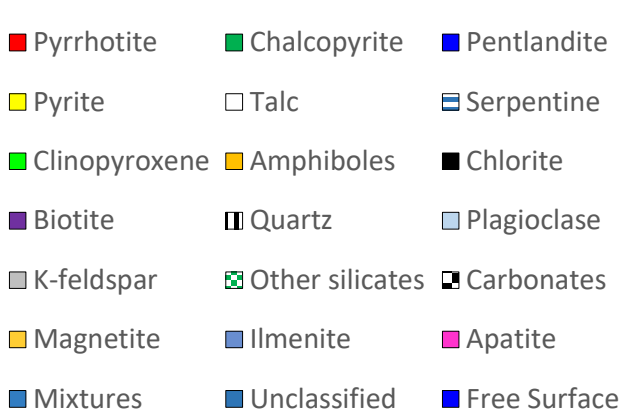
Average Sulphide Mineral Size (µm)

TZ1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	50,13	89,17	88,54
-150+75µm	70,23	63,10	67,02
-75µm	9,25	18,87	35,90



TZ1 Pentlandite, Average Mineral Association (%)





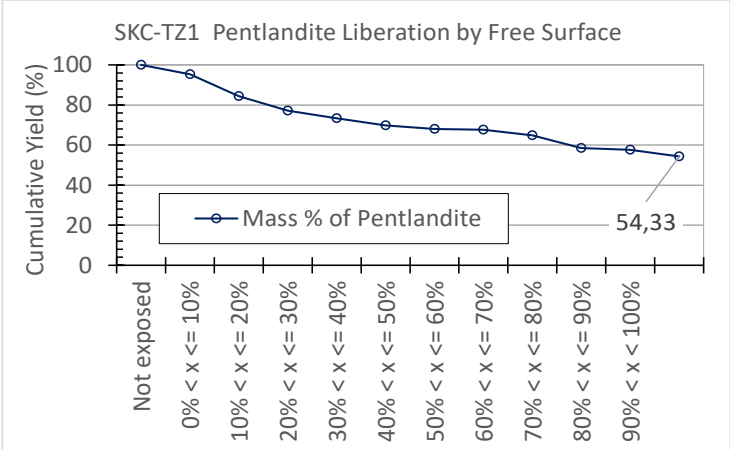
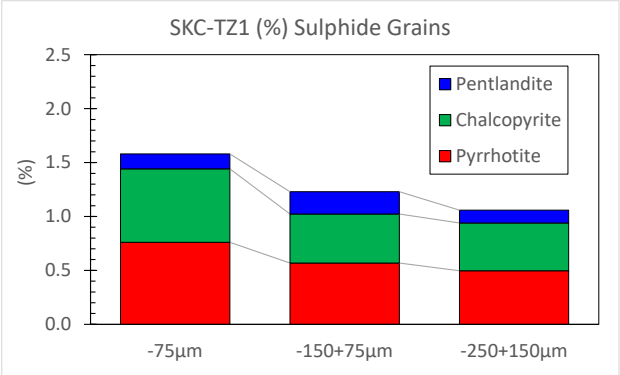
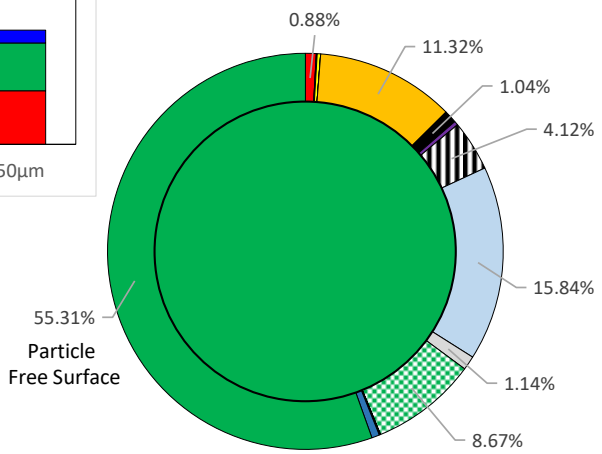


Figure 76. TZ1 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

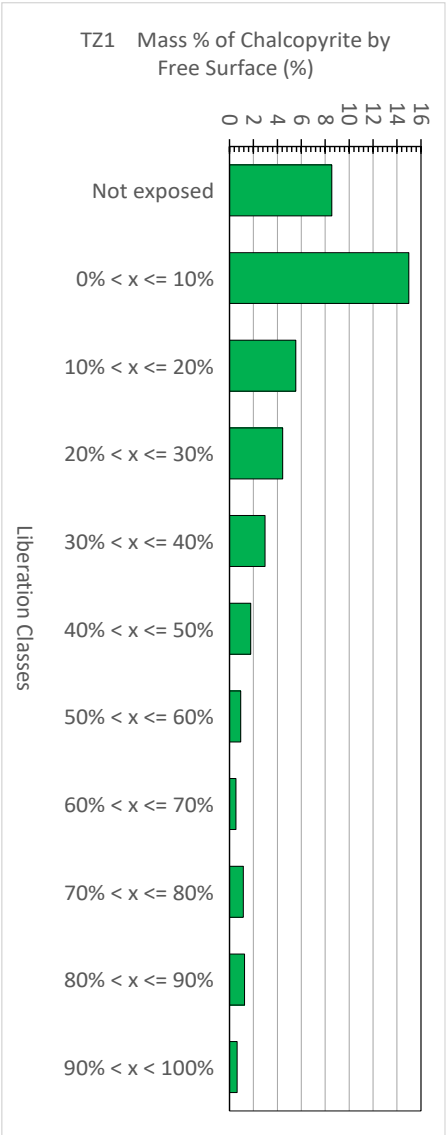


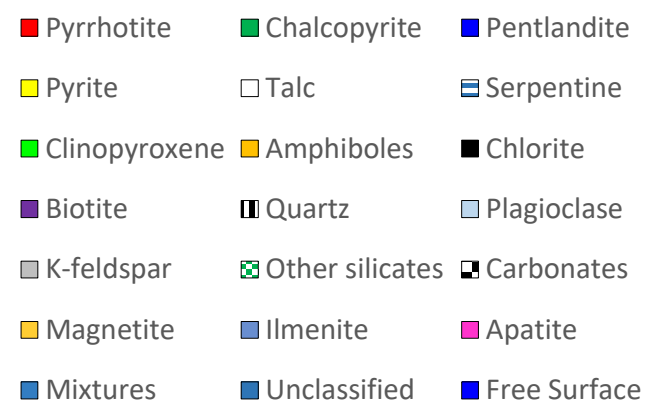
Average Sulphide Mineral Size (µm)

TZ1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	50,13	89,17	88,54
-150+75µm	70,23	63,10	67,02
-75µm	9,25	18,87	35,90



TZ1 Chalcopyrite, Average Mineral Association (%)





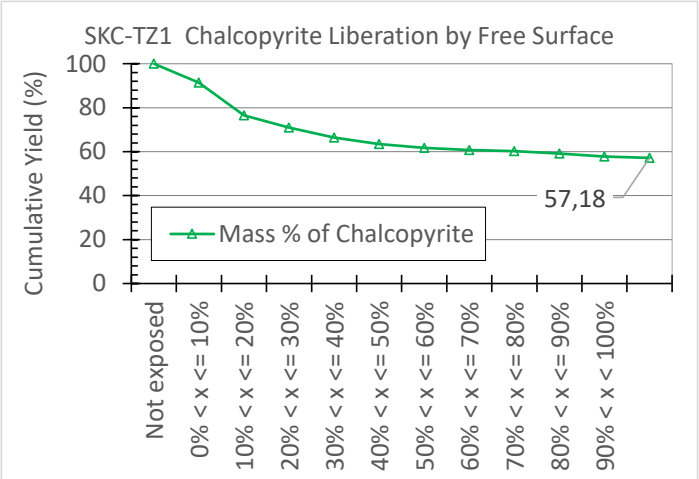
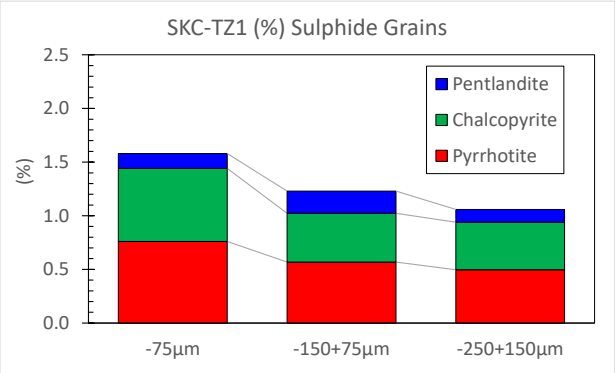
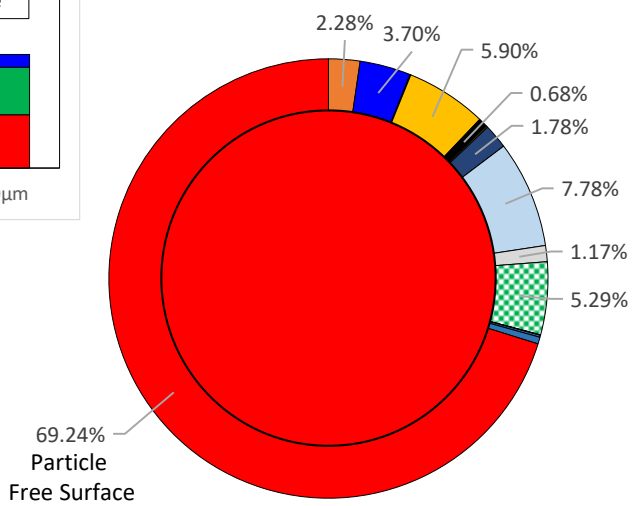


Figure 77. TZ1 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

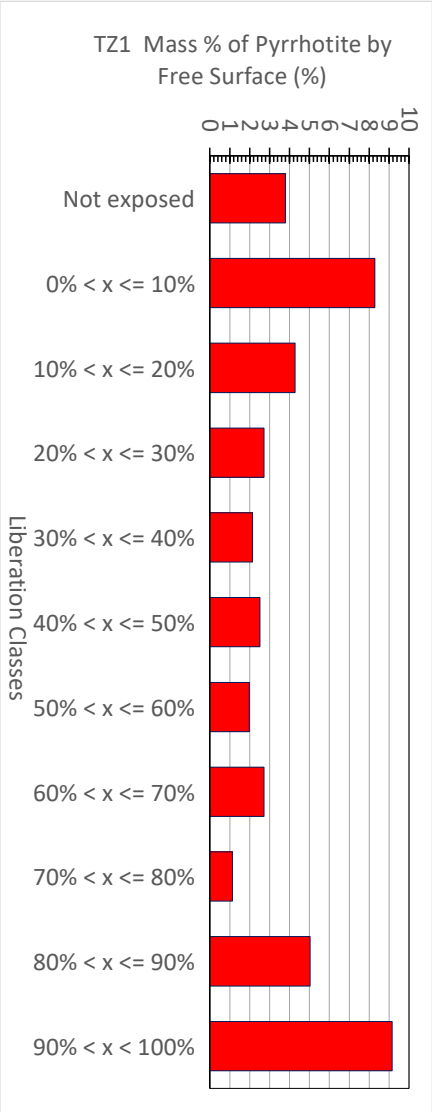


Average Sulphide Mineral Size (µm)

TZ1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	50,13	89,17	88,54
-150+75µm	70,23	63,10	67,02
-75µm	9,25	18,87	35,90



TZ1 Pyrrhotite, Average Mineral Association (%)



Pyrrhotite
Chalcopyrite
Pentlandite
Pyrite
Talc
Serpentine
Clinopyroxene
Amphiboles
Chlorite
Biotite
Quartz
Plagioclase
K-feldspar
Other silicates
Carbonates
Magnetite
Ilmenite
Apatite
Mixtures
Unclassified
Free Surface

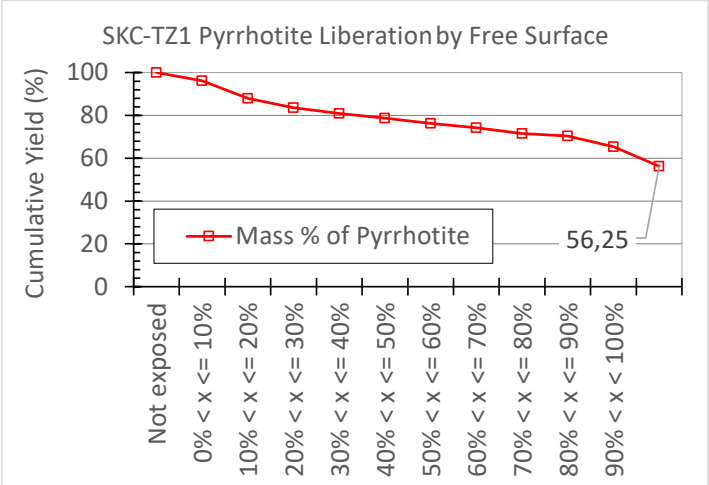


Figure 78. TZ1 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.8 Mineral Characterization Summary – TZ2

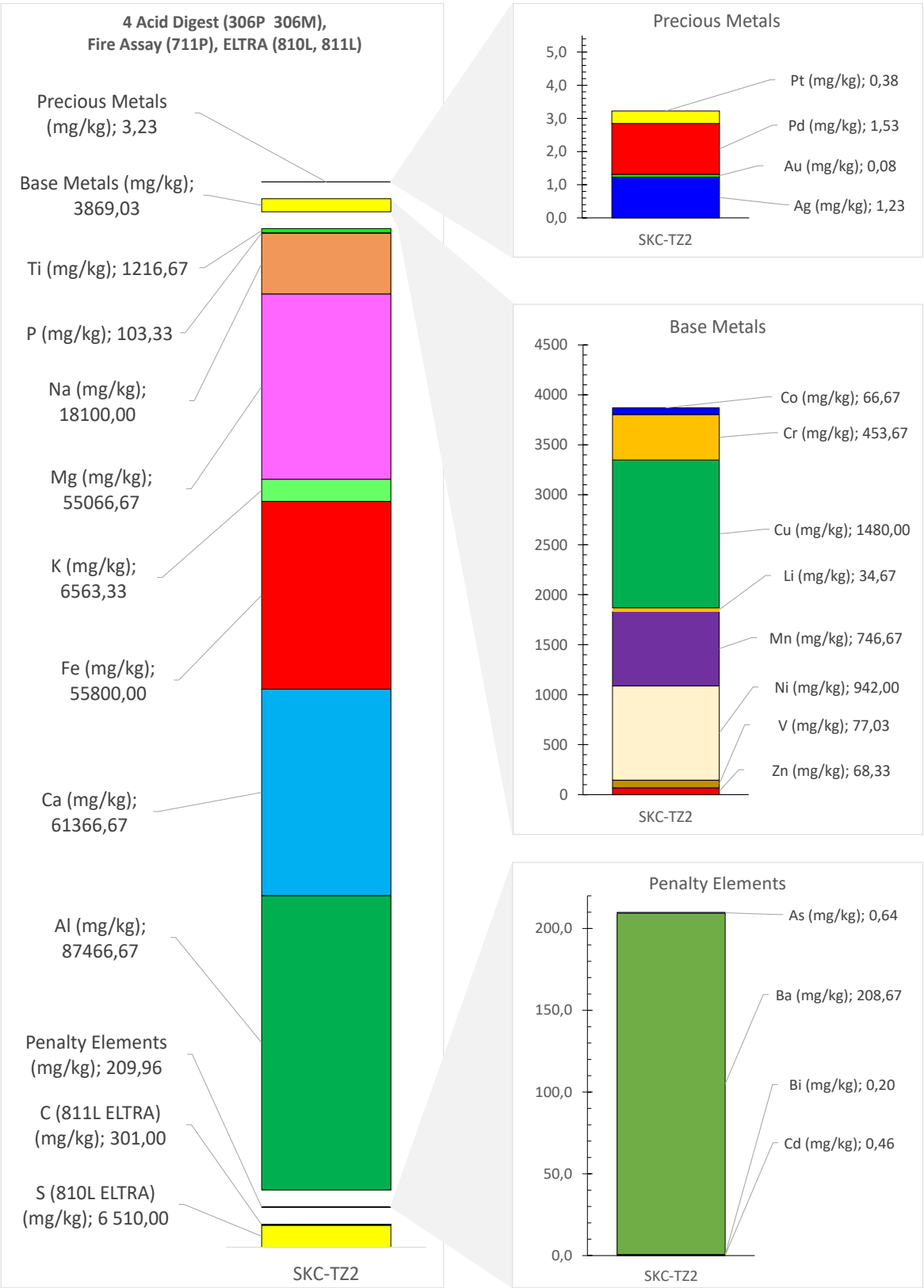


Figure 79. Chemical Assay Summary – TZ2 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

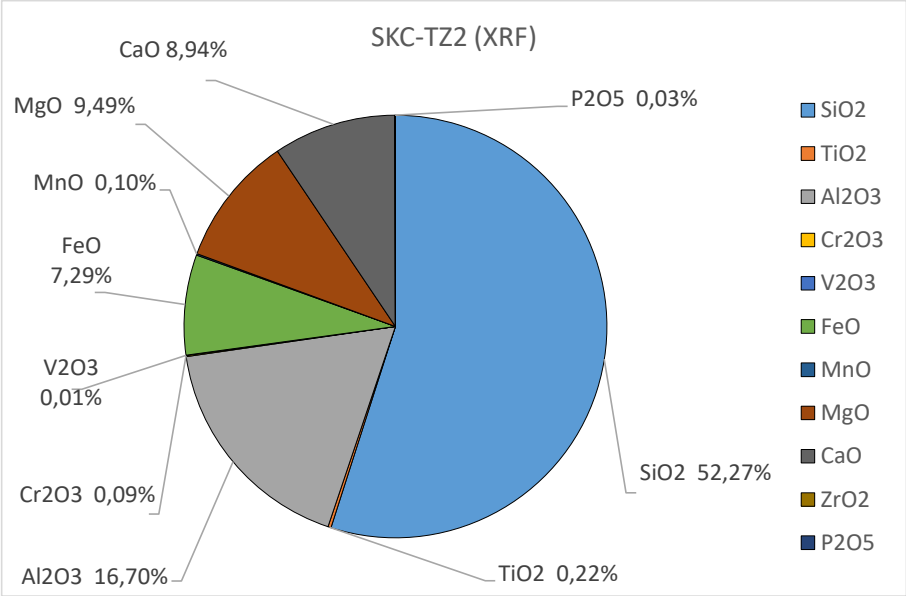


Figure 80. XRF Multi-element mineral analysis Summary – TZ2 (Method 180X – Appendix G)

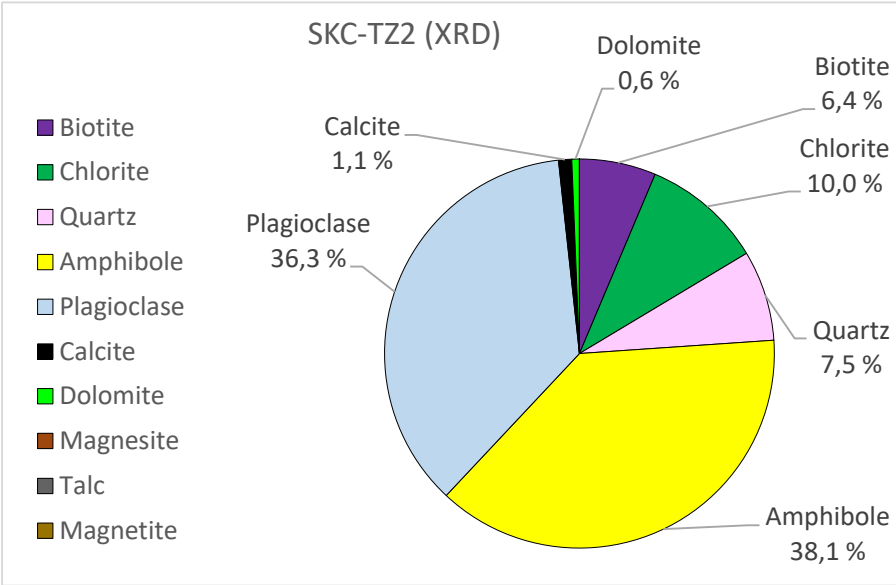


Figure 81. XRD Whole rock Multi-element mineral analysis Summary – TZ2 (Appendix H)

Table 13. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – TZ2 (Appendix H)

Sample	Wt. % of Ogrinal Sample	Biotite				Chlorite				Quartz		Amphibole		Plagioclase	
	<2µm	% A	% B	Crys		% A	% B	Crys	Y	% A	% B	% A	% B	% A	% B
SKC-TZ2	2,6	21,4	0,6	M		32,5	0,9	W	1	3,8	0,1	33,1	0,9	9,2	0,2

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

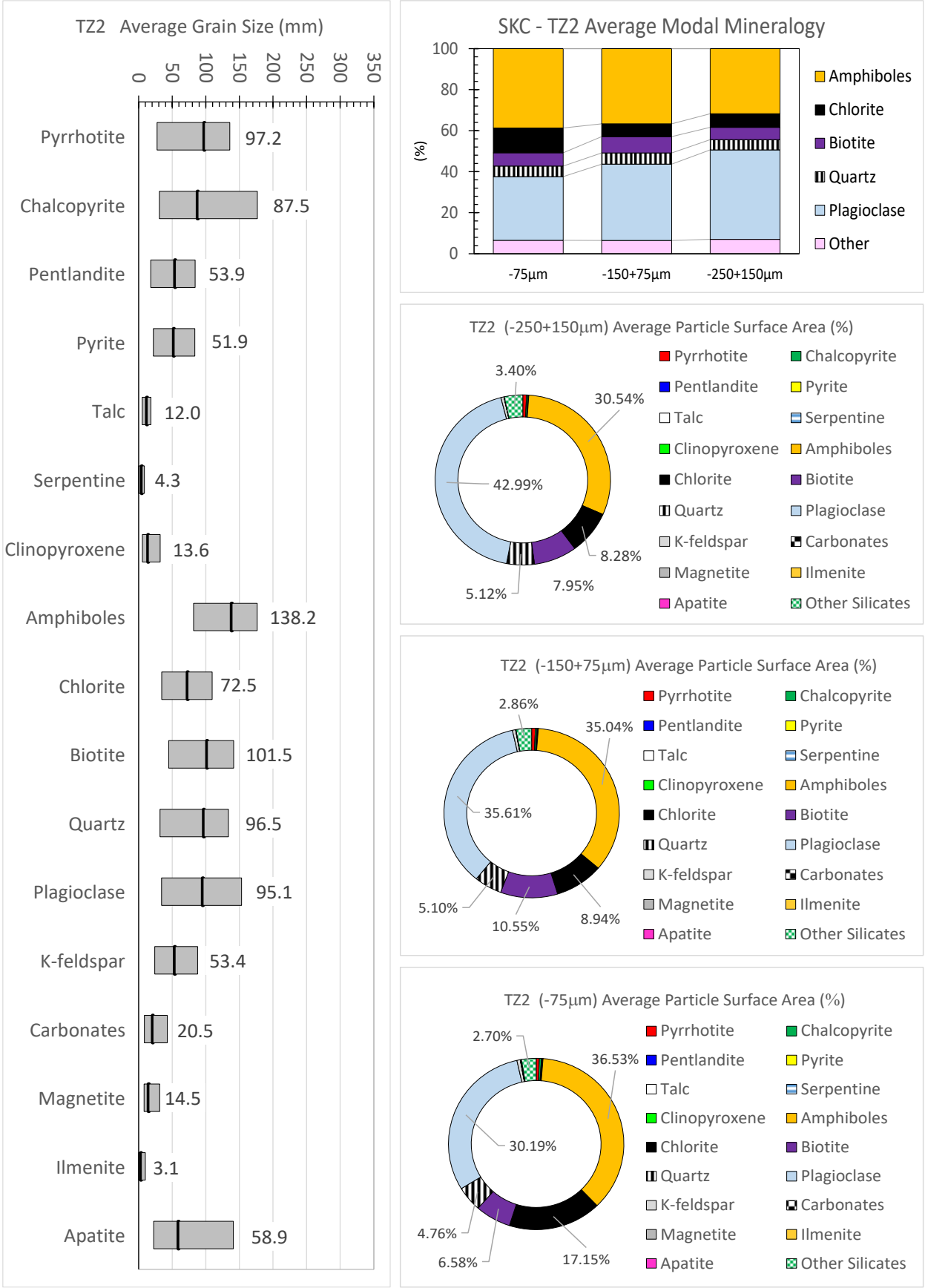
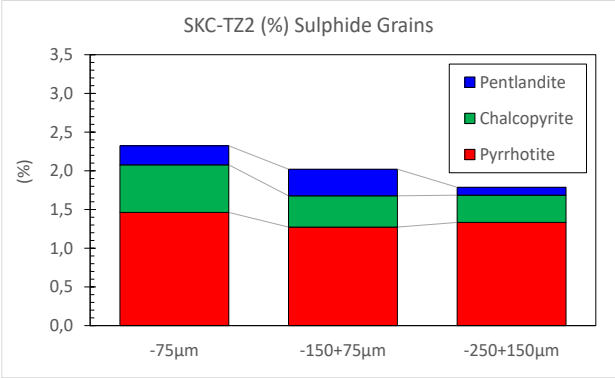
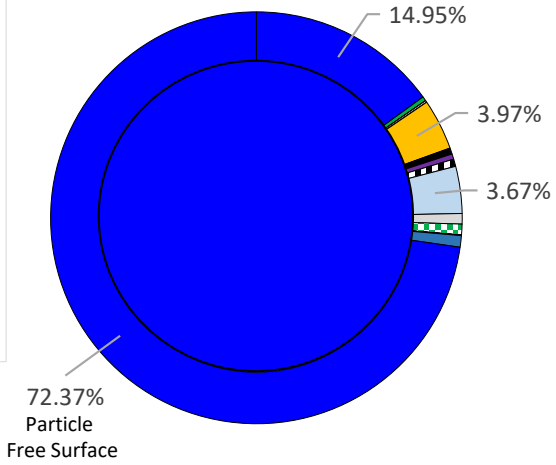


Figure 82. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – TZ2 (Appendix I)

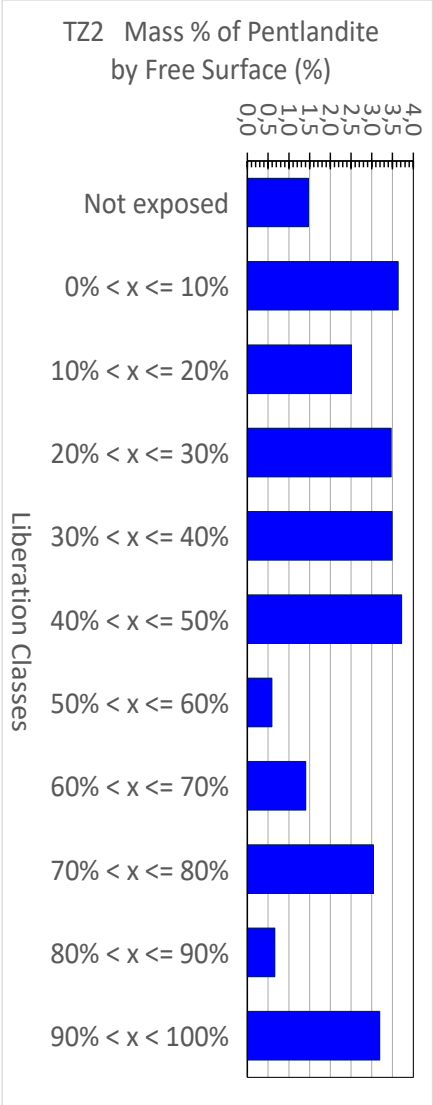


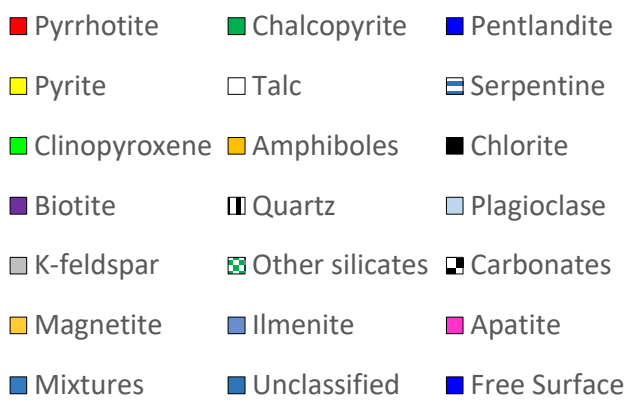


TZ2 Pentlandite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

TZ2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	49,28	121,82	127,65
-150+75µm	78,70	64,28	86,37
-75µm	17,94	30,95	27,52





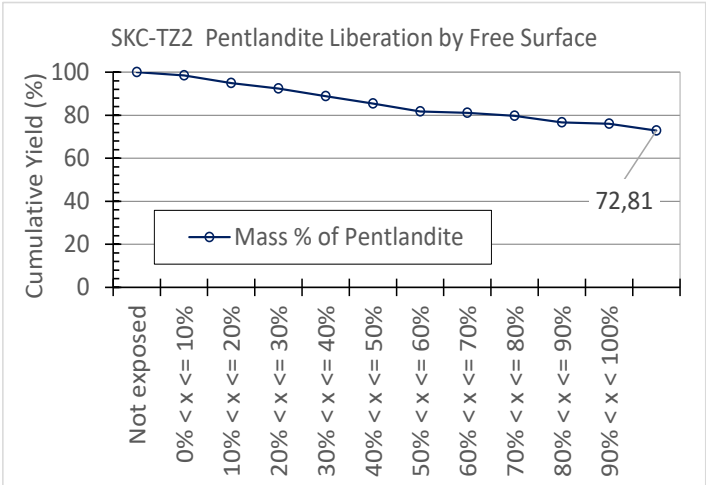
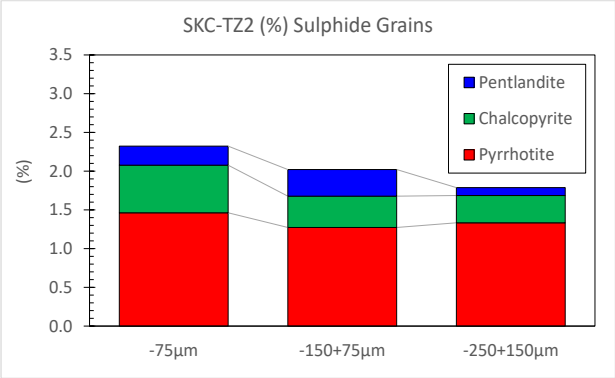


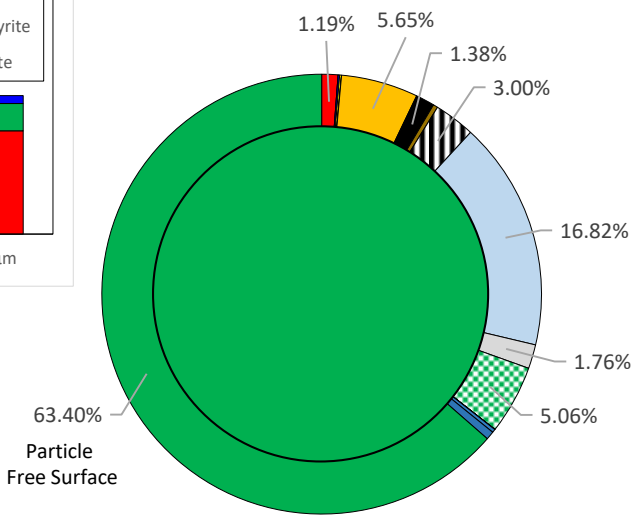
Figure 83. TZ2 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

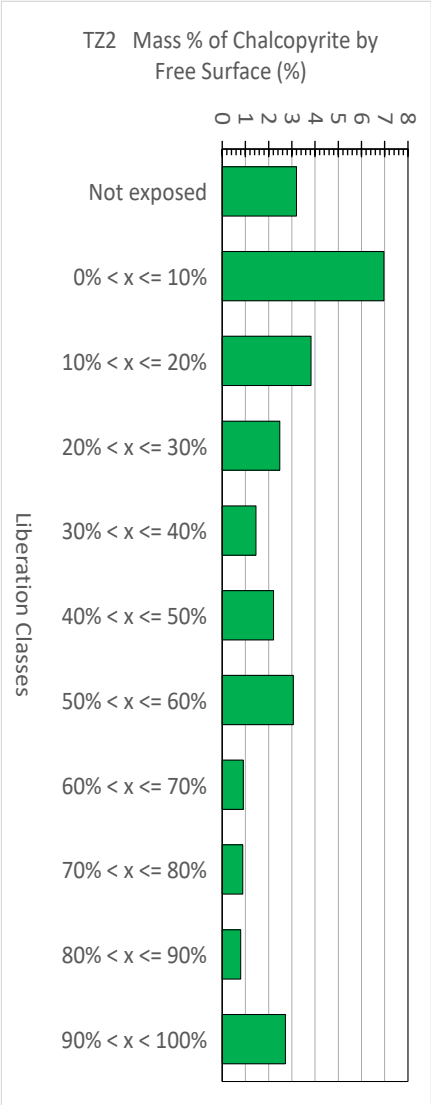
1.6.2020

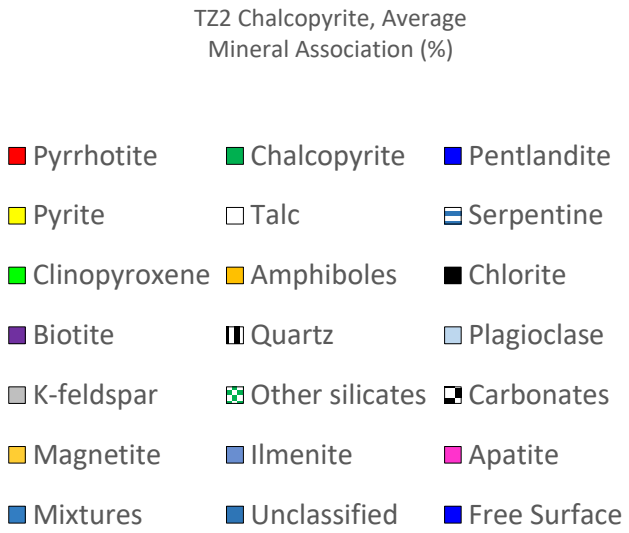


Average Sulphide Mineral Size (µm)

TZ2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	49,28	121,82	127,65
-150+75µm	78,70	64,28	86,37
-75µm	17,94	30,95	27,52







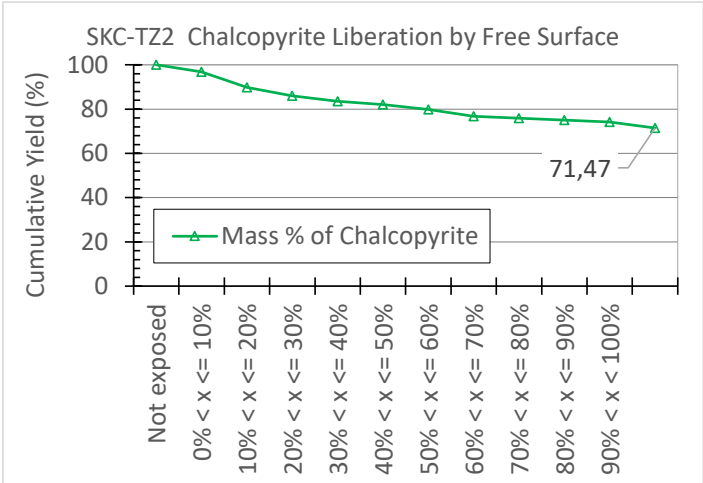
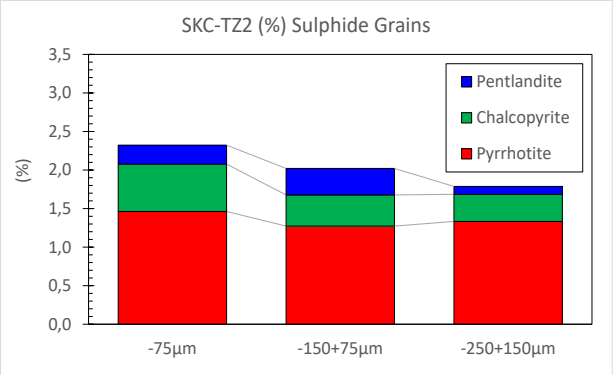
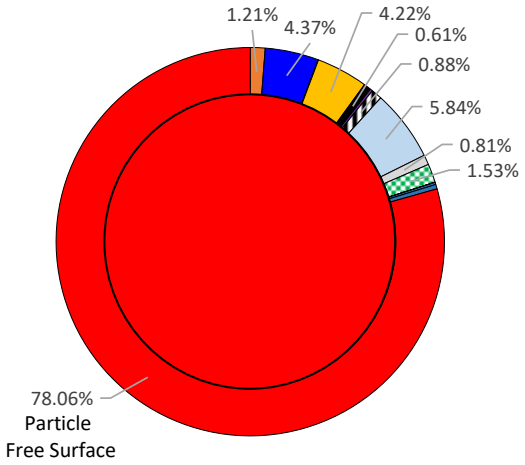


Figure 84. TZ2 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

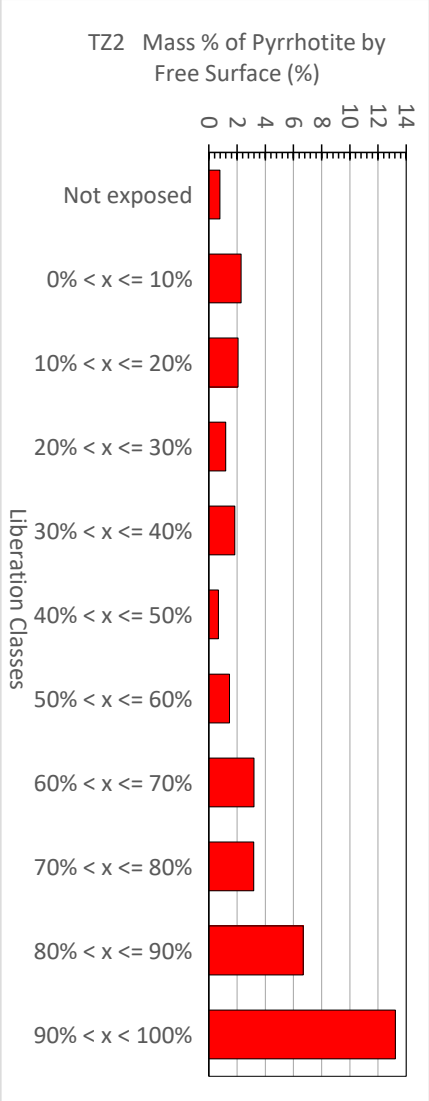


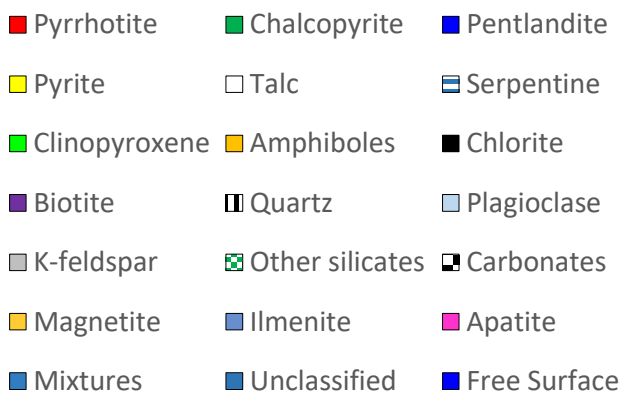


TZ2 Pyrrhotite, Average Mineral Association (%)

Average Sulphide Mineral Size (µm)

TZ2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	49,28	121,82	127,65
-150+75µm	78,70	64,28	86,37
-75µm	17,94	30,95	27,52





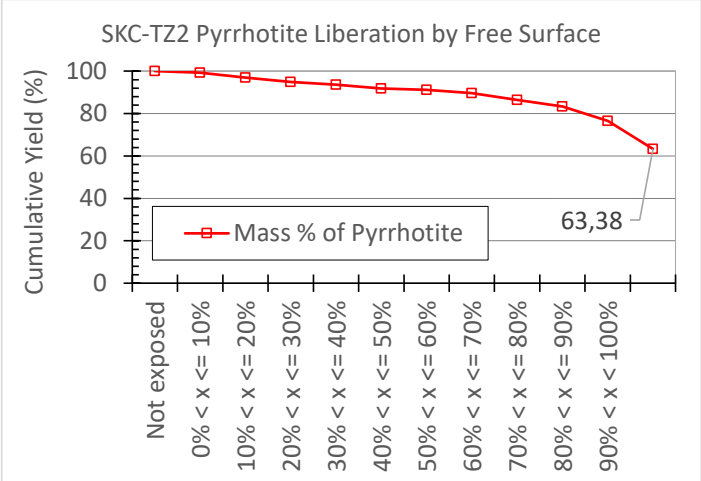


Figure 85. TZ2 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.9 Mineral Characterization Summary – BAS1

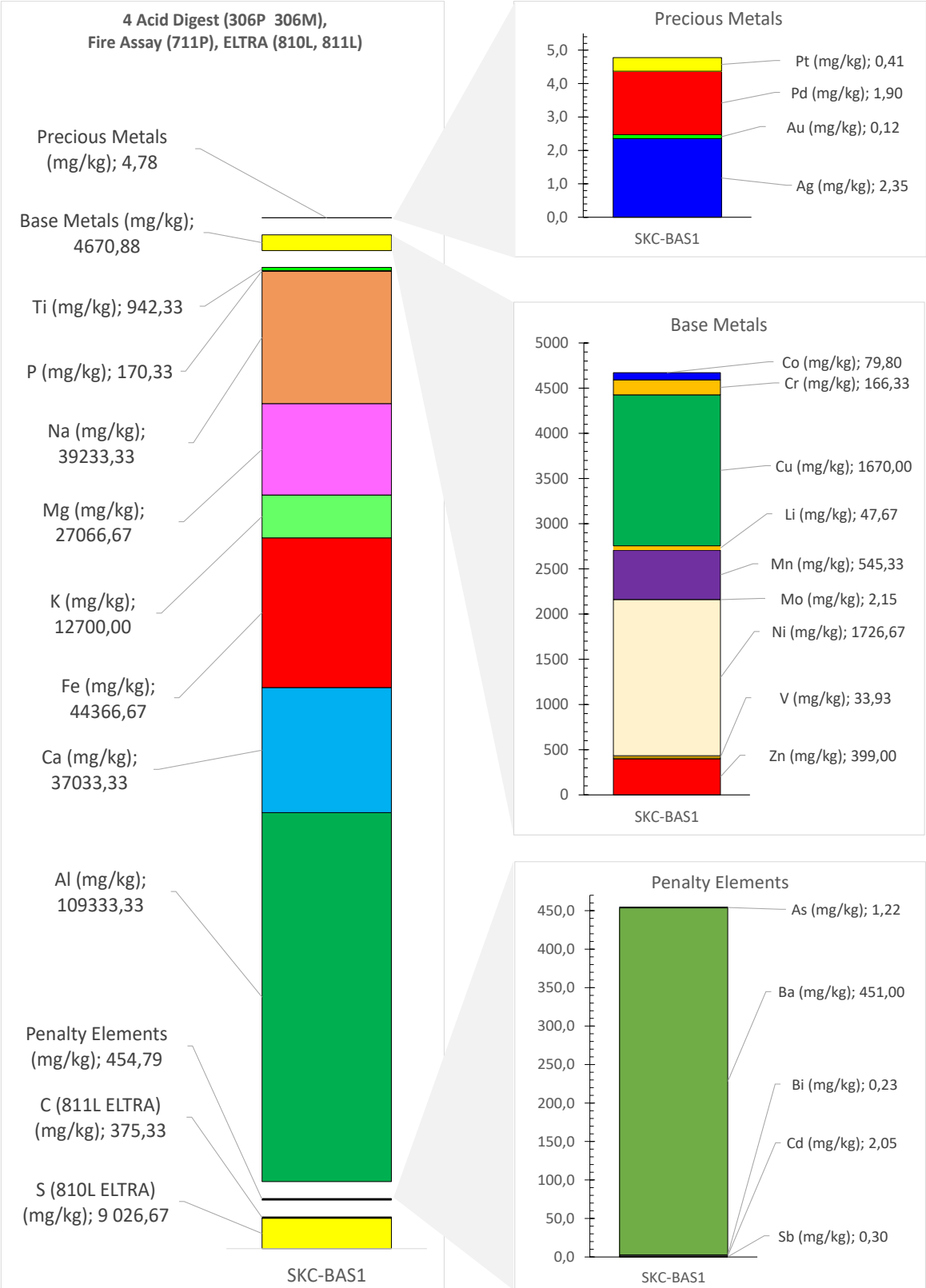


Figure 86. Chemical Assay Summary – BAS1 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

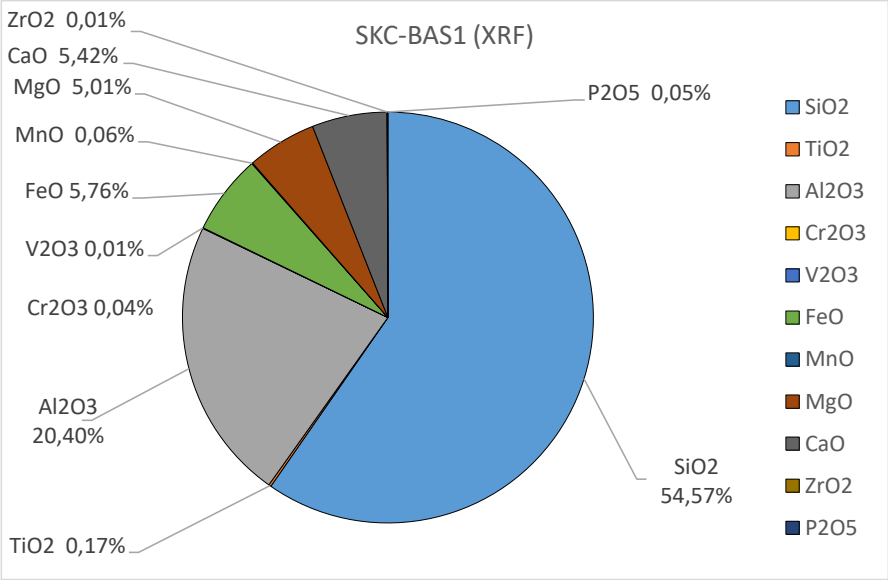


Figure 87. XRF Multi-element mineral analysis Summary – BAS1 (Method 180X – Appendix G)

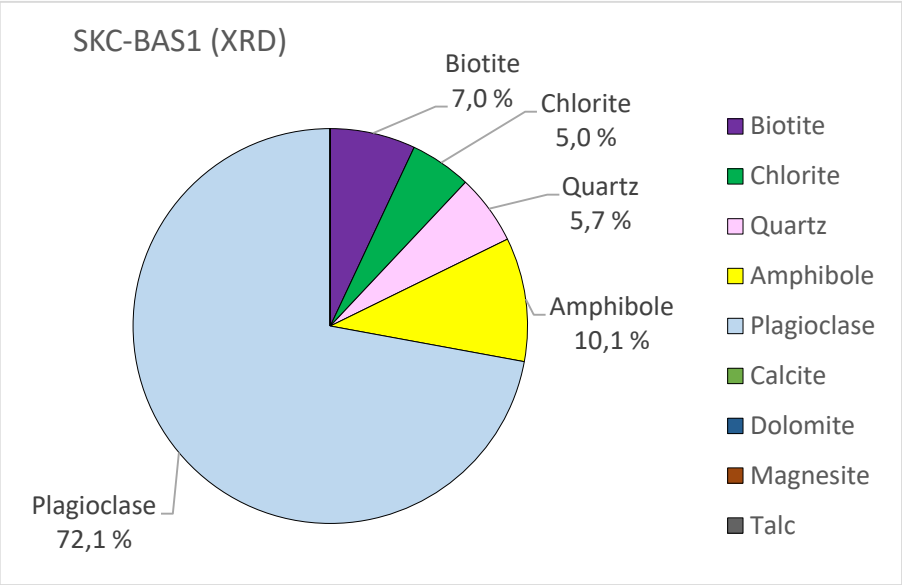


Figure 88. XRD Whole rock Multi-element mineral analysis Summary – BAS1 (Appendix H)

Table 14. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – BAS1 (Appendix H)

Sample	Wt. % of Ogrinal Sample <2µm	Biotite			Chlorite				Quartz		Amphibole		Plagioclase	
		% A	% B	Crys	% A	% B	Crys	Y	% A	% B	% A	% B	% A	% B
SKC-BAS1	2,2	47,9	1,1	M	20,9	0,5	W	0	2,4	0,1	9,7	0,2	19,1	0,4

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

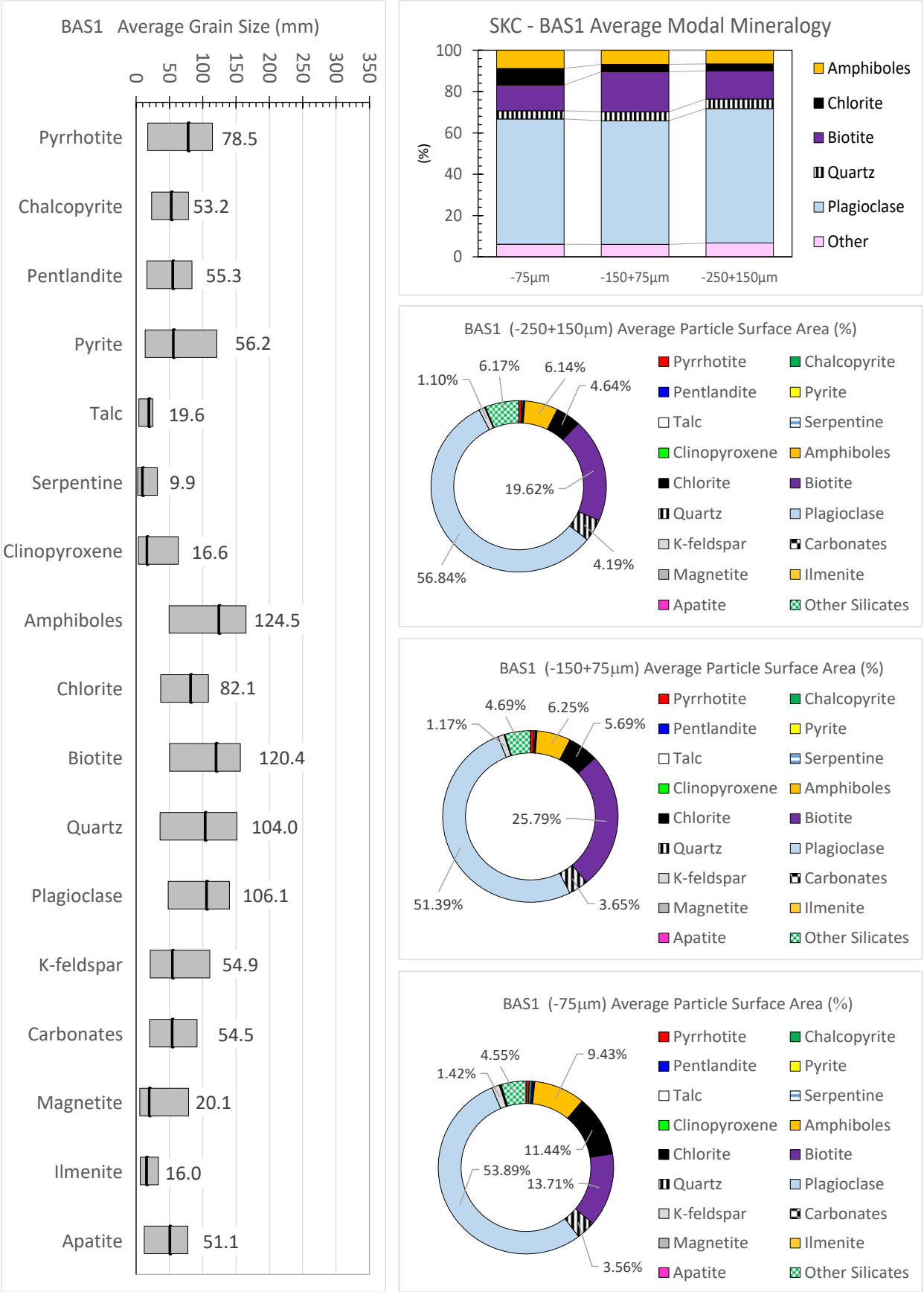
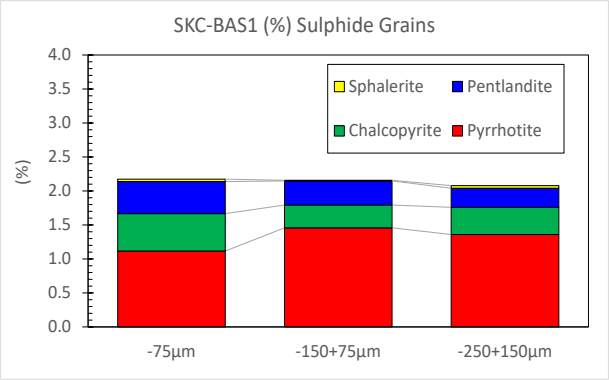
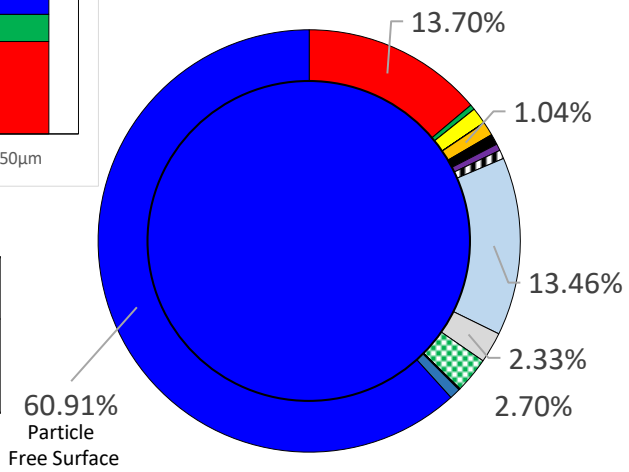


Figure 89. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – BAS1 (Appendix I)

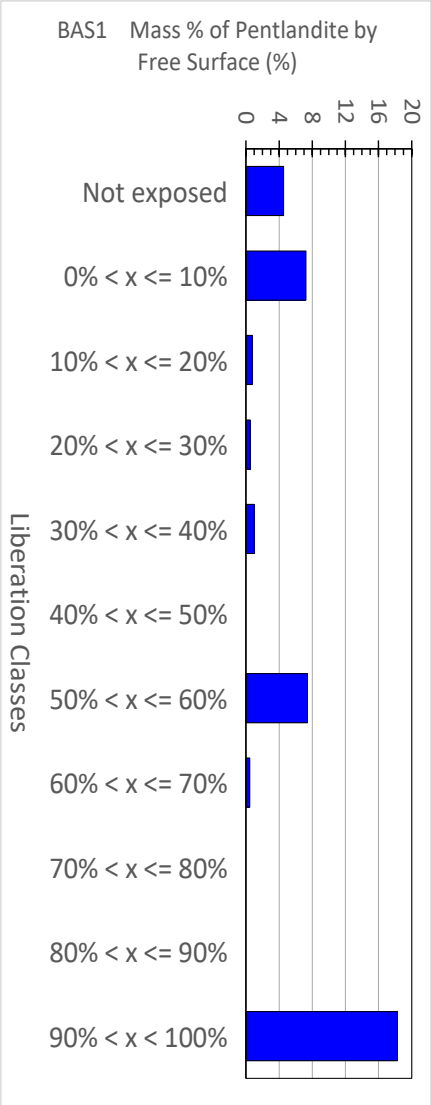


Average Sulphide Mineral Size (µm)

BAS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	65,03	64,35	109,75
-150+75µm	60,56	51,41	73,50
-75µm	16,21	23,31	17,54



BAS1 Pentlandite, Average Mineral Association (%)



Pyrrhotite
Chalcopyrite
Pentlandite
Pyrite
Talc
Serpentine
Clinopyroxene
Amphiboles
Chlorite
Biotite
Quartz
Plagioclase
K-feldspar
Other silicates
Carbonates
Magnetite
Ilmenite
Apatite
Mixtures
Unclassified
Free Surface

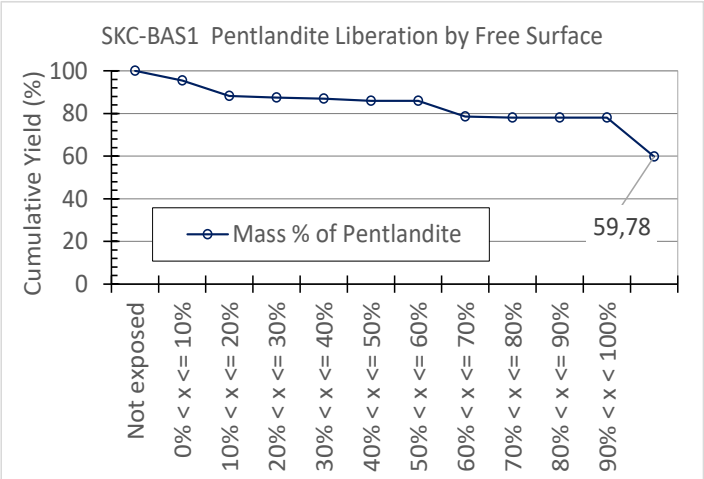
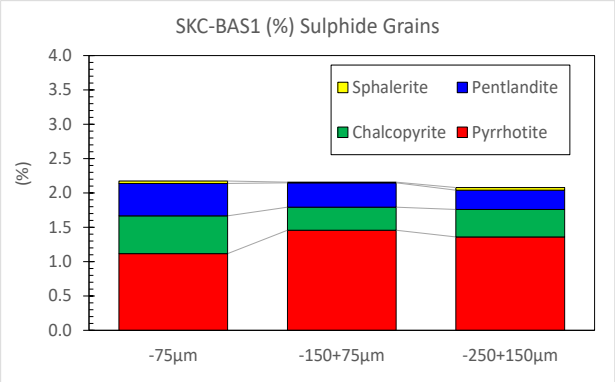
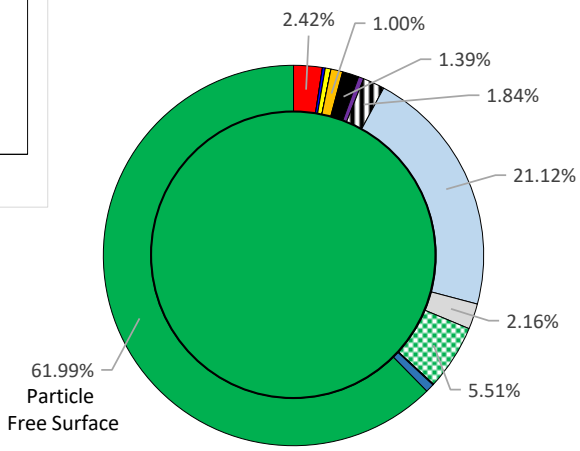


Figure 90. BAS1 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

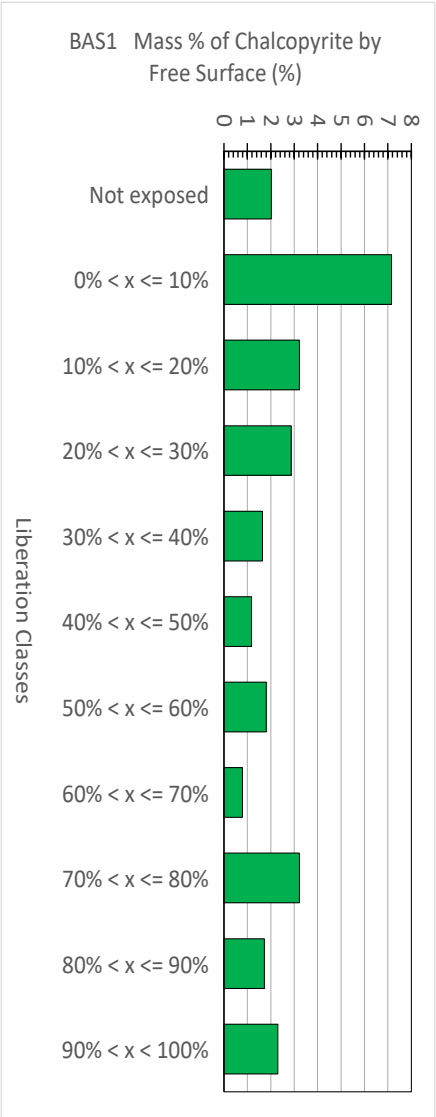


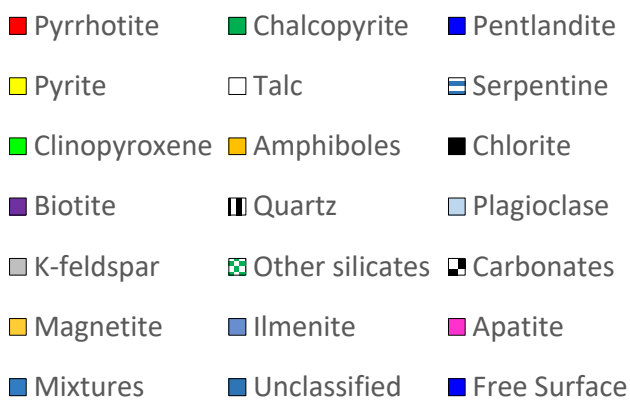
Average Sulphide Mineral Size (µm)

BAS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	65,03	64,35	109,75
-150+75µm	60,56	51,41	73,50
-75µm	16,21	23,31	17,54



BAS1 Chalcopyrite, Average Mineral Association (%)





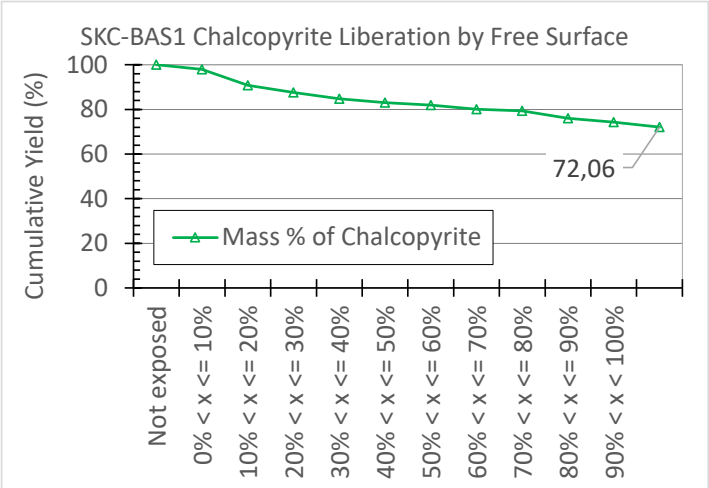
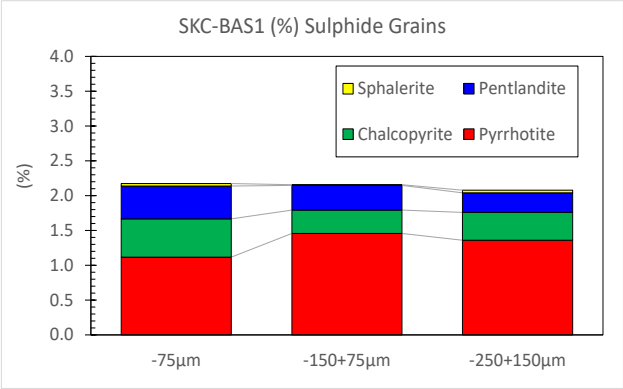


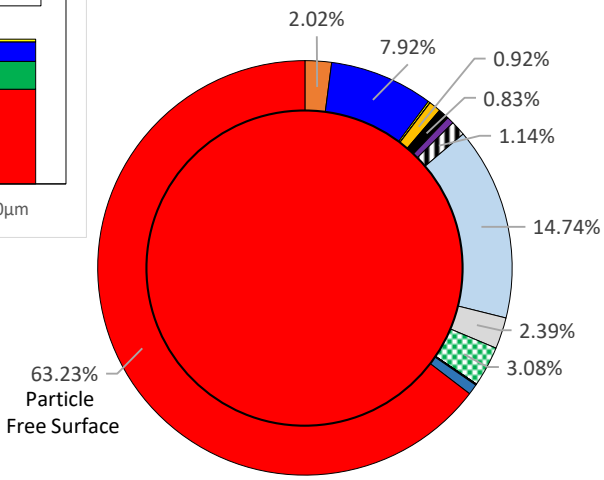
Figure 91. BAS1 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)

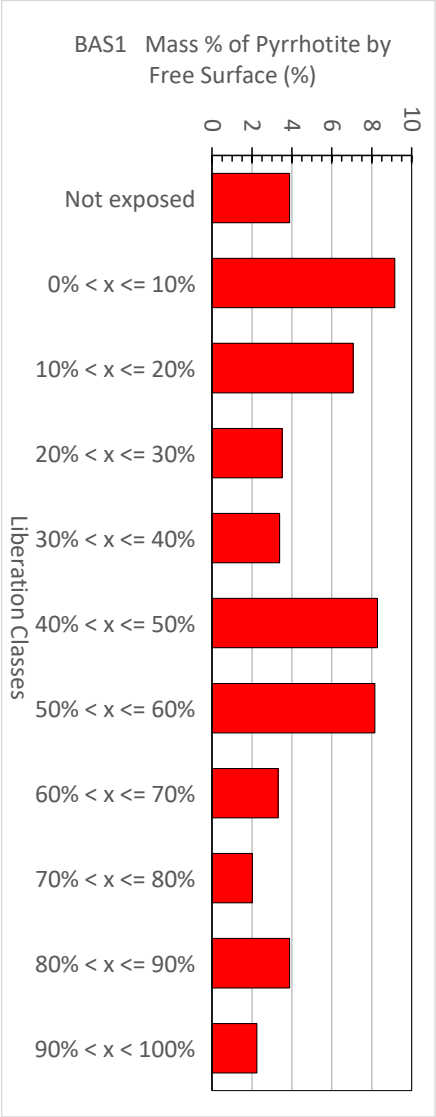
1.6.2020

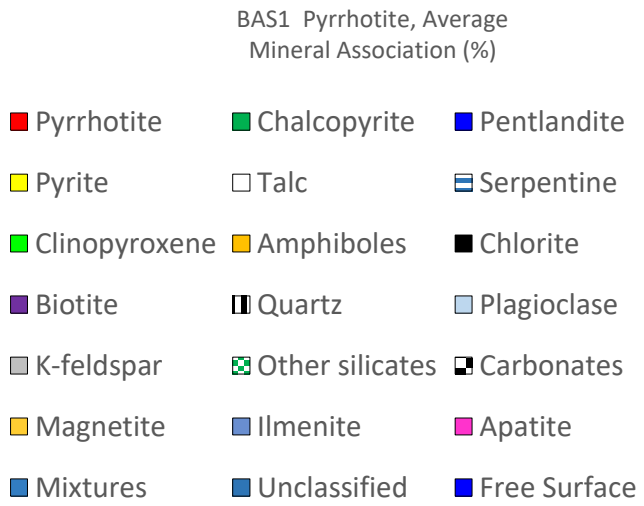


Average Sulphide Mineral Size (µm)

BAS1	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	65,03	64,35	109,75
-150+75µm	60,56	51,41	73,50
-75µm	16,21	23,31	17,54







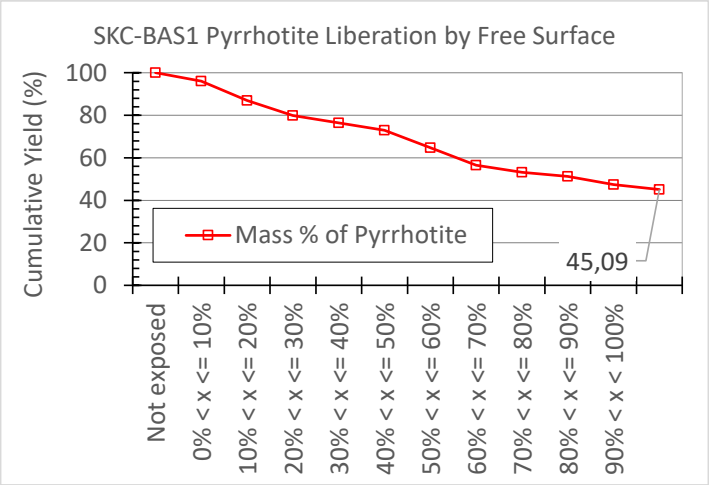


Figure 92. BAS1 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

12.10 Mineral Characterization Summary – BAS2

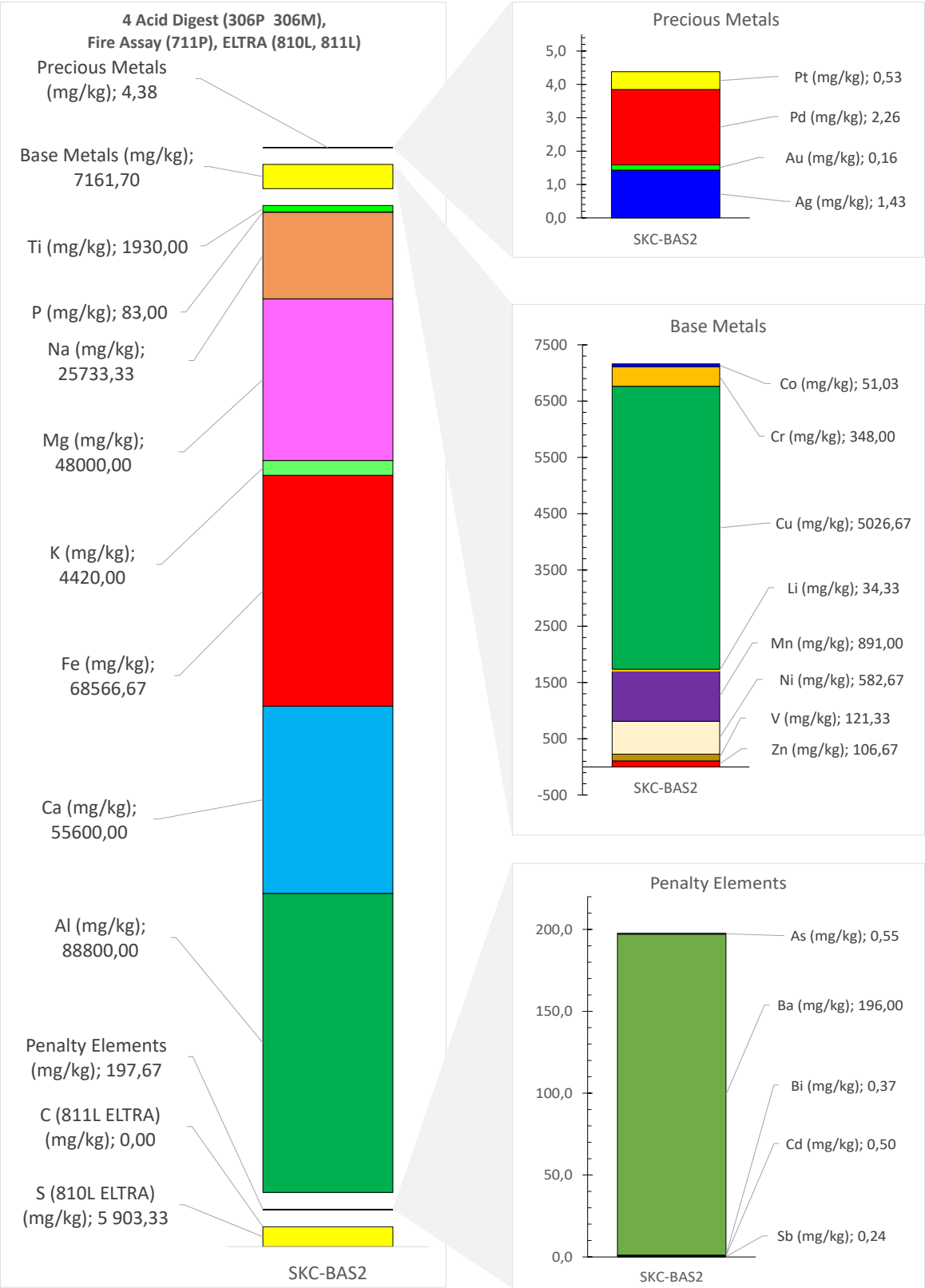


Figure 93. Chemical Assay Summary – BAS2 (Methods 306M, 306P, 711P, 810L, 811L Appendix F)

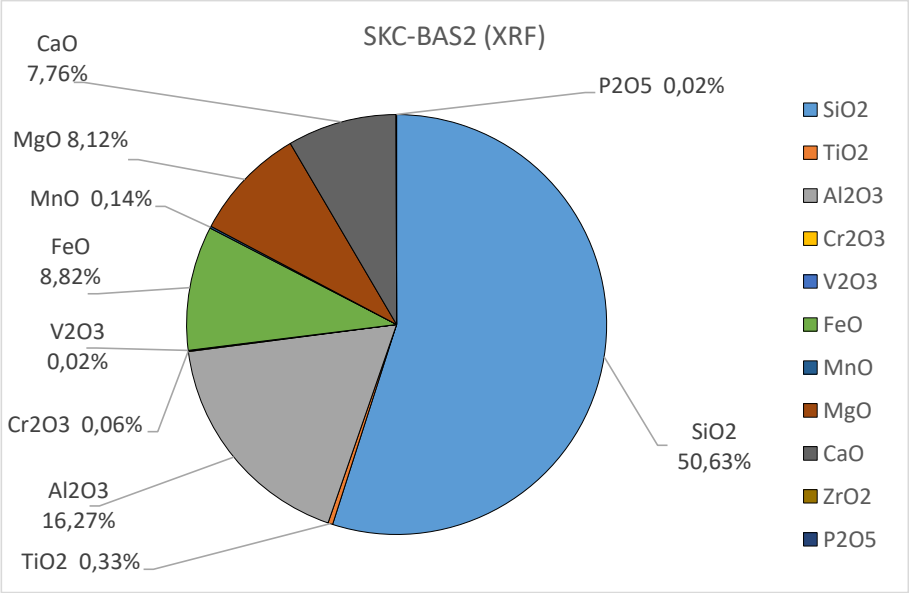


Figure 94. XRF Multi-element mineral analysis Summary – BAS2 (Method 180X – Appendix G)

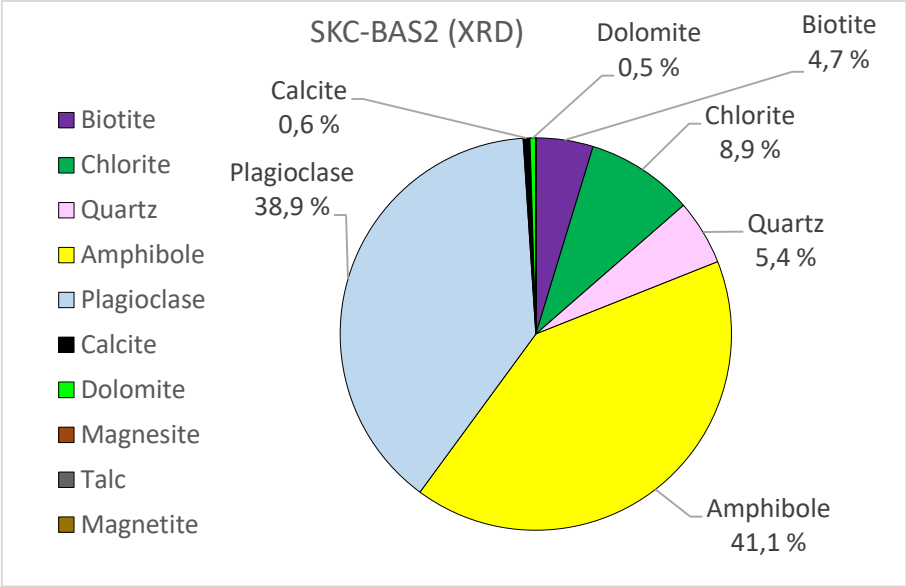


Figure 95. XRD Whole rock Multi-element mineral analysis Summary – BAS2 (Appendix H)

Table 15. XRD Whole rock Multi-element clay mineral analysis of -2µm fraction Summary – BAS2 (Appendix H)

Sample	Wt. % of Ogrinal Sample	Biotite				Chlorite				Quartz		Amphibole		Plagioclase	
	<2µm	% A	% B	Crys		% A	% B	Crys	Y	% A	% B	% A	% B	% A	% B
SKC-BAS2	2,5	11,9	0,3	M		37,8	1,0	W	1	3,2	0,1	37,9	1,0	9,2	0,2

A = Weight % relevant size fraction
B = Weight % bulk sample

Y = No. of Fe atoms in six octahedral sites

Mixed-layer Ordering:
R I = Randomly Interstratified (R0)
O = Ordered Interstratification (R1)
LR = Long-range Ordering (R3)

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

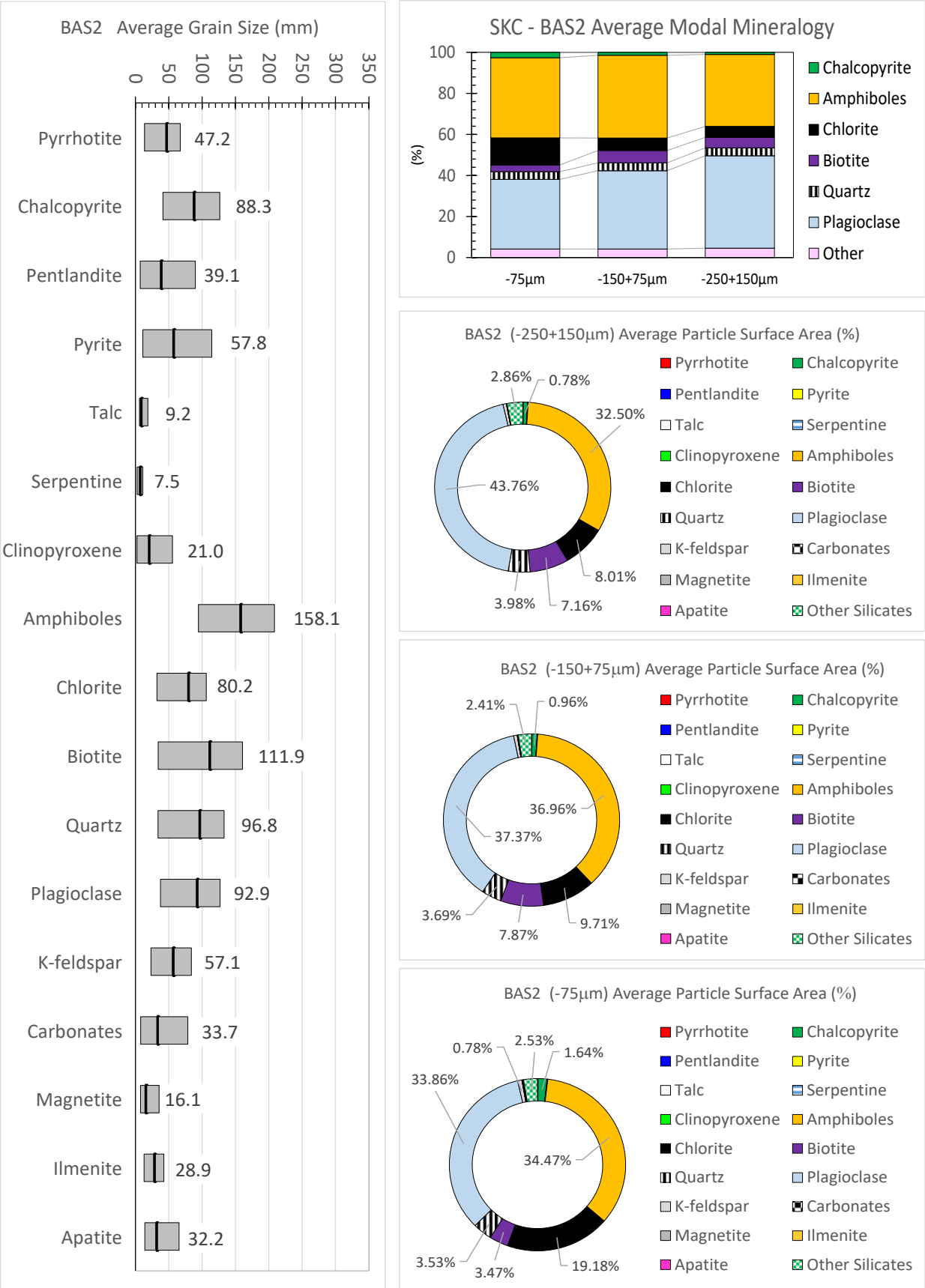
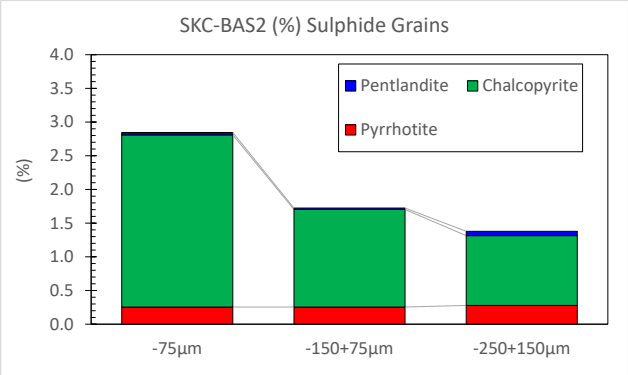
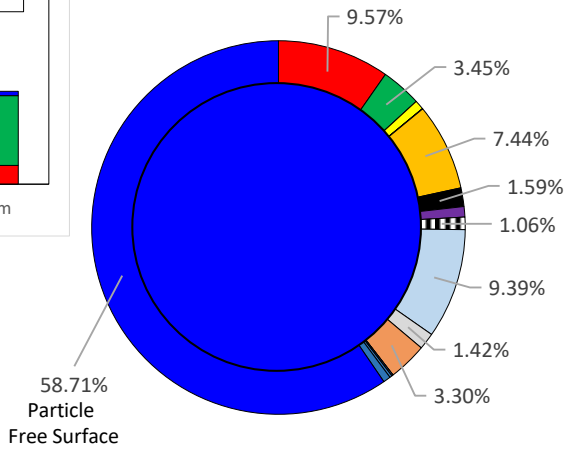


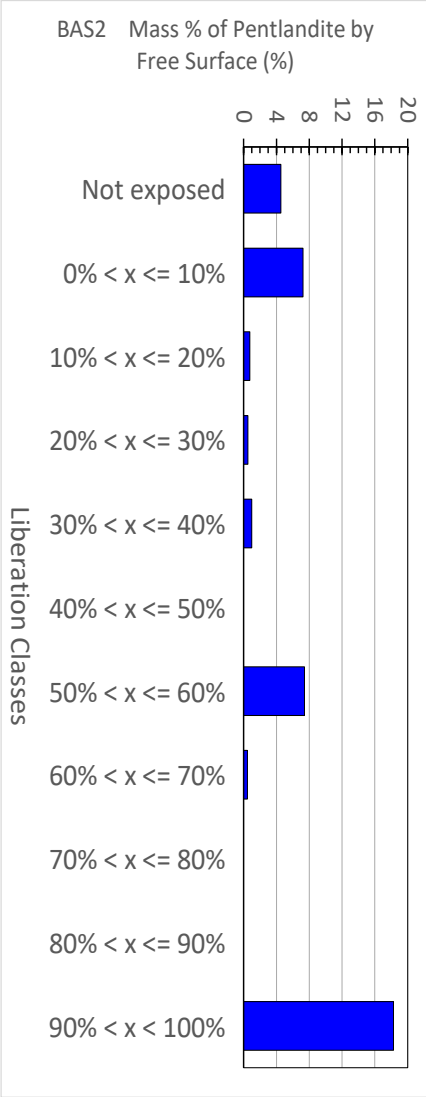
Figure 96. Automated Mineralogy modal mineralogy, average grain size, surface mineralogy – BAS2 (Appendix I)

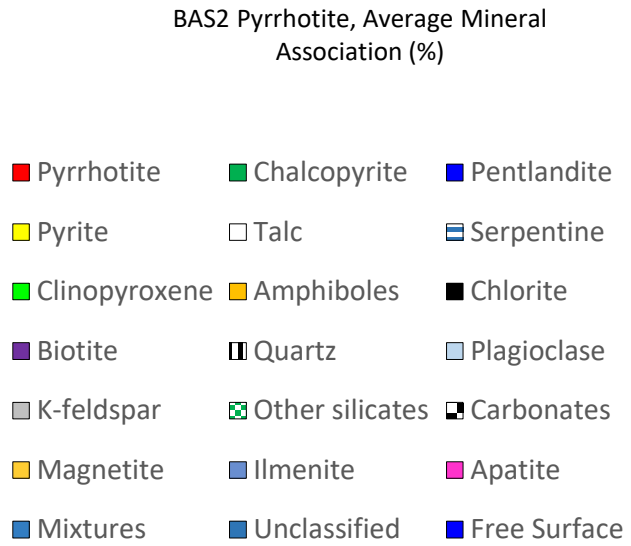


Average Sulphide Mineral Size (µm)

BAS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	58,26	112,49	62,79
-150+75µm	26,25	75,65	84,96
-75µm	7,09	41,24	14,76







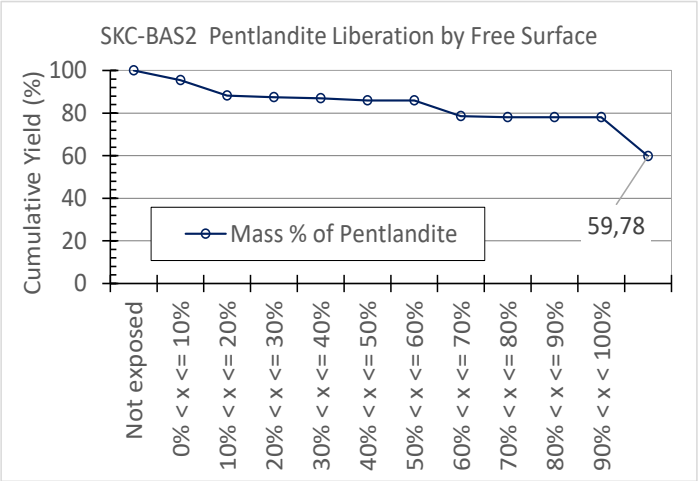
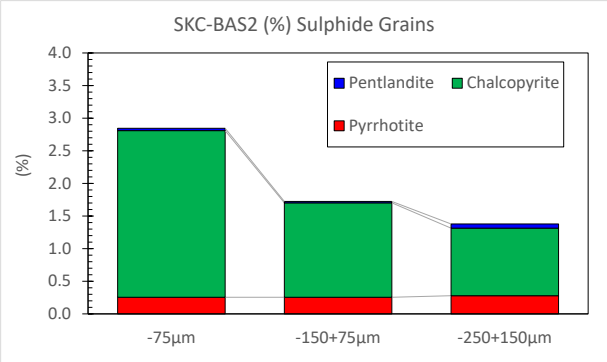
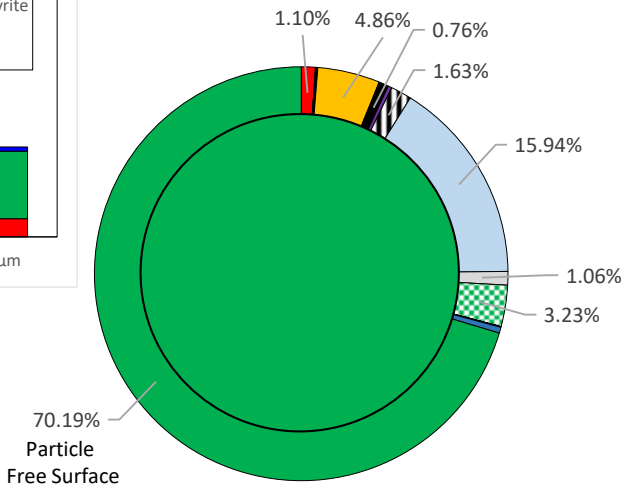


Figure 97. BAS2 - Pentlandite liberation, mineral association and modal mineral proportions (Appendix I)

1.6.2020

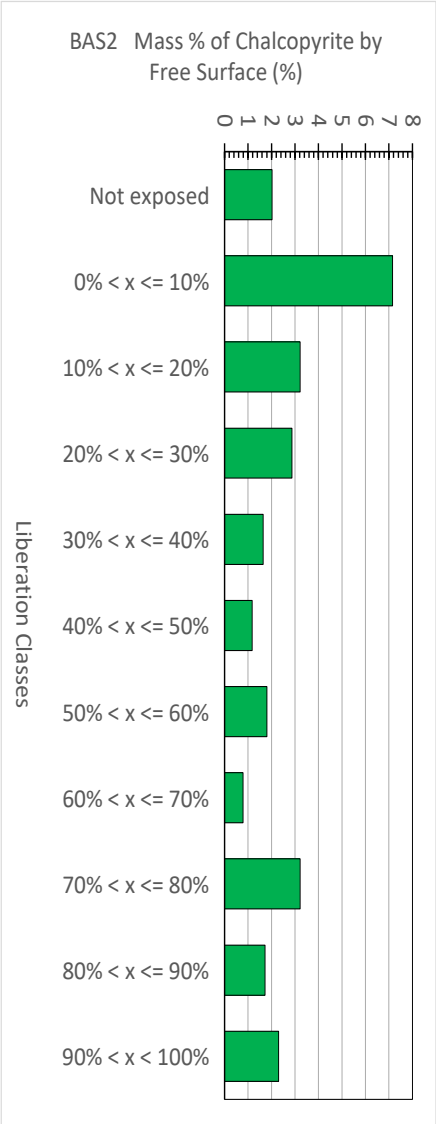


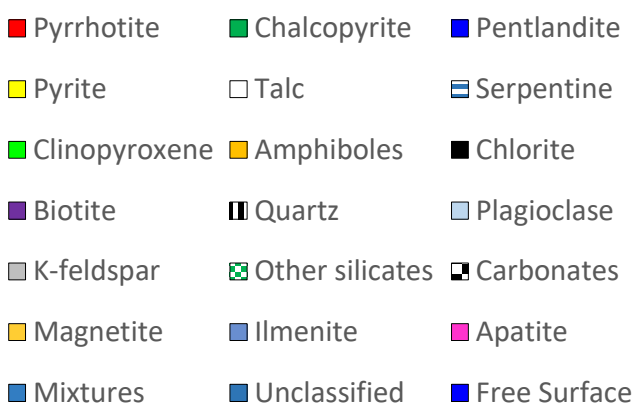


Average Sulphide Mineral Size (µm)

BAS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	58,26	112,49	62,79
-150+75µm	26,25	75,65	84,96
-75µm	7,09	41,24	14,76

BAS2 Chalcopyrite, Average Mineral Association (%)





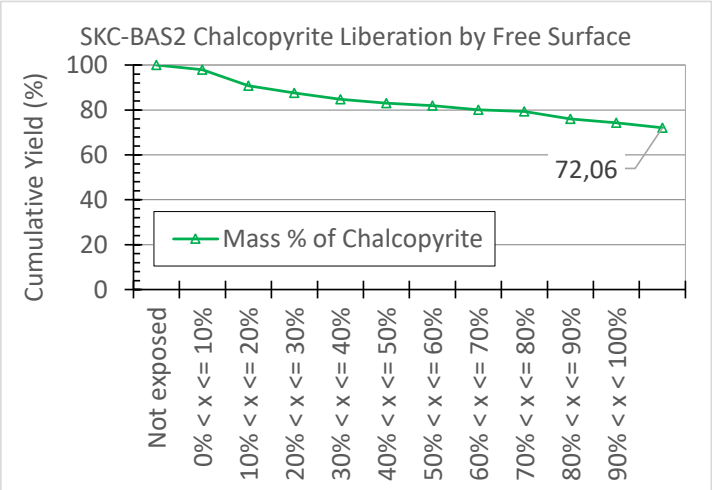
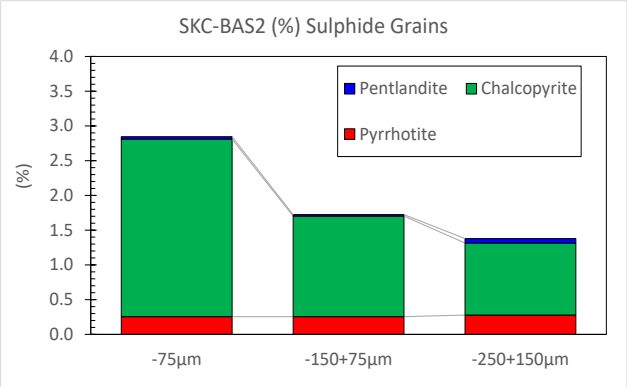
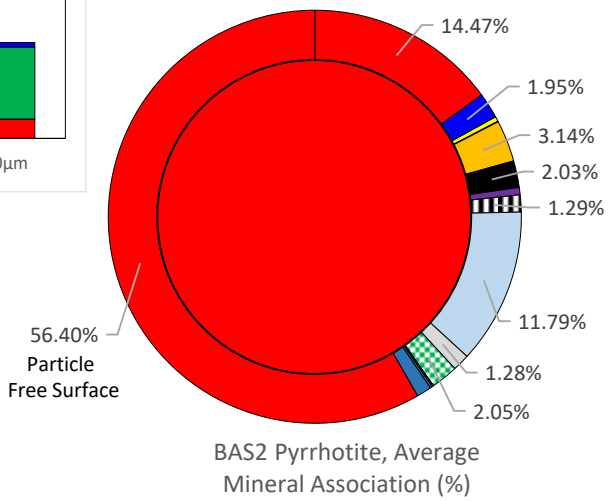


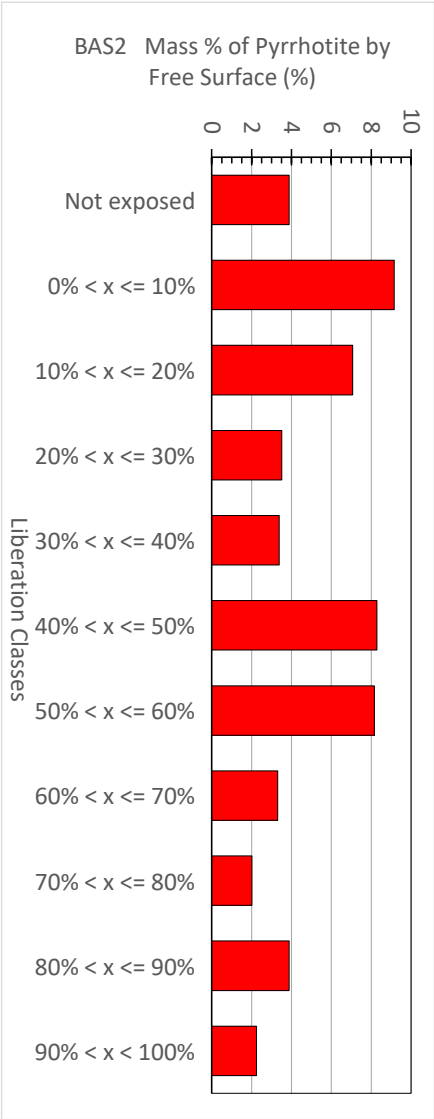
Figure 98. BAS2 - Chalcopyrite liberation, mineral association and modal mineral proportions (Appendix I)



Average Sulphide Mineral Size (µm)

BAS2	Pentlandite (µm)	Chalcopyrite (µm)	Pyrrhotite (µm)
-250+150µm	58,26	112,49	62,79
-150+75µm	26,25	75,65	84,96
-75µm	7,09	41,24	14,76





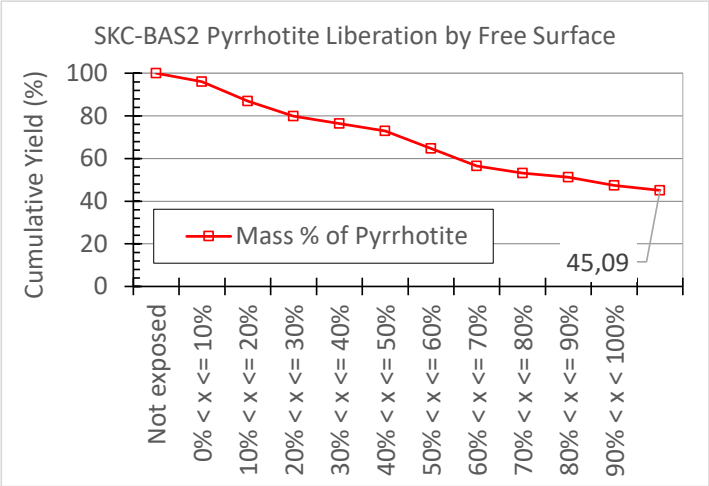


Figure 99. BAS2 - Pyrrhotite liberation, mineral association and modal mineral proportions (Appendix I)

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14 APPENDIX A - BATCIRCLE PROJECT SUMMARY

BATCircle is a project developed and funded by Business Finland (https://www.businessfinland.fi/). This is a 21 million euro project with 23 consortium partners, and a duration of 24 months. The BATCircle project has been designed to be based around the concept of a Circular Ecosystem of Battery Metals in Finland. The concept includes both primary raw materials, downstream refining and recycling in batteries. Most relevant operators in the existing battery business at all stages of the regional value chain are involved with this project in some form.

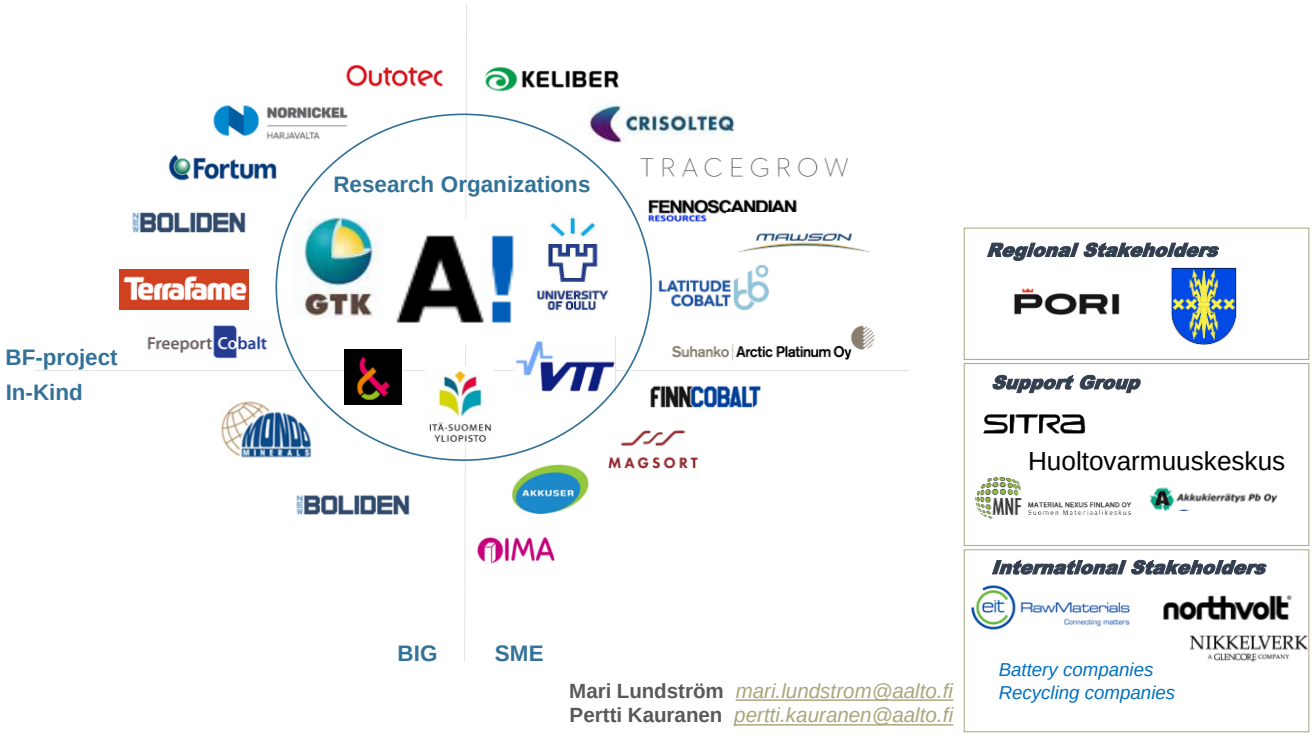

Figure A1. The BATcircle Consortium

Offical BATcircle Project website: https://www.batcircle.fi/

14.1 BATcircle Work Package Structure

This project consists of four technical work packages (WP1-WP4), one for business studies (WP5) one for project management (WP6) and one for European co-operation (WP7).

WP1 – **Sustainable Primary Resources**

The methods range from screening and efficient use of battery related multi-mineral resources

WP2 – **Value Addition in Metals Production**

Improved metallurgical processes (pyro, hydro, mechanical) for refining

WP3 – **Recycling of Batteries**

Recycling of battery metals as well as synthesis and characterization of advanced precursors

WP4 – **Tailored Precursors and Active Electrode Materials**

Active materials for lithium batteries. These technical tasks are supplemented by business studies aiming at identifying new business opportunities within the battery ecosystem and providing new tools for

WP5 – **Business Potential**

Strengthening the cooperation within the overall ecosystem

WP6 – **Project management**

WP7 – **Development of the European BATcircle**

14.2 Work Package 1 Summary

Work Package 1 (WP1) is managed by GTK. The impact of the WP1 is to quantify the Finnish potential for development of battery minerals mining. A new way of characterising battery mineral deposits will be developed (geometallurgy developed fit for purpose in battery mineral systems). Then a theoretical future Finnish controlled battery ecosystem is to be developed in a series of strategic steps.

The key objectives of Work Package 1 is as follows:

1. Analyze known Finnish battery mineral deposits with special emphasis on cobalt and associated typically polymetallic deposits

2. Develop a more effective way of characterizing those battery commodities in context of process response, which leads to a more effective economic characterization. Geometallurgy is the chosen approach to do this.

3. A strategic development plan for the development of Finnish battery mineral resources in a complete battery ecosystem

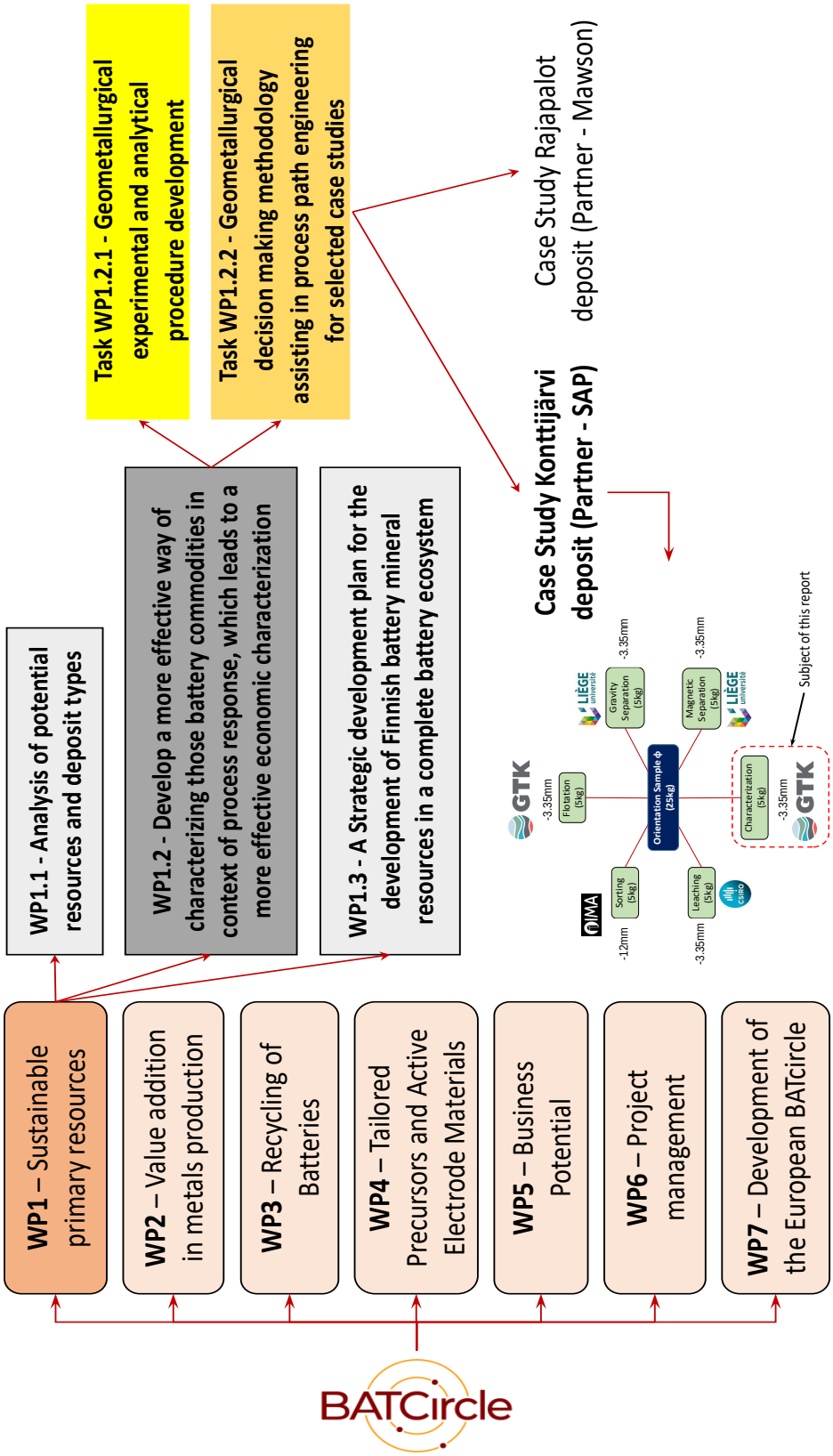

Figure A2. Map of the BATCircle project to WP1.2 to this report

14.3 Work Package WP1.2 Structure and Deliverables

Table A1. Work Package WP1.2 Objectives

WP Objectives
• Analyse known Finnish battery mineral deposits like with special emphasis on cobalt and associated polymetallic deposits. Lithium and graphite deposits will be part of the work with smaller weight. • Develop a more effective way of characterizing cobalt bearing battery commodities in context of process response, which leads to a more effective economic characterization. Geometallurgy is the chosen approach to do this. Also cobalt minerals flotation chemical environment is studied and preliminary hydrometallurgical process model will be built. • A Strategic development plan for the development of Finnish battery mineral resources in a complete battery ecosystem.

Table A2. Work Package WP1.2 Deliverables

Deliverables	By	Month
D1.1.1. A database analysis of Finnish cobalt, lithium and graphite deposits as well as technical and economic profiles about different type of deposits (study report).	GTK	M12
D1.2.1. A geometallurgical experimental and analytical procedure for cobalt related battery minerals that allows for process characterisation domaining on drill core scale samples to be validated with selected Case studies	GTK	M8
D1.2.2. A geometallurgical decision making methodology based on Case study laboratory validation. This assists in beneficiation process path development of cobalt bearing battery minerals.	GTK	M20
D1.2.3. Floatability model of Co-containing minerals based on bubble-particle attachment probability	Aalto	M20
D.1.2.4. Adjustable Process model	Aalto	M24
D1.3.1. A Strategic development plan for the development of Finnish mineral resources in a complete battery ecosystem	GTK	M24

Deliverable D1.2.1 is:

Michaux, S., P. (2020): How to Set Up and Develop a Geometallurgical Program, GTK Open Work File Report, ISBN 978-952-217-409-3

Deliverable D1.2.2 is the procedure applied to two case studies. This report is part of the SAP case study, Konttijärvi deposit series.

14.4 Work Package 1 Project consortium

- GTK
- Aalto University
- **SAP**
- Mawson
- Arctic Platinum
- FinnCobalt
- FMG

14.5 Work Package WP1.2

The title of WP1.2 is:

> *WP1.2 Develop a more effective way of characterizing those battery commodities in context of process response, which leads to a more effective economic characterization*

Based on each deposit type geological and mineralogical characteristics and acquired raw material specification requirements, a concept or protocol for proper geometallurgical study is developed for each deposit type.

14.6 Suhanko Arctic Platinum Oy

The Konttijärvi deposit is owned by Suhanko Arctic Platinum (SAP). SAP consists of three large project areas in Northern Finland: Suhanko, Narkaus and Penikat. There are large, untapped deposits of platinum, palladium and gold (PGE, Au) in the area with significant amounts of copper and nickel as a by-product. The deposits are located close to the ground surface and their parts extending to the rock surface continue under a thin ground cover for several kilometers.

SAP Website

https://suhanko.com/indexFI.html

14.7 Konttijärvi deposit (SAP) BATCircle Geometallurgical Case Study

This geometallurgical approach will be applied to two case studies. One of those BATCircle WP1.2 case studies is the Konttijärvi deposit, owned by Suhanko Arctic Platinum (SAP).

- Economic minerals in order of importance Palladium (2g/t), Pt (0.5g/t), Cu (0.16%), Ni (0.08%), Au (0.1g/t), Co, Ag, Rhodium
- The platinum group elements (PGE) are the most valuable, palladium (Pd) in particular
- Both leaching and flotation have been considered as process paths
- Sulphide extraction to be considered is both copper (Cu) and nickel (Ni)

15 APPENDIX B – BATCIRCLE PROJECT WP1.2 SAMPLE LABELLING PROTOCOL

The following labeling protocol was adopted to keep track of what samples were and what has been done to them.

The owner of the case study deposit

- Suhanko Artic Platinum (SAP) S

The name of the case study deposit

- Konttijärvi K

Process separation methods

- Characterization (to compare all sub-products to) C
- Flotation F
- Leaching L
- Gravity Separation G
- Magnetic Separation M
- Sample Reserve S

Orientation Sample rock type labels

- Peridotite Marker 1 rock type PM1
- Peridotite Marker 2 rock type PM2
- Pyroxenite ore 1 rock type PX1
- Pyroxenite ore 2 rock type PX2
- Marginal Series 1 rock type MS1
- Marginal Series 2 rock type MS2
- Transition Zone 1 rock type TZ1
- Transition Zone 1 rock type TZ2
- Basement rock type 1 BAS1
- Basement rock type 2 BAS2

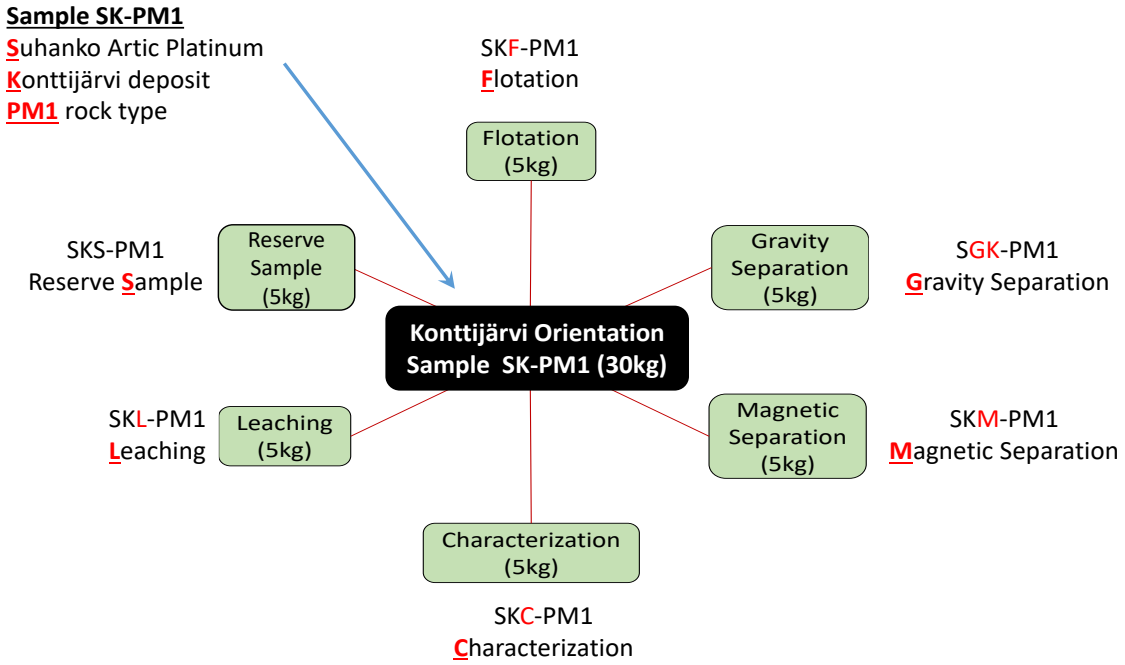

Figure B1. BATCircle Project sample labelling protocol for process separation sub-samples for each Orientation Sample

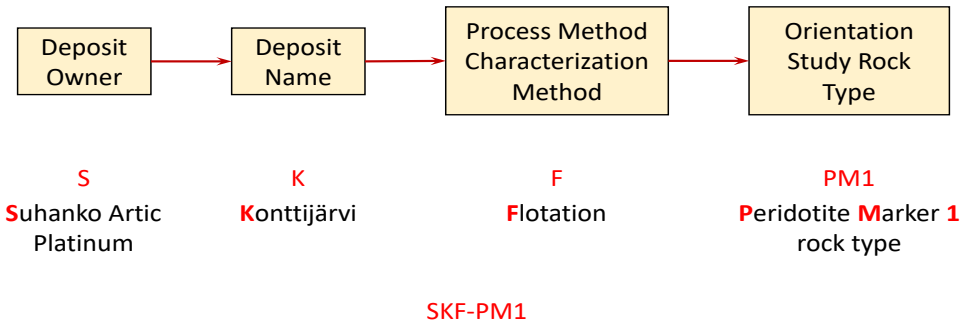

Figure B2. BATCircle Project sample labelling protocol example for sample SK-PM1 to be sent to flotation – SKF-PM1

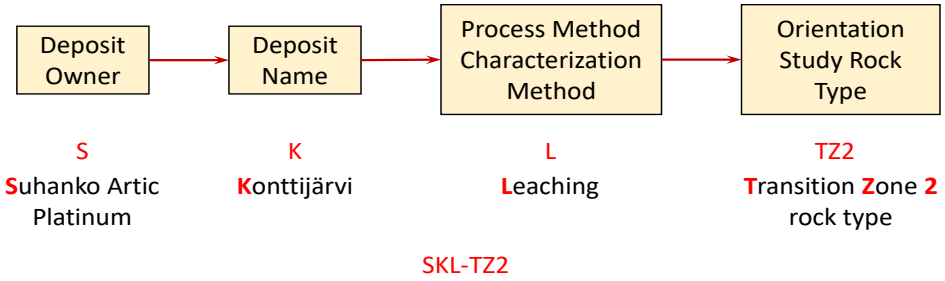

Figure B3. BATCircle Project sample labelling protocol example for sample SK-TZ2 to be sent to leaching – SKL-TZ2

16 APPENDIX C – SAMPLE PICTURES DRILL CORE IN TRAY

The following images are taken SAP Konttijärvi orientation samples while they were still in their core trays.

Figure C1. Sample PM1 as received still in core tray

Figure C2. Sample PM2 as received still in core tray

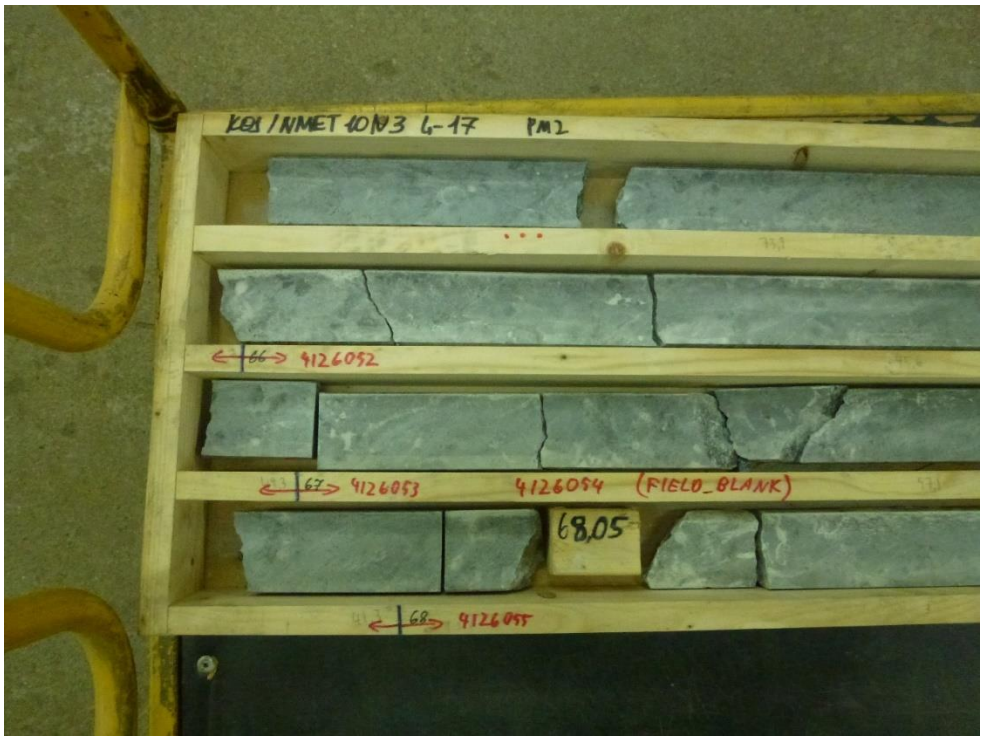

Figure C3. Sample PM2 as received still in core tray

Figure C4. Sample PX1 as received still in core tray

Figure C5. Sample PX1 as received still in core tray

Figure C6. Sample PX2 as received still in core tray

Figure C7. Sample PX2 as received still in core tray

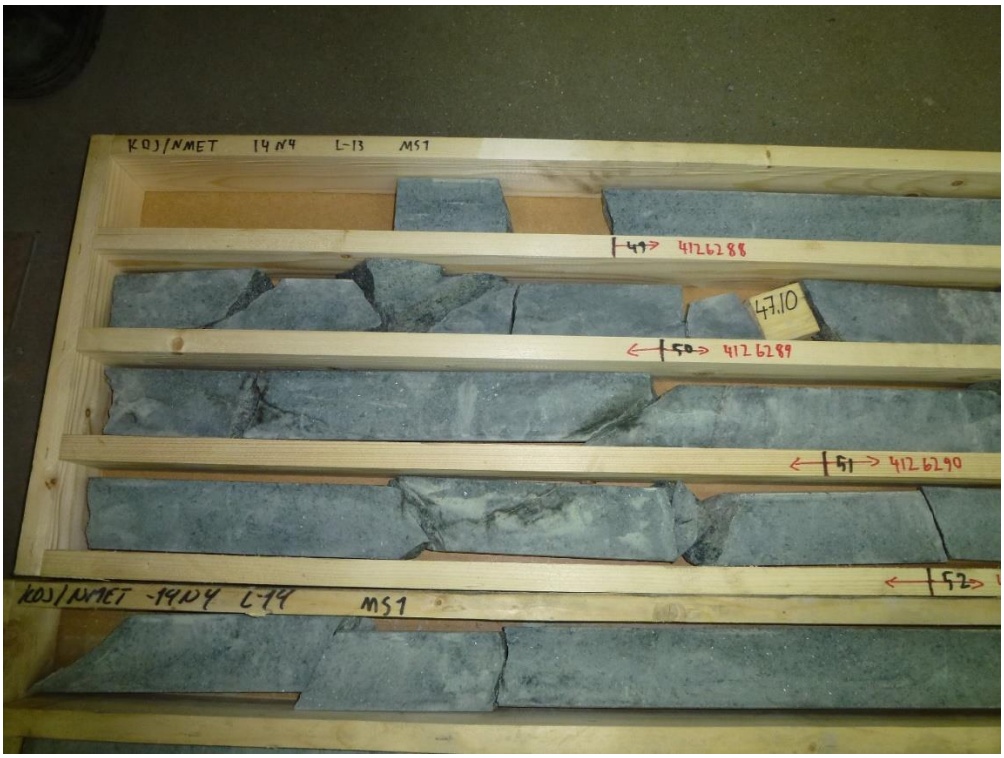

Figure C8. Sample MS1 as received still in core tray

Figure C9. Sample MS2 as received still in core tray

Figure C10. Sample MS2 as received still in core tray

Figure C11. Sample TZ1 as received still in core tray

Figure C12. Sample TZ1 as received still in core tray

Figure C13. Sample TZ2 as received still in core tray

Figure C14. Sample BAS1 as received still in core tray

Figure C15. Sample BAS1 as received still in core tray

Figure C16. Sample BAS2 as received still in core tray

Figure C17. Sample BAS2 as received still in core tray

17 APPENDIX D. KJV GEOLOGY LOGS FOR BATCIRCLE SAMPLES TAKEN

Table D1. KJV Geology logs – PM1, PM2, PX1, PX2, MS1, and MS2

Drill Hole_ID	Sample	Depth From (m)	Depth To (m)	Length (m)	Stratigraphy Unit	Lithology Classification	Sulphide 1 Style	Sulphide GrainSize	Sulphide Zone	COMMENTS	Amount of Sulphides
KOJ/NMET-3S9	PM1	49,00	56,64	7,64	PERIDOTITE MARKER	PERIDOTITE	Patchy	Fine-grained	Po+Cp		Strong
KOJ/NMET-10N3	PM2	64,90	70,00	5,10	PERIDOTITE MARKER	PERIDOTITE	Patchy	Fine-grained	Cp+Po		Strong
KOJ/NMET-3S9	PX1	56,64	57,26	0,62	KONTTIJARVI PYROXENITE	PYROXENITE	Patchy	Fine-grained	Po+Cp		Strong
KOJ/NMET-3S9	PX1	57,26	62,00	4,74	KONTTIJARVI PYROXENITE	PYROXENITE	Patchy	Fine-grained	Po+Cp		Strong
KOJ/NMET-3S9	PX1	62,00	66,00	4,00	KONTTIJARVI PYROXENITE	PYROXENITE	Patchy	Fine-grained	Cp		Strong
KOJ/NMET-3S9	PX1	66,00	66,24	0,24	KONTTIJARVI PYROXENITE	PYROXENITE	Blebby	Medium-grained	Cp+Po	At the beginning Cp is dominant, but Po increases significantly towards end of the interval.	Strong
KOJ/NMET-3S9	PX1	66,24	66,59	0,35	KONTTIJARVI PYROXENITE	CHLORITE SCHIST	Blebby	Medium-grained	Cp+Po	At the beginning Cp is dominant, but Po increases significantly towards end of the interval.	Strong
KOJ/NMET-14N4	PX2	17,45	21,20	3,75	KONTTIJARVI PYROXENITE	PYROXENITE				Chlorite schist at the lower contact.	Moderate
KOJ/NMET-14N4	PX2	21,20	23,00	1,80	KONTTIJARVI PYROXENITE	PYROXENITE	Disseminated	Fine grained	Cp	Fine-grained rather weak dissemination, but Bo bearing. Chlorite schist at the lower contact.	Moderate
KOJ/NMET-14N4	MS1	49,00	56,60	7,60	MARGINAL SERIES	GABBRO	Patchy	Medium to coarse grained	Cp+Po	Patchy, medium-coarse-grained.	Moderate
KOJ/NMET-14N4	MS1	56,60	57,00	0,40	MARGINAL SERIES	GABBRO			Cp	Sporadic Cp	Weak
KOJ/NMET-5N3	MS2	71,00	76,30	5,30	MARGINAL SERIES	GABBRO	Blebby	Coarse-grained	Cp	Trace of Po.	Strong
KOJ/NMET-5N3	MS2	78,50	78,80	0,30	MARGINAL SERIES	GABBRO	Patchy	Medium-grained	Cp+Po		Strong
KOJ/NMET-5N3	MS2	78,80	79,15	0,35	MARGINAL SERIES	GABBRO	Patchy	Medium-grained	Cp+Po		Strong
KOJ/NMET-5N3	MS2	79,15	82,88	3,73	MARGINAL SERIES	GABBRO	Patchy	Medium-grained	Cp+Po		Strong

Table D2. KJV Geology logs – TZ1, TZ2, BAS1 and BAS2

Drill Hole_ID	Sample	Depth From (m)	Depth To (m)	Length (m)	Stratigraphy Unit	Lithology Classification	Sulphide 1 Style	Sulphide GrainSize	Sulphide Zone	COMMENTS	Amount of Sulphides
KOJ/NMET-13S6	TZ1	46,50	53,00	6,50	TRANSITION ZONE	AMPHIBOLE GNEISS	Disseminated	Fine grained	Cp+Po	Heterogeneous, fine-coarse-grained, felsic basement like at the beginning, some parts have clearly gneiss structure and some parts look weakly hybrid gabbro. Origin of mafic material? Mineralisation is here fine-grained dissemination (basement type).Mostly fine-grained dissemination.	Strong
KOJ/NMET-13S6	TZ1	53,00	59,00	6,00	TRANSITION ZONE	AMPHIBOLE GNEISS	Disseminated	Fine grained	Cp+Po	Heterogeneous, fine-coarse-grained, felsic basement like at the beginning, some parts have clearly gneiss structure and some parts look weakly hybrid gabbro. Origin of mafic material? Mineralisation is here fine-grained dissemination (basement type).Mostly fine-grained dissemination.Albite? Occasional, discontinuous. Brownish alteration seen in basement.	Strong
KOJ/NMET-13S6	TZ1	59,00	59,50	0,50	TRANSITION ZONE	AMPHIBOLE GNEISS	Disseminated	Fine grained	Cp+Po	Heterogeneous, fine-coarse-grained, felsic basement like at the beginning, some parts have clearly gneiss structure and some parts look weakly hybrid gabbro. Origin of mafic material? Mineralisation is here fine-grained dissemination (basement type).Mostly fine-grained dissemination.	Strong
KOJ/NMET-7N4	TZ2	58,64	69,00	10,36	TRANSITION ZONE	HYBRID GABBRO	Blebby	Medium-grained	Cp+Po	More BAS KVDR than TZ HGB looking randomly in some parts. FRESH (rock and sulphides)FRESH (rock and sulphides)	Strong
KOJ/NMET-5N3	BAS1	82,88	83,65	0,77	BASEMENT	QUARTZ DIORITE	Patchy	Medium-grained	Cp+Po	Contains assimilated/remelted GB and KVDR.	Strong
KOJ/NMET-5N3	BAS1	83,65	86,28	2,63	BASEMENT	QUARTZ DIORITE	Patchy	Medium-grained	Cp+Po	Contains assimilated/remelted GB and KVDR.	Strong
KOJ/NMET-5N3	BAS1	86,28	93,00	6,72	BASEMENT	QUARTZ DIORITE	Patchy	Fine-grained	Cp+Po		Strong
KOJ-723	BAS2	210	217	7,00	MAFIC BASEMENT	AMPHIBOLE GNEISS	Disseminated	Fine grained	Cp	Amount of cp increases after 214 into good dissemination. Felsic parts are epid+allb altered. Brecciated by felsic fragments.	

18 APPENDIX E – SAMPLE PREPARATION

Table E1. SAP Konttijärvi Orientation Sample preparation- crushing and sub-dividing

Sample	-3,35 crush mass (kg)	Characterization Sample (kg)	Leach Process Separation (kg)	Magnetic Process Separation (kg)	Flotation Process Separation (kg)	Gravity Process Separation (kg)	-3,35 Split Reconciliation (kg)	-3,35 Split Reconciliation (%)
PM1	14,70	0,95	4,00	2,10		7,6	0,05	0,34 %
PM2	23,00	1,00	5,00	4,85	5,00	7,05	0,10	0,43 %
PX1	16,85	0,95	4,00		5,05	6,80	0,05	0,30 %
PX2	22,85	0,95	5,00	4,05	5,05	7,60	0,20	0,88 %
MS1	34,25	1,05	8,00	7,70	8,25	9,10	0,15	0,44 %
MS2	21,40	0,95	5,00	3,00	5,00	7,40	0,05	0,23 %
TZ1	25,35	1,00	5,00	5,10	5,00	9,20	0,05	0,20 %
TZ2	22,30	1,00	5,00	4,75	5,00	6,45	0,10	0,45 %
BAS1	23,50	0,95	5,05	4,65	5,10	7,55	0,20	0,85 %
BAS2	18,25	0,95	5,00		5,05	7,25	0,00	0,00 %

Table E2.1. Sample list SAP Konttijärvi Orientation Sample (-3.35mm crushed)

Rock Type	Orientation Sample Label	Task	Sample Name	Mass (kg)
Peridotite Marker 1 rock type	PM1	Characterization	SKC-PM1	0,95
Peridotite Marker 2 rock type	PM2	Characterization	SKC-PM2	1,00
Pyroxenite ore 1 rock type	PX1	Characterization	SKC-PX1	0,95
Pyroxenite ore 2 rock type	PX2	Characterization	SKC-PX2	0,95
Marginal Series 1 rock type	MS1	Characterization	SKC-MS1	1,05
Marginal Series 2 rock type	MS2	Characterization	SKC-MS2	0,95
Transition Zone 1 rock type	TZ1	Characterization	SKC-TZ1	1,00
Transition Zone 1 rock type	TZ2	Characterization	SKC-TZ2	1,00
Basement rock type 1	BAS1	Characterization	SKC-BAS1	0,95
Basement rock type 2	BAS2	Characterization	SKC-BAS2	0,95
Peridotite Marker 1 rock type	PM1	Flotation	SKF-PM1	-
Peridotite Marker 2 rock type	PM2	Flotation	SKF-PM2	5,00
Pyroxenite ore 1 rock type	PX1	Flotation	SKF-PX1	5,05
Pyroxenite ore 2 rock type	PX2	Flotation	SKF-PX2	5,05
Marginal Series 1 rock type	MS1	Flotation	SKF-MS1	8,25
Marginal Series 2 rock type	MS2	Flotation	SKF-MS2	5,00
Transition Zone 1 rock type	TZ1	Flotation	SKF-TZ1	5,00
Transition Zone 1 rock type	TZ2	Flotation	SKF-TZ2	5,00
Basement rock type 1	BAS1	Flotation	SKF-BAS1	5,10
Basement rock type 2	BAS2	Flotation	SKF-BAS2	5,05
Peridotite Marker 1 rock type	PM1	Leaching	SKL-PM1	4,00
Peridotite Marker 2 rock type	PM2	Leaching	SKL-PM2	5,00
Pyroxenite ore 1 rock type	PX1	Leaching	SKL-PX1	4,00
Pyroxenite ore 2 rock type	PX2	Leaching	SKL-PX2	5,00
Marginal Series 1 rock type	MS1	Leaching	SKL-MS1	8,00
Marginal Series 2 rock type	MS2	Leaching	SKL-MS2	5,00
Transition Zone 1 rock type	TZ1	Leaching	SKL-TZ1	5,00
Transition Zone 1 rock type	TZ2	Leaching	SKL-TZ2	5,00
Basement rock type 1	BAS1	Leaching	SKL-BAS1	5,05
Basement rock type 2	BAS2	Leaching	SKL-BAS2	5,00

Table E2.2. Sample list SAP Konttijärvi Orientation Sample (-3.35mm crushed)

Rock Type	Orientation Sample Label	Task	Sample Name	Mass (kg)
Peridotite Marker 1 rock type	PM1	Magnetic Separate	SKM-PM1	2,10
Peridotite Marker 2 rock type	PM2	Magnetic Separate	SKM-PM2	4,85
Pyroxenite ore 1 rock type	PX1	Magnetic Separate	SKM-PX1	-
Pyroxenite ore 2 rock type	PX2	Magnetic Separate	SKM-PX2	4,05
Marginal Series 1 rock type	MS1	Magnetic Separate	SKM-MS1	7,70
Marginal Series 2 rock type	MS2	Magnetic Separate	SKM-MS2	3,00
Transition Zone 1 rock type	TZ1	Magnetic Separate	SKM-TZ1	5,10
Transition Zone 1 rock type	TZ2	Magnetic Separate	SKM-TZ2	4,75
Basement rock type 1	BAS1	Magnetic Separate	SKM-BAS1	4,65
Basement rock type 2	BAS2	Magnetic Separate	SKM-BAS2	-
Peridotite Marker 1 rock type	PM1	Gravity Separatation	SKGF-PM1	7,6
Peridotite Marker 2 rock type	PM2	Gravity Separatation	SKGF-PM2	7,05
Pyroxenite ore 1 rock type	PX1	Gravity Separatation	SKGF-PX1	6,8
Pyroxenite ore 2 rock type	PX2	Gravity Separatation	SKGF-PX2	7,6
Marginal Series 1 rock type	MS1	Gravity Separatation	SKGF-MS1	9,1
Marginal Series 2 rock type	MS2	Gravity Separatation	SKGF-MS2	7,4
Transition Zone 1 rock type	TZ1	Gravity Separatation	SKGF-TZ1	9,2
Transition Zone 1 rock type	TZ2	Gravity Separatation	SKGF-TZ2	6,45
Basement rock type 1	BAS1	Gravity Separatation	SKGF-BAS1	7,55
Basement rock type 2	BAS2	Gravity Separatation	SKGF-BAS2	7,25

19 APPENDIX F – CHEMICAL ASSAY DATA

The follow chemical assay measurements were taken by EuroFins Labtium Oy on the SAP Orientation Samples. Measurements were taken on a representative sub-sample. This was done to have a base line reference measurement that later process products could be compared to.

Table F1.1. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample PM1

Parameter	SKC-PM1	Detection Limit	Sample Label	SKC-PM1/1	SKC-PM1/2	SKC-PM1/3
	Average		EF Sample ID	S19101758	S19101759	S19101760
Ag	0,800	0.002	mg/kg	0,835	0,792	0,772
Au	0,170	0.005	mg/kg	0,196	0,156	0,157
Pd	3,230	0.005	mg/kg	3,43	3,14	3,12
Pt	0,904	0.005	mg/kg	0,921	0,915	0,877

Table F1.2. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample PM2

Parameter	SKC-PM2	Detection Limit	Sample Label	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
	Average		EF Sample ID	S19101761	S19101762	S19101763
Ag	0,769	0.002	mg/kg	0,762	0,755	0,789
Au	0,126	0.005	mg/kg	0,089	0,149	0,141
Pd	1,590	0.005	mg/kg	1,48	1,43	1,86
Pt	0,327	0.005	mg/kg	0,281	0,336	0,363

Table F1.3. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample PX1

Parameter	SKC-PX1	Detection Limit	Sample Label	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
	Average		EF Sample ID	S19101764	S19101765	S19101766
Ag	1,025	0.002	mg/kg	0,872	1,08	0,969
Au	0,146	0.005	mg/kg	0,144	0,124	0,168
Pd	2,210	0.005	mg/kg	2,25	2,09	2,33
Pt	0,574	0.005	mg/kg	0,566	0,544	0,603

Table F1.4. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample PX2

Parameter	SKC-PX2 Average	Detection Limit	Sample Label	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
			EF Sample ID	S19101767	S19101768	S19101769
Ag	0,804	0.002	mg/kg	0,821	0,827	0,78
Au	0,172	0.005	mg/kg	0,203	0,205	0,138
Pd	1,930	0.005	mg/kg	1,84	1,85	2,01
Pt	0,542	0.005	mg/kg	0,514	0,517	0,567

Table F1.5. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample MS1

Parameter	SKC-MS1 Average	Detection Limit	Sample Label	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
			EF Sample ID	S19101770	S19101771	S19101772
Ag	1,085	0.002	mg/kg	1,15	1,01	1,16
Au	0,097	0.005	mg/kg	0,134	0,098	0,095
Pd	1,540	0.005	mg/kg	1,59	1,41	1,67
Pt	0,368	0.005	mg/kg	0,397	0,341	0,395

Table F1.6. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample MS2

Parameter	SKC-MS2 Average	Detection Limit	Sample Label	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
			EF Sample ID	S19101773	S19101774	S19101775
Ag	1,940	0.002	mg/kg	2,19	1,99	1,89
Au	0,147	0.005	mg/kg	0,217	0,148	0,145
Pd	2,355	0.005	mg/kg	2,98	2,57	2,14
Pt	0,649	0.005	mg/kg	0,722	0,69	0,607

Table F1.7. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample TZ1

Parameter	SKC-TZ1 Average	Detection Limit	Sample Label	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/3
			EF Sample ID	S19101776	S19101777	S19101778
Ag	1,435	0.002	mg/kg	1,43	1,45	1,42
Au	0,118	0.005	mg/kg	0,125	0,124	0,112
Pd	1,605	0.005	mg/kg	1,67	1,65	1,56
Pt	0,411	0.005	mg/kg	0,432	0,429	0,393

Table F1.8. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample TZ2

Parameter	SKC-TZ2 Average	Detection Limit	Sample Label	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
			EF Sample ID	S19101779	S19101780	S19101781
Ag	1,225	0.002	mg/kg	1,25	1,22	1,23
Au	0,085	0.005	mg/kg	0,077	0,093	0,077
Pd	1,605	0.005	mg/kg	1,39	1,75	1,46
Pt	0,387	0.005	mg/kg	0,36	0,437	0,337

Table F1.9. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample BAS1

Parameter	SKC-BAS1 Average	Detection Limit	Sample Label	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
			EF Sample ID	S19101782	S19101783	S19101784
Ag	2,325	0.002	mg/kg	2,41	2,34	2,31
Au	0,116	0.005	mg/kg	0,123	0,116	0,115
Pd	1,840	0.005	mg/kg	2,02	1,88	1,8
Pt	0,375	0.005	mg/kg	0,465	0,384	0,366

Table F1.10. Fire Assay, Au, Ag, Pd, Pt determination by ICP-OES (Method 711P) – Sample BAS2

Parameter	SKC-BAS2 Average	Detection Limit	Sample Label	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
			EF Sample ID	S19101785	S19101786	S19101787
Ag	1,470	0.002	mg/kg	1,35	1,35	1,59
Au	0,161	0.005	mg/kg	0,158	0,16	0,162
Pd	2,275	0.005	mg/kg	2,23	2,26	2,29
Pt	0,534	0.005	mg/kg	0,526	0,541	0,527

Table F2.1. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample PM1

Parameter	SKC-PM1	Detection Limit	Sample Label	SKC-PM1/1	SKC-PM1/1 (2)	SKC-PM1/2	SKC-PM1/3
	Average		EF Sample ID	S19101758	S19101758	S19101759	S19101760
Ag	0,34	0.1	mg/kg	0,39	0,3	0,36	0,3
As	2,20	0.1	mg/kg	2,18	2,02	3,16	1,44
Bi	0,19	0.1	mg/kg	0,23	0,21	0,17	0,14
Cd	0,37	0.1	mg/kg	0,41	0,41	0,34	0,33
Ce	2,22	0.1	mg/kg	2,94	1,78	2,11	2,05
Dy	0,40	0.1	mg/kg	0,41	0,39	0,4	0,4
Er	0,25	0.05	mg/kg	0,25	0,25	0,25	0,25
Eu		0.05	mg/kg	<0.05	<0.05	<0.05	<0.05
Gd	0,39	0.05	mg/kg	0,4	0,38	0,39	0,39
Hf		0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Ho	0,08	0.01	mg/kg	0,09	0,08	0,08	0,08
La	0,87	0.1	mg/kg	1,18	0,67	0,82	0,81
Lu	0,04	0.01	mg/kg	0,04	0,04	0,04	0,04
Nb	3,14	1	mg/kg	3,05	3,4	2,6	3,5
Nd	1,35	0.2	mg/kg	1,62	1,17	1,33	1,29
Pr	0,31	0.1	mg/kg	0,38	0,25	0,3	0,29
Sb	0,27	0.2	mg/kg	0,38	0,25	0,23	0,23
Sm	0,36	0.01	mg/kg	0,39	0,33	0,35	0,35
Sn		2	mg/kg	<2	<2	<2	<2
Ta	0,75	0.2	mg/kg	0,74	0,8	0,61	0,84
Tb	0,06	0.01	mg/kg	0,06	0,06	0,06	0,06
Th		0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Tl		0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Tm	0,04	0.01	mg/kg	0,04	0,04	0,04	0,04
U		0.2	mg/kg	<0.2	<0.2	<0.2	<0.2
Y	2,19	0.1	mg/kg	2,2	2,14	2,21	2,19
Yb	0,25	0.1	mg/kg	0,25	0,24	0,25	0,25

Table F2.2. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample PM2

Parameter	SKC-PM2	Detection Limit	Sample Label	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
	Average		EF Sample ID	S19101761	S19101762	S19101763
Ag	0,37	0.1	mg/kg	0,4	0,29	0,42
As	1,02	0.1	mg/kg	1,1	1,02	0,93
Bi	0,22	0.1	mg/kg	0,24	0,27	0,16
Cd	0,27	0.1	mg/kg	0,27	0,29	0,25
Ce	3,35	0.1	mg/kg	4,05	2,61	3,39
Dy	0,29	0.1	mg/kg	0,29	0,28	0,29
Er	0,19	0.05	mg/kg	0,18	0,19	0,19
Eu		0.05	mg/kg	<0.05	<0.05	<0.05
Gd	0,35	0.05	mg/kg	0,38	0,33	0,34
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,06	0.01	mg/kg	0,06	0,06	0,06
La	1,53	0.1	mg/kg	1,83	1,18	1,58
Lu	0,04	0.01	mg/kg	0,04	0,04	0,04
Nb	1,43	1	mg/kg	1,33	1,88	1,08
Nd	1,71	0.2	mg/kg	2,09	1,38	1,67
Pr	0,41	0.1	mg/kg	0,5	0,33	0,41
Sb		0.2	mg/kg	<0.2	<0.2	<0.2
Sm	0,36	0.01	mg/kg	0,43	0,31	0,34
Sn		2	mg/kg	<2	<2	<2
Ta	0,32	0.2	mg/kg	0,29	0,43	0,25
Tb	0,05	0.01	mg/kg	0,05	0,06	0,05
Th		0.5	mg/kg	<0.5	<0.5	<0.5
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,03	0.01	mg/kg	0,03	0,03	0,03
U		0.2	mg/kg	<0.2	<0.2	<0.2
Y	1,43	0.1	mg/kg	1,43	1,43	1,44
Yb	0,23	0.1	mg/kg	0,23	0,24	0,23

Table F2.3. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample PX1

Parameter	SKC-PX1	Detection Limit	Sample Label	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
	Average		EF Sample ID	S19101764	S19101765	S19101766
Ag	0,47	0.1	mg/kg	0,6	0,39	0,43
As	1,35	0.1	mg/kg	1,64	1,07	1,34
Bi	0,18	0.1	mg/kg	0,22	0,16	0,16
Cd	0,33	0.1	mg/kg	0,33	0,33	0,32
Ce	3,50	0.1	mg/kg	2,79	4,3	3,41
Dy	0,55	0.1	mg/kg	0,56	0,54	0,55
Er	0,35	0.05	mg/kg	0,36	0,35	0,35
Eu	0,06	0.05	mg/kg	0,05	0,06	0,06
Gd	0,53	0.05	mg/kg	0,51	0,53	0,54
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,12	0.01	mg/kg	0,12	0,11	0,12
La	1,55	0.1	mg/kg	1,22	1,98	1,45
Lu	0,05	0.01	mg/kg	0,05	0,05	0,05
Nb	1,50	1	mg/kg	1,55	1,45	<1
Nd	1,95	0.2	mg/kg	1,69	2,22	1,95
Pr	0,45	0.1	mg/kg	0,38	0,52	0,45
Sb	0,42	0.2	mg/kg	0,82	0,23	0,21
Sm	0,49	0.01	mg/kg	0,45	0,51	0,51
Sn		2	mg/kg	<2	<2	<2
Ta	0,32	0.2	mg/kg	0,33	0,3	<0.2
Tb	0,08	0.01	mg/kg	0,08	0,08	0,09
Th		0.5	mg/kg	<0.5	<0.5	<0.5
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,05	0.01	mg/kg	0,05	0,05	0,05
U		0.2	mg/kg	<0.2	<0.2	<0.2
Y	3,03	0.1	mg/kg	3	2,99	3,11
Yb	0,35	0.1	mg/kg	0,36	0,35	0,35

Table F2.4. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample PX2

Parameter	SKC-PX2	Detection Limit	Sample Label	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
	Average		EF Sample ID	S19101767	S19101768	S19101769
Ag	0,35	0.1	mg/kg	0,35	0,33	0,37
As	0,26	0.1	mg/kg	0,26	0,27	0,25
Bi	0,15	0.1	mg/kg	0,15	0,13	0,16
Cd	0,21	0.1	mg/kg	0,21	0,21	0,21
Ce	8,67	0.1	mg/kg	9,1	8,31	8,59
Dy	1,38	0.1	mg/kg	1,38	1,39	1,37
Er	1,02	0.05	mg/kg	1,02	1,02	1,02
Eu	0,17	0.05	mg/kg	0,17	0,17	0,17
Gd	1,20	0.05	mg/kg	1,22	1,19	1,18
Hf	0,85	0.5	mg/kg	0,89	0,82	0,84
Ho	0,30	0.01	mg/kg	0,31	0,3	0,3
La	3,78	0.1	mg/kg	3,95	3,64	3,76
Lu	0,20	0.01	mg/kg	0,2	0,2	0,19
Nb		1	mg/kg	<1	<1	<1
Nd	4,62	0.2	mg/kg	4,82	4,44	4,6
Pr	1,11	0.1	mg/kg	1,16	1,06	1,1
Sb		0.2	mg/kg	<0.2	<0.2	<0.2
Sm	1,15	0.01	mg/kg	1,17	1,13	1,15
Sn		2	mg/kg	<2	<2	<2
Ta		0.2	mg/kg	<0.2	<0.2	<0.2
Tb	0,20	0.01	mg/kg	0,2	0,2	0,2
Th	1,95	0.5	mg/kg	2,04	1,89	1,92
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,17	0.01	mg/kg	0,17	0,17	0,17
U	1,12	0.2	mg/kg	1,22	1,02	1,11
Y	8,95	0.1	mg/kg	8,97	8,95	8,92
Yb	1,27	0.1	mg/kg	1,27	1,26	1,28

Table F2.5. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample MS1

Parameter	SKC-MS1	Detection Limit	Sample Label	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
	Average		EF Sample ID	S19101770	S19101771	S19101772
Ag	0,80	0.1	mg/kg	0,8	0,81	0,79
As	1,13	0.1	mg/kg	1,26	1,07	1,07
Bi	0,33	0.1	mg/kg	0,33	0,33	0,32
Cd	0,59	0.1	mg/kg	0,58	0,6	0,58
Ce	11,63	0.1	mg/kg	11,6	11,8	11,5
Dy	2,13	0.1	mg/kg	2,09	2,18	2,12
Er	1,27	0.05	mg/kg	1,24	1,29	1,27
Eu	0,55	0.05	mg/kg	0,55	0,56	0,55
Gd	2,21	0.05	mg/kg	2,2	2,22	2,22
Hf	0,63	0.5	mg/kg	0,62	0,65	0,63
Ho	0,43	0.01	mg/kg	0,42	0,44	0,43
La	4,82	0.1	mg/kg	4,82	4,88	4,77
Lu	0,17	0.01	mg/kg	0,17	0,17	0,17
Nb	1,84	1	mg/kg	2,05	1,73	1,75
Nd	7,97	0.2	mg/kg	7,91	8,09	7,91
Pr	1,67	0.1	mg/kg	1,66	1,7	1,64
Sb		0.2	mg/kg	<0.2	<0.2	<0.2
Sm	2,16	0.01	mg/kg	2,14	2,18	2,15
Sn		2	mg/kg	<2	<2	<2
Ta	0,30	0.2	mg/kg	0,35	0,27	0,29
Tb	0,34	0.01	mg/kg	0,34	0,35	0,34
Th	0,98	0.5	mg/kg	0,98	1	0,97
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,18	0.01	mg/kg	0,18	0,18	0,18
U	0,61	0.2	mg/kg	0,6	0,62	0,6
Y	11,23	0.1	mg/kg	11,1	11,4	11,2
Yb	1,18	0.1	mg/kg	1,17	1,2	1,17

Table F2.6. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample MS2

Parameter	SKC-MS2	Detection Limit	Sample Label	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
	Average		EF Sample ID	S19101773	S19101774	S19101775
Ag	1,66	0.1	mg/kg	2,01	1,5	1,47
As	1,04	0.1	mg/kg	1,15	1,15	0,83
Bi	0,20	0.1	mg/kg	0,25	0,18	0,18
Cd	0,57	0.1	mg/kg	0,56	0,58	0,56
Ce	10,13	0.1	mg/kg	10,1	10	10,3
Dy	0,55	0.1	mg/kg	0,55	0,54	0,56
Er	0,34	0.05	mg/kg	0,34	0,34	0,34
Eu	0,66	0.05	mg/kg	0,66	0,66	0,67
Gd	0,69	0.05	mg/kg	0,69	0,68	0,69
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,11	0.01	mg/kg	0,11	0,11	0,11
La	5,16	0.1	mg/kg	5,14	5,15	5,19
Lu	0,05	0.01	mg/kg	0,05	0,05	0,05
Nb	1,87	1	mg/kg	1,87	1,96	1,78
Nd	4,48	0.2	mg/kg	4,49	4,41	4,55
Pr	1,16	0.1	mg/kg	1,16	1,16	1,17
Sb	0,22	0.2	mg/kg	0,22	<0.2	<0.2
Sm	0,77	0.01	mg/kg	0,76	0,77	0,77
Sn		2	mg/kg	<2	<2	<2
Ta	0,42	0.2	mg/kg	0,39	0,42	0,46
Tb	0,09	0.01	mg/kg	0,09	0,09	0,1
Th	0,74	0.5	mg/kg	0,73	0,7	0,78
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,05	0.01	mg/kg	0,05	0,05	0,05
U	0,23	0.2	mg/kg	0,23	0,22	0,23
Y	2,96	0.1	mg/kg	2,95	2,95	2,97
Yb	0,32	0.1	mg/kg	0,33	0,32	0,32

Table F2.7. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample TZ1

Parameter	SKC-TZ1	Detection Limit	Sample Label	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/3
	Average		EF Sample ID	S19101776	S19101777	S19101778
Ag	1,01	0.1	mg/kg	1,02	1	1,02
As	0,68	0.1	mg/kg	0,69	0,62	0,74
Bi	0,24	0.1	mg/kg	0,24	0,19	0,28
Cd	0,61	0.1	mg/kg	0,62	0,61	0,59
Ce	10,07	0.1	mg/kg	10,3	10	9,92
Dy	1,10	0.1	mg/kg	1,12	1,1	1,09
Er	0,66	0.05	mg/kg	0,67	0,66	0,65
Eu	0,61	0.05	mg/kg	0,62	0,61	0,6
Gd	1,21	0.05	mg/kg	1,23	1,2	1,19
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,22	0.01	mg/kg	0,23	0,22	0,22
La	5,17	0.1	mg/kg	5,34	5,12	5,06
Lu	0,10	0.01	mg/kg	0,1	0,1	0,1
Nb	1,64	1	mg/kg	1,75	1,58	1,59
Nd	5,34	0.2	mg/kg	5,51	5,26	5,24
Pr	1,22	0.1	mg/kg	1,25	1,22	1,2
Sb		0.2	mg/kg	<0.2	<0.2	<0.2
Sm	1,21	0.01	mg/kg	1,24	1,19	1,2
Sn		2	mg/kg	<2	<2	<2
Ta	0,36	0.2	mg/kg	0,38	0,35	0,34
Tb	0,18	0.01	mg/kg	0,18	0,18	0,18
Th	0,81	0.5	mg/kg	0,82	0,8	0,81
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,10	0.01	mg/kg	0,1	0,1	0,1
U	0,34	0.2	mg/kg	0,36	0,33	0,34
Y	5,88	0.1	mg/kg	6,03	5,83	5,78
Yb	0,65	0.1	mg/kg	0,65	0,65	0,65

Table F2.8. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample TZ2

Parameter	SKC-TZ2	Detection Limit	Sample Label	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
	Average		EF Sample ID	S19101779	S19101780	S19101781
Ag	0,90	0.1	mg/kg	0,89	0,86	0,94
As	0,64	0.1	mg/kg	0,66	0,5	0,75
Bi	0,20	0.1	mg/kg	0,19	0,18	0,22
Cd	0,46	0.1	mg/kg	0,45	0,46	0,46
Ce	8,55	0.1	mg/kg	8,45	8,53	8,67
Dy	0,76	0.1	mg/kg	0,75	0,75	0,77
Er	0,46	0.05	mg/kg	0,45	0,46	0,47
Eu	0,43	0.05	mg/kg	0,42	0,43	0,43
Gd	0,81	0.05	mg/kg	0,8	0,82	0,81
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,15	0.01	mg/kg	0,15	0,15	0,16
La	4,15	0.1	mg/kg	4,12	4,12	4,22
Lu	0,06	0.01	mg/kg	0,06	0,06	0,07
Nb	1,38	1	mg/kg	1,47	1,34	1,32
Nd	4,16	0.2	mg/kg	4,09	4,15	4,25
Pr	1,02	0.1	mg/kg	1,01	1,03	1,03
Sb		0.2	mg/kg	<0.2	<0.2	<0.2
Sm	0,83	0.01	mg/kg	0,84	0,83	0,82
Sn		2	mg/kg	<2	<2	<2
Ta	0,28	0.2	mg/kg	0,3	0,28	0,26
Tb	0,12	0.01	mg/kg	0,12	0,12	0,12
Th	0,53	0.5	mg/kg	0,54	0,52	0,53
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,07	0.01	mg/kg	0,07	0,07	0,07
U		0.2	mg/kg	<0.2	<0.2	<0.2
Y	3,93	0.1	mg/kg	3,9	3,92	3,96
Yb	0,44	0.1	mg/kg	0,43	0,44	0,44

Table F2.9. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample BAS1

Parameter	SKC-BAS1	Detection Limit	Sample Label	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
	Average		EF Sample ID	S19101782	S19101783	S19101784
Ag	2,19	0.1	mg/kg	2,16	2,2	2,2
As	1,22	0.1	mg/kg	1,44	1,07	1,14
Bi	0,23	0.1	mg/kg	0,24	0,23	0,23
Cd	2,05	0.1	mg/kg	2,09	2	2,05
Ce	15,13	0.1	mg/kg	15,1	15	15,3
Dy	0,46	0.1	mg/kg	0,46	0,46	0,47
Er	0,26	0.05	mg/kg	0,26	0,26	0,26
Eu	0,69	0.05	mg/kg	0,68	0,69	0,7
Gd	0,75	0.05	mg/kg	0,73	0,76	0,77
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,09	0.01	mg/kg	0,09	0,09	0,09
La	7,63	0.1	mg/kg	7,62	7,56	7,72
Lu	0,03	0.01	mg/kg	0,03	0,03	0,04
Nb	1,52	1	mg/kg	1,52	1,53	1,52
Nd	6,55	0.2	mg/kg	6,54	6,48	6,63
Pr	1,71	0.1	mg/kg	1,7	1,7	1,74
Sb	0,30	0.2	mg/kg	0,28	0,35	0,26
Sm	0,97	0.01	mg/kg	0,96	0,96	0,99
Sn		2	mg/kg	<2	<2	<2
Ta	0,40	0.2	mg/kg	0,37	0,47	0,36
Tb	0,09	0.01	mg/kg	0,09	0,09	0,09
Th	0,62	0.5	mg/kg	0,62	0,62	0,63
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,04	0.01	mg/kg	0,04	0,04	0,04
U		0.2	mg/kg	<0.2	<0.2	<0.2
Y	2,26	0.1	mg/kg	2,22	2,29	2,27
Yb	0,24	0.1	mg/kg	0,23	0,24	0,24

Table F2.10. Four-acid digestion and Multi-element analysis by ICP-MS-technique (Method 306M) – Sample BAS2

Parameter	SKC-BAS2	Detection Limit	Sample Label	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
	Average		EF Sample ID	S19101785	S19101786	S19101787
Ag	0,99	0.1	mg/kg	0,99	0,99	1
As	0,55	0.1	mg/kg	0,56	0,53	0,57
Bi	0,37	0.1	mg/kg	0,35	0,46	0,3
Cd	0,50	0.1	mg/kg	0,51	0,5	0,5
Ce	7,65	0.1	mg/kg	7,66	7,6	7,68
Dy	1,38	0.1	mg/kg	1,38	1,37	1,39
Er	0,87	0.05	mg/kg	0,87	0,87	0,87
Eu	0,66	0.05	mg/kg	0,67	0,65	0,67
Gd	1,30	0.05	mg/kg	1,3	1,31	1,28
Hf		0.5	mg/kg	<0.5	<0.5	<0.5
Ho	0,29	0.01	mg/kg	0,29	0,29	0,29
La	3,98	0.1	mg/kg	3,99	3,95	4
Lu	0,13	0.01	mg/kg	0,13	0,13	0,13
Nb	1,12	1	mg/kg	1,15	<1	1,08
Nd	4,30	0.2	mg/kg	4,31	4,27	4,31
Pr	0,95	0.1	mg/kg	0,95	0,95	0,95
Sb	0,24	0.2	mg/kg	0,2	0,24	0,28
Sm	1,11	0.01	mg/kg	1,13	1,11	1,09
Sn		2	mg/kg	<2	<2	<2
Ta	0,23	0.2	mg/kg	0,26	0,21	0,23
Tb	0,21	0.01	mg/kg	0,21	0,21	0,21
Th		0.5	mg/kg	<0.5	<0.5	<0.5
Tl		0.5	mg/kg	<0.5	<0.5	<0.5
Tm	0,13	0.01	mg/kg	0,13	0,13	0,13
U		0.2	mg/kg	<0.2	<0.2	<0.2
Y	7,17	0.1	mg/kg	7,16	7,15	7,19
Yb	0,86	0.1	mg/kg	0,86	0,87	0,86

Table F3.1. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample PM1

Parameter	Detection Limit	Sample Label	SKC-PM1	SKC-PM1/1	SKC-PM1/1 (2)	SKC-PM1/2	SKC-PM1/3
		EF Sample ID	Average	S19101758	S19101758	S19101759	S19101760
Al	50	mg/kg	32425,00	32600	32100	32600	32400
Ba	2	mg/kg		<2	<2	<2	<2
Be	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5
Ca	50	mg/kg	35975,00	36400	35600	35900	36000
Co	2	mg/kg	121,50	123	119	121	123
Cr	2	mg/kg	445,00	441	439	461	439
Cu	2	mg/kg	1157,50	1160	1160	1180	1130
Fe	50	mg/kg	83850,00	83700	82600	84600	84500
K	100	mg/kg		<100	<100	<100	<100
Li	2	mg/kg	3,00	<2	4	<2	2
Mg	50	mg/kg	145500,00	146000	144000	146000	146000
Mn	2	mg/kg	1215,00	1250	1220	1150	1240
Mo	2	mg/kg	2,50	2,5	<2	<2	<2
Na	50	mg/kg	69,50	72	63	73	70
Ni	2	mg/kg	1567,50	1570	1530	1590	1580
P	50	mg/kg	53,00	52	56	<50	51
Pb	10	mg/kg		<10	<10	<10	<10
Rb	2	mg/kg		<2	<2	<2	<2
S	50	mg/kg	4422,50	4380	4350	4480	4480
Sc	1	mg/kg	16,73	16,8	16,6	17	16,5
Sr	1	mg/kg	10,48	10,8	10,9	10,2	10
Ti	2	mg/kg	660,00	673	677	647	643
V	2	mg/kg	55,60	56,1	56,1	54,4	55,8
Zn	2	mg/kg	76,00	75	81	75	73
Zr	2	mg/kg	5,38	5,2	5,4	5,5	5,4

Table F3.2. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample PM2

Parameter	Detection Limit	Sample Label	SKC-PM2	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
		EF Sample ID	Average	S19101761	S19101762	S19101763
Al	50	mg/kg	22833,33	22600	22800	23100
Ba	2	mg/kg		<2	<2	<2
Be	0.5	mg/kg		<0.5	<0.5	<0.5
Ca	50	mg/kg	14266,67	14100	14500	14200
Co	2	mg/kg	154,33	153	154	156
Cr	2	mg/kg	152,00	150	154	152
Cu	2	mg/kg	1220,00	1220	1240	1200
Fe	50	mg/kg	101666,67	101000	102000	102000
K	100	mg/kg		<100	<100	<100
Li	2	mg/kg	3,67	3	4	4
Mg	50	mg/kg	162333,33	162000	163000	162000
Mn	2	mg/kg	1203,33	1160	1200	1250
Mo	2	mg/kg	2,20	2,2	<2	<2
Na	50	mg/kg	118,00	51	51	252
Ni	2	mg/kg	2293,33	2290	2260	2330
P	50	mg/kg	70,00	60	70	80
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg		<2	<2	<2
S	50	mg/kg	5430,00	5430	5420	5440
Sc	1	mg/kg	11,20	11,1	11,2	11,3
Sr	1	mg/kg	9,67	9,5	9,8	9,7
Ti	2	mg/kg	729,00	696	741	750
V	2	mg/kg	50,47	48,7	51,2	51,5
Zn	2	mg/kg	79,33	76	82	80
Zr	2	mg/kg	4,40	5,5	3,3	4,4

Table F3.3. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample PX1

Parameter	Detection Limit	Sample Label	SKC-PX1	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
		EF Sample ID	Average	S19101764	S19101765	S19101766
Al	50	mg/kg	33033,33	32700	33100	33300
Ba	2	mg/kg		<2	<2	<2
Be	0.5	mg/kg		<0.5	<0.5	<0.5
Ca	50	mg/kg	52700,00	52400	52800	52900
Co	2	mg/kg	108,33	107	108	110
Cr	2	mg/kg	604,00	600	594	618
Cu	2	mg/kg	1190,00	1180	1200	1190
Fe	50	mg/kg	79166,67	78000	79000	80500
K	100	mg/kg		<100	<100	<100
Li	2	mg/kg	8,00	8	8	8
Mg	50	mg/kg	135000,00	133000	135000	137000
Mn	2	mg/kg	1350,00	1370	1380	1300
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	167,67	174	162	167
Ni	2	mg/kg	1380,00	1360	1370	1410
P	50	mg/kg	57,67	53	65	55
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg		<2	<2	<2
S	50	mg/kg	3833,33	3820	3780	3900
Sc	1	mg/kg	20,57	20,3	20,6	20,8
Sr	1	mg/kg	4,70	4,8	4,7	4,6
Ti	2	mg/kg	826,33	780	848	851
V	2	mg/kg	63,73	61,9	64	65,3
Zn	2	mg/kg	85,67	85	86	86
Zr	2	mg/kg	9,13	8,8	8,6	10

Table F3.4. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample PX2

Parameter	Detection Limit	Sample Label	SKC-PX2	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
		EF Sample ID	Average	S19101767	S19101768	S19101769
Al	50	mg/kg	27866,67	28100	27900	27600
Ba	2	mg/kg		<2	2	3
Be	0.5	mg/kg		<0.5	<0.5	<0.5
Ca	50	mg/kg	65866,67	66400	66200	65000
Co	2	mg/kg	80,53	80,4	80	81,2
Cr	2	mg/kg	638,67	626	658	632
Cu	2	mg/kg	433,33	430	432	438
Fe	50	mg/kg	74266,67	74100	75900	72800
K	100	mg/kg		<100	<100	<100
Li	2	mg/kg	5,67	7	5	5
Mg	50	mg/kg	119333,33	120000	120000	118000
Mn	2	mg/kg	1913,33	1910	1870	1960
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	460,00	460	461	459
Ni	2	mg/kg	935,33	941	939	926
P	50	mg/kg		<50	<50	<50
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg		<2	<2	<2
S	50	mg/kg	238,67	233	241	242
Sc	1	mg/kg	29,03	29,1	29,4	28,6
Sr	1	mg/kg	8,57	8,9	8,4	8,4
Ti	2	mg/kg	1143,33	1110	1160	1160
V	2	mg/kg	82,10	82,6	82,5	81,2
Zn	2	mg/kg	111,00	113	111	109
Zr	2	mg/kg	27,50	29,2	26,8	26,5

Table F3.5. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample MS1

Parameter	Detection Limit	Sample Label	SKC-MS1	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
		EF Sample ID	Average	S19101770	S19101771	S19101772
Al	50	mg/kg	37066,67	37600	37000	36600
Ba	2	mg/kg	108,67	108	111	107
Be	0.5	mg/kg		<0.5	<0.5	<0.5
Ca	50	mg/kg	68800,00	69500	68700	68200
Co	2	mg/kg	78,63	77,5	80,9	77,5
Cr	2	mg/kg	667,67	665	674	664
Cu	2	mg/kg	1770,00	1790	1780	1740
Fe	50	mg/kg	77833,33	78200	78600	76700
K	100	mg/kg	2686,67	2700	2720	2640
Li	2	mg/kg	21,67	23	22	20
Mg	50	mg/kg	81333,33	82500	81700	79800
Mn	2	mg/kg	1720,00	1740	1720	1700
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	7913,33	8020	7880	7840
Ni	2	mg/kg	1296,67	1280	1320	1290
P	50	mg/kg	123,00	121	129	119
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg	11,33	11	11	12
S	50	mg/kg	5713,33	5630	5880	5630
Sc	1	mg/kg	43,63	44	43,6	43,3
Sr	1	mg/kg	117,33	119	117	116
Ti	2	mg/kg	1703,33	1700	1710	1700
V	2	mg/kg	132,67	135	133	130
Zn	2	mg/kg	103,67	104	105	102
Zr	2	mg/kg	18,20	17,9	19,2	17,5

Table F3.6. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample MS2

Parameter	Detection Limit	Sample Label	SKC-MS2	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
		EF Sample ID	Average	S19101773	S19101774	S19101775
Al	50	mg/kg	96800,00	97000	96800	96600
Ba	2	mg/kg	345,67	346	347	344
Be	0.5	mg/kg	0,50	<0.5	0,5	0,5
Ca	50	mg/kg	46233,33	46300	46300	46100
Co	2	mg/kg	57,67	56,9	57,3	58,8
Cr	2	mg/kg	319,33	322	318	318
Cu	2	mg/kg	2016,67	2010	2020	2020
Fe	50	mg/kg	47333,33	47100	47600	47300
K	100	mg/kg	9676,67	9650	9740	9640
Li	2	mg/kg	47,00	44	49	48
Mg	50	mg/kg	50966,67	50700	51100	51100
Mn	2	mg/kg	680,00	694	690	656
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	27566,67	27600	27600	27500
Ni	2	mg/kg	1296,67	1290	1300	1300
P	50	mg/kg	113,33	119	104	117
Pb	10	mg/kg	12,67	10	16	12
Rb	2	mg/kg	44,00	44	45	43
S	50	mg/kg	3990,00	4000	3940	4030
Sc	1	mg/kg	12,90	12,9	12,9	12,9
Sr	1	mg/kg	470,67	470	472	470
Ti	2	mg/kg	887,67	885	893	885
V	2	mg/kg	48,60	48,7	47,7	49,4
Zn	2	mg/kg	76,67	76	77	77
Zr	2	mg/kg	13,07	14,8	11,5	12,9

Table F3.7. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample TZ1

Parameter	Detection Limit	Sample Label	SKC-TZ1	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/2 (2)	SKC-TZ1/3
		EF Sample ID	Average	S19101776	S19101777	S19101777	S19101778
Al	50	mg/kg	85100,00	85100	85500	85000	84800
Ba	2	mg/kg	231,75	229	233	232	233
Be	0.5	mg/kg	0,50	0,5	0,5	<0.5	0,5
Ca	50	mg/kg	59850,00	59700	60300	59800	59600
Co	2	mg/kg	61,35	60,1	60,3	61,9	63,1
Cr	2	mg/kg	243,50	229	248	249	248
Cu	2	mg/kg	2125,00	2090	2120	2120	2170
Fe	50	mg/kg	56125,00	55800	55800	56200	56700
K	100	mg/kg	4957,50	4870	4980	4950	5030
Li	2	mg/kg	24,75	26	24	24	25
Mg	50	mg/kg	43075,00	42700	42900	43100	43600
Mn	2	mg/kg	823,00	712	667	931	982
Mo	2	mg/kg		<2	<2	<2	<2
Na	50	mg/kg	22225,00	22300	22400	22300	21900
Ni	2	mg/kg	1170,00	1150	1160	1160	1210
P	50	mg/kg	105,75	100	99	110	114
Pb	10	mg/kg	11,00	10	<10	<10	12
Rb	2	mg/kg	13,50	14	13	13	14
S	50	mg/kg	5970,00	5820	5990	5940	6130
Sc	1	mg/kg	21,70	21,5	21,7	21,8	21,8
Sr	1	mg/kg	497,25	500	502	500	487
Ti	2	mg/kg	1357,50	1340	1370	1360	1360
V	2	mg/kg	79,35	77,5	76,6	80,3	83
Zn	2	mg/kg	75,25	76	75	74	76
Zr	2	mg/kg	11,88	12,1	11,5	12	11,9

Table F3.8. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample TZ2

Parameter	Detection Limit	Sample Label	SKC-TZ2	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
		EF Sample ID	Average	S19101779	S19101780	S19101781
Al	50	mg/kg	87466,67	87000	88000	87400
Ba	2	mg/kg	208,67	209	209	208
Be	0.5	mg/kg		<0.5	<0.5	<0.5
Ca	50	mg/kg	61366,67	61000	61700	61400
Co	2	mg/kg	66,67	68,2	65,3	66,5
Cr	2	mg/kg	453,67	459	449	453
Cu	2	mg/kg	1480,00	1470	1470	1500
Fe	50	mg/kg	55800,00	55600	55700	56100
K	100	mg/kg	6563,33	6620	6570	6500
Li	2	mg/kg	34,67	36	33	35
Mg	50	mg/kg	55066,67	55000	55100	55100
Mn	2	mg/kg	746,67	749	709	782
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	18100,00	18000	18200	18100
Ni	2	mg/kg	942,00	951	932	943
P	50	mg/kg	103,33	107	103	100
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg	28,33	29	29	27
S	50	mg/kg	7326,67	7250	7270	7460
Sc	1	mg/kg	21,80	21,6	21,8	22
Sr	1	mg/kg	493,67	492	496	493
Ti	2	mg/kg	1216,67	1230	1210	1210
V	2	mg/kg	77,03	77,1	76,2	77,8
Zn	2	mg/kg	68,33	68	68	69
Zr	2	mg/kg	8,73	7,7	9,8	8,7

Table F3.9. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample BAS1

Parameter	Detection Limit	Sample Label	SKC-BAS1	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
		EF Sample ID	Average	S19101782	S19101783	S19101784
Al	50	mg/kg	109333,33	109000	107000	112000
Ba	2	mg/kg	451,00	448	439	466
Be	0.5	mg/kg	0,55	0,5	<0.5	0,6
Ca	50	mg/kg	37033,33	36900	36300	37900
Co	2	mg/kg	79,80	79,5	78	81,9
Cr	2	mg/kg	166,33	160	163	176
Cu	2	mg/kg	1670,00	1670	1620	1720
Fe	50	mg/kg	44366,67	44000	43400	45700
K	100	mg/kg	12700,00	12600	12400	13100
Li	2	mg/kg	47,67	47	47	49
Mg	50	mg/kg	27066,67	26800	26400	28000
Mn	2	mg/kg	545,33	543	530	563
Mo	2	mg/kg	2,15	<2	2,1	2,2
Na	50	mg/kg	39233,33	39200	38500	40000
Ni	2	mg/kg	1726,67	1720	1670	1790
P	50	mg/kg	170,33	166	169	176
Pb	10	mg/kg	101,00	99	99	105
Rb	2	mg/kg	53,67	54	53	54
S	50	mg/kg	9213,33	9240	8980	9420
Sc	1	mg/kg	6,63	6,6	6,5	6,8
Sr	1	mg/kg	654,67	654	642	668
Ti	2	mg/kg	942,33	930	919	978
V	2	mg/kg	33,93	34,6	33,1	34,1
Zn	2	mg/kg	399,00	395	383	419
Zr	2	mg/kg	10,40	9,6	10,6	11

Table F3.10. Four-acid digestion and Multi-element analysis by ICP-OES-technique (Method 306P) – Sample BAS2

Parameter	Detection Limit	Sample Label	SKC-BAS2	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
		EF Sample ID	Average	S19101785	S19101786	S19101787
Al	50	mg/kg	88800,00	88600	89400	88400
Ba	2	mg/kg	196,00	192	196	200
Be	0.5	mg/kg	0,50	0,5	<0.5	<0.5
Ca	50	mg/kg	55600,00	55100	55700	56000
Co	2	mg/kg	51,03	48,9	52,9	51,3
Cr	2	mg/kg	348,00	343	350	351
Cu	2	mg/kg	5026,67	4950	5070	5060
Fe	50	mg/kg	68566,67	68000	69500	68200
K	100	mg/kg	4420,00	4350	4440	4470
Li	2	mg/kg	34,33	34	35	34
Mg	50	mg/kg	48000,00	47500	48700	47800
Mn	2	mg/kg	891,00	845	915	913
Mo	2	mg/kg		<2	<2	<2
Na	50	mg/kg	25733,33	25600	25700	25900
Ni	2	mg/kg	582,67	575	591	582
P	50	mg/kg	83,00	87	80	82
Pb	10	mg/kg		<10	<10	<10
Rb	2	mg/kg	19,33	19	21	18
S	50	mg/kg	6963,33	6840	7030	7020
Sc	1	mg/kg	23,93	23,6	24	24,2
Sr	1	mg/kg	395,00	392	392	401
Ti	2	mg/kg	1930,00	1900	1940	1950
V	2	mg/kg	121,33	120	123	121
Zn	2	mg/kg	106,67	113	104	103
Zr	2	mg/kg	6,43	6,2	6,6	6,5

Table F4. Determination of Sulphur by sulphur analyzer (Method Eltra 810L) and Determination of carbon by carbon analyzer (Method Eltra 811L)

Analytical method description Analytical method Parameter Detection Limit Sample Label	Analysis of Sulphur by combustion technique 810L S 0.05 (%)	Analysis of Carbon by combustion technique 811L C 0.03 (%)	EuroFins Labtium Sample ID
SKC-PM1/1	0,388	1,146	S19101758
SKC-PM1/2	0,441	1,186	S19101759
SKC-PM1/3	0,425	1,169	S19101760
Average	**0,42**	**1,17**	
SKC-PM2/1	0,487	2,45	S19101761
SKC-PM2/2	0,481	2,463	S19101762
SKC-PM2/3	0,545	2,524	S19101763
Average	**0,50**	**2,48**	
SKC-PX1/1	0,35	0,0511	S19101764
SKC-PX1/2	0,311	0,0602	S19101765
SKC-PX1/3	0,35	0,0567	S19101766
Average	**0,34**	**0,06**	
SKC-PX2/1	<0.05	0,0364	S19101767
SKC-PX2/2	<0.05	0,032	S19101768
SKC-PX2/3	0,0543	0,0411	S19101769
Average	**0,05**	**0,04**	
SKC-MS1/1	0,524	0,0416	S19101770
SKC-MS1/2	0,458	0,0432	S19101771
SKC-MS1/3	0,497	0,0417	S19101772
Average	**0,49**	**0,04**	
SKC-MS2/1	0,37	<0.03	S19101773
SKC-MS2/2	0,39	0,0331	S19101774
SKC-MS2/3	0,347	<0.03	S19101775
Average	**0,37**	**0,03**	
SKC-TZ1/1	0,479	<0.03	S19101776
SKC-TZ1/2	0,519	0,0329	S19101777
SKC-TZ1/3	0,533	0,0333	S19101778
Average	**0,53**	**0,03**	
SKC-TZ2/1	0,663	<0.03	S19101779
SKC-TZ2/2	0,646	<0.03	S19101780
SKC-TZ2/3	0,644	0,0301	S19101781
Average	**0,65**	**0,03**	
SKC-BAS1/1	0,948	0,0403	S19101782
SKC-BAS1/2	0,906	0,0374	S19101783
SKC-BAS1/3	0,854	0,0349	S19101784
Average	**0,90**	**0,04**	
SKC-BAS2/1	0,613	<0.03	S19101785
SKC-BAS2/2	0,519	<0.03	S19101786
SKC-BAS2/3	0,639	<0.03	S19101787
Average	**0,59**		

20 APPENDIX G – X-RAY FLUORESCENCE XRF DATA

A sub-sample of each of the SAP Konttijärvi Orientation samples were characterized with XRF at X-Ray Mineral Services Ltd (United Kingdom).

Table G1.1. Multi-element analysis by XRF

Sample	V (ppm)	Cr (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	Ga (ppm)	Ge (ppm)	As (ppm)	Se (ppm)	Rb (ppm)	Sr (ppm)	Y (ppm)	Zr (ppm)
SKC-PM1	65	746	**77**	**1420**	**1000**	80	6	4	ND	3	5	ND	ND	29
SKC-PM2	66	378	**94**	**2210**	**1110**	88	5	ND	ND	2	11	ND	5	31
SKC-PX1	70	914	**80**	**1260**	**1040**	89	6	ND	ND	3	3	ND	6	32
SKC-PX2	92	1250	**89**	**956**	**363**	114	7	ND	ND	ND	5	ND	9	44
SKC-MS1	117	850	**53**	**1220**	**1740**	113	11	3	ND	4	12	114	11	41
SKC-MS2	38	449	**ND**	**1190**	**1870**	87	17	ND	ND	4	39	465	ND	43
SKC-TZ1	81	347	**ND**	**1060**	**2110**	85	20	2	ND	3	12	489	7	42
SKC-TZ2	85	601	**25**	**810**	**1440**	80	16	ND	ND	3	26	479	ND	37
SKC-BAS1	38	262	**10**	**1490**	**1610**	400	29	ND	9	4	48	649	ND	45
SKC-BAS2	117	484	**ND**	**517**	**4870**	128	19	ND	ND	4	19	375	7	30

Note: ND = Not determined (abundance < LOD (limit of detection), see below)

Element	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Rb	Sr	Y	Zr
LOD	37	39	10	11	10	7	3	2	5	2	3	30	5	5

Table G1.1. Multi-element analysis by XRF

Sample	Nb (ppm)	Mo (ppm)	Sn (ppm)	Sb (ppm)	Cs (ppm)	Ba (ppm)	La (ppm)	Ce (ppm)	Nd (ppm)	Hf (ppm)	Pb (ppm)	Th (ppm)	U (ppm)
SKC-PM1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SKC-PM2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	5	ND
SKC-PX1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SKC-PX2	ND	ND	ND	ND	ND	ND	ND	9	7	ND	ND	ND	ND
SKC-MS1	ND	ND	ND	ND	ND	110	8	16	ND	ND	11	ND	ND
SKC-MS2	ND	ND	ND	ND	ND	346	ND	17	ND	ND	24	ND	ND
SKC-TZ1	ND	ND	ND	ND	ND	229	ND	13	ND	ND	19	ND	ND
SKC-TZ2	ND	ND	ND	ND	ND	206	ND	10	ND	ND	15	ND	ND
SKC-BAS1	ND	ND	ND	ND	ND	446	6	22	6	ND	106	ND	ND
SKC-BAS2	ND	ND	ND	ND	ND	183	ND	ND	6	ND	13	ND	ND

Note: ND = Not determined (abundance < LOD (limit of detection), see below)

Element	Nb	Mo	Sn	Sb	Cs	Ba	La	Ce	Nd	Hf	Pb	Th	U
LOD	5	20	2	2	3	56	6	9	2	4	5	2	2

The following XRF measurements were taken by EuroFins Labtium Oy on the SAP Orientation Samples. Measurements were taken on a representative sub-sample. This was done to have a base line reference measurement that later process products could be compared to.

Table G2.1. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PM1

Parameter	Detection Limit	Sample Label	SKC-PM1/1	SKC-PM1/2	SKC-PM1/3
		EF Sample ID	S19101758	S19101759	S19101760
SiO_2	0.1	%	44,1	44,2	43,9
TiO_2	0.005	%	0,11	0,11	0,11
Al_2O_3	0.006	%	7	7,06	7,06
Cr_2O_3	0.002	%	0,095	0,096	0,099
V_2O_3	0.002	%	0,009	0,01	0,01
FeO	0.01	%	11,9	11,9	11,8
MnO	0.01	%	0,16	0,16	0,15
MgO	0.05	%	25,9	26	25,8
CaO	0.01	%	5,53	5,49	5,5
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	<0.01	<0.01	<0.01
BaO	0.01	%	<0.01	<0.01	<0.01
Na_2O	0.01	%	0,01	0,01	0,01
K2O	0.01	%	<0.01	<0.01	<0.01
ZrO_2	0.001	%	0,002	0,002	0,002
P_2O_5	0.01	%	0,039	0,028	0,023
OxSumm		%	96,7	97	96,3

Parameter	Detection Limit	Sample Label	SKC-PM1/1	SKC-PM1/2	SKC-PM1/3
		EF Sample ID	S19101758	S19101759	S19101760
Cu	0.0005	%	0,13	0,13	0,12
Ni	0.001	%	0,17	0,17	0,17
Co	0.01	%	0,021	0,017	0,015
Zn	0.001	%	0,008	0,009	0,009
Pb	0.005	%	0,005	0,005	<0.005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,44	0,42	0,42
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,012	0,011	0,013
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.2. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PM1

Parameter	Detection Limit	Sample Label	SKC-PM1/1	SKC-PM1/2	SKC-PM1/3
		EF Sample ID	S19101758	S19101759	S19101760
Th	0.001	%	0,002	0,002	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,002	0,002	0,002
La	0.001	%	0,002	0,002	0,003
Ce	0.001	%	0,002	0,001	<0.001
Ta	0.002	%	<0.002	0,002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	20,6	20,7	20,5
Ti	0.003	%	0,068	0,066	0,067
Cr	0.001	%	0,065	0,066	0,067
V	0.001	%	0,006	0,007	0,007
Fe	0.005	%	9,28	9,28	9,2
Mn	0.008	%	0,12	0,12	0,12
Mg	0.03	%	15,6	15,7	15,6
Ca	0.004	%	3,95	3,92	3,93
Ba	0.004	%	<0.004	<0.004	<0.004
C	0.01	%	1,15	1,19	1,17

Table G2.3. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PM2

Parameter	Detection Limit	Sample Label	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
		EF Sample ID	S19101761	S19101762	S19101763
SiO_2	0.1	%	44,4	45,1	44,9
TiO_2	0.005	%	0,12	0,11	0,11
Al_2O_3	0.006	%	4,32	4,31	4,23
Cr_2O_3	0.002	%	0,032	0,03	0,03
V_2O_3	0.002	%	0,009	0,008	0,008
FeO	0.01	%	14,3	13,7	13,8
MnO	0.01	%	0,16	0,16	0,17
MgO	0.05	%	29,6	29,6	29,6
CaO	0.01	%	2,26	2,24	2,34
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	<0.01	<0.01	<0.01
BaO	0.01	%	<0.01	<0.01	<0.01
Na_2O	0.01	%	0,01	<0.01	<0.01
K2O	0.01	%	<0.01	<0.01	<0.01
ZrO_2	0.001	%	0,003	0,003	0,003
P_2O_5	0.01	%	0,019	0,018	0,018
OxSumm		%	98,5	98,5	98,5

Parameter	Detection Limit	Sample Label	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
		EF Sample ID	S19101761	S19101762	S19101763
Cu	0.0005	%	0,14	0,13	0,14
Ni	0.001	%	0,26	0,25	0,26
Co	0.01	%	0,021	0,022	0,018
Zn	0.001	%	0,01	0,008	0,009
Pb	0.005	%	0,006	0,005	<0.005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,47	0,42	0,42
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,012	0,012	0,013
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,004
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.4. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PM2

Parameter	Detection Limit	Sample Label	SKC-PM2/1	SKC-PM2/2	SKC-PM2/3
		EF Sample ID	S19101761	S19101762	S19101763
Th	0.001	%	0,002	<0.001	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,002	<0.002	0,002
La	0.001	%	0,001	0,004	0,003
Ce	0.001	%	0,001	0,002	<0.001
Ta	0.002	%	<0.002	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	20,8	21,1	21
Ti	0.003	%	0,073	0,068	0,067
Cr	0.001	%	0,022	0,02	0,02
V	0.001	%	0,006	0,006	0,006
Fe	0.005	%	11,1	10,7	10,8
Mn	0.008	%	0,13	0,13	0,13
Mg	0.03	%	17,8	17,8	17,8
Ca	0.004	%	1,61	1,6	1,67
Ba	0.004	%	0,004	<0.004	0,004
C	0.01	%	2,45	2,46	2,52

Table G2.5. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PX1

Parameter	Detection Limit	Sample Label	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
		EF Sample ID	S19101764	S19101765	S19101766
SiO_2	0.1	%	47,4	47,6	47,4
TiO_2	0.005	%	0,14	0,14	0,13
Al_2O_3	0.006	%	6,49	6,6	6,7
Cr_2O_3	0.002	%	0,123	0,126	0,125
V_2O_3	0.002	%	0,011	0,012	0,01
FeO	0.01	%	10,6	10,7	10,7
MnO	0.01	%	0,16	0,16	0,16
MgO	0.05	%	22,5	22,7	22,8
CaO	0.01	%	7,73	7,82	7,73
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	<0.01	<0.01	<0.01
BaO	0.01	%	<0.01	<0.01	<0.01
Na_2O	0.01	%	0,02	0,02	0,02
K2O	0.01	%	<0.01	<0.01	<0.01
ZrO_2	0.001	%	0,002	0,003	0,003
P_2O_5	0.01	%	0,018	0,018	0,018
OxSumm		%	95,8	96,6	96,4

Parameter	Detection Limit	Sample Label	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
		EF Sample ID	S19101764	S19101765	S19101766
Cu	0.0005	%	0,12	0,13	0,13
Ni	0.001	%	0,14	0,15	0,15
Co	0.01	%	0,019	0,016	0,015
Zn	0.001	%	0,009	0,008	0,009
Pb	0.005	%	<0.005	0,005	<0.005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,4	0,4	0,39
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,012	0,011	0,012
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.6. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PX1

Parameter	Detection Limit	Sample Label	SKC-PX1/1	SKC-PX1/2	SKC-PX1/3
		EF Sample ID	S19101764	S19101765	S19101766
Th	0.001	%	<0.001	<0.001	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	<0.002	0,002	<0.002
La	0.001	%	0,001	0,002	0,003
Ce	0.001	%	0,002	0,001	<0.001
Ta	0.002	%	0,002	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	22,1	22,3	22,2
Ti	0.003	%	0,081	0,083	0,079
Cr	0.001	%	0,084	0,086	0,086
V	0.001	%	0,007	0,008	0,007
Fe	0.005	%	8,23	8,3	8,29
Mn	0.008	%	0,13	0,13	0,13
Mg	0.03	%	13,5	13,7	13,8
Ca	0.004	%	5,52	5,59	5,52
Ba	0.004	%	0,004	<0.004	<0.004
C	0.01	%	0,051	0,06	0,057

Table G2.7. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PX2

Parameter	Detection Limit	Sample Label	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
		EF Sample ID	S19101767	S19101768	S19101769
SiO_2	0.1	%	49,6	49,1	49
TiO_2	0.005	%	0,22	0,23	0,23
Al_2O_3	0.006	%	5,29	5,43	5,46
Cr_2O_3	0.002	%	0,176	0,175	0,178
V_2O_3	0.002	%	0,017	0,017	0,016
FeO	0.01	%	11,7	11,6	11,6
MnO	0.01	%	0,29	0,29	0,29
MgO	0.05	%	19,7	19,7	19,6
CaO	0.01	%	9,64	9,52	9,55
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	<0.01	<0.01	<0.01
BaO	0.01	%	<0.01	<0.01	<0.01
Na_2O	0.01	%	0,06	0,06	0,06
K2O	0.01	%	<0.01	<0.01	<0.01
ZrO_2	0.001	%	0,006	0,005	0,005
P_2O_5	0.01	%	0,022	0,023	0,021
OxSumm		%	97,1	96,4	96,4

Parameter	Detection Limit	Sample Label	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
		EF Sample ID	S19101767	S19101768	S19101769
Cu	0.0005	%	0,042	0,043	0,043
Ni	0.001	%	0,1	0,1	0,1
Co	0.01	%	0,018	0,013	0,011
Zn	0.001	%	0,012	0,012	0,012
Pb	0.005	%	0,005	<0.005	<0.005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,041	0,039	0,039
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,012	0,012	0,013
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.8. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample PX2

Parameter	Detection Limit	Sample Label	SKC-PX2/1	SKC-PX2/2	SKC-PX2/3
		EF Sample ID	S19101767	S19101768	S19101769
Th	0.001	%	0,001	0,002	0,001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,002	<0.002	<0.002
La	0.001	%	0,003	0,004	0,003
Ce	0.001	%	0,002	0,002	0,003
Ta	0.002	%	0,003	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	23,2	23	22,9
Ti	0.003	%	0,13	0,14	0,14
Cr	0.001	%	0,12	0,12	0,12
V	0.001	%	0,012	0,012	0,011
Fe	0.005	%	9,11	9	9,02
Mn	0.008	%	0,23	0,23	0,23
Mg	0.03	%	11,9	11,9	11,8
Ca	0.004	%	6,88	6,8	6,82
Ba	0.004	%	<0.004	<0.004	<0.004
C	0.01	%	0,036	0,032	0,041

Table G2.9. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample MS1

Parameter	Detection Limit	Sample Label	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
		EF Sample ID	S19101770	S19101771	S19101772
SiO_2	0.1	%	54,4	54,2	53,8
TiO_2	0.005	%	0,3	0,3	0,3
Al_2O_3	0.006	%	7,17	7,19	7,15
Cr_2O_3	0.002	%	0,125	0,125	0,125
V_2O_3	0.002	%	0,021	0,022	0,022
FeO	0.01	%	10,4	10,2	10,2
MnO	0.01	%	0,2	0,2	0,2
MgO	0.05	%	13,8	13,7	13,7
CaO	0.01	%	10,1	10,1	10
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	0,013	0,012	0,012
BaO	0.01	%	0,016	0,014	0,016
Na_2O	0.01	%	1,09	1,08	1,07
K2O	0.01	%	0,31	0,3	0,31
ZrO_2	0.001	%	0,005	0,005	0,006
P_2O_5	0.01	%	0,034	0,035	0,035
OxSumm		%	98,8	98,3	97,8

Parameter	Detection Limit	Sample Label	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
		EF Sample ID	S19101770	S19101771	S19101772
Cu	0.0005	%	0,19	0,18	0,18
Ni	0.001	%	0,14	0,13	0,13
Co	0.01	%	0,014	0,011	0,012
Zn	0.001	%	0,011	0,011	0,011
Pb	0.005	%	0,005	0,005	0,005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,64	0,62	0,62
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,011	0,011	0,012
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	0,001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.10. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample MS1

Parameter	Detection Limit	Sample Label	SKC-MS1/1	SKC-MS1/2	SKC-MS1/3
		EF Sample ID	S19101770	S19101771	S19101772
Th	0.001	%	0,002	<0.001	0,001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,003	0,003	<0.002
La	0.001	%	0,003	0,002	0,004
Ce	0.001	%	0,002	0,001	0,002
Ta	0.002	%	<0.002	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	25,4	25,3	25,2
Ti	0.003	%	0,18	0,18	0,18
Cr	0.001	%	0,086	0,086	0,085
V	0.001	%	0,014	0,015	0,015
Fe	0.005	%	8,06	7,94	7,94
Mn	0.008	%	0,16	0,16	0,15
Mg	0.03	%	8,33	8,26	8,26
Ca	0.004	%	7,24	7,19	7,14
Ba	0.004	%	0,015	0,013	0,014
C	0.01	%	0,042	0,043	0,042

Table G2.11. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample MS2

Parameter	Detection Limit	Sample Label	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
		EF Sample ID	S19101773	S19101774	S19101775
SiO_2	0.1	%	52,4	52,5	52,7
TiO_2	0.005	%	0,17	0,17	0,18
Al_2O_3	0.006	%	18,4	18,4	18,5
Cr_2O_3	0.002	%	0,072	0,071	0,074
V_2O_3	0.002	%	0,009	0,009	0,009
FeO	0.01	%	6,29	6,33	6,24
MnO	0.01	%	0,094	0,094	0,091
MgO	0.05	%	9,33	9,22	9,06
CaO	0.01	%	6,96	6,9	6,94
Rb2O	0.002	%	0,002	0,002	0,002
SrO	0.01	%	0,054	0,052	0,054
BaO	0.01	%	0,045	0,044	0,045
Na_2O	0.01	%	3,46	3,52	3,52
K2O	0.01	%	1,22	1,2	1,21
ZrO_2	0.001	%	0,005	0,005	0,005
P_2O_5	0.01	%	0,035	0,035	0,031
OxSumm		%	99,3	99,3	99,3

Parameter	Detection Limit	Sample Label	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
		EF Sample ID	S19101773	S19101774	S19101775
Cu	0.0005	%	0,21	0,21	0,21
Ni	0.001	%	0,14	0,14	0,14
Co	0.01	%	0,011	0,011	0,01
Zn	0.001	%	0,007	0,007	0,008
Pb	0.005	%	0,007	0,007	0,007
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,45	0,45	0,44
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,01	0,01	0,011
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	0,001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,002	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.12. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample MS2

Parameter	Detection Limit	Sample Label	SKC-MS2/1	SKC-MS2/2	SKC-MS2/3
		EF Sample ID	S19101773	S19101774	S19101775
Th	0.001	%	<0.001	0,001	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,002	<0.002	0,002
La	0.001	%	0,002	0,004	0,003
Ce	0.001	%	0,001	0,001	0,001
Ta	0.002	%	<0.002	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	24,5	24,6	24,6
Ti	0.003	%	0,11	0,1	0,11
Cr	0.001	%	0,049	0,049	0,05
V	0.001	%	0,006	0,006	0,006
Fe	0.005	%	4,89	4,92	4,85
Mn	0.008	%	0,073	0,073	0,071
Mg	0.03	%	5,63	5,56	5,47
Ca	0.004	%	4,97	4,93	4,96
Ba	0.004	%	0,04	0,039	0,041
C	0.01	%	0,025	0,033	0,023

Table G2.13. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample TZ1

Parameter	Detection Limit	Sample Label	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/3
		EF Sample ID	S19101776	S19101777	S19101778
SiO_2	0.1	%	54,6	54,5	54,6
TiO_2	0.005	%	0,23	0,24	0,23
Al_2O_3	0.006	%	16,3	16,2	16,3
Cr_2O_3	0.002	%	0,049	0,05	0,049
V_2O_3	0.002	%	0,013	0,013	0,014
FeO	0.01	%	7,14	7,3	7,23
MnO	0.01	%	0,11	0,11	0,11
MgO	0.05	%	7,4	7,56	7,45
CaO	0.01	%	8,73	8,66	8,7
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	0,056	0,054	0,056
BaO	0.01	%	0,03	0,029	0,026
Na_2O	0.01	%	3,09	3,02	3,06
K2O	0.01	%	0,57	0,58	0,57
ZrO_2	0.001	%	0,006	0,005	0,005
P_2O_5	0.01	%	0,029	0,03	0,027
OxSumm		%	99,2	99,2	99,2

Parameter	Detection Limit	Sample Label	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/3
		EF Sample ID	S19101776	S19101777	S19101778
Cu	0.0005	%	0,21	0,22	0,21
Ni	0.001	%	0,12	0,12	0,12
Co	0.01	%	0,011	<0.01	<0.01
Zn	0.001	%	0,008	0,008	0,007
Pb	0.005	%	0,006	0,007	0,006
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,65	0,66	0,64
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,011	0,011	0,01
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.14. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample TZ1

Parameter	Detection Limit	Sample Label	SKC-TZ1/1	SKC-TZ1/2	SKC-TZ1/3
		EF Sample ID	S19101776	S19101777	S19101778
Th	0.001	%	0,001	<0.001	0,001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	<0.002	0,002	0,003
La	0.001	%	0,002	0,003	0,005
Ce	0.001	%	0,001	0,002	0,001
Ta	0.002	%	0,002	0,002	0,002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	25,5	25,5	25,5
Ti	0.003	%	0,14	0,14	0,14
Cr	0.001	%	0,033	0,034	0,033
V	0.001	%	0,009	0,009	0,009
Fe	0.005	%	5,55	5,68	5,62
Mn	0.008	%	0,085	0,085	0,084
Mg	0.03	%	4,46	4,56	4,5
Ca	0.004	%	6,23	6,19	6,21
Ba	0.004	%	0,027	0,026	0,023
C	0.01	%	0,028	0,033	0,033

Table G2.15. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample TZ2

Parameter	Detection Limit	Sample Label	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
		EF Sample ID	S19101779	S19101780	S19101781
SiO_2	0.1	%	52,4	52,3	52,1
TiO_2	0.005	%	0,22	0,22	0,23
Al_2O_3	0.006	%	16,7	16,8	16,6
Cr_2O_3	0.002	%	0,089	0,087	0,093
V_2O_3	0.002	%	0,014	0,014	0,012
FeO	0.01	%	7,23	7,18	7,46
MnO	0.01	%	0,1	0,1	0,11
MgO	0.05	%	9,38	9,4	9,69
CaO	0.01	%	8,92	8,99	8,9
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	0,054	0,057	0,054
BaO	0.01	%	0,027	0,024	0,026
Na_2O	0.01	%	2,43	2,42	2,32
K2O	0.01	%	0,76	0,77	0,78
ZrO_2	0.001	%	0,004	0,004	0,004
P_2O_5	0.01	%	0,028	0,029	0,028
OxSumm		%	99,2	99,2	99,2

Parameter	Detection Limit	Sample Label	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
		EF Sample ID	S19101779	S19101780	S19101781
Cu	0.0005	%	0,15	0,15	0,16
Ni	0.001	%	0,095	0,092	0,099
Co	0.01	%	0,015	0,011	<0.01
Zn	0.001	%	0,008	0,007	0,007
Pb	0.005	%	0,006	0,005	0,005
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,8	0,79	0,81
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,01	0,01	0,01
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.16. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample TZ2

Parameter	Detection Limit	Sample Label	SKC-TZ2/1	SKC-TZ2/2	SKC-TZ2/3
		EF Sample ID	S19101779	S19101780	S19101781
Th	0.001	%	<0.001	<0.001	0,001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	<0.002	<0.002	<0.002
La	0.001	%	0,002	0,003	0,004
Ce	0.001	%	0,001	0,001	0,001
Ta	0.002	%	<0.002	0,002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	24,5	24,5	24,4
Ti	0.003	%	0,13	0,13	0,14
Cr	0.001	%	0,061	0,06	0,063
V	0.001	%	0,009	0,009	0,008
Fe	0.005	%	5,62	5,59	5,8
Mn	0.008	%	0,08	0,079	0,082
Mg	0.03	%	5,66	5,67	5,85
Ca	0.004	%	6,37	6,42	6,35
Ba	0.004	%	0,024	0,021	0,024
C	0.01	%	0,03	0,029	0,03

Table G2.17. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample BAS1

Parameter	Detection Limit	Sample Label	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
		EF Sample ID	S19101782	S19101783	S19101784
SiO_2	0.1	%	54,5	54,7	54,5
TiO_2	0.005	%	0,18	0,17	0,17
Al_2O_3	0.006	%	20,4	20,4	20,4
Cr_2O_3	0.002	%	0,039	0,037	0,039
V_2O_3	0.002	%	0,007	0,007	0,007
FeO	0.01	%	5,81	5,7	5,76
MnO	0.01	%	0,06	0,058	0,061
MgO	0.05	%	5,03	4,88	5,11
CaO	0.01	%	5,43	5,4	5,42
Rb2O	0.002	%	0,004	0,004	0,003
SrO	0.01	%	0,073	0,073	0,073
BaO	0.01	%	0,051	0,05	0,055
Na_2O	0.01	%	5,04	5,11	4,99
K2O	0.01	%	1,55	1,56	1,58
ZrO_2	0.001	%	0,006	0,005	0,005
P_2O_5	0.01	%	0,046	0,045	0,047
OxSumm		%	99,3	99,4	99,3

Parameter	Detection Limit	Sample Label	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
		EF Sample ID	S19101782	S19101783	S19101784
Cu	0.0005	%	0,17	0,17	0,17
Ni	0.001	%	0,18	0,17	0,17
Co	0.01	%	0,016	0,014	0,012
Zn	0.001	%	0,039	0,04	0,039
Pb	0.005	%	0,018	0,018	0,018
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	1,03	1,03	1
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,01	0,011	0,011
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,003
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.18. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample BAS1

Parameter	Detection Limit	Sample Label	SKC-BAS1/1	SKC-BAS1/2	SKC-BAS1/3
		EF Sample ID	S19101782	S19101783	S19101784
Th	0.001	%	<0.001	0,001	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	<0.002	0,003	<0.002
La	0.001	%	0,004	0,002	0,003
Ce	0.001	%	0,001	0,003	0,002
Ta	0.002	%	<0.002	<0.002	0,002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	25,5	25,6	25,5
Ti	0.003	%	0,11	0,1	0,11
Cr	0.001	%	0,026	0,025	0,027
V	0.001	%	0,005	0,005	0,005
Fe	0.005	%	4,52	4,43	4,48
Mn	0.008	%	0,046	0,045	0,047
Mg	0.03	%	3,03	2,95	3,08
Ca	0.004	%	3,88	3,86	3,87
Ba	0.004	%	0,046	0,045	0,05
C	0.01	%	0,04	0,037	0,035

Table G2.19. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample BAS2

Parameter	Detection Limit	Sample Label	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
		EF Sample ID	S19101785	S19101786	S19101787
SiO_2	0.1	%	50,3	51,6	50
TiO_2	0.005	%	0,33	0,34	0,33
Al_2O_3	0.006	%	16,2	16,5	16,1
Cr_2O_3	0.002	%	0,064	0,065	0,065
V_2O_3	0.002	%	0,02	0,02	0,019
FeO	0.01	%	8,7	9,01	8,74
MnO	0.01	%	0,14	0,14	0,14
MgO	0.05	%	8,05	8,23	8,07
CaO	0.01	%	7,7	7,91	7,67
Rb2O	0.002	%	<0.002	<0.002	<0.002
SrO	0.01	%	0,042	0,044	0,041
BaO	0.01	%	0,024	0,021	0,023
Na_2O	0.01	%	3,27	3,35	3,22
K2O	0.01	%	0,5	0,5	0,49
ZrO_2	0.001	%	0,004	0,004	0,004
P_2O_5	0.01	%	0,021	0,023	0,022
OxSumm		%	96,6	99	96,2

Parameter	Detection Limit	Sample Label	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
		EF Sample ID	S19101785	S19101786	S19101787
Cu	0.0005	%	0,5	0,52	0,51
Ni	0.001	%	0,059	0,061	0,061
Co	0.01	%	0,017	0,012	<0.01
Zn	0.001	%	0,011	0,011	0,01
Pb	0.005	%	0,005	0,005	0,006
Ag	0.005	%	<0.005	<0.005	<0.005
S	0.005	%	0,75	0,8	0,77
As	0.003	%	<0.003	<0.003	<0.003
Sb	0.01	%	0,011	0,011	0,011
Bi	0.01	%	<0.01	<0.01	<0.01
Te	0.005	%	<0.005	<0.005	<0.005
Y	0.001	%	<0.001	<0.001	<0.001
Nb	0.001	%	<0.001	<0.001	<0.001
Mo	0.01	%	<0.01	<0.01	<0.01
Sn	0.001	%	0,003	0,003	0,002
W	0.002	%	<0.002	<0.002	<0.002
Cl	0.007	%	<0.007	<0.007	<0.007

Table G2.20. Multi-element analysis by XRF on a Pellet (MP10) (Method 180X) - Sample BAS2

Parameter	Detection Limit	Sample Label	SKC-BAS2/1	SKC-BAS2/2	SKC-BAS2/3
		EF Sample ID	S19101785	S19101786	S19101787
Th	0.001	%	0,001	0,002	<0.001
U	0.01	%	<0.01	<0.01	<0.01
Cs	0.002	%	0,003	0,002	0,002
La	0.001	%	0,002	0,002	0,001
Ce	0.001	%	0,001	0,003	0,002
Ta	0.002	%	<0.002	<0.002	<0.002
LOI		%	0	0	0
Ga	0.003	%	<0.003	<0.003	<0.003
Si	0.05	%	23,5	24,1	23,4
Ti	0.003	%	0,2	0,2	0,2
Cr	0.001	%	0,044	0,045	0,045
V	0.001	%	0,014	0,013	0,013
Fe	0.005	%	6,77	7,01	6,8
Mn	0.008	%	0,11	0,11	0,11
Mg	0.03	%	4,86	4,96	4,87
Ca	0.004	%	5,5	5,65	5,48
Ba	0.004	%	0,021	0,018	0,02
C	0.01	%	0,027	0,029	0,027

21 APPENDIX H – X-RAY DIFFRACTION XRD DATA

A sub-sample of each of the SAP Konttijärvi Orientation samples was characterized with XRD at X-ray Mineral Services Ltd (United Kingdom). Detection limit is approximately 2%.

Table H1. Bulk Mineral Characterization by X-ray Diffraction Analysis - Size Fraction: Whole Rock

Sample	SKC-PM1	SKC-PM2	SKC-PX1	SKC-PX2	SKC-MS1	SKC-MS2	SKC-TZ1	SKC-TZ2	SKC-BAS1	SKC-BAS2
Illite/Smectite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biotite	0.0	0.0	0.0	0.0	3.0	13.9	4.6	6.4	7.0	4.7
Muscovite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kaolinite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chlorite	42.2	31.3	34.2	24.5	6.3	14.0	6.7	10.0	5.0	8.9
Quartz	TR	TR	TR	TR	8.2	4.2	10.3	7.5	5.7	5.4
Amphibole 1	26.4	0.0	57.0	75.5	72.2	22.4	37.2	38.1	10.1	41.1
Amphibole 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
K Feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plagioclase 1	0.0	0.0	0.0	0.0	9.1	44.5	38.1	36.3	72.2	38.9
Plagioclase 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calcite	0.0	TR	0.0	0.0	1.2	1.0	1.7	1.1	TR	0.6
Dolomite	5.0	6.4	0.0	0.0	0.0	TR	1.4	0.6	TR	0.5
Magnesite	0.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	TR	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Talc	26.4	45.4	8.9	0.0	0.0	TR	0.0	0.0	0.0	0.0
Cordierite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pyrrhotite	0.0	0.0	0.0	0.0	TR	TR	TR	TR	TR	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.0
Total	100	100	100	100	100	100	100	100	100	100

Notes:
1. Plagioclase 1 is probably andesine
2. Chlorite is clinochlore
3. Amphibole 1 is probably actinolite
4. Samples SKC-PM1 and SKM-PM1 contain a second species of amphibole that could not be quantified separately (probably cummingtonite)
5. Traces of graphite possibly present in samples SKC-MS1, MS2, TZ1, TZ2, BAS1 and BAS2

Table H2. Bulk Mineral Characterization by X-ray Diffraction Analysis - Size Fraction : <2 micron clay

		SKC-PM1	SKC-PM2	SKC-PX1	SKC-PX2	SKC-MS1	SKC-MS2	SKC-TZ1	SKC-TZ2	SKC-BAS1	SKC-BAS2
Wt. %	<2um	6.5	6.4	4.7	5.0	2.9	3.1	2.5	2.6	2.2	2.5
Illite/smectite	% A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biotite	% A	0.0	0.0	0.0	0.0	TR	31.5	21.6	21.4	47.9	11.9
	% B	0.0	0.0	0.0	0.0	TR	1.0	0.5	0.6	1.1	0.3
	Crys	-	-	-	-	P	M	M	M	M	M
Kaolinite	% A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Crys	-	-	-	-	-	-	-	-	-	-
Chlorite	% A	67.4	37.4	67.3	43.3	57.4	34.2	35.0	32.5	20.9	37.8
	% B	4.4	2.4	3.2	2.2	1.7	1.0	0.9	0.9	0.5	1.0
	Crys	W	W	W	W	W	W	W	W	W	W
	Y	0	0	0	1	1	1	0	1	0	1
Quartz	% A	0.0	0.0	0.0	0.0	3.1	0.0	4.8	3.8	2.4	3.2
	% B	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Talc	% A	20.4	62.6	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% B	1.3	4.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphibole	% A	12.2	0.0	26.3	56.7	39.5	24.3	28.9	33.1	9.7	37.9
	% B	0.8	0.0	1.2	2.8	1.1	0.7	0.7	0.9	0.2	1.0
Plagioclase	% A	0.0	0.0	0.0	0.0	0.0	10.0	9.8	9.2	19.1	9.2
	% B	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.4	0.2

A = Weight % <2micron fraction
B = Weight % bulk sample
Y = No. of Fe atoms in six octahedral sites

Crystallinity:
VW = Very Well Crystallised
W = Well Crystallised
M = Moderately Crystallised
P = Poorly Crystallised

SKC-PM1

The following diffractograms show the mineral identification for each sample using PANalytical HighScore Plus (v.4) software. The whole rock XRD plot shows the mineralogy from 4.5-40° (2θ). The graphical output from the Rietveld quantitative analysis program Autoquan is also given for each sample.

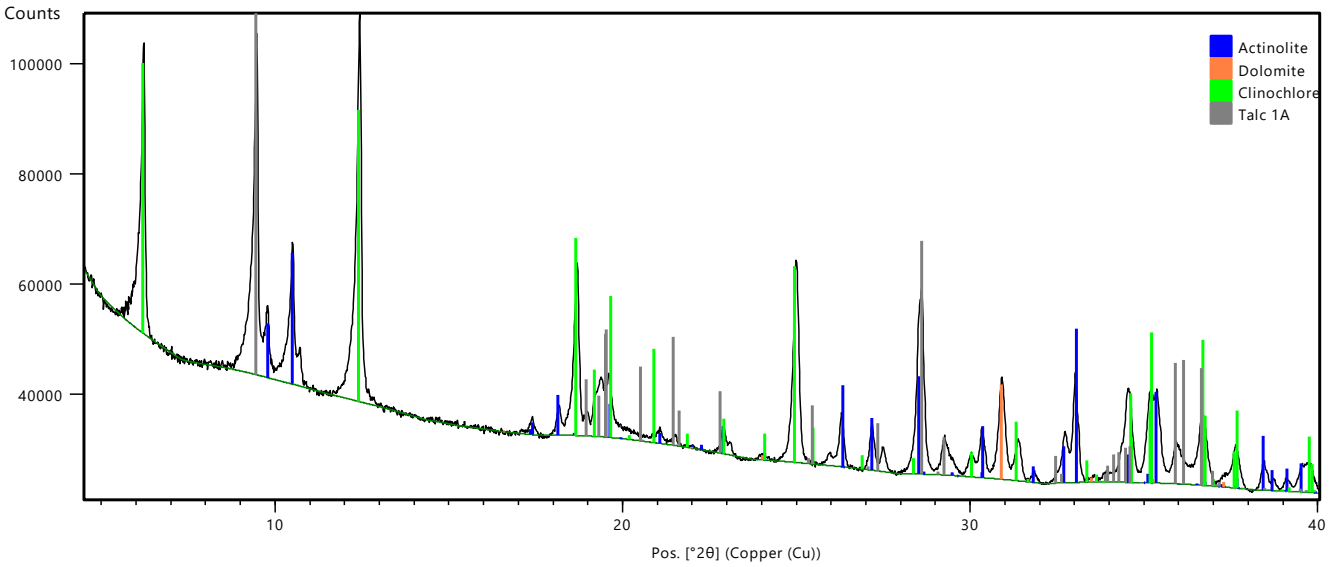

Figure H1. X-ray Diffraction pattern of sample SKC-PM1.

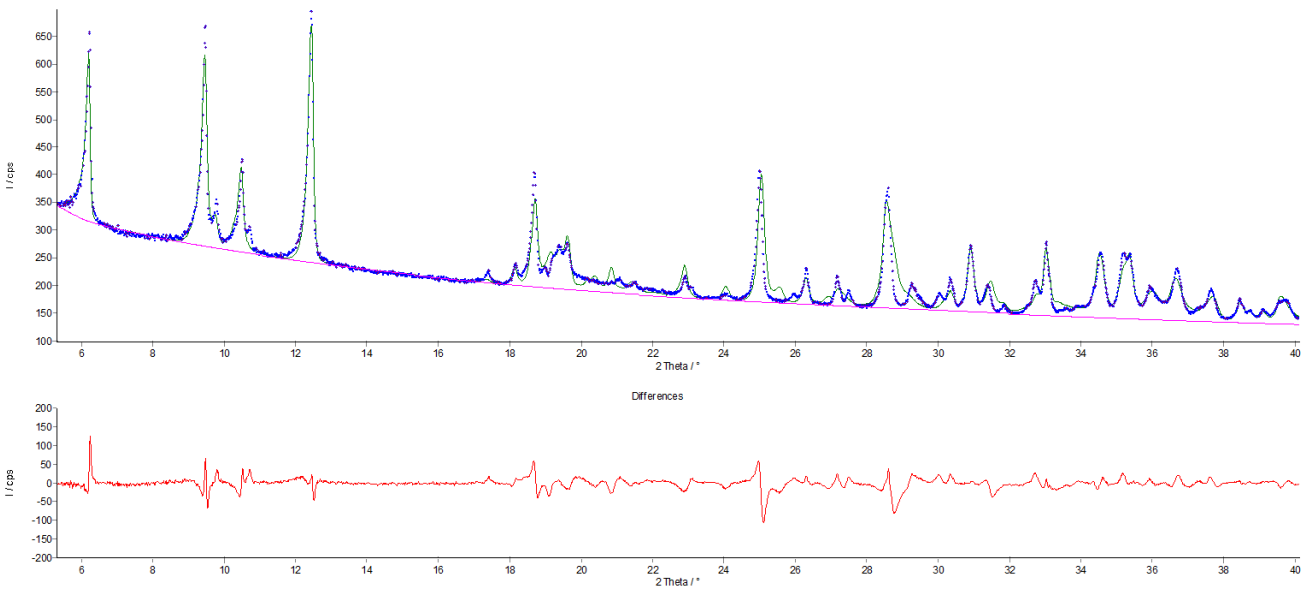

Figure H2. Rietveld analysis (Autoquan BGMN software) of sample SKC-PM1. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=4.20% Rexp=0.66%).

SKC-PM2

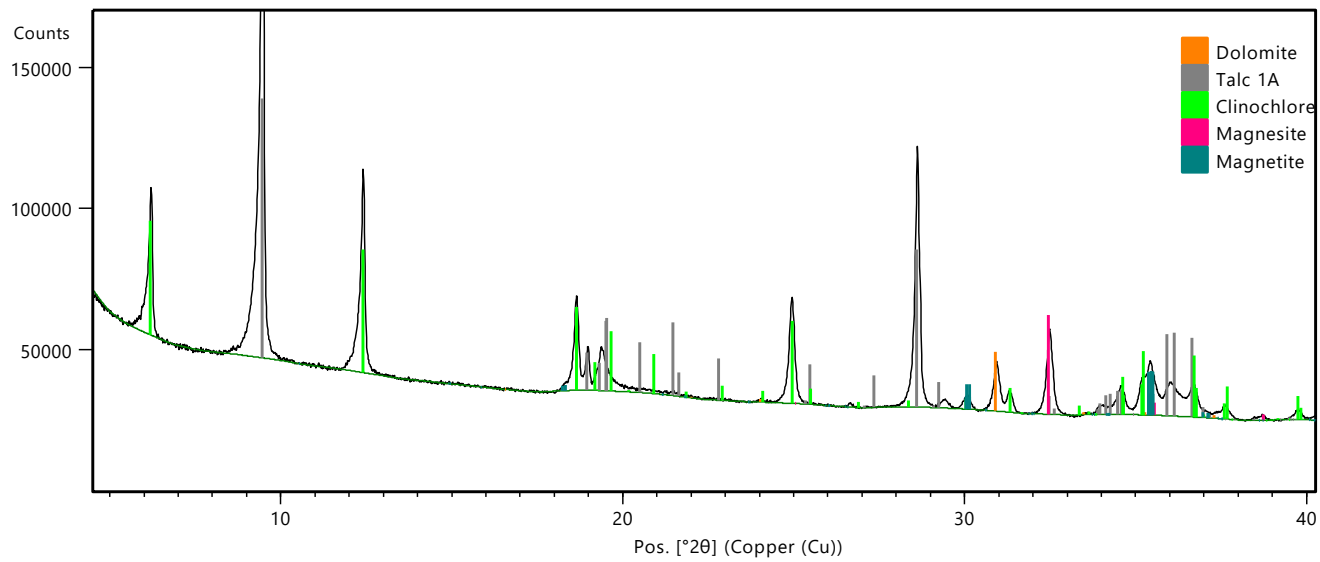

Figure H3. X-ray Diffraction pattern of sample SKC-PM2.

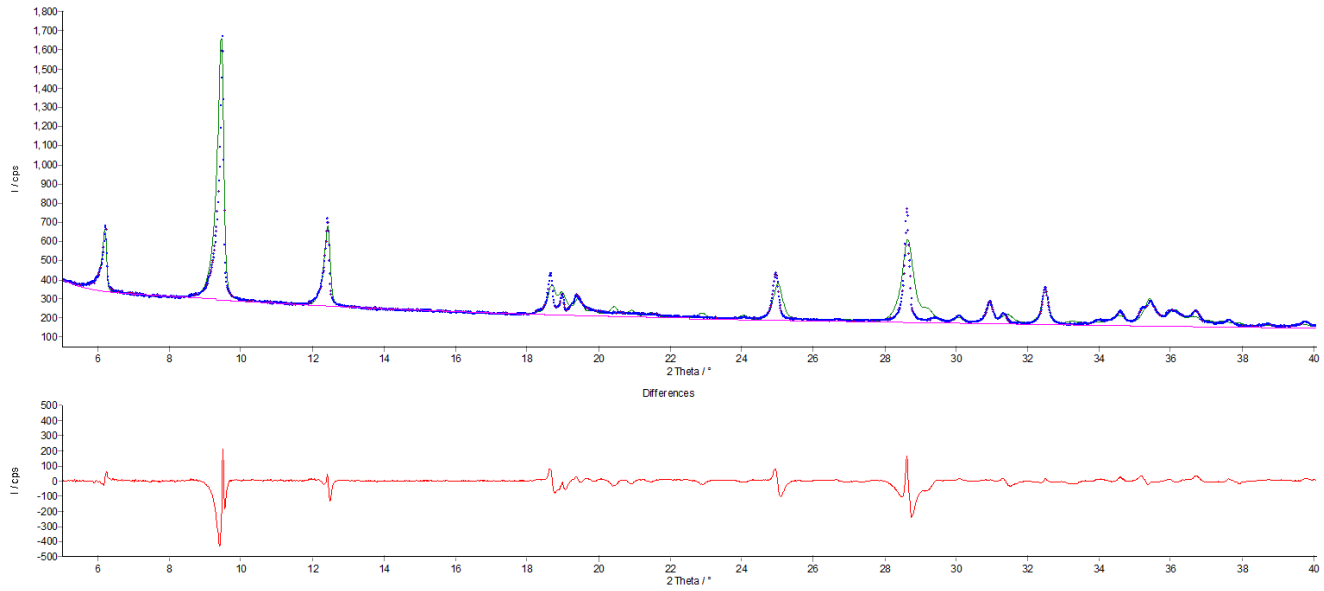

Figure H4. Rietveld analysis (Autoquan BGMN software) of sample SKC-PM2. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=4.64% Rexp=0.63%).

SKC-PX1

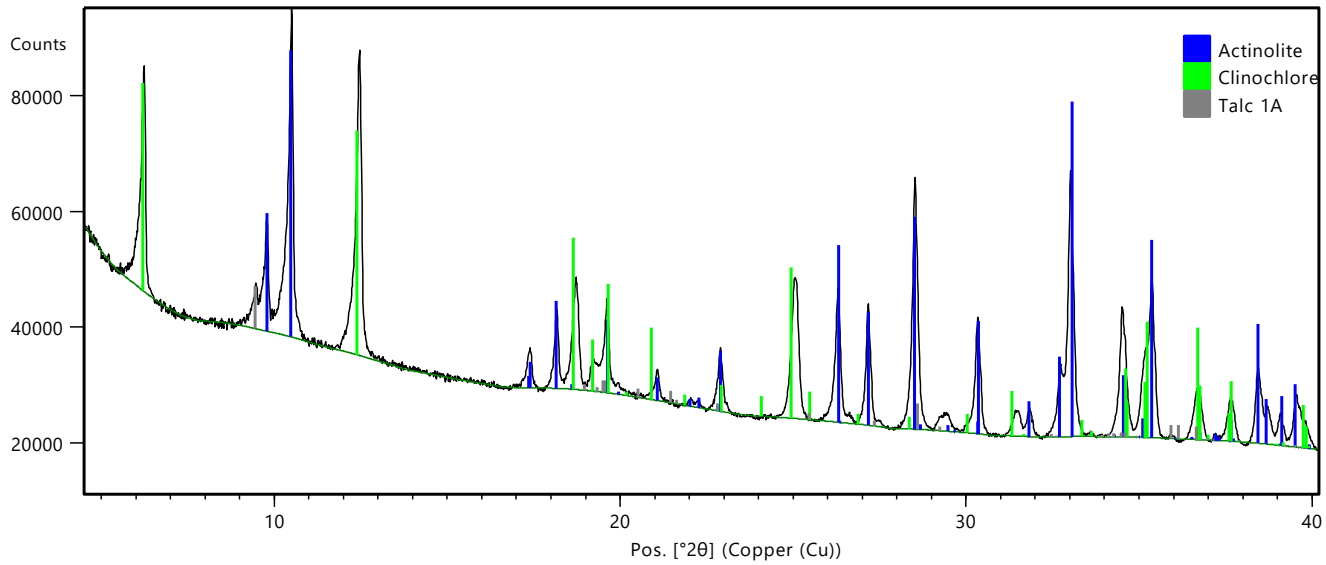

Figure H5. X-ray Diffraction pattern of sample SKC-PX1.

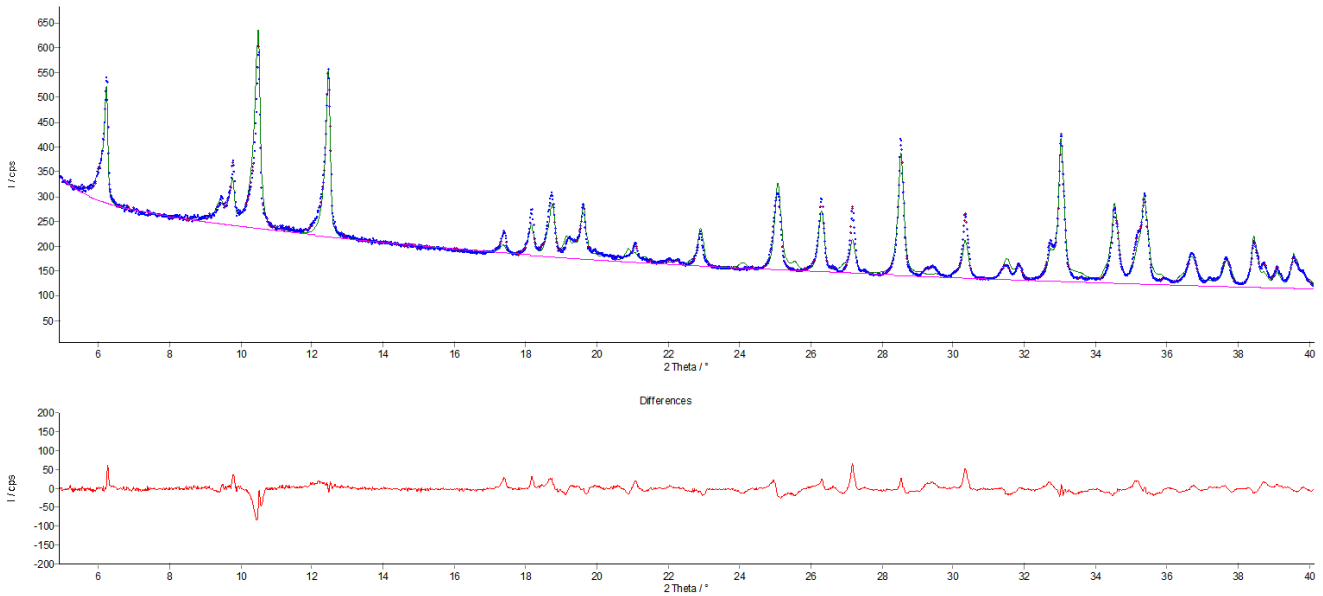

Figure H6. Rietveld analysis (Autoquan BGMN software) of sample SKC-PX1. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=3.75% Rexp=0.71%).

SKC-PX2

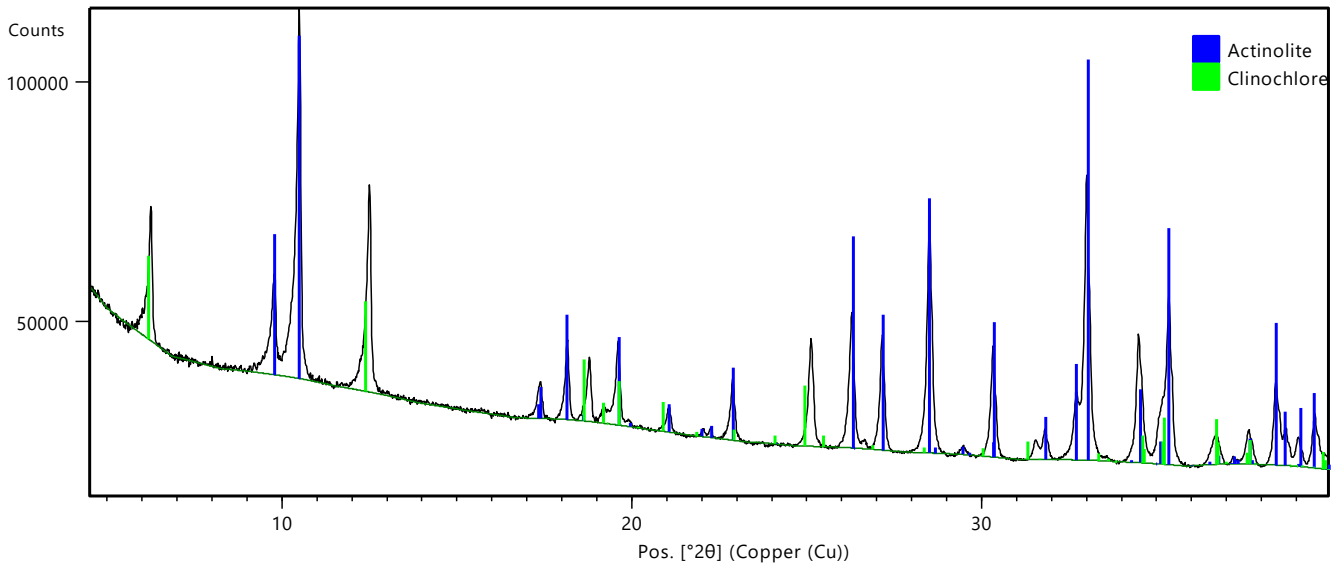

Figure H7. X-ray Diffraction pattern of sample SKC-PX2.

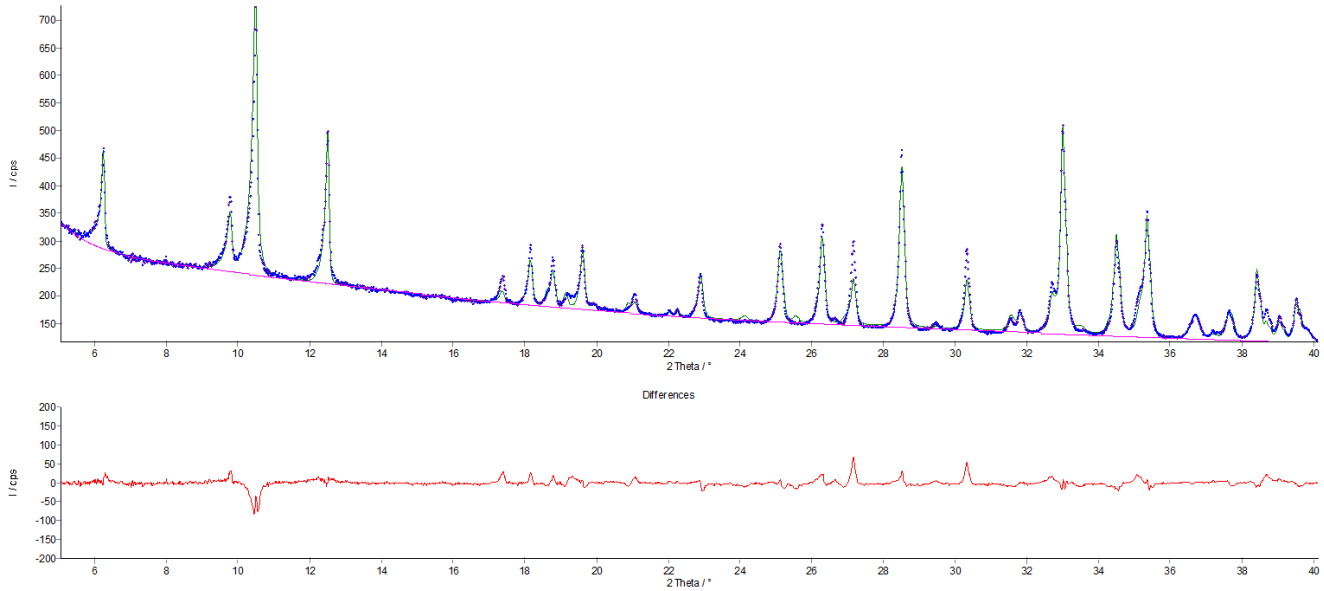

Figure H8. Rietveld analysis (Autoquan BGMN software) of sample SKC-PX2. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=3.29% Rexp=0.73%).

SKC-MS1

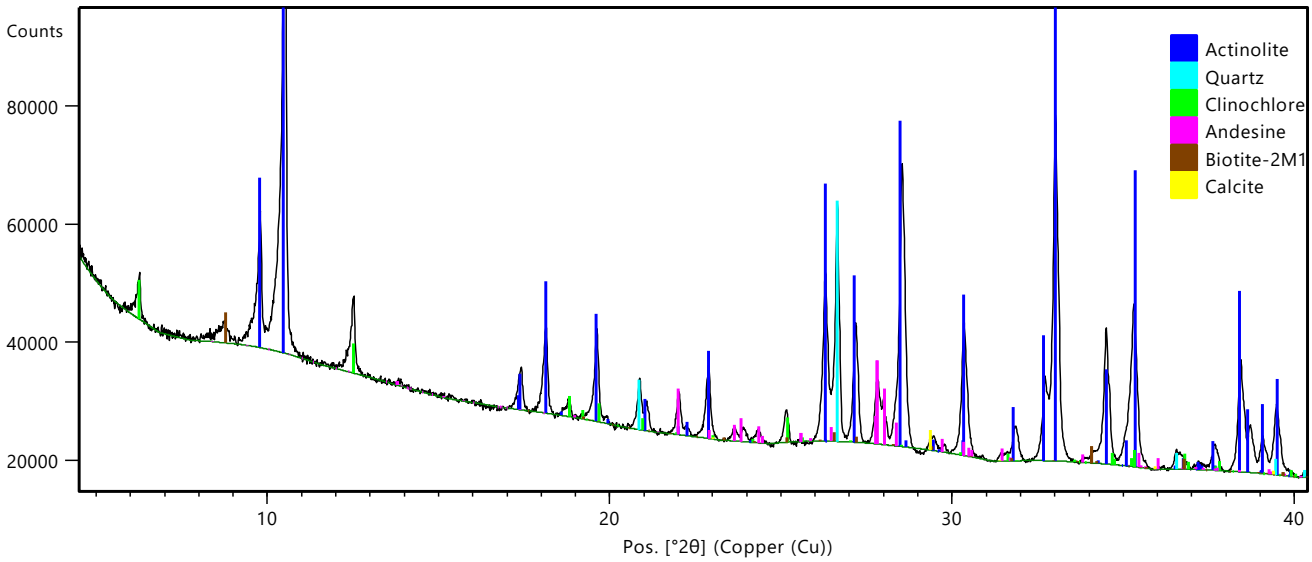

Figure H9. X-ray Diffraction pattern of sample SKC-MS1.

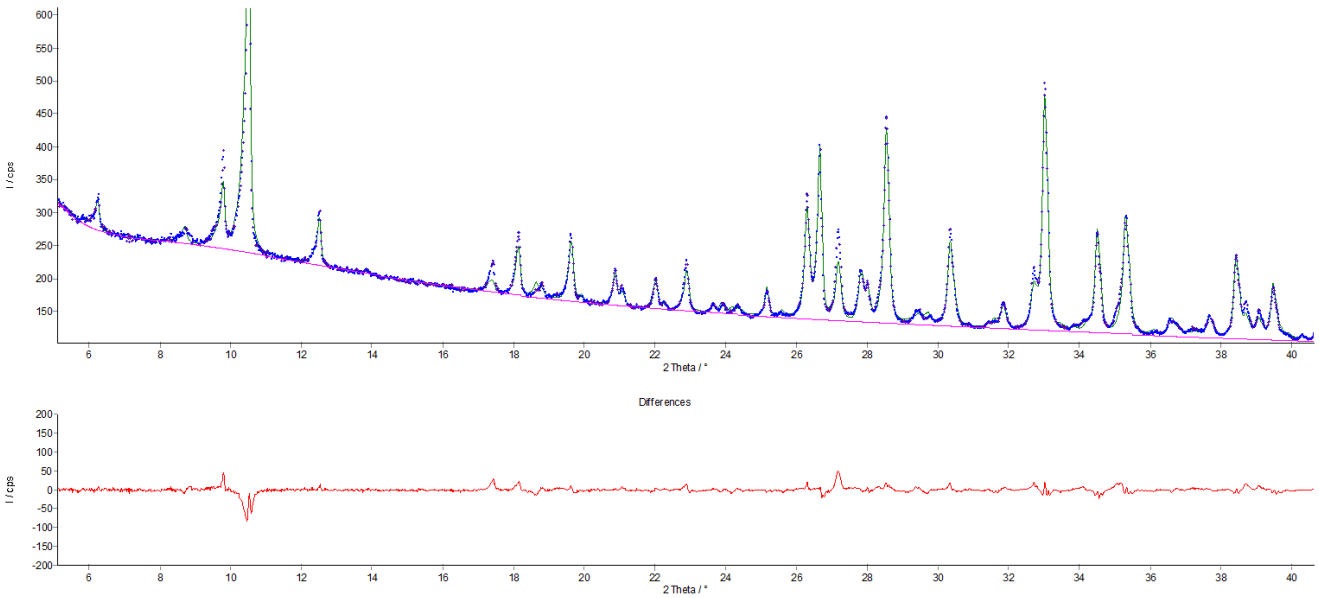

Figure H10. Rietveld analysis (Autoquan BGMN software) of sample SKC-MS1. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=2.49% Rexp=0.72%).

SKC-MS2

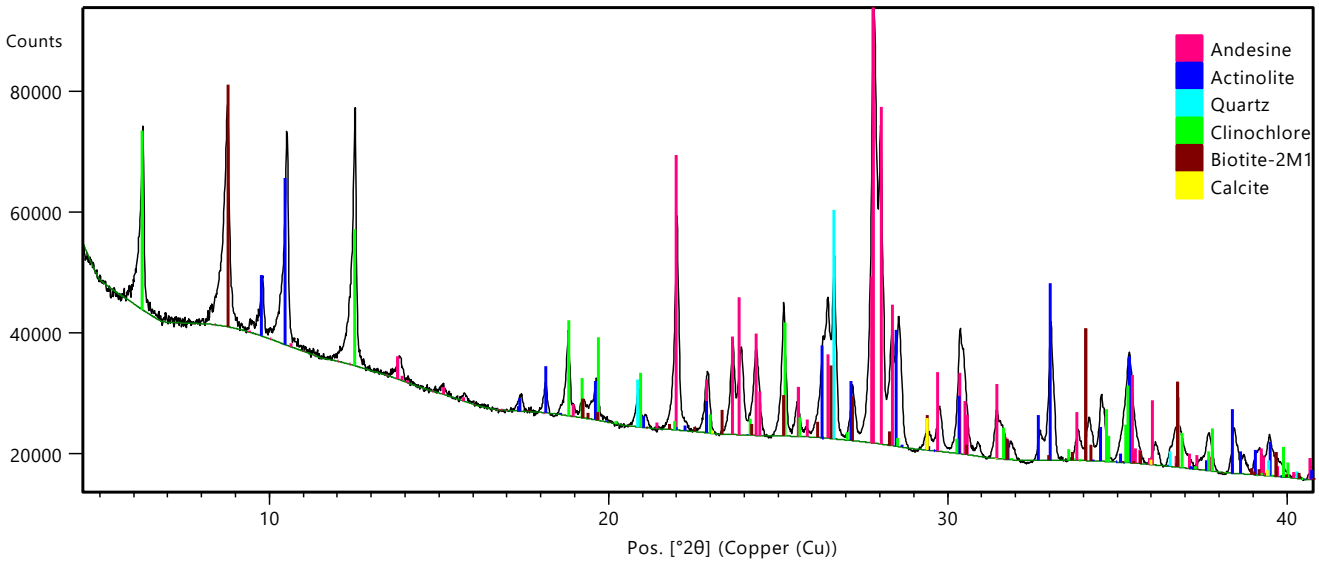

Figure H11. X-ray Diffraction pattern of sample SKC-MS2.

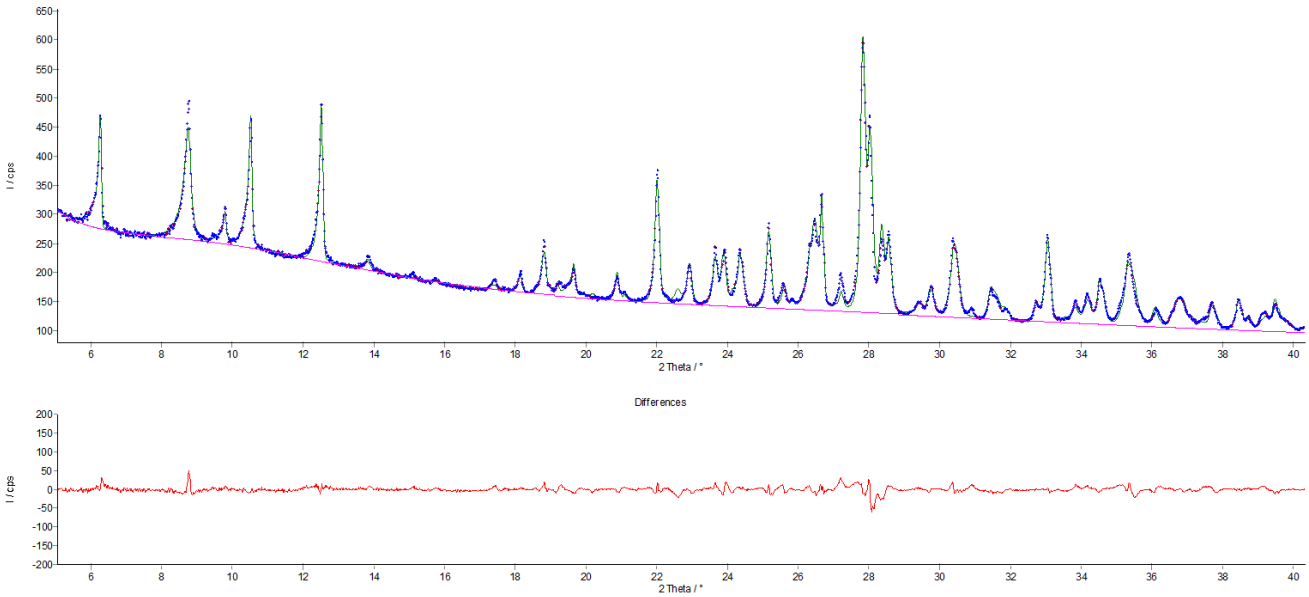

Figure H12. Rietveld analysis (Autoquan BGMN software) of sample SKC-MS2. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=2.72% Rexp=0.75%).

SKC-TZ1

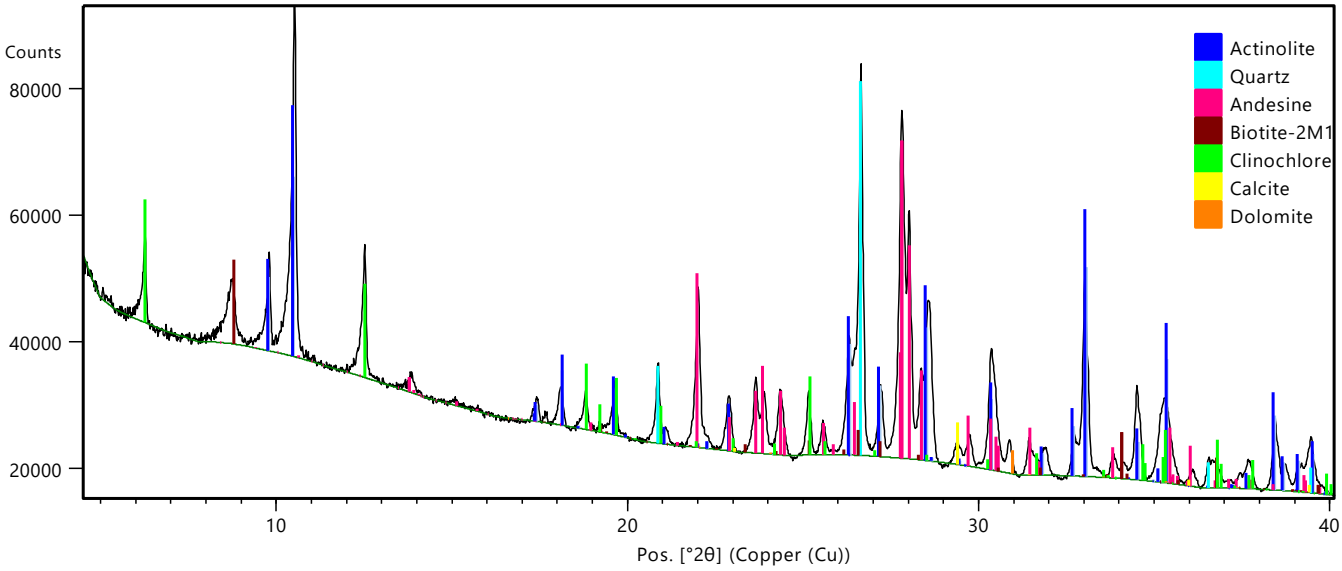

Figure H13. X-ray Diffraction pattern of sample SKC-TZ1.

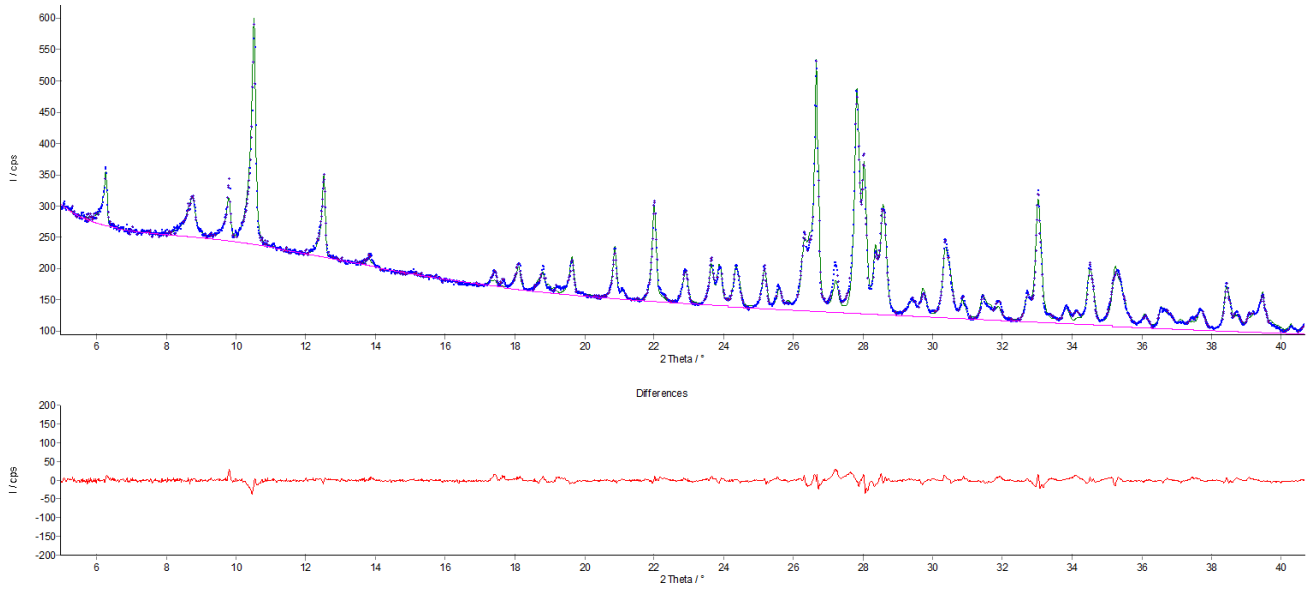

Figure H14. Rietveld analysis (Autoquan BGMN software) of sample SKC-TZ1. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=2.36% Rexp=0.72%).

SKC-TZ2

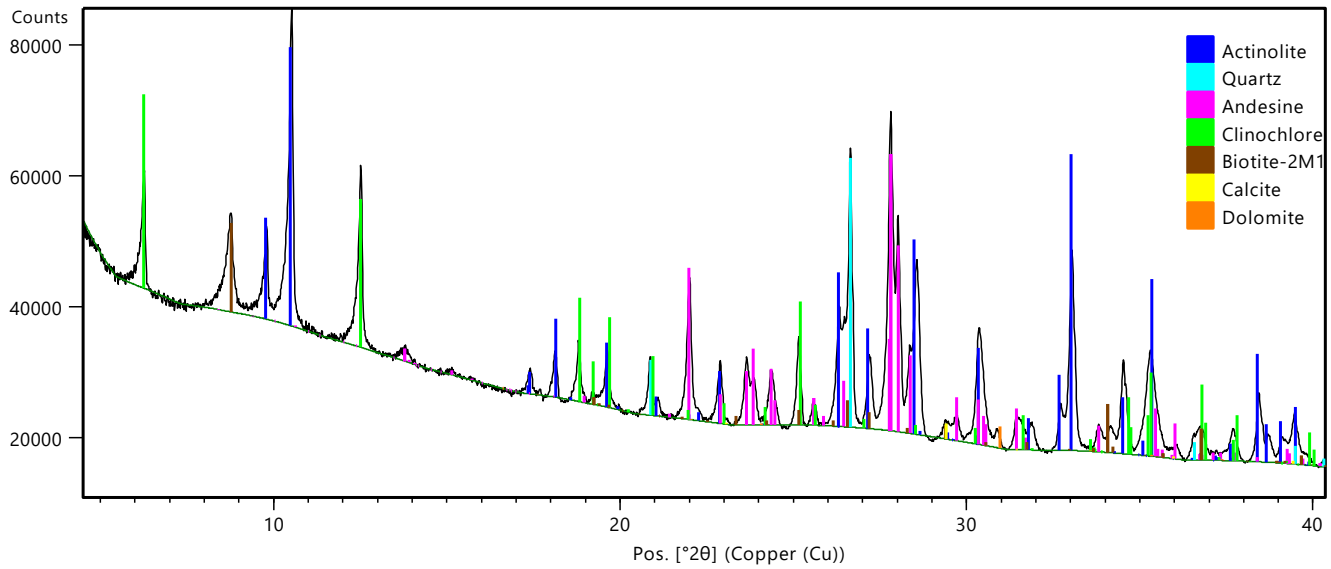

Figure H15. X-ray Diffraction pattern of sample SKC-TZ2.

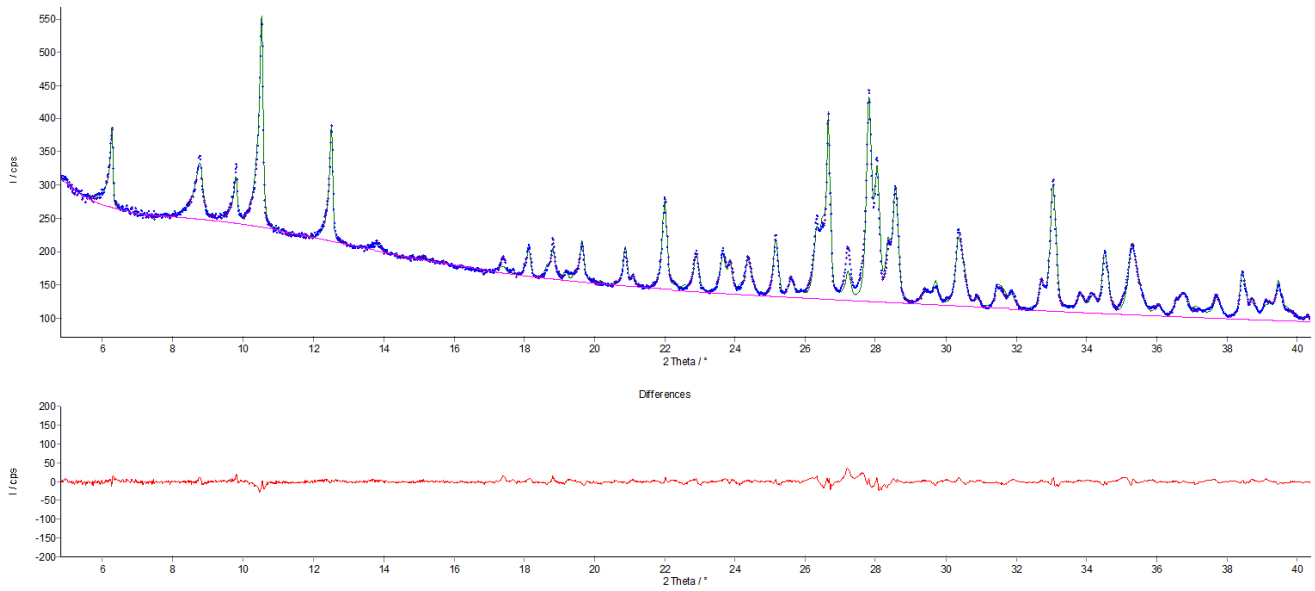

Figure H16. Rietveld analysis (Autoquan BGMN software) of sample SKC-TZ2. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=2.19% Rexp=0.73%).

SKC-BAS1

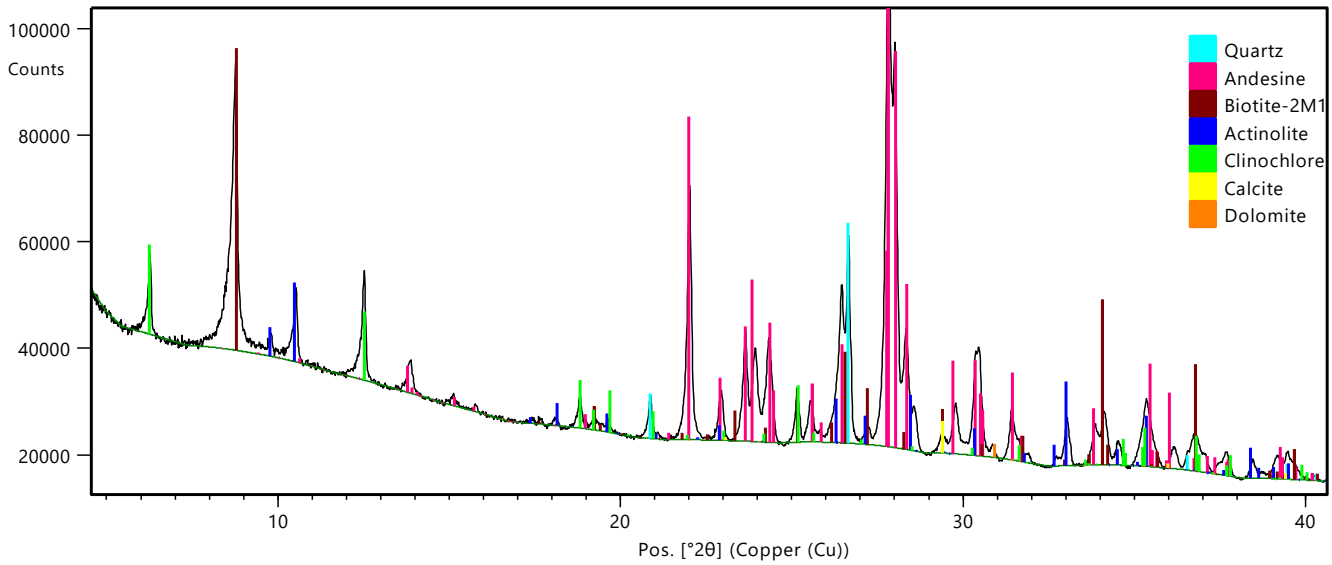

Figure H17. X-ray Diffraction pattern of sample SKC-BAS1.

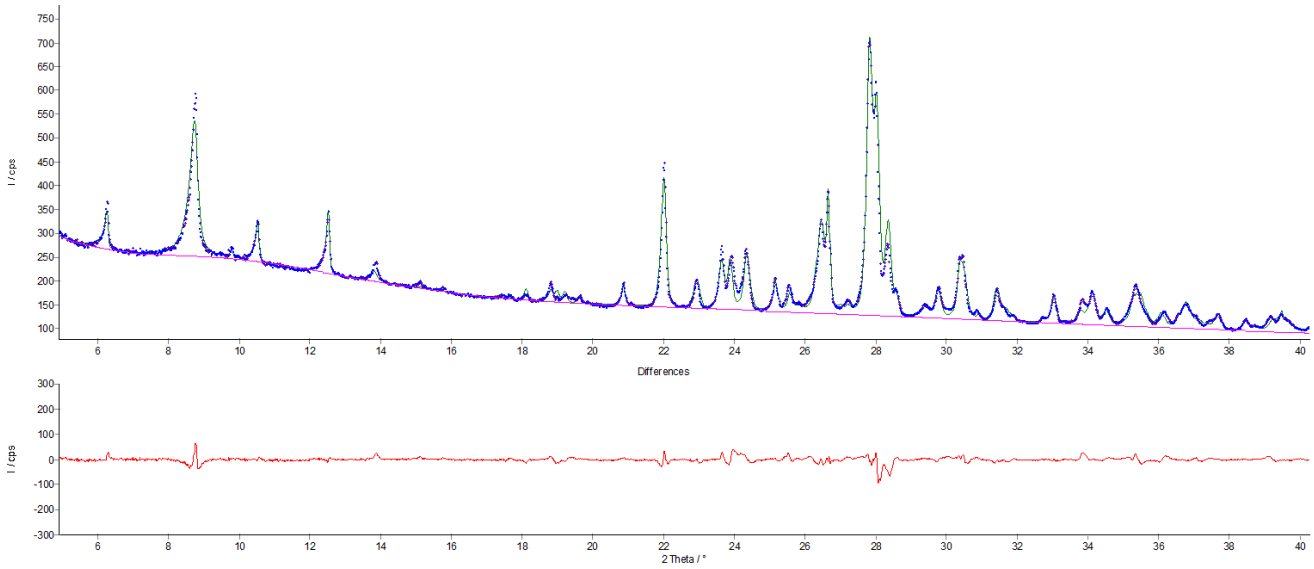

Figure H18. Rietveld analysis (Autoquan BGMN software) of sample SKC-BAS1. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=3.55% Rexp=0.73%).

SKC-BAS2

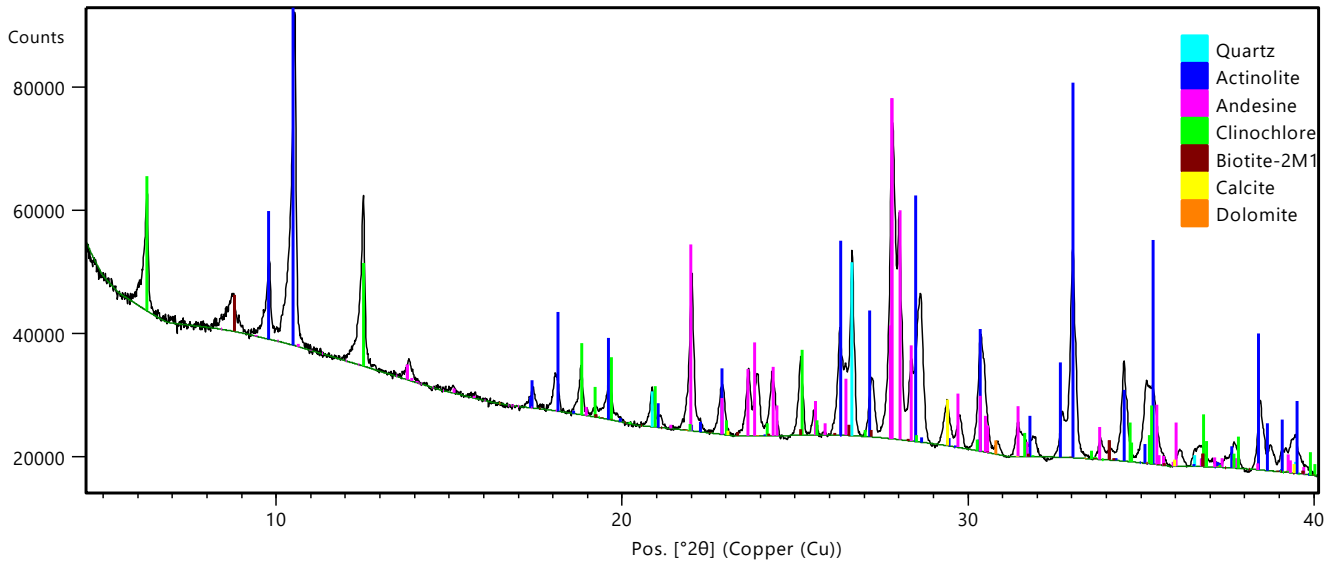

Figure H20. X-ray Diffraction pattern of sample SKC-BAS2.

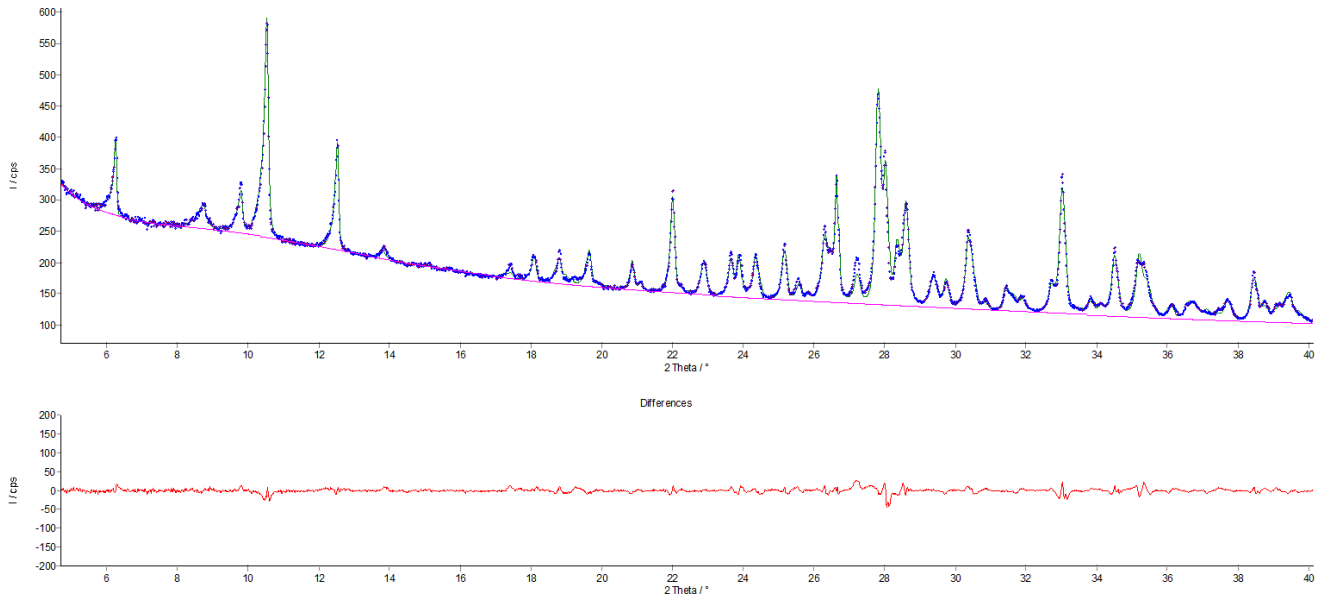

Figure H21. Rietveld analysis (Autoquan BGMN software) of sample SKC-BAS2. Dotted blue trace is the observed pattern; green trace is the calculated pattern. The red trace illustrates the difference between the observed and calculated patterns (Rwp=2.31% Rexp=0.71%).

22 APPENDIX I – AUTOMATED MINERALOGY DATA

Table I1.1. Modal mineralogy's of PM1 and PM2 samples, Weight Percent (wt%) (SEM Automated Mineralogy)

Sample	SKC-PM1				SKC-PM2			
Mineral	-75µm	-150+75µm	-250+150µm	Head	-75µm	-150+75µm	-250+150µm	Head
Pyrrhotite	0.6	0.8	0.8	0.7	0.3	1.2	1.2	0.7
Chalcopyrite	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3
Pentlandite	0.4	0.2	0.2	0.3	0.3	0.5	0.4	0.4
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Talc	16.9	11.6	9.2	13.9	49.6	33.7	24.7	40.3
Serpentine	4.7	5.5	4.9	4.9	0.3	0.4	0.6	0.4
Clinopyroxene	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Amphiboles	25.9	28.1	27.9	26.8	0.4	0.3	0.3	0.4
Chlorite	43.2	42.2	45.8	43.6	33.4	34.0	37.1	34.4
Biotite	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plagioclase	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbonates	5.4	8.9	8.5	6.9	10.2	21.4	27.8	16.8
Magnetite	0.9	1.3	1.4	1.1	3.5	6.7	6.0	4.8
Ilmenite	0.1	0.2	0.2	0.1	0.2	0.3	0.3	0.2
Apatite	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Mixtures	0.9	0.5	0.4	0.7	1.0	0.5	0.7	0.8
Unclassified	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amount of measured particles	30019	44486	30681	105186	29414	55892	31792	117098

Table I1.2. Modal mineralogy's of PX1 and PX2 samples, Weight Percent (wt%) (SEM Automated Mineralogy)

Sample	SKC-PX1				SKC-PX2			
Mineral	-75µm	-150+75µm	-250+150µm	Head	-75µm	-150+75µm	-250+150µm	Head
Pyrrhotite	0.2	0.7	0.6	0.4	0.0	0.0	0.0	0.0
Chalcopyrite	0.5	0.4	0.3	0.4	0.0	0.1	0.1	0.1
Pentlandite	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Talc	1.3	0.9	1.0	1.1	0.0	0.0	0.0	0.0
Serpentine	0.8	0.6	0.7	0.7	0.0	0.0	0.0	0.0
Clinopyroxene	0.4	0.2	0.1	0.3	0.1	0.0	0.0	0.1
Amphiboles	54.1	68.5	70.0	60.9	70.2	83.4	86.1	75.0
Chlorite	40.3	27.3	26.0	34.2	25.4	13.1	10.6	20.9
Biotite	0.4	0.4	0.3	0.4	0.9	1.9	1.9	1.2
Quartz	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Plagioclase	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbonates	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0
Magnetite	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.2	0.2	0.3	0.2	0.2	0.5	0.6	0.3
Apatite	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Mixtures	1.3	0.2	0.1	0.8	2.8	0.6	0.2	2.0
Unclassified	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amount of measured particles	30198	48153	27024	105375	30137	41735	29615	101487

Table I1.3. Modal mineralogy's of MS1 and MS2 samples, Weight Percent (wt%) (SEM Automated Mineralogy)

Sample	SKC-MS1				SKC-MS2			
Mineral	-75µm	-150+75µm	-250+150µm	Head	-75µm	-150+75µm	-250+150µm	Head
Pyrrhotite	0.3	0.7	0.3	0.4	0.3	0.3	0.2	0.3
Chalcopyrite	1.0	0.4	0.3	0.6	0.6	0.4	0.4	0.5
Pentlandite	0.4	0.1	0.1	0.2	0.3	0.1	0.1	0.2
Pyrite	0.2	0.2	0.3	0.2	0.0	0.1	0.0	0.1
Talc	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	70.6	75.6	75.2	73.4	24.5	21.9	20.3	22.7
Chlorite	5.1	2.4	2.3	3.5	15.6	7.8	7.4	11.5
Biotite	3.7	3.2	2.5	3.2	12.0	14.5	10.3	12.2
Quartz	5.5	5.8	5.8	5.7	3.0	3.2	3.7	3.3
Plagioclase	9.1	9.7	11.8	10.1	39.9	47.7	53.5	45.5
K-feldspar	0.5	0.3	0.2	0.4	0.5	0.5	0.6	0.5
Other silicates	0.8	0.9	1.0	0.9	2.3	3.0	3.4	2.8
Carbonates	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Apatite	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1
Mixtures	2.0	0.4	0.2	1.0	0.5	0.1	0.1	0.3
Unclassified	0.4	0.2	0.1	0.3	0.3	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amount of measured particles	30471	42586	18434	91491	29542	42520	26250	98312

Table I1.4. Modal mineralogy's of TZ1 and TZ2 samples, Weight Percent (wt%) (SEM Automated Mineralogy)

Sample	SKC-TZ1				SKC-TZ2			
Mineral	-75µm	-150+75µm	-250+150µm	Head	-75µm	-150+75µm	-250+150µm	Head
Pyrrhotite	0.6	0.4	0.4	0.5	1.2	1.2	1.3	1.2
Chalcopyrite	0.7	0.5	0.5	0.6	0.6	0.4	0.4	0.5
Pentlandite	0.1	0.2	0.1	0.2	0.3	0.4	0.1	0.2
Pyrite	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	36.3	34.1	31.6	34.2	38.7	36.7	31.8	36.0
Chlorite	7.9	3.8	4.1	5.6	12.1	6.2	6.6	8.8
Biotite	5.5	7.1	4.4	5.6	6.5	8.0	6.0	6.8
Quartz	7.9	7.6	7.1	7.6	5.2	5.4	5.0	5.2
Plagioclase	33.5	39.2	44.5	38.5	31.1	37.2	43.6	36.6
K-feldspar	0.7	0.5	0.5	0.6	0.5	0.4	0.4	0.5
Other silicates	5.7	6.0	6.6	6.1	2.8	3.7	4.6	3.6
Carbonates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apatite	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1
Mixtures	0.5	0.1	0.1	0.3	0.3	0.1	0.0	0.2
Unclassified	0.4	0.2	0.1	0.2	0.3	0.1	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amount of measured particles	29952	47390	27283	104625	30125	49287	28834	108246

Table I1.5. Modal mineralogy's of BAS1 and BAS2 samples, Weight Percent (wt%) (SEM Automated Mineralogy)

Sample	SKC-BAS1				SKC-BAS2			
Mineral	-75µm	-150+75µm	-250+150µm	Head	-75µm	-150+75µm	-250+150µm	Head
Pyrrhotite	0.9	1.3	1.1	1.1	0.2	0.2	0.2	0.2
Chalcopyrite	0.6	0.3	0.4	0.5	2.7	1.5	1.1	1.9
Pentlandite	0.5	0.4	0.3	0.4	0.0	0.0	0.1	0.0
Pyrite	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Talc	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	8.8	6.8	6.6	7.6	39.0	40.3	35.0	38.3
Chlorite	8.0	3.6	3.4	5.5	13.2	6.1	5.4	9.1
Biotite	12.5	19.3	13.6	14.7	3.3	6.0	5.1	4.5
Quartz	4.0	4.4	4.7	4.3	3.7	3.8	3.9	3.8
Plagioclase	60.6	59.8	65.0	61.6	33.9	38.2	45.0	38.1
K-feldspar	1.0	0.8	0.8	0.9	0.6	0.5	0.5	0.5
Other silicates	2.3	2.9	3.5	2.8	2.4	2.8	3.4	2.8
Carbonates	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.2
Apatite	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
Mixtures	0.1	0.0	0.0	0.1	0.3	0.1	0.0	0.2
Unclassified	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Amount of measured particles	29753	47217	32285	109255	29668	41879	20610	92157

Table I2.1. Association between minerals, Sample PM1 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		3.6	2.8	0.0	2.3	2.4	0.0	5.8	9.0	0.1
Chalcopyrite	5.2		0.2	0.0	3.3	1.8	0.0	3.7	16.6	0.1
Pentlandite	5.4	0.4		0.0	1.1	1.5	0.0	4.6	8.0	0.1
Pyrite	0.3	0.0	0.0		0.3	0.0	0.0	0.2	0.0	0.0
Talc	0.1	0.1	0.0	0.0		4.7	0.0	7.2	4.4	0.1
Serpentine	0.1	0.0	0.0	0.0	8.0		0.1	19.9	16.3	0.2
Clinopyroxene	0.1	0.0	0.0	0.0	1.9	4.2		31.1	2.4	0.0
Amphiboles	0.1	0.0	0.0	0.0	5.3	8.9	0.2		11.2	0.1
Chlorite	0.1	0.1	0.0	0.0	2.1	5.3	0.0	7.9		0.2
Biotite	0.1	0.0	0.0	0.0	3.5	5.6	0.0	9.6	25.2	
Quartz	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0
Plagioclase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.5	0.0
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.1
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.2	0.0
Carbonates	0.1	0.1	0.1	0.0	0.6	2.6	0.2	5.0	1.9	0.1
Magnetite	0.5	0.7	0.1	0.0	6.1	2.4	0.0	4.0	11.8	0.1
Ilmenite	0.1	0.2	0.1	0.0	4.4	4.2	0.0	6.7	34.9	0.3
Apatite	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.7	8.4	1.1
Mixtures	0.5	0.2	0.1	0.0	1.1	1.5	0.2	5.4	6.1	0.1
Unclassified	0.6	0.8	0.2	0.0	1.0	0.7	0.0	4.3	9.2	0.0

Table I2.2. Association between minerals, Sample PM1 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.0	0.0	0.0	0.0	1.4	0.5	0.0	0.0	1.4	0.3	69.8
Chalcopyrite	0.0	0.0	0.0	0.0	2.1	1.2	0.1	0.0	0.8	0.4	64.3
Pentlandite	0.0	0.0	0.0	0.0	0.9	0.2	0.0	0.0	0.8	0.3	76.8
Pyrite	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	98.0
Talc	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.0	83.1
Serpentine	0.0	0.0	0.0	0.0	0.8	0.1	0.1	0.0	0.1	0.0	54.3
Clinopyroxene	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	1.9	0.0	53.8
Amphiboles	0.0	0.0	0.0	0.0	0.9	0.1	0.0	0.0	0.3	0.0	72.9
Chlorite	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.1	83.4
Biotite	0.0	0.0	0.0	0.0	1.2	0.2	0.1	0.2	0.3	0.0	54.0
Quartz		2.1	0.0	0.1	0.0	1.5	0.0	0.1	0.0	0.2	94.9
Plagioclase	2.0		1.5	1.3	0.0	0.0	0.0	0.0	0.1	0.0	92.6
K-feldspar	0.0	6.1		0.0	0.0	0.4	0.0	0.0	0.0	25.5	67.3
Other silicates	1.5	9.3	0.0		0.0	0.0	0.0	0.4	0.4	0.4	86.7
Carbonates	0.0	0.0	0.0	0.0		0.3	0.1	0.1	1.9	0.1	86.8
Magnetite	0.0	0.0	0.0	0.0	2.7		0.7	0.0	0.5	0.1	70.5
Ilmenite	0.0	0.0	0.0	0.0	3.3	2.2		0.1	0.3	0.7	42.6
Apatite	0.0	0.0	0.0	0.0	0.7	0.0	0.1		0.0	0.1	88.2
Mixtures	0.0	0.0	0.0	0.0	7.5	0.2	0.1	0.0		0.2	76.8
Unclassified	0.0	0.0	0.3	0.0	1.1	0.1	0.4	0.1	1.3		79.0

Table I2.3. Association between minerals, Sample PM2 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		3.4	5.1	0.1	3.5	0.2	0.0	0.1	7.0	0.0
Chalcopyrite	4.5		0.3	0.0	6.1	0.2	0.0	0.4	10.0	0.0
Pentlandite	8.4	0.4		0.0	3.2	0.1	0.0	0.1	4.3	0.0
Pyrite	5.5	0.0	0.0		0.1	0.3	0.0	0.0	0.3	0.0
Talc	0.0	0.1	0.0	0.0		0.7	0.0	0.0	1.5	0.0
Serpentine	0.1	0.1	0.0	0.0	20.5		0.1	0.8	21.4	0.2
Clinopyroxene	0.1	0.0	0.0	0.0	5.0	1.2		5.3	0.9	0.0
Amphiboles	0.1	0.2	0.0	0.0	2.9	1.9	0.5		4.3	0.1
Chlorite	0.1	0.1	0.0	0.0	2.2	1.1	0.0	0.1		0.1
Biotite	0.0	0.0	0.0	0.0	7.4	1.8	0.0	0.2	16.3	
Quartz	0.0	0.0	0.0	0.5	0.1	0.1	0.0	0.2	0.9	0.0
Plagioclase	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.6	0.2
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0
Carbonates	0.3	0.1	0.1	0.0	2.3	1.3	0.1	0.9	7.6	0.1
Magnetite	0.3	0.2	0.1	0.0	12.2	1.0	0.0	0.1	14.6	0.1
Ilmenite	0.1	0.1	0.0	0.0	15.7	0.6	0.0	0.3	17.4	0.0
Apatite	0.1	0.1	0.0	0.0	7.6	0.3	0.0	0.6	10.0	0.0
Mixtures	0.3	0.2	0.1	0.0	1.8	0.5	0.1	0.8	6.5	0.1
Unclassified	0.4	0.1	0.3	0.0	2.0	0.2	0.0	0.6	3.3	0.0

Table I2.4. Association between minerals, Sample PM2 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.0	0.0	0.0	0.0	7.6	2.9	0.1	0.0	1.2	0.3	68.1
Chalcopyrite	0.0	0.0	0.0	0.0	5.3	2.3	0.0	0.0	0.9	0.1	69.3
Pentlandite	0.0	0.0	0.0	0.0	6.8	1.3	0.0	0.0	0.8	0.4	73.4
Pyrite	0.9	0.1	0.0	0.0	0.3	1.1	0.0	0.0	0.0	0.0	88.9
Talc	0.0	0.0	0.0	0.0	0.7	1.1	0.1	0.0	0.1	0.0	95.7
Serpentine	0.0	0.0	0.0	0.0	11.9	2.4	0.1	0.0	0.5	0.1	41.7
Clinopyroxene	0.0	0.0	0.0	0.0	37.6	0.2	0.0	0.0	1.9	0.2	47.7
Amphiboles	0.0	0.1	0.1	0.0	20.6	0.8	0.1	0.1	2.2	0.3	64.9
Chlorite	0.0	0.0	0.0	0.0	3.4	1.9	0.1	0.0	0.3	0.0	90.5
Biotite	0.0	0.1	0.0	0.0	5.3	1.1	0.0	0.0	1.5	0.1	66.2
Quartz		1.7	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.3	95.8
Plagioclase	0.3		0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	97.8
K-feldspar	0.0	0.4		0.0	0.1	0.0	0.0	0.0	0.0	0.1	97.9
Other silicates	0.0	30.7	0.0		0.0	0.0	0.0	0.0	0.0	0.6	60.0
Carbonates	0.0	0.0	0.0	0.0		3.2	0.1	0.1	1.9	0.6	80.4
Magnetite	0.0	0.0	0.0	0.0	10.7		0.1	0.0	0.4	0.1	60.0
Ilmenite	0.0	0.0	0.0	0.0	7.5	2.4		0.0	0.3	1.2	54.3
Apatite	0.0	0.0	0.0	0.0	7.6	0.8	0.0		0.1	2.7	70.1
Mixtures	0.0	0.0	0.0	0.0	15.8	1.1	0.0	0.0		0.3	72.2
Unclassified	0.0	0.0	0.0	0.0	21.4	1.2	0.7	0.7	1.2		67.8

Table I2.5. Association between minerals, Sample PX1 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		2.4	3.6	0.0	1.5	1.4	0.0	18.4	6.7	0.1
Chalcopyrite	1.7		0.1	0.0	0.3	0.2	0.0	11.7	8.4	0.1
Pentlandite	11.9	0.3		0.0	0.8	0.8	0.1	20.2	4.0	0.2
Pyrite	0.0	0.0	0.0		0.0	0.0	0.0	4.6	12.5	0.0
Talc	0.2	0.1	0.0	0.0		2.6	0.1	21.0	4.0	0.1
Serpentine	0.2	0.0	0.0	0.0	3.4		0.1	25.5	15.2	0.2
Clinopyroxene	0.0	0.0	0.0	0.0	0.3	0.3		36.8	1.1	0.0
Amphiboles	0.1	0.1	0.0	0.0	1.0	0.8	0.2		15.2	0.2
Chlorite	0.0	0.1	0.0	0.0	0.2	0.7	0.0	17.1		0.3
Biotite	0.1	0.1	0.0	0.0	0.3	0.6	0.0	15.1	23.0	
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	0.1	0.7
Plagioclase	0.0	0.2	0.0	0.0	0.0	0.0	0.0	8.5	2.7	0.7
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Other silicates	0.0	0.1	0.0	0.0	0.0	0.0	0.0	7.9	3.2	0.0
Carbonates	0.3	0.1	0.0	0.3	2.2	3.8	0.3	7.6	19.3	0.1
Magnetite	0.4	0.0	0.0	0.0	0.2	0.5	0.0	16.3	1.8	0.1
Ilmenite	0.1	0.1	0.0	0.0	0.1	0.5	0.0	24.9	18.1	0.5
Apatite	0.1	0.3	0.0	0.0	0.2	0.1	0.0	21.8	20.6	0.1
Mixtures	0.1	0.1	0.1	0.0	0.3	0.1	0.1	12.5	3.5	0.0
Unclassified	0.1	0.1	0.0	0.0	0.1	0.1	0.0	9.2	2.9	0.1

Table I2.6. Association between minerals, Sample PX1 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.9	0.4	63.9
Chalcopyrite	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.5	0.1	76.5
Pentlandite	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	2.6	0.3	58.3
Pyrite	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	64.7
Talc	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0	71.5
Serpentine	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.1	0.0	54.9
Clinopyroxene	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.0	60.7
Amphiboles	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.1	81.6
Chlorite	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	81.2
Biotite	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	60.4
Quartz		2.5	0.1	0.8	0.0	1.1	0.0	0.0	0.0	0.3	80.0
Plagioclase	1.9		0.8	12.2	0.0	0.0	0.0	0.0	0.0	0.0	73.0
K-feldspar	0.3	1.0		0.0	0.0	0.0	0.0	0.0	0.0	0.2	98.2
Other silicates	1.1	10.6	0.0		0.0	0.0	0.0	0.0	0.0	34.0	43.2
Carbonates	0.0	0.0	0.0	0.0		0.1	0.8	0.1	3.4	0.1	61.3
Magnetite	1.3	0.0	0.0	0.0	0.7		0.0	0.0	0.0	0.7	77.8
Ilmenite	0.0	0.0	0.0	0.0	0.6	0.0		0.1	0.3	1.0	53.6
Apatite	0.0	0.0	0.0	0.0	0.9	0.0	1.6		0.2	0.4	53.4
Mixtures	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0		0.1	82.8
Unclassified	0.0	0.0	0.0	1.4	0.0	0.0	0.4	0.0	0.6		84.6

Table I2.7. Association between minerals, Sample PX2 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		0.6	1.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0
Chalcopyrite	0.1		0.1	0.0	0.0	0.0	0.0	20.3	1.8	0.1
Pentlandite	4.9	3.4		9.9	0.0	0.0	0.0	35.7	0.3	0.0
Pyrite	0.0	0.0	2.4		0.0	0.0	0.0	2.8	0.0	0.0
Talc	0.8	0.0	0.0	0.0		0.3	0.0	4.6	0.5	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0		0.0	2.8	0.1	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		25.5	0.4	0.1
Amphiboles	0.0	0.0	0.0	0.0	0.0	0.0	0.0		7.5	0.6
Chlorite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6		0.7
Biotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	14.1	
Quartz	0.1	0.1	0.0	0.0	0.0	0.0	0.0	4.7	0.8	0.5
Plagioclase	0.2	0.1	0.0	0.0	0.0	0.0	0.0	6.6	1.5	1.7
K-feldspar	0.3	0.1	0.1	3.0	0.0	0.0	0.0	1.2	0.0	0.2
Other silicates	0.0	0.1	0.0	0.0	0.0	0.0	0.0	57.7	1.1	0.1
Carbonates	0.0	0.0	0.0	4.2	0.0	0.4	0.6	0.5	0.0	0.1
Magnetite	0.2	0.1	0.0	0.0	0.0	0.0	0.0	22.7	14.9	0.2
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.5	3.6	0.6
Apatite	0.0	0.0	0.0	0.1	0.0	0.0	0.1	30.5	2.8	1.4
Mixtures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.7	0.1
Unclassified	0.0	0.1	0.0	0.1	0.0	0.0	0.0	11.8	1.7	0.1

Table I2.8. Association between minerals, Sample PX2 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.3	3.8	0.4	0.0	0.0	0.4	0.0	0.0	0.2	0.2	92.0
Chalcopyrite	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.8	0.3	67.4
Pentlandite	0.0	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	39.9
Pyrite	0.0	0.5	22.4	0.0	40.6	0.0	0.0	0.9	0.0	8.4	21.9
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.8
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	1.9	0.1	71.8
Amphiboles	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.1	90.9
Chlorite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	85.6
Biotite	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	63.9
Quartz		15.4	0.7	1.8	0.0	0.0	0.0	0.0	0.2	0.6	75.2
Plagioclase	4.6		6.3	7.1	0.0	0.0	0.0	0.0	0.0	0.6	71.2
K-feldspar	1.2	37.3		0.6	0.0	0.0	0.0	0.2	0.0	3.2	52.5
Other silicates	1.4	19.8	0.4		0.5	0.1	0.0	0.0	3.1	0.4	15.3
Carbonates	0.0	0.0	0.0	0.9		2.0	0.5	0.2	21.3	21.0	48.3
Magnetite	0.1	0.0	0.1	0.4	2.0		0.0	0.0	1.9	3.9	52.8
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.2	2.3	66.8
Apatite	0.0	0.0	0.2	0.0	0.1	0.0	0.1		0.3	1.4	63.1
Mixtures	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0		0.1	86.9
Unclassified	0.1	0.3	0.3	0.1	1.5	0.2	2.0	0.3	1.3		80.2

Table I2.9. Association between minerals, Sample MS1 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		1.7	3.5	0.0	0.0	0.0	0.0	16.4	0.7	0.1
Chalcopyrite	0.5		0.1	0.1	0.0	0.0	0.0	21.1	0.7	0.3
Pentlandite	3.5	0.3		0.2	0.0	0.0	0.0	13.4	0.5	0.1
Pyrite	0.1	0.5	0.7		0.0	0.0	0.0	14.6	3.1	0.5
Talc	0.0	0.0	0.0	0.0		0.2	0.0	0.3	1.0	0.0
Serpentine	0.1	0.0	0.0	0.0	1.6		0.0	15.0	7.6	0.3
Clinopyroxene	0.0	0.7	0.0	0.0	0.0	0.0		6.4	0.0	0.0
Amphiboles	0.1	0.4	0.1	0.0	0.0	0.0	0.0		2.1	0.7
Chlorite	0.0	0.1	0.0	0.1	0.0	0.0	0.0	16.8		2.1
Biotite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	9.9	3.6	
Quartz	0.0	0.2	0.0	0.1	0.0	0.0	0.0	39.7	2.2	1.5
Plagioclase	0.1	0.3	0.0	0.0	0.0	0.0	0.0	11.0	2.8	1.9
K-feldspar	0.2	0.6	0.3	0.2	0.0	0.0	0.0	2.6	0.5	3.3
Other silicates	0.1	0.3	0.0	0.1	0.0	0.0	0.0	24.8	1.5	0.5
Carbonates	0.6	0.2	0.0	0.0	0.0	0.0	0.4	3.0	0.6	0.9
Magnetite	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0	2.4	0.1
Ilmenite	0.1	0.0	0.0	0.0	0.0	0.0	0.0	27.9	0.8	2.3
Apatite	0.0	0.0	0.0	0.0	0.0	0.0	0.1	23.4	1.3	1.5
Mixtures	0.1	0.1	0.0	0.1	0.0	0.0	0.0	20.3	0.1	0.1
Unclassified	1.0	0.4	0.1	0.1	0.0	0.0	0.0	24.8	0.9	0.6

Table I2.10. Association between minerals, Sample MS1 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.7	3.2	0.7	0.9	0.2	0.1	0.0	0.0	0.5	1.5	68.2
Chalcopyrite	2.0	3.3	0.5	0.9	0.0	0.0	0.0	0.0	0.4	0.3	69.4
Pentlandite	0.9	1.9	0.8	0.4	0.0	0.0	0.0	0.0	0.3	0.3	77.0
Pyrite	4.9	2.9	1.4	1.4	0.0	0.0	0.0	0.0	1.3	1.2	66.8
Talc	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.4
Serpentine	2.0	0.3	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	72.8
Clinopyroxene	0.6	0.2	0.0	0.0	1.7	0.0	0.0	0.1	0.4	0.1	89.9
Amphiboles	8.9	2.4	0.1	1.3	0.0	0.0	0.0	0.0	0.8	0.3	82.7
Chlorite	3.9	4.9	0.1	0.7	0.0	0.0	0.0	0.0	0.1	0.1	71.0
Biotite	4.5	5.7	0.7	0.4	0.0	0.0	0.0	0.0	0.1	0.2	74.7
Quartz		6.9	0.2	0.7	0.0	0.0	0.0	0.0	0.2	0.7	47.7
Plagioclase	7.2		1.3	8.6	0.1	0.0	0.0	0.0	0.0	0.3	66.3
K-feldspar	2.5	20.6		2.8	0.1	0.0	0.0	0.0	0.0	0.9	65.3
Other silicates	2.9	34.1	0.8		0.0	0.0	0.5	0.0	0.3	0.6	33.6
Carbonates	1.4	7.4	0.7	1.1		0.0	0.0	0.1	0.7	0.1	82.7
Magnetite	0.3	0.2	0.1	0.0	0.1		0.0	0.0	0.1	0.6	88.4
Ilmenite	2.5	1.9	0.0	19.3	0.0	0.0		0.4	0.6	5.4	38.8
Apatite	3.9	6.5	0.3	0.4	0.1	0.0	0.3		0.3	0.4	61.5
Mixtures	0.7	0.2	0.0	0.2	0.0	0.0	0.0	0.0		0.1	77.9
Unclassified	11.2	3.7	0.8	1.9	0.0	0.0	0.4	0.1	0.5		53.5

Table I2.11. Association between minerals, Sample MS2 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		3.4	5.7	0.0	0.0	0.0	0.0	3.7	0.8	0.1
Chalcopyrite	1.1		0.1	0.3	0.0	0.0	0.0	4.9	1.8	0.3
Pentlandite	6.2	0.2		2.7	0.0	0.0	0.0	2.8	1.4	0.2
Pyrite	0.1	3.9	13.9		0.0	0.0	0.0	5.4	1.2	0.2
Talc	0.0	0.3	0.0	0.0		2.4	0.0	4.9	6.0	0.3
Serpentine	0.0	0.0	0.0	0.0	2.6		0.0	32.1	5.6	6.3
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		21.3	0.2	0.1
Amphiboles	0.0	0.1	0.0	0.0	0.0	0.0	0.0		7.3	0.7
Chlorite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4		1.8
Biotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2	
Quartz	0.1	0.3	0.0	0.0	0.0	0.0	0.0	15.7	1.8	0.7
Plagioclase	0.0	0.1	0.0	0.0	0.0	0.0	0.0	9.7	5.0	2.6
K-feldspar	0.1	0.5	0.1	0.0	0.0	0.0	0.0	2.5	0.7	1.8
Other silicates	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.9	1.3	0.2
Carbonates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	0.2
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.9
Apatite	0.0	0.2	0.1	0.0	0.0	0.0	0.0	3.2	1.3	0.9
Mixtures	0.1	0.1	0.0	0.1	0.0	0.0	0.0	19.0	0.6	0.4
Unclassified	0.1	1.0	0.2	0.1	0.0	0.0	0.0	2.7	0.6	2.0

Table I2.12. Association between minerals, Sample MS2 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	1.7	5.0	0.6	2.0	0.0	0.0	0.0	0.0	0.4	0.2	74.4
Chalcopyrite	3.0	10.9	1.4	3.5	0.0	0.0	0.0	0.0	0.2	0.8	71.3
Pentlandite	0.4	4.0	0.8	1.1	0.0	0.0	0.0	0.0	0.2	0.6	78.5
Pyrite	0.1	5.8	0.6	2.1	0.0	0.0	0.0	0.0	1.0	0.8	63.5
Talc	6.1	7.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	2.8	69.4
Serpentine	1.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	46.2
Clinopyroxene	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	77.2
Amphiboles	3.1	15.8	0.1	0.2	0.0	0.0	0.0	0.0	0.5	0.0	72.1
Chlorite	0.4	10.4	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	77.5
Biotite	0.4	9.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	85.0
Quartz		22.4	1.0	3.1	0.0	0.0	0.0	0.0	0.2	0.7	54.1
Plagioclase	2.8		1.2	5.8	0.0	0.0	0.0	0.0	0.0	0.1	72.5
K-feldspar	3.5	39.5		3.5	0.0	0.0	0.0	0.0	0.0	0.4	47.4
Other silicates	3.3	50.3	0.9		0.0	0.0	0.0	0.0	0.0	0.2	42.3
Carbonates	0.2	0.0	0.0	0.0		0.0	5.3	0.0	0.2	1.4	92.8
Magnetite	0.0	2.5	0.0	0.1	0.0		0.0	0.0	0.0	1.5	89.7
Ilmenite	5.9	5.3	0.0	6.7	4.5	0.0		0.0	0.0	0.0	75.6
Apatite	0.8	6.9	0.0	0.5	0.0	0.0	0.0		0.0	0.7	85.3
Mixtures	1.1	1.4	0.0	0.1	0.0	0.0	0.0	0.0		0.0	77.0
Unclassified	8.8	10.5	1.2	2.4	0.1	0.2	0.0	0.2	0.1		69.4

Table I2.13. Association between minerals, Sample TZ1 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		2.3	3.7	0.1	0.0	0.0	0.0	5.9	0.7	0.1
Chalcopyrite	0.9		0.1	0.3	0.0	0.0	0.0	11.3	1.0	0.3
Pentlandite	8.7	0.4		1.9	0.0	0.0	0.0	8.7	0.9	0.4
Pyrite	0.3	3.8	4.5		0.0	0.0	0.0	3.9	1.3	0.3
Talc	0.0	0.0	0.0	0.0		0.1	0.0	0.9	1.4	0.0
Serpentine	0.5	0.9	0.0	0.0	0.1		0.0	25.4	15.4	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		2.9	0.0	0.0
Amphiboles	0.1	0.4	0.1	0.0	0.0	0.0	0.0		5.4	0.6
Chlorite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	13.9		1.4
Biotite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	3.2	2.7	
Quartz	0.1	0.3	0.0	0.0	0.0	0.0	0.0	17.6	3.0	1.0
Plagioclase	0.1	0.4	0.0	0.0	0.0	0.0	0.0	6.1	3.0	1.2
K-feldspar	0.3	0.7	0.2	0.0	0.0	0.0	0.0	2.8	0.7	2.9
Other silicates	0.1	0.6	0.0	0.0	0.0	0.0	0.0	3.2	2.0	0.2
Carbonates	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	9.8	0.7
Magnetite	0.0	0.0	0.0	0.0	0.0	1.2	0.0	6.6	0.8	0.7
Ilmenite	4.7	0.7	0.0	0.0	0.0	0.0	0.0	2.2	4.2	7.3
Apatite	0.0	0.2	0.0	0.1	0.0	0.0	0.0	9.9	1.1	0.6
Mixtures	0.1	0.1	0.0	0.0	0.0	0.0	0.0	26.0	0.9	0.1
Unclassified	0.2	0.7	0.1	0.1	0.0	0.0	0.0	11.4	1.1	0.9

Table I2.14. Association between minerals, Sample TZ1 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	1.8	7.8	1.2	5.3	0.0	0.0	0.0	0.0	0.1	0.5	69.2
Chalcopyrite	4.1	15.8	1.1	8.7	0.0	0.0	0.0	0.0	0.1	0.6	55.3
Pentlandite	2.4	10.1	1.8	4.4	0.0	0.0	0.0	0.0	0.1	0.8	57.2
Pyrite	1.4	6.4	1.0	4.2	0.0	0.0	0.0	0.1	0.2	0.7	70.7
Talc	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.4
Serpentine	3.3	1.6	0.0	0.0	0.0	3.8	0.0	0.0	0.1	0.7	48.2
Clinopyroxene	21.8	0.8	0.0	6.0	1.1	0.0	0.0	0.0	0.1	1.3	66.0
Amphiboles	7.3	9.0	0.2	1.6	0.0	0.0	0.0	0.0	0.5	0.3	74.5
Chlorite	3.2	11.2	0.1	2.7	0.0	0.0	0.0	0.0	0.1	0.1	67.2
Biotite	2.3	9.4	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.1	80.9
Quartz		19.2	0.7	3.4	0.0	0.0	0.0	0.0	0.1	0.8	53.7
Plagioclase	5.5		1.2	20.6	0.0	0.0	0.0	0.0	0.0	0.3	61.6
K-feldspar	5.5	32.8		4.1	0.0	0.0	0.0	0.0	0.0	0.4	49.6
Other silicates	2.8	57.6	0.4		0.0	0.0	0.0	0.0	0.0	0.2	32.6
Carbonates	2.1	13.5	0.7	0.8		0.0	0.0	0.0	0.2	0.6	71.1
Magnetite	0.0	2.7	0.0	0.4	0.0		0.0	0.0	0.0	0.9	86.6
Ilmenite	6.3	16.1	0.0	25.6	0.0	0.0		0.0	0.0	3.5	29.2
Apatite	3.8	8.3	0.1	3.0	0.0	0.0	0.0		0.1	0.4	72.6
Mixtures	1.0	0.7	0.0	0.4	0.0	0.0	0.0	0.0		0.2	70.5
Unclassified	12.1	13.5	0.8	4.1	0.0	0.0	0.0	0.0	0.2		54.6

Table I2.15. Association between minerals, Sample TZ2 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		1.2	4.4	0.0	0.0	0.0	0.0	4.2	0.6	0.2
Chalcopyrite	1.2		0.1	0.1	0.0	0.0	0.0	5.7	1.4	0.3
Pentlandite	15.0	0.3		0.0	0.1	0.0	0.0	4.0	0.5	0.4
Pyrite	0.4	1.4	0.0		0.0	0.0	0.0	2.5	0.3	0.5
Talc	0.0	0.1	0.9	0.1		0.1	0.0	4.4	11.4	0.4
Serpentine	0.0	0.0	0.0	0.0	0.2		0.0	28.8	9.6	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		26.2	1.1	0.0
Amphiboles	0.1	0.1	0.0	0.0	0.0	0.0	0.0		9.4	0.6
Chlorite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	18.1		1.6
Biotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.7	
Quartz	0.1	0.2	0.0	0.0	0.0	0.0	0.0	16.2	4.8	0.8
Plagioclase	0.1	0.2	0.0	0.0	0.0	0.0	0.0	7.6	2.7	2.4
K-feldspar	0.3	0.8	0.1	0.0	0.1	0.0	0.0	3.3	1.3	2.3
Other silicates	0.1	0.2	0.0	0.0	0.0	0.0	0.0	2.1	2.6	0.2
Carbonates	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.0
Magnetite	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apatite	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.3	2.1	0.5
Mixtures	0.1	0.2	0.0	0.0	0.0	0.0	0.1	32.0	0.6	0.1
Unclassified	0.3	0.6	0.4	0.1	0.0	0.0	0.0	8.9	2.8	1.3

Table I2.16. Association between minerals, Sample TZ2 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	0.9	5.8	0.8	1.5	0.0	0.0	0.0	0.0	0.2	0.4	78.1
Chalcopyrite	3.0	16.8	1.8	5.1	0.0	0.0	0.0	0.0	0.3	0.6	63.4
Pentlandite	0.6	3.7	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.9	72.4
Pyrite	0.5	1.0	0.1	1.1	0.0	0.0	0.0	0.0	0.5	1.0	90.6
Talc	8.6	4.5	1.8	0.3	0.0	0.0	0.0	0.0	0.2	0.5	66.8
Serpentine	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.6
Clinopyroxene	4.4	0.8	0.0	0.1	0.2	0.0	0.0	0.0	1.6	0.1	65.5
Amphiboles	4.0	9.8	0.1	0.7	0.0	0.0	0.0	0.0	0.5	0.1	74.5
Chlorite	2.4	6.6	0.1	2.1	0.0	0.0	0.0	0.0	0.0	0.1	68.9
Biotite	1.0	13.6	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	78.3
Quartz		20.0	0.9	1.8	0.0	0.0	0.0	0.1	0.0	0.7	54.3
Plagioclase	3.9		0.9	21.2	0.0	0.0	0.0	0.0	0.0	0.2	60.8
K-feldspar	6.4	32.7		4.0	0.0	0.0	0.0	0.0	0.0	0.4	48.3
Other silicates	1.2	68.8	0.4		0.0	0.0	0.0	0.0	0.0	0.3	24.2
Carbonates	3.0	3.9	0.6	0.8		1.2	0.0	0.0	0.8	0.3	88.6
Magnetite	0.0	2.4	0.0	0.3	0.6		0.0	0.0	0.0	0.1	93.5
Ilmenite	0.0	0.0	0.0	68.7	0.0	0.0		0.0	0.0	18.9	8.8
Apatite	6.8	6.2	0.1	0.7	0.0	0.0	0.0		0.0	1.1	74.1
Mixtures	0.5	0.7	0.0	0.1	0.0	0.0	0.0	0.0		0.1	65.4
Unclassified	10.8	13.7	0.8	5.2	0.0	0.0	0.0	0.2	0.1		54.7

Table I2.17. Association between minerals, Sample BAS1 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		2.0	7.9	0.2	0.0	0.0	0.0	0.9	0.8	0.5
Chalcopyrite	2.4		0.2	0.5	0.0	0.0	0.0	1.0	1.4	0.5
Pentlandite	13.7	0.4		1.2	0.0	0.0	0.0	1.0	0.8	0.5
Pyrite	1.2	3.6	5.3		0.0	0.0	0.0	0.6	2.3	0.5
Talc	0.0	0.0	0.0	0.0		0.6	0.0	2.6	0.2	0.0
Serpentine	0.0	0.0	1.0	0.0	12.4		0.0	2.7	4.5	0.1
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		6.1	0.0	0.4
Amphiboles	0.1	0.1	0.1	0.0	0.0	0.0	0.0		3.1	0.5
Chlorite	0.1	0.1	0.0	0.0	0.0	0.0	0.0	2.6		2.1
Biotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	
Quartz	0.2	0.3	0.1	0.0	0.0	0.0	0.0	3.0	1.8	1.5
Plagioclase	0.2	0.3	0.1	0.0	0.0	0.0	0.0	3.4	2.7	3.7
K-feldspar	0.6	0.5	0.4	0.1	0.0	0.0	0.0	1.0	0.4	3.2
Other silicates	0.4	0.7	0.2	0.1	0.0	0.0	0.0	1.0	1.9	0.8
Carbonates	0.1	0.2	0.0	0.3	0.0	0.0	0.0	2.3	0.6	0.3
Magnetite	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.5	1.8	0.3
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.7	7.0
Apatite	0.1	0.1	0.1	0.2	0.0	0.0	0.0	1.9	1.2	2.4
Mixtures	0.2	0.2	0.2	0.0	0.1	0.0	0.0	23.9	1.8	0.2
Unclassified	1.2	0.9	0.7	0.4	0.0	0.0	0.9	1.4	0.9	2.0

Table I2.18. Association between minerals, Sample BAS1 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	1.1	14.7	2.4	3.1	0.0	0.0	0.0	0.0	0.1	0.8	63.2
Chalcopyrite	1.8	21.1	2.2	5.5	0.0	0.0	0.0	0.0	0.0	0.7	62.0
Pentlandite	0.7	13.5	2.3	2.7	0.0	0.0	0.0	0.0	0.1	0.8	60.9
Pyrite	0.5	10.9	1.5	3.7	0.4	0.0	0.0	0.1	0.0	1.7	65.8
Talc	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	95.9
Serpentine	3.1	0.4	0.0	0.0	2.3	0.1	0.0	0.0	0.0	1.3	71.9
Clinopyroxene	5.9	6.7	0.0	0.1	0.6	0.0	0.0	0.0	0.1	13.2	67.0
Amphiboles	1.7	20.0	0.3	0.6	0.0	0.0	0.0	0.0	0.4	0.1	73.0
Chlorite	0.9	13.3	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.1	79.5
Biotite	0.5	11.6	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.1	85.4
Quartz		28.1	1.6	1.2	0.0	0.0	0.0	0.0	0.0	0.8	61.2
Plagioclase	2.7		2.2	6.0	0.0	0.0	0.0	0.0	0.0	0.3	78.1
K-feldspar	2.9	41.9		1.5	0.0	0.0	0.0	0.0	0.0	0.4	46.9
Other silicates	1.0	54.5	0.8		0.0	0.0	0.0	0.0	0.0	0.3	37.9
Carbonates	1.6	14.5	0.4	1.3		0.0	0.0	0.1	0.5	0.5	77.3
Magnetite	0.6	5.2	0.0	0.2	0.0		0.0	0.0	0.0	0.1	89.8
Ilmenite	1.1	6.5	0.2	5.6	0.0	0.0		0.2	0.0	10.9	65.7
Apatite	1.2	24.3	0.2	2.0	0.1	0.0	0.0		0.0	0.5	65.8
Mixtures	1.0	8.8	0.2	0.3	0.6	0.0	0.0	0.0		0.4	62.2
Unclassified	8.3	25.5	2.1	3.1	0.1	0.0	0.3	0.1	0.1		51.7

Table I2.19. Association between minerals, Sample BAS2 (SEM Automated Mineralogy)

Mineral	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite
Pyrrhotite		14.5	2.0	0.4	0.0	0.0	0.0	3.1	2.0	0.6
Chalcopyrite	1.1		0.1	0.0	0.0	0.0	0.0	4.9	0.8	0.3
Pentlandite	9.6	3.5		0.8	0.0	0.0	0.0	7.4	1.6	0.9
Pyrite	0.9	2.6	0.8		0.0	0.2	0.0	8.3	5.4	0.6
Talc	0.0	0.0	0.0	0.0		0.0	0.0	3.7	1.5	0.2
Serpentine	0.6	14.9	0.2	1.2	0.0		0.0	9.0	14.8	8.8
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0		10.3	10.6	1.4
Amphiboles	0.0	0.4	0.0	0.0	0.0	0.0	0.0		5.2	0.6
Chlorite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	8.4		1.3
Biotite	0.0	0.1	0.0	0.0	0.0	0.0	0.0	4.0	5.3	
Quartz	0.0	0.6	0.0	0.0	0.0	0.0	0.0	21.2	5.0	1.0
Plagioclase	0.1	1.0	0.0	0.0	0.0	0.0	0.0	6.6	6.2	1.0
K-feldspar	0.1	1.6	0.0	0.0	0.0	0.0	0.0	2.8	1.1	2.4
Other silicates	0.0	0.9	0.0	0.0	0.0	0.0	0.0	4.5	2.0	0.2
Carbonates	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.5	0.4
Magnetite	0.0	0.3	0.0	0.0	0.0	0.1	0.0	4.1	0.8	0.9
Ilmenite	0.1	0.0	0.0	0.0	0.0	0.0	0.0	17.2	7.8	2.8
Apatite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	1.5	0.3
Mixtures	0.0	0.2	0.0	0.1	0.0	0.0	0.1	32.9	0.5	0.1
Unclassified	0.3	1.4	0.1	0.1	0.0	0.0	0.0	11.9	2.7	1.1

Table I2.20. Association between minerals, Sample BAS2 (SEM Automated Mineralogy)

Mineral	Quartz	Plagioclase	K-feldspar	Other silicates	Carbonates	Magnetite	Ilmenite	Apatite	Mixtures	Unclassified	Free Surface
Pyrrhotite	1.3	11.8	1.3	2.1	0.0	0.0	0.1	0.0	0.2	1.1	56.4
Chalcopyrite	1.6	15.9	1.1	3.2	0.0	0.0	0.0	0.0	0.1	0.5	70.2
Pentlandite	1.1	9.4	1.4	3.3	0.0	0.0	0.1	0.0	0.2	0.6	58.7
Pyrite	1.7	4.5	1.3	1.7	0.1	0.0	0.0	0.0	1.1	1.4	69.1
Talc	6.5	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.5
Serpentine	13.8	1.8	1.6	0.5	0.0	0.1	0.0	0.0	0.2	2.8	27.4
Clinopyroxene	1.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.7	71.8
Amphiboles	4.4	8.5	0.1	1.1	0.0	0.0	0.1	0.0	0.6	0.3	78.5
Chlorite	1.6	12.3	0.1	0.8	0.0	0.0	0.1	0.0	0.0	0.1	75.0
Biotite	1.4	8.8	0.8	0.3	0.0	0.0	0.1	0.0	0.0	0.2	78.9
Quartz		16.7	0.5	1.4	0.0	0.0	0.1	0.0	0.1	0.8	52.5
Plagioclase	2.7		1.5	13.0	0.0	0.0	0.0	0.0	0.0	0.5	67.3
K-feldspar	2.2	40.5		1.7	0.0	0.0	0.0	0.0	0.0	0.7	46.9
Other silicates	1.0	59.6	0.3		0.0	0.0	0.2	0.0	0.0	0.3	31.0
Carbonates	1.0	9.0	1.4	0.6		0.0	0.0	0.0	0.9	0.4	76.1
Magnetite	0.8	3.0	0.0	0.0	0.0		0.0	0.0	0.0	0.3	89.6
Ilmenite	4.8	8.8	0.0	6.5	0.0	0.0		0.0	0.0	8.0	44.0
Apatite	0.7	8.4	0.1	0.6	0.0	0.0	0.0		1.1	5.1	74.8
Mixtures	0.5	0.6	0.0	0.2	0.0	0.0	0.0	0.1		0.1	64.6
Unclassified	7.1	27.8	1.4	2.7	0.0	0.0	2.3	0.6	0.1		40.2

Table I3.1. Mineral Liberation, Sample PM1 and PM2 (SEM Automated Mineralogy)

SKC-PM1

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	96.61	94.06	91.80	89.77	87.26	84.20	80.04	74.61	61.08	44.24
By free surface	1.60	4.16	3.44	2.82	2.95	1.59	3.37	4.44	7.34	19.21	3.25	45.82
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	93.26	84.70	80.33	75.59	73.09	71.82	64.44	61.69	53.81	49.58
By free surface	3.07	7.40	8.98	3.48	3.79	4.52	6.39	3.76	4.32	2.74	1.96	49.58
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	95.70	93.21	92.22	90.28	87.85	85.76	84.85	72.30	71.12	68.06
By free surface	2.06	3.44	1.54	2.55	1.90	13.23	1.75	1.90	2.11	0.51	0.95	68.06

SKC-PM2

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	97.08	93.82	90.65	88.24	85.27	81.88	75.45	69.11	60.62	43.79
By free surface	1.59	3.19	4.15	3.61	2.49	6.15	6.20	7.87	6.19	5.83	6.58	46.16
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	94.03	89.57	87.06	83.24	79.75	78.41	73.34	69.42	67.22	50.52
By free surface	2.20	5.20	4.49	4.45	3.42	4.16	4.53	2.60	4.91	2.09	8.23	53.71
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	96.29	92.94	90.85	87.33	82.42	80.54	79.41	75.52	70.75	57.43
By free surface	1.37	3.11	2.67	3.91	5.22	4.28	1.54	4.56	2.21	4.88	5.84	60.41

Table I3.2. Mineral Liberation, Sample PX1 and PX2 (SEM Automated Mineralogy)

SKC-PX1

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	95.11	91.34	89.60	87.50	85.52	81.02	76.13	70.19	60.10	41.07
By free surface	2.57	4.65	3.34	4.87	1.94	4.91	3.80	6.10	6.96	6.80	10.18	43.87
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	95.05	92.70	89.72	87.98	86.82	85.97	85.00	83.91	79.84	73.43
By free surface	3.61	3.67	2.80	1.99	1.46	1.31	0.80	2.32	1.75	2.32	3.79	74.19
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	89.43	85.89	83.52	75.05	73.81	69.34	66.43	64.11	58.35	48.89
By free surface	5.42	5.33	3.86	7.27	4.46	5.13	1.66	4.89	0.21	8.36	4.53	48.89

SKC-PX2

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	97.55	97.55	90.83	90.83	90.83	90.83	90.83	90.83	90.83	90.83
By free surface	0.97	4.21	0.00	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.83
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	94.50	92.66	91.44	91.38	87.54	87.51	82.32	74.66	67.81	46.44
By free surface	2.82	3.94	1.43	2.16	0.92	1.66	0.99	5.13	0.04	11.55	19.44	49.91
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	77.31	77.31	77.31	77.31	77.31	77.31	77.31	77.31	0.00	0.00
By free surface	14.61	8.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.31	0.00

Table I3.3. Mineral Liberation, Sample MS1 and MS2 (SEM Automated Mineralogy)

SKC-MS1

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	93.04	90.31	87.72	86.41	85.70	84.59	78.70	75.41	70.71	42.38
By free surface	2.37	6.05	2.66	2.24	1.73	0.15	6.85	4.73	2.03	7.62	14.27	49.29
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	89.17	82.60	80.68	75.77	75.21	73.73	72.84	72.40	71.68	65.05
By free surface	4.11	9.66	7.59	2.71	1.60	0.57	0.22	1.14	0.73	4.30	1.28	66.10
Mass % of Pentlandite												
By particle composition		100.00	91.15	84.45	82.30	81.20	80.42	80.02	78.77	78.29	78.29	74.23
By free surface	2.98	10.17	3.13	1.75	0.85	1.02	1.53	0.00	3.53	0.00	0.82	74.23

SKC-MS2

Mass % of Pyrrhotite	Liberation classes											
	Not exposed	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	96.77	95.01	92.67	91.74	89.76	87.75	84.32	83.90	61.59	44.36
By free surface	1.21	2.95	2.34	0.87	3.22	1.42	4.71	3.45	20.24	6.53	8.70	44.36
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	93.60	89.88	89.10	86.92	86.39	84.83	75.30	73.93	73.14	68.83
By free surface	1.99	4.97	2.80	2.14	2.27	8.68	1.72	1.75	0.54	0.88	1.93	70.34
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	96.58	94.50	94.47	78.84	77.65	76.47	70.46	67.96	61.69	61.69
By free surface	1.07	1.69	0.88	2.30	12.55	3.14	6.72	6.47	3.49	0.00	0.00	61.69

Table I3.4. Mineral Liberation, Sample TZ1 and TZ2 (SEM Automated Mineralogy)

SKC-TZ1	Liberation classes											
Mass % of Pyrrhotite	**Not exposed**	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	89.84	85.35	83.24	81.46	80.39	77.27	74.35	71.74	70.05	47.57
By free surface	3.39	8.43	4.15	2.42	1.71	2.52	3.69	2.74	0.59	4.29	9.24	56.84
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	80.05	71.08	66.65	64.34	62.57	60.80	58.49	58.13	55.93	54.55
By free surface	8.59	16.12	5.18	4.47	4.31	1.78	1.04	0.53	1.33	1.21	0.63	54.82
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	85.10	80.36	75.06	69.59	69.13	67.48	67.28	64.40	60.27	51.63
By free surface	4.78	10.77	7.80	4.32	3.15	1.78	0.12	2.91	6.62	0.98	3.46	53.31

SKC-TZ2	Liberation classes											
Mass % of Pyrrhotite	**Not exposed**	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	97.67	95.64	94.71	93.38	91.62	90.76	89.51	85.91	81.54	52.47
By free surface	0.73	2.04	2.16	1.57	1.79	0.80	2.16	3.13	4.28	7.96	18.09	55.31
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	89.55	85.34	81.78	80.93	80.43	77.99	76.69	75.65	74.03	68.74
By free surface	3.65	7.82	3.85	2.53	1.32	2.58	3.14	0.90	0.87	1.25	2.49	69.61
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	94.65	90.17	86.53	83.51	82.36	81.03	78.76	78.73	74.41	63.13
By free surface	1.50	3.40	2.66	3.53	3.61	4.73	0.58	2.54	3.03	0.66	10.62	63.13

Table I3.5. Mineral Liberation, Sample BAS1 and BAS2 (SEM Automated Mineralogy)

SKC-BAS1	Liberation classes											
Mass % of Pyrrhotite	**Not exposed**	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	92.32	87.71	83.68	80.47	78.30	75.01	70.02	66.31	59.38	33.85
By free surface	2.73	7.53	4.74	4.83	3.21	4.19	2.62	3.54	7.60	6.65	15.18	37.17
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	84.78	76.30	72.05	69.21	67.11	65.30	63.73	62.37	59.26	55.11
By free surface	4.39	13.45	8.30	3.87	3.32	1.69	1.69	1.99	1.53	1.22	2.28	56.28
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	87.21	77.00	73.87	68.43	66.29	63.69	61.64	58.52	56.40	50.79
By free surface	4.32	11.38	6.31	9.84	3.06	2.96	1.22	1.50	0.31	5.57	2.73	50.79

SKC-BAS2	Liberation classes											
Mass % of Pyrrhotite	**Not exposed**	**0% < x <= 10%**	**10% < x <= 20%**	**20% < x <= 30%**	**30% < x <= 40%**	**40% < x <= 50%**	**50% < x <= 60%**	**60% < x <= 70%**	**70% < x <= 80%**	**80% < x <= 90%**	**90% < x < 100%**	**100%**
By particle composition (cumulative)		100.00	87.92	83.14	79.23	74.51	66.57	61.64	55.48	48.10	43.89	32.27
By free surface	3.34	11.17	7.38	5.79	2.10	11.47	9.15	3.09	8.34	4.18	1.71	32.27
Mass % of Chalcopyrite												
By particle composition (cumulative)		100.00	91.37	88.48	84.78	83.13	82.09	80.16	78.85	76.75	73.76	61.32
By free surface	2.25	7.70	3.37	3.02	1.76	0.93	2.09	0.88	4.25	2.42	9.64	61.69
Mass % of Pentlandite												
By particle composition (cumulative)		100.00	90.14	88.51	87.14	86.08	86.08	78.44	78.44	77.96	77.96	55.84
By free surface	4.80	5.71	1.82	0.53	1.05	0.00	7.65	0.48	0.00	0.00	18.84	59.11

Table I4.1. Average Mineral Grain Size (µm), Sample PM1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16578_SKC_PM1_250_150_1_3	**-250+150**	116	78	63	0	171	181	85	266
16579_SKC_PM1_250_150_2_3	**-250+150**	136	87	32	0	148	120	60	228
16580_SKC_PM1_250_150_3_3	**-250+150**	109	86	99	3	164	113	32	180
16581_SKC_PM1_150_75_1_2	**-150+75**	65	49	65	2	86	96	54	110
16582_SKC_PM1_150_75_2_2	**-150+75**	49	50	53	0	106	68	44	132
16583_SKC_PM1_75	**-75**	20	14	25	5	32	62	12	64

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16578_SKC_PM1_250_150_1_3	**-250+150**	168	59	17	28	54	154	120	35	24
16579_SKC_PM1_250_150_2_3	**-250+150**	176	100	9	18	14	196	118	50	57
16580_SKC_PM1_250_150_3_3	**-250+150**	172	37	55	7	38	152	117	50	58
16581_SKC_PM1_150_75_1_2	**-150+75**	115	42	66	44	47	125	79	42	22
16582_SKC_PM1_150_75_2_2	**-150+75**	111	42	10	23	8	107	98	44	17
16583_SKC_PM1_75	**-75**	53	14	18	11	5	36	27	11	28

Table I4.2. Average Mineral Grain Size (µm), Sample PM2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16584_SKC_PM2_250_150_1_3	**-250+150**	150	118	100	10	136	89	21	108
16585_SKC_PM2_250_150_2_3	**-250+150**	128	93	93	19	137	57	18	110
16586_SKC_PM2_250_150_3_3	**-250+150**	138	104	73	37	155	110	14	146
16587_SKC_PM2_150_75_1_2	**-150+75**	78	63	73	35	86	52	16	59
16588_SKC_PM2_150_75_2_2	**-150+75**	73	62	76	0	94	66	19	58
16589_SKC_PM2_75	**-75**	30	15	29	10	44	24	10	28

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16584_SKC_PM2_250_150_1_3	**-250+150**	148	98	76	28	30	164	115	63	68
16585_SKC_PM2_250_150_2_3	**-250+150**	155	30	84	26	77	191	152	104	84
16586_SKC_PM2_250_150_3_3	**-250+150**	163	99	42	25	28	177	119	113	63
16587_SKC_PM2_150_75_1_2	**-150+75**	92	45	58	37	50	112	81	86	27
16588_SKC_PM2_150_75_2_2	**-150+75**	92	40	42	54	46	147	84	79	44
16589_SKC_PM2_75	**-75**	38	13	12	16	17	37	30	19	20

Table I4.3. Average Mineral Grain Size (µm), Sample PX1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16590_SKC_PX1_250_150_1_3	**-250+150**	100	77	92	7	162	123	63	222
16591_SKC_PX1_250_150_2_3	**-250+150**	99	96	64	97	141	123	56	197
16592_SKC_PX1_250_150_3_3	**-250+150**	83	75	64	67	112	115	108	259
16593_SKC_PX1_150_75_1_2	**-150+75**	69	67	53	39	78	57	51	143
16594_SKC_PX1_150_75_2_2	**-150+75**	68	53	40	0	65	66	48	154
16595_SKC_PX1_75	**-75**	12	35	9	1	19	47	12	56

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16590_SKC_PX1_250_150_1_3	**-250+150**	188	113	22	62	41	67	70	86	91
16591_SKC_PX1_250_150_2_3	**-250+150**	160	71	17	31	71	113	84	84	112
16592_SKC_PX1_250_150_3_3	**-250+150**	152	118	8	27	3	91	82	97	139
16593_SKC_PX1_150_75_1_2	**-150+75**	146	126	12	43	10	56	36	33	19
16594_SKC_PX1_150_75_2_2	**-150+75**	125	92	48	17	23	60	73	42	51
16595_SKC_PX1_75	**-75**	40	33	9	7	12	13	6	20	4

Table I4.4. Average Mineral Grain Size (µm), Sample PX2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16600_SKC_PX2_250_150_1_3	**-250+150**	20	39	13	12	71	5	44	214
16601_SKC_PX2_250_150_2_3	**-250+150**	16	61	35	16	26	6	121	216
16602_SKC_PX2_250_150_3_3	**-250+150**	17	78	5	0	14	6	17	219
16603_SKC_PX2_150_75_1_2	**-150+75**	0	40	3	13	52	4	43	164
16604_SKC_PX2_150_75_2_2	**-150+75**	0	79	5	0	23	3	45	182
16605_SKC_PX2_75	**-75**	5	8	0	0	0	9	7	61

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16600_SKC_PX2_250_150_1_3	**-250+150**	131	152	68	63	65	29	14	81	27
16601_SKC_PX2_250_150_2_3	**-250+150**	220	213	80	73	8	85	14	70	92
16602_SKC_PX2_250_150_3_3	**-250+150**	167	134	84	121	14	21	30	104	44
16603_SKC_PX2_150_75_1_2	**-150+75**	118	93	44	48	20	18	19	58	60
16604_SKC_PX2_150_75_2_2	**-150+75**	105	83	44	62	7	21	9	67	73
16605_SKC_PX2_75	**-75**	30	17	9	11	6	3	4	13	5

Table I4.5. Average Mineral Grain Size (µm), Sample MS1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16606_SKC_MS1_250_150_1_3	**-250+150**	81	54	36	74	4	11	12	184
16607_SKC_MS1_250_150_2_3	**-250+150**	92	64	19	56	22	8	11	210
16608_SKC_MS1_250_150_3_3	**-250+150**	76	82	66	77	54	3	68	205
16609_SKC_MS1_150_75_1_2	**-150+75**	57	60	35	50	12	13	16	138
16610_SKC_MS1_150_75_2_2	**-150+75**	76	64	45	59	9	11	8	143
16611_SKC_MS1_75	**-75**	17	26	18	15	24	6	8	68

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16606_SKC_MS1_250_150_1_3	**-250+150**	139	133	129	145	46	73	6	29	146
16607_SKC_MS1_250_150_2_3	**-250+150**	114	114	130	154	45	71	13	23	64
16608_SKC_MS1_250_150_3_3	**-250+150**	148	112	138	110	39	44	12	32	22
16609_SKC_MS1_150_75_1_2	**-150+75**	75	103	99	75	81	55	50	13	35
16610_SKC_MS1_150_75_2_2	**-150+75**	67	92	98	88	72	57	9	16	63
16611_SKC_MS1_75	**-75**	35	45	36	34	34	22	5	9	9

Table I4.6. Average Mineral Grain Size (µm), Sample MS2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16612_SKC_MS2_250_150_1_3	**-250+150**	49	97	49	36	8	0	6	158
16613_SKC_MS2_250_150_2_3	**-250+150**	109	92	77	28	7	0	13	161
16614_SKC_MS2_250_150_3_3	**-250+150**	50	125	32	23	9	12	13	150
16615_SKC_MS2_150_75_1_2	**-150+75**	65	88	40	44	15	6	27	125
16616_SKC_MS2_150_75_2_2	**-150+75**	51	68	50	46	23	19	13	110
16617_SKC_MS2_75	**-75**	17	19	20	10	3	1	6	52

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16612_SKC_MS2_250_150_1_3	**-250+150**	98	170	113	180	131	9	5	21	82
16613_SKC_MS2_250_150_2_3	**-250+150**	121	175	108	159	80	0	9	3	55
16614_SKC_MS2_250_150_3_3	**-250+150**	130	120	111	154	98	98	14	5	31
16615_SKC_MS2_150_75_1_2	**-150+75**	87	115	87	97	52	18	18	11	44
16616_SKC_MS2_150_75_2_2	**-150+75**	72	89	82	95	76	6	14	0	70
16617_SKC_MS2_75	**-75**	35	46	38	45	24	4	9	4	23

Table I4.7. Average Mineral Grain Size (µm), Sample TZ1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16621_SKC_TZ1_250_150_1_3	**-250+150**	79	90	34	59	15	30	5	164
16622_SKC_TZ1_250_150_2_3	**-250+150**	83	86	32	76	4	6	8	146
16623_SKC_TZ1_250_150_3_3	**-250+150**	73	93	82	105	17	7	4	167
16624_SKC_TZ1_150_75_1_2	**-150+75**	62	64	67	41	38	9	6	122
16625_SKC_TZ1_150_75_2_2	**-150+75**	68	62	73	53	40	3	18	106
16626_SKC_TZ1_75	**-75**	28	19	9	36	8	6	4	49

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16621_SKC_TZ1_250_150_1_3	**-250+150**	198	109	128	124	67	55	10	11	27
16622_SKC_TZ1_250_150_2_3	**-250+150**	107	124	138	108	71	13	11	19	25
16623_SKC_TZ1_250_150_3_3	**-250+150**	122	128	129	107	57	65	20	10	39
16624_SKC_TZ1_150_75_1_2	**-150+75**	59	84	84	80	32	11	45	8	38
16625_SKC_TZ1_150_75_2_2	**-150+75**	77	95	94	67	44	30	21	10	14
16626_SKC_TZ1_75	**-75**	33	28	44	43	21	6	10	2	10

Table I4.8. Average Mineral Grain Size (µm), Sample TZ2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16627_SKC_TZ2_250_150_1_3	**-250+150**	122	109	39	57	15	4	10	164
16628_SKC_TZ2_250_150_2_3	**-250+150**	127	81	76	83	17	7	20	175
16629_SKC_TZ2_250_150_3_3	**-250+150**	135	176	33	80	10	5	31	169
16630_SKC_TZ2_150_75_1_2	**-150+75**	86	60	74	45	15	8	6	123
16631_SKC_TZ2_150_75_2_2	**-150+75**	86	68	83	24	9	0	6	115
16632_SKC_TZ2_75	**-75**	28	31	18	22	5	3	10	82

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16627_SKC_TZ2_250_150_1_3	**-250+150**	71	124	121	152	49	29	8	8	22
16628_SKC_TZ2_250_150_2_3	**-250+150**	108	130	129	109	76	18	10	0	74
16629_SKC_TZ2_250_150_3_3	**-250+150**	96	140	133	122	87	12	30	9	140
16630_SKC_TZ2_150_75_1_2	**-150+75**	61	90	91	77	48	9	21	2	59
16631_SKC_TZ2_150_75_2_2	**-150+75**	64	80	74	77	36	42	10	0	34
16632_SKC_TZ2_75	**-75**	34	45	32	34	24	15	8	0	24

Table I4.9. Average Mineral Grain Size (µm), Sample BAS1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16636_SKC_BAS1_250_150_1_3	**-250+150**	114	74	50	58	21	4	8	123
16637_SKC_BAS1_250_150_2_3	**-250+150**	97	78	83	120	24	13	62	149
16638_SKC_BAS1_250_150_3_3	**-250+150**	96	41	62	55	4	6	6	145
16639_SKC_BAS1_150_75_1_2	**-150+75**	75	47	54	48	24	4	9	164
16640_SKC_BAS1_150_75_2_2	**-150+75**	72	56	67	42	21	31	11	116
16641_SKC_BAS1_75	**-75**	18	23	16	13	24	2	3	50

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16636_SKC_BAS1_250_150_1_3	**-250+150**	88	155	150	139	46	90	78	32	77
16637_SKC_BAS1_250_150_2_3	**-250+150**	98	138	142	132	110	78	13	24	52
16638_SKC_BAS1_250_150_3_3	**-250+150**	108	147	126	125	60	66	8	11	57
16639_SKC_BAS1_150_75_1_2	**-150+75**	81	106	73	98	42	43	10	12	66
16640_SKC_BAS1_150_75_2_2	**-150+75**	82	126	95	95	50	29	6	6	42
16641_SKC_BAS1_75	**-75**	37	50	36	48	21	20	6	10	12

Table I4.10. Average Mineral Grain Size (µm), Sample BAS2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16642_SKC_BAS2_250_150_1_3	**-250+150**	47	93	14	49	7	9	2	167
16643_SKC_BAS2_250_150_2_3	**-250+150**	60	119	72	53	18	8	3	207
16644_SKC_BAS2_250_150_3_3	**-250+150**	66	125	89	79	6	10	54	203
16645_SKC_BAS2_150_75_1_2	**-150+75**	56	69	24	41	9	10	52	136
16646_SKC_BAS2_150_75_2_2	**-150+75**	39	82	28	114	8	6	11	140
16647_SKC_BAS2_75	**-75**	14	41	7	11	7	2	3	94

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16642_SKC_BAS2_250_150_1_3	**-250+150**	97	116	131	126	55	17	10	30	46
16643_SKC_BAS2_250_150_2_3	**-250+150**	105	159	132	105	59	8	12	27	14
16644_SKC_BAS2_250_150_3_3	**-250+150**	95	120	113	115	83	32	18	28	25
16645_SKC_BAS2_150_75_1_2	**-150+75**	70	95	84	83	60	78	15	42	64
16646_SKC_BAS2_150_75_2_2	**-150+75**	81	147	86	91	62	58	35	33	28
16647_SKC_BAS2_75	**-75**	32	34	34	38	23	9	8	13	15

Table I5.1. Surface Mineral Proportions (%), Sample PM1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16578_SKC_PM1_250_150_1_3	**-250+150**	0.49	0.23	0.11	0.00	12.49	5.99	0.11	24.82
16579_SKC_PM1_250_150_2_3	**-250+150**	0.50	0.24	0.10	0.00	13.19	5.63	0.07	24.61
16580_SKC_PM1_250_150_3_3	**-250+150**	0.29	0.21	0.12	0.00	13.09	5.55	0.08	23.85
16581_SKC_PM1_150_75_1_2	**-150+75**	0.40	0.19	0.14	0.00	16.19	6.32	0.14	23.80
16582_SKC_PM1_150_75_2_2	**-150+75**	0.44	0.25	0.11	0.00	16.11	6.05	0.12	23.35
16583_SKC_PM1_75	**-75**	0.31	0.23	0.14	0.00	22.19	4.83	0.12	19.92

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16578_SKC_PM1_250_150_1_3	**-250+150**	45.76	0.17	0.01	0.00	0.03	0.03	8.32	0.75	0.10	0.02
16579_SKC_PM1_250_150_2_3	**-250+150**	46.48	0.19	0.01	0.00	0.01	0.00	7.74	0.57	0.11	0.03
16580_SKC_PM1_250_150_3_3	**-250+150**	47.14	0.17	0.04	0.01	0.00	0.03	8.15	0.67	0.10	0.01
16581_SKC_PM1_150_75_1_2	**-150+75**	43.95	0.22	0.02	0.01	0.03	0.02	7.14	0.54	0.09	0.02
16582_SKC_PM1_150_75_2_2	**-150+75**	44.25	0.21	0.00	0.02	0.02	0.00	7.66	0.60	0.11	0.01
16583_SKC_PM1_75	**-75**	45.67	0.15	0.03	0.01	0.03	0.00	4.10	0.32	0.05	0.06

Table I5.2. Surface Mineral Proportions (%), Sample PM2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals								
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16584_SKC_PM2_250_150_1_3	-250+150	0.59	0.26	0.27	0.00	32.61	0.56	0.01	0.28
16585_SKC_PM2_250_150_2_3	-250+150	0.57	0.25	0.23	0.00	32.84	0.57	0.01	0.35
16586_SKC_PM2_250_150_3_3	-250+150	0.58	0.26	0.22	0.00	32.85	0.64	0.01	0.36
16587_SKC_PM2_150_75_1_2	-150+75	0.53	0.25	0.27	0.01	44.48	0.43	0.01	0.27
16588_SKC_PM2_150_75_2_2	-150+75	0.53	0.20	0.19	0.00	44.65	0.41	0.02	0.33
16589_SKC_PM2_75	-75	0.13	0.17	0.11	0.01	57.61	0.39	0.02	0.29

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16584_SKC_PM2_250_150_1_3	-250+150	39.15	0.06	0.04	0.02	0.01	0.03	22.42	2.71	0.08	0.07
16585_SKC_PM2_250_150_2_3	-250+150	37.77	0.05	0.03	0.01	0.01	0.06	23.33	2.90	0.11	0.03
16586_SKC_PM2_250_150_3_3	-250+150	37.70	0.09	0.02	0.01	0.00	0.04	23.39	2.68	0.13	0.04
16587_SKC_PM2_150_75_1_2	-150+75	34.76	0.11	0.04	0.02	0.02	0.04	15.49	2.41	0.08	0.02
16588_SKC_PM2_150_75_2_2	-150+75	34.39	0.11	0.03	0.03	0.03	0.05	15.44	2.67	0.08	0.04
16589_SKC_PM2_75	-75	30.02	0.06	0.02	0.03	0.04	0.02	7.51	1.39	0.09	0.04

Table I5.3. Surface Mineral Proportions (%), Sample PX1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16590_SKC_PX1_250_150_1_3	-250+150	0.40	0.18	0.10	0.00	1.44	0.82	0.08	66.72
16591_SKC_PX1_250_150_2_3	-250+150	0.30	0.14	0.09	0.02	1.22	0.86	0.08	66.32
16592_SKC_PX1_250_150_3_3	-250+150	0.33	0.26	0.06	0.02	1.13	0.85	0.13	66.76
16593_SKC_PX1_150_75_1_2	-150+75	0.39	0.23	0.09	0.01	1.30	0.75	0.22	63.10
16594_SKC_PX1_150_75_2_2	-150+75	0.35	0.24	0.09	0.00	1.24	0.85	0.25	62.58
16595_SKC_PX1_75	-75	0.13	0.23	0.04	0.00	1.96	0.78	0.27	47.48

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16590_SKC_PX1_250_150_1_3	-250+150	29.07	0.33	0.01	0.00	0.04	0.01	0.27	0.04	0.08	0.05
16591_SKC_PX1_250_150_2_3	-250+150	29.57	0.36	0.01	0.01	0.05	0.02	0.34	0.02	0.14	0.07
16592_SKC_PX1_250_150_3_3	-250+150	28.99	0.47	0.00	0.00	0.03	0.00	0.33	0.09	0.12	0.07
16593_SKC_PX1_150_75_1_2	-150+75	32.54	0.41	0.01	0.00	0.01	0.00	0.20	0.03	0.09	0.01
16594_SKC_PX1_150_75_2_2	-150+75	32.32	0.53	0.02	0.01	0.03	0.00	0.23	0.08	0.10	0.03
16595_SKC_PX1_75	-75	45.95	0.30	0.02	0.01	0.01	0.02	0.12	0.03	0.10	0.01

Table I5.4. Surface Mineral Proportions (%), Sample PX2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16600_SKC_PX2_250_150_1_3	**-250+150**	0.00	0.05	0.00	0.00	0.03	0.00	0.02	83.89
16601_SKC_PX2_250_150_2_3	**-250+150**	0.00	0.05	0.01	0.00	0.01	0.00	0.06	83.51
16602_SKC_PX2_250_150_3_3	**-250+150**	0.01	0.07	0.00	0.00	0.01	0.00	0.02	83.70
16603_SKC_PX2_150_75_1_2	**-150+75**	0.00	0.06	0.00	0.00	0.03	0.00	0.05	80.03
16604_SKC_PX2_150_75_2_2	**-150+75**	0.00	0.06	0.00	0.00	0.02	0.00	0.05	80.32
16605_SKC_PX2_75	**-75**	0.00	0.02	0.00	0.00	0.00	0.02	0.06	65.50

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16600_SKC_PX2_250_150_1_3	**-250+150**	12.55	1.89	0.06	0.01	0.24	0.02	0.04	0.03	0.26	0.03
16601_SKC_PX2_250_150_2_3	**-250+150**	12.97	1.84	0.05	0.01	0.20	0.00	0.11	0.01	0.30	0.07
16602_SKC_PX2_250_150_3_3	**-250+150**	12.28	2.11	0.03	0.02	0.19	0.01	0.02	0.03	0.49	0.02
16603_SKC_PX2_150_75_1_2	**-150+75**	15.67	2.00	0.04	0.00	0.11	0.01	0.02	0.02	0.34	0.06
16604_SKC_PX2_150_75_2_2	**-150+75**	15.71	1.83	0.07	0.03	0.16	0.01	0.01	0.01	0.23	0.02
16605_SKC_PX2_75	**-75**	28.80	0.84	0.02	0.00	0.07	0.01	0.00	0.00	0.10	0.02

Table I5.5. Surface Mineral Proportions (%), Sample MS1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16606_SKC_MS1_250_150_1_3	**-250+150**	0.18	0.25	0.04	0.26	0.00	0.01	0.00	73.18
16607_SKC_MS1_250_150_2_3	**-250+150**	0.26	0.19	0.04	0.15	0.01	0.00	0.00	71.98
16608_SKC_MS1_250_150_3_3	**-250+150**	0.13	0.26	0.09	0.13	0.03	0.00	0.01	71.83
16609_SKC_MS1_150_75_1_2	**-150+75**	0.38	0.34	0.07	0.10	0.02	0.01	0.02	73.09
16610_SKC_MS1_150_75_2_2	**-150+75**	0.43	0.31	0.11	0.13	0.01	0.01	0.00	72.50
16611_SKC_MS1_75	**-75**	0.22	0.63	0.22	0.10	0.06	0.01	0.02	67.12

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16606_SKC_MS1_250_150_1_3	**-250+150**	2.62	3.05	6.52	0.28	11.71	0.26	0.05	0.00	0.04	0.06
16607_SKC_MS1_250_150_2_3	**-250+150**	2.73	3.14	6.47	0.24	12.77	0.23	0.13	0.01	0.04	0.04
16608_SKC_MS1_250_150_3_3	**-250+150**	2.88	2.91	6.36	0.28	13.22	0.23	0.04	0.01	0.04	0.03
16609_SKC_MS1_150_75_1_2	**-150+75**	3.18	3.88	6.12	0.23	9.91	0.31	0.10	0.03	0.03	0.03
16610_SKC_MS1_150_75_2_2	**-150+75**	3.42	3.90	6.05	0.17	10.19	0.31	0.09	0.03	0.03	0.07
16611_SKC_MS1_75	**-75**	7.77	3.74	5.88	0.22	8.54	0.39	0.11	0.07	0.02	0.07

Table I5.6. Surface Mineral Proportions (%), Sample MS2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16612_SKC_MS2_250_150_1_3	**-250+150**	0.10	0.21	0.09	0.04	0.00	0.00	0.00	19.49
16613_SKC_MS2_250_150_2_3	**-250+150**	0.16	0.25	0.07	0.02	0.00	0.00	0.00	19.14
16614_SKC_MS2_250_150_3_3	**-250+150**	0.10	0.32	0.01	0.01	0.01	0.01	0.01	19.49
16615_SKC_MS2_150_75_1_2	**-150+75**	0.19	0.26	0.07	0.06	0.01	0.00	0.01	20.49
16616_SKC_MS2_150_75_2_2	**-150+75**	0.10	0.33	0.07	0.05	0.00	0.01	0.03	20.68
16617_SKC_MS2_75	**-75**	0.13	0.42	0.16	0.02	0.00	0.00	0.02	25.49

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16612_SKC_MS2_250_150_1_3	**-250+150**	8.76	12.50	3.73	0.45	51.37	0.67	0.00	0.00	0.00	0.04
16613_SKC_MS2_250_150_2_3	**-250+150**	9.29	12.80	3.54	0.35	51.04	0.70	0.00	0.00	0.00	0.02
16614_SKC_MS2_250_150_3_3	**-250+150**	9.73	12.86	3.32	0.38	50.60	0.61	0.05	0.01	0.00	0.02
16615_SKC_MS2_150_75_1_2	**-150+75**	10.91	16.72	2.86	0.49	44.40	0.61	0.01	0.16	0.00	0.05
16616_SKC_MS2_150_75_2_2	**-150+75**	10.43	16.89	2.93	0.40	44.56	0.75	0.01	0.02	0.00	0.08
16617_SKC_MS2_75	**-75**	20.47	10.21	2.67	0.40	36.33	0.64	0.01	0.18	0.00	0.08

Table I5.7. Surface Mineral Proportions (%), Sample TZ1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16621_SKC_TZ1_250_150_1_3	**-250+150**	0.20	0.38	0.12	0.06	0.00	0.01	0.00	30.00
16622_SKC_TZ1_250_150_2_3	**-250+150**	0.23	0.34	0.06	0.09	0.00	0.00	0.00	31.22
16623_SKC_TZ1_250_150_3_3	**-250+150**	0.24	0.38	0.11	0.08	0.00	0.00	0.00	30.63
16624_SKC_TZ1_150_75_1_2	**-150+75**	0.30	0.38	0.12	0.06	0.01	0.00	0.00	31.77
16625_SKC_TZ1_150_75_2_2	**-150+75**	0.26	0.34	0.11	0.07	0.02	0.00	0.01	32.81
16626_SKC_TZ1_75	**-75**	0.30	0.65	0.13	0.05	0.07	0.01	0.00	35.11

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16621_SKC_TZ1_250_150_1_3	**-250+150**	4.97	5.70	7.73	0.50	44.40	0.64	0.02	0.01	0.00	0.04
16622_SKC_TZ1_250_150_2_3	**-250+150**	4.81	5.71	7.84	0.62	43.49	0.57	0.00	0.00	0.00	0.02
16623_SKC_TZ1_250_150_3_3	**-250+150**	5.06	5.89	7.13	0.51	43.86	0.76	0.02	0.02	0.00	0.05
16624_SKC_TZ1_150_75_1_2	**-150+75**	5.37	8.54	7.48	0.62	39.03	0.69	0.01	0.09	0.00	0.04
16625_SKC_TZ1_150_75_2_2	**-150+75**	5.19	8.55	7.47	0.57	38.56	0.76	0.03	0.06	0.00	0.02
16626_SKC_TZ1_75	**-75**	10.46	5.55	7.36	0.54	33.05	0.90	0.03	0.12	0.00	0.08

Table I5.8. Surface Mineral Proportions (%), Sample TZ2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16627_SKC_TZ2_250_150_1_3	**-250+150**	0.78	0.27	0.06	0.02	0.01	0.00	0.01	30.46
16628_SKC_TZ2_250_150_2_3	**-250+150**	0.68	0.28	0.12	0.05	0.01	0.00	0.01	30.24
16629_SKC_TZ2_250_150_3_3	**-250+150**	0.59	0.27	0.05	0.03	0.01	0.00	0.01	30.71
16630_SKC_TZ2_150_75_1_2	**-150+75**	0.72	0.27	0.21	0.03	0.02	0.00	0.01	34.95
16631_SKC_TZ2_150_75_2_2	**-150+75**	0.65	0.32	0.14	0.01	0.04	0.00	0.01	34.77
16632_SKC_TZ2_75	**-75**	0.57	0.38	0.15	0.08	0.03	0.00	0.02	36.16

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16627_SKC_TZ2_250_150_1_3	**-250+150**	8.73	7.76	5.35	0.56	42.32	0.61	0.00	0.01	0.00	0.02
16628_SKC_TZ2_250_150_2_3	**-250+150**	7.99	7.99	4.55	0.33	43.77	0.56	0.01	0.01	0.00	0.03
16629_SKC_TZ2_250_150_3_3	**-250+150**	8.07	8.04	5.42	0.38	42.58	0.56	0.01	0.01	0.00	0.04
16630_SKC_TZ2_150_75_1_2	**-150+75**	9.09	10.47	5.05	0.32	35.15	0.57	0.00	0.05	0.00	0.03
16631_SKC_TZ2_150_75_2_2	**-150+75**	8.70	10.53	5.11	0.39	35.71	0.60	0.01	0.04	0.00	0.02
16632_SKC_TZ2_75	**-75**	16.98	6.52	4.71	0.29	29.89	0.61	0.03	0.12	0.00	0.07

Table I5.9. Surface Mineral Proportions (%), Sample BAS1 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16636_SKC_BAS1_250_150_1_3	**-250+150**	0.57	0.30	0.15	0.10	0.01	0.00	0.01	5.89
16637_SKC_BAS1_250_150_2_3	**-250+150**	0.57	0.24	0.16	0.12	0.01	0.01	0.02	6.27
16638_SKC_BAS1_250_150_3_3	**-250+150**	0.57	0.29	0.16	0.07	0.00	0.00	0.00	6.21
16639_SKC_BAS1_150_75_1_2	**-150+75**	0.67	0.22	0.18	0.07	0.02	0.00	0.01	6.17
16640_SKC_BAS1_150_75_2_2	**-150+75**	0.67	0.28	0.20	0.08	0.01	0.01	0.01	6.29
16641_SKC_BAS1_75	**-75**	0.59	0.49	0.34	0.10	0.07	0.00	0.02	9.36

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16636_SKC_BAS1_250_150_1_3	**-250+150**	4.47	18.74	4.15	4.09	57.50	1.15	0.08	0.08	0.00	0.07
16637_SKC_BAS1_250_150_2_3	**-250+150**	4.53	20.92	4.42	3.85	55.26	1.04	0.06	0.02	0.01	0.04
16638_SKC_BAS1_250_150_3_3	**-250+150**	4.88	19.05	3.95	3.50	57.33	1.12	0.11	0.01	0.01	0.05
16639_SKC_BAS1_150_75_1_2	**-150+75**	5.72	26.30	3.65	2.60	50.81	1.13	0.08	0.05	0.00	0.08
16640_SKC_BAS1_150_75_2_2	**-150+75**	5.63	25.14	3.63	2.80	51.68	1.20	0.05	0.04	0.00	0.03
16641_SKC_BAS1_75	**-75**	11.36	13.61	3.53	2.50	53.50	1.41	0.17	0.09	0.01	0.10

Table I5.10. Surface Mineral Proportions (%), Sample BAS2 (SEM Automated Mineralogy)

Polished Block Sample	Particulate Size Fraction (µm)	Minerals							
		Pyrrhotite (µm)	Chalcopyrite (µm)	Pentlandite (µm)	Pyrite (µm)	Talc (µm)	Serpentine (µm)	Clinopyroxene (µm)	Amphiboles (µm)
16642_SKC_BAS2_250_150_1_3	**-250+150**	0.10	0.87	0.01	0.05	0.00	0.00	0.00	32.18
16643_SKC_BAS2_250_150_2_3	**-250+150**	0.12	0.70	0.04	0.06	0.02	0.01	0.00	33.35
16644_SKC_BAS2_250_150_3_3	**-250+150**	0.12	0.76	0.05	0.05	0.00	0.00	0.02	31.65
16645_SKC_BAS2_150_75_1_2	**-150+75**	0.10	0.91	0.02	0.04	0.01	0.00	0.02	36.62
16646_SKC_BAS2_150_75_2_2	**-150+75**	0.10	0.99	0.02	0.04	0.00	0.00	0.01	36.88
16647_SKC_BAS2_75	**-75**	0.12	1.62	0.04	0.05	0.02	0.00	0.01	34.17

Polished Block Sample	Particulate Size Fraction (µm)	Minerals									
		Chlorite (µm)	Biotite (µm)	Quartz (µm)	Albite (µm)	Plagioclase (µm)	K-feldspar (µm)	Carbonates (µm)	Magnetite (µm)	Ilmenite (µm)	Apatite (µm)
16642_SKC_BAS2_250_150_1_3	**-250+150**	8.09	7.31	3.80	0.54	43.80	0.66	0.01	0.01	0.09	0.03
16643_SKC_BAS2_250_150_2_3	**-250+150**	7.97	7.27	3.86	0.80	42.41	0.63	0.00	0.03	0.07	0.02
16644_SKC_BAS2_250_150_3_3	**-250+150**	7.89	6.83	4.23	0.54	44.61	0.53	0.02	0.01	0.07	0.02
16645_SKC_BAS2_150_75_1_2	**-150+75**	9.80	8.00	3.62	0.38	37.10	0.65	0.03	0.05	0.08	0.03
16646_SKC_BAS2_150_75_2_2	**-150+75**	9.51	7.65	3.73	0.45	37.19	0.63	0.04	0.06	0.10	0.02
16647_SKC_BAS2_75	**-75**	19.02	3.44	3.50	0.50	33.57	0.77	0.03	0.12	0.09	0.08

Table I6.1. Mineral Cumulative Grain Size Distribution (Sample PM1 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample PM1 250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.06	0.00	0.00	0.06	0.01	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
20	0.17	0.22	0.43	0.00	1.23	0.41	0.48	0.33	0.43	0.87	2.33	0.00	2.87	0.21	0.21	0.26	0.58
30	0.61	0.79	1.42	0.00	2.81	1.07	2.35	0.92	1.12	2.45	4.36	0.28	4.14	0.61	0.61	0.84	1.79
40	1.25	1.74	1.80	0.00	4.23	1.86	3.63	1.70	1.88	5.09	9.68	0.28	8.40	1.23	1.09	2.62	3.99
50	2.01	3.58	2.79	0.00	5.95	2.94	5.30	2.58	2.94	6.93	9.68	4.73	8.40	2.25	1.57	3.13	6.72
60	3.96	5.61	3.21	0.00	7.93	4.29	7.49	3.80	4.22	8.56	9.68	17.65	9.70	3.54	2.86	3.59	7.47
70	5.29	6.83	4.57	0.00	10.28	6.00	8.60	5.34	5.97	12.92	9.68	21.09	11.33	4.83	3.64	5.95	7.53
80	6.55	8.88	9.80	0.00	12.85	7.89	9.41	7.42	8.15	14.76	9.68	24.80	17.09	6.60	5.68	6.84	8.15
90	10.06	11.30	14.61	0.00	16.09	11.07	13.78	10.27	10.78	16.94	9.68	24.80	17.09	8.81	8.23	8.45	9.05
100	12.44	13.38	14.97	0.00	19.90	14.55	14.06	13.45	13.99	21.74	61.97	80.16	17.49	11.38	11.51	10.94	9.96
110	15.01	18.97	18.82	0.00	24.55	19.10	20.81	17.29	17.66	23.77	61.97	80.16	17.49	14.75	13.42	17.37	10.43
120	19.63	24.45	22.93	0.00	29.86	23.35	26.56	21.68	22.09	28.06	61.97	80.16	17.49	19.12	16.28	23.04	12.91
130	25.45	29.96	31.03	0.00	35.45	28.05	30.25	27.40	27.76	40.27	61.97	80.16	17.49	23.81	20.51	27.44	15.97
140	31.35	35.51	32.37	0.00	42.33	34.61	32.63	33.49	33.73	42.17	61.97	80.21	17.49	30.34	25.24	29.87	18.03
150	34.80	43.92	44.65	100.00	48.27	40.82	41.88	38.92	39.75	52.53	99.49	80.31	17.49	36.27	27.71	40.93	52.51
160	36.87	48.31	59.16	100.00	55.35	47.69	42.49	45.58	46.35	54.96	99.49	99.85	17.49	42.03	34.35	56.29	53.67
170	43.85	54.44	61.77	100.00	61.31	53.85	50.43	51.89	52.91	57.13	99.49	99.85	17.49	48.67	40.55	61.04	55.38
180	47.98	58.37	71.69	100.00	66.77	59.78	62.34	58.23	59.24	61.56	99.49	99.85	17.49	56.05	50.79	64.74	58.66
190	55.10	69.58	74.12	100.00	73.07	65.64	63.54	63.50	65.58	64.68	99.49	99.85	17.49	63.00	62.16	71.14	76.45
200	59.45	73.54	83.17	100.00	78.64	70.45	64.70	69.09	71.26	76.67	100.00	99.85	17.49	69.27	67.65	78.30	80.04
210	66.39	78.00	88.65	100.00	83.06	75.81	64.97	74.15	76.80	83.39	100.00	99.85	17.49	74.38	76.14	84.32	80.29
220	71.20	86.27	90.72	100.00	86.15	80.13	83.44	78.87	81.06	84.43	100.00	100.00	17.49	79.25	80.01	88.49	81.20
230	84.26	90.25	93.90	100.00	89.57	82.95	84.92	83.00	84.96	95.07	100.00	100.00	100.00	83.10	83.01	90.42	86.40
240	88.25	91.26	96.32	100.00	92.65	86.18	85.51	86.07	88.60	96.41	100.00	100.00	100.00	86.18	90.52	92.46	88.33
250	91.28	91.48	98.56	100.00	93.83	88.74	86.69	88.28	90.96	96.95	100.00	100.00	100.00	88.57	94.66	93.85	88.42
260	91.65	92.97	99.32	100.00	95.66	90.47	86.70	90.73	93.45	97.88	100.00	100.00	100.00	91.13	96.50	97.31	89.86
270	95.97	94.93	99.47	100.00	96.77	92.41	86.80	92.47	95.04	98.30	100.00	100.00	100.00	93.34	96.53	98.67	89.87
280	96.04	96.57	99.48	100.00	97.68	93.45	86.80	93.95	96.28	99.18	100.00	100.00	100.00	94.82	96.74	98.94	92.45
290	99.58	99.13	99.73	100.00	98.23	94.83	99.13	94.86	97.29	99.48	100.00	100.00	100.00	95.91	99.91	99.05	98.89
300	99.61	99.27	99.73	100.00	98.68	95.80	99.13	95.89	98.11	99.55	100.00	100.00	100.00	96.67	99.96	99.24	98.92
310	99.62	99.31	99.73	100.00	99.02	96.37	99.23	96.59	98.79	99.65	100.00	100.00	100.00	98.47	99.96	99.52	99.55
320	99.62	99.32	99.73	100.00	99.28	96.98	99.32	97.06	99.10	99.71	100.00	100.00	100.00	98.87	99.96	99.53	99.59
330	99.62	99.32	99.73	100.00	99.35	97.52	99.32	97.59	99.35	99.82	100.00	100.00	100.00	98.87	99.96	99.59	99.59
340	99.62	99.32	99.73	100.00	99.58	98.15	99.39	98.16	99.45	99.86	100.00	100.00	100.00	99.07	99.96	99.60	99.59
350	99.62	99.32	99.74	100.00	99.91	98.23	99.52	98.54	99.63	99.86	100.00	100.00	100.00	99.07	99.96	99.80	99.73
360	99.72	99.36	99.95	100.00	99.96	98.75	99.53	99.14	99.80	99.94	100.00	100.00	100.00	99.67	99.96	99.87	99.79
370	99.99	99.89	99.98	100.00	99.97	99.16	99.54	99.26	99.85	99.96	100.00	100.00	100.00	99.79	99.96	99.92	99.79
380	99.99	99.89	99.98	100.00	99.98	99.23	99.89	99.39	99.85	99.96	100.00	100.00	100.00	99.81	99.98	99.92	99.87
390	99.99	99.89	99.98	100.00	99.98	99.23	99.89	99.41	99.86	99.98	100.00	100.00	100.00	99.81	99.98	99.92	99.87
400	99.99	99.89	99.98	100.00	99.98	99.31	99.89	99.48	99.86	99.98	100.00	100.00	100.00	99.96	100.00	99.92	99.87
Other	0.01	0.11	0.02	0.00	0.02	0.69	0.11	0.52	0.14	0.02	0.00	0.00	0.00	0.04	0.00	0.08	0.13

Table I6.2. Mineral Cumulative Grain Size Distribution (Sample PM1 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample PM1 150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.13	0.13	0.21	0.00	0.95	0.20	0.11	0.17	0.43	0.32	0.62	0.59	0.00	0.08	0.12	0.18	0.00
20	1.26	2.08	2.09	0.00	5.98	2.00	3.81	1.75	3.13	3.38	5.63	2.00	1.26	0.95	0.84	1.40	2.44
30	2.68	5.76	4.08	0.00	11.32	4.73	8.13	4.36	6.82	8.69	7.70	13.70	7.55	2.45	2.39	3.87	16.59
40	6.25	12.61	6.96	0.00	17.93	9.16	14.23	8.47	11.81	17.03	7.70	17.39	7.55	5.42	5.33	6.36	36.56
50	12.23	16.82	11.84	0.00	26.25	15.53	20.11	14.55	18.61	27.02	7.70	18.70	7.55	9.70	9.37	10.60	44.87
60	18.85	25.90	17.03	0.00	36.38	24.71	25.81	22.84	28.27	35.18	7.70	27.02	40.01	16.99	15.17	22.66	65.40
70	30.10	30.90	32.58	0.00	47.04	34.72	35.32	32.50	38.40	42.21	7.70	27.02	40.01	26.34	26.61	27.87	68.40
80	44.54	49.30	42.58	100.00	58.10	46.04	44.42	43.13	49.86	46.32	15.08	27.02	40.01	36.87	38.32	41.75	69.50
90	60.10	65.04	54.51	100.00	68.40	57.33	57.24	54.25	60.33	58.35	15.08	27.02	40.01	49.03	54.06	59.00	74.96
100	65.09	78.91	55.52	100.00	76.98	66.00	71.30	63.43	70.00	78.54	15.08	68.83	100.00	61.28	66.97	75.41	84.93
110	74.16	85.41	60.25	100.00	83.47	73.36	83.78	72.02	77.88	87.12	15.08	100.00	100.00	70.95	78.11	84.61	90.89
120	83.83	90.04	68.90	100.00	88.65	79.64	85.22	79.27	84.72	89.16	15.08	100.00	100.00	78.31	84.92	95.36	92.74
130	90.19	90.98	85.49	100.00	91.95	85.08	85.86	85.23	89.81	89.70	15.08	100.00	100.00	85.48	89.42	95.97	96.18
140	95.15	92.26	98.58	100.00	94.43	89.21	86.23	88.70	93.03	90.23	100.00	100.00	100.00	90.34	89.58	96.48	96.60
150	97.25	92.40	98.68	100.00	96.46	92.43	87.58	91.98	95.53	96.91	100.00	100.00	100.00	93.46	90.07	96.82	96.70
160	98.49	98.71	98.69	100.00	97.77	94.15	98.88	94.28	97.57	97.94	100.00	100.00	100.00	95.43	94.64	97.48	98.15
170	99.63	98.91	99.86	100.00	98.33	96.26	98.98	95.82	98.68	98.29	100.00	100.00	100.00	97.17	97.65	99.55	99.81
180	99.78	99.10	99.99	100.00	98.71	97.73	99.58	96.96	99.17	98.44	100.00	100.00	100.00	98.00	97.66	99.88	99.81
190	99.78	99.10	99.99	100.00	99.34	97.91	99.83	97.82	99.52	98.58	100.00	100.00	100.00	98.30	97.66	99.93	99.81
200	99.99	99.10	99.99	100.00	99.58	98.66	99.84	98.57	99.67	99.84	100.00	100.00	100.00	99.22	97.66	99.95	99.81
210	100.00	100.00	100.00	100.00	99.63	99.06	99.85	99.04	99.75	99.96	100.00	100.00	100.00	99.51	97.66	99.95	100.00
220	100.00	100.00	100.00	100.00	99.78	99.08	99.86	99.24	99.77	99.97	100.00	100.00	100.00	99.73	100.00	99.95	100.00
230	100.00	100.00	100.00	100.00	99.79	99.11	100.00	99.41	99.87	99.98	100.00	100.00	100.00	99.76	100.00	99.95	100.00
240	100.00	100.00	100.00	100.00	99.92	99.27	100.00	99.54	99.99	99.99	100.00	100.00	100.00	99.77	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	99.96	99.27	100.00	99.59	99.99	99.99	100.00	100.00	100.00	99.77	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	99.96	99.37	100.00	99.72	99.99	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	99.99	99.51	100.00	99.93	99.99	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.3. Mineral Cumulative Grain Size Distribution (Sample PM1 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample PM1 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	11.64	29.83	7.68	100.00	33.26	16.21	3.63	15.17	26.92	16.18	16.20	49.95	100.00	13.18	11.05	16.18	0.36
20	44.08	82.48	24.44	100.00	65.28	44.78	56.66	41.93	56.34	54.72	48.90	87.70	100.00	37.44	21.68	67.99	0.97
30	59.23	92.22	32.36	100.00	81.83	62.80	58.82	60.78	73.01	74.81	48.90	100.00	100.00	53.97	33.51	95.62	0.97
40	76.74	98.67	70.43	100.00	90.86	78.62	93.98	77.37	84.53	96.89	100.00	100.00	100.00	68.87	51.81	95.62	1.07
50	99.35	99.93	81.15	100.00	97.47	87.65	99.71	86.88	91.42	98.15	100.00	100.00	100.00	82.85	76.93	99.36	22.70
60	99.83	100.00	100.00	100.00	98.54	93.98	100.00	92.25	96.50	98.21	100.00	100.00	100.00	93.13	93.54	100.00	99.50
70	100.00	100.00	100.00	100.00	99.56	96.50	100.00	95.68	98.39	100.00	100.00	100.00	100.00	96.02	93.67	100.00	99.50
80	100.00	100.00	100.00	100.00	99.71	96.53	100.00	97.33	98.60	100.00	100.00	100.00	100.00	99.29	93.72	100.00	99.50
90	100.00	100.00	100.00	100.00	99.99	97.14	100.00	98.89	98.63	100.00	100.00	100.00	100.00	99.29	100.00	100.00	99.50
100	100.00	100.00	100.00	100.00	100.00	97.14	100.00	99.51	99.16	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.50
110	100.00	100.00	100.00	100.00	100.00	97.15	100.00	99.51	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	97.15	100.00	99.51	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.4. Mineral Cumulative Grain Size Distribution (Sample PM2 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample PM2 250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.00	0.02	0.00	0.06	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.52	0.00	0.00	0.03	0.06
20	0.18	0.12	0.16	4.68	1.11	0.25	2.04	0.36	0.43	1.39	0.69	1.17	5.03	0.13	0.14	0.12	0.27
30	0.62	0.56	0.77	4.68	2.57	0.77	3.54	0.72	1.11	2.81	2.65	3.88	5.73	0.42	0.55	0.30	0.27
40	1.01	1.15	1.70	41.40	4.03	1.24	3.91	1.21	1.90	5.04	4.96	3.88	14.90	0.84	1.17	0.54	1.02
50	1.96	1.77	2.49	41.40	5.89	1.87	3.91	2.00	3.02	9.67	8.54	15.33	21.16	1.58	1.99	1.51	2.39
60	2.39	3.55	3.14	41.40	8.03	2.44	7.36	3.30	4.41	11.90	8.54	28.12	38.81	2.51	2.66	2.50	2.39
70	3.32	7.14	4.14	41.40	10.65	3.54	9.03	6.96	6.33	12.15	8.54	28.12	51.59	3.83	4.14	3.85	3.37
80	5.18	7.93	5.82	76.82	13.63	5.23	9.03	11.18	8.80	15.33	8.54	58.46	69.25	5.37	5.61	4.88	4.83
90	8.68	11.22	9.08	76.82	17.92	8.57	9.30	13.76	12.22	15.99	8.54	58.46	72.78	7.57	8.30	10.49	5.15
100	10.70	12.51	13.10	76.82	22.61	12.66	14.04	15.23	16.25	16.37	8.54	58.46	72.78	10.35	11.28	13.31	5.20
110	13.93	17.12	22.51	76.82	28.47	16.37	25.57	18.36	21.06	17.04	10.51	62.25	72.78	13.74	15.39	15.95	5.99
120	18.22	21.29	28.40	88.00	35.00	22.98	30.01	22.84	27.08	19.71	24.25	62.32	80.55	17.85	21.04	22.02	8.08
130	27.43	26.41	34.57	88.42	42.41	28.17	46.87	29.22	33.44	21.20	24.25	92.91	80.55	23.13	26.03	30.54	11.08
140	29.41	29.79	38.69	88.42	50.55	37.19	58.85	40.79	40.64	22.70	24.25	92.91	80.55	28.46	33.29	31.97	18.57
150	34.34	35.77	42.72	88.42	57.32	42.28	60.34	44.97	47.66	37.56	24.25	92.91	80.55	34.21	40.34	36.97	26.95
160	41.73	44.53	57.18	88.42	63.79	49.39	68.82	53.73	55.36	39.30	63.35	92.91	100.00	40.73	49.13	41.89	28.47
170	50.33	50.81	59.89	88.42	69.99	60.70	71.37	57.40	62.71	41.62	100.00	92.91	100.00	48.04	55.58	42.98	45.86
180	56.05	66.05	69.38	89.14	75.28	66.84	74.52	61.07	68.80	50.74	100.00	92.91	100.00	55.48	64.48	49.77	46.38
190	61.30	70.71	75.85	89.14	80.01	71.59	76.97	63.98	74.44	53.72	100.00	92.91	100.00	62.26	70.77	64.38	47.00
200	66.98	74.98	80.24	89.14	85.22	76.79	81.74	66.57	79.67	70.27	100.00	92.91	100.00	68.42	77.24	66.60	51.24
210	71.80	83.83	82.99	96.81	88.85	80.36	86.91	71.47	84.52	95.99	100.00	92.91	100.00	74.10	81.68	72.16	70.67
220	77.51	88.40	84.88	96.81	91.84	83.14	94.99	79.30	87.97	97.22	100.00	92.91	100.00	79.16	86.31	82.29	70.79
230	84.88	90.97	92.72	96.81	94.27	85.09	96.34	83.77	91.46	97.95	100.00	92.91	100.00	84.06	88.72	82.61	70.86
240	89.61	96.21	95.04	96.81	95.94	89.11	99.39	86.89	93.65	98.23	100.00	92.91	100.00	87.29	93.15	90.81	70.90
250	90.40	96.39	95.36	96.81	97.08	92.28	99.81	94.43	95.11	98.83	100.00	100.00	100.00	90.32	95.75	93.62	71.42
260	94.25	98.75	98.15	96.81	98.54	93.39	99.81	95.10	96.34	99.06	100.00	100.00	100.00	92.68	97.63	93.77	88.04
270	94.32	99.61	98.17	96.81	98.88	97.02	99.95	95.20	97.42	99.44	100.00	100.00	100.00	94.34	98.54	94.41	99.95
280	97.14	99.68	99.09	96.81	99.22	97.28	99.95	95.81	97.97	99.50	100.00	100.00	100.00	95.63	98.98	94.67	99.95
290	97.37	99.68	99.18	96.81	99.52	97.44	99.95	95.89	98.38	99.57	100.00	100.00	100.00	96.86	99.44	94.68	99.97
300	97.39	99.75	99.54	96.81	99.71	98.25	99.95	99.69	98.92	99.61	100.00	100.00	100.00	97.65	99.55	94.93	99.99
310	99.77	99.77	99.54	100.00	99.80	99.37	99.95	99.83	99.57	99.63	100.00	100.00	100.00	98.08	99.84	94.93	99.99
320	99.80	99.94	99.57	100.00	99.99	99.39	99.95	99.83	99.80	99.63	100.00	100.00	100.00	98.39	99.86	94.95	99.99
330	100.00	100.00	100.00	100.00	99.99	99.67	99.95	99.92	99.87	99.64	100.00	100.00	100.00	99.08	99.96	99.99	99.99
340	100.00	100.00	100.00	100.00	99.99	99.69	99.95	99.92	99.88	99.64	100.00	100.00	100.00	99.28	99.96	99.99	99.99
350	100.00	100.00	100.00	100.00	99.99	99.69	100.00	99.93	99.88	99.69	100.00	100.00	100.00	99.57	99.98	99.99	100.00
360	100.00	100.00	100.00	100.00	100.00	99.70	100.00	99.93	99.94	99.71	100.00	100.00	100.00	99.74	99.98	99.99	100.00
370	100.00	100.00	100.00	100.00	100.00	99.70	100.00	99.93	99.94	99.71	100.00	100.00	100.00	99.80	99.98	99.99	100.00
380	100.00	100.00	100.00	100.00	100.00	99.71	100.00	99.94	99.96	99.75	100.00	100.00	100.00	99.95	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	99.71	100.00	99.94	99.96	99.75	100.00	100.00	100.00	99.95	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	99.71	100.00	99.94	99.96	99.75	100.00	100.00	100.00	99.95	100.00	100.00	100.00
Other	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.06	0.04	0.25	0.00	0.00	0.00	0.05	0.00	0.00	0.00

Table I6.5. Mineral Cumulative Grain Size Distribution (Sample PM2 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample PM2 150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.09	0.07	0.14	0.00	1.02	0.28	0.04	0.66	0.48	0.82	0.59	0.61	2.00	0.10	0.05	0.16	0.29
20	1.09	1.76	0.90	0.00	6.45	2.60	7.32	4.06	3.57	5.30	4.83	3.95	12.12	1.08	1.04	0.85	0.83
30	2.98	3.73	2.75	0.00	14.09	5.55	10.03	6.69	8.31	12.56	6.32	12.04	22.49	2.94	2.77	1.54	3.15
40	5.28	8.53	6.26	0.00	23.31	11.53	11.27	10.07	15.12	19.25	23.13	13.61	45.40	6.03	5.24	5.77	5.01
50	10.49	11.98	11.67	0.00	34.65	21.40	33.15	19.77	24.49	27.24	23.13	19.46	52.32	11.58	9.41	9.06	5.40
60	19.70	17.09	18.34	0.00	45.77	27.37	36.18	29.51	35.65	41.98	27.50	19.46	68.05	18.38	16.40	13.97	5.80
70	25.09	32.46	31.38	0.00	57.46	38.45	73.82	37.30	47.43	64.47	47.55	19.46	73.61	27.94	25.60	26.50	20.86
80	38.54	46.34	39.63	0.00	68.64	50.43	74.42	42.35	58.97	70.77	58.03	19.46	86.87	38.86	38.42	29.19	25.69
90	50.52	57.20	51.52	0.00	78.27	62.49	76.60	52.42	69.85	86.40	81.92	39.78	86.87	50.26	50.74	41.39	60.79
100	66.87	63.70	56.81	100.00	85.21	69.70	79.31	66.25	78.52	87.38	81.94	39.78	91.82	61.17	62.08	58.31	66.44
110	78.47	73.37	63.52	100.00	90.87	76.45	83.36	83.97	85.96	97.58	81.94	39.78	99.97	71.03	71.60	64.02	67.26
120	83.33	79.19	68.52	100.00	94.61	86.60	86.57	96.28	90.76	98.24	100.00	100.00	99.97	78.35	78.15	68.95	90.82
130	91.17	94.59	76.77	100.00	96.66	89.73	92.90	98.10	94.54	99.33	100.00	100.00	99.97	85.32	86.45	70.67	98.48
140	92.58	98.01	83.22	100.00	98.55	94.03	98.28	98.44	96.55	99.51	100.00	100.00	99.97	90.36	92.48	77.41	99.63
150	96.03	98.56	93.91	100.00	99.23	97.02	98.79	98.72	98.15	99.66	100.00	100.00	99.97	93.53	94.95	77.46	99.99
160	97.35	99.16	93.95	100.00	99.68	97.30	99.51	99.75	99.02	99.72	100.00	100.00	100.00	95.84	97.20	82.48	99.99
170	97.35	99.32	97.81	100.00	99.83	97.40	99.51	99.77	99.58	99.73	100.00	100.00	100.00	97.02	98.95	87.19	99.99
180	98.71	99.98	98.74	100.00	99.91	97.64	100.00	99.82	99.81	99.96	100.00	100.00	100.00	98.26	99.32	99.79	100.00
190	100.00	99.99	100.00	100.00	99.97	97.67	100.00	100.00	99.87	100.00	100.00	100.00	100.00	99.07	99.98	100.00	100.00
200	100.00	99.99	100.00	100.00	99.99	97.67	100.00	100.00	99.91	100.00	100.00	100.00	100.00	99.28	99.99	100.00	100.00
210	100.00	99.99	100.00	100.00	99.99	97.67	100.00	100.00	99.95	100.00	100.00	100.00	100.00	99.36	99.99	100.00	100.00
220	100.00	99.99	100.00	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.44	100.00	100.00	100.00
230	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00
240	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.6. Mineral Cumulative Grain Size Distribution (Sample PM2 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample PM2 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	13.23	17.04	9.99	0.00	26.72	26.08	7.42	19.18	18.65	11.65	23.05	12.92	21.54	13.58	12.05	17.96	5.02
20	31.63	55.78	23.90	100.00	58.32	48.48	21.71	35.56	47.31	37.17	23.05	19.53	33.15	38.17	32.15	53.72	21.44
30	56.78	76.98	52.27	100.00	77.03	68.53	30.26	43.98	69.67	98.55	100.00	66.02	33.15	56.07	51.94	75.36	31.15
40	69.52	99.13	52.27	100.00	88.40	80.11	30.26	65.30	84.09	98.68	100.00	100.00	100.00	68.64	69.98	99.30	31.15
50	69.52	100.00	52.27	100.00	95.25	83.14	30.26	87.01	91.21	100.00	100.00	100.00	100.00	79.72	83.32	100.00	100.00
60	100.00	100.00	100.00	100.00	97.39	92.67	92.24	100.00	95.33	100.00	100.00	100.00	100.00	88.58	99.71	100.00	100.00
70	100.00	100.00	100.00	100.00	99.54	99.26	98.20	100.00	98.26	100.00	100.00	100.00	100.00	96.09	99.94	100.00	100.00
80	100.00	100.00	100.00	100.00	99.91	99.26	100.00	100.00	98.87	100.00	100.00	100.00	100.00	98.87	99.97	100.00	100.00
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.7. Mineral Cumulative Grain Size Distribution (Sample PX1 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample PX1_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.02	0.08	0.00	0.00	0.06	0.00	0.12	0.01	0.02	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00
20	0.33	0.35	0.25	0.00	0.79	0.47	4.73	0.31	0.53	0.40	2.33	1.29	1.34	0.32	0.16	0.12	0.00
30	0.66	1.25	1.48	0.00	1.65	1.13	10.50	0.80	1.28	1.19	8.01	1.99	1.34	0.87	0.18	0.57	0.00
40	0.92	1.34	4.39	0.00	2.54	1.66	13.45	1.39	2.12	1.77	15.48	2.49	1.34	1.12	0.28	0.75	0.00
50	1.59	2.80	5.70	0.00	3.19	2.15	13.92	2.19	3.15	3.90	15.48	2.49	1.34	1.58	0.28	1.15	0.31
60	2.71	4.12	6.90	0.00	5.01	3.05	18.62	3.29	4.45	6.47	15.48	7.18	1.95	2.43	0.33	1.94	0.32
70	3.41	6.31	9.32	0.00	6.16	4.84	19.09	4.72	6.11	7.99	15.48	10.04	1.95	2.66	3.21	2.50	4.08
80	3.73	9.49	9.42	0.00	7.95	7.50	20.46	6.61	8.19	11.74	15.58	10.04	1.95	4.12	12.31	3.28	4.19
90	5.46	11.74	19.46	0.00	10.94	10.56	21.62	8.88	10.73	12.28	15.58	10.04	1.95	5.68	12.31	3.80	11.03
100	8.36	15.15	20.54	0.00	14.87	13.52	22.28	12.01	14.15	19.82	15.58	10.04	1.95	6.74	14.78	5.01	13.51
110	11.74	19.81	23.77	0.00	18.53	16.60	22.56	15.59	18.26	22.34	15.58	10.06	1.95	10.82	15.76	10.60	13.74
120	19.20	23.65	26.25	0.00	22.12	20.10	32.66	19.71	22.61	26.17	20.70	26.01	28.43	12.83	17.14	13.85	14.91
130	26.10	30.29	27.13	0.00	25.92	26.48	40.84	24.75	27.91	28.23	20.91	37.46	28.67	19.90	17.86	21.56	15.69
140	37.28	38.79	30.02	0.00	30.43	32.38	59.39	31.05	34.23	32.22	20.91	37.46	28.67	25.19	38.37	25.39	16.47
150	44.61	46.13	39.03	0.60	37.02	36.89	59.90	36.47	40.09	40.69	20.91	51.86	28.67	35.50	39.03	28.65	16.65
160	47.52	51.33	56.04	0.60	42.97	42.41	61.04	42.75	46.71	54.40	20.91	59.55	28.72	40.39	63.93	36.32	16.98
170	54.52	56.70	68.86	0.60	50.46	46.08	64.52	49.33	52.39	63.53	20.91	59.55	99.59	53.27	73.79	47.94	19.09
180	64.97	62.42	72.74	0.60	56.76	53.86	72.76	55.14	58.88	70.51	20.91	59.55	99.59	59.47	88.46	55.16	19.48
190	67.70	68.50	84.43	0.60	60.95	57.17	73.55	61.06	64.83	76.08	41.49	59.58	99.59	64.25	94.31	61.34	19.83
200	69.93	81.21	88.39	0.60	66.22	63.48	74.07	66.77	70.86	80.30	46.73	91.73	99.59	73.06	94.43	64.92	20.01
210	75.49	91.05	91.57	0.60	69.92	69.29	89.77	72.45	76.01	80.83	66.64	91.73	99.59	78.24	95.29	77.13	37.13
220	76.08	92.17	92.10	100.00	75.75	72.49	96.85	77.11	80.48	84.60	66.64	91.73	99.59	80.78	95.60	79.82	37.24
230	81.03	93.27	96.32	100.00	82.60	78.90	98.48	81.16	84.62	88.83	67.66	91.73	99.59	86.35	97.74	82.58	56.38
240	88.58	94.96	97.16	100.00	85.44	83.55	99.23	84.52	87.45	96.65	85.38	99.82	100.00	90.82	97.77	84.10	56.47
250	92.60	97.11	97.36	100.00	90.18	88.87	99.33	87.10	89.93	97.22	85.38	99.82	100.00	96.83	98.59	84.96	56.49
260	92.99	97.93	97.50	100.00	90.99	91.71	99.33	89.50	92.55	97.51	85.38	99.82	100.00	96.83	99.41	85.62	56.56
270	94.04	98.22	98.13	100.00	92.57	92.62	99.60	91.53	94.22	98.69	85.38	99.82	100.00	97.23	99.42	86.24	58.16
280	94.25	98.52	98.37	100.00	92.74	93.63	99.73	93.07	95.62	98.99	85.38	99.82	100.00	97.24	99.56	93.83	99.79
290	95.12	99.05	98.38	100.00	94.51	94.61	99.92	94.47	97.10	99.26	85.38	99.82	100.00	97.25	99.56	95.54	99.86
300	95.57	99.28	99.09	100.00	95.62	96.25	99.92	95.72	97.78	99.46	85.38	100.00	100.00	100.00	99.56	95.68	99.98
310	95.63	99.33	99.09	100.00	96.39	96.76	99.96	96.46	98.26	99.47	85.38	100.00	100.00	100.00	99.56	95.88	99.98
320	95.68	99.37	99.09	100.00	96.47	97.24	99.96	97.08	98.89	99.59	85.78	100.00	100.00	100.00	99.56	96.38	100.00
330	96.14	99.39	99.48	100.00	98.75	97.65	100.00	97.84	99.25	99.61	100.00	100.00	100.00	100.00	100.00	96.85	100.00
340	96.14	99.39	99.48	100.00	99.32	98.76	100.00	98.24	99.36	99.69	100.00	100.00	100.00	100.00	100.00	96.89	100.00
350	96.14	99.40	99.48	100.00	99.36	98.87	100.00	98.48	99.55	99.73	100.00	100.00	100.00	100.00	100.00	99.78	100.00
360	96.39	99.45	99.67	100.00	99.42	99.46	100.00	98.78	99.62	99.75	100.00	100.00	100.00	100.00	100.00	99.79	100.00
370	96.39	99.48	99.67	100.00	99.44	99.54	100.00	98.91	99.67	99.78	100.00	100.00	100.00	100.00	100.00	99.81	100.00
380	96.39	99.48	99.67	100.00	99.44	99.54	100.00	99.15	99.83	99.78	100.00	100.00	100.00	100.00	100.00	99.81	100.00
390	99.97	99.99	99.95	100.00	99.67	99.89	100.00	99.32	99.87	99.79	100.00	100.00	100.00	100.00	100.00	99.81	100.00
400	99.97	99.99	99.95	100.00	99.67	99.89	100.00	99.37	99.87	99.97	100.00	100.00	100.00	100.00	100.00	99.81	100.00
Other	0.03	0.01	0.05	0.00	0.33	0.11	0.00	0.63	0.13	0.03	0.00	0.00	0.00	0.00	0.00	0.19	0.00

Table I6.8. Mineral Cumulative Grain Size Distribution (Sample PX1 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample PX1_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.13	0.30	0.32	0.00	1.04	0.40	0.61	0.24	0.70	0.31	2.42	4.29	5.35	0.24	0.96	0.10	0.00
20	2.05	2.44	1.41	0.00	6.11	3.11	8.47	2.07	4.86	3.67	7.99	20.69	34.24	1.51	5.86	1.51	1.61
30	4.00	5.02	4.03	0.00	12.20	7.36	16.24	4.65	9.58	9.08	11.81	29.52	34.24	2.66	7.39	2.39	5.70
40	8.78	8.45	10.45	0.00	18.16	13.18	23.71	8.62	15.31	15.97	11.81	34.14	34.24	4.47	8.10	3.60	7.56
50	14.36	13.79	13.52	0.00	24.90	22.18	33.58	14.29	22.34	20.23	11.85	34.14	100.00	7.72	16.69	9.01	14.65
60	20.27	18.75	13.90	0.00	31.36	30.08	45.33	21.86	31.78	31.20	21.15	34.14	100.00	10.68	29.35	19.15	19.42
70	26.85	33.87	21.01	0.30	38.26	38.73	64.74	31.38	42.16	37.94	22.48	34.14	100.00	16.18	38.53	23.71	25.42
80	31.84	38.25	22.87	0.30	49.67	51.01	72.00	41.53	52.14	50.63	22.48	34.33	100.00	30.04	47.05	32.79	29.14
90	44.78	43.70	31.57	0.30	59.04	58.25	81.98	51.30	61.77	55.33	30.25	60.63	100.00	44.59	48.11	46.98	59.21
100	58.25	54.55	54.21	0.30	66.15	65.66	92.41	61.17	70.13	65.31	74.59	60.63	100.00	63.88	49.89	56.29	59.92
110	65.61	63.55	68.97	0.30	74.48	75.66	95.18	68.93	77.95	69.51	75.47	97.45	100.00	76.43	50.01	70.32	93.29
120	80.85	73.91	89.42	100.00	80.86	85.29	97.79	76.17	84.44	71.07	75.47	97.50	100.00	83.59	51.85	77.73	95.28
130	86.87	89.28	91.38	100.00	85.75	88.49	98.39	82.48	88.43	77.88	100.00	97.50	100.00	89.11	51.86	82.03	96.64
140	91.67	98.60	92.82	100.00	90.23	93.21	98.84	87.03	92.32	82.32	100.00	100.00	100.00	98.33	52.62	93.60	98.31
150	98.14	99.30	97.33	100.00	90.66	95.43	98.91	90.45	95.28	82.88	100.00	100.00	100.00	98.34	52.62	95.70	98.38
160	98.93	99.36	98.90	100.00	94.49	96.26	99.04	92.90	97.03	87.48	100.00	100.00	100.00	99.69	99.91	97.01	99.60
170	99.14	99.45	98.93	100.00	95.19	97.12	99.67	95.07	98.03	88.10	100.00	100.00	100.00	99.78	99.98	99.23	99.60
180	99.56	99.55	98.99	100.00	95.59	97.26	99.74	96.66	98.72	89.81	100.00	100.00	100.00	99.78	99.98	99.62	99.60
190	99.87	99.77	99.58	100.00	97.84	97.28	99.77	97.38	99.04	93.53	100.00	100.00	100.00	99.78	99.98	99.65	100.00
200	99.88	99.82	99.77	100.00	99.73	99.66	99.87	97.96	99.47	93.67	100.00	100.00	100.00	100.00	99.98	99.67	100.00
210	99.99	99.89	99.85	100.00	99.73	99.79	99.87	98.24	99.61	93.68	100.00	100.00	100.00	100.00	99.98	99.67	100.00
220	99.99	99.89	99.85	100.00	99.85	99.97	99.87	98.78	99.76	94.31	100.00	100.00	100.00	100.00	100.00	99.71	100.00
230	99.99	99.89	99.85	100.00	99.85	99.97	99.87	98.98	99.84	94.34	100.00	100.00	100.00	100.00	100.00	99.71	100.00
240	99.99	99.89	99.85	100.00	99.85	99.97	99.87	99.27	99.86	94.34	100.00	100.00	100.00	100.00	100.00	99.77	100.00
250	99.99	99.89	99.85	100.00	99.99	99.97	99.90	99.45	99.88	94.37	100.00	100.00	100.00	100.00	100.00	99.77	100.00
260	99.99	99.90	99.85	100.00	100.00	100.00	99.90	99.68	99.93	99.95	100.00	100.00	100.00	100.00	100.00	99.96	100.00
270	99.99	99.90	99.85	100.00	100.00	100.00	99.90	99.76	99.94	100.00	100.00	100.00	100.00	100.00	100.00	99.96	100.00
280	99.99	99.90	99.85	100.00	100.00	100.00	99.94	99.81	99.94	100.00	100.00	100.00	100.00	100.00	100.00	99.96	100.00
290	99.99	99.90	99.85	100.00	100.00	100.00	99.94	99.82	99.94	100.00	100.00	100.00	100.00	100.00	100.00	99.96	100.00
300	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.91	99.94	100.00	100.00	100.00	100.00	100.00	100.00	99.97	100.00
310	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	99.94	100.00	100.00	100.00	100.00	100.00	100.00	99.97	100.00
320	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	99.90	99.85	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.9. Mineral Cumulative Grain Size Distribution (Sample PX1 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample PX1 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	19.97	19.49	5.94	100.00	48.48	18.72	6.74	22.36	33.74	18.33	41.35	19.27	0.00	33.30	85.76	21.10	85.23
20	48.62	35.14	87.56	100.00	78.27	40.22	35.75	49.51	65.23	38.04	100.00	100.00	0.00	88.30	99.28	42.96	100.00
30	92.88	51.44	96.35	100.00	88.73	58.16	51.35	67.50	79.08	50.31	100.00	100.00	100.00	97.45	99.28	49.57	100.00
40	100.00	53.70	98.81	100.00	94.61	63.55	79.40	80.24	88.54	72.41	100.00	100.00	100.00	100.00	100.00	100.00	100.00
50	100.00	53.70	100.00	100.00	97.62	71.31	93.05	88.28	94.56	73.42	100.00	100.00	100.00	100.00	100.00	100.00	100.00
60	100.00	53.70	100.00	100.00	98.25	79.66	98.09	93.55	98.01	74.06	100.00	100.00	100.00	100.00	100.00	100.00	100.00
70	100.00	53.70	100.00	100.00	98.27	84.80	99.55	96.58	98.95	99.88	100.00	100.00	100.00	100.00	100.00	100.00	100.00
80	100.00	100.00	100.00	100.00	98.32	84.80	99.70	97.58	99.63	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
90	100.00	100.00	100.00	100.00	100.00	84.80	99.70	99.21	99.75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	99.70	99.21	99.75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	99.70	99.63	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.10. Mineral Cumulative Grain Size Distribution (Sample PX2 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample PX2_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.01	0.04	0.00	0.00	0.01	0.00	0.00	0.64	0.00	0.00
20	0.00	0.43	0.00	0.00	4.35	5.99	1.05	0.33	0.81	0.37	0.31	0.21	0.54	0.31	25.93	0.13	0.61
30	0.00	1.04	0.00	0.00	4.94	5.99	4.54	0.79	1.97	1.06	0.75	0.54	0.54	0.67	34.54	0.47	0.66
40	24.88	1.20	0.00	0.00	4.94	9.53	7.36	1.42	3.15	1.92	2.26	2.49	0.69	2.00	34.54	0.86	1.16
50	24.88	1.86	0.00	0.00	4.94	9.53	7.53	2.28	4.38	2.76	3.01	3.74	0.69	2.00	35.16	1.75	1.80
60	29.48	3.33	0.00	0.00	4.94	17.89	11.93	3.39	6.08	4.20	3.01	4.94	0.69	8.15	52.44	2.08	3.55
70	29.48	7.90	0.00	0.00	4.94	17.89	12.50	4.97	8.45	6.45	9.25	8.15	0.69	8.15	52.44	3.29	3.83
80	29.48	11.18	0.00	0.00	4.94	24.23	13.98	6.99	11.22	9.44	9.25	9.35	0.69	8.15	62.48	6.83	5.11
90	29.48	11.49	0.00	0.00	4.94	24.23	24.98	9.58	14.46	11.50	13.62	9.35	0.69	9.14	64.98	8.51	13.27
100	29.48	11.83	88.83	38.35	4.94	31.94	25.19	13.10	18.13	14.97	22.78	10.12	0.69	14.01	65.03	9.73	14.00
110	51.80	12.25	91.92	38.35	4.94	40.11	25.19	17.28	23.60	18.56	28.46	14.56	1.04	14.01	65.03	14.59	18.58
120	51.80	12.68	91.92	38.35	4.94	41.47	25.19	22.16	29.59	23.91	35.08	16.15	16.73	20.23	65.58	20.15	19.68
130	84.49	21.55	92.67	38.35	4.94	41.47	56.68	27.68	35.76	28.90	48.70	24.93	17.52	25.35	67.56	28.31	22.08
140	90.40	22.61	93.31	39.64	4.94	41.47	56.87	34.05	43.18	35.19	49.18	31.55	19.82	29.21	67.68	37.25	34.22
150	100.00	27.76	93.31	39.64	20.81	42.85	57.16	41.00	50.02	42.50	64.30	41.70	19.88	29.21	67.74	45.01	58.24
160	100.00	38.30	93.31	39.64	100.00	46.39	57.24	48.13	56.90	51.28	71.95	42.79	19.88	29.21	71.02	51.92	61.23
170	100.00	38.76	93.31	39.64	100.00	49.09	58.68	54.94	63.42	59.78	72.28	51.39	19.88	59.67	74.93	58.87	62.01
180	100.00	39.04	93.83	39.64	100.00	52.40	58.68	61.30	69.49	66.83	89.10	59.11	19.88	74.33	74.93	68.68	66.65
190	100.00	69.89	93.83	95.48	100.00	52.40	58.68	67.69	75.90	70.57	91.36	62.87	92.10	74.33	76.01	72.20	87.90
200	100.00	70.05	93.83	95.48	100.00	58.55	58.68	72.72	79.37	76.79	91.43	62.87	92.10	88.30	93.36	80.51	92.06
210	100.00	70.51	94.12	95.48	100.00	58.55	58.85	78.01	83.49	80.63	91.43	62.90	92.68	97.21	98.93	84.20	92.60
220	100.00	70.58	94.12	95.48	100.00	58.55	58.85	82.05	87.17	86.34	98.26	73.31	92.68	97.21	98.93	84.73	93.72
230	100.00	71.98	94.12	95.48	100.00	98.91	58.85	85.50	89.69	89.97	98.26	73.31	92.68	97.21	98.93	86.48	93.96
240	100.00	72.39	94.12	95.48	100.00	100.00	58.85	88.32	92.00	92.20	99.25	80.54	92.68	97.21	98.93	89.39	94.58
250	100.00	85.68	94.12	95.48	100.00	100.00	100.00	90.69	93.97	95.45	99.91	90.27	99.97	100.00	98.93	93.53	96.09
260	100.00	85.73	94.12	95.48	100.00	100.00	100.00	92.55	95.23	95.58	100.00	92.92	99.97	100.00	98.93	98.14	96.38
270	100.00	85.74	94.12	95.48	100.00	100.00	100.00	94.00	96.86	96.50	100.00	92.92	99.97	100.00	99.19	98.14	98.33
280	100.00	99.20	94.12	95.48	100.00	100.00	100.00	95.15	97.48	96.57	100.00	100.00	100.00	100.00	99.19	98.15	98.33
290	100.00	99.94	100.00	100.00	100.00	100.00	100.00	96.08	97.78	97.17	100.00	100.00	100.00	100.00	99.31	98.15	98.66
300	100.00	99.98	100.00	100.00	100.00	100.00	100.00	96.99	98.54	97.75	100.00	100.00	100.00	100.00	99.31	98.15	99.05
310	100.00	99.98	100.00	100.00	100.00	100.00	100.00	97.71	98.89	98.76	100.00	100.00	100.00	100.00	100.00	98.15	99.05
320	100.00	99.99	100.00	100.00	100.00	100.00	100.00	97.99	98.95	98.78	100.00	100.00	100.00	100.00	100.00	98.17	99.99
330	100.00	99.99	100.00	100.00	100.00	100.00	100.00	98.37	99.24	98.82	100.00	100.00	100.00	100.00	100.00	98.17	99.99
340	100.00	99.99	100.00	100.00	100.00	100.00	100.00	98.81	99.38	98.83	100.00	100.00	100.00	100.00	100.00	100.00	99.99
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	99.45	98.85	100.00	100.00	100.00	100.00	100.00	100.00	99.99
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.38	99.72	98.86	100.00	100.00	100.00	100.00	100.00	100.00	99.99
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.55	99.80	98.86	100.00	100.00	100.00	100.00	100.00	100.00	99.99
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.70	99.84	98.87	100.00	100.00	100.00	100.00	100.00	100.00	99.99
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.78	99.84	98.87	100.00	100.00	100.00	100.00	100.00	100.00	99.99
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.86	99.84	98.87	100.00	100.00	100.00	100.00	100.00	100.00	99.99
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.16	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Table I6.11. Mineral Cumulative Grain Size Distribution (Sample PX2 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample PX2_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10		0.26	0.00	0.00	2.63	0.00	0.40	0.18	0.55	0.17	0.11	0.06	0.00	1.58	1.12	0.11	0.15
20		0.57	0.00	1.41	15.40	0.00	5.33	1.61	4.06	2.15	1.28	0.44	2.81	3.67	9.78	0.82	0.49
30		1.89	0.00	1.41	20.87	3.64	10.66	3.69	8.21	4.91	2.40	0.70	12.28	11.80	10.19	2.05	1.18
40		6.89	0.00	1.41	20.87	6.46	14.06	6.85	13.86	8.88	9.00	2.32	12.28	18.24	10.82	5.99	1.75
50		8.11	0.00	1.41	63.38	47.40	24.01	11.92	21.04	16.46	15.17	11.33	59.99	36.05	16.19	11.19	5.55
60		26.15	0.00	1.41	63.38	56.72	53.72	19.24	30.41	25.57	23.18	14.08	64.77	36.05	18.72	18.08	14.28
70		32.27	3.74	1.41	80.09	59.19	54.81	28.64	40.70	35.76	24.85	28.30	64.77	36.05	20.62	24.70	16.47
80		37.39	40.31	1.41	80.09	64.04	55.89	39.25	52.81	46.70	34.57	35.20	64.77	36.05	87.89	36.91	35.86
90		41.41	40.31	1.41	80.09	65.65	79.87	49.79	62.54	57.45	74.99	53.54	65.01	42.35	88.56	45.04	36.25
100		47.89	40.31	1.98	80.09	65.65	94.30	59.87	71.57	66.17	83.13	70.44	65.01	42.35	88.96	53.15	61.15
110		65.57	43.58	1.98	100.00	65.65	95.21	68.67	79.20	72.91	99.48	78.86	65.19	42.35	97.03	68.51	61.50
120		68.44	43.58	1.98	100.00	96.77	95.32	76.30	84.37	81.54	99.48	82.13	65.97	42.35	97.10	75.65	80.69
130		75.65	43.58	1.98	100.00	96.77	95.35	81.75	88.83	85.38	99.48	100.00	65.97	42.35	97.99	82.65	80.87
140		76.00	43.58	1.98	100.00	96.77	95.35	86.62	92.08	88.49	99.57	100.00	65.97	42.35	100.00	85.57	81.60
150		76.18	43.58	100.00	100.00	96.77	99.10	90.48	94.81	91.20	99.63	100.00	100.00	100.00	100.00	88.68	81.99
160		99.19	49.30	100.00	100.00	96.77	99.12	92.99	96.24	93.47	99.63	100.00	100.00	100.00	100.00	95.14	98.86
170		99.71	49.30	100.00	100.00	100.00	99.12	95.08	97.61	96.05	100.00	100.00	100.00	100.00	100.00	96.75	98.89
180		99.71	49.30	100.00	100.00	100.00	99.12	96.40	98.23	98.66	100.00	100.00	100.00	100.00	100.00	96.75	99.74
190		99.74	49.30	100.00	100.00	100.00	100.00	97.33	98.70	99.89	100.00	100.00	100.00	100.00	100.00	100.00	99.74
200		99.74	49.30	100.00	100.00	100.00	100.00	97.94	99.18	99.90	100.00	100.00	100.00	100.00	100.00	100.00	99.74
210		99.74	49.30	100.00	100.00	100.00	100.00	98.51	99.49	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220		99.74	49.30	100.00	100.00	100.00	100.00	99.00	99.75	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230		99.74	49.30	100.00	100.00	100.00	100.00	99.34	99.87	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240		99.74	49.30	100.00	100.00	100.00	100.00	99.52	99.87	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250		99.74	49.30	100.00	100.00	100.00	100.00	99.57	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260		99.74	49.30	100.00	100.00	100.00	100.00	99.64	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270		99.74	49.30	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280		99.74	49.30	100.00	100.00	100.00	100.00	99.79	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290		99.74	49.30	100.00	100.00	100.00	100.00	99.82	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300		99.74	49.30	100.00	100.00	100.00	100.00	99.84	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310		99.74	49.30	100.00	100.00	100.00	100.00	99.86	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320		100.00	100.00	100.00	100.00	100.00	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330		100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340		100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350		100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360		100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370		100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.12. Mineral Cumulative Grain Size Distribution (Sample PX2 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample PX2 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	100.00	36.57				20.91	0.00	29.62	37.90	26.17	13.87	14.49	24.69	100.00	53.23	28.82	85.71
20	100.00	100.00				100.00	86.53	60.74	72.75	65.77	100.00	41.68	51.54	100.00	61.70	42.76	100.00
30	100.00	100.00				100.00	100.00	75.35	86.24	84.77	100.00	100.00	100.00	100.00	61.70	100.00	100.00
40	100.00	100.00				100.00	100.00	83.98	93.82	94.29	100.00	100.00	100.00	100.00	61.70	100.00	100.00
50	100.00	100.00				100.00	100.00	91.27	96.63	98.13	100.00	100.00	100.00	100.00	100.00	100.00	100.00
60	100.00	100.00				100.00	100.00	94.54	98.81	98.80	100.00	100.00	100.00	100.00	100.00	100.00	100.00
70	100.00	100.00				100.00	100.00	97.28	99.16	99.08	100.00	100.00	100.00	100.00	100.00	100.00	100.00
80	100.00	100.00				100.00	100.00	97.90	99.34	99.08	100.00	100.00	100.00	100.00	100.00	100.00	100.00
90	100.00	100.00				100.00	100.00	98.68	99.67	99.40	100.00	100.00	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00				100.00	100.00	98.93	99.67	99.40	100.00	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00				100.00	100.00	99.33	99.67	99.40	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00				100.00	100.00	99.52	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00				100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.13. Mineral Cumulative Grain Size Distribution (Sample MS1 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample MS1_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.01	0.01	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.22
20	0.13	0.60	0.06	0.20	4.76	0.00	0.00	0.15	0.64	0.54	0.22	0.17	0.33	0.24	13.70	0.00	0.76
30	0.39	1.10	0.64	0.66	4.76	17.44	9.20	0.46	1.26	1.52	0.57	0.46	0.59	2.67	38.72	1.39	0.76
40	0.83	1.68	1.65	1.46	4.76	17.44	9.20	0.88	2.19	2.75	1.13	0.91	1.16	3.52	39.23	1.50	0.76
50	1.04	2.72	4.38	3.39	7.53	17.44	9.20	1.51	3.29	4.05	1.71	1.59	2.02	8.93	45.99	1.59	2.82
60	2.62	3.04	6.21	3.51	7.53	17.44	9.20	2.41	4.96	5.41	2.70	2.49	3.26	8.93	47.14	3.12	6.89
70	5.07	4.39	7.97	3.53	7.53	17.86	9.20	3.69	6.85	7.76	4.17	3.65	4.49	8.93	47.14	4.92	6.93
80	6.32	5.83	10.88	5.38	7.53	17.86	9.20	5.30	10.13	11.51	6.02	5.29	6.20	10.36	57.47	4.95	7.05
90	10.36	8.43	11.75	10.79	9.54	17.86	9.20	7.32	12.93	15.09	8.60	7.19	10.32	10.36	57.47	8.70	8.34
100	13.10	10.71	12.50	13.68	9.54	17.86	9.20	9.94	16.39	18.49	11.17	10.11	14.50	10.46	57.47	12.48	11.48
110	15.99	15.62	14.40	13.68	9.97	17.86	9.20	13.33	20.04	23.85	13.83	13.34	19.94	16.15	61.64	14.67	11.79
120	18.02	19.53	18.28	20.34	98.70	19.03	9.20	17.47	23.59	29.75	17.60	17.57	22.93	16.24	62.14	18.71	12.88
130	19.46	23.52	20.90	27.22	98.70	32.00	9.20	21.99	28.42	36.51	22.95	22.13	32.21	16.65	64.15	22.32	31.70
140	27.37	28.55	24.84	39.59	98.70	33.88	9.20	27.44	34.36	42.62	29.37	27.58	38.11	25.93	79.39	27.35	34.68
150	38.04	34.55	30.75	44.65	98.70	33.88	10.43	32.88	37.75	46.76	35.65	33.34	45.84	68.77	79.85	36.71	35.97
160	47.01	43.07	39.89	48.38	98.70	33.88	96.36	39.06	43.49	52.51	42.05	40.49	48.66	89.87	91.07	57.13	41.06
170	59.16	52.35	41.48	55.27	98.70	34.42	96.59	44.74	48.08	60.32	48.92	46.79	55.14	89.98	93.02	62.84	44.99
180	62.59	62.23	70.25	59.35	98.70	34.42	97.00	50.61	53.74	65.70	54.94	52.90	61.37	90.02	93.02	68.33	45.68
190	64.84	68.62	77.61	65.14	99.26	34.42	97.00	56.57	57.73	72.49	62.83	58.52	73.07	90.17	94.80	70.69	49.96
200	71.02	72.61	84.63	78.56	100.00	96.13	97.00	62.23	63.65	76.46	69.43	65.30	75.69	90.69	95.93	81.40	51.67
210	82.34	75.34	89.99	91.59	100.00	96.13	97.00	67.28	68.93	79.80	75.01	71.90	80.09	90.79	96.47	85.04	52.48
220	82.57	78.03	90.79	91.65	100.00	100.00	97.00	72.50	73.23	84.26	79.76	76.42	81.17	97.97	96.47	86.03	53.38
230	89.49	84.39	92.15	92.86	100.00	100.00	97.00	76.58	76.86	89.46	83.18	83.11	86.70	98.83	97.40	89.25	54.96
240	96.08	88.95	94.69	92.88	100.00	100.00	97.00	80.17	81.64	92.69	86.27	85.56	87.92	98.83	98.83	90.44	55.52
250	96.73	90.78	95.37	92.88	100.00	100.00	97.00	83.66	84.00	94.84	90.69	88.45	96.18	99.30	98.83	95.66	55.90
260	97.45	91.56	97.55	92.93	100.00	100.00	99.68	86.34	85.85	95.37	92.55	90.94	97.31	99.30	98.83	96.00	56.87
270	98.30	92.28	97.99	92.94	100.00	100.00	99.68	88.66	88.55	96.71	94.58	93.45	98.06	99.36	99.33	96.67	56.96
280	98.56	95.44	97.99	93.06	100.00	100.00	99.68	90.78	92.54	98.10	96.00	95.34	98.34	99.54	99.33	98.58	57.07
290	99.01	95.91	98.44	99.34	100.00	100.00	99.68	92.19	93.14	98.30	96.43	96.86	98.43	99.54	99.33	98.58	57.07
300	99.23	97.65	98.72	99.34	100.00	100.00	100.00	93.75	94.13	98.88	97.55	97.49	98.49	99.60	99.33	98.92	95.76
310	99.42	98.14	99.34	99.36	100.00	100.00	100.00	95.01	95.03	99.18	98.32	97.99	99.58	99.94	99.33	99.21	95.76
320	99.78	98.33	99.50	99.36	100.00	100.00	100.00	96.03	95.16	99.24	98.52	98.55	99.91	99.94	99.33	99.25	95.79
330	99.81	98.59	99.63	99.36	100.00	100.00	100.00	96.66	98.05	99.25	98.60	99.11	99.92	100.00	100.00	99.25	95.92
340	99.84	99.10	99.64	99.36	100.00	100.00	100.00	97.35	98.62	99.26	98.97	99.37	100.00	100.00	100.00	99.25	96.14
350	99.84	99.33	99.66	99.36	100.00	100.00	100.00	97.90	98.68	99.28	99.12	99.53	100.00	100.00	100.00	99.25	96.35
360	100.00	99.61	99.73	100.00	100.00	100.00	100.00	98.49	98.95	99.82	99.27	99.75	100.00	100.00	100.00	99.84	96.35
370	100.00	99.63	99.73	100.00	100.00	100.00	100.00	98.82	99.01	99.83	99.31	99.77	100.00	100.00	100.00	99.84	99.91
380	100.00	99.80	99.83	100.00	100.00	100.00	100.00	99.07	99.01	99.83	99.37	99.77	100.00	100.00	100.00	100.00	99.95
390	100.00	99.92	99.83	100.00	100.00	100.00	100.00	99.20	99.01	99.92	99.38	99.77	100.00	100.00	100.00	100.00	99.95
400	100.00	99.92	99.83	100.00	100.00	100.00	100.00	99.41	99.10	99.99	99.76	99.77	100.00	100.00	100.00	100.00	99.95
Other	0.00	0.08	0.17	0.00	0.00	0.00	0.00	0.59	0.90	0.01	0.24	0.23	0.00	0.00	0.00	0.00	0.05

Table I6.14. Mineral Cumulative Grain Size Distribution (Sample MS1 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample MS1_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.18	0.67	0.28	0.26	21.24	5.59	1.96	0.23	1.33	0.65	0.26	0.19	0.26	0.19	12.16	0.28	0.35
20	1.12	3.20	2.49	1.35	63.44	5.91	5.69	1.34	5.40	3.61	1.68	1.19	2.29	2.77	41.05	1.43	1.41
30	3.25	5.81	4.14	2.27	69.86	12.58	5.69	3.22	9.97	8.07	3.88	2.92	5.13	3.03	47.33	5.22	2.06
40	6.09	10.50	8.55	5.01	72.38	15.57	82.14	6.67	15.50	14.36	7.21	5.85	11.70	4.45	47.73	12.13	3.60
50	9.21	17.28	18.56	11.00	72.62	15.98	86.50	12.18	22.70	21.53	12.42	10.88	15.48	11.18	51.68	25.67	10.91
60	19.10	24.92	28.58	18.89	72.62	17.08	86.60	19.86	32.99	31.84	20.49	17.18	20.82	14.96	52.81	39.43	11.82
70	29.42	32.55	35.18	27.91	95.79	62.70	86.60	29.26	42.91	43.29	30.36	27.06	30.40	24.90	53.21	44.53	26.03
80	40.31	43.05	54.54	49.20	97.66	79.26	89.41	39.77	52.75	53.28	40.35	37.36	41.64	33.13	57.00	52.66	38.80
90	48.72	55.81	85.77	54.18	97.66	81.00	91.79	49.90	62.85	62.77	51.33	49.13	48.81	49.65	57.41	69.51	41.91
100	63.89	61.90	87.67	58.12	97.66	87.04	91.79	59.86	70.82	73.36	60.82	60.87	55.84	65.51	91.98	81.32	54.17
110	75.28	69.18	89.36	69.88	98.61	97.21	91.79	68.15	78.72	80.06	71.35	69.28	62.50	68.83	93.58	84.86	54.38
120	81.62	86.63	92.34	83.13	98.61	99.45	91.96	75.56	84.06	85.88	77.85	76.90	64.96	76.48	96.53	93.95	67.49
130	91.34	90.68	94.17	83.64	99.14	99.77	94.87	81.86	90.38	90.28	83.68	85.25	75.82	88.83	96.53	98.77	68.22
140	93.57	95.90	95.75	93.81	99.14	100.00	94.87	86.86	92.75	93.83	88.31	90.24	77.97	88.91	99.29	98.86	82.28
150	95.60	96.90	96.94	98.91	100.00	100.00	94.87	90.28	95.68	95.35	91.68	93.90	81.14	98.73	99.61	99.32	83.54
160	96.14	97.60	99.59	98.91	100.00	100.00	95.12	92.85	97.25	96.59	93.75	95.69	81.35	98.73	99.61	99.43	83.72
170	99.84	98.04	99.69	98.91	100.00	100.00	95.12	94.83	97.75	97.93	95.74	96.60	90.43	98.76	99.61	99.72	99.72
180	99.84	98.22	99.74	99.77	100.00	100.00	100.00	96.00	97.99	98.49	97.54	97.43	99.00	98.76	99.82	99.72	99.83
190	99.91	98.52	99.75	99.77	100.00	100.00	100.00	96.91	98.33	98.90	98.56	98.35	99.96	100.00	100.00	99.72	99.83
200	99.92	98.52	99.75	99.77	100.00	100.00	100.00	97.72	99.01	98.94	99.23	98.70	99.96	100.00	100.00	99.72	99.83
210	100.00	98.53	99.98	99.77	100.00	100.00	100.00	98.30	99.37	99.96	99.39	99.31	100.00	100.00	100.00	99.72	99.83
220	100.00	99.83	99.98	99.77	100.00	100.00	100.00	98.73	99.58	99.97	99.46	99.52	100.00	100.00	100.00	100.00	99.93
230	100.00	99.83	99.98	100.00	100.00	100.00	100.00	99.02	99.58	99.98	99.49	100.00	100.00	100.00	100.00	100.00	99.93
240	100.00	99.84	100.00	100.00	100.00	100.00	100.00	99.31	99.58	99.98	99.64	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	99.84	100.00	100.00	100.00	100.00	100.00	99.51	99.71	99.99	99.95	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	99.99	100.00	100.00	100.00	100.00	100.00	99.71	99.71	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	99.99	100.00	100.00	100.00	100.00	100.00	99.76	99.71	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.84	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.15. Mineral Cumulative Grain Size Distribution (Sample MS1 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample MS1 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	17.99	17.08	15.61	16.13	7.93	43.43	9.30	18.22	37.31	20.85	16.80	13.48	9.24	24.18	98.17	23.48	28.59
20	45.93	41.07	49.37	44.32	11.99	100.00	100.00	40.88	69.08	47.02	41.82	36.88	19.79	48.99	98.17	96.88	94.60
30	62.33	55.69	66.24	100.00	11.99	100.00	100.00	57.00	80.81	65.16	67.28	57.22	33.17	55.59	99.14	100.00	94.60
40	90.00	75.70	93.30	100.00	11.99	100.00	100.00	70.56	88.74	78.23	79.97	75.50	36.03	55.59	99.14	100.00	94.60
50	100.00	80.58	94.63	100.00	100.00	100.00	100.00	80.40	94.77	85.12	86.86	81.94	43.21	100.00	100.00	100.00	94.60
60	100.00	90.02	100.00	100.00	100.00	100.00	100.00	88.87	97.76	91.65	90.91	87.48	65.92	100.00	100.00	100.00	96.11
70	100.00	97.97	100.00	100.00	100.00	100.00	100.00	93.80	99.66	95.38	94.55	97.79	92.58	100.00	100.00	100.00	100.00
80	100.00	99.44	100.00	100.00	100.00	100.00	100.00	96.28	99.66	95.38	98.33	99.19	100.00	100.00	100.00	100.00	100.00
90	100.00	99.90	100.00	100.00	100.00	100.00	100.00	97.43	99.74	95.38	100.00	100.00	100.00	100.00	100.00	100.00	100.00
100	100.00	99.90	100.00	100.00	100.00	100.00	100.00	98.60	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	99.98	100.00	100.00	100.00	100.00	100.00	99.14	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.16. Mineral Cumulative Grain Size Distribution (Sample MS2 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample MS2_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.01	0.03	0.05	0.00	3.02	0.00	0.00	0.02	0.08	0.06	0.00	0.00	0.02	0.00	0.00	0.00	0.00
20	0.26	0.66	0.75	1.35	8.45	0.23	15.55	0.49	1.39	1.00	0.19	0.23	0.42	0.00	24.53	0.00	0.21
30	1.24	1.42	2.18	1.35	8.45	0.23	66.11	1.20	3.03	2.56	0.71	0.71	1.19	0.00	36.12	0.00	0.21
40	2.01	1.88	4.46	1.35	8.45	0.23	68.41	2.07	4.67	4.81	1.31	1.38	1.73	0.00	36.12	0.00	0.37
50	3.38	3.22	4.71	1.35	56.81	19.62	68.41	3.11	6.08	7.06	2.13	2.17	2.39	0.00	36.12	0.00	0.37
60	4.22	4.16	4.88	1.35	56.81	19.62	68.41	4.44	7.83	10.07	3.29	3.33	4.15	0.00	39.86	0.00	7.30
70	6.35	7.76	5.05	4.86	56.81	19.62	68.41	6.21	10.22	13.94	4.73	4.77	6.07	0.00	51.38	0.00	7.35
80	8.68	10.57	8.57	14.05	56.81	19.62	68.41	8.36	12.83	17.76	6.21	6.64	7.51	0.00	51.38	0.00	7.45
90	8.91	14.82	9.03	19.27	56.81	19.62	68.41	11.17	16.41	21.94	8.93	8.99	10.56	0.00	58.60	0.00	7.56
100	12.20	17.18	12.39	45.18	56.81	19.62	85.73	13.77	20.55	26.84	12.13	11.90	12.60	0.00	58.60	0.00	8.00
110	22.94	19.77	13.20	45.86	57.21	19.62	85.73	17.96	24.66	31.88	15.94	15.52	15.80	0.00	59.62	0.00	21.96
120	27.57	25.26	14.10	45.86	64.30	21.34	85.73	23.36	30.12	38.79	20.51	19.96	20.56	0.00	59.62	0.95	22.71
130	30.35	31.74	25.13	51.82	68.32	21.34	94.86	28.09	36.29	44.70	26.32	25.09	25.85	0.00	81.78	9.12	25.61
140	34.70	39.32	68.24	90.52	73.66	21.34	95.28	34.67	41.36	50.86	32.74	30.94	32.89	0.00	82.16	9.12	50.34
150	39.63	42.39	68.72	90.58	73.66	21.34	95.28	41.31	48.58	58.23	39.72	37.49	38.73	27.78	83.29	76.22	51.95
160	47.06	44.44	69.20	90.58	73.66	21.34	95.28	47.83	53.95	63.01	45.90	44.63	47.34	27.78	84.53	76.22	53.87
170	53.04	55.78	69.54	91.50	73.66	100.00	95.28	54.10	60.55	69.74	53.84	53.00	54.41	27.78	85.48	76.22	55.06
180	55.81	58.40	69.80	91.59	73.66	100.00	95.28	60.07	67.10	75.00	59.30	60.08	63.99	27.78	86.83	76.22	86.34
190	56.20	69.96	70.12	94.26	74.00	100.00	96.93	65.64	74.52	79.30	65.50	66.91	67.98	27.78	88.47	76.22	86.46
200	68.47	79.13	73.56	94.75	77.42	100.00	96.93	71.68	78.85	83.71	71.44	73.00	73.85	27.78	88.47	76.22	88.38
210	70.91	80.68	74.29	95.19	77.75	100.00	98.73	77.26	83.11	87.22	75.97	78.48	78.19	27.78	88.47	76.22	97.05
220	82.57	82.66	74.55	95.27	86.35	100.00	98.73	81.68	86.60	89.61	80.49	83.52	81.93	27.78	89.07	76.22	99.60
230	83.84	84.65	75.14	95.43	86.35	100.00	98.73	85.91	88.63	91.42	84.89	87.37	88.14	100.00	89.75	100.00	99.82
240	83.93	85.53	75.17	95.43	86.35	100.00	98.73	88.69	91.38	93.26	89.58	90.37	90.75	100.00	91.64	100.00	99.93
250	84.04	98.56	75.90	96.37	86.35	100.00	98.73	91.55	93.61	96.13	92.67	92.98	92.82	100.00	91.64	100.00	99.98
260	85.15	99.14	77.23	98.72	86.35	100.00	98.73	93.76	95.44	97.22	94.89	95.18	95.04	100.00	94.37	100.00	99.98
270	85.15	99.41	77.23	98.90	86.35	100.00	98.73	95.15	96.78	98.30	96.40	96.44	97.78	100.00	94.37	100.00	100.00
280	99.61	99.80	99.63	98.90	87.29	100.00	100.00	96.10	97.39	98.72	97.82	97.38	98.31	100.00	96.07	100.00	100.00
290	99.61	99.80	99.63	98.90	87.29	100.00	100.00	96.68	98.31	99.19	98.02	98.03	99.32	100.00	96.07	100.00	100.00
300	99.61	99.81	99.63	98.90	87.29	100.00	100.00	97.56	99.01	99.35	98.67	98.64	99.50	100.00	97.29	100.00	100.00
310	99.61	99.81	99.63	98.90	87.29	100.00	100.00	98.15	99.23	99.36	98.74	99.02	99.51	100.00	97.29	100.00	100.00
320	99.65	99.81	99.65	98.97	87.29	100.00	100.00	98.49	99.42	99.42	98.77	99.38	99.78	100.00	100.00	100.00	100.00
330	99.65	99.82	99.65	98.97	100.00	100.00	100.00	98.65	99.60	99.46	99.35	99.52	99.80	100.00	100.00	100.00	100.00
340	100.00	100.00	99.99	100.00	100.00	100.00	100.00	98.87	99.63	99.57	99.42	99.66	99.96	100.00	100.00	100.00	100.00
350	100.00	100.00	99.99	100.00	100.00	100.00	100.00	99.22	99.65	99.82	99.93	99.80	99.98	100.00	100.00	100.00	100.00
360	100.00	100.00	99.99	100.00	100.00	100.00	100.00	99.37	99.65	99.99	99.93	99.96	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.44	99.65	99.99	99.93	99.96	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.51	99.71	99.99	99.93	99.96	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.54	99.90	100.00	99.93	99.97	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	99.90	100.00	99.94	100.00	100.00	100.00	100.00	100.00	100.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.10	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Table I6.17. Mineral Cumulative Grain Size Distribution (Sample MS2 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample MS2_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.39	0.64	0.98	0.00	3.56	2.30	4.10	0.59	1.77	0.85	0.31	0.27	0.47	2.34	30.99	0.00	0.17
20	1.37	2.94	2.12	2.45	13.12	2.30	25.06	2.29	6.34	4.08	1.36	1.42	2.89	21.56	62.97	0.00	2.22
30	2.18	5.11	3.80	4.04	51.63	13.94	37.02	4.55	11.74	9.03	3.12	3.37	5.54	21.56	79.41	96.35	3.46
40	4.67	8.46	4.76	6.49	51.63	17.00	37.02	8.49	18.00	16.43	6.31	6.42	10.49	72.61	93.95	96.35	5.02
50	6.17	11.47	11.05	18.74	67.63	17.15	40.00	13.56	26.05	26.46	10.74	11.18	14.91	72.61	94.23	96.35	5.02
60	11.98	20.52	19.14	18.80	74.72	17.34	88.04	21.34	35.88	37.54	17.76	18.35	23.64	100.00	94.38	96.35	5.11
70	16.12	30.31	25.31	27.51	78.83	100.00	91.59	31.11	45.55	49.19	28.10	28.70	31.89	100.00	96.35	96.35	5.40
80	27.31	38.91	35.03	36.58	82.00	100.00	95.32	42.23	56.63	59.98	40.90	39.99	41.53	100.00	98.68	96.35	25.91
90	45.09	56.42	68.16	48.82	86.51	100.00	95.76	52.75	65.69	69.91	54.93	52.54	56.57	100.00	98.81	96.35	36.07
100	61.36	65.66	73.97	58.48	86.74	100.00	99.93	61.80	72.83	78.34	63.84	63.08	64.21	100.00	98.88	96.35	36.36
110	62.11	66.45	92.35	91.43	99.71	100.00	99.93	70.08	79.77	85.18	74.16	72.94	72.75	100.00	99.19	96.35	67.17
120	70.21	73.05	92.58	96.93	99.71	100.00	100.00	77.47	85.71	89.44	82.42	81.16	78.76	100.00	99.87	100.00	75.80
130	84.82	84.30	95.80	96.93	100.00	100.00	100.00	82.52	90.55	92.90	89.11	87.81	85.90	100.00	99.87	100.00	75.84
140	91.05	89.97	96.41	97.12	100.00	100.00	100.00	86.61	93.94	95.04	92.56	92.18	88.92	100.00	99.87	100.00	83.27
150	99.49	94.29	98.56	97.12	100.00	100.00	100.00	90.19	95.61	96.52	94.78	95.26	91.46	100.00	100.00	100.00	99.97
160	99.74	94.68	98.78	100.00	100.00	100.00	100.00	92.05	96.61	98.09	96.78	97.36	95.21	100.00	100.00	100.00	99.97
170	99.74	95.00	98.97	100.00	100.00	100.00	100.00	94.75	98.35	98.87	97.70	98.42	99.82	100.00	100.00	100.00	99.97
180	100.00	99.99	100.00	100.00	100.00	100.00	100.00	96.43	99.04	99.48	99.57	99.16	99.96	100.00	100.00	100.00	99.97
190	100.00	99.99	100.00	100.00	100.00	100.00	100.00	97.49	99.47	99.81	99.68	99.51	100.00	100.00	100.00	100.00	99.97
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.22	99.54	99.81	99.99	99.60	100.00	100.00	100.00	100.00	99.97
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.38	99.54	99.81	99.99	99.75	100.00	100.00	100.00	100.00	99.97
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.85	99.89	99.82	99.99	99.85	100.00	100.00	100.00	100.00	99.97
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.17	99.93	99.82	99.99	99.92	100.00	100.00	100.00	100.00	99.97
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.66	99.96	99.91	100.00	100.00	100.00	100.00	100.00	100.00	99.97
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.86	99.97	99.91	100.00	100.00	100.00	100.00	100.00	100.00	99.97
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.18. Mineral Cumulative Grain Size Distribution (Sample MS2 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample MS2 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	7.86	17.98	10.64	20.33	100.00	0.00	0.00	21.41	29.85	15.36	11.17	12.85	23.75	100.00	59.65	100.00	19.13
20	26.89	30.70	50.78	100.00	100.00	0.00	71.18	47.23	63.08	38.89	34.87	35.90	44.78	100.00	99.64	100.00	37.46
30	73.45	73.66	61.52	100.00	100.00	0.00	71.18	63.26	80.94	55.92	54.88	56.38	67.20	100.00	100.00	100.00	54.11
40	83.53	88.02	80.58	100.00	100.00	0.00	71.18	77.31	90.47	67.84	71.38	74.13	77.55	100.00	100.00	100.00	54.11
50	100.00	88.12	83.03	100.00	100.00	100.00	100.00	86.66	95.42	80.45	85.45	87.53	90.77	100.00	100.00	100.00	98.51
60	100.00	99.58	100.00	100.00	100.00	100.00	100.00	92.73	98.14	87.99	92.87	92.54	95.19	100.00	100.00	100.00	98.51
70	100.00	99.58	100.00	100.00	100.00	100.00	100.00	96.83	98.63	94.24	96.09	95.48	96.24	100.00	100.00	100.00	98.51
80	100.00	99.58	100.00	100.00	100.00	100.00	100.00	98.63	99.71	98.31	100.00	98.47	98.34	100.00	100.00	100.00	98.51
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.29	99.95	99.33	100.00	99.40	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.29	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.19. Mineral Cumulative Grain Size Distribution (Sample TZ1 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample TZ1_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.03	0.05	0.00	0.00	0.01	0.00	2.09	0.00	0.00
20	0.39	0.60	0.71	0.57	0.00	0.00	28.08	0.33	0.92	0.99	0.27	0.17	0.36	0.51	15.26	0.00	0.49
30	0.74	1.77	2.38	0.70	36.25	0.00	28.08	0.90	2.12	2.61	0.87	0.58	1.30	0.51	31.48	0.00	3.37
40	1.18	3.20	4.11	0.81	36.25	0.00	28.08	1.67	3.51	4.34	1.59	1.13	2.45	0.51	31.48	0.00	5.08
50	2.48	4.45	5.75	1.17	36.25	0.17	28.08	2.71	4.83	6.87	2.57	1.90	4.40	0.51	75.31	0.00	5.16
60	3.90	5.72	7.04	1.18	36.25	0.17	28.08	4.05	6.18	10.18	3.96	3.05	6.43	7.82	75.31	0.00	8.57
70	5.51	7.33	9.40	1.69	36.25	0.17	28.08	5.77	8.35	13.97	5.85	4.60	8.27	13.57	81.18	0.00	12.76
80	6.30	9.75	11.33	2.79	36.25	46.81	28.08	8.12	11.22	17.46	8.19	6.59	10.22	15.25	83.12	3.96	22.44
90	8.95	12.22	12.94	4.76	36.25	48.66	28.08	10.88	14.59	22.48	11.16	9.08	14.14	15.43	90.93	3.96	22.57
100	9.40	15.12	15.07	4.87	38.53	48.66	28.08	13.91	18.26	27.22	14.38	12.22	16.73	15.85	91.89	3.96	23.02
110	16.68	20.03	16.76	6.57	38.53	48.90	28.08	18.34	22.58	32.54	18.61	16.32	20.46	15.85	92.33	6.10	27.99
120	22.80	26.33	21.84	23.87	38.53	48.90	36.20	23.14	27.34	39.35	22.95	20.50	24.90	45.63	92.33	6.10	32.78
130	32.55	30.70	24.62	27.12	38.53	48.90	36.20	28.85	32.57	44.56	28.53	25.79	29.82	46.02	92.72	23.50	39.80
140	42.18	34.67	27.06	34.52	38.53	48.90	36.20	35.10	38.20	52.23	35.27	31.75	37.54	81.73	93.40	23.50	47.38
150	46.23	40.71	42.56	42.37	41.42	50.41	36.20	40.88	43.62	57.82	42.30	37.99	44.21	82.02	95.91	25.46	51.63
160	50.15	48.20	50.48	46.70	41.91	53.29	40.70	46.64	51.70	63.72	49.35	44.60	51.45	84.25	96.17	33.65	55.38
170	53.70	54.87	56.34	62.66	42.51	53.45	60.45	54.33	58.19	70.73	57.21	51.10	59.72	85.82	97.13	90.67	73.28
180	59.24	61.54	60.28	62.84	42.51	53.45	74.43	60.86	64.42	77.18	63.70	58.33	65.12	88.85	97.52	92.39	76.25
190	62.97	66.38	63.21	72.01	44.23	53.45	85.25	66.62	70.44	81.32	70.03	65.09	72.15	88.85	98.40	92.39	78.34
200	70.73	73.92	81.49	84.52	81.26	53.45	85.25	72.19	76.10	85.80	75.20	71.64	79.12	90.43	98.62	92.83	80.34
210	78.56	80.55	83.14	84.68	81.26	53.45	95.62	76.87	80.05	89.84	80.82	77.47	81.59	91.04	99.51	96.26	89.03
220	86.56	87.78	88.34	85.34	81.26	57.53	97.43	81.51	83.87	93.55	85.00	82.43	85.62	91.42	99.73	97.75	91.71
230	87.36	89.36	89.82	97.59	85.46	100.00	97.43	85.38	88.56	96.02	89.29	86.31	87.53	92.86	99.73	97.75	94.60
240	94.97	90.25	91.73	97.60	85.46	100.00	100.00	88.28	91.11	97.10	91.68	89.72	89.83	98.97	99.73	97.75	94.98
250	96.36	94.40	92.18	97.73	100.00	100.00	100.00	90.90	93.69	98.20	93.92	92.44	94.74	99.09	99.73	100.00	95.30
260	97.62	96.39	93.04	97.80	100.00	100.00	100.00	92.97	95.52	98.86	95.14	94.52	95.74	99.09	99.73	100.00	95.62
270	98.58	96.87	95.58	97.80	100.00	100.00	100.00	94.53	96.93	99.53	96.32	96.11	98.17	99.42	99.73	100.00	97.39
280	98.68	98.09	95.75	97.84	100.00	100.00	100.00	95.52	97.68	99.69	97.59	97.26	98.96	99.64	100.00	100.00	98.14
290	98.78	98.64	95.89	97.84	100.00	100.00	100.00	96.39	98.26	99.78	98.04	98.07	99.22	99.70	100.00	100.00	98.21
300	99.73	98.83	98.16	97.84	100.00	100.00	100.00	97.28	98.58	99.89	98.39	98.82	99.30	99.82	100.00	100.00	98.23
310	99.90	99.14	98.25	97.84	100.00	100.00	100.00	98.03	98.95	99.94	99.10	99.37	99.45	99.82	100.00	100.00	99.29
320	99.95	99.56	99.96	98.04	100.00	100.00	100.00	98.38	99.18	99.97	99.25	99.64	99.95	100.00	100.00	100.00	99.36
330	100.00	99.81	99.99	98.04	100.00	100.00	100.00	98.91	99.26	99.98	99.57	99.76	99.95	100.00	100.00	100.00	99.90
340	100.00	99.81	99.99	98.04	100.00	100.00	100.00	99.18	99.41	99.98	99.58	99.76	99.98	100.00	100.00	100.00	100.00
350	100.00	99.81	99.99	98.04	100.00	100.00	100.00	99.28	99.43	99.98	99.63	99.79	99.98	100.00	100.00	100.00	100.00
360	100.00	99.98	100.00	100.00	100.00	100.00	100.00	99.68	99.47	99.98	99.95	99.84	99.99	100.00	100.00	100.00	100.00
370	100.00	99.98	100.00	100.00	100.00	100.00	100.00	99.81	99.47	99.99	99.98	99.94	99.99	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.49	100.00	99.98	99.97	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.49	100.00	100.00	99.97	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.97	100.00	100.00	100.00	100.00	100.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00

Table I6.20. Mineral Cumulative Grain Size Distribution (Sample TZ1 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample TZ1_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.58	0.87	0.68	0.25	1.94	1.50	4.17	0.43	1.56	0.88	0.34	0.29	0.71	4.09	13.20	0.00	0.83
20	2.22	3.19	2.42	1.75	7.09	2.98	10.98	1.90	5.95	3.81	1.61	1.39	2.66	13.18	24.57	12.21	4.46
30	5.04	5.59	2.98	3.76	12.53	2.98	11.23	4.00	10.23	8.31	3.76	3.18	6.01	26.80	30.75	12.21	6.00
40	7.36	8.59	6.71	5.19	12.57	3.72	11.23	7.44	14.98	15.27	6.63	6.15	11.05	34.27	35.23	12.21	22.46
50	15.06	13.47	9.32	11.10	13.58	5.89	11.23	12.71	21.67	23.85	11.88	11.00	15.87	34.27	36.18	25.14	23.53
60	21.02	23.29	9.95	14.42	29.52	9.60	11.23	20.42	31.21	34.52	19.56	18.22	25.38	60.43	48.77	25.14	43.93
70	31.63	32.39	24.27	28.37	30.07	19.31	13.23	29.67	40.86	46.39	29.11	27.71	34.70	80.87	52.25	30.78	51.27
80	46.56	41.85	31.14	30.29	80.13	19.31	15.05	40.70	51.52	58.71	41.57	38.76	48.02	93.47	56.27	30.78	68.93
90	54.91	54.27	40.56	42.75	99.78	20.80	15.05	51.22	62.09	69.47	53.53	50.82	57.27	97.40	57.30	79.50	72.11
100	63.99	68.60	52.81	46.17	99.83	23.76	16.93	60.65	70.11	77.22	63.51	61.45	72.07	98.06	80.75	79.50	74.30
110	70.06	75.69	61.66	86.24	99.89	97.00	17.09	69.40	77.81	84.48	72.95	70.90	81.33	98.06	98.31	79.50	77.53
120	86.12	79.18	72.00	96.79	99.89	97.67	17.54	76.75	85.00	89.27	80.70	78.43	87.17	98.18	98.78	79.50	81.86
130	91.06	88.94	74.37	96.79	100.00	99.00	17.54	82.24	88.98	92.78	86.16	85.11	90.75	99.83	98.89	95.56	86.26
140	93.72	91.47	81.71	99.19	100.00	99.00	100.00	87.29	92.71	95.67	90.68	89.86	95.84	100.00	99.13	95.56	86.81
150	94.39	96.93	89.87	100.00	100.00	99.00	100.00	91.34	95.36	97.87	94.40	92.85	98.07	100.00	99.76	95.56	87.69
160	94.88	98.11	99.23	100.00	100.00	99.00	100.00	93.72	97.07	98.49	96.09	95.81	99.26	100.00	99.86	100.00	96.61
170	94.96	98.62	99.26	100.00	100.00	99.00	100.00	95.39	97.49	99.39	97.22	97.17	99.51	100.00	100.00	100.00	97.09
180	99.43	99.10	99.58	100.00	100.00	100.00	100.00	96.57	98.27	99.74	98.03	98.13	99.63	100.00	100.00	100.00	97.67
190	99.66	99.38	99.67	100.00	100.00	100.00	100.00	97.47	98.48	99.95	98.84	98.73	99.74	100.00	100.00	100.00	97.67
200	99.83	99.83	99.74	100.00	100.00	100.00	100.00	98.16	98.74	99.95	99.20	99.25	99.75	100.00	100.00	100.00	99.95
210	99.85	99.85	99.93	100.00	100.00	100.00	100.00	98.60	99.33	99.96	99.58	99.52	99.89	100.00	100.00	100.00	99.95
220	99.85	99.85	99.93	100.00	100.00	100.00	100.00	99.02	99.87	99.99	99.87	99.61	99.89	100.00	100.00	100.00	100.00
230	99.85	99.99	99.93	100.00	100.00	100.00	100.00	99.21	99.87	99.99	99.91	99.61	99.89	100.00	100.00	100.00	100.00
240	99.85	99.99	99.93	100.00	100.00	100.00	100.00	99.56	99.93	99.99	99.99	99.71	99.89	100.00	100.00	100.00	100.00
250	99.85	99.99	99.93	100.00	100.00	100.00	100.00	99.67	99.93	99.99	99.99	99.77	99.89	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.87	99.97	100.00	100.00	99.96	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	99.96	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	99.96	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.21. Mineral Cumulative Grain Size Distribution (Sample TZ1 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample TZ1 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	8.27	26.18	33.51	7.78	72.94	5.75	100.00	15.87	27.00	18.68	11.35	14.05	17.53	37.10	69.81	0.00	18.01
20	37.98	61.34	89.60	13.00	100.00	41.95	100.00	40.34	61.93	43.04	35.56	36.85	42.73	78.65	98.68	100.00	85.73
30	53.05	81.71	98.61	40.05	100.00	70.69	100.00	58.75	79.23	69.21	57.28	57.05	68.53	78.65	100.00	100.00	100.00
40	69.66	90.92	99.22	46.60	100.00	70.69	100.00	74.70	87.63	83.18	74.52	72.68	82.97	78.65	100.00	100.00	100.00
50	70.35	91.49	99.22	46.60	100.00	70.69	100.00	85.03	95.15	94.60	86.58	84.46	92.49	78.65	100.00	100.00	100.00
60	81.06	98.27	100.00	46.60	100.00	70.69	100.00	92.28	97.80	99.93	90.63	90.07	97.58	78.65	100.00	100.00	100.00
70	99.15	99.05	100.00	46.60	100.00	100.00	100.00	95.52	99.83	100.00	95.63	95.93	99.74	100.00	100.00	100.00	100.00
80	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.91	99.89	100.00	98.21	98.40	100.00	100.00	100.00	100.00	100.00
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.57	100.00	100.00	99.87	99.04	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.72	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.22. Mineral Cumulative Grain Size Distribution (Sample TZ2 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample TZ2_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.10	0.01	0.01	0.01	0.00	0.00	0.00	0.00
20	0.32	0.72	0.62	0.00	4.25	0.00	11.25	0.45	1.29	1.28	0.36	0.23	0.61	2.57	40.09	0.00	0.00
30	0.70	1.44	0.67	0.78	4.25	0.37	15.95	1.04	2.64	3.08	0.88	0.63	1.52	2.57	45.10	0.00	0.77
40	1.28	2.29	1.02	0.78	8.67	3.42	30.33	1.71	3.74	5.05	1.60	1.17	2.05	20.85	46.18	0.00	1.50
50	1.80	2.83	4.92	2.63	14.78	3.42	30.33	2.78	5.10	7.38	2.54	1.95	2.76	20.85	50.43	0.00	2.72
60	2.99	4.09	6.31	2.66	14.78	3.59	30.48	4.00	6.98	9.56	3.60	3.02	3.95	20.85	50.63	0.00	3.82
70	3.59	6.88	10.27	6.11	14.78	3.59	30.48	5.78	9.01	12.37	5.08	4.41	5.75	20.85	83.39	0.00	5.27
80	5.38	12.52	15.61	6.24	15.42	3.59	30.48	8.03	11.66	16.21	7.41	6.28	7.14	20.85	84.01	0.00	5.36
90	8.31	14.84	16.12	6.24	17.85	3.59	30.54	10.98	15.15	21.05	9.70	8.67	9.30	20.85	87.62	0.00	6.50
100	10.78	16.21	20.21	6.84	24.15	10.88	92.49	14.45	18.63	25.03	12.60	11.56	11.57	20.85	87.98	0.00	7.21
110	12.54	18.31	20.97	6.84	24.15	12.17	92.56	18.09	23.10	30.62	17.16	15.04	16.36	20.85	88.17	0.00	7.58
120	15.99	23.17	22.89	17.58	24.23	12.17	92.63	22.56	27.95	36.98	21.63	19.49	25.52	22.44	88.75	6.87	8.08
130	20.00	32.17	24.31	17.61	25.44	12.17	93.35	28.51	33.83	43.68	27.18	24.94	31.01	22.44	89.29	6.87	12.92
140	22.75	37.53	26.80	27.93	29.27	14.03	93.46	34.33	40.11	50.97	33.41	31.41	38.02	24.05	89.48	6.87	19.17
150	28.01	46.64	45.92	29.50	31.12	97.31	94.08	40.91	46.17	57.16	38.52	37.69	41.68	39.87	91.99	69.90	37.90
160	34.43	51.07	57.18	41.31	77.42	97.31	95.28	47.28	53.04	63.33	44.93	44.27	51.56	42.26	92.76	69.90	40.80
170	41.10	57.09	58.96	41.36	78.20	97.31	95.80	53.77	60.84	69.33	53.59	51.29	60.42	42.72	93.65	69.90	44.14
180	46.56	61.67	74.41	70.23	79.19	97.31	97.58	60.47	66.18	75.86	60.56	58.32	66.30	48.74	94.34	100.00	44.77
190	55.91	64.09	78.28	70.49	81.80	100.00	98.82	66.37	73.19	80.32	68.76	65.20	71.84	49.79	94.34	100.00	48.25
200	61.85	68.74	82.45	71.97	82.81	100.00	98.98	71.76	78.60	84.95	74.40	72.09	78.25	61.09	95.63	100.00	49.93
210	65.66	74.78	84.15	72.25	91.53	100.00	98.98	76.56	82.50	88.33	79.00	77.37	82.75	66.47	95.99	100.00	50.28
220	71.63	82.68	85.35	72.31	93.81	100.00	98.98	81.25	87.11	89.93	83.45	82.06	92.24	99.63	96.18	100.00	55.73
230	76.88	84.59	85.68	72.31	99.60	100.00	98.98	84.78	90.32	92.28	86.21	85.97	95.09	99.63	96.18	100.00	56.79
240	84.87	86.44	94.44	77.51	99.70	100.00	99.62	87.53	92.98	94.05	89.74	89.58	96.74	99.63	96.18	100.00	57.40
250	88.28	87.11	96.82	77.51	100.00	100.00	99.62	89.57	95.13	95.75	91.90	92.24	98.14	99.63	96.55	100.00	57.66
260	89.78	89.29	96.83	77.51	100.00	100.00	99.62	91.44	96.35	97.39	94.51	94.63	98.89	100.00	99.53	100.00	57.69
270	91.48	89.55	97.29	98.57	100.00	100.00	100.00	93.47	97.40	98.11	96.60	96.19	99.05	100.00	99.53	100.00	57.71
280	98.56	91.63	97.69	98.57	100.00	100.00	100.00	94.97	98.37	98.96	97.97	97.32	99.20	100.00	99.53	100.00	57.71
290	99.93	91.95	98.61	98.57	100.00	100.00	100.00	95.94	98.69	99.18	98.57	97.94	99.28	100.00	99.85	100.00	99.82
300	99.96	92.13	99.94	98.57	100.00	100.00	100.00	96.88	98.94	99.37	98.91	98.63	99.40	100.00	100.00	100.00	99.92
310	99.97	92.25	99.96	100.00	100.00	100.00	100.00	97.49	98.99	99.41	99.07	99.08	99.42	100.00	100.00	100.00	99.92
320	99.97	92.30	99.96	100.00	100.00	100.00	100.00	98.15	99.08	99.43	99.12	99.19	99.46	100.00	100.00	100.00	99.92
330	99.97	92.30	99.96	100.00	100.00	100.00	100.00	98.46	99.12	99.47	99.14	99.50	99.48	100.00	100.00	100.00	99.92
340	99.97	92.30	99.96	100.00	100.00	100.00	100.00	98.84	99.25	99.57	99.28	99.70	99.52	100.00	100.00	100.00	99.92
350	99.97	92.31	99.96	100.00	100.00	100.00	100.00	98.98	99.37	99.67	99.33	99.77	99.52	100.00	100.00	100.00	100.00
360	99.97	99.53	99.99	100.00	100.00	100.00	100.00	99.04	99.39	99.68	99.76	99.84	99.95	100.00	100.00	100.00	100.00
370	99.97	99.53	99.99	100.00	100.00	100.00	100.00	99.14	99.42	99.68	99.86	99.89	99.95	100.00	100.00	100.00	100.00
380	99.97	99.53	99.99	100.00	100.00	100.00	100.00	99.14	99.42	99.70	99.86	99.93	99.95	100.00	100.00	100.00	100.00
390	99.97	99.53	99.99	100.00	100.00	100.00	100.00	99.28	99.49	99.70	99.91	99.93	99.95	100.00	100.00	100.00	100.00
400	99.97	99.53	99.99	100.00	100.00	100.00	100.00	99.46	99.57	99.70	99.94	99.93	99.95	100.00	100.00	100.00	100.00
Other	0.03	0.47	0.01	0.00	0.00	0.00	0.00	0.54	0.43	0.30	0.06	0.07	0.05	0.00	0.00	0.00	0.00

Table I6.23. Mineral Cumulative Grain Size Distribution (Sample TZ2 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample TZ2_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.22	0.62	0.24	0.00	1.97	0.00	23.68	0.50	2.17	1.11	0.38	0.31	0.80	3.02	26.25	0.00	0.70
20	1.37	2.19	0.97	0.52	7.06	30.62	42.66	2.02	7.39	5.05	1.66	1.33	3.29	8.95	40.34	0.00	2.01
30	2.93	4.52	2.72	1.47	7.14	30.62	57.81	4.62	12.76	11.45	3.56	3.26	6.20	8.95	47.90	100.00	2.19
40	6.61	9.74	4.35	8.57	8.38	30.62	66.27	8.62	19.25	20.63	6.51	6.60	10.35	8.95	70.55	100.00	2.32
50	12.00	16.62	6.42	28.66	9.30	30.62	72.49	15.05	26.53	30.39	12.06	11.80	15.55	12.76	84.45	100.00	3.11
60	19.48	21.50	10.16	28.66	12.24	30.62	73.05	23.25	34.98	42.08	20.13	19.08	23.74	34.98	85.17	100.00	10.90
70	27.28	27.60	19.15	42.74	89.98	30.62	78.50	33.17	44.05	53.70	30.11	29.02	35.39	37.17	88.71	100.00	28.81
80	38.98	45.12	31.62	42.74	93.17	98.72	80.51	43.18	53.73	64.07	41.71	39.74	45.14	39.22	94.64	100.00	32.38
90	50.27	58.03	34.50	42.74	94.10	98.72	85.48	53.28	64.04	72.55	52.93	51.91	62.14	95.67	96.19	100.00	37.73
100	66.42	66.21	48.44	43.17	95.39	98.72	88.05	63.48	73.75	79.70	65.95	62.62	70.01	95.67	96.55	100.00	38.48
110	74.56	74.37	57.87	100.00	99.60	98.72	94.20	71.89	80.37	86.13	74.89	71.22	77.09	99.71	97.45	100.00	39.45
120	80.73	79.50	61.41	100.00	99.65	98.72	95.58	79.10	86.92	90.71	84.42	79.24	81.44	100.00	98.19	100.00	59.31
130	85.52	92.61	73.61	100.00	99.65	98.72	99.37	84.72	90.95	94.28	89.59	85.18	85.96	100.00	98.54	100.00	60.40
140	89.43	98.57	83.67	100.00	99.78	98.72	99.37	89.07	94.45	96.13	94.25	90.51	93.70	100.00	98.54	100.00	99.75
150	91.86	98.97	91.55	100.00	99.90	98.72	100.00	92.32	97.07	98.19	95.94	94.39	97.32	100.00	98.79	100.00	99.90
160	96.25	99.56	91.56	100.00	99.90	100.00	100.00	94.51	97.84	98.90	97.43	96.34	97.94	100.00	98.84	100.00	99.95
170	96.36	99.78	99.95	100.00	99.90	100.00	100.00	96.00	98.55	99.04	98.65	97.71	98.32	100.00	98.99	100.00	99.95
180	100.00	99.86	99.98	100.00	100.00	100.00	100.00	97.34	99.14	99.29	99.34	98.88	99.20	100.00	99.90	100.00	99.95
190	100.00	99.96	100.00	100.00	100.00	100.00	100.00	98.13	99.32	99.44	99.57	99.17	99.20	100.00	99.90	100.00	100.00
200	100.00	99.96	100.00	100.00	100.00	100.00	100.00	98.67	99.63	99.54	99.79	99.47	99.93	100.00	99.90	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.03	99.69	99.60	99.87	99.66	99.96	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.34	99.83	99.60	99.91	99.76	99.97	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.52	99.91	99.60	99.94	99.81	99.97	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.78	99.93	99.69	99.94	99.86	99.98	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	99.99	99.69	99.99	99.93	99.98	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.88	99.99	99.69	99.99	99.93	99.98	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	99.99	99.69	100.00	100.00	99.98	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.24. Mineral Cumulative Grain Size Distribution (Sample TZ2 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample TZ2 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	11.66	14.94	16.02	1.72	84.66	100.00	2.02	17.68	33.72	19.48	12.98	14.83	19.49	21.18	76.57		6.81
20	29.31	30.55	42.30	15.03	100.00	100.00	63.43	40.62	67.07	49.07	34.71	36.47	40.98	27.10	99.52		20.54
30	49.33	39.90	59.55	33.95	100.00	100.00	100.00	59.07	83.08	70.87	54.84	57.75	54.75	100.00	100.00		25.50
40	65.22	66.25	100.00	33.95	100.00	100.00	100.00	72.28	92.89	84.62	72.35	74.74	59.72	100.00	100.00		58.07
50	86.78	78.22	100.00	100.00	100.00	100.00	100.00	82.43	98.03	89.12	84.59	87.43	95.79	100.00	100.00		100.00
60	99.95	78.70	100.00	100.00	100.00	100.00	100.00	87.36	98.67	94.37	94.99	95.77	97.63	100.00	100.00		100.00
70	100.00	99.88	100.00	100.00	100.00	100.00	100.00	90.96	99.00	97.85	98.97	98.53	98.96	100.00	100.00		100.00
80	100.00	100.00	100.00	100.00	100.00	100.00	100.00	94.27	99.54	98.78	99.99	99.83	100.00	100.00	100.00		100.00
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	95.87	99.88	100.00	99.99	99.98	100.00	100.00	100.00		100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	96.12	99.88	100.00	99.99	99.98	100.00	100.00	100.00		100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	96.34	99.88	100.00	99.99	99.98	100.00	100.00	100.00		100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	96.60	99.88	100.00	99.99	99.98	100.00	100.00	100.00		100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.25	100.00	100.00	99.99	99.98	100.00	100.00	100.00		100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.25	100.00	100.00	99.99	99.98	100.00	100.00	100.00		100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.73	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.73	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00

Table I6.25. Mineral Cumulative Grain Size Distribution (Sample BAS1 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample BAS1_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.03	0.21	0.23	0.01	0.01	0.01	0.00	1.09	0.00	0.00
20	0.21	0.39	0.73	0.27	0.71	0.41	1.19	0.57	1.96	2.01	0.29	0.29	0.51	0.51	8.65	1.40	0.29
30	0.59	1.40	2.01	1.07	2.16	8.34	3.64	1.24	3.91	4.41	0.79	0.78	1.41	1.78	26.71	1.40	0.53
40	0.95	1.99	2.45	2.14	2.16	8.34	3.64	1.93	5.83	8.11	1.32	1.42	2.46	3.11	28.91	1.40	1.24
50	1.54	3.00	3.79	2.15	2.16	8.34	3.64	3.06	7.62	12.05	2.12	2.33	3.69	3.93	29.07	5.26	1.76
60	2.55	5.12	4.82	2.31	14.74	8.34	3.64	4.31	10.25	17.03	3.54	3.59	5.68	5.37	30.25	5.26	2.13
70	4.02	6.41	5.08	3.65	14.74	8.34	3.91	6.13	12.55	22.44	4.70	5.10	7.52	5.50	36.33	8.30	3.24
80	6.42	8.78	8.52	3.86	14.74	8.34	3.97	8.30	16.38	27.99	6.51	7.15	9.92	10.81	37.55	8.30	14.28
90	8.56	11.48	11.29	3.87	32.73	91.77	3.97	11.08	20.00	33.58	8.89	9.60	12.33	17.02	37.58	8.30	15.44
100	11.78	13.04	15.47	6.18	32.85	91.77	4.15	14.78	24.17	40.04	11.69	13.02	16.58	17.31	37.98	8.30	16.92
110	15.31	17.58	20.07	8.59	32.85	91.77	4.18	18.69	29.37	46.40	15.51	17.28	20.61	28.37	38.03	10.73	37.70
120	18.90	21.76	23.36	9.79	32.85	92.59	4.42	23.93	34.05	52.47	20.51	22.65	24.83	36.12	38.08	27.92	44.34
130	24.63	25.91	27.76	11.27	32.85	93.42	4.67	29.44	38.77	57.31	26.13	28.22	29.41	41.06	43.79	35.45	45.67
140	35.85	32.83	33.43	16.76	32.85	93.42	4.78	34.49	46.17	62.82	33.16	34.70	36.98	47.18	43.87	35.59	46.69
150	41.88	42.87	41.76	24.02	32.85	93.42	4.78	40.54	52.28	69.16	40.51	41.90	42.69	50.85	45.64	44.67	49.12
160	49.32	46.76	47.29	24.50	32.85	93.42	5.38	46.76	58.91	73.25	47.70	49.79	49.55	68.94	45.64	62.98	76.74
170	56.16	61.62	52.73	33.12	33.01	93.42	5.42	54.48	66.47	78.32	55.93	57.68	56.32	71.40	94.66	78.15	80.40
180	64.74	68.20	63.35	49.99	33.01	94.04	6.51	61.54	73.23	82.49	63.82	65.16	64.48	72.02	95.16	92.38	86.66
190	69.31	74.52	71.49	62.96	33.01	94.04	99.60	67.50	78.33	86.41	69.66	71.59	73.47	74.38	95.61	93.45	90.96
200	74.96	79.48	79.97	67.07	33.01	94.04	99.60	71.86	84.62	89.69	76.64	77.73	78.78	75.95	95.61	99.85	92.05
210	77.42	84.34	81.82	69.32	33.01	95.98	99.60	76.46	89.21	91.81	84.17	82.66	82.51	77.26	96.05	100.00	93.73
220	81.77	87.62	84.04	69.97	33.01	97.07	99.60	79.50	91.87	93.97	87.19	86.17	87.11	77.97	96.16	100.00	94.06
230	84.99	90.81	89.62	80.93	100.00	100.00	99.60	83.24	94.04	95.31	90.62	89.99	92.71	85.63	96.92	100.00	98.68
240	88.29	94.03	95.50	83.91	100.00	100.00	99.60	86.68	96.68	96.46	93.28	92.82	94.54	86.13	97.09	100.00	98.78
250	89.61	97.56	96.27	99.00	100.00	100.00	99.60	88.71	97.67	97.57	95.51	94.63	95.43	97.74	97.09	100.00	99.37
260	90.49	98.37	97.11	99.16	100.00	100.00	99.60	90.29	98.08	98.15	96.42	96.45	96.78	98.58	97.30	100.00	99.51
270	97.59	99.03	99.16	99.97	100.00	100.00	99.60	92.55	98.62	98.65	98.34	97.66	97.96	98.80	99.98	100.00	99.63
280	99.54	99.12	99.58	99.97	100.00	100.00	99.60	95.09	98.81	98.94	98.66	98.44	98.24	99.41	100.00	100.00	99.68
290	99.55	99.22	99.60	99.97	100.00	100.00	99.60	96.85	99.40	99.34	99.17	99.08	98.58	99.41	100.00	100.00	99.72
300	99.63	99.72	99.64	99.97	100.00	100.00	99.60	97.73	99.63	99.69	99.31	99.41	98.81	100.00	100.00	100.00	99.88
310	99.94	99.92	99.95	100.00	100.00	100.00	99.60	98.17	99.75	99.98	99.40	99.63	99.09	100.00	100.00	100.00	99.92
320	99.94	99.92	99.96	100.00	100.00	100.00	99.60	98.74	99.78	99.98	99.56	99.70	99.11	100.00	100.00	100.00	99.99
330	99.94	99.93	99.96	100.00	100.00	100.00	100.00	99.13	99.99	99.99	99.63	99.81	99.82	100.00	100.00	100.00	99.99
340	100.00	99.94	99.96	100.00	100.00	100.00	100.00	99.44	100.00	99.99	99.63	99.93	99.92	100.00	100.00	100.00	99.99
350	100.00	100.00	99.99	100.00	100.00	100.00	100.00	99.61	100.00	100.00	99.63	100.00	99.97	100.00	100.00	100.00	99.99
360	100.00	100.00	99.99	100.00	100.00	100.00	100.00	99.61	100.00	100.00	99.63	100.00	99.97	100.00	100.00	100.00	99.99
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.61	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table I6.26. Mineral Cumulative Grain Size Distribution (Sample BAS1 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample BAS1_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.23	0.76	0.30	0.24	4.80	0.00	36.96	0.47	2.11	1.39	0.30	0.24	0.51	1.28	52.71	3.88	0.36
20	1.19	2.61	1.91	1.50	31.56	0.00	73.11	1.94	8.12	6.39	1.31	1.18	2.19	3.54	75.53	3.88	2.59
30	3.29	7.96	4.22	4.02	34.74	0.90	90.35	4.70	15.98	14.63	2.90	2.94	4.93	6.93	81.76	3.88	3.18
40	6.52	11.40	6.14	14.10	34.74	0.90	90.35	8.66	24.96	25.10	6.22	6.19	9.32	15.89	82.71	3.88	12.75
50	12.12	16.86	10.14	14.97	98.55	0.90	90.35	14.56	35.39	36.72	11.07	11.38	14.83	19.98	83.35	3.88	19.67
60	18.98	25.38	17.06	18.90	98.55	6.28	90.81	22.64	45.98	48.38	18.19	19.28	22.93	39.22	85.36	61.10	26.26
70	30.55	38.04	31.69	33.12	98.67	99.44	100.00	32.49	56.77	59.02	28.31	29.92	34.13	55.49	87.52	66.43	33.60
80	40.22	57.62	38.99	42.31	98.67	99.73	100.00	43.46	64.81	67.51	40.51	42.27	45.72	75.02	92.76	66.43	42.67
90	50.91	65.94	51.22	46.37	98.67	100.00	100.00	54.32	74.11	76.24	53.39	54.55	61.98	81.67	95.54	68.69	74.62
100	61.11	80.87	62.16	79.20	98.86	100.00	100.00	64.44	81.23	82.11	64.02	66.14	71.41	95.19	95.85	68.69	75.76
110	70.92	84.74	68.41	92.18	100.00	100.00	100.00	72.16	86.63	86.79	73.73	75.68	80.18	95.92	95.93	73.12	77.02
120	75.21	91.07	78.74	97.31	100.00	100.00	100.00	78.66	90.84	91.64	81.77	83.49	88.54	98.31	96.36	88.63	78.20
130	81.74	94.88	90.05	99.70	100.00	100.00	100.00	83.80	93.16	94.19	88.21	89.08	93.89	98.93	96.80	88.63	79.88
140	87.51	96.34	94.88	99.70	100.00	100.00	100.00	87.75	97.09	96.00	93.28	93.19	96.31	99.02	97.15	95.42	98.84
150	93.02	96.77	98.04	99.93	100.00	100.00	100.00	90.13	98.53	97.21	96.67	95.84	97.96	99.56	97.21	100.00	99.57
160	97.64	97.78	99.45	99.93	100.00	100.00	100.00	92.52	99.53	98.04	98.47	97.69	98.66	99.56	97.39	100.00	100.00
170	99.69	98.93	99.49	99.93	100.00	100.00	100.00	94.30	99.77	98.63	99.03	98.46	99.38	99.61	97.49	100.00	100.00
180	99.77	98.99	99.51	99.93	100.00	100.00	100.00	95.75	99.85	99.27	99.32	99.04	99.49	99.72	97.49	100.00	100.00
190	99.83	99.29	99.59	100.00	100.00	100.00	100.00	96.76	99.87	99.39	99.68	99.47	99.75	99.73	97.49	100.00	100.00
200	99.83	99.30	99.59	100.00	100.00	100.00	100.00	97.16	99.96	99.58	99.99	99.77	99.81	99.87	97.49	100.00	100.00
210	99.83	99.30	99.59	100.00	100.00	100.00	100.00	97.16	99.96	99.80	99.99	99.80	99.81	99.87	97.49	100.00	100.00
220	99.83	99.90	99.67	100.00	100.00	100.00	100.00	97.37	99.99	99.83	99.99	99.82	99.84	99.87	97.49	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.29	100.00	99.94	100.00	99.95	100.00	99.87	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.50	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.82	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.82	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.82	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.12	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.27. Mineral Cumulative Grain Size Distribution (Sample BAS1 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample BAS1 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	12.79	20.63	17.69	10.99	29.97	0.00	35.16	15.92	25.50	16.94	8.02	9.65	15.42	21.25	84.06	12.39	15.86
20	43.56	47.23	42.89	41.13	37.06	0.00	45.11	39.67	61.26	42.16	27.72	27.27	39.00	62.24	91.78	12.39	50.41
30	71.20	73.44	67.02	100.00	56.37	100.00	59.20	58.73	78.04	63.71	48.43	46.90	62.46	84.52	91.99	100.00	99.16
40	86.68	77.40	89.49	100.00	56.37	100.00	100.00	72.91	90.69	78.44	70.06	64.09	76.71	91.90	99.15	100.00	100.00
50	94.05	96.86	96.41	100.00	100.00	100.00	100.00	85.34	95.84	87.65	82.67	78.84	89.37	100.00	99.36	100.00	100.00
60	99.82	99.76	99.01	100.00	100.00	100.00	100.00	90.55	98.49	91.07	90.38	88.88	97.71	100.00	99.36	100.00	100.00
70	100.00	99.87	100.00	100.00	100.00	100.00	100.00	94.60	99.63	95.62	97.18	94.92	99.31	100.00	99.69	100.00	100.00
80	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.78	100.00	98.46	99.87	97.85	99.40	100.00	100.00	100.00	100.00
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.55	100.00	99.25	100.00	99.39	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.27	100.00	100.00	100.00	99.64	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.28. Mineral Cumulative Grain Size Distribution (Sample BAS2 250/150, Size Fraction -250+150 micron)

Grain Size Categories (µm)	Minerals (Sample BAS2_250/150, Size Fraction -250+150 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.03	0.13	0.19	0.01	0.01	0.00	1.90	2.76	0.06	0.00
20	0.42	0.69	0.03	0.19	23.21	0.00	1.42	0.40	1.87	1.68	0.43	0.29	0.52	4.94	23.17	0.65	2.79
30	1.41	1.58	0.05	0.89	23.21	0.00	1.42	0.98	3.44	3.64	1.17	0.78	1.30	10.32	34.96	1.67	6.53
40	2.30	2.73	1.37	1.00	64.17	0.00	1.42	1.76	5.26	5.91	2.08	1.41	1.95	14.31	47.59	2.78	8.47
50	3.05	3.67	1.51	2.50	64.17	0.00	1.42	2.82	6.92	8.52	2.92	2.29	3.28	14.31	50.99	4.08	8.49
60	3.83	4.87	1.83	8.37	64.17	0.00	1.42	4.21	8.96	12.82	3.94	3.44	4.03	14.66	59.76	9.09	10.70
70	3.99	6.04	2.00	12.21	64.17	0.00	1.42	5.75	11.72	17.12	5.54	4.92	5.76	78.80	60.42	10.74	11.28
80	6.31	7.74	2.26	12.21	64.17	0.28	1.42	7.54	15.22	22.15	7.64	6.94	7.44	79.41	63.36	12.09	11.69
90	8.62	9.91	2.42	14.00	64.17	2.15	1.42	10.27	19.01	28.24	10.09	9.28	9.68	80.15	72.34	17.57	12.09
100	9.96	13.26	3.43	14.00	64.17	3.77	1.42	13.87	22.70	34.68	14.08	12.21	14.20	80.15	73.07	20.04	12.15
110	11.63	17.67	4.86	14.95	64.17	8.29	1.42	17.62	29.10	40.22	18.60	16.53	19.09	84.30	76.99	25.08	12.80
120	18.82	24.12	5.70	33.96	64.17	8.29	1.42	22.07	34.15	46.45	25.04	21.19	23.09	84.30	77.43	30.97	15.14
130	35.91	28.45	6.77	33.96	64.17	14.13	1.42	26.87	40.39	52.55	30.40	26.46	27.85	85.60	81.55	36.03	54.71
140	38.68	33.22	7.32	46.73	74.18	14.13	1.42	32.93	46.68	58.49	36.27	32.62	32.31	87.83	81.76	41.58	62.45
150	42.16	44.87	33.25	47.23	78.13	14.63	1.42	39.48	54.12	63.22	42.98	39.39	37.03	87.83	84.09	52.05	66.31
160	52.97	50.73	33.57	48.00	78.13	15.39	1.42	45.98	59.17	67.85	48.55	45.80	43.45	87.83	84.64	58.07	70.04
170	62.78	59.56	36.14	69.51	90.74	17.46	1.42	52.31	66.28	77.30	56.06	53.58	57.37	89.15	93.11	61.86	74.74
180	64.43	62.80	36.98	85.33	90.74	82.44	1.68	59.12	72.16	82.60	63.80	60.00	66.70	90.10	93.30	65.20	79.02
190	68.72	68.98	80.17	98.94	90.74	83.03	1.68	64.93	77.63	86.41	69.84	66.77	72.66	92.03	93.94	66.82	82.87
200	69.31	75.18	81.72	98.94	90.74	83.03	99.56	69.92	81.82	90.47	75.28	72.54	77.70	94.35	95.24	76.38	83.77
210	78.87	78.87	82.10	98.94	90.74	83.03	99.64	74.86	85.71	93.22	80.24	78.37	83.51	94.35	97.74	80.11	90.97
220	80.46	82.53	82.11	99.72	90.74	86.88	99.64	79.07	89.37	94.27	84.57	83.03	86.91	97.61	97.91	83.68	94.21
230	91.25	87.21	82.30	99.72	90.74	95.65	100.00	82.98	91.59	96.42	87.27	86.93	92.23	97.61	99.44	85.96	95.31
240	96.81	92.88	99.09	99.93	90.74	95.65	100.00	86.40	94.31	97.72	91.51	90.72	94.05	97.61	99.44	88.37	96.87
250	98.32	95.15	99.31	100.00	90.74	100.00	100.00	88.88	95.75	97.96	93.00	93.03	95.07	99.30	100.00	89.41	98.02
260	98.94	97.72	99.90	100.00	92.41	100.00	100.00	91.89	96.78	99.13	94.82	95.11	97.32	100.00	100.00	90.74	98.89
270	99.38	98.38	99.94	100.00	92.41	100.00	100.00	93.62	97.83	99.26	96.11	96.45	99.20	100.00	100.00	93.60	99.39
280	99.56	98.85	100.00	100.00	92.41	100.00	100.00	94.84	98.22	99.35	98.21	97.62	99.58	100.00	100.00	97.42	99.71
290	99.64	99.27	100.00	100.00	92.41	100.00	100.00	95.74	98.96	99.44	98.28	98.26	99.66	100.00	100.00	99.12	99.76
300	99.64	99.36	100.00	100.00	92.41	100.00	100.00	96.80	99.64	99.48	98.90	98.84	99.78	100.00	100.00	99.19	99.76
310	99.68	99.72	100.00	100.00	100.00	100.00	100.00	97.68	99.76	99.56	99.37	99.12	99.91	100.00	100.00	99.95	99.76
320	99.68	99.81	100.00	100.00	100.00	100.00	100.00	98.00	99.86	99.98	99.46	99.55	99.92	100.00	100.00	99.95	99.86
330	99.68	99.91	100.00	100.00	100.00	100.00	100.00	98.35	99.90	99.99	99.69	99.75	99.98	100.00	100.00	99.95	99.86
340	99.68	99.92	100.00	100.00	100.00	100.00	100.00	98.71	99.94	99.99	99.72	99.75	99.98	100.00	100.00	99.95	99.86
350	99.68	99.92	100.00	100.00	100.00	100.00	100.00	98.94	99.94	99.99	99.73	99.84	99.98	100.00	100.00	99.95	99.86
360	99.68	99.92	100.00	100.00	100.00	100.00	100.00	99.30	99.96	100.00	99.77	99.90	99.98	100.00	100.00	99.95	100.00
370	99.98	100.00	100.00	100.00	100.00	100.00	100.00	99.45	99.97	100.00	99.80	99.90	99.98	100.00	100.00	99.95	100.00
380	99.98	100.00	100.00	100.00	100.00	100.00	100.00	99.55	99.99	100.00	99.81	99.90	99.98	100.00	100.00	99.95	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.55	99.99	100.00	99.81	99.97	100.00	100.00	100.00	99.95	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.72	99.99	100.00	99.85	100.00	100.00	100.00	100.00	100.00	100.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.01	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00

Table I6.29. Mineral Cumulative Grain Size Distribution (Sample BAS2 150/75, Size Fraction -150+75 micron)

Grain Size Categories (µm)	Minerals (Sample BAS2_150/75, Size Fraction -150+75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	0.39	0.49	0.00	1.02	12.90	2.38	3.14	0.31	1.80	0.86	0.45	0.28	0.66	1.09	17.86	0.25	0.38
20	1.25	1.73	1.01	3.19	77.61	2.38	3.93	1.44	6.41	4.35	1.63	1.31	1.93	2.62	24.44	2.15	4.85
30	2.60	3.60	4.47	3.19	81.97	38.38	6.83	3.34	12.61	10.67	3.64	3.11	4.21	6.35	26.94	3.42	6.00
40	6.40	6.72	5.05	3.93	82.76	39.04	7.21	6.66	20.20	19.97	7.40	6.08	6.10	9.16	38.10	5.31	10.05
50	9.28	12.73	49.75	11.32	83.16	48.84	8.24	12.69	29.41	31.67	12.93	11.28	12.11	9.87	52.52	10.22	10.75
60	13.40	21.04	72.98	22.15	85.37	61.13	8.32	20.43	38.92	43.80	21.52	18.67	20.99	10.80	54.35	15.85	19.70
70	20.14	28.26	84.00	22.71	85.37	61.13	13.82	30.02	49.75	54.21	30.87	28.61	33.90	10.86	55.47	33.03	21.45
80	37.73	39.68	85.13	28.13	85.37	61.90	13.82	40.58	59.90	62.82	41.82	40.05	43.46	13.07	56.77	54.62	35.74
90	45.34	50.67	87.72	41.37	85.85	64.02	14.88	51.56	70.23	70.03	54.77	52.59	57.03	31.99	97.39	67.47	38.03
100	49.38	58.75	89.26	56.62	85.85	78.17	14.93	61.34	78.01	78.66	65.84	64.47	66.50	32.48	98.12	73.44	42.29
110	58.86	67.19	93.17	56.88	85.85	78.17	99.86	69.83	84.84	84.67	74.23	73.30	72.30	33.16	98.24	83.38	43.68
120	64.32	75.92	95.19	71.08	89.19	86.94	99.86	77.14	89.91	88.70	81.64	81.18	77.53	50.89	99.01	86.84	46.17
130	74.56	80.70	97.00	71.08	91.58	98.03	99.86	82.62	93.40	93.35	87.28	87.46	89.32	80.12	99.35	89.87	91.16
140	85.20	89.62	99.83	71.43	96.52	98.03	100.00	87.00	95.27	95.48	92.10	91.63	92.41	80.12	99.70	93.53	91.66
150	85.79	92.25	99.83	71.43	96.52	98.03	100.00	90.66	97.26	96.69	95.37	94.58	95.45	80.12	99.89	95.17	92.02
160	90.78	96.71	99.89	71.61	96.52	99.59	100.00	93.10	98.34	97.91	96.42	96.38	96.11	98.68	99.97	95.21	92.02
170	100.00	99.41	100.00	71.61	96.52	99.59	100.00	94.87	98.70	99.01	98.39	97.75	98.75	98.68	99.97	99.24	92.13
180	100.00	99.55	100.00	71.61	96.52	100.00	100.00	95.93	98.95	99.22	99.11	98.80	99.78	98.68	100.00	99.28	97.94
190	100.00	99.85	100.00	71.91	98.41	100.00	100.00	97.09	99.59	99.48	99.53	99.33	99.89	100.00	100.00	99.50	98.04
200	100.00	99.93	100.00	71.91	100.00	100.00	100.00	97.72	99.75	99.76	99.64	99.70	99.90	100.00	100.00	99.50	98.08
210	100.00	99.93	100.00	71.91	100.00	100.00	100.00	98.35	99.79	99.77	99.71	99.78	99.99	100.00	100.00	99.52	99.49
220	100.00	99.94	100.00	71.91	100.00	100.00	100.00	98.78	99.92	99.77	99.91	99.95	99.99	100.00	100.00	99.59	100.00
230	100.00	99.94	100.00	100.00	100.00	100.00	100.00	99.18	99.94	99.77	99.94	99.95	99.99	100.00	100.00	100.00	100.00
240	100.00	99.96	100.00	100.00	100.00	100.00	100.00	99.50	99.99	99.78	99.96	100.00	99.99	100.00	100.00	100.00	100.00
250	100.00	99.96	100.00	100.00	100.00	100.00	100.00	99.56	99.99	99.78	99.96	100.00	99.99	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.72	100.00	99.78	99.98	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.80	100.00	99.78	99.98	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.89	100.00	99.78	99.99	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.89	100.00	99.78	99.99	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.89	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I6.30. Mineral Cumulative Grain Size Distribution (Sample BAS2 -75, Size Fraction -75 micron)

Grain Size Categories (µm)	Minerals (Sample BAS2 -75, Size Fraction -75 micron)																
	Pyrrhotite	Chalcopyrite	Pentlandite	Pyrite	Talc	Serpentine	Clinopyroxene	Amphiboles	Chlorite	Biotite	Quartz	Plagioclase	K-feldspar	Carbonates	Magnetite	Ilmenite	Apatite
10	21.13	13.62	54.38	23.44	75.80	100.00	97.24	12.63	30.31	19.39	10.62	13.33	16.40	28.26	81.96	15.90	6.22
20	41.06	33.14	99.08	57.95	98.07	100.00	97.24	33.22	64.56	43.61	36.54	35.38	39.11	75.96	96.69	33.67	36.50
30	88.65	47.59	99.08	93.85	98.07	100.00	100.00	51.40	79.43	63.78	56.19	57.28	54.78	77.95	96.69	49.91	67.75
40	97.93	60.44	99.08	100.00	98.07	100.00	100.00	67.93	89.28	83.63	75.55	73.20	70.64	96.30	97.41	65.41	98.75
50	98.02	62.78	99.42	100.00	98.07	100.00	100.00	78.27	95.20	91.46	87.10	85.11	80.79	100.00	98.09	65.41	100.00
60	100.00	76.27	100.00	100.00	98.07	100.00	100.00	86.59	97.78	95.71	89.98	94.29	99.80	100.00	98.73	100.00	100.00
70	100.00	79.09	100.00	100.00	100.00	100.00	100.00	92.54	99.27	98.21	96.73	98.61	100.00	100.00	100.00	100.00	100.00
80	100.00	89.30	100.00	100.00	100.00	100.00	100.00	95.89	100.00	100.00	99.42	99.99	100.00	100.00	100.00	100.00	100.00
90	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.84	100.00	100.00	99.42	99.99	100.00	100.00	100.00	100.00	100.00
100	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.43	100.00	100.00	99.42	100.00	100.00	100.00	100.00	100.00	100.00
110	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.93	100.00	100.00	99.42	100.00	100.00	100.00	100.00	100.00	100.00
120	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
130	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
140	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
150	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
170	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
180	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.65	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
190	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
200	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
210	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
220	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
230	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
240	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
250	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
260	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
270	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
280	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
290	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
300	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
310	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
320	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
330	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
340	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
350	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
360	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
370	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
380	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
390	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
400	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table I7.1. Element Distribution- Sample PM1

SKC-PM1

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.2	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	97.8	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	22.9	0.0	0.0	0.0	16.6	0.0	0.0	0.0	0.0	22.4	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	7.6	8.1	0.0	4.7	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Amphiboles	0.0	9.6	0.0	0.0	58.2	0.0	0.0	0.0	0.0	0.0	13.9	8.3	0.0	22.2	99.2	98.1	0.0	22.3	0.0	0.0	0.0	0.0	51.2	0.0	39.8	0.0	0.0
Chlorite	0.0	89.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.4	72.9	0.0	42.0	0.0	0.0	0.0	45.6	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0
Biotite	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.5	0.1	0.1	94.5	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Plagioclase	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.2	0.0	0.0
Carbonates	0.0	0.0	0.0	99.2	38.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	7.3	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	59.0	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	1.3	100.0	0.0	0.0	0.0	46.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.1	0.0	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.0	0.6	0.8	1.0	0.0	0.7	0.0	0.0	0.0	0.0	0.8	0.0	1.1	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.2. Element Distribution- Sample PM2

SKC-PM2

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.7	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.6	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	96.3	0.0	0.0	0.0	0.0	23.8	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.6	0.0	49.5	0.0	0.0	0.0	43.2	0.0	0.0	0.0	0.0	77.6	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	0.4	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2	52.9	25.5	0.0	0.3	0.0	0.0	0.0	0.0	0.7	0.0	0.5	0.0	0.0
Chlorite	0.0	99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.2	65.5	0.0	24.8	0.0	0.0	0.0	32.5	0.0	0.0	0.0	0.0	19.5	0.0	0.0	0.0	0.0
Biotite	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	0.0	0.1	70.9	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Plagioclase	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.5	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbonates	0.0	0.0	0.0	99.7	92.8	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	24.4	0.0	0.0	0.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	99.0	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	2.0	100.0	0.0	0.0	0.0	53.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.1	0.0	0.3	2.3	0.0	0.0	0.0	0.0	0.0	1.2	1.0	0.0	0.5	47.1	15.0	0.0	0.7	0.0	0.0	0.0	0.0	1.2	0.0	0.5	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.3. Element Distribution- Sample PX1

SKC-PX1

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.9	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.9	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.1	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	94.8	0.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.1	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.1	1.4	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Amphiboles	0.0	26.2	0.0	0.0	95.9	0.0	0.0	0.0	0.0	0.0	35.1	24.0	0.0	57.6	100.0	98.4	0.0	56.1	0.0	0.0	0.0	0.0	85.0	0.0	44.5	0.0	0.0
Chlorite	0.0	72.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.3	72.8	0.0	37.9	0.0	0.0	0.0	39.4	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0
Biotite	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.2	0.2	0.3	93.8	0.6	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plagioclase	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.6	0.0	0.0
Carbonates	0.0	0.0	0.0	87.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.2	100.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.6	0.0	12.3	1.5	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.8	0.0	1.4	0.0	0.9	0.0	0.0	0.0	0.0	0.6	0.0	6.9	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.4. Element Distribution- Sample PX2

SKC-PX2

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.9	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.6	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Amphiboles	0.0	43.6	0.0	0.0	95.0	0.0	0.0	0.0	0.0	0.0	53.0	39.3	0.0	72.4	100.0	94.6	0.0	71.1	0.0	0.0	0.0	0.0	90.9	0.0	36.3	0.0	0.0
Chlorite	0.0	51.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.3	59.4	0.0	23.9	0.0	0.0	0.0	24.7	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0
Biotite	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.4	0.7	1.1	98.9	1.8	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Plagioclase	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other silicates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.4	0.0	0.0
Carbonates	0.0	0.0	0.0	63.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	44.8	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.2	100.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	2.7	0.0	36.9	4.5	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.0	1.9	0.0	4.3	0.0	2.2	0.0	0.0	0.0	0.0	1.6	0.0	18.5	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.5. Element Distribution- Sample MS1

SKC-MS1

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.7	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.2	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	92.6	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	65.3	0.0	0.0	85.4	0.0	0.0	0.0	0.0	0.0	78.4	74.6	0.0	87.3	100.0	44.6	0.0	69.7	0.0	0.0	0.0	0.0	76.1	0.0	45.4	0.0	0.0
Chlorite	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	19.1	0.0	5.3	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Biotite	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.8	2.5	5.6	85.5	6.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
Plagioclase	0.0	20.8	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.1	0.0	12.3	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Other silicates	0.0	2.2	0.0	0.0	2.0	0.0	0.0	0.0	0.0	6.6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	100.0	0.0	0.5	0.0	32.4	0.0	0.0
Carbonates	0.0	0.0	0.0	96.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.3	100.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	1.0	0.0	3.4	2.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.3	0.0	1.2	0.0	1.1	0.0	0.0	0.0	0.0	0.8	0.0	14.0	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.6. Element Distribution- Sample MS2

SKC-MS2

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.9	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	82.2	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	13.4	0.0	0.0	33.7	0.0	0.0	0.0	0.0	0.0	32.7	21.0	0.0	39.6	100.0	5.3	0.0	19.3	0.0	0.0	0.0	0.0	26.2	0.0	65.5	0.0	0.0
Chlorite	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5	57.1	0.0	25.8	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
Biotite	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.1	12.5	19.4	93.9	34.0	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Plagioclase	0.0	57.8	0.0	0.0	56.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.6	0.0	49.2	0.0	0.0	0.0	0.0	52.8	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Other silicates	0.0	6.2	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.2	0.0	2.4	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	100.0	0.0	1.9	0.0	15.6	0.0	0.0
Carbonates	0.0	0.0	0.0	93.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.5	100.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.2	0.0	6.4	0.7	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.0	17.8	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.7. Element Distribution- Sample TZ1

SKC-TZ1

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.5	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	55.3	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	35.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	57.1	43.2	0.0	63.7	100.0	6.3	0.0	31.0	0.0	0.0	0.0	0.0	31.7	0.0	37.8	0.0	0.0
Chlorite	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.1	37.8	0.0	15.8	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Biotite	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.8	6.3	12.2	86.5	19.8	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0
Plagioclase	0.0	43.7	0.0	0.0	40.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.5	0.0	41.7	0.0	0.0	0.0	0.0	44.6	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Other silicates	0.0	11.3	0.0	0.0	14.6	0.0	0.0	0.0	0.0	2.3	0.0	6.7	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	100.0	0.0	3.9	0.0	51.8	0.0	0.0
Carbonates	0.0	0.0	0.0	89.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.3	100.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.1	0.0	10.7	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	9.5	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.8. Element Distribution- Sample TZ2

SKC-TZ2

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.1	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	93.9	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	26.7	0.0	0.0	48.3	0.0	0.0	0.0	0.0	0.0	46.2	36.5	0.0	60.8	100.0	9.2	0.0	31.9	0.0	0.0	0.0	0.0	39.0	0.0	53.1	0.0	0.0
Chlorite	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.1	48.2	0.0	19.9	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
Biotite	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.3	6.1	11.9	90.4	18.9	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0
Plagioclase	0.0	48.9	0.0	0.0	41.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.7	0.0	40.8	0.0	0.0	0.0	0.0	41.6	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Other silicates	0.0	8.3	0.0	0.0	9.7	0.0	0.0	0.0	0.0	1.6	0.0	3.3	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	100.0	0.0	2.4	0.0	40.5	0.0	0.0
Carbonates	0.0	0.0	0.0	88.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.4	100.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.1	0.0	11.7	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	6.2	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.9. Element Distribution- Sample BAS1

SKC-BAS1

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.9	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	95.1	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	7.9	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	17.5	11.7	0.0	17.3	100.0	0.9	0.0	6.7	0.0	0.0	0.0	0.0	7.0	0.0	33.6	0.0	0.0
Chlorite	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.1	45.4	0.0	19.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
Biotite	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.3	22.7	39.0	91.3	63.4	0.0	0.0	0.0	14.2	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0
Plagioclase	0.0	70.2	0.0	0.0	78.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.1	0.0	64.8	0.0	0.0	0.0	0.0	70.5	0.0	0.0	0.0	0.0
K-feldspar	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Other silicates	0.0	5.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.2	0.0	3.8	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	100.0	0.0	1.8	0.0	34.3	0.0	0.0
Carbonates	0.0	0.0	0.0	95.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.4	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.5	100.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.0	0.0	5.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I7.10. Element Distribution- Sample BAS2

SKC-BAS2

Mineral	Ag (%)	Al (%)	Au (%)	C (%)	Ca (%)	Cl (%)	Co (%)	Cr (%)	Cu (%)	F (%)	Fe (%)	H (%)	K (%)	Mg (%)	Mn (%)	Na (%)	Ni (%)	O (%)	P (%)	Pb (%)	RE (%)	S (%)	Si (%)	Te (%)	Ti (%)	Unknown (%)	Zn (%)
Pyrrhotite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Chalcopyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.1	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.8	0.0	0.0	0.0	0.0	0.0
Pentlandite	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	83.6	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
Pyrite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0
Talc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serpentine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clinopyroxene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amphiboles	0.0	45.1	0.0	0.0	51.7	0.0	0.0	0.0	0.0	0.0	51.7	39.4	0.0	60.3	100.0	5.6	0.0	36.3	0.0	0.0	0.0	0.0	34.3	0.0	18.7	0.0	0.0
Chlorite	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4	50.6	0.0	24.4	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Biotite	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.6	4.0	8.0	84.4	14.9	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
Quartz	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0
Plagioclase	0.0	39.6	0.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.3	0.0	41.9	0.0	0.0	0.0	0.0	49.1	0.0	0.0	0.0	0.0
K-feldspar	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Other silicates	0.0	3.8	0.0	0.0	5.6	0.0	0.0	0.0	0.0	2.1	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	100.0	0.0	1.6	0.0	23.1	0.0	0.0
Carbonates	0.0	0.0	0.0	96.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Magnetite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ilmenite	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	54.5	0.0	0.0
Apatite	0.0	0.0	0.0	0.0	0.3	100.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mixtures	0.0	0.1	0.0	4.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	3.7	0.0	0.0
Unclassified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Total	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table I8. Mineral list and coding used in SEM Automated Mineralogy analysis

Mineral	Density	Formula
Pyrrhotite	4.62	Fe2+0.95S
Mackinawite	4.3	Fe1.05S
Chalcopyrite	4.2	CuFe2+S2
Bornite	5.1	Cu5Fe2+S4
Cubanite	4.7	CuFe2+2S3
Chalcocite	6.5	Cu2S
Pentlandite	4.8	Fe2+4.5Ni4.5S8
Millerite	5.5	NiS
Violarite	4.65	Fe2+Ni2S4
Polydymite	4.65	NiNi2S4
Sphalerite	4	ZnS
Pyrite	5.01	Fe2+S2
Galena	7.4	PbS
Gold	19.3	Au
Hessite	7.55	Ag2Te
Talc	2.75	Mg3Si4O10(OH)2
Olivine	3.32	Mg1.6Fe2+0.4(SiO4)
Serpentine	2.4	(Mg,Fe)3Si2O5(OH)4
Clinopyroxene	3.4	(Ca,Na)(Mg,Fe,Al)(Si,Al)2O6
Amphibole	2.9	Ca2(Mg,Fe,Al)5(Al,Si)8O22(OH)2
Chlorite	2.95	(Mg,Fe)3(Si,Al)4O10(OH)2·(Mg,Fe)3(OH)6
Biotite	3.1	KMg2.5Fe2+0.5AlSi3O10(OH)1.75F0.25
Quartz	2.63	SiO2
Plagioclase	2.69	(Na,Ca)[Al]1-2[Si]2-3O8
K-feldspar	2.56	KAlSi3O8
Allanite	3.82	Ca(Ce,La,Ca)(Fe2+,Fe3+)(Al,Fe3+)Al(Si2O7)(SiO4)O(OH)
Epidote (Zoisite)	3.45	Ca2Al2(Fe3+,Al)(SiO4)(Si2O7)O(OH)
Titanite	3.48	CaTiSiO5
Carbonates	2.85	(Ca,Mg){(Fe,Mg,Mn)}(CO3){2}
Magnetite	5.15	Fe3+2Fe2+O4
Chromite	4.79	Fe2+Cr2O4
Spinel	3.65	MgAl2O4
Ilmenite	4.72	Fe2+TiO3
Apatite	3.19	Ca5(PO4)(F,Cl,OH)