

We are committed to providing [accessible customer service](#).

If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).

Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).

**SPRUCE RIDGE RESOURCES LTD.
NOBLE MINERAL EXPLORATION INC.**

CRAWFORD NICKEL PROJECT
CRAWFORD TOWNSHIP
DISTRICT OF PORCUPINE
NORTHERN ONTARIO

**REPORT ON 2018
DIAMOND DRILLING**

- by -

Colin Bowdidge, Ph.D., P.Geol.

February 2020

TABLE OF CONTENTS

| | |
|--|----|
| INTRODUCTION..... | 1 |
| PROPERTY, LOCATION AND ACCESS..... | 1 |
| HISTORY AND PREVIOUS WORK..... | 2 |
| GEOLOGY..... | 3 |
| Mineralization..... | 6 |
| 2018 DRILL PROGRAM..... | 8 |
| Geological results..... | 8 |
| MINERALIZATION..... | 9 |
| ICP and fire assay analytical data..... | 9 |
| Selective leach re-analysis..... | 9 |
| Magnetic susceptibility and rock density measurements..... | 12 |
| Mineralogical studies..... | 13 |
| CONCLUSIONS..... | 15 |
| RECOMMENDATIONS..... | 15 |
| REFERENCES..... | 16 |

APPENDICES:

- Appendix 1: Drill logs
- Appendix 2: Gyroscopic directional surveys
- Appendix 3: Complete ICP analyses of drill core samples
- Appendix 4: Magnetic susceptibility measurements
- Appendix 5: Density measurements
- Appendix 6: Certificates of analysis
- Appendix 7: Mineralogical studies

TEXT FIGURES:

| | |
|---|----|
| 1. Location Map..... | 1 |
| 2. Access Map..... | 2 |
| 3. Crawford Township geology and topography..... | 4 |
| 4. Crawford Township airborne magnetic survey..... | 5 |
| 5. Drill Plan..... | 7 |
| 6. Plot of specific gravity vs magnetic susceptibility..... | 12 |
| 7. Plot of nickel vs sulphur..... | 13 |

PLATES:

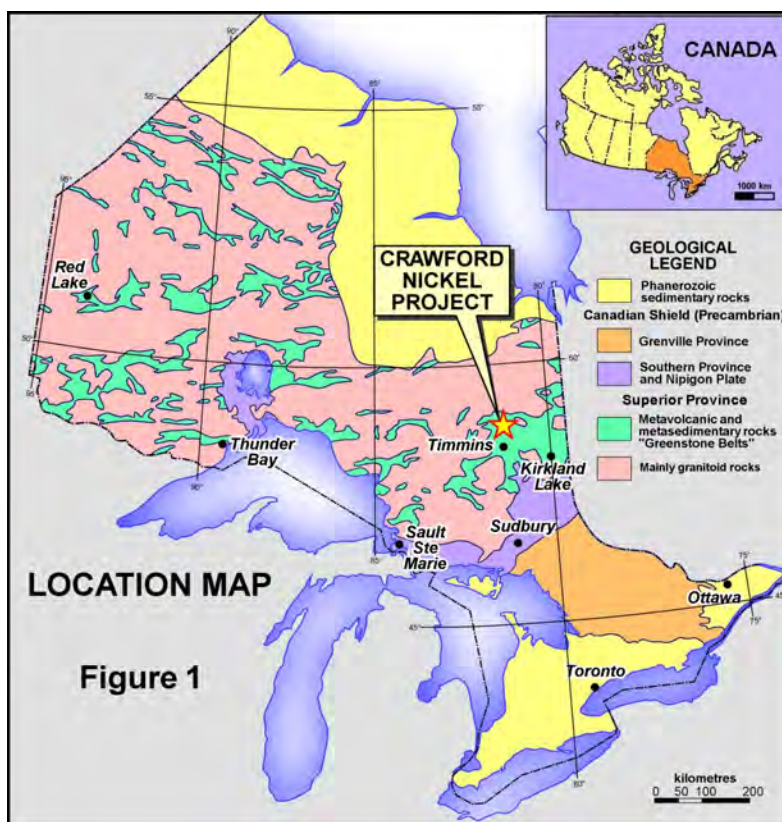
- Plate 1: Cross section of drill hole CR18-01
- Plate 2: Cross section of drill holes CR18-02 and CR18-03
- Plate 3: Cross section of drill hole CR18-04

INTRODUCTION

This report presents the results of a 4-hole, 1,818-metre diamond drilling program carried out in November and December of 2018, on the Crawford nickel prospect. The drill results demonstrated significant potential for a bulk-tonnage, low grade nickel deposit. The work has led to the creation of a new company, Canada Nickel Company Inc., which has embarked on substantial further exploration activities on the Crawford property. Spruce Ridge Resources Ltd. was operator for the 2018 drill program, as part of its earn-in on Noble Mineral Exploration Inc.'s Project 81.

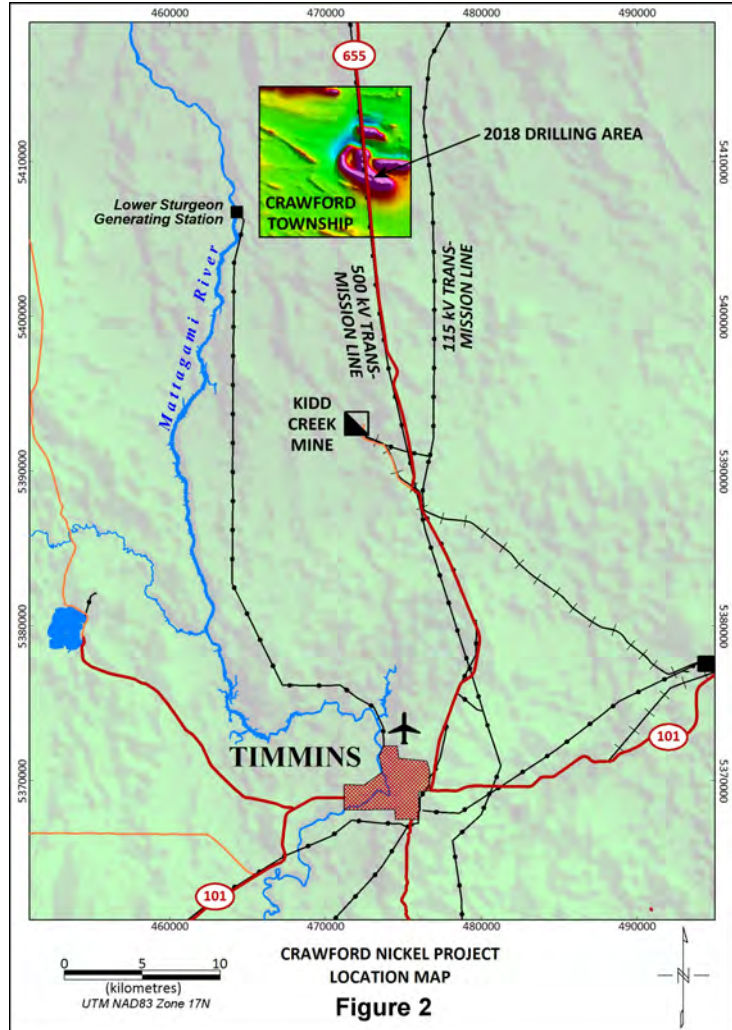
PROPERTY, LOCATION AND ACCESS

The property on which the 2018 drilling was carried out consisted of the south halves of lots 3 and 4, concession III of Crawford Township, District of Porcupine, Ontario. Figure 1 shows the location of the property.



The property is located 40 kilometres north of the city of Timmins. It straddles provincial highway 655, a paved, 2-lane road that runs north from Timmins and connects to highway 11. The property is 15 kilometres north of the giant Kidd Creek mine of Glencore Inc., which has been in continuous production since 1966, and has produced well in excess of 100 million tonnes of copper-zinc-silver-lead ore. The 500 kV transmission line that runs from Abitibi Canyon to southern Ontario crosses the property, just west of highway 655. A 115 kV transmission line that runs north from Timmins and serves the rural communities between Cochrane and Sturgeon Falls, passes 2 kilometres east of the property. A branch of this power line also serves the Kidd Creek Mine.

Figure 2 shows Crawford Township in relation to Timmins and the other features mentioned above. Crawford Township lies in the Great Clay Belt, formed by sedimentation in proglacial Lake Ojibway during deglaciation from the Last Glacial Maximum, between approximately 8,500 and 8,000 years before present. Lacustrine clay and silt deposits cover most of the underlying till sheet. The terrain is very flat, with almost imperceptible slopes down to the Driftwood River which crosses the township from SSE to NNW (see figure 3). There are no reported outcrops of bedrock in Crawford Township. Forest cover is dominated by black spruce in the extensive swamps, with more mixed forest on higher, better-drained ground. Much of the area was cut over in the 1970s, and some forestry operations continue in the general area. Crawford Township was not very accessible during the periods of colonization and homesteading that took place along the CNR line between Amos (Québec) and Kapuskasing (Ontario). No farms were developed, and there are no permanent habitations in the area.



The Crawford property is part of "Project 81", a very large area of patented (surface and mining rights) land that was owned outright (subject only to certain royalties to previous owners) by Noble Mineral Exploration Inc. Spruce Ridge Resources entered into an agreement with Noble Mineral Exploration Inc. to acquire up to a 75% interest in up to 2,000 hectares of patented land and/or mining claims in Crawford Township by making certain payments and expenditures on exploration in the area. The two half-lots shown on the maps in this report have a nominal area of 320 acres or approximately 129 hectares.

HISTORY AND PREVIOUS WORK

The whole region around Timmins experienced a great deal of exploration following the discovery of the Kidd Creek orebody in 1964. The lack of outcrop, combined with a focus on base metals, meant that geophysical surveys were the primary tool of exploration. Early electromagnetic systems, both ground-based and airborne, did not do well in the clay belt, where rapid changes in thickness of the conductive clay layer led to many spurious anomalies. The present property, being made up of patented lots owned by a forest products company, was not readily accessible to junior exploration companies.

The only prior exploration on the Crawford nickel project was a program of airborne and ground geophysics, followed by diamond drilling, carried out by INCO in 1964 and 1965. This program was focused on an EM conductor within a broad magnetic anomaly assumed to be caused by ultramafic rocks. The conductor was not explained, but drilling resulted in long intersections of peridotite and serpentinite with consistent low nickel values. INCO drill hole 25050 (-55°) returned the best results, with 0.240% Ni over a core length of 467.56 metres, which represented the entire length of the hole, from the bedrock surface at 34.75 metres to the end of hole at 502.31 metres. This included 355.1 metres of 0.272% Ni, which in turn included 132.9 metres of 0.342% Ni. Individual assays, mostly of 4.56 metres (15 feet) ranged up to a maximum of 0.44% Ni.

INCO drill hole 27095 (-45°) was a shallower hole at 273.4 metres, but returned an average of 0.341% Ni over 236.22 metres, again the entire length of the hole in bedrock. Drill hole 27086 (-45°) was collared in gabbro and entered peridotite that carried lower nickel values; the best assay was 0.20% Ni over 4.56 metres. Drill hole 27005, also shown on figure 5, was collared in peridotite with an average of 0.185% Ni over 122.26 metres, before entering mafic volcanics. At the time, INCO was not interested in nickel mineralization with these low grades; the company was primarily exploring for higher grade, massive sulphide nickel deposits.

Figure 5 is a map showing the 2018 diamond drill holes. The INCO holes are shown in grey because their locations are highly uncertain. The drill logs indicate drill collar locations in terms of line and station numbers for a ground geophysical survey grid, but there is no map of the grid, and there are no topographic reference points in the area. Spruce Ridge obtained aerial photographs taken in 1970, in the hope that they would show clearings for drill pads and drill access trails made in 1964. Unfortunately, much of the area was clear-cut in the 1960s. Possible trails and clearings for a drill program could not be distinguished from forestry activities. Ground reconnaissance did locate an old fuel drum, but again there was no way of knowing whether it was left by drillers or foresters.

GEOLOGY

The property lies in the Abitibi greenstone belt, within the Wawa-Abitibi Terrane (Stott et al., 2011) of the Archean Superior province. The Abitibi greenstone belt, 650 kilometres long and up to 150 kilometres wide, is the largest such belt in the Canadian Shield. Its history of volcanism, sedimentation, intrusive magmatism, tectonism, deformation, metamorphism and mineralization evolved between 2.8 and 2.6 Ga.

The geology of Crawford Township and the surrounding area is not well known, principally due to the lack of exposure. The geology shown in figure 3 is based on published, regional geological maps which relied mainly on extrapolation from better-exposed areas using regional magnetic data (Leahy, 1968; Pyke et al., 1971). Additions have been made based on the detailed helicopter-borne magnetic and Airtem electromagnetic survey carried out by Noble Mineral Exploration Inc. (Balch, 2017). Historical drilling results, mostly from drilling conductors, were also incorporated.

Crawford Township is underlain by mafic, intermediate and felsic metavolcanics striking between east-west and WNW-ESE. A number of interflow sedimentary units are present; those shown on figure 3 include graphitic and sulphidic sediments, and were sketched in based on conductive trends on the Airtem survey. A number of faults with apparently significant strike-slip displacement have been interpreted from offsets of trends on the magnetic survey. These faults trend in either the NNE-SSW or ENE-WSW directions.

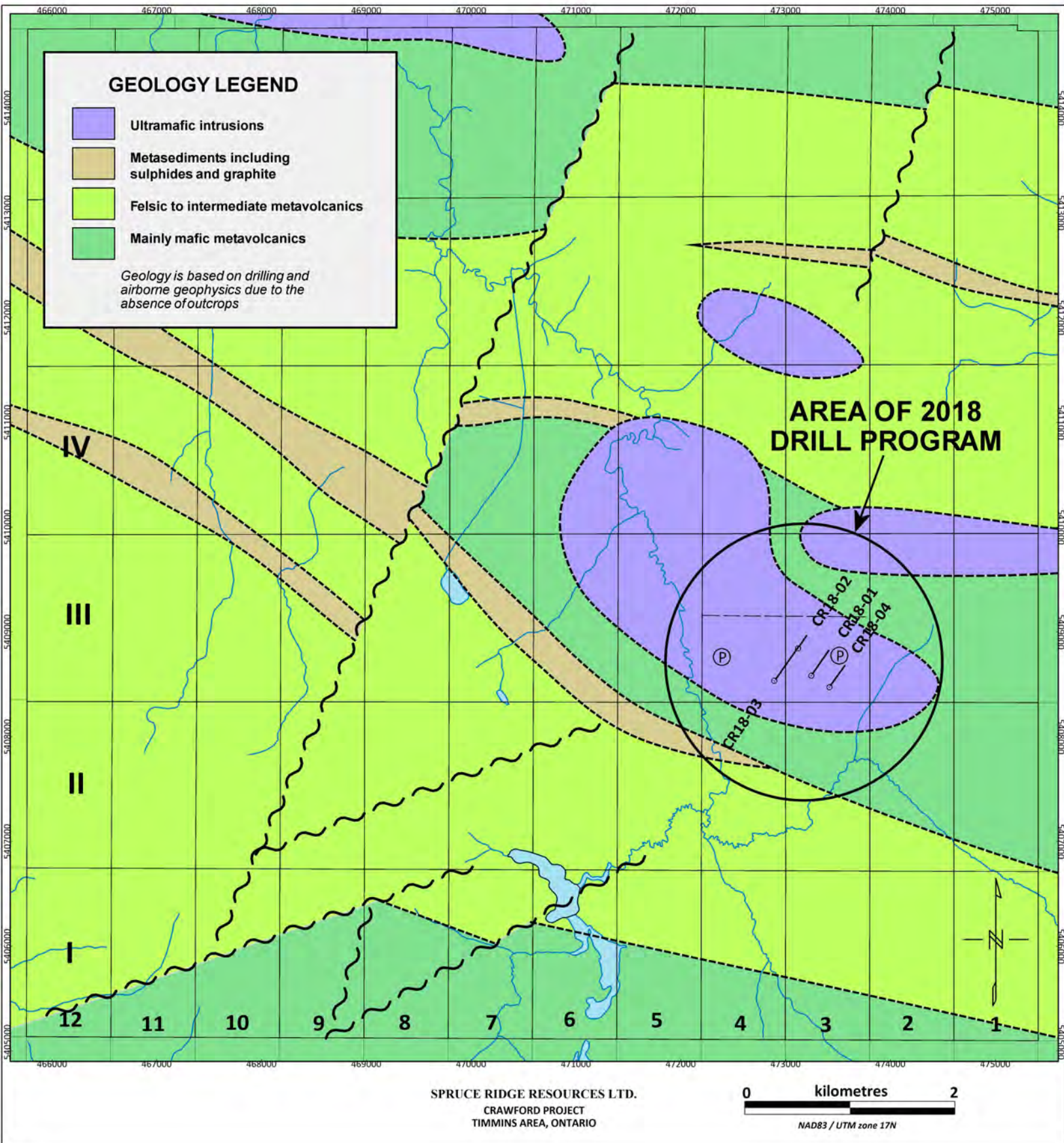


Figure 3: Crawford Township geology and topography

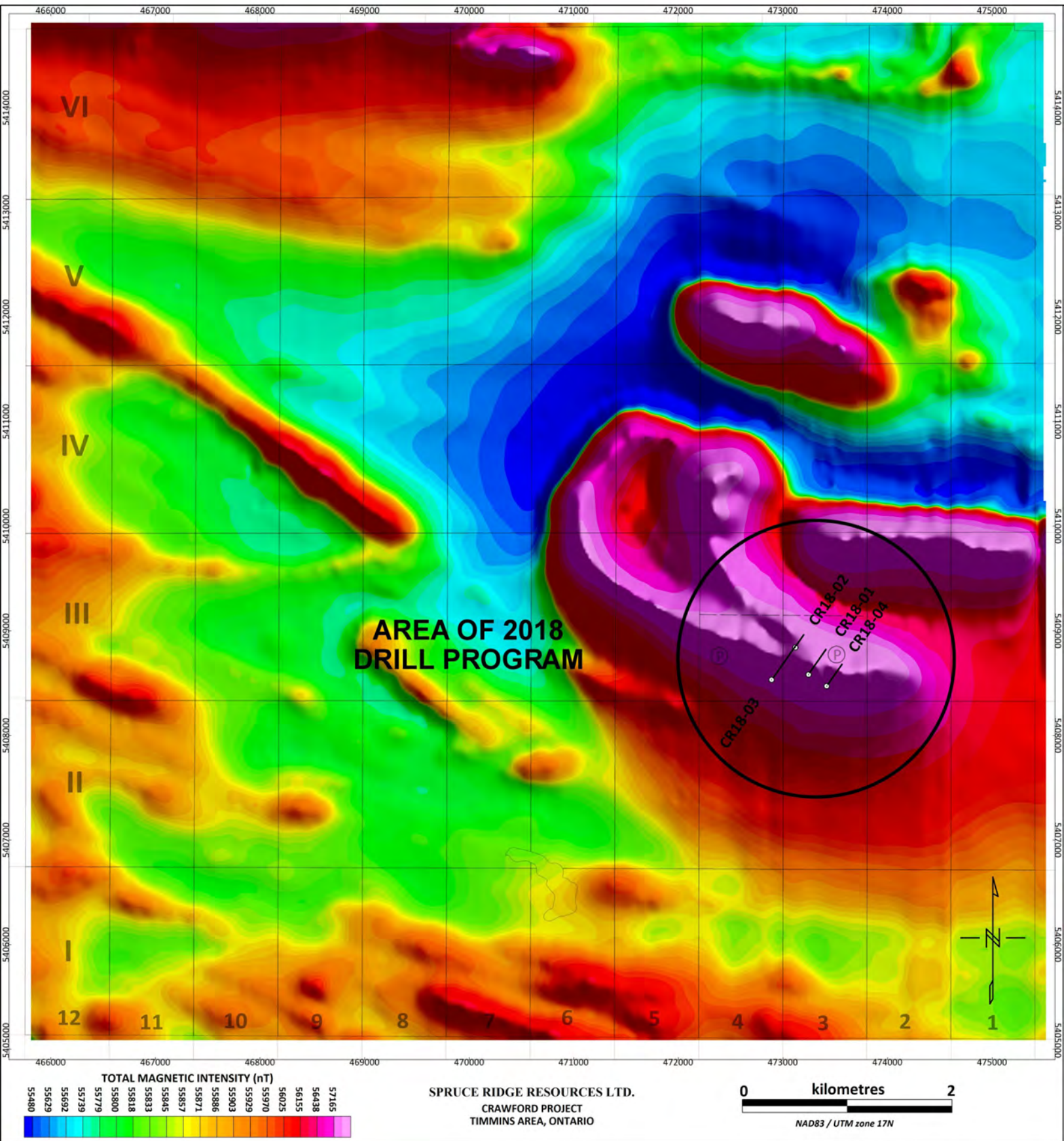


Figure 3: Crawford Township airborne magnetic survey

Three ultramafic to mafic intrusions are shown in the eastern part of Crawford Township. Their outlines are based on the airborne magnetic survey; the two larger bodies were confirmed by historical drilling, while the most northerly one has apparently never been drill tested. A fourth ultramafic-mafic body is present, crossing the northern limit of the township. Figure 4 shows the magnetic component of the 2017 Airtem survey. The ultramafic-mafic complexes are clearly visible. The strongest magnetic anomalies are caused by serpentinized peridotite and dunite. The iron which was originally present in olivine is not incorporated into serpentine-group minerals, which are magnesium-rich and have a low tolerance for iron in their crystal lattices, but is “liberated” as magnetite.

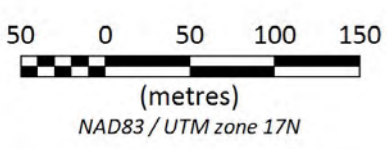
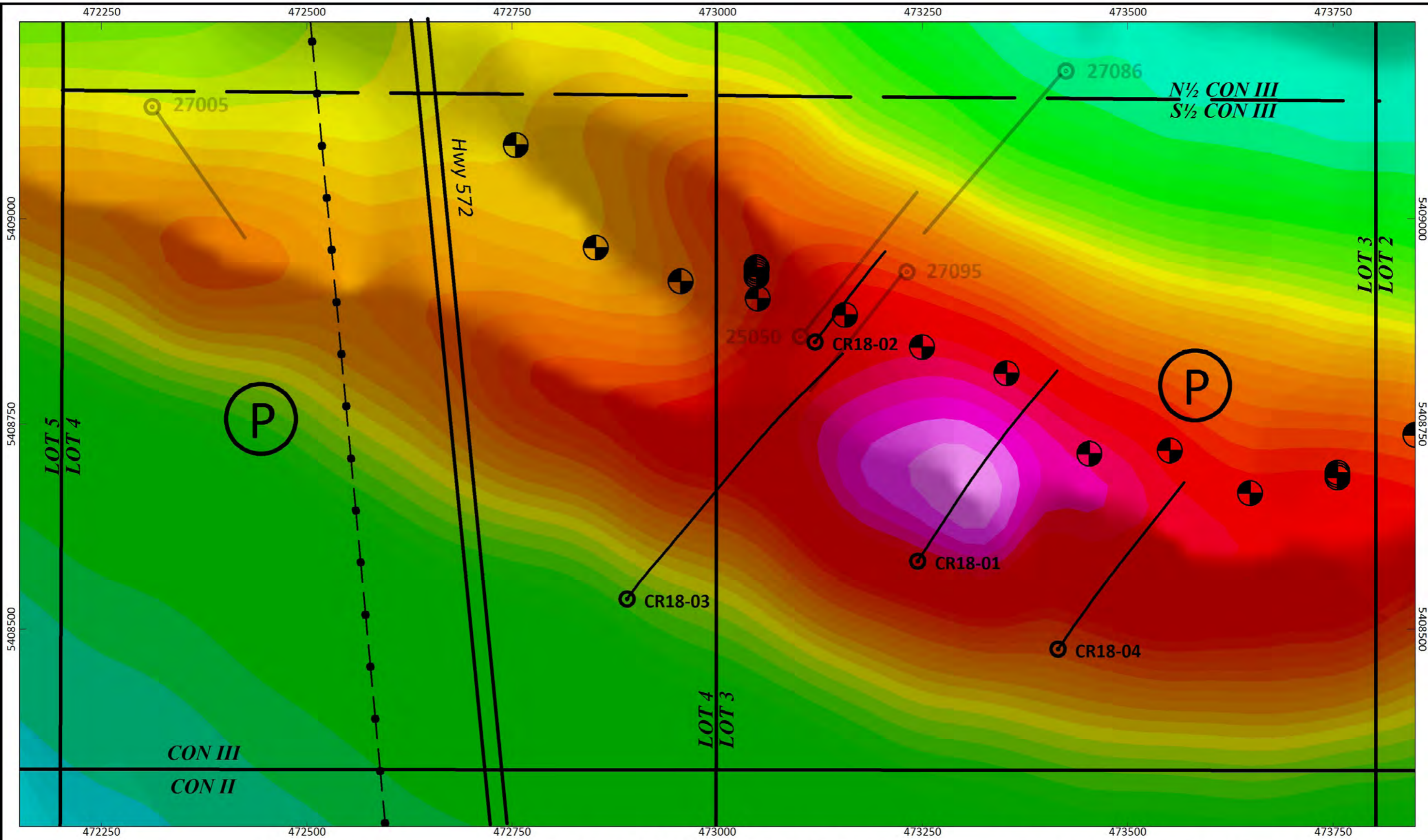
Mineralization: A number of occurrences of low-grade zinc have been located in the western part of Crawford Township by drill testing of conductive zones. However, the presence of nickel in ultramafic rocks offers the greatest economic potential in the area.


Ultramafic magmas typically contain nickel in the range of 0.2% to 0.3%, occasionally up to 0.5%. The more primitive ultramafic magmas typically have higher nickel contents. “Primitiveness” is best indicated by a low Fe/(Fe+Mg) ratio, which will increase as the magma undergoes progressive fractionation. When ultramafic magmas crystallize, nickel is most concentrated in olivine. Olivine-rich rocks, i.e. peridotite, typically have higher nickel contents and dunite (which is a peridotite with only minor amounts of minerals other than olivine) tends to have the highest nickel.

When ultramafic magmas contain significant sulphur, nickel is strongly partitioned into an immiscible sulphide melt when the magma cools, starts to crystallize and becomes sulphur-saturated. Other chalcophile elements such as copper, platinum-group elements (PGEs) and gold, are also partitioned into the sulphide fraction. Sulphide melts are denser than ultramafic silicate magmas and tend to accumulate towards the base of magma chambers. This is the origin of most of the higher grade nickel sulphide deposits that have been historically exploited.

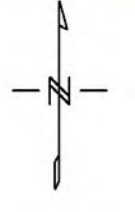
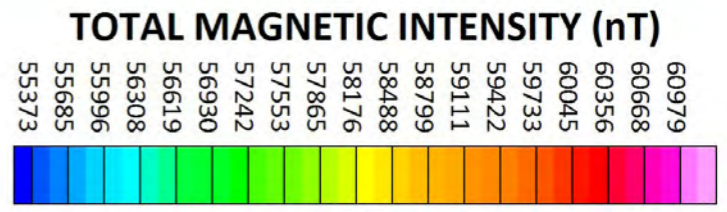
Olivine is a high temperature mineral that is not stable at lower temperatures and in the presence of water, when it converts to serpentine-group minerals. Just as iron is liberated and forms magnetite during serpentinization, nickel is liberated from olivine. If the rock contains low levels of sulphur - insufficient to form a separate sulphide fraction during crystallization - the nickel will be incorporated into sulphide minerals such as pentlandite (Fe,Ni)₉S₈ or heazlewoodite (Ni₃S₂). If there is insufficient sulphur to accept all the liberated nickel into sulphides, then a nickel-iron alloy called awaruite (Ni₂Fe) will form. To the extent that they are present in the original olivine, copper, PGEs and gold will follow nickel into the sulphide minerals and awaruite. Serpentinized peridotite and dunite offer potentially economic occurrences of nickel (± copper, PGEs and gold) mineralization, if the percentage of liberated nickel is high enough and the sulphide (± awaruite) mineral grains are coarse enough to be concentrated.

The Dumont deposit near Amos in Québec, is the type example of a potentially economic nickel deposit in serpentinized peridotite. It is located 210 kilometres east of the Crawford project, also in the Abitibi greenstone belt. The Dumont deposit was discovered in 1956 and has been drill tested in several programs over the intervening years. A technical report for Royal Nickel Corporation (Staples et al., 2013) gave measured plus indicated resources of 1.665 billion tonnes averaging 0.27% Ni, 107 ppm Co, 0.020 g/t Pd and 0.009 g/t Pt, plus an inferred resource of 0.50 billion tonnes at 0.26% Ni, 101 ppm Co, 0.014 g/t Pd and 0.006 g/t Pt. The measured + indicated resource is inclusive of proven + probable reserves of 1.178 billion tonnes with the same grade. The Dumont deposit has yet to be placed in production. The 2013 technical report included a pre-feasibility study based on a nickel price of US\$5.58 per pound.



LEGEND
 1964 INCO drill holes are shown in grey
 (locations are very approximate)
 Interpreted conductor
 (not classified by conductance)
 from 2018 AIRTEM survey

CRAWFORD NICKEL PROJECT
2018 DRILLING PROGRAM
DRILL PLAN
Figure 5



2018 DRILLING PROGRAM

The 2018 program of diamond drilling on the Crawford nickel project comprised four holes with a total length of 1,818 metres. Table 1 gives the basic statistics for the drill holes. UTM coordinates are in the NAD83 datum, zone 17 north. All collar elevations were assumed to be 273 metres. All casings were left in place.

| Hole ID | UTM east | UTM north | Azimuth | Inclination | Depth | Started | Finished |
|---------|----------|-----------|---------|-------------|-------|------------|------------|
| CR18-01 | 473244 | 5408583 | 035° | -60° | 594 m | 2018-11-14 | 2018-11-22 |
| CR18-02 | 473119 | 5408850 | 036° | -50° | 216 m | 2018-11-23 | 2018-11-25 |
| CR18-03 | 472890 | 5408537 | 036° | -50° | 606 m | 2018-11-26 | 2018-12-03 |
| CR18-04 | 473415 | 5408476 | 036° | -50° | 402 m | 2018-12-03 | 2018-12-06 |

Figure 5 shows the drill holes in plan. Plates 1 to 3 show cross sections of the drill holes with geology; nickel grades are indicated by colours. Drill logs are given in Appendix 1, gyroscopic directional survey data are in Appendix 2, analytical data for selected elements are in Appendix 3, magnetic susceptibility measurements on drill core are in Appendix 4, density measurements are in Appendix 5 and certificates of analysis are in Appendix 6.

The drilling contractor was NPLH Drilling of Timmins. Drill core was logged by William MacRae P.Geo., in a secure facility near Timmins, where the core was cut by diamond saw under his supervision. All ultramafic core was cut, mostly in 1.5 metre sample lengths. Cut core was delivered to Activation Laboratories (ActLabs) in Timmins for analysis. Multi-element analysis, including Ni, Cu, Co and S, was performed by ICP on samples prepared by sodium peroxide fusion. Fire assays on 30-gram splits were done for Au, Pd and Pt.

Geological Results: Hole CR18-01 was drilled under the strongest magnetic anomaly in the general vicinity of historic INCO drill hole 25050. It intersected dunite from the base of casing at 33 metres to the end of hole at 594 metres. The first 100 metres was greenish in colour, after which it became progressively more black, probably indicating an increasing degree of serpentinization.

Hole CR18-02 was a shallower hole designed to test a conductor that was prominent on the airborne EM survey. It intersected dunite from the base of casing at 24 metres to the end of hole at 216 metres. From 86.9 to 132.8 metres it passed through a rubbly zone of fault gouge, although the composition and nickel content are more or less the same as the dunite wall rocks to the fault zone. The conductor is assumed to be caused by the fault zone.

Hole CR18-03 was drilled on the same section line as CR18-02, set back far enough to intersect the contact of the ultramafic body. It passed through 51 metres of overburden, followed by mafic volcanics to 281.6 metres, after which was uninterrupted dunite to the end of hole at 606 metres. The contact zone of the dunite was brecciated over a 5 metre core length.

Hole CR18-04 was drilled 200 metres to the southeast of CR18-01. The ultramafic body curves slightly, as can be seen on the magnetic survey in figure 5, and the hole entered a 30-metre section of mafic volcanic after the base of casing at 42 metres. It then passed through essentially monotonous dunite.

MINERALIZATION

ICP and Fire Assay analytical data: The colour coding for nickel assay grades on the cross sections illustrates the distribution of nickel. There are clearly sections of higher and lower grades. The complete analytical data set for Ni, Cu, Co, Cr, Pd, Pt, Au and S is given in Appendix 3, with full the full 23-element package in Appendix 6 (certificates of analysis). Table 2 gives average grades over selected intervals, using a cutoff grade of 0.20% Ni.

| TABLE 2: CRAWFORD NICKEL PROJECT - 2018 DIAMOND DRILLING RESULTS | | | | | | | | | |
|--|-----------|------------|--------|----------------------------------|----------|----------|----------|----------|-------|
| SUMMARY OF INTERVALS PASSING 0.20% Ni CUTOFF | | | | | | | | | |
| DDH ID | From | To | Length | Ni (%) | Co (ppm) | Pt (g/t) | Pd (g/t) | Au (g/t) | S (%) |
| CR18-01 | 36.00 eoc | 594.00 eoh | 558.00 | 0.261 | 127 | 0.010 | 0.016 | 0.002 | 0.051 |
| includes | 234.00 | 525.00 | 291.00 | 0.293 | 118 | 0.011 | 0.020 | 0.002 | 0.062 |
| includes | 238.50 | 393.00 | 154.50 | 0.320 | 120 | 0.012 | 0.029 | 0.001 | 0.086 |
| includes | 238.50 | 283.50 | 45.00 | 0.384 | 144 | 0.019 | 0.061 | 0.001 | 0.140 |
| CR18-02 | 24.00 eoc | 175.50 | 151.50 | 0.224 | 126 | 0.005 | 0.005 | 0.001 | 0.029 |
| CR18-02 | 175.50 | 216.00 eoh | 40.50 | Dunite less than 0.20% Ni | | | | | |
| CR18-03 | 51.00 eoc | 288.00 | 237.00 | Mafic volcanic and marginal zone | | | | | |
| CR18-03 | 288.00 | 606.00 eoh | 318.00 | 0.248 | 126 | 0.019 | 0.028 | 0.003 | 0.029 |
| includes | 475.50 | 606.00 eoh | 130.50 | 0.299 | 140 | 0.028 | 0.055 | 0.006 | 0.033 |
| includes | 492.00 | 547.50 | 55.50 | 0.324 | 139 | 0.028 | 0.096 | 0.005 | 0.039 |
| includes | 492.00 | 516.00 | 24.00 | 0.333 | 140 | 0.060 | 0.201 | 0.011 | 0.022 |
| CR18-04 | 42.00 eoc | 72.40 | 30.40 | Mafic volcanic | | | | | |
| CR18-04 | 72.40 | 193.50 | 121.10 | Dunite less than 0.20% Ni | | | | | |
| CR18-04 | 193.50 | 402.00 eoh | 208.50 | 0.324 | 135 | 0.018 | 0.028 | 0.003 | 0.181 |
| includes | 205.50 | 402.00 eoh | 196.50 | 0.332 | 135 | 0.010 | 0.027 | 0.002 | 0.183 |
| includes | 208.50 | 285.00 | 76.50 | 0.358 | 156 | 0.017 | 0.041 | 0.001 | 0.246 |
| includes | 208.50 | 220.50 | 12.00 | 0.532 | 220 | 0.030 | 0.070 | 0.001 | 0.512 |
| Dumont Deposit averages for comparison | | | | 0.270 | 107 | 0.009 | 0.020 | n/a | n/a |
| Note: eoc = End of Casing; eoh = End of Hole | | | | | | | | | |

On the basis of inspection, it appears that the Crawford mineralization has similar overall nickel grades to the Dumont deposit, with some sections of higher grade. However, the grades of accessory metals - cobalt, palladium and platinum are significantly higher than at Dumont. The average grade for Dumont is based on a cutoff of 0.15% Ni, but a sensitivity analysis in the Dumont technical report indicates no change in average nickel grade at cutoffs from 0.05% Ni to 0.20% Ni, which would appear to make the comparison valid. It is however important to point out that the grades quoted are total metal contents as analysed by ICP after peroxide fusion, and not recoverable grades. The average nickel recovery at Dumont is 43%, based on extensive metallurgical testing. This low recovery is partially offset by the high tenor of nickel in concentrate, which averages about 29% Ni.

Selective leach re-analysis: In order to gain a preliminary estimate of the potential recoverability of nickel from the Crawford samples, twelve pulps were selected to give a range of nickel grades and sulphur contents, and were re-analysed using the same ICP method, but on aqua regia digestion. Aqua regia will readily dissolve sulphides, oxides

and metallic minerals, but will have little effect on silicate minerals. Comparison between the original peroxide fusion and the aqua regia analyses will give an estimate of how much nickel and cobalt have been “liberated” from their original imprisonment in olivine.

Note that the “liberated” percentage represents a theoretical upper limit for recoverability. Some fraction of the liberated nickel and cobalt will inevitably be in mineral grains that are too small to respond to flotation or magnetic separation, or are attached to silicate mineral grains that will not report to the concentrate. Table 3 summarizes the re-analysis results.

| TABLE 3 | | | | | | | | | | |
|---|-------|-------|--------|----------------|---------------|-------------------|--------------|-------------|-------------------|-------------|
| ESTIMATION OF Ni AND Co LIBERATION BY AQUA REGIA EXTRACTION ANALYSIS vs FUSION ICP ANALYSES | | | | | | | | | | |
| DDH No. | From | To | Length | Co ppm FUS-ICP | Co ppm AR-ICP | percent liberated | Ni % FUS-ICP | Ni % AR-ICP | percent liberated | S % FUS-ICP |
| CR18-01 | 165.0 | 166.5 | 1.5 | 240 | 193 | 80% | 0.669 | 0.431 | 64% | 0.28 |
| CR18-01 | 238.5 | 240.0 | 1.5 | 120 | 105 | 88% | 0.297 | 0.203 | 68% | 0.02 |
| CR18-01 | 243.0 | 244.5 | 1.5 | 170 | 149 | 88% | 0.487 | 0.332 | 68% | 0.15 |
| CR18-01 | 286.5 | 288.0 | 1.5 | 150 | 130 | 87% | 0.345 | 0.232 | 67% | 0.18 |
| CR18-01 | 423.0 | 424.5 | 1.5 | 120 | 85 | 71% | 0.317 | 0.203 | 64% | 0.03 |
| CR18-01 | 588.0 | 589.5 | 1.5 | 110 | 87 | 79% | 0.272 | 0.178 | 65% | 0.01 |
| CR18-03 | 508.5 | 510.0 | 1.5 | 140 | 108 | 77% | 0.332 | 0.217 | 65% | 0.01 |
| CR18-03 | 535.5 | 537.0 | 1.5 | 140 | 109 | 78% | 0.337 | 0.227 | 67% | 0.07 |
| CR18-03 | 594.0 | 595.5 | 1.5 | 150 | 110 | 73% | 0.349 | 0.205 | 59% | 0.05 |
| CR18-04 | 165.0 | 166.5 | 1.5 | 120 | 52 | 43% | 0.182 | 0.050 | 27% | < 0.01 |
| CR18-04 | 216.0 | 217.5 | 1.5 | 260 | 206 | 79% | 0.647 | 0.423 | 65% | 0.60 |
| CR18-04 | 337.5 | 339.0 | 1.5 | 130 | 103 | 79% | 0.427 | 0.275 | 64% | 0.20 |
| Mean liberation for Co and Ni | | | | | | 77% | | | 62% | |
| Mean liberation excluding CR18-04 165.0-166.5 | | | | | | 80% | | | 65% | |

Surprisingly, in the light of its much lower overall concentration, the cobalt results indicate a much higher average liberation at 77%, versus the average nickel liberation of 62%. If the one lower grade sample (CR18-04 165.0-166.5), which had much lower liberation, is excluded, the average liberation increases to 80% for cobalt and 65% for nickel. That one sample had a sulphur concentration below the detection limit, which may have affected the mineralogy of the liberated metals. It also had a CO₂ content of 20.0%, as well as 0.21% K₂O in the re-analysis program, compared with the other 11 re-analysis samples which carried between 0.24% and 1.00% of CO₂ and all had K₂O less than the detection limit of 0.01%. Clearly, a different rock type.

The twelve pulps that were re-analysed were also analysed for whole-rock (major oxides) by X-ray fluorescence, as a check on the reliability of ICP analysis of the major elements. The results are shown in Table 4. The comparison is excellent. The only drawback of the ICP method using sodium peroxide fusion is that it does not give sodium concentration. Since the 12 samples analysed by XRF only contained between 0.01% and 0.05% Na₂O, this is not a serious problem.

TABLE 4

COMPARISON OF XRF AND ICP ANALYSES FOR MAJOR OXIDES

| DDH No. | Sample No. | From (m) | To (m) | Core Length | SiO2 XRF | SiO2 ICP | ratio XRF:ICP | Al2O3 XRF | Al2O3 ICP | ratio XRF:ICP | CaO XRF | CaO ICP | ratio XRF:ICP | |
|--------------------|------------|----------|--------|-------------|----------|----------|---------------|--------------------|-----------|---------------|--------------|--------------------|---------------|--------------|
| CR18-01 | 693137 | 165.00 | 166.50 | 1.50 | 32.74 | 31.96 | 1.02 | 0.66 | 0.66 | 1.00 | 0.11 | 0.01 | | |
| CR18-01 | 693186 | 238.50 | 240.00 | 1.50 | 34.03 | 34.31 | 0.99 | 0.49 | 0.50 | 0.98 | 0.14 | 0.00 | | |
| CR18-01 | 693189 | 243.00 | 244.50 | 1.50 | 33.17 | 34.30 | 0.97 | 0.43 | 0.43 | 1.01 | 0.10 | 0.00 | | |
| CR18-01 | 693218 | 286.50 | 288.00 | 1.50 | 32.10 | 33.91 | 0.95 | 0.26 | 0.29 | 0.91 | 0.08 | 0.00 | | |
| CR18-01 | 693309 | 423.00 | 424.50 | 1.50 | 34.67 | 34.87 | 0.99 | 0.59 | 0.57 | 1.03 | 0.06 | 0.04 | | |
| CR18-01 | 693419 | 588.00 | 589.50 | 1.50 | 35.74 | 35.54 | 1.01 | 1.08 | 0.99 | 1.09 | 0.34 | 0.26 | 1.29 | |
| CR18-03 | 701260 | 508.50 | 510.00 | 1.50 | 34.45 | 33.94 | 1.02 | 0.45 | 0.47 | 0.97 | 0.17 | 0.17 | 0.99 | |
| CR18-03 | 701278 | 535.50 | 537.00 | 1.50 | 34.88 | 34.19 | 1.02 | 0.26 | 0.31 | 0.85 | 0.08 | 0.06 | | |
| CR18-03 | 701317 | 594.00 | 595.50 | 1.50 | 37.24 | 34.32 | 1.08 | 0.42 | 0.35 | 1.19 | 0.14 | 0.09 | | |
| CR18-04 | 701395 | 165.00 | 166.50 | 1.50 | 30.60 | 31.27 | 0.98 | 1.34 | 1.40 | 0.96 | 0.97 | 0.98 | 0.99 | |
| CR18-04 | 701429 | 216.00 | 217.50 | 1.50 | 32.96 | 32.86 | 1.00 | 0.70 | 0.76 | 0.92 | 0.04 | 0.01 | | |
| CR18-04 | 705510 | 337.50 | 339.00 | 1.50 | 35.31 | 34.24 | 1.03 | 0.45 | 0.45 | 1.01 | 0.53 | 0.49 | 1.09 | |
| Mean ratio XRF:ICP | | | | | | | 1.005 | Mean ratio XRF:ICP | | | 0.993 | Mean ratio XRF:ICP | | 1.088 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Fe2O3 XRF | Fe2O3 ICP | ratio XRF:ICP | MnO XRF | MnO ICP | ratio XRF:ICP | MgO XRF | MgO ICP | ratio XRF:ICP | |
|--------------------|------------|----------|--------|-------------|-----------|-----------|---------------|--------------------|---------|---------------|--------------|--------------------|---------------|--------------|
| CR18-01 | 693137 | 165.00 | 166.50 | 1.50 | 13.94 | 14.05 | 0.99 | 0.15 | 0.15 | 1.05 | 38.01 | 36.87 | 1.03 | |
| CR18-01 | 693186 | 238.50 | 240.00 | 1.50 | 9.05 | 9.20 | 0.98 | 0.10 | 0.11 | 0.95 | 41.00 | 39.95 | 1.03 | |
| CR18-01 | 693189 | 243.00 | 244.50 | 1.50 | 10.52 | 11.25 | 0.94 | 0.10 | 0.10 | 1.01 | 40.17 | 39.80 | 1.01 | |
| CR18-01 | 693218 | 286.50 | 288.00 | 1.50 | 10.57 | 10.61 | 1.00 | 0.12 | 0.11 | 1.03 | 41.00 | 39.72 | 1.03 | |
| CR18-01 | 693309 | 423.00 | 424.50 | 1.50 | 5.86 | 6.01 | 0.98 | 0.10 | 0.11 | 0.96 | 44.49 | 42.28 | 1.05 | |
| CR18-01 | 693419 | 588.00 | 589.50 | 1.50 | 7.11 | 7.05 | 1.01 | 0.12 | 0.11 | 1.03 | 41.67 | 39.78 | 1.05 | |
| CR18-03 | 701260 | 508.50 | 510.00 | 1.50 | 10.44 | 10.37 | 1.01 | 0.14 | 0.14 | 1.03 | 40.67 | 39.80 | 1.02 | |
| CR18-03 | 701278 | 535.50 | 537.00 | 1.50 | 10.31 | 10.24 | 1.01 | 0.13 | 0.13 | 0.98 | 40.17 | 39.53 | 1.02 | |
| CR18-03 | 701317 | 594.00 | 595.50 | 1.50 | 11.83 | 11.00 | 1.08 | 0.15 | 0.14 | 1.12 | 44.32 | 39.96 | 1.11 | |
| CR18-04 | 701395 | 165.00 | 166.50 | 1.50 | 9.62 | 9.80 | 0.98 | 0.12 | 0.12 | 1.01 | 33.20 | 33.13 | 1.00 | |
| CR18-04 | 701429 | 216.00 | 217.50 | 1.50 | 13.18 | 13.28 | 0.99 | 0.13 | 0.12 | 1.05 | 37.35 | 36.65 | 1.02 | |
| CR18-04 | 705510 | 337.50 | 339.00 | 1.50 | 9.85 | 9.71 | 1.01 | 0.12 | 0.11 | 1.05 | 42.50 | 39.36 | 1.08 | |
| Mean ratio XRF:ICP | | | | | | | 0.997 | Mean ratio XRF:ICP | | | 1.022 | Mean ratio XRF:ICP | | 1.037 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Cr2O3 XRF | Cr2O3 ICP | ratio XRF:ICP | NiO XRF | NiO ICP | ratio XRF:ICP | S % ICP | Total ICP | LOI % | |
|--------------------|------------|----------|--------|-------------|-----------|-----------|---------------|--------------------|---------|---------------|--------------|--------------|-------|--|
| CR18-01 | 693137 | 165.00 | 166.50 | 1.50 | 1.07 | 1.11 | 0.96 | 0.85 | 0.85 | 1.00 | 0.28 | 87.82 | 12.69 | |
| CR18-01 | 693186 | 238.50 | 240.00 | 1.50 | 1.05 | 1.09 | 0.96 | 0.38 | 0.39 | 0.97 | 0.02 | 86.26 | 13.42 | |
| CR18-01 | 693189 | 243.00 | 244.50 | 1.50 | 0.85 | 0.92 | 0.92 | 0.62 | 0.65 | 0.96 | 0.15 | 86.12 | 13.20 | |
| CR18-01 | 693218 | 286.50 | 288.00 | 1.50 | 0.42 | 0.44 | 0.96 | 0.44 | 0.45 | 0.98 | 0.18 | 85.18 | 13.82 | |
| CR18-01 | 693309 | 423.00 | 424.50 | 1.50 | 1.18 | 1.18 | 1.00 | 0.40 | 0.40 | 1.01 | 0.03 | 87.38 | 14.79 | |
| CR18-01 | 693419 | 588.00 | 589.50 | 1.50 | 0.89 | 0.88 | 1.01 | 0.35 | 0.34 | 1.02 | 0.01 | 87.29 | 13.92 | |
| CR18-03 | 701260 | 508.50 | 510.00 | 1.50 | 0.85 | 0.89 | 0.95 | 0.42 | 0.42 | 1.00 | 0.01 | 87.60 | 13.00 | |
| CR18-03 | 701278 | 535.50 | 537.00 | 1.50 | 0.55 | 0.58 | 0.96 | 0.43 | 0.44 | 0.96 | 0.07 | 86.89 | 14.47 | |
| CR18-03 | 701317 | 594.00 | 595.50 | 1.50 | 0.83 | 0.79 | 1.05 | 0.44 | 0.38 | 1.18 | 0.05 | 95.42 | 12.99 | |
| CR18-04 | 701395 | 165.00 | 166.50 | 1.50 | 0.74 | 0.77 | 0.97 | 0.23 | 0.23 | 0.99 | 0.00 | 76.83 | 22.76 | |
| CR18-04 | 701429 | 216.00 | 217.50 | 1.50 | 1.11 | 1.11 | 1.00 | 0.82 | 0.82 | 1.01 | 0.60 | 86.89 | 14.19 | |
| CR18-04 | 705510 | 337.50 | 339.00 | 1.50 | 0.64 | 0.65 | 0.99 | 0.54 | 0.52 | 1.04 | 0.20 | 90.15 | 14.45 | |
| Mean ratio XRF:ICP | | | | | | | 0.978 | Mean ratio XRF:ICP | | | 1.010 | | | |

XRF analyses were done on lithium tetraborate fusion, ICP analyses were done on sodium peroxide fusion
ICP analyses do not include sodium. Potassium results were too low to compare. XRF analyses do not include sulphur

Magnetic susceptibility and specific gravity measurements: During logging and processing of the drill core, a hand-held susceptibility meter was used to measure the magnetic susceptibility. One measurement was taken per metre for most of the drill program. Results are given in Appendix 4. Measurements of rock density (specific gravity) were made on core samples, usually one per core box (i.e. one sample per 4 to 4.5 metres). Density was measured by using an electronic laboratory scale with an underhook. The core sample was suspended from the balance and weighed in air, then a pail of water was brought up to immerse the core sample, and the “wet weight” was also noted. Complete results are given in Appendix 5.

Magnetic susceptibility determinations are useful for modeling magnetic surveys to estimate the size, shape and orientation of the assumed magnetic body. Since iron is liberated (as magnetite) by the same process of serpentinization that liberates nickel, the magnetic susceptibility can be used to estimate the degree of serpentinization. Rock density measurements can be used in a similar way to assist modeling from gravity survey data. They are also crucial for mineral resource estimation. More specifically, the rock density of peridotites and dunites changes as the rocks are serpentinized, and the rock density can also be used as an estimator of the degree of serpentinization. Serpentine minerals are much less dense than olivine.

Figure 6 is a plot of specific gravity versus magnetic susceptibility for those samples in the two groups that came from the same metre of core. As expected, there is an antipathetic relation between the two parameters. The more magnetic rocks are less dense.

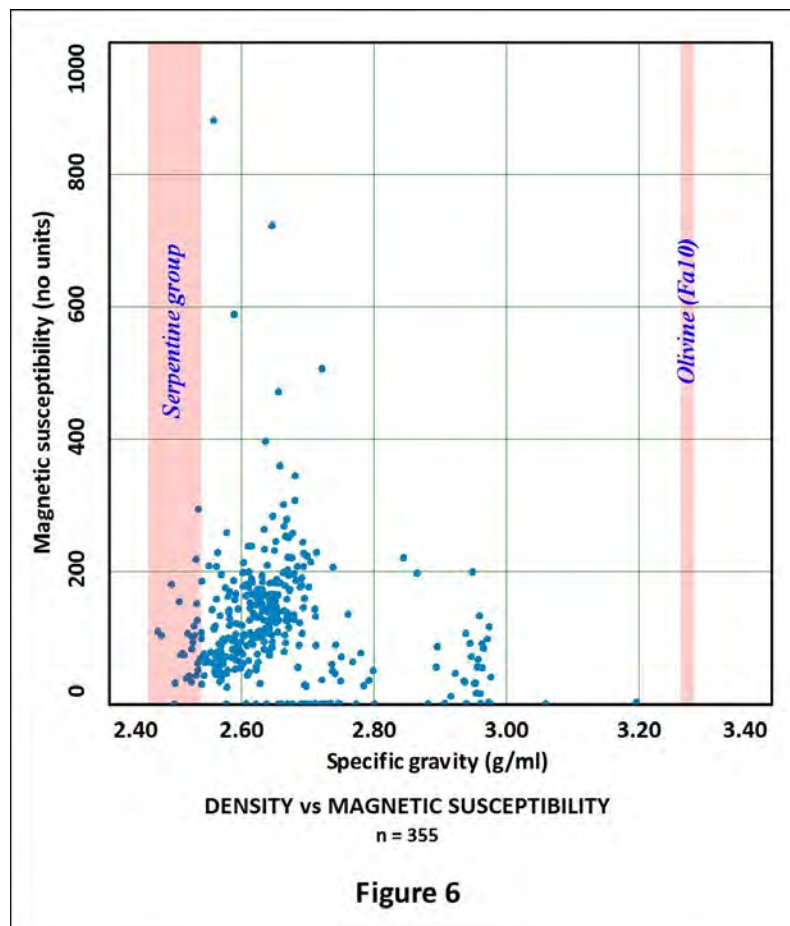
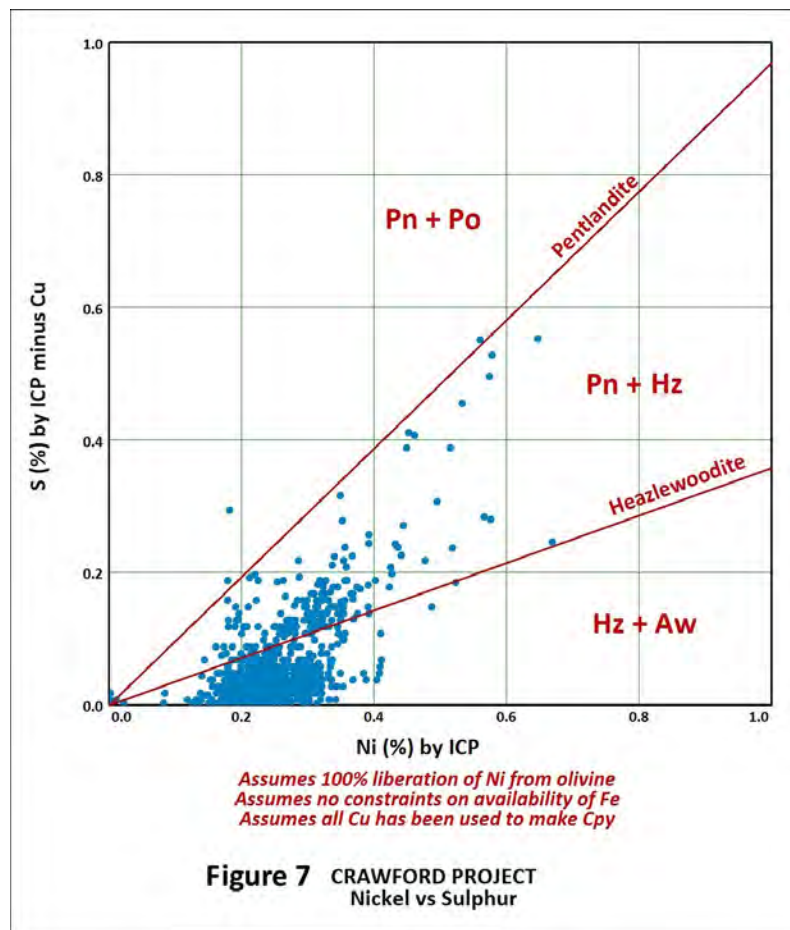


Figure 6 shows the approximate range of specific gravity of the serpentine group of minerals and of olivine with molar Fe/(Fe + Mg) of 10 percent (forsterite 90, fayalite 10). There is a small cluster of samples that appear to be about 50% serpentinized and a much larger cluster that appear to be 80% to 90% serpentinized. The second group exhibits a much greater range of magnetic susceptibility.

Mineralogy Studies: Figure 7 is a plot of nickel versus sulphur for all the sampled intervals from the 2018 drill program. The ratio between nickel and sulphur will determine the mineralogy of liberated nickel. If there is no sulphur, only awaruite will form. If there is a lot of sulphur, nickel will be concentrated in pentlandite, with accompanying pyrrhotite if there is sufficient excess sulphur. Heazlewoodite will form at intermediate S/Ni ratios. The red lines indicating stoichiometric pentlandite and heazlewoodite were drawn assuming that all the nickel is “liberated”; if less than 100% of the nickel is liberated, those lines will move down, the “Hz + Aw” and “Pn + Hz” fields will contract and the “Pn + Po” field will expand.



The samples with the highest nickel content also tend to have the highest sulphur. This could imply that there was a certain amount of primary sulphide nickel in the original rocks before serpentinization. This, in turn could imply that there is potential for a massive sulphide, higher grade nickel deposit somewhere in the Crawford project area.

A more rigorous approach was taken for 12 core samples from the 12 re-analysed sample intervals. They were sent to have polished thin sections made, with mineralogical determinations and mineral analysis by reflected light microscopy and electron microprobe analyser. The full report of this activity by Renaud Geological Consulting is given in Appendix 7. The summary of the findings is reproduced below:

Each polished thin section was examined with a Zeiss Axioscope polarizing microscope with reflected light optics. Relevant textures of oxides and sulphides were captured digitally with a AmScope camera attached to a trinocular head. Areas of interest were circled with a diamond scribe in order to relocate the areas with the JEOL 733 Electron Microprobe. Scribed circles were relocated and Backscattered Electron Images (BEI) were captured and included in this report with corresponding scale bars. Areas of interest within each grain were analysed using an Oxford Instruments X-Act Energy Dispersive System attached to the microprobe. Locations of each analysis are depicted on each backscatter image.

The rocks examined in this report consist predominantly of olivine, serpentine, serpentinized olivine, pyroxene, white mica, chromite, and magnetite. The dominant sulphide minerals are Co-pentlandite ($(Fe,Ni)_9S_8$), Heazlewoodite (Ni_3S_2), Awaruite (Ni_2Fe), and minor amounts of Godlevskite ($(Ni,Fe)_9S_8$). Grain sizes of the sulphides generally ranged from 5 micron to 100 microns. The sulphide inventory is dominated by Co-pentlandite (up to 50%), Heazlewoodite (up to 35%), and Awaruite (up to 15%). The sulphides are almost always associated with magnetite which would make a good exploration tool to follow mag-highs.

Sample 554 contained a mineral not noted in any other sample. A Co-S-Ni-Fe mineral in association with magnetite-heazlewoodite-awaruite. Pentlandite was not noted in this sample.

General (stoichiometric) compositions for the Ni-sulphides noted:

Heazlewoodite (Ni=73.3%, S=26.7%)

Awaruite (Ni=72.4%, Fe=27.6%)

Pentlandite (Fe=32.56%, Ni=34.21%, S=33.23%)

Godlevskite (Fe=7%, Ni=60%, S=32%)

Possibly the most significant observation from the mineralogy work is the 38 electron microprobe analyses of cobaltiferous pentlandite. The cobalt content varied from 2.12% to 7.99%, with a mean of 4.46% and a median of 4.25%. This has potentially favourable implications for the recoverability of cobalt. There were also 5 microprobe analyses of pentlandite from one sample, that carried no cobalt.

Another significant observations was the presence of an unidentified or unknown copper-palladium oxide mineral with accessory platinum and tin in sample 559. It had the composition: 40.7% Cu; 18.8% Fe; 15.1% Pd; 1.5% Sn; 1.5% Cr; 0.9% Pt. The one occurrence of this mineral was on the edge of a magnetite grain. This also has implications for the potential recoverability of palladium and platinum.

CONCLUSIONS

The 2018 drilling program on the Crawford nickel project resulted in wide intersections of continuous nickel mineralization in dunite and peridotite, with grades over 0.20% Ni. Core lengths of continuous mineralization were up to a maximum of 558 metres in hole CR18-01, which started and ended in mineralization. The weighted averages of all 1,084.5 metres of core exceeding 0.20% Ni and the 418.5 metres of higher grade (with the average grade of the mineral resource at the Dumont deposit in Québec for comparison):

Crawford over 0.20% Ni: 0.269% Ni; 128 ppm (0.0128%) Co; 0.022 g/t Pd; 0.014 g/t Pt; 0.002 g/t Au

Crawford over 0.30% Ni: 0.323% Ni; 130 ppm (0.0130%) Co; 0.037 g/t Pd; 0.017 g/t Pt; 0.003 g/t Au

Dumont total resources: 0.270% Ni; 107 ppm (0.0107%) Co; 0.020 g/t Pd; 0.009 g/t Pt; unknown Au

Re-analysis of 12 selected samples by ICP following an aqua regia digestion indicates that an average of 77% of cobalt and 62% of nickel appear to have been liberated from olivine by serpentinization; these numbers represent estimates of the theoretical upper limits of recoverability for those metals.

Mineralogical studies indicate that the majority of the non-silicate (i.e. potentially recoverable) nickel is contained in pentlandite, heazlewoodite and awaruite with minor godlevskite. The pentlandite contains up to 7.99% cobalt, with a mean of 4.25% Co.

It is concluded that the Crawford nickel project has the potential for a large, bulk mineable nickel deposit with accessory cobalt and PGEs.

RECOMMENDATIONS

The recommendations made following the completion of the work described in this report were to embark on a large diamond drilling program to develop a mineral resource. These recommendations were followed, and continue to be followed, by Canada Nickel Company Inc., which has acquired the property and taken over the project.

Respectfully submitted



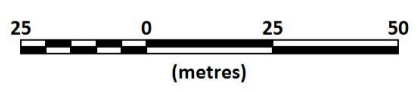
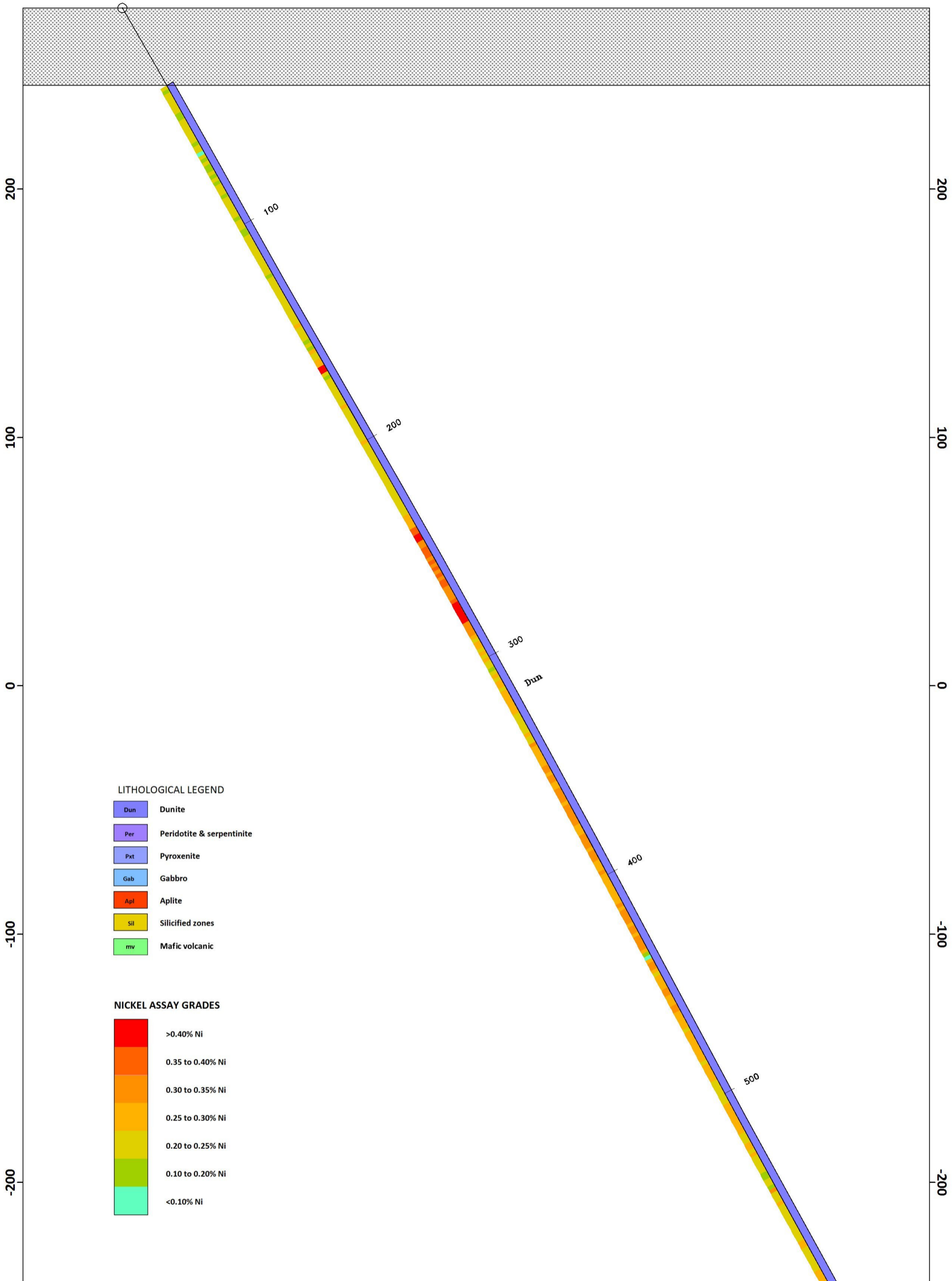
Colin Bowdidge, Ph.D., P.Ge.

February 2020

REFERENCES

- Balch, S., 2017. Report on a helicopter-borne time domain electromagnetic and magnetic survey at Crawford Township. Unpublished report for Noble Mineral Exploration Inc.
- Leahy, E.J., 1968. Crawford Township, Timmins Data Series. Ont. Dept. Mines Map P0487
- Pyke, D.R., Ayres, L.D. & Innes, D.G., 1971. Timmins-Kirkland Lake, Geological Compilation Series. Ont. Dept. Mines Map M2205, 1:253,440
- Staples, L.P., Bowen, J.M., Bernier, S.B., Warren, D.A., Scott, C.C., Duncan, J.F., Murphy, B.A., Bertrand, V.J., Scott, K.C., & Latulippe, V., 2013. Technical report on the Dumont Ni Project, Launay and Trécesson Townships, Québec, Canada for Royal Nickel Corporation. Available at www.sedar.com
- Stott, G., Corkery, M.T., Percival, J.A., Simard, M. & Goutier, J. 2011. A revised terrane subdivision of the Superior Province. Poster presented at Ontario Exploration and Geoscience Symposium, November 8-9, 2011, Sudbury, Ontario.

CRAW18-01



**SPRUCE RIDGE RESOURCES INC.
NOBLE MINERAL EXPLORATION INC.**

CRAWFORD NICKEL PROJECT
PORCUPINE DISTRICT
NORTHERN ONTARIO

2018 DIAMOND DRILLING PROGRAM
DRILL HOLE CR18-01
CROSS SECTION LOOKING NW AT 307°

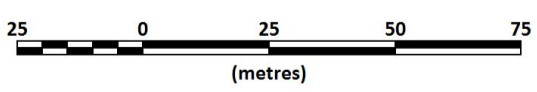
Bowdidge **PLATE 1** *2019*

200
100
0
-100
-200
-300



- LITHOLOGICAL LEGEND
- Dunite
 - Peridotite & serpentinite
 - Pyroxenite
 - Gabbro
 - Aplite
 - Silicified zones
 - Mafic volcanic

- NICKEL ASSAY GRADES
- >0.40% Ni
 - 0.35 to 0.40% Ni
 - 0.30 to 0.35% Ni
 - 0.25 to 0.30% Ni
 - 0.20 to 0.25% Ni
 - 0.10 to 0.20% Ni
 - <0.10% Ni



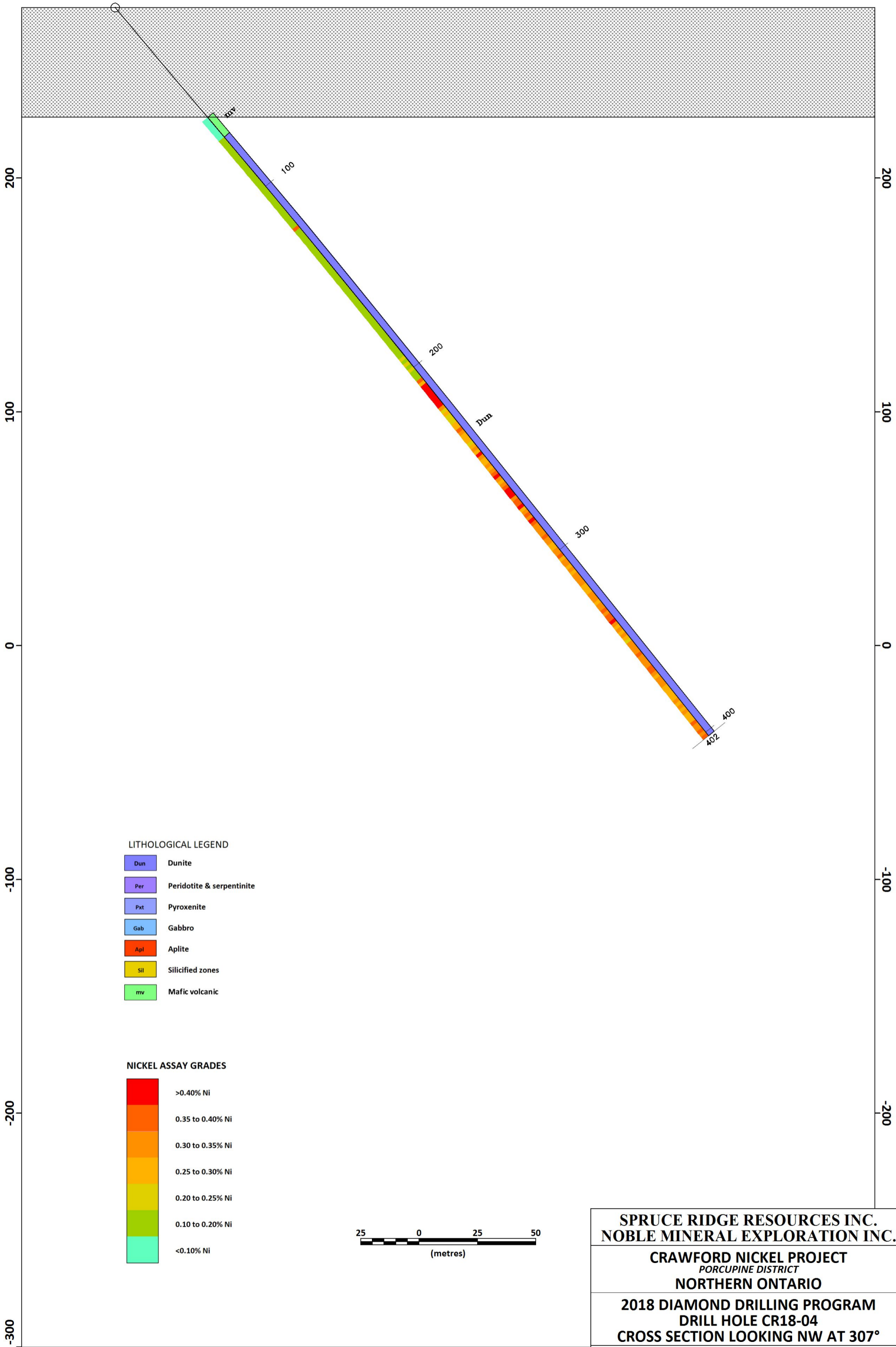
SPRUCE RIDGE RESOURCES INC.
NOBLE MINERAL EXPLORATION INC.

CRAWFORD NICKEL PROJECT
 PORCUPINE DISTRICT
 NORTHERN ONTARIO

2018 DIAMOND DRILLING PROGRAM
 DRILL HOLES CR18-02, CR18-03
 CROSS SECTION LOOKING NW AT 307°

Bowdidge **PLATE 2** 2019

CRAW18-04

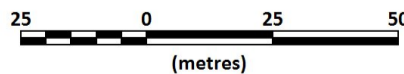


LITHOLOGICAL LEGEND

- Dun Dunite
- Per Peridotite & serpentinite
- Pxt Pyroxenite
- Gab Gabbro
- Apl Aplite
- Sil Silicified zones
- mv Mafic volcanic

NICKEL ASSAY GRADES

- >0.40% Ni
- 0.35 to 0.40% Ni
- 0.30 to 0.35% Ni
- 0.25 to 0.30% Ni
- 0.20 to 0.25% Ni
- 0.10 to 0.20% Ni
- <0.10% Ni



SPRUCE RIDGE RESOURCES INC.
NOBLE MINERAL EXPLORATION INC.

CRAWFORD NICKEL PROJECT
PORCUPINE DISTRICT
NORTHERN ONTARIO

2018 DIAMOND DRILLING PROGRAM
DRILL HOLE CR18-04
CROSS SECTION LOOKING NW AT 307°

Bowdidge

PLATE 3

2019

APPENDIX 1

DRILL LOGS

SPRUCE RIDGE RESOURCES Ltd.

| Hole # | Easting | Northing | Elevation | Length | Date | Test | Core Size | Logged By | U/S | Target | Location \ Comments: |
|-----------|---------|----------|-----------|--------|------------|--------|-----------|-----------|-----|--------|----------------------|
| CRAW18-01 | 473244 | 5408583 | 273 | 594 | 08/01/2019 | Reflex | NQ | W. MacRae | S | | |

| DISTANCE | AZIMUTH | DIP | REMARKS |
|----------|---------|-----|---------|
| 0.00 | 35 | -60 | |

| Drilling Company | Drilling Started | Drilling Ended | Date Logged |
|------------------|------------------|----------------|-------------|
| NPLH Drilling | 14/11/2018 | 22/11/2018 | 08/01/2019 |
| Remarks: | | | |
| | | | |

| FROM | TO | ROCK-TYPE | C.A. | RQD | REMARKS | FROM | TO | WIDTH | SAMPLE # | AU G/T Cu ppm Pb ppm Zn ppm | Remarks |
|-------|--------|-----------|------|-----|---|------|----|-------|----------|-----------------------------|---------|
| 0.00 | 33.00 | CAS | | | | | | | | | |
| 33.00 | 137.10 | UM | | | DUNITE: Dark green in colour. Fault gogue at 38.8 (5 cm), rubbly from 38.8 to 39.35. Weak serpentinization with 1% TO 2% hairline stringers of serpentine. Serpentine altered to asbestose at 50.7 to 51.1. From 84.9 to 85.75 rubbly with fault gogue. From 86.8 to 87.1 fault gogue of serpentine and talc. From 84.9 to 91.8 moderate to strong foliation containing talcose material. From 91.8 to 102.0 talcose with colour varying from dark olive green to dark green/black (weak serpentinization). From 102.0 to 125.0 weak serpentinization and talcose material. Fault gogue at: 103.3 to 193.8, 106.6 to 106.65, 107.6 to 107.7, 108.0 to 108.05, 110.6 to 110.9. From 125.0 to 126.7 light grey to dark grey in colour, strongly talcose. From 126.7 to 135.0 dark green to black in colour medium talcose. From 135.0 to 135.85 light green in colour, strong talc. From 136.0 to 137.1 mottled medium green in colour medium serpentinization. | | | | | | |

| FROM | TO | ROCK-TYPE | C.A. | RQD | REMARKS | FROM | TO | WIDTH | SAMPLE # | AU G/T Cu ppm Pb ppm Zn ppm | Remarks |
|--------|--------|-----------|------|-----|--|------|----|-------|----------|-----------------------------|---------|
| 137.10 | 594.00 | UM | | | DUNITE: Dark green to black in colour. From 150.4 to 151.5 rubble and fault gogue. At 172.1 a 5 cm fault gogue at 90 deg to CA. At 177.1 a 7 cm fault gogue. From 189.7 to 190.3 rubbly with fault gogue. From 210.8 to 210.95 rubbly with fault gogue. From 216.13 to 216.2 fault gogue. From 225.05 to 225.1 fault gogue. At 228.6 5 cm of strong shearing. From 186.5 to 237.3 massive, dark green to black in colour and minor serpentine stringers. From 242.8 to 243.95 Fault gogue. From 262.5 to 263.0 sub-parallel to parralel slip containing asbestos, serpentine and magnetite. From 258.0 onward gradually becomes lighter colour with weak serpentinization. From 271.0 to 271.3 fault gogue. From 272.0 to 273.1 rubbly with fault gogue. From 305.6 to 305.85 Fault gogue. From 310.2 to 310.5 fault gogue with serpentine and fault gogue. From 310.3 to 384.0 moderate to strong serpentinization. From 328.6 to 328.7 fault gogue. From 345.0 to 345.8 rubble. From 390.0 to 398.0 dark green in colour, massive with 5% serpentine stringers. 398.0 to 403.2 up to 30% serpentine varying from dark green to white, magnetite exsolution, white patches conductive. From 403.2 to 435.7 dark green in colour, fine grained with 5% serpentine stringers and asbestos. From 435.7 to 438.1 felsic dike, light pink to grey in colour, sharp contact at 90deg to core axis and inclusions of dunite (1% to 2%). From 438.1 to 441.65 dark green in colour with 5% serpentine/asbestos stringers. From 441.65 to 451.4 strong serpentinization with up to 30% talc/serpentine veins. From 451.4 to 486.9 massive, fine grained with 5% serpentine/talc stringers. From 459.3 to 459.6 rubbly with fault gogue. From 479.4 to 479.6 rubbly with fault gogue. From 486.9 to 502.5 30% rubble sections. From 502.5 to 509.4 dark green in colour with 90% fault gogue from 504.4 to 506.0. From 509.4 to 532.2 more massive with 10% fault gogue in stringers, moderately bserpentinized. From 535.5 to 539.65 20% serpentine stringers. From 539.9 to 541.0 dark green in colour, 5% serpentine. From 541.0 to 543.8 strong serpentinization with shearing and fault gogue from 543.2 to 543.8. From 548.8 to 565.6 dark green in colour, massive with 2% serpentine stringers. From 565.6 to 570.6 50% shearing with fault gogue. From 570.6 to 594.0 weak serpentinization with fault gogue from 591.23 to 591.5. | | | | | | |
| 594.00 | 594.00 | EOH | | | | | | | | | |

Assay QC

SPRUCE RIDGE RESOURCES Ltd.

| Hole # | Easting | Northing | Elevation | Length | Date | Test | Core Size | Logged By | U/S | Target | Location \ Comments: |
|-----------|---------|----------|-----------|--------|------------|--------|-----------|-----------|-----|--------|----------------------|
| CRAW18-02 | 473119 | 5408850 | 273 | 216 | 08/01/2019 | Reflex | NQ | W. MacRae | S | | |

| DISTANCE | AZIMUTH | DIP | REMARKS |
|----------|---------|-----|---------|
| 0.00 | 36 | -50 | |

| Drilling Company | Drilling Started | Drilling Ended | Date Logged |
|------------------|------------------|----------------|-------------|
| NPLH Drilling | 23/11/2018 | 25/11/2018 | 08/01/2019 |

Remarks:

| FROM | TO | ROCK-TYPE | C.A. | RQD | REMARKS | FROM | TO | WIDTH | SAMPLE # | AU G/T Cu ppm Pb ppm Zn ppm | Remarks |
|--------|--------|-----------|------|-----|---|------|----|-------|----------|-----------------------------|---------|
| 0.00 | 24.00 | CAS | | | | | | | | | |
| 24.00 | 86.90 | UM | | | Dunite: Dark green in colour and massive. Contains 5% serpentine and asbestos irregular stringers. From 25.5 to 26.0 reconsolidated fault gogue. From 50.8 to 51.0 rubble and fault gogue. From 61.55 to 62.0 rubble. | | | | | | |
| 86.90 | 132.80 | UM | | | Dunite: Dark green in colour. Very rubbly with fault gogue. From 96.8 to 97.1 fault gogue. From 120.2 to 122.3 fault gogue. From 130.0 to 132.7 fault gogue. | | | | | | |
| 132.80 | 216.00 | UM | | | Dunite: Dark green in colour and massive. Fine grained texture. Minor serpentinization. At 157.0 start of the development of light grey irregular masses progressing from <1% to 120%. | | | | | | |
| 216.00 | 216.00 | EOH | | | | | | | | | |

Assay QC

SPRUCE RIDGE RESOURCES Ltd.

| Hole # | Easting | Northing | Elevation | Length | Date | Test | Core Size | Logged By | U/S | Target | Location \ Comments: |
|-----------|---------|----------|-----------|--------|------------|--------|-----------|-----------|-----|--------|----------------------|
| CRAW18-03 | 472890 | 5408537 | 273 | 606 | 08/01/2019 | Reflex | NQ | W. MacRae | S | | |

| DISTANCE | AZIMUTH | DIP | REMARKS |
|----------|---------|-----|---------|
| 0.00 | 36 | -50 | |

| Drilling Company | Drilling Started | Drilling Ended | Date Logged |
|------------------|------------------|----------------|-------------|
| NPLH Drilling | 26/11/2018 | 03/12/2018 | 08/01/2019 |

| Remarks: |
|----------|
| |

| FROM | TO | ROCK-TYPE | C.A. | RQD | REMARKS | FROM | TO | WIDTH | SAMPLE # | AU G/T Cu ppm Pb ppm Zn ppm | Remarks |
|--------|--------|-----------|------|-----|--|------|----|-------|----------|-----------------------------|---------|
| 0.00 | 51.00 | CAS | | | | | | | | | |
| 51.00 | 63.90 | VM | | | Mafic Volcanic: Light grey to light green in colour and massive. Fine grained. Brown weathering along joints and fractures. Rubbly nature with 10% fault gogue. | | | | | | |
| 63.90 | 105.00 | VM | | | Mafic Volcanic: Light green in colour and massive. Moderately fractured. Porphyritic with irregular phenocrysts up to 2 mm in size. From 101.4 to 101.5 a grey quartz vein. | | | | | | |
| 105.00 | 281.60 | VM | | | Mafic Volcanic: Grey to light green in colour and massive. 2% to 3% quartz stringers and veins up to 7 cm in width. At 178.4 a 2cm pyrrhotite vein, magnetic. From 96.1 to 98.2 5% to 8% pyrrhotite in flow contact. Quartz vein material in flow contacts at: 207.1 to 207.35, 229.8 to 231.1 and 234.7 to 234.9. | | | | | | |
| 281.60 | 606.00 | UM | | | Dunite: Dark green to black in colour and massive. Upper contact is brecciated from 281.6 to 286.0. From 293.9 to 293.95 serpentine vein. Generally weakly serpentinized. From 350.0 to 355.0 moderately serpentinized. From 367.6 to 369.9 rubbly. From 376.9 to 377.6 rubble with fault gogue. From 377.9 to 378.0 fault gogue. From 377.0 to 378.6, 384.4 to 385.15 and 386.15 to 387.4 brighter green with strong serpentinization. From 387.4 to 407.4 spotty sermentinization. From 407.4 to 408.35 strong serpentinization ending in a 20 cm green/white serpentine vein. Thr complete unit is strongly magnetic. From 430.3 to 430.9 rubble with fault gogue. 446.35 to 446.6 rubble with fault gogue. From 476.4 to 476.4 fault gogue with rubble. From 501.0 to 509.0 narrow serpentine rich slips with exolved magnetite. From 548/.6 to 553.9 3 occurrences , >5 cm of white and green serpentine. 562.0 to 606.0 dark green in colour with 5% serpentine slips up to 2 cm in width. From 594.7 to 594.8 rubble and talcose. | | | | | | |
| 606.00 | 606.00 | EOH | | | | | | | | | |

SPRUCE RIDGE RESOURCES Ltd.

| Hole # | Easting | Northing | Elevation | Length | Date | Test | Core Size | Logged By | U/S | Target | Location \ Comments: |
|-----------|---------|----------|-----------|--------|------------|--------|-----------|-----------|-----|--------|----------------------|
| CRAW18-04 | 473415 | 5408476 | 273 | 402 | 08/01/2019 | Reflex | NQ | W. MacRae | S | | |

| DISTANCE | AZIMUTH | DIP | REMARKS |
|----------|---------|-----|---------|
| 0.00 | 36 | -50 | |

| Drilling Company | Drilling Started | Drilling Ended | Date Logged |
|------------------|------------------|----------------|-------------|
| NPLH Drilling | 03/01/2019 | 06/12/2018 | 08/01/2019 |

| Remarks: |
|----------|
| |

| FROM | TO | ROCK-TYPE | C.A. | RQD | REMARKS | FROM | TO | WIDTH | SAMPLE # | AU G/T Cu ppm Pb ppm Zn ppm | Remarks |
|--------|--------|-----------|------|-----|--|------|----|-------|----------|-----------------------------|---------|
| 0.00 | 42.00 | CAS | | | | | | | | | |
| 42.00 | 72.40 | VM | | | Mafic Volcanics: Light green in colour and massive. Fine grained. Moderately rubbly. Non magnetic. Rusty weathering on seams and fractures to 47.0 metres. | | | | | | |
| 72.40 | 87.15 | UM | | | Dunite: Dark green in colour and massive. Fine grained. Moderately magnetic. | | | | | | |
| 87.15 | 103.30 | UM | | | Dunite: Dark green in colour and massive. Fine grained. Non magnetic. | | | | | | |
| 103.30 | 131.85 | UM | | | Dunite: Dark green in colour and massive. Fine grained. Moderately magnetic. At 122.4 a bleb of pyrrhotite 2cmX5cm in size. | | | | | | |
| 131.85 | 148.55 | UM | | | Dunite: Dark green in colour and massive. Fine grained. Non magnetic. | | | | | | |
| 148.55 | 339.50 | UM | | | Dunite: Dark green in colour and massive. Fine grained. Magnetic. From 204.0 to 205.0 fault gogue. From 215.0 to 215.3 rubbly with fault gogue. From 215.0 to 224.0 several short fault gogue occurrences. From 224.0 to 231.0 up to 5% irregular serpentine stringers. 231.0 to 339.5 1% irregular serpentine stringers. From 321.9 to 332.4 fault gogue. | | | | | | |
| 339.50 | 348.30 | UM | | | Dunite:Light green in colour and massive. Fine grained. Non magnetic. | | | | | | |
| 348.30 | 402.00 | UM | | | Dunite: Black in colour and massive. Fine grained. Up to 2% scattered serpentine stringers. | | | | | | |
| 402.00 | 402.00 | EOH | | | | | | | | | |

Assay QC

APPENDIX 2

DRILL HOLE GYRO SURVEY DATA

| Hole Number | Depth (m) | Dip | Azimuth | Easting [m] | Northing [m] | Elevation [m] |
|-------------|-----------|--------|---------|-------------|--------------|---------------|
| CR18-01 | 0 | -60.38 | 33.42 | 473244.00 | 5408583.00 | 273.00 |
| CR18-01 | 10 | -60.59 | 33.38 | 473246.71 | 5408587.11 | 264.30 |
| CR18-01 | 20 | -59.41 | 33.04 | 473249.45 | 5408591.30 | 255.64 |
| CR18-01 | 30 | -60.34 | 32.68 | 473252.17 | 5408595.51 | 246.99 |
| CR18-01 | 40 | -60.46 | 33.21 | 473254.86 | 5408599.66 | 238.29 |
| CR18-01 | 50 | -60.84 | 32.98 | 473257.54 | 5408603.76 | 229.58 |
| CR18-01 | 60 | -60.85 | 33.09 | 473260.19 | 5408607.85 | 220.85 |
| CR18-01 | 70 | -60.82 | 33.32 | 473262.86 | 5408611.93 | 212.11 |
| CR18-01 | 80 | -60.88 | 33.29 | 473265.54 | 5408616.00 | 203.38 |
| CR18-01 | 90 | -60.73 | 33.05 | 473268.21 | 5408620.08 | 194.65 |
| CR18-01 | 100 | -60.64 | 33.13 | 473270.88 | 5408624.18 | 185.93 |
| CR18-01 | 110 | -60.64 | 33.37 | 473273.57 | 5408628.28 | 177.21 |
| CR18-01 | 120 | -60.52 | 33.28 | 473276.26 | 5408632.39 | 168.50 |
| CR18-01 | 130 | -60.43 | 33.04 | 473278.96 | 5408636.51 | 159.80 |
| CR18-01 | 140 | -60.27 | 33.15 | 473281.66 | 5408640.66 | 151.11 |
| CR18-01 | 150 | -60.20 | 32.97 | 473284.37 | 5408644.82 | 142.43 |
| CR18-01 | 160 | -60.10 | 32.90 | 473287.08 | 5408648.99 | 133.76 |
| CR18-01 | 170 | -60.11 | 33.11 | 473289.79 | 5408653.17 | 125.09 |
| CR18-01 | 180 | -60.10 | 33.34 | 473292.52 | 5408657.34 | 116.42 |
| CR18-01 | 190 | -60.17 | 33.62 | 473295.27 | 5408661.50 | 107.75 |
| CR18-01 | 200 | -60.27 | 33.77 | 473298.02 | 5408665.63 | 99.07 |
| CR18-01 | 210 | -60.36 | 33.94 | 473300.78 | 5408669.74 | 90.38 |
| CR18-01 | 220 | -60.45 | 34.24 | 473303.55 | 5408673.83 | 81.68 |
| CR18-01 | 230 | -60.50 | 34.49 | 473306.33 | 5408677.90 | 72.98 |
| CR18-01 | 240 | -60.60 | 34.86 | 473309.13 | 5408681.94 | 64.28 |
| CR18-01 | 250 | -60.74 | 35.19 | 473311.94 | 5408685.96 | 55.56 |
| CR18-01 | 260 | -60.81 | 35.31 | 473314.76 | 5408689.94 | 46.83 |
| CR18-01 | 270 | -60.88 | 35.53 | 473317.58 | 5408693.91 | 38.10 |
| CR18-01 | 280 | -60.95 | 35.76 | 473320.41 | 5408697.86 | 29.36 |
| CR18-01 | 290 | -60.96 | 35.89 | 473323.26 | 5408701.80 | 20.62 |
| CR18-01 | 300 | -61.00 | 36.11 | 473326.11 | 5408705.72 | 11.87 |
| CR18-01 | 310 | -61.08 | 36.27 | 473328.97 | 5408709.63 | 3.12 |
| CR18-01 | 320 | -61.17 | 36.35 | 473331.83 | 5408713.52 | -5.63 |
| CR18-01 | 330 | -61.24 | 36.68 | 473334.69 | 5408717.40 | -14.40 |
| CR18-01 | 340 | -61.29 | 36.81 | 473337.57 | 5408721.25 | -23.17 |
| CR18-01 | 350 | -61.39 | 37.05 | 473340.45 | 5408725.08 | -31.94 |
| CR18-01 | 360 | -61.48 | 37.28 | 473343.34 | 5408728.89 | -40.72 |
| CR18-01 | 370 | -61.55 | 37.47 | 473346.23 | 5408732.68 | -49.51 |
| CR18-01 | 380 | -61.60 | 37.79 | 473349.14 | 5408736.45 | -58.31 |
| CR18-01 | 390 | -61.69 | 37.87 | 473352.05 | 5408740.20 | -67.11 |
| CR18-01 | 400 | -61.72 | 38.11 | 473354.97 | 5408743.94 | -75.91 |
| CR18-01 | 410 | -61.79 | 38.46 | 473357.90 | 5408747.66 | -84.72 |
| CR18-01 | 420 | -61.83 | 38.66 | 473360.85 | 5408751.35 | -93.54 |
| CR18-01 | 430 | -61.88 | 38.72 | 473363.80 | 5408755.03 | -102.35 |
| CR18-01 | 440 | -61.94 | 38.91 | 473366.75 | 5408758.70 | -111.18 |
| CR18-01 | 450 | -61.85 | 39.07 | 473369.71 | 5408762.36 | -120.00 |
| CR18-01 | 460 | -61.84 | 39.63 | 473372.70 | 5408766.01 | -128.81 |
| CR18-01 | 470 | -61.85 | 39.93 | 473375.72 | 5408769.64 | -137.63 |
| CR18-01 | 480 | -61.65 | 40.02 | 473378.76 | 5408773.26 | -146.44 |
| CR18-01 | 490 | -61.63 | 40.20 | 473381.82 | 5408776.90 | -155.24 |
| CR18-01 | 500 | -61.61 | 40.34 | 473384.89 | 5408780.52 | -164.04 |
| CR18-01 | 510 | -61.66 | 40.32 | 473387.97 | 5408784.15 | -172.84 |
| CR18-01 | 520 | -61.50 | 40.46 | 473391.05 | 5408787.77 | -181.63 |

| Hole Number | Depth (m) | Dip | Azimuth | Easting [m] | Northing [m] | Elevation [m] |
|-------------|-----------|--------|---------|-------------|--------------|---------------|
| CR18-01 | 530 | -61.26 | 40.73 | 473394.17 | 5408791.41 | -190.41 |
| CR18-01 | 540 | -61.08 | 39.75 | 473397.28 | 5408795.09 | -199.17 |
| | | | | | | |
| CR18-02 | 0 | -50.85 | 37.00 | 473119.00 | 5408850.00 | 273.00 |
| CR18-02 | 10 | -48.86 | 36.81 | 473122.87 | 5408855.15 | 265.36 |
| CR18-02 | 20 | -48.75 | 36.66 | 473126.81 | 5408860.43 | 257.83 |
| CR18-02 | 30 | -49.17 | 36.12 | 473130.70 | 5408865.72 | 250.29 |
| CR18-02 | 40 | -49.15 | 36.31 | 473134.57 | 5408870.99 | 242.72 |
| CR18-02 | 50 | -49.12 | 36.59 | 473138.46 | 5408876.26 | 235.16 |
| CR18-02 | 60 | -49.05 | 36.75 | 473142.37 | 5408881.51 | 227.61 |
| CR18-02 | 70 | -49.18 | 36.97 | 473146.29 | 5408886.75 | 220.05 |
| CR18-02 | 80 | -49.31 | 37.18 | 473150.23 | 5408891.96 | 212.47 |
| CR18-02 | 90 | -49.41 | 37.25 | 473154.17 | 5408897.14 | 204.88 |
| CR18-02 | 100 | -49.54 | 37.39 | 473158.11 | 5408902.31 | 197.28 |
| CR18-02 | 110 | -49.68 | 37.50 | 473162.05 | 5408907.46 | 189.66 |
| CR18-02 | 120 | -49.73 | 37.69 | 473165.99 | 5408912.58 | 182.04 |
| CR18-02 | 130 | -49.84 | 37.86 | 473169.95 | 5408917.68 | 174.40 |
| CR18-02 | 140 | -49.96 | 38.11 | 473173.91 | 5408922.76 | 166.75 |
| CR18-02 | 150 | -49.99 | 38.38 | 473177.89 | 5408927.81 | 159.09 |
| CR18-02 | 160 | -50.01 | 38.59 | 473181.89 | 5408932.84 | 151.43 |
| CR18-02 | 170 | -50.13 | 38.86 | 473185.91 | 5408937.85 | 143.76 |
| CR18-02 | 180 | -50.24 | 39.11 | 473189.94 | 5408942.83 | 136.08 |
| CR18-02 | 190 | -50.35 | 39.34 | 473193.98 | 5408947.78 | 128.39 |
| CR18-02 | 200 | -50.40 | 39.57 | 473198.03 | 5408952.70 | 120.69 |
| CR18-02 | 210 | -50.47 | 39.74 | 473202.09 | 5408957.60 | 112.98 |
| | | | | | | |
| CR18-03 | 0 | -50.39 | 36.00 | 472890.00 | 5408537.00 | 273.00 |
| CR18-03 | 10 | -50.02 | 36.02 | 472893.76 | 5408542.18 | 265.32 |
| CR18-03 | 20 | -50.09 | 35.76 | 472897.53 | 5408547.38 | 257.65 |
| CR18-03 | 30 | -49.33 | 36.81 | 472901.35 | 5408552.59 | 250.02 |
| CR18-03 | 40 | -49.86 | 38.90 | 472905.33 | 5408557.71 | 242.41 |
| CR18-03 | 50 | -49.81 | 39.37 | 472909.40 | 5408562.71 | 234.77 |
| CR18-03 | 60 | -49.78 | 39.65 | 472913.51 | 5408567.69 | 227.13 |
| CR18-03 | 70 | -49.85 | 40.06 | 472917.64 | 5408572.65 | 219.49 |
| CR18-03 | 80 | -49.78 | 40.20 | 472921.80 | 5408577.58 | 211.85 |
| CR18-03 | 90 | -49.64 | 40.42 | 472925.99 | 5408582.51 | 204.22 |
| CR18-03 | 100 | -49.56 | 40.53 | 472930.19 | 5408587.44 | 196.61 |
| CR18-03 | 110 | -49.49 | 40.50 | 472934.41 | 5408592.38 | 189.00 |
| CR18-03 | 120 | -49.45 | 40.47 | 472938.63 | 5408597.32 | 181.40 |
| CR18-03 | 130 | -49.38 | 40.36 | 472942.85 | 5408602.27 | 173.81 |
| CR18-03 | 140 | -49.31 | 40.43 | 472947.07 | 5408607.23 | 166.22 |
| CR18-03 | 150 | -49.27 | 40.39 | 472951.30 | 5408612.20 | 158.64 |
| CR18-03 | 160 | -49.13 | 40.28 | 472955.53 | 5408617.18 | 151.07 |
| CR18-03 | 170 | -49.04 | 39.95 | 472959.75 | 5408622.19 | 143.51 |
| CR18-03 | 180 | -48.93 | 39.88 | 472963.96 | 5408627.22 | 135.97 |
| CR18-03 | 190 | -48.83 | 39.87 | 472968.17 | 5408632.27 | 128.43 |
| CR18-03 | 200 | -48.65 | 40.00 | 472972.41 | 5408637.33 | 120.92 |
| CR18-03 | 210 | -48.58 | 40.07 | 472976.66 | 5408642.39 | 113.41 |
| CR18-03 | 220 | -48.45 | 39.83 | 472980.91 | 5408647.47 | 105.92 |
| CR18-03 | 230 | -48.33 | 39.80 | 472985.16 | 5408652.57 | 98.45 |
| CR18-03 | 240 | -48.31 | 39.79 | 472989.42 | 5408657.68 | 90.98 |
| CR18-03 | 250 | -48.24 | 39.75 | 472993.68 | 5408662.79 | 83.51 |
| CR18-03 | 260 | -48.18 | 39.78 | 472997.94 | 5408667.92 | 76.06 |

| Hole Number | Depth (m) | Dip | Azimuth | Easting [m] | Northing [m] | Elevation [m] |
|-------------|-----------|--------|---------|-------------|--------------|---------------|
| CR18-03 | 270 | -48.17 | 39.62 | 473002.20 | 5408673.05 | 68.61 |
| CR18-03 | 280 | -48.20 | 39.53 | 473006.45 | 5408678.19 | 61.15 |
| CR18-03 | 290 | -48.26 | 39.59 | 473010.69 | 5408683.32 | 53.69 |
| CR18-03 | 300 | -48.36 | 39.78 | 473014.94 | 5408688.44 | 46.23 |
| CR18-03 | 310 | -48.46 | 39.85 | 473019.19 | 5408693.54 | 38.75 |
| CR18-03 | 320 | -48.59 | 39.91 | 473023.43 | 5408698.62 | 31.26 |
| CR18-03 | 330 | -48.68 | 40.20 | 473027.69 | 5408703.68 | 23.75 |
| CR18-03 | 340 | -48.79 | 40.37 | 473031.95 | 5408708.71 | 16.23 |
| CR18-03 | 350 | -48.81 | 40.50 | 473036.22 | 5408713.72 | 8.71 |
| CR18-03 | 360 | -48.78 | 40.41 | 473040.50 | 5408718.74 | 1.19 |
| CR18-03 | 370 | -48.78 | 40.50 | 473044.77 | 5408723.75 | -6.34 |
| CR18-03 | 380 | -48.83 | 40.51 | 473049.05 | 5408728.76 | -13.86 |
| CR18-03 | 390 | -48.88 | 40.76 | 473053.34 | 5408733.75 | -21.39 |
| CR18-03 | 400 | -48.92 | 41.07 | 473057.64 | 5408738.72 | -28.93 |
| CR18-03 | 410 | -48.79 | 41.51 | 473061.98 | 5408743.66 | -36.46 |
| CR18-03 | 420 | -48.41 | 42.13 | 473066.39 | 5408748.59 | -43.96 |
| CR18-03 | 430 | -48.19 | 42.89 | 473070.89 | 5408753.50 | -51.42 |
| CR18-03 | 440 | -48.22 | 43.25 | 473075.44 | 5408758.37 | -58.88 |
| CR18-03 | 450 | -48.27 | 43.63 | 473080.02 | 5408763.20 | -66.34 |
| CR18-03 | 460 | -48.23 | 44.15 | 473084.63 | 5408768.00 | -73.80 |
| CR18-03 | 470 | -48.34 | 44.47 | 473089.28 | 5408772.76 | -81.27 |
| CR18-03 | 480 | -48.56 | 44.76 | 473093.94 | 5408777.48 | -88.75 |
| CR18-03 | 490 | -48.77 | 45.11 | 473098.61 | 5408782.16 | -96.26 |
| CR18-03 | 500 | -48.79 | 45.13 | 473103.27 | 5408786.81 | -103.78 |
| CR18-03 | 510 | -48.78 | 45.13 | 473107.94 | 5408791.45 | -111.30 |
| | | | | | | |
| CR18-04 | 0 | -51.40 | 34.70 | 473415.00 | 5408476.00 | 273.00 |
| CR18-04 | 10 | -49.70 | 34.83 | 473418.62 | 5408481.22 | 265.28 |
| CR18-04 | 20 | -50.54 | 34.46 | 473422.27 | 5408486.49 | 257.61 |
| CR18-04 | 30 | -49.09 | 34.32 | 473425.91 | 5408491.82 | 249.97 |
| CR18-04 | 40 | -49.84 | 34.68 | 473429.59 | 5408497.17 | 242.37 |
| CR18-04 | 50 | -49.72 | 35.06 | 473433.29 | 5408502.47 | 234.73 |
| CR18-04 | 60 | -49.68 | 35.12 | 473437.00 | 5408507.76 | 227.10 |
| CR18-04 | 70 | -49.73 | 35.17 | 473440.73 | 5408513.05 | 219.48 |
| CR18-04 | 80 | -49.79 | 35.43 | 473444.46 | 5408518.32 | 211.84 |
| CR18-04 | 90 | -49.96 | 35.73 | 473448.21 | 5408523.56 | 204.20 |
| CR18-04 | 100 | -50.15 | 35.84 | 473451.96 | 5408528.77 | 196.53 |
| CR18-04 | 110 | -50.21 | 35.88 | 473455.71 | 5408533.96 | 188.85 |
| CR18-04 | 120 | -50.33 | 36.20 | 473459.47 | 5408539.13 | 181.16 |
| CR18-04 | 130 | -50.44 | 36.40 | 473463.25 | 5408544.27 | 173.45 |
| CR18-04 | 140 | -50.66 | 36.61 | 473467.03 | 5408549.38 | 165.73 |
| CR18-04 | 150 | -50.73 | 36.81 | 473470.82 | 5408554.46 | 157.99 |
| CR18-04 | 160 | -50.82 | 37.06 | 473474.62 | 5408559.51 | 150.25 |
| CR18-04 | 170 | -50.96 | 37.37 | 473478.43 | 5408564.53 | 142.49 |
| CR18-04 | 180 | -51.02 | 37.60 | 473482.26 | 5408569.53 | 134.72 |
| CR18-04 | 190 | -51.07 | 37.74 | 473486.10 | 5408574.51 | 126.94 |
| CR18-04 | 200 | -51.08 | 38.04 | 473489.96 | 5408579.46 | 119.16 |
| CR18-04 | 210 | -51.12 | 38.40 | 473493.85 | 5408584.40 | 111.38 |
| CR18-04 | 220 | -51.20 | 38.67 | 473497.76 | 5408589.30 | 103.59 |
| CR18-04 | 230 | -51.30 | 38.87 | 473501.68 | 5408594.18 | 95.79 |

APPENDIX 3

ANALYTICAL RESULTS ON DRILL CORE

(Selected elements only: for complete results see Appendix 6)

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|----------------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-01 | | | | | | | | | | | | | |
| CR18-01 | 693051 | 36.00 | 37.50 | 1.50 | 12 | < 5 | 11 | 0.014 | 140 | 0.59 | < 0.005 | 0.217 | 0.07 |
| CR18-01 | 693052 | 37.50 | 39.00 | 1.50 | 9 | < 5 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.191 | 0.03 |
| CR18-01 | 693053 | 39.00 | 40.50 | 1.50 | 14 | < 5 | 18 | 0.014 | 140 | 0.59 | < 0.005 | 0.202 | 0.04 |
| CR18-01 | 693054 | 40.50 | 42.00 | 1.50 | 8 | < 5 | 13 | 0.014 | 140 | 0.59 | < 0.005 | 0.202 | 0.03 |
| CR18-01 | 693055 | 42.00 | 43.50 | 1.50 | 4 | 16 | 9 | 0.014 | 140 | 0.60 | < 0.005 | 0.208 | 0.04 |
| CR18-01 | 693056 | 43.50 | 45.00 | 1.50 | 3 | < 5 | < 5 | 0.014 | 140 | 0.59 | < 0.005 | 0.200 | 0.05 |
| CR18-01 | 693057 | 45.00 | 46.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.214 | 0.05 |
| CR18-01 | 693058 | 46.50 | 48.00 | 1.50 | 9 | 32 | 7 | 0.015 | 150 | 0.60 | < 0.005 | 0.214 | 0.04 |
| CR18-01 | 693059 | 48.00 | 49.50 | 1.50 | 32 | < 5 | < 5 | 0.012 | 120 | 0.50 | < 0.005 | 0.172 | 0.03 |
| CR18-01 | 693060 | 49.50 | 51.00 | 1.50 | 5 | < 5 | < 5 | 0.013 | 130 | 0.57 | < 0.005 | 0.181 | 0.04 |
| CR18-01 | 693061 | 51.00 | 52.50 | 1.50 | 3 | < 5 | < 5 | 0.015 | 150 | 0.60 | < 0.005 | 0.206 | 0.04 |
| CR18-01 | 693062 | 52.50 | 54.00 | 1.50 | 4 | < 5 | < 5 | 0.014 | 140 | 0.58 | < 0.005 | 0.201 | 0.03 |
| CR18-01 | 693063 | 54.00 | 55.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.59 | < 0.005 | 0.202 | 0.03 |
| CR18-01 | 693064 | 55.50 | 57.00 | 1.50 | 6 | < 5 | 7 | 0.015 | 150 | 0.58 | < 0.005 | 0.200 | 0.04 |
| CR18-01 | 693065 | 57.00 | 58.50 | 1.50 | 3 | < 5 | < 5 | 0.015 | 150 | 0.57 | < 0.005 | 0.208 | 0.04 |
| CR18-01 | 693066 | 58.50 | 60.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.60 | < 0.005 | 0.206 | 0.03 |
| CR18-01 | 693067 | 60.00 | 61.50 | 1.50 | 3 | < 5 | < 5 | 0.015 | 150 | 0.57 | < 0.005 | 0.206 | 0.03 |
| CR18-01 | 693068 | 61.50 | 63.00 | 1.50 | 13 | 20 | 12 | 0.015 | 150 | 0.53 | < 0.005 | 0.193 | 0.03 |
| CR18-01 | 693069 | 63.00 | 64.50 | 1.50 | 2 | < 5 | 6 | 0.015 | 150 | 0.59 | < 0.005 | 0.207 | 0.03 |
| CR18-01 | 693070 | 64.50 | 66.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.59 | < 0.005 | 0.203 | 0.03 |
| CR18-01 | 693071 | 66.00 | 67.50 | 1.50 | 3 | < 5 | < 5 | 0.008 | 80 | 0.41 | < 0.005 | 0.084 | 0.02 |
| CR18-01 | 693072 | 67.50 | 69.00 | 1.50 | < 2 | < 5 | 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.201 | 0.04 |
| CR18-01 | 693073 | 69.00 | 70.50 | 1.50 | < 2 | 8 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.193 | 0.05 |
| CR18-01 | 693074 | 70.50 | 72.00 | 1.50 | 4 | 20 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.210 | 0.04 |
| CR18-01 | 693075 | 72.00 | 73.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.58 | < 0.005 | 0.199 | 0.03 |
| CR18-01 | 693076 | 73.50 | 75.00 | 1.50 | 9 | < 5 | < 5 | 0.015 | 150 | 0.58 | 0.008 | 0.199 | 0.04 |
| CR18-01 | 693077 | 75.00 | 76.50 | 1.50 | 3 | < 5 | < 5 | 0.015 | 150 | 0.60 | < 0.005 | 0.204 | 0.04 |
| CR18-01 | 693078 | 76.50 | 78.00 | 1.50 | 8 | 5 | < 5 | 0.014 | 140 | 0.59 | < 0.005 | 0.197 | 0.04 |
| CR18-01 | 693079 | 78.00 | 79.50 | 1.50 | < 2 | < 5 | 6 | 0.013 | 130 | 0.60 | < 0.005 | 0.207 | 0.03 |
| CR18-01 | 693080 | 79.50 | 81.00 | 1.50 | 5 | 16 | < 5 | 0.014 | 140 | 0.55 | < 0.005 | 0.190 | 0.04 |
| CR18-01 | 693081 | 81.00 | 82.50 | 1.50 | 3 | 40 | < 5 | 0.014 | 140 | 0.59 | < 0.005 | 0.203 | 0.04 |
| CR18-01 | 693082 | 82.50 | 84.00 | 1.50 | 4 | < 5 | 9 | 0.014 | 140 | 0.60 | < 0.005 | 0.212 | 0.04 |
| CR18-01 | 693083 | 84.00 | 85.50 | 1.50 | 6 | 10 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.206 | 0.05 |
| CR18-01 | 693084 | 85.50 | 87.00 | 1.50 | 32 | 7 | 7 | 0.015 | 150 | 0.54 | < 0.005 | 0.191 | 0.04 |
| CR18-01 | 693085 | 87.00 | 88.50 | 1.50 | 14 | 11 | 7 | 0.015 | 150 | 0.57 | < 0.005 | 0.221 | 0.06 |
| CR18-01 | 693086 | 88.50 | 90.00 | 1.50 | < 2 | 8 | < 5 | 0.014 | 140 | 0.58 | < 0.005 | 0.206 | 0.05 |
| CR18-01 | 693087 | 90.00 | 91.50 | 1.50 | 14 | 21 | 18 | 0.013 | 130 | 0.59 | < 0.005 | 0.219 | 0.05 |
| CR18-01 | 693088 | 91.50 | 93.00 | 1.50 | 6 | 14 | 10 | 0.014 | 140 | 0.60 | < 0.005 | 0.219 | 0.08 |
| CR18-01 | 693089 | 93.00 | 94.50 | 1.50 | < 2 | 12 | 6 | 0.017 | 170 | 0.62 | < 0.005 | 0.229 | 0.05 |
| CR18-01 | 693090 | 94.50 | 96.00 | 1.50 | < 2 | 13 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.209 | 0.04 |
| CR18-01 | 693091 | 96.00 | 97.50 | 1.50 | < 2 | 6 | 12 | 0.014 | 140 | 0.61 | < 0.005 | 0.198 | 0.04 |
| CR18-01 | 693092 | 97.50 | 99.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.204 | 0.03 |
| CR18-01 | 693093 | 99.00 | 101.50 | 2.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.208 | 0.05 |
| CR18-01 | 693094 | 101.50 | 103.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.194 | 0.05 |
| CR18-01 | 693095 | 103.00 | 104.50 | 1.50 | < 2 | 11 | < 5 | 0.014 | 140 | 0.56 | < 0.005 | 0.184 | 0.04 |
| CR18-01 | 693096 | 104.50 | 106.00 | 1.50 | 3 | 18 | 13 | 0.013 | 130 | 0.61 | < 0.005 | 0.211 | 0.04 |
| CR18-01 | 693097 | 106.00 | 107.50 | 1.50 | < 2 | 10 | 6 | 0.014 | 140 | 0.62 | < 0.005 | 0.206 | 0.05 |
| CR18-01 | 693098 | 107.50 | 109.00 | 1.50 | < 2 | 18 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.222 | 0.04 |
| CR18-01 | 693099 | 109.00 | 110.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.223 | 0.05 |
| CR18-01 | 693100 | 110.50 | 112.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.218 | 0.05 |
| CR18-01 | 693101 | 112.00 | 113.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.64 | < 0.005 | 0.225 | 0.05 |
| CR18-01 | 693102 | 113.50 | 115.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.62 | < 0.005 | 0.230 | 0.05 |
| CR18-01 | 693103 | 115.00 | 116.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.212 | 0.04 |
| CR18-01 | 693104 | 116.50 | 118.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.208 | 0.04 |
| CR18-01 | 693105 | 118.00 | 119.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.210 | 0.03 |
| CR18-01 | 693106 | 119.50 | 121.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.61 | < 0.005 | 0.213 | 0.04 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-01 | 693107 | 121.00 | 122.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.216 | 0.04 |
| CR18-01 | 693108 | 122.50 | 124.00 | 1.50 | < 2 | 25 | 15 | 0.012 | 120 | 0.54 | < 0.005 | 0.188 | 0.04 |
| CR18-01 | 693109 | 124.00 | 125.00 | 1.00 | < 2 | 14 | 11 | 0.013 | 130 | 0.58 | < 0.005 | 0.204 | 0.05 |
| CR18-01 | 693110 | 125.00 | 126.00 | 1.00 | < 2 | 10 | 11 | 0.013 | 130 | 0.57 | < 0.005 | 0.200 | 0.04 |
| CR18-01 | 693111 | 126.00 | 127.50 | 1.50 | 3 | 13 | 25 | 0.013 | 130 | 0.57 | < 0.005 | 0.218 | 0.05 |
| CR18-01 | 693112 | 127.50 | 129.00 | 1.50 | < 2 | 10 | 10 | 0.013 | 130 | 0.60 | < 0.005 | 0.201 | 0.05 |
| CR18-01 | 693113 | 129.00 | 130.50 | 1.50 | < 2 | 45 | 27 | 0.013 | 130 | 0.53 | < 0.005 | 0.210 | 0.06 |
| CR18-01 | 693114 | 130.50 | 132.00 | 1.50 | 2 | 64 | 31 | 0.013 | 130 | 0.55 | < 0.005 | 0.225 | 0.06 |
| CR18-01 | 693115 | 132.00 | 133.50 | 1.50 | < 2 | 42 | 22 | 0.015 | 150 | 0.54 | < 0.005 | 0.233 | 0.06 |
| CR18-01 | 693116 | 133.50 | 135.00 | 1.50 | < 2 | 30 | 17 | 0.013 | 130 | 0.52 | < 0.005 | 0.217 | 0.06 |
| CR18-01 | 693117 | 135.00 | 136.50 | 1.50 | < 2 | 47 | 12 | 0.015 | 150 | 0.57 | < 0.005 | 0.225 | 0.07 |
| CR18-01 | 693118 | 136.50 | 138.00 | 1.50 | < 2 | 9 | < 5 | 0.014 | 140 | 0.56 | < 0.005 | 0.206 | 0.05 |
| CR18-01 | 693119 | 138.00 | 139.50 | 1.50 | < 2 | 12 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.211 | 0.06 |
| CR18-01 | 693120 | 139.50 | 141.00 | 1.50 | < 2 | 32 | < 5 | 0.015 | 150 | 0.55 | 0.006 | 0.222 | 0.08 |
| CR18-01 | 693121 | 141.00 | 142.50 | 1.50 | < 2 | 21 | 11 | 0.014 | 140 | 0.58 | < 0.005 | 0.220 | 0.06 |
| CR18-01 | 693122 | 142.50 | 144.00 | 1.50 | 4 | 37 | 20 | 0.015 | 150 | 0.57 | < 0.005 | 0.248 | 0.08 |
| CR18-01 | 693123 | 144.00 | 145.50 | 1.50 | 2 | 38 | 18 | 0.015 | 150 | 0.59 | < 0.005 | 0.242 | 0.07 |
| CR18-01 | 693124 | 145.50 | 147.00 | 1.50 | 6 | 51 | 19 | 0.016 | 160 | 0.60 | 0.014 | 0.298 | 0.08 |
| CR18-01 | 693125 | 147.00 | 148.50 | 1.50 | < 2 | 32 | 11 | 0.015 | 150 | 0.59 | < 0.005 | 0.249 | 0.07 |
| CR18-01 | 693126 | 148.50 | 150.00 | 1.50 | < 2 | 22 | 12 | 0.014 | 140 | 0.57 | < 0.005 | 0.221 | 0.07 |
| CR18-01 | 693127 | 150.00 | 151.50 | 1.50 | 2 | 6 | < 5 | 0.015 | 150 | 0.60 | 0.008 | 0.211 | 0.06 |
| CR18-01 | 693128 | 151.50 | 153.00 | 1.50 | 3 | 9 | 16 | 0.014 | 140 | 0.62 | < 0.005 | 0.210 | 0.06 |
| CR18-01 | 693129 | 153.00 | 154.50 | 1.50 | 8 | 9 | 12 | 0.011 | 110 | 0.48 | < 0.005 | 0.163 | 0.05 |
| CR18-01 | 693130 | 154.50 | 156.00 | 1.50 | 2 | 18 | 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.208 | 0.07 |
| CR18-01 | 693131 | 156.00 | 157.50 | 1.50 | < 2 | 15 | 9 | 0.014 | 140 | 0.59 | < 0.005 | 0.199 | 0.06 |
| CR18-01 | 693132 | 157.50 | 159.00 | 1.50 | < 2 | 68 | 36 | 0.018 | 180 | 0.57 | < 0.005 | 0.284 | 0.09 |
| CR18-01 | 693133 | 159.00 | 160.50 | 1.50 | 3 | 50 | 21 | 0.012 | 120 | 0.62 | < 0.005 | 0.214 | 0.06 |
| CR18-01 | 693134 | 160.50 | 162.00 | 1.50 | 6 | 27 | 14 | 0.014 | 140 | 0.68 | < 0.005 | 0.214 | 0.08 |
| CR18-01 | 693135 | 162.00 | 163.50 | 1.50 | 2 | 46 | 12 | 0.020 | 200 | 0.67 | 0.019 | 0.272 | 0.13 |
| CR18-01 | 693136 | 163.50 | 165.00 | 1.50 | 14 | 35 | 9 | 0.016 | 160 | 0.64 | 0.007 | 0.264 | 0.11 |
| CR18-01 | 693137 | 165.00 | 166.50 | 1.50 | 9 | 87 | 29 | 0.024 | 240 | 0.73 | 0.034 | 0.669 | 0.28 |
| CR18-01 | 693138 | 166.50 | 168.00 | 1.50 | 16 | 86 | 29 | 0.025 | 250 | 0.83 | 0.025 | 0.523 | 0.21 |
| CR18-01 | 693139 | 168.00 | 169.50 | 1.50 | 20 | 28 | 18 | 0.015 | 150 | 0.75 | 0.007 | 0.203 | 0.08 |
| CR18-01 | 693140 | 169.50 | 171.00 | 1.50 | 15 | 27 | 16 | 0.015 | 150 | 0.77 | 0.005 | 0.170 | 0.08 |
| CR18-01 | 693141 | 171.00 | 172.50 | 1.50 | 6 | 16 | 10 | 0.014 | 140 | 0.76 | < 0.005 | 0.200 | 0.11 |
| CR18-01 | 693142 | 172.50 | 174.00 | 1.50 | 3 | < 5 | < 5 | 0.013 | 130 | 0.72 | < 0.005 | 0.224 | 0.05 |
| CR18-01 | 693143 | 174.00 | 175.50 | 1.50 | 6 | < 5 | < 5 | 0.014 | 140 | 0.71 | < 0.005 | 0.216 | 0.06 |
| CR18-01 | 693144 | 175.50 | 177.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.73 | < 0.005 | 0.221 | 0.05 |
| CR18-01 | 693145 | 177.00 | 178.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.225 | 0.04 |
| CR18-01 | 693146 | 178.50 | 180.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.60 | < 0.005 | 0.228 | 0.05 |
| CR18-01 | 693147 | 180.00 | 181.50 | 1.50 | < 2 | < 5 | 9 | 0.015 | 150 | 0.63 | < 0.005 | 0.230 | 0.02 |
| CR18-01 | 693148 | 181.50 | 183.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.73 | < 0.005 | 0.233 | 0.04 |
| CR18-01 | 693149 | 183.00 | 184.50 | 1.50 | < 2 | < 5 | < 5 | 0.017 | 170 | 0.80 | < 0.005 | 0.259 | 0.05 |
| CR18-01 | 693150 | 184.50 | 186.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.216 | 0.02 |
| CR18-01 | 693151 | 186.00 | 187.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.74 | < 0.005 | 0.245 | 0.05 |
| CR18-01 | 693152 | 187.50 | 189.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.225 | 0.04 |
| CR18-01 | 693153 | 189.00 | 190.50 | 1.50 | 5 | < 5 | < 5 | 0.014 | 140 | 0.73 | < 0.005 | 0.221 | 0.05 |
| CR18-01 | 693154 | 190.50 | 192.00 | 1.50 | < 2 | < 5 | 9 | 0.014 | 140 | 0.73 | < 0.005 | 0.231 | 0.04 |
| CR18-01 | 693155 | 192.00 | 193.50 | 1.50 | 2 | < 5 | 19 | 0.013 | 130 | 0.76 | < 0.005 | 0.243 | 0.03 |
| CR18-01 | 693156 | 193.50 | 195.00 | 1.50 | < 2 | < 5 | 48 | 0.012 | 120 | 0.76 | < 0.005 | 0.230 | 0.02 |
| CR18-01 | 693157 | 195.00 | 196.50 | 1.50 | < 2 | < 5 | 26 | 0.015 | 150 | 0.76 | < 0.005 | 0.233 | 0.02 |
| CR18-01 | 693158 | 196.50 | 198.00 | 1.50 | 4 | 24 | 50 | 0.015 | 150 | 0.81 | < 0.005 | 0.233 | 0.03 |
| CR18-01 | 693159 | 198.00 | 199.50 | 1.50 | < 2 | < 5 | 16 | 0.014 | 140 | 0.66 | < 0.005 | 0.233 | 0.02 |
| CR18-01 | 693160 | 199.50 | 201.00 | 1.50 | < 2 | < 5 | 8 | 0.016 | 160 | 0.66 | < 0.005 | 0.252 | 0.03 |
| CR18-01 | 693161 | 201.00 | 202.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.232 | 0.02 |
| CR18-01 | 693162 | 202.50 | 204.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.230 | 0.02 |
| CR18-01 | 693163 | 204.00 | 205.50 | 1.50 | < 2 | < 5 | 6 | 0.014 | 140 | 0.62 | < 0.005 | 0.223 | < 0.01 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-01 | 693164 | 205.50 | 207.00 | 1.50 | < 2 | < 5 | 9 | 0.014 | 140 | 0.61 | < 0.005 | 0.228 | < 0.01 |
| CR18-01 | 693165 | 207.00 | 208.50 | 1.50 | < 2 | 9 | 27 | 0.014 | 140 | 0.79 | < 0.005 | 0.227 | < 0.01 |
| CR18-01 | 693166 | 208.50 | 210.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.223 | 0.02 |
| CR18-01 | 693167 | 210.00 | 211.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.220 | 0.01 |
| CR18-01 | 693168 | 211.50 | 213.00 | 1.50 | < 2 | < 5 | 14 | 0.014 | 140 | 0.62 | < 0.005 | 0.226 | 0.04 |
| CR18-01 | 693169 | 213.00 | 214.50 | 1.50 | < 2 | 6 | 13 | 0.013 | 130 | 0.58 | < 0.005 | 0.212 | 0.01 |
| CR18-01 | 693170 | 214.50 | 216.00 | 1.50 | < 2 | < 5 | < 5 | 0.016 | 160 | 0.61 | < 0.005 | 0.221 | 0.03 |
| CR18-01 | 693171 | 216.00 | 217.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.58 | < 0.005 | 0.214 | 0.05 |
| CR18-01 | 693172 | 217.50 | 219.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.78 | < 0.005 | 0.226 | 0.02 |
| CR18-01 | 693173 | 219.00 | 220.50 | 1.50 | < 2 | 13 | 26 | 0.013 | 130 | 0.74 | < 0.005 | 0.210 | 0.01 |
| CR18-01 | 693174 | 220.50 | 222.00 | 1.50 | < 2 | < 5 | 14 | 0.014 | 140 | 0.74 | < 0.005 | 0.207 | < 0.01 |
| CR18-01 | 693175 | 222.00 | 223.50 | 1.50 | < 2 | 8 | 18 | 0.014 | 140 | 0.75 | < 0.005 | 0.222 | 0.01 |
| CR18-01 | 693176 | 223.50 | 225.00 | 1.50 | < 2 | 6 | 23 | 0.014 | 140 | 0.74 | < 0.005 | 0.218 | 0.02 |
| CR18-01 | 693177 | 225.00 | 226.50 | 1.50 | < 2 | 6 | 22 | 0.014 | 140 | 0.79 | < 0.005 | 0.228 | 0.05 |
| CR18-01 | 693178 | 226.50 | 228.00 | 1.50 | < 2 | 10 | 69 | 0.013 | 130 | 0.75 | < 0.005 | 0.221 | 0.02 |
| CR18-01 | 693179 | 228.00 | 229.50 | 1.50 | < 2 | 15 | 54 | 0.014 | 140 | 0.70 | < 0.005 | 0.220 | 0.03 |
| CR18-01 | 693180 | 229.50 | 231.00 | 1.50 | < 2 | 9 | 46 | 0.012 | 120 | 0.73 | < 0.005 | 0.225 | 0.02 |
| CR18-01 | 693181 | 231.00 | 232.50 | 1.50 | < 2 | 11 | 38 | 0.013 | 130 | 0.67 | < 0.005 | 0.228 | 0.01 |
| CR18-01 | 693182 | 232.50 | 234.00 | 1.50 | < 2 | 22 | 79 | 0.013 | 130 | 0.72 | < 0.005 | 0.241 | 0.02 |
| CR18-01 | 693183 | 234.00 | 235.50 | 1.50 | 3 | 27 | 61 | 0.012 | 120 | 0.64 | < 0.005 | 0.271 | 0.02 |
| CR18-01 | 693184 | 235.50 | 237.00 | 1.50 | < 2 | 46 | 89 | 0.014 | 140 | 0.69 | < 0.005 | 0.271 | 0.03 |
| CR18-01 | 693185 | 237.00 | 238.50 | 1.50 | < 2 | 112 | 92 | 0.012 | 120 | 0.72 | < 0.005 | 0.277 | 0.02 |
| CR18-01 | 693186 | 238.50 | 240.00 | 1.50 | 5 | 477 | 146 | 0.012 | 120 | 0.72 | < 0.005 | 0.297 | 0.02 |
| CR18-01 | 693187 | 240.00 | 241.50 | 1.50 | 3 | 332 | 37 | 0.012 | 120 | 0.69 | < 0.005 | 0.353 | 0.03 |
| CR18-01 | 693188 | 241.50 | 243.00 | 1.50 | 3 | 347 | 38 | 0.012 | 120 | 0.59 | < 0.005 | 0.388 | 0.04 |
| CR18-01 | 693189 | 243.00 | 244.50 | 1.50 | 2 | 64 | 27 | 0.017 | 170 | 0.58 | < 0.005 | 0.487 | 0.15 |
| CR18-01 | 693190 | 244.50 | 246.00 | 1.50 | < 2 | 21 | 15 | 0.015 | 150 | 0.66 | < 0.005 | 0.410 | 0.11 |
| CR18-01 | 693191 | 246.00 | 247.50 | 1.50 | < 2 | 14 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.336 | 0.15 |
| CR18-01 | 693192 | 247.50 | 249.00 | 1.50 | < 2 | 7 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.336 | 0.09 |
| CR18-01 | 693193 | 249.00 | 250.50 | 1.50 | < 2 | 22 | 14 | 0.016 | 160 | 0.55 | 0.022 | 0.375 | 0.16 |
| CR18-01 | 693194 | 250.50 | 252.00 | 1.50 | < 2 | 18 | 13 | 0.014 | 140 | 0.58 | < 0.005 | 0.354 | 0.10 |
| CR18-01 | 693195 | 252.00 | 253.50 | 1.50 | < 2 | 13 | < 5 | 0.014 | 140 | 0.53 | < 0.005 | 0.354 | 0.14 |
| CR18-01 | 693196 | 253.50 | 255.00 | 1.50 | 4 | 29 | 18 | 0.013 | 130 | 0.56 | 0.007 | 0.316 | 0.07 |
| CR18-01 | 693197 | 255.00 | 256.50 | 1.50 | < 2 | 20 | 11 | 0.015 | 150 | 0.49 | < 0.005 | 0.356 | 0.11 |
| CR18-01 | 693198 | 256.50 | 258.00 | 1.50 | < 2 | 21 | 16 | 0.014 | 140 | 0.44 | 0.028 | 0.335 | 0.09 |
| CR18-01 | 693199 | 258.00 | 259.50 | 1.50 | < 2 | 18 | 7 | 0.015 | 150 | 0.45 | 0.008 | 0.352 | 0.11 |
| CR18-01 | 693200 | 259.50 | 261.00 | 1.50 | < 2 | 8 | < 5 | 0.013 | 130 | 0.51 | < 0.005 | 0.302 | 0.08 |
| CR18-01 | 693201 | 261.00 | 262.50 | 1.50 | < 2 | 14 | < 5 | 0.015 | 150 | 0.50 | 0.030 | 0.368 | 0.19 |
| CR18-01 | 693202 | 262.50 | 264.00 | 1.50 | < 2 | 19 | 12 | 0.013 | 130 | 0.45 | 0.056 | 0.308 | 0.13 |
| CR18-01 | 693203 | 264.00 | 265.50 | 1.50 | < 2 | 27 | 23 | 0.015 | 150 | 0.47 | < 0.005 | 0.354 | 0.15 |
| CR18-01 | 693204 | 265.50 | 267.00 | 1.50 | < 2 | 17 | 5 | 0.015 | 150 | 0.44 | 0.040 | 0.369 | 0.17 |
| CR18-01 | 693205 | 267.00 | 268.50 | 1.50 | < 2 | 21 | 9 | 0.013 | 130 | 0.34 | 0.058 | 0.345 | 0.15 |
| CR18-01 | 693206 | 268.50 | 270.00 | 1.50 | 2 | 24 | 15 | 0.014 | 140 | 0.34 | < 0.005 | 0.346 | 0.11 |
| CR18-01 | 693207 | 270.00 | 271.50 | 1.50 | < 2 | 20 | < 5 | 0.013 | 130 | 0.29 | < 0.005 | 0.324 | 0.12 |
| CR18-01 | 693208 | 271.50 | 273.00 | 1.50 | < 2 | 18 | < 5 | 0.012 | 120 | 0.29 | < 0.005 | 0.301 | 0.14 |
| CR18-01 | 693209 | 273.00 | 274.50 | 1.50 | < 2 | 18 | 7 | 0.016 | 160 | 0.27 | < 0.005 | 0.392 | 0.14 |
| CR18-01 | 693210 | 274.50 | 276.00 | 1.50 | < 2 | 39 | 23 | 0.015 | 150 | 0.28 | < 0.005 | 0.423 | 0.18 |
| CR18-01 | 693211 | 276.00 | 277.50 | 1.50 | < 2 | 45 | 23 | 0.014 | 140 | 0.24 | < 0.005 | 0.425 | 0.21 |
| CR18-01 | 693212 | 277.50 | 279.00 | 1.50 | < 2 | 37 | 21 | 0.015 | 150 | 0.24 | < 0.005 | 0.477 | 0.22 |
| CR18-01 | 693213 | 279.00 | 280.50 | 1.50 | < 2 | 45 | 28 | 0.016 | 160 | 0.25 | 0.006 | 0.566 | 0.29 |
| CR18-01 | 693214 | 280.50 | 282.00 | 1.50 | < 2 | 34 | 12 | 0.017 | 170 | 0.25 | 0.013 | 0.518 | 0.25 |
| CR18-01 | 693215 | 282.00 | 283.50 | 1.50 | < 2 | 36 | 21 | 0.017 | 170 | 0.23 | 0.010 | 0.576 | 0.29 |
| CR18-01 | 693216 | 283.50 | 285.00 | 1.50 | < 2 | 18 | 14 | 0.013 | 130 | 0.23 | < 0.005 | 0.305 | 0.12 |
| CR18-01 | 693217 | 285.00 | 286.50 | 1.50 | < 2 | 21 | 11 | 0.012 | 120 | 0.23 | < 0.005 | 0.340 | 0.15 |
| CR18-01 | 693218 | 286.50 | 288.00 | 1.50 | < 2 | 20 | 11 | 0.015 | 150 | 0.29 | < 0.005 | 0.345 | 0.18 |
| CR18-01 | 693219 | 288.00 | 289.50 | 1.50 | 3 | 27 | 21 | 0.013 | 130 | 0.44 | < 0.005 | 0.322 | 0.16 |
| CR18-01 | 693220 | 289.50 | 291.00 | 1.50 | < 2 | 23 | 17 | 0.012 | 120 | 0.45 | < 0.005 | 0.299 | 0.14 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-01 | 693221 | 291.00 | 292.50 | 1.50 | < 2 | 14 | 9 | 0.010 | 100 | 0.43 | < 0.005 | 0.225 | 0.12 |
| CR18-01 | 693222 | 292.50 | 294.00 | 1.50 | < 2 | 16 | 17 | 0.011 | 110 | 0.45 | < 0.005 | 0.258 | 0.12 |
| CR18-01 | 693223 | 294.00 | 295.50 | 1.50 | < 2 | 17 | 17 | 0.011 | 110 | 0.49 | < 0.005 | 0.253 | 0.09 |
| CR18-01 | 693224 | 295.50 | 297.00 | 1.50 | < 2 | 17 | 9 | 0.010 | 100 | 0.37 | < 0.005 | 0.237 | 0.09 |
| CR18-01 | 693225 | 297.00 | 298.50 | 1.50 | 2 | 22 | 13 | 0.012 | 120 | 0.44 | < 0.005 | 0.281 | 0.11 |
| CR18-01 | 693226 | 298.50 | 300.00 | 1.50 | < 2 | 17 | 13 | 0.010 | 100 | 0.42 | < 0.005 | 0.245 | 0.07 |
| CR18-01 | 693227 | 300.00 | 301.50 | 1.50 | < 2 | 13 | < 5 | 0.011 | 110 | 0.45 | < 0.005 | 0.274 | 0.09 |
| CR18-01 | 693228 | 301.50 | 303.00 | 1.50 | < 2 | 10 | < 5 | 0.010 | 100 | 0.42 | 0.005 | 0.243 | 0.09 |
| CR18-01 | 693229 | 303.00 | 304.50 | 1.50 | < 2 | 15 | < 5 | 0.010 | 100 | 0.33 | < 0.005 | 0.228 | 0.07 |
| CR18-01 | 693230 | 304.50 | 306.00 | 1.50 | < 2 | 7 | 14 | 0.009 | 90 | 0.28 | < 0.005 | 0.199 | 0.08 |
| CR18-01 | 693231 | 306.00 | 307.50 | 1.50 | < 2 | 27 | 22 | 0.011 | 110 | 0.31 | < 0.005 | 0.236 | 0.08 |
| CR18-01 | 693232 | 307.50 | 309.00 | 1.50 | < 2 | 20 | 16 | 0.011 | 110 | 0.28 | < 0.005 | 0.257 | 0.11 |
| CR18-01 | 693233 | 309.00 | 310.50 | 1.50 | < 2 | 9 | < 5 | 0.010 | 100 | 0.29 | < 0.005 | 0.235 | 0.06 |
| CR18-01 | 693234 | 310.50 | 312.00 | 1.50 | < 2 | 12 | 6 | 0.010 | 100 | 0.28 | < 0.005 | 0.252 | 0.06 |
| CR18-01 | 693235 | 312.00 | 313.50 | 1.50 | < 2 | 16 | 15 | 0.010 | 100 | 0.30 | < 0.005 | 0.253 | 0.06 |
| CR18-01 | 693236 | 313.50 | 315.00 | 1.50 | < 2 | 13 | 14 | 0.010 | 100 | 0.29 | < 0.005 | 0.242 | 0.07 |
| CR18-01 | 693237 | 315.00 | 316.50 | 1.50 | < 2 | 11 | 13 | 0.010 | 100 | 0.30 | < 0.005 | 0.251 | 0.06 |
| CR18-01 | 693238 | 316.50 | 318.00 | 1.50 | < 2 | < 5 | 9 | 0.011 | 110 | 0.26 | < 0.005 | 0.270 | 0.06 |
| CR18-01 | 693239 | 318.00 | 319.50 | 1.50 | < 2 | 14 | 9 | 0.010 | 100 | 0.30 | < 0.005 | 0.256 | 0.05 |
| CR18-01 | 693240 | 319.50 | 321.00 | 1.50 | < 2 | 16 | 10 | 0.011 | 110 | 0.31 | < 0.005 | 0.266 | 0.05 |
| CR18-01 | 693241 | 321.00 | 322.50 | 1.50 | < 2 | 9 | < 5 | 0.011 | 110 | 0.29 | < 0.005 | 0.257 | 0.05 |
| CR18-01 | 693242 | 322.50 | 324.00 | 1.50 | < 2 | 10 | < 5 | 0.011 | 110 | 0.32 | < 0.005 | 0.255 | 0.06 |
| CR18-01 | 693243 | 324.00 | 325.50 | 1.50 | < 2 | 13 | 5 | 0.011 | 110 | 0.30 | < 0.005 | 0.256 | 0.08 |
| CR18-01 | 693244 | 325.50 | 327.00 | 1.50 | < 2 | 5 | < 5 | 0.011 | 110 | 0.34 | < 0.005 | 0.243 | 0.06 |
| CR18-01 | 693245 | 327.00 | 328.50 | 1.50 | < 2 | 11 | 10 | 0.011 | 110 | 0.30 | < 0.005 | 0.240 | 0.06 |
| CR18-01 | 693246 | 328.50 | 330.00 | 1.50 | < 2 | 9 | 7 | 0.011 | 110 | 0.36 | < 0.005 | 0.246 | 0.06 |
| CR18-01 | 693247 | 330.00 | 331.50 | 1.50 | < 2 | 10 | < 5 | 0.011 | 110 | 0.37 | < 0.005 | 0.238 | 0.05 |
| CR18-01 | 693248 | 331.50 | 333.00 | 1.50 | < 2 | 9 | < 5 | 0.011 | 110 | 0.38 | < 0.005 | 0.248 | 0.07 |
| CR18-01 | 693249 | 333.00 | 334.50 | 1.50 | < 2 | 15 | 11 | 0.011 | 110 | 0.43 | < 0.005 | 0.248 | 0.06 |
| CR18-01 | 693250 | 334.50 | 336.00 | 1.50 | < 2 | 20 | 5 | 0.011 | 110 | 0.46 | < 0.005 | 0.262 | 0.07 |
| CR18-01 | 693251 | 336.00 | 337.50 | 1.50 | < 2 | 15 | 5 | 0.009 | 90 | 0.47 | < 0.005 | 0.245 | 0.07 |
| CR18-01 | 693252 | 337.50 | 339.00 | 1.50 | < 2 | 14 | < 5 | 0.009 | 90 | 0.47 | < 0.005 | 0.242 | 0.05 |
| CR18-01 | 693253 | 339.00 | 340.50 | 1.50 | < 2 | 18 | < 5 | 0.011 | 110 | 0.56 | < 0.005 | 0.321 | 0.09 |
| CR18-01 | 693254 | 340.50 | 342.00 | 1.50 | < 2 | 15 | 7 | 0.011 | 110 | 0.55 | < 0.005 | 0.288 | 0.07 |
| CR18-01 | 693255 | 342.00 | 343.50 | 1.50 | < 2 | < 5 | 9 | 0.011 | 110 | 0.62 | < 0.005 | 0.286 | 0.06 |
| CR18-01 | 693256 | 343.50 | 345.00 | 1.50 | < 2 | 12 | 8 | 0.011 | 110 | 0.74 | < 0.005 | 0.286 | 0.07 |
| CR18-01 | 693257 | 345.00 | 346.50 | 1.50 | < 2 | 14 | 5 | 0.010 | 100 | 0.63 | < 0.005 | 0.281 | 0.06 |
| CR18-01 | 693258 | 346.50 | 348.00 | 1.50 | < 2 | 8 | 5 | 0.011 | 110 | 0.67 | < 0.005 | 0.293 | 0.04 |
| CR18-01 | 693259 | 348.00 | 349.50 | 1.50 | < 2 | 13 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.292 | 0.04 |
| CR18-01 | 693260 | 349.50 | 351.00 | 1.50 | < 2 | 19 | 5 | 0.013 | 130 | 0.68 | < 0.005 | 0.336 | 0.07 |
| CR18-01 | 693261 | 351.00 | 352.50 | 1.50 | 3 | 12 | < 5 | 0.011 | 110 | 0.68 | < 0.005 | 0.301 | 0.06 |
| CR18-01 | 693262 | 352.50 | 354.00 | 1.50 | < 2 | 11 | 9 | 0.011 | 110 | 0.70 | < 0.005 | 0.294 | 0.04 |
| CR18-01 | 693263 | 354.00 | 355.50 | 1.50 | < 2 | 14 | < 5 | 0.012 | 120 | 0.69 | < 0.005 | 0.314 | 0.06 |
| CR18-01 | 693264 | 355.50 | 357.00 | 1.50 | < 2 | 23 | 7 | 0.012 | 120 | 0.67 | < 0.005 | 0.305 | 0.04 |
| CR18-01 | 693265 | 357.00 | 358.50 | 1.50 | < 2 | 13 | 15 | 0.011 | 110 | 0.64 | < 0.005 | 0.284 | 0.05 |
| CR18-01 | 693266 | 358.50 | 360.00 | 1.50 | < 2 | 11 | 9 | 0.012 | 120 | 0.67 | < 0.005 | 0.291 | 0.03 |
| CR18-01 | 693267 | 360.00 | 361.50 | 1.50 | < 2 | 22 | < 5 | 0.011 | 110 | 0.66 | < 0.005 | 0.302 | 0.04 |
| CR18-01 | 693268 | 361.50 | 363.00 | 1.50 | 2 | 15 | 10 | 0.011 | 110 | 0.65 | < 0.005 | 0.302 | 0.05 |
| CR18-01 | 693269 | 363.00 | 364.50 | 1.50 | < 2 | 16 | 10 | 0.012 | 120 | 0.68 | < 0.005 | 0.307 | 0.05 |
| CR18-01 | 693270 | 364.50 | 366.00 | 1.50 | < 2 | 12 | < 5 | 0.012 | 120 | 0.67 | < 0.005 | 0.311 | 0.05 |
| CR18-01 | 693271 | 366.00 | 367.50 | 1.50 | < 2 | 17 | 7 | 0.011 | 110 | 0.64 | < 0.005 | 0.291 | 0.04 |
| CR18-01 | 693272 | 367.50 | 369.00 | 1.50 | < 2 | 14 | 7 | 0.011 | 110 | 0.65 | < 0.005 | 0.301 | 0.03 |
| CR18-01 | 693273 | 369.00 | 370.50 | 1.50 | < 2 | 13 | 7 | 0.011 | 110 | 0.66 | < 0.005 | 0.306 | 0.04 |
| CR18-01 | 693274 | 370.50 | 372.00 | 1.50 | < 2 | 18 | 8 | 0.011 | 110 | 0.67 | < 0.005 | 0.301 | 0.04 |
| CR18-01 | 693275 | 372.00 | 373.50 | 1.50 | < 2 | 21 | 14 | 0.012 | 120 | 0.65 | < 0.005 | 0.300 | 0.04 |
| CR18-01 | 693276 | 373.50 | 375.00 | 1.50 | < 2 | 21 | 8 | 0.012 | 120 | 0.65 | < 0.005 | 0.312 | 0.04 |
| CR18-01 | 693277 | 375.00 | 376.50 | 1.50 | < 2 | 19 | 10 | 0.011 | 110 | 0.65 | < 0.005 | 0.309 | 0.02 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|---------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-01 | 693278 | 376.50 | 378.00 | 1.50 | < 2 | 19 | 14 | 0.011 | 110 | 0.65 | < 0.005 | 0.299 | 0.01 |
| CR18-01 | 693279 | 378.00 | 379.50 | 1.50 | < 2 | 12 | 10 | 0.011 | 110 | 0.64 | < 0.005 | 0.280 | 0.04 |
| CR18-01 | 693280 | 379.50 | 381.00 | 1.50 | < 2 | 9 | 6 | 0.011 | 110 | 0.70 | < 0.005 | 0.298 | 0.02 |
| CR18-01 | 693281 | 381.00 | 382.50 | 1.50 | < 2 | 26 | 10 | 0.011 | 110 | 0.68 | < 0.005 | 0.303 | 0.04 |
| CR18-01 | 693282 | 382.50 | 384.00 | 1.50 | < 2 | 27 | 5 | 0.012 | 120 | 0.71 | < 0.005 | 0.313 | 0.04 |
| CR18-01 | 693283 | 384.00 | 385.50 | 1.50 | < 2 | 23 | 9 | 0.011 | 110 | 0.67 | < 0.005 | 0.312 | 0.05 |
| CR18-01 | 693284 | 385.50 | 387.00 | 1.50 | < 2 | 30 | 11 | 0.011 | 110 | 0.69 | < 0.005 | 0.311 | 0.02 |
| CR18-01 | 693285 | 387.00 | 388.50 | 1.50 | < 2 | 15 | 6 | 0.010 | 100 | 0.67 | < 0.005 | 0.295 | 0.04 |
| CR18-01 | 693286 | 388.50 | 390.00 | 1.50 | < 2 | 26 | 7 | 0.011 | 110 | 0.70 | < 0.005 | 0.301 | 0.04 |
| CR18-01 | 693287 | 390.00 | 391.50 | 1.50 | < 2 | 33 | 16 | 0.011 | 110 | 0.65 | < 0.005 | 0.336 | 0.04 |
| CR18-01 | 693288 | 391.50 | 393.00 | 1.50 | < 2 | 18 | 13 | 0.011 | 110 | 0.72 | < 0.005 | 0.317 | 0.02 |
| CR18-01 | 693289 | 393.00 | 394.50 | 1.50 | < 2 | 14 | 7 | 0.011 | 110 | 0.71 | < 0.005 | 0.299 | 0.07 |
| CR18-01 | 693290 | 394.50 | 396.00 | 1.50 | < 2 | 19 | 9 | 0.011 | 110 | 0.69 | < 0.005 | 0.296 | 0.03 |
| CR18-01 | 693291 | 396.00 | 397.50 | 1.50 | < 2 | 11 | 9 | 0.011 | 110 | 0.70 | < 0.005 | 0.288 | 0.03 |
| CR18-01 | 693292 | 397.50 | 399.00 | 1.50 | < 2 | 31 | 15 | 0.011 | 110 | 0.70 | < 0.005 | 0.309 | 0.03 |
| CR18-01 | 693293 | 399.00 | 400.50 | 1.50 | < 2 | 9 | 10 | 0.011 | 110 | 0.64 | < 0.005 | 0.289 | 0.03 |
| CR18-01 | 693294 | 400.50 | 402.00 | 1.50 | < 2 | 12 | < 5 | 0.010 | 100 | 0.66 | < 0.005 | 0.260 | 0.04 |
| CR18-01 | 693295 | 402.00 | 403.50 | 1.50 | < 2 | 20 | 8 | 0.010 | 100 | 0.65 | < 0.005 | 0.271 | 0.04 |
| CR18-01 | 693296 | 403.50 | 405.00 | 1.50 | < 2 | 15 | < 5 | 0.011 | 110 | 0.72 | < 0.005 | 0.287 | 0.01 |
| CR18-01 | 693297 | 405.00 | 406.50 | 1.50 | < 2 | 19 | 14 | 0.011 | 110 | 0.73 | < 0.005 | 0.281 | 0.02 |
| CR18-01 | 693298 | 406.50 | 408.00 | 1.50 | < 2 | 6 | 8 | 0.011 | 110 | 0.68 | < 0.005 | 0.279 | 0.03 |
| CR18-01 | 693299 | 408.00 | 409.50 | 1.50 | < 2 | 10 | 7 | 0.011 | 110 | 0.69 | < 0.005 | 0.287 | 0.02 |
| CR18-01 | 693300 | 409.50 | 411.00 | 1.50 | < 2 | 14 | 8 | 0.011 | 110 | 0.72 | < 0.005 | 0.292 | 0.02 |
| CR18-01 | 693301 | 411.00 | 412.50 | 1.50 | < 2 | 28 | 12 | 0.011 | 110 | 0.78 | < 0.005 | 0.292 | 0.07 |
| CR18-01 | 693302 | 412.50 | 414.00 | 1.50 | < 2 | 41 | 5 | 0.012 | 120 | 0.80 | < 0.005 | 0.321 | 0.02 |
| CR18-01 | 693303 | 414.00 | 415.50 | 1.50 | < 2 | 13 | 10 | 0.011 | 110 | 0.79 | < 0.005 | 0.299 | 0.03 |
| CR18-01 | 693304 | 415.50 | 417.00 | 1.50 | < 2 | 28 | 7 | 0.011 | 110 | 0.79 | < 0.005 | 0.319 | 0.06 |
| CR18-01 | 693305 | 417.00 | 418.50 | 1.50 | < 2 | 10 | 7 | 0.012 | 120 | 0.80 | < 0.005 | 0.302 | 0.05 |
| CR18-01 | 693306 | 418.50 | 420.00 | 1.50 | < 2 | 23 | 21 | 0.012 | 120 | 0.76 | < 0.005 | 0.305 | 0.03 |
| CR18-01 | 693307 | 420.00 | 421.50 | 1.50 | < 2 | 7 | 10 | 0.012 | 120 | 0.79 | < 0.005 | 0.317 | 0.04 |
| CR18-01 | 693308 | 421.50 | 423.00 | 1.50 | < 2 | 6 | < 5 | 0.012 | 120 | 0.78 | < 0.005 | 0.291 | 0.02 |
| CR18-01 | 693309 | 423.00 | 424.50 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.81 | < 0.005 | 0.317 | 0.03 |
| CR18-01 | 693310 | 424.50 | 426.00 | 1.50 | < 2 | < 5 | 13 | 0.012 | 120 | 0.82 | < 0.005 | 0.317 | 0.03 |
| CR18-01 | 693311 | 426.00 | 427.50 | 1.50 | < 2 | < 5 | 13 | 0.012 | 120 | 0.80 | < 0.005 | 0.298 | 0.02 |
| CR18-01 | 693312 | 427.50 | 429.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.83 | < 0.005 | 0.307 | 0.02 |
| CR18-01 | 693313 | 429.00 | 430.50 | 1.50 | < 2 | 13 | 10 | 0.011 | 110 | 0.79 | < 0.005 | 0.301 | 0.02 |
| CR18-01 | 693314 | 430.50 | 432.00 | 1.50 | < 2 | < 5 | 25 | 0.012 | 120 | 0.73 | < 0.005 | 0.300 | 0.06 |
| CR18-01 | 693315 | 432.00 | 433.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.84 | < 0.005 | 0.311 | 0.03 |
| CR18-01 | 693316 | 433.50 | 435.00 | 1.50 | < 2 | < 5 | 6 | 0.013 | 130 | 0.79 | < 0.005 | 0.299 | 0.03 |
| CR18-01 | 693317 | 435.00 | 436.50 | 1.50 | < 2 | < 5 | 18 | 0.008 | 80 | 0.33 | < 0.005 | 0.118 | 0.01 |
| CR18-01 | 693318 | 436.50 | 438.00 | 1.50 | < 2 | 6 | 13 | 0.006 | 60 | 0.06 | < 0.005 | 0.022 | < 0.01 |
| CR18-01 | 693319 | 438.00 | 439.50 | 1.50 | < 2 | < 5 | 12 | 0.011 | 110 | 0.71 | < 0.005 | 0.261 | 0.03 |
| CR18-01 | 693320 | 439.50 | 441.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.83 | < 0.005 | 0.303 | 0.06 |
| CR18-01 | 693321 | 441.00 | 442.50 | 1.50 | < 2 | < 5 | 8 | 0.013 | 130 | 0.88 | < 0.005 | 0.320 | 0.08 |
| CR18-01 | 693322 | 442.50 | 444.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.93 | < 0.005 | 0.292 | 0.05 |
| CR18-01 | 693323 | 444.00 | 445.50 | 1.50 | < 2 | < 5 | 13 | 0.009 | 90 | 0.60 | < 0.005 | 0.201 | 0.04 |
| CR18-01 | 693324 | 445.50 | 447.00 | 1.50 | < 2 | < 5 | 14 | 0.012 | 120 | 0.84 | < 0.005 | 0.293 | 0.06 |
| CR18-01 | 693325 | 447.00 | 448.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.81 | < 0.005 | 0.274 | 0.08 |
| CR18-01 | 693326 | 448.50 | 450.00 | 1.50 | < 2 | 8 | 9 | 0.012 | 120 | 0.94 | < 0.005 | 0.298 | 0.04 |
| CR18-01 | 693327 | 450.00 | 451.50 | 1.50 | < 2 | 10 | 10 | 0.011 | 110 | 0.87 | 0.006 | 0.292 | 0.05 |
| CR18-01 | 693328 | 451.50 | 453.00 | 1.50 | < 2 | 6 | 9 | 0.011 | 110 | 0.87 | < 0.005 | 0.304 | 0.07 |
| CR18-01 | 693329 | 453.00 | 454.50 | 1.50 | < 2 | 15 | 18 | 0.012 | 120 | 0.96 | < 0.005 | 0.318 | 0.03 |
| CR18-01 | 693330 | 454.50 | 456.00 | 1.50 | < 2 | 5 | 9 | 0.012 | 120 | 0.86 | < 0.005 | 0.291 | 0.04 |
| CR18-01 | 693331 | 456.00 | 457.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.81 | < 0.005 | 0.293 | 0.02 |
| CR18-01 | 693332 | 457.50 | 459.00 | 1.50 | < 2 | 6 | 15 | 0.011 | 110 | 0.78 | < 0.005 | 0.281 | 0.04 |
| CR18-01 | 693333 | 459.00 | 460.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.84 | < 0.005 | 0.302 | 0.01 |
| CR18-01 | 693334 | 460.50 | 462.00 | 1.50 | 5 | < 5 | 7 | 0.013 | 130 | 0.82 | < 0.005 | 0.306 | 0.04 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-01 | 693335 | 462.00 | 463.50 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.85 | < 0.005 | 0.296 | 0.04 |
| CR18-01 | 693336 | 463.50 | 465.00 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.79 | < 0.005 | 0.281 | 0.02 |
| CR18-01 | 693337 | 465.00 | 466.50 | 1.50 | < 2 | < 5 | 10 | 0.012 | 120 | 0.78 | < 0.005 | 0.280 | 0.03 |
| CR18-01 | 693338 | 466.50 | 468.00 | 1.50 | < 2 | < 5 | 7 | 0.012 | 120 | 0.81 | < 0.005 | 0.290 | 0.03 |
| CR18-01 | 693339 | 468.00 | 469.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.81 | < 0.005 | 0.281 | 0.03 |
| CR18-01 | 693340 | 469.50 | 471.00 | 1.50 | < 2 | < 5 | 5 | 0.011 | 110 | 0.65 | < 0.005 | 0.248 | 0.03 |
| CR18-01 | 693341 | 471.00 | 472.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.81 | 0.007 | 0.288 | 0.03 |
| CR18-01 | 693342 | 472.50 | 474.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.80 | < 0.005 | 0.282 | 0.04 |
| CR18-01 | 693343 | 474.00 | 475.50 | 1.50 | 6 | < 5 | < 5 | 0.012 | 120 | 0.73 | < 0.005 | 0.278 | 0.05 |
| CR18-01 | 693344 | 475.50 | 477.00 | 1.50 | < 2 | 6 | 11 | 0.012 | 120 | 0.82 | < 0.005 | 0.268 | 0.04 |
| CR18-01 | 693345 | 477.00 | 478.50 | 1.50 | < 2 | 6 | 11 | 0.012 | 120 | 0.68 | < 0.005 | 0.256 | 0.04 |
| CR18-01 | 693346 | 478.50 | 480.00 | 1.50 | < 2 | < 5 | 14 | 0.012 | 120 | 0.72 | < 0.005 | 0.262 | 0.03 |
| CR18-01 | 693347 | 480.00 | 481.50 | 1.50 | < 2 | 18 | 13 | 0.012 | 120 | 0.70 | < 0.005 | 0.269 | 0.04 |
| CR18-01 | 693348 | 481.50 | 483.00 | 1.50 | < 2 | 8 | 11 | 0.011 | 110 | 0.64 | < 0.005 | 0.261 | 0.03 |
| CR18-01 | 693349 | 483.00 | 484.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.68 | < 0.005 | 0.279 | 0.03 |
| CR18-01 | 693350 | 484.50 | 486.00 | 1.50 | < 2 | < 5 | 6 | 0.011 | 110 | 0.63 | < 0.005 | 0.248 | 0.04 |
| CR18-01 | 693351 | 486.00 | 487.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.64 | < 0.005 | 0.254 | 0.05 |
| CR18-01 | 693352 | 487.50 | 489.00 | 1.50 | < 2 | 11 | 8 | 0.013 | 130 | 0.72 | < 0.005 | 0.263 | 0.03 |
| CR18-01 | 693353 | 489.00 | 490.50 | 1.50 | 76 | < 5 | 10 | 0.011 | 110 | 0.69 | < 0.005 | 0.267 | 0.06 |
| CR18-01 | 693354 | 490.50 | 492.00 | 1.50 | < 2 | < 5 | 7 | 0.011 | 110 | 0.67 | < 0.005 | 0.271 | 0.06 |
| CR18-01 | 693355 | 492.00 | 493.50 | 1.50 | < 2 | < 5 | 11 | 0.012 | 120 | 0.64 | < 0.005 | 0.253 | 0.02 |
| CR18-01 | 693356 | 493.50 | 495.00 | 1.50 | 3 | < 5 | 11 | 0.012 | 120 | 0.65 | < 0.005 | 0.249 | 0.04 |
| CR18-01 | 693357 | 495.00 | 496.50 | 1.50 | 9 | 14 | 15 | 0.012 | 120 | 0.63 | < 0.005 | 0.245 | 0.02 |
| CR18-01 | 693358 | 496.50 | 498.00 | 1.50 | < 2 | < 5 | 7 | 0.012 | 120 | 0.65 | < 0.005 | 0.247 | 0.03 |
| CR18-01 | 693359 | 498.00 | 499.50 | 1.50 | < 2 | < 5 | 8 | 0.012 | 120 | 0.61 | < 0.005 | 0.232 | 0.02 |
| CR18-01 | 693360 | 499.50 | 501.00 | 1.50 | < 2 | < 5 | 6 | 0.011 | 110 | 0.61 | < 0.005 | 0.233 | 0.02 |
| CR18-01 | 693361 | 501.00 | 502.50 | 1.50 | < 2 | < 5 | 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.227 | 0.03 |
| CR18-01 | 693362 | 502.50 | 504.00 | 1.50 | < 2 | < 5 | 10 | 0.012 | 120 | 0.59 | < 0.005 | 0.231 | 0.03 |
| CR18-01 | 693363 | 504.00 | 505.50 | 1.50 | 8 | 9 | < 5 | 0.012 | 120 | 0.64 | < 0.005 | 0.254 | 0.05 |
| CR18-01 | 693364 | 505.50 | 507.00 | 1.50 | 3 | < 5 | 6 | 0.012 | 120 | 0.72 | < 0.005 | 0.263 | 0.03 |
| CR18-01 | 693365 | 507.00 | 508.50 | 1.50 | 4 | < 5 | < 5 | 0.012 | 120 | 0.67 | < 0.005 | 0.263 | 0.04 |
| CR18-01 | 693366 | 508.50 | 510.00 | 1.50 | 2 | < 5 | < 5 | 0.012 | 120 | 0.68 | < 0.005 | 0.275 | 0.03 |
| CR18-01 | 693367 | 510.00 | 511.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.67 | < 0.005 | 0.271 | 0.03 |
| CR18-01 | 693368 | 511.50 | 513.00 | 1.50 | < 2 | 6 | < 5 | 0.012 | 120 | 0.65 | < 0.005 | 0.263 | 0.03 |
| CR18-01 | 693369 | 513.00 | 514.50 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.63 | < 0.005 | 0.273 | 0.03 |
| CR18-01 | 693370 | 514.50 | 516.00 | 1.50 | < 2 | 6 | < 5 | 0.012 | 120 | 0.64 | < 0.005 | 0.265 | 0.02 |
| CR18-01 | 693371 | 516.00 | 517.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.64 | < 0.005 | 0.274 | 0.03 |
| CR18-01 | 693372 | 517.50 | 519.00 | 1.50 | 4 | < 5 | < 5 | 0.013 | 130 | 0.55 | < 0.005 | 0.238 | 0.04 |
| CR18-01 | 693373 | 519.00 | 520.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.60 | < 0.005 | 0.247 | 0.03 |
| CR18-01 | 693374 | 520.50 | 522.00 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.59 | < 0.005 | 0.245 | 0.03 |
| CR18-01 | 693375 | 522.00 | 523.50 | 1.50 | 2 | < 5 | 5 | 0.014 | 140 | 0.68 | < 0.005 | 0.255 | 0.05 |
| CR18-01 | 693376 | 523.50 | 525.00 | 1.50 | 2 | 17 | < 5 | 0.014 | 140 | 0.74 | < 0.005 | 0.267 | 0.05 |
| CR18-01 | 693377 | 525.00 | 526.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.244 | 0.04 |
| CR18-01 | 693378 | 526.50 | 528.00 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.250 | 0.03 |
| CR18-01 | 693379 | 528.00 | 529.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.247 | 0.04 |
| CR18-01 | 693380 | 529.50 | 531.00 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.232 | 0.03 |
| CR18-01 | 693381 | 531.00 | 532.50 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.58 | < 0.005 | 0.227 | 0.02 |
| CR18-01 | 693382 | 532.50 | 534.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.232 | 0.03 |
| CR18-01 | 693383 | 534.00 | 535.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.229 | 0.03 |
| CR18-01 | 693384 | 535.50 | 537.00 | 1.50 | < 2 | < 5 | < 5 | 0.010 | 100 | 0.42 | < 0.005 | 0.175 | 0.02 |
| CR18-01 | 693385 | 537.00 | 538.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.52 | < 0.005 | 0.197 | 0.01 |
| CR18-01 | 693386 | 538.50 | 540.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.51 | < 0.005 | 0.204 | 0.07 |
| CR18-01 | 693387 | 540.00 | 541.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.52 | < 0.005 | 0.202 | 0.02 |
| CR18-01 | 693388 | 541.50 | 543.00 | 1.50 | < 2 | < 5 | < 5 | 0.010 | 100 | 0.46 | < 0.005 | 0.187 | < 0.01 |
| CR18-01 | 693389 | 543.00 | 544.50 | 1.50 | 5 | 144 | 26 | 0.011 | 110 | 0.42 | < 0.005 | 0.334 | 0.07 |
| CR18-01 | 693390 | 544.50 | 546.00 | 1.50 | 4 | 39 | 14 | 0.012 | 120 | 0.50 | < 0.005 | 0.236 | 0.03 |
| CR18-01 | 693391 | 546.00 | 547.50 | 1.50 | < 2 | 122 | 16 | 0.012 | 120 | 0.50 | < 0.005 | 0.236 | 0.03 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|------------------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-01 | 693392 | 547.50 | 549.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.238 | 0.01 |
| CR18-01 | 693393 | 549.00 | 550.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.261 | 0.03 |
| CR18-01 | 693394 | 550.50 | 552.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.232 | 0.01 |
| CR18-01 | 693395 | 552.00 | 553.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.231 | 0.02 |
| CR18-01 | 693396 | 553.50 | 555.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.232 | 0.02 |
| CR18-01 | 693397 | 555.00 | 556.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.57 | < 0.005 | 0.228 | 0.01 |
| CR18-01 | 693398 | 556.50 | 558.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.236 | 0.02 |
| CR18-01 | 693399 | 558.00 | 559.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.232 | < 0.01 |
| CR18-01 | 693400 | 559.50 | 561.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.226 | < 0.01 |
| CR18-01 | 693401 | 561.00 | 562.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.60 | < 0.005 | 0.234 | 0.02 |
| CR18-01 | 693402 | 562.50 | 564.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.231 | 0.01 |
| CR18-01 | 693403 | 564.00 | 565.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.57 | < 0.005 | 0.233 | < 0.01 |
| CR18-01 | 693404 | 565.50 | 567.00 | 1.50 | < 2 | 19 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.248 | 0.03 |
| CR18-01 | 693405 | 567.00 | 568.50 | 1.50 | 4 | < 5 | < 5 | 0.013 | 130 | 0.59 | < 0.005 | 0.258 | 0.03 |
| CR18-01 | 693406 | 568.50 | 570.00 | 1.50 | 2 | 30 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.259 | 0.01 |
| CR18-01 | 693407 | 570.00 | 571.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.247 | 0.01 |
| CR18-01 | 693408 | 571.50 | 573.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.226 | 0.01 |
| CR18-01 | 693409 | 573.00 | 574.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.58 | < 0.005 | 0.229 | < 0.01 |
| CR18-01 | 693410 | 574.50 | 576.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.233 | 0.01 |
| CR18-01 | 693411 | 576.00 | 577.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.56 | < 0.005 | 0.230 | < 0.01 |
| CR18-01 | 693412 | 577.50 | 579.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.231 | < 0.01 |
| CR18-01 | 693413 | 579.00 | 580.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.241 | < 0.01 |
| CR18-01 | 693414 | 580.50 | 582.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.56 | < 0.005 | 0.258 | < 0.01 |
| CR18-01 | 693415 | 582.00 | 583.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.57 | < 0.005 | 0.255 | 0.01 |
| CR18-01 | 693416 | 583.50 | 585.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.263 | 0.01 |
| CR18-01 | 693417 | 585.00 | 586.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.261 | < 0.01 |
| CR18-01 | 693418 | 586.50 | 588.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.264 | < 0.01 |
| CR18-01 | 693419 | 588.00 | 589.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.61 | < 0.005 | 0.272 | 0.01 |
| CR18-01 | 693420 | 589.50 | 591.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.60 | < 0.005 | 0.267 | < 0.01 |
| CR18-01 | 693421 | 591.00 | 592.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.59 | < 0.005 | 0.267 | < 0.01 |
| CR18-01 | 693422 | 592.50 | 594.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.54 | < 0.005 | 0.274 | < 0.01 |
| CRAW18-02 | | | | | | | | | | | | | |
| CR18-02 | 693423 | 24.00 | 25.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.70 | < 0.005 | 0.244 | 0.08 |
| CR18-02 | 693424 | 25.50 | 27.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.69 | < 0.005 | 0.221 | 0.09 |
| CR18-02 | 693425 | 27.00 | 28.50 | 1.50 | < 2 | 8 | 7 | 0.012 | 120 | 0.84 | < 0.005 | 0.200 | 0.07 |
| CR18-02 | 693426 | 28.50 | 30.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.71 | < 0.005 | 0.212 | 0.09 |
| CR18-02 | 693427 | 30.00 | 31.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.70 | < 0.005 | 0.207 | 0.09 |
| CR18-02 | 693428 | 31.50 | 33.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.68 | < 0.005 | 0.220 | 0.06 |
| CR18-02 | 693429 | 33.00 | 34.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.63 | < 0.005 | 0.235 | 0.08 |
| CR18-02 | 693430 | 34.50 | 36.00 | 1.50 | < 2 | 5 | < 5 | 0.013 | 130 | 0.69 | < 0.005 | 0.244 | 0.09 |
| CR18-02 | 693431 | 36.00 | 37.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.249 | 0.04 |
| CR18-02 | 693432 | 37.50 | 39.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.66 | 0.006 | 0.244 | 0.06 |
| CR18-02 | 693433 | 39.00 | 40.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.244 | 0.06 |
| CR18-02 | 693434 | 40.50 | 42.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.240 | 0.06 |
| CR18-02 | 693435 | 42.00 | 43.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.254 | 0.08 |
| CR18-02 | 693436 | 43.50 | 45.00 | 1.50 | < 2 | 7 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.249 | 0.08 |
| CR18-02 | 693437 | 45.00 | 46.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.67 | < 0.005 | 0.250 | 0.08 |
| CR18-02 | 693438 | 46.50 | 48.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.64 | < 0.005 | 0.245 | 0.04 |
| CR18-02 | 693439 | 48.00 | 49.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.64 | < 0.005 | 0.251 | 0.06 |
| CR18-02 | 693440 | 49.50 | 51.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.64 | < 0.005 | 0.241 | 0.09 |
| CR18-02 | 693441 | 51.00 | 52.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.219 | 0.07 |
| CR18-02 | 693442 | 52.50 | 54.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.225 | 0.07 |
| CR18-02 | 693443 | 54.00 | 55.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.216 | 0.07 |
| CR18-02 | 693444 | 55.50 | 57.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.234 | 0.07 |
| CR18-02 | 693445 | 57.00 | 58.50 | 1.50 | < 2 | < 5 | 8 | 0.012 | 120 | 0.60 | < 0.005 | 0.237 | 0.05 |
| CR18-02 | 693446 | 58.50 | 60.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.64 | < 0.005 | 0.246 | 0.07 |
| CR18-02 | 693447 | 60.00 | 61.50 | 1.50 | < 2 | < 5 | 6 | 0.011 | 110 | 0.67 | < 0.005 | 0.238 | 0.05 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|---------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-02 | 693448 | 61.50 | 63.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.66 | < 0.005 | 0.233 | 0.10 |
| CR18-02 | 693449 | 63.00 | 64.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.67 | < 0.005 | 0.243 | 0.05 |
| CR18-02 | 693450 | 64.50 | 66.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.64 | < 0.005 | 0.238 | 0.02 |
| CR18-02 | 701001 | 66.00 | 67.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.63 | < 0.005 | 0.243 | 0.04 |
| CR18-02 | 701002 | 67.50 | 69.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.60 | < 0.005 | 0.235 | 0.04 |
| CR18-02 | 701003 | 69.00 | 70.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.63 | < 0.005 | 0.254 | 0.02 |
| CR18-02 | 701004 | 70.50 | 72.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.64 | < 0.005 | 0.261 | 0.03 |
| CR18-02 | 701005 | 72.00 | 73.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.271 | 0.01 |
| CR18-02 | 701006 | 73.50 | 75.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.71 | < 0.005 | 0.252 | 0.05 |
| CR18-02 | 701007 | 75.00 | 76.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.72 | < 0.005 | 0.240 | 0.02 |
| CR18-02 | 701008 | 76.50 | 78.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.69 | < 0.005 | 0.233 | < 0.01 |
| CR18-02 | 701009 | 78.00 | 79.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.66 | < 0.005 | 0.234 | 0.01 |
| CR18-02 | 701010 | 79.50 | 81.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.226 | 0.01 |
| CR18-02 | 701011 | 81.00 | 82.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.61 | < 0.005 | 0.227 | < 0.01 |
| CR18-02 | 701012 | 82.50 | 84.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.66 | < 0.005 | 0.232 | < 0.01 |
| CR18-02 | 701013 | 84.00 | 85.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.60 | < 0.005 | 0.231 | 0.04 |
| CR18-02 | 701014 | 85.50 | 87.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.56 | < 0.005 | 0.218 | 0.04 |
| CR18-02 | 701015 | 87.00 | 88.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.60 | < 0.005 | 0.233 | 0.02 |
| CR18-02 | 701016 | 88.50 | 90.00 | 1.50 | 6 | < 5 | 7 | 0.012 | 120 | 0.62 | < 0.005 | 0.223 | < 0.01 |
| CR18-02 | 701017 | 90.00 | 91.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.70 | < 0.005 | 0.250 | 0.01 |
| CR18-02 | 701018 | 91.50 | 93.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.228 | 0.02 |
| CR18-02 | 701019 | 93.00 | 94.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.236 | < 0.01 |
| CR18-02 | 701020 | 94.50 | 96.00 | 1.50 | < 2 | 7 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.229 | 0.03 |
| CR18-02 | 701021 | 96.00 | 97.50 | 1.50 | < 2 | < 5 | 11 | 0.012 | 120 | 0.63 | < 0.005 | 0.229 | 0.01 |
| CR18-02 | 701022 | 97.50 | 99.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.55 | < 0.005 | 0.244 | < 0.01 |
| CR18-02 | 701023 | 99.00 | 100.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.236 | 0.01 |
| CR18-02 | 701024 | 100.50 | 102.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.60 | < 0.005 | 0.237 | 0.02 |
| CR18-02 | 701025 | 102.00 | 103.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.64 | < 0.005 | 0.237 | 0.02 |
| CR18-02 | 701026 | 103.50 | 105.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.69 | < 0.005 | 0.245 | < 0.01 |
| CR18-02 | 701027 | 105.00 | 106.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.221 | 0.01 |
| CR18-02 | 701028 | 106.50 | 108.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.226 | 0.02 |
| CR18-02 | 701029 | 108.00 | 109.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.205 | 0.01 |
| CR18-02 | 701030 | 109.50 | 111.00 | 1.50 | 8 | < 5 | < 5 | 0.013 | 130 | 0.59 | < 0.005 | 0.232 | 0.01 |
| CR18-02 | 701031 | 111.00 | 112.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.224 | 0.06 |
| CR18-02 | 701032 | 112.50 | 114.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.224 | 0.02 |
| CR18-02 | 701033 | 114.00 | 115.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.214 | 0.01 |
| CR18-02 | 701034 | 115.50 | 117.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.237 | < 0.01 |
| CR18-02 | 701035 | 117.00 | 118.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.54 | < 0.005 | 0.225 | < 0.01 |
| CR18-02 | 701036 | 118.50 | 120.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.224 | 0.02 |
| CR18-02 | 701037 | 120.00 | 121.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.58 | < 0.005 | 0.212 | 0.01 |
| CR18-02 | 701038 | 121.50 | 123.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.58 | < 0.005 | 0.221 | 0.01 |
| CR18-02 | 701039 | 123.00 | 124.50 | 1.50 | 9 | 26 | < 5 | 0.012 | 120 | 0.59 | < 0.005 | 0.218 | 0.03 |
| CR18-02 | 701040 | 124.50 | 126.00 | 1.50 | 3 | 30 | 6 | 0.011 | 110 | 0.52 | < 0.005 | 0.214 | 0.04 |
| CR18-02 | 701041 | 126.00 | 127.50 | 1.50 | < 2 | 21 | 25 | 0.012 | 120 | 0.56 | < 0.005 | 0.216 | < 0.01 |
| CR18-02 | 701042 | 127.50 | 129.00 | 1.50 | < 2 | 54 | 38 | 0.011 | 110 | 0.53 | < 0.005 | 0.203 | 0.02 |
| CR18-02 | 701043 | 129.00 | 130.50 | 1.50 | < 2 | 8 | 22 | 0.012 | 120 | 0.53 | < 0.005 | 0.243 | < 0.01 |
| CR18-02 | 701044 | 130.50 | 132.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.54 | < 0.005 | 0.192 | 0.07 |
| CR18-02 | 701045 | 132.00 | 133.50 | 1.50 | < 2 | 47 | 10 | 0.012 | 120 | 0.61 | < 0.005 | 0.243 | 0.01 |
| CR18-02 | 701046 | 133.50 | 135.00 | 1.50 | < 2 | 6 | 13 | 0.012 | 120 | 0.57 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701047 | 135.00 | 136.50 | 1.50 | < 2 | 7 | 14 | 0.011 | 110 | 0.53 | < 0.005 | 0.196 | 0.01 |
| CR18-02 | 701048 | 136.50 | 138.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.54 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701049 | 138.00 | 139.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.56 | < 0.005 | 0.203 | < 0.01 |
| CR18-02 | 701050 | 139.50 | 141.00 | 1.50 | < 2 | < 5 | 6 | 0.014 | 140 | 0.55 | < 0.005 | 0.218 | < 0.01 |
| CR18-02 | 701051 | 141.00 | 142.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.197 | < 0.01 |
| CR18-02 | 701052 | 142.50 | 144.00 | 1.50 | 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | < 0.005 | 0.194 | 0.01 |
| CR18-02 | 701053 | 144.00 | 145.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.221 | 0.01 |
| CR18-02 | 701054 | 145.50 | 147.00 | 1.50 | < 2 | < 5 | 9 | 0.013 | 130 | 0.53 | < 0.005 | 0.206 | < 0.01 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|------------------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|--------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-02 | 701055 | 147.00 | 148.50 | 1.50 | < 2 | < 5 | 8 | 0.014 | 140 | 0.54 | < 0.005 | 0.217 | 0.01 |
| CR18-02 | 701056 | 148.50 | 150.00 | 1.50 | < 2 | < 5 | 7 | 0.013 | 130 | 0.53 | < 0.005 | 0.205 | 0.02 |
| CR18-02 | 701057 | 150.00 | 151.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.49 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701058 | 151.50 | 153.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.51 | < 0.005 | 0.201 | < 0.01 |
| CR18-02 | 701059 | 153.00 | 154.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.53 | < 0.005 | 0.208 | < 0.01 |
| CR18-02 | 701060 | 154.50 | 156.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.52 | < 0.005 | 0.201 | < 0.01 |
| CR18-02 | 701061 | 156.00 | 157.50 | 1.50 | < 2 | < 5 | 6 | 0.013 | 130 | 0.76 | < 0.005 | 0.218 | 0.02 |
| CR18-02 | 701062 | 157.50 | 159.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.95 | < 0.005 | 0.191 | < 0.01 |
| CR18-02 | 701063 | 159.00 | 160.50 | 1.50 | 3 | 18 | 14 | 0.012 | 120 | 0.81 | < 0.005 | 0.219 | < 0.01 |
| CR18-02 | 701064 | 160.50 | 162.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.85 | < 0.005 | 0.203 | < 0.01 |
| CR18-02 | 701065 | 162.00 | 163.50 | 1.50 | < 2 | 18 | 8 | 0.013 | 130 | 0.46 | < 0.005 | 0.207 | < 0.01 |
| CR18-02 | 701066 | 163.50 | 165.00 | 1.50 | < 2 | 11 | 15 | 0.013 | 130 | 0.34 | < 0.005 | 0.206 | < 0.01 |
| CR18-02 | 701067 | 165.00 | 166.50 | 1.50 | < 2 | < 5 | 7 | 0.012 | 120 | 0.43 | < 0.005 | 0.195 | < 0.01 |
| CR18-02 | 701068 | 166.50 | 168.00 | 1.50 | < 2 | 18 | 9 | 0.013 | 130 | 0.54 | < 0.005 | 0.218 | < 0.01 |
| CR18-02 | 701069 | 168.00 | 169.50 | 1.50 | < 2 | < 5 | 6 | 0.014 | 140 | 0.89 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701070 | 169.50 | 171.00 | 1.50 | < 2 | < 5 | 8 | 0.013 | 130 | 0.87 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701071 | 171.00 | 172.50 | 1.50 | < 2 | < 5 | 5 | 0.013 | 130 | 0.52 | < 0.005 | 0.206 | < 0.01 |
| CR18-02 | 701072 | 172.50 | 174.00 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.53 | < 0.005 | 0.186 | 0.01 |
| CR18-02 | 701073 | 174.00 | 175.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.43 | < 0.005 | 0.200 | < 0.01 |
| CR18-02 | 701074 | 175.50 | 177.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.43 | < 0.005 | 0.197 | < 0.01 |
| CR18-02 | 701075 | 177.00 | 178.50 | 1.50 | < 2 | 7 | 10 | 0.013 | 130 | 0.73 | < 0.005 | 0.178 | < 0.01 |
| CR18-02 | 701076 | 178.50 | 180.00 | 1.50 | < 2 | 14 | 9 | 0.013 | 130 | 0.76 | < 0.005 | 0.190 | 0.01 |
| CR18-02 | 701077 | 180.00 | 181.50 | 1.50 | < 2 | < 5 | 6 | 0.014 | 140 | 0.78 | < 0.005 | 0.189 | < 0.01 |
| CR18-02 | 701078 | 181.50 | 183.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.74 | < 0.005 | 0.170 | < 0.01 |
| CR18-02 | 701079 | 183.00 | 184.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.65 | < 0.005 | 0.169 | 0.01 |
| CR18-02 | 701080 | 184.50 | 186.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.74 | < 0.005 | 0.168 | < 0.01 |
| CR18-02 | 701081 | 186.00 | 187.50 | 1.50 | < 2 | 459 | 38 | 0.013 | 130 | 0.79 | < 0.005 | 0.187 | < 0.01 |
| CR18-02 | 701082 | 187.50 | 189.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.73 | < 0.005 | 0.184 | < 0.01 |
| CR18-02 | 701083 | 189.00 | 190.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.75 | < 0.005 | 0.172 | < 0.01 |
| CR18-02 | 701084 | 190.50 | 192.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.69 | < 0.005 | 0.179 | < 0.01 |
| CR18-02 | 701085 | 192.00 | 193.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.183 | < 0.01 |
| CR18-02 | 701086 | 193.50 | 195.00 | 1.50 | < 2 | 11 | < 5 | 0.013 | 130 | 0.73 | < 0.005 | 0.192 | < 0.01 |
| CR18-02 | 701087 | 195.00 | 196.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.59 | < 0.005 | 0.189 | < 0.01 |
| CR18-02 | 701088 | 196.50 | 198.00 | 1.50 | < 2 | 10 | < 5 | 0.012 | 120 | 0.57 | < 0.005 | 0.185 | < 0.01 |
| CR18-02 | 701089 | 198.00 | 199.50 | 1.50 | < 2 | 19 | 14 | 0.012 | 120 | 0.65 | < 0.005 | 0.185 | < 0.01 |
| CR18-02 | 701090 | 199.50 | 201.00 | 1.50 | < 2 | 15 | 12 | 0.012 | 120 | 0.61 | < 0.005 | 0.191 | < 0.01 |
| CR18-02 | 701091 | 201.00 | 202.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.183 | < 0.01 |
| CR18-02 | 701092 | 202.50 | 204.00 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.57 | < 0.005 | 0.190 | < 0.01 |
| CR18-02 | 701093 | 204.00 | 205.50 | 1.50 | < 2 | 21 | 14 | 0.013 | 130 | 0.47 | < 0.005 | 0.191 | < 0.01 |
| CR18-02 | 701094 | 205.50 | 207.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.39 | < 0.005 | 0.186 | < 0.01 |
| CR18-02 | 701095 | 207.00 | 208.50 | 1.50 | < 2 | < 5 | 5 | 0.013 | 130 | 0.51 | < 0.005 | 0.188 | < 0.01 |
| CR18-02 | 701096 | 208.50 | 210.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.53 | < 0.005 | 0.181 | < 0.01 |
| CR18-02 | 701097 | 210.00 | 211.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.56 | < 0.005 | 0.174 | < 0.01 |
| CR18-02 | 701098 | 211.50 | 213.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.56 | < 0.005 | 0.177 | < 0.01 |
| CR18-02 | 701099 | 213.00 | 214.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.47 | < 0.005 | 0.182 | < 0.01 |
| CR18-02 | 701100 | 214.50 | 216.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.43 | < 0.005 | 0.182 | 0.01 |
| CRAW18-03 | | | | | | | | | | | | | |
| CR18-03 | Sample ID | From | To | | | | | | | | | | |
| CR18-03 | 701101 | 271.00 | 272.50 | 1.50 | < 2 | < 5 | < 5 | 0.004 | 40 | < 0.01 | 0.016 | 0.011 | 0.53 |
| CR18-03 | 701102 | 272.50 | 274.00 | 1.50 | < 2 | < 5 | < 5 | 0.005 | 50 | < 0.01 | 0.014 | 0.008 | 0.14 |
| CR18-03 | 701103 | 274.00 | 275.50 | 1.50 | < 2 | < 5 | < 5 | 0.006 | 60 | < 0.01 | 0.043 | 0.008 | 0.14 |
| CR18-03 | 701104 | 275.50 | 277.00 | 1.50 | < 2 | < 5 | 5 | 0.004 | 40 | < 0.01 | 0.027 | 0.006 | 0.23 |
| CR18-03 | 701105 | 277.00 | 278.50 | 1.50 | < 2 | 18 | 17 | 0.008 | 80 | 0.18 | 0.016 | 0.071 | 1.59 |
| CR18-03 | 701106 | 278.50 | 280.00 | 1.50 | < 2 | 19 | 19 | 0.008 | 80 | 0.21 | 0.017 | 0.091 | 0.73 |
| CR18-03 | 701107 | 280.00 | 281.50 | 1.50 | 23 | 27 | 17 | 0.012 | 120 | 0.22 | 0.040 | 0.126 | 0.65 |
| CR18-03 | 701108 | 281.50 | 283.00 | 1.50 | < 2 | 14 | < 5 | 0.010 | 100 | 0.38 | 0.007 | 0.129 | 0.25 |
| CR18-03 | 701109 | 283.00 | 284.00 | 1.00 | < 2 | 11 | 11 | 0.011 | 110 | 0.43 | < 0.005 | 0.144 | 0.07 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-03 | 701110 | 284.00 | 285.00 | 1.00 | < 2 | 21 | 17 | 0.011 | 110 | 0.39 | 0.006 | 0.140 | 0.05 |
| CR18-03 | 701111 | 285.00 | 286.50 | 1.50 | < 2 | 25 | 8 | 0.012 | 120 | 0.41 | 0.015 | 0.149 | 0.03 |
| CR18-03 | 701112 | 286.50 | 288.00 | 1.50 | < 2 | 6 | 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.199 | 0.01 |
| CR18-03 | 701113 | 288.00 | 289.50 | 1.50 | < 2 | 49 | 56 | 0.014 | 140 | 0.60 | < 0.005 | 0.207 | 0.03 |
| CR18-03 | 701114 | 289.50 | 291.00 | 1.50 | < 2 | 13 | 14 | 0.014 | 140 | 0.60 | < 0.005 | 0.224 | 0.06 |
| CR18-03 | 701115 | 291.00 | 292.50 | 1.50 | < 2 | 9 | 18 | 0.013 | 130 | 0.61 | < 0.005 | 0.233 | 0.07 |
| CR18-03 | 701116 | 292.50 | 294.00 | 1.50 | < 2 | 48 | 59 | 0.013 | 130 | 0.61 | < 0.005 | 0.222 | 0.06 |
| CR18-03 | 701117 | 294.00 | 295.50 | 1.50 | < 2 | 8 | 23 | 0.013 | 130 | 0.62 | < 0.005 | 0.212 | 0.05 |
| CR18-03 | 701118 | 295.50 | 297.00 | 1.50 | < 2 | 9 | 272 | 0.013 | 130 | 0.78 | < 0.005 | 0.205 | 0.05 |
| CR18-03 | 701119 | 297.00 | 298.50 | 1.50 | < 2 | < 5 | 15 | 0.013 | 130 | 0.63 | < 0.005 | 0.218 | 0.05 |
| CR18-03 | 701120 | 298.50 | 300.00 | 1.50 | < 2 | < 5 | 6 | 0.013 | 130 | 0.68 | < 0.005 | 0.231 | 0.07 |
| CR18-03 | 701121 | 300.00 | 301.50 | 1.50 | < 2 | 6 | 24 | 0.013 | 130 | 0.57 | < 0.005 | 0.199 | 0.05 |
| CR18-03 | 701122 | 301.50 | 303.00 | 1.50 | < 2 | < 5 | 13 | 0.013 | 130 | 0.63 | < 0.005 | 0.217 | 0.05 |
| CR18-03 | 701123 | 303.00 | 304.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.69 | < 0.005 | 0.194 | 0.05 |
| CR18-03 | 701124 | 304.50 | 306.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.202 | 0.05 |
| CR18-03 | 701125 | 306.00 | 307.50 | 1.50 | < 2 | < 5 | 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.215 | 0.05 |
| CR18-03 | 701126 | 307.50 | 309.00 | 1.50 | < 2 | 8 | 30 | 0.013 | 130 | 0.61 | < 0.005 | 0.213 | 0.05 |
| CR18-03 | 701127 | 309.00 | 310.50 | 1.50 | < 2 | < 5 | 6 | 0.013 | 130 | 0.61 | < 0.005 | 0.187 | 0.03 |
| CR18-03 | 701128 | 310.50 | 312.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.229 | 0.05 |
| CR18-03 | 701129 | 312.00 | 313.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.67 | < 0.005 | 0.235 | 0.06 |
| CR18-03 | 701130 | 313.50 | 315.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.63 | < 0.005 | 0.214 | 0.05 |
| CR18-03 | 701131 | 315.00 | 316.50 | 1.50 | < 2 | < 5 | 9 | 0.013 | 130 | 0.61 | < 0.005 | 0.207 | 0.09 |
| CR18-03 | 701132 | 316.50 | 318.00 | 1.50 | < 2 | 6 | 9 | 0.012 | 120 | 0.62 | < 0.005 | 0.215 | 0.05 |
| CR18-03 | 701133 | 318.00 | 319.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.206 | 0.04 |
| CR18-03 | 701134 | 319.50 | 321.00 | 1.50 | < 2 | 9 | 16 | 0.013 | 130 | 0.61 | < 0.005 | 0.211 | 0.04 |
| CR18-03 | 701135 | 321.00 | 322.50 | 1.50 | < 2 | 9 | 43 | 0.013 | 130 | 0.62 | < 0.005 | 0.209 | 0.04 |
| CR18-03 | 701136 | 322.50 | 324.00 | 1.50 | < 2 | 6 | 17 | 0.014 | 140 | 0.62 | < 0.005 | 0.213 | 0.04 |
| CR18-03 | 701137 | 324.00 | 325.50 | 1.50 | < 2 | 8 | 24 | 0.013 | 130 | 0.62 | < 0.005 | 0.220 | 0.04 |
| CR18-03 | 701138 | 325.50 | 327.00 | 1.50 | < 2 | < 5 | 17 | 0.013 | 130 | 0.62 | < 0.005 | 0.216 | 0.04 |
| CR18-03 | 701139 | 327.00 | 328.50 | 1.50 | < 2 | 9 | 15 | 0.015 | 150 | 0.52 | < 0.005 | 0.223 | 0.06 |
| CR18-03 | 701140 | 328.50 | 330.00 | 1.50 | < 2 | 235 | 63 | 0.014 | 140 | 0.50 | < 0.005 | 0.264 | 0.06 |
| CR18-03 | 701141 | 330.00 | 331.50 | 1.50 | < 2 | 41 | 48 | 0.014 | 140 | 0.57 | < 0.005 | 0.183 | 0.04 |
| CR18-03 | 701142 | 331.50 | 333.00 | 1.50 | < 2 | 40 | 29 | 0.014 | 140 | 0.60 | < 0.005 | 0.184 | 0.03 |
| CR18-03 | 701143 | 333.00 | 334.50 | 1.50 | < 2 | 34 | 25 | 0.014 | 140 | 0.59 | < 0.005 | 0.200 | 0.05 |
| CR18-03 | 701144 | 334.50 | 336.00 | 1.50 | < 2 | < 5 | 9 | 0.014 | 140 | 0.60 | < 0.005 | 0.213 | 0.04 |
| CR18-03 | 701145 | 336.00 | 337.50 | 1.50 | < 2 | 7 | 13 | 0.013 | 130 | 0.61 | < 0.005 | 0.213 | 0.05 |
| CR18-03 | 701146 | 337.50 | 339.00 | 1.50 | < 2 | 9 | 15 | 0.013 | 130 | 0.63 | < 0.005 | 0.208 | 0.03 |
| CR18-03 | 701147 | 339.00 | 340.50 | 1.50 | < 2 | 42 | 24 | 0.014 | 140 | 0.62 | < 0.005 | 0.215 | 0.05 |
| CR18-03 | 701148 | 340.50 | 342.00 | 1.50 | < 2 | 36 | 25 | 0.014 | 140 | 0.61 | < 0.005 | 0.208 | 0.04 |
| CR18-03 | 701149 | 342.00 | 343.50 | 1.50 | < 2 | 63 | 48 | 0.015 | 150 | 0.60 | < 0.005 | 0.212 | 0.04 |
| CR18-03 | 701150 | 343.50 | 345.00 | 1.50 | < 2 | 26 | 28 | 0.013 | 130 | 0.60 | < 0.005 | 0.221 | 0.04 |
| CR18-03 | 701151 | 345.00 | 346.50 | 1.50 | < 2 | 29 | 24 | 0.013 | 130 | 0.55 | < 0.005 | 0.209 | 0.03 |
| CR18-03 | 701152 | 346.50 | 348.00 | 1.50 | < 2 | 32 | 23 | 0.014 | 140 | 0.53 | < 0.005 | 0.203 | 0.02 |
| CR18-03 | 701153 | 348.00 | 349.50 | 1.50 | < 2 | 6 | < 5 | 0.013 | 130 | 0.63 | < 0.005 | 0.201 | 0.05 |
| CR18-03 | 701154 | 349.50 | 351.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.206 | 0.04 |
| CR18-03 | 701155 | 351.00 | 352.50 | 1.50 | < 2 | 10 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.195 | 0.02 |
| CR18-03 | 701156 | 352.50 | 354.00 | 1.50 | < 2 | 24 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.199 | 0.04 |
| CR18-03 | 701157 | 354.00 | 355.50 | 1.50 | 2 | 7 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.208 | 0.01 |
| CR18-03 | 701158 | 355.50 | 357.00 | 1.50 | 7 | 8 | < 5 | 0.012 | 120 | 0.54 | < 0.005 | 0.189 | 0.02 |
| CR18-03 | 701159 | 357.00 | 358.50 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.54 | < 0.005 | 0.192 | 0.02 |
| CR18-03 | 701160 | 358.50 | 360.00 | 1.50 | < 2 | 11 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.175 | 0.01 |
| CR18-03 | 701161 | 360.00 | 361.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.180 | 0.03 |
| CR18-03 | 701162 | 361.50 | 363.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.186 | 0.04 |
| CR18-03 | 701163 | 363.00 | 364.50 | 1.50 | < 2 | 16 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.186 | 0.04 |
| CR18-03 | 701164 | 364.50 | 366.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.183 | 0.04 |
| CR18-03 | 701165 | 366.00 | 367.50 | 1.50 | 7 | < 5 | < 5 | | 120 | 0.51 | < 0.005 | 0.185 | 0.04 |
| CR18-03 | 701166 | 367.50 | 369.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | < 0.005 | 0.187 | 0.05 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-03 | 701167 | 369.00 | 370.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.187 | 0.02 |
| CR18-03 | 701168 | 370.50 | 372.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.193 | 0.02 |
| CR18-03 | 701169 | 372.00 | 373.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.55 | < 0.005 | 0.201 | 0.05 |
| CR18-03 | 701170 | 373.50 | 375.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.55 | < 0.005 | 0.199 | 0.02 |
| CR18-03 | 701171 | 375.00 | 376.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.213 | 0.02 |
| CR18-03 | 701172 | 376.50 | 378.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.58 | < 0.005 | 0.199 | 0.03 |
| CR18-03 | 701173 | 378.00 | 379.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.61 | < 0.005 | 0.204 | 0.01 |
| CR18-03 | 701174 | 379.50 | 381.00 | 1.50 | 3 | < 5 | < 5 | 0.013 | 130 | 0.59 | < 0.005 | 0.215 | 0.02 |
| CR18-03 | 701175 | 381.00 | 382.50 | 1.50 | < 2 | 7 | < 5 | 0.014 | 140 | 0.55 | < 0.005 | 0.207 | 0.02 |
| CR18-03 | 701176 | 382.50 | 384.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.207 | 0.02 |
| CR18-03 | 701177 | 384.00 | 385.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.206 | 0.01 |
| CR18-03 | 701178 | 385.50 | 387.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.58 | < 0.005 | 0.217 | 0.04 |
| CR18-03 | 701179 | 387.00 | 388.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.64 | < 0.005 | 0.213 | 0.03 |
| CR18-03 | 701180 | 388.50 | 390.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.59 | < 0.005 | 0.220 | 0.03 |
| CR18-03 | 701181 | 390.00 | 391.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.57 | < 0.005 | 0.220 | 0.02 |
| CR18-03 | 701182 | 391.50 | 393.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.211 | 0.02 |
| CR18-03 | 701183 | 393.00 | 394.50 | 1.50 | 2 | < 5 | < 5 | 0.014 | 140 | 0.59 | < 0.005 | 0.212 | 0.01 |
| CR18-03 | 701184 | 394.50 | 396.00 | 1.50 | 2 | 7 | 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701185 | 396.00 | 397.50 | 1.50 | < 2 | < 5 | 6 | 0.014 | 140 | 0.62 | < 0.005 | 0.217 | 0.03 |
| CR18-03 | 701186 | 397.50 | 399.00 | 1.50 | 3 | < 5 | < 5 | 0.015 | 150 | 0.61 | < 0.005 | 0.207 | 0.04 |
| CR18-03 | 701187 | 399.00 | 400.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.216 | 0.04 |
| CR18-03 | 701188 | 400.50 | 402.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.214 | 0.03 |
| CR18-03 | 701189 | 402.00 | 403.50 | 1.50 | 6 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.208 | < 0.01 |
| CR18-03 | 701190 | 403.50 | 405.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.207 | 0.01 |
| CR18-03 | 701191 | 405.00 | 406.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.214 | 0.03 |
| CR18-03 | 701192 | 406.50 | 408.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.226 | 0.02 |
| CR18-03 | 701193 | 408.00 | 409.50 | 1.50 | 4 | 14 | < 5 | 0.013 | 130 | 0.52 | < 0.005 | 0.188 | 0.07 |
| CR18-03 | 701194 | 409.50 | 411.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.214 | < 0.01 |
| CR18-03 | 701195 | 411.00 | 412.50 | 1.50 | 3 | < 5 | < 5 | 0.014 | 140 | 0.66 | < 0.005 | 0.223 | 0.02 |
| CR18-03 | 701196 | 412.50 | 414.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.63 | < 0.005 | 0.216 | < 0.01 |
| CR18-03 | 701197 | 414.00 | 415.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.60 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701198 | 415.50 | 417.00 | 1.50 | 3 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.217 | 0.02 |
| CR18-03 | 701199 | 417.00 | 418.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.216 | < 0.01 |
| CR18-03 | 701200 | 418.50 | 420.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701201 | 420.00 | 421.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.214 | < 0.01 |
| CR18-03 | 701202 | 421.50 | 423.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.66 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701203 | 423.00 | 424.50 | 1.50 | 4 | < 5 | < 5 | 0.013 | 130 | 0.64 | < 0.005 | 0.215 | < 0.01 |
| CR18-03 | 701204 | 424.50 | 426.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.210 | < 0.01 |
| CR18-03 | 701205 | 426.00 | 427.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.216 | 0.02 |
| CR18-03 | 701206 | 427.50 | 429.00 | 1.50 | 12 | < 5 | < 5 | 0.013 | 130 | 0.55 | < 0.005 | 0.189 | < 0.01 |
| CR18-03 | 701207 | 429.00 | 430.50 | 1.50 | 8 | < 5 | < 5 | 0.014 | 140 | 0.65 | < 0.005 | 0.228 | < 0.01 |
| CR18-03 | 701208 | 430.50 | 432.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.61 | < 0.005 | 0.219 | < 0.01 |
| CR18-03 | 701209 | 432.00 | 433.50 | 1.50 | 2 | < 5 | 15 | 0.014 | 140 | 0.63 | < 0.005 | 0.222 | < 0.01 |
| CR18-03 | 701210 | 433.50 | 435.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.61 | < 0.005 | 0.219 | < 0.01 |
| CR18-03 | 701211 | 435.00 | 436.50 | 1.50 | 5 | < 5 | 6 | 0.014 | 140 | 0.64 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701212 | 436.50 | 438.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.216 | < 0.01 |
| CR18-03 | 701213 | 438.00 | 439.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.226 | < 0.01 |
| CR18-03 | 701214 | 439.50 | 441.00 | 1.50 | 4 | < 5 | < 5 | 0.016 | 160 | 0.66 | < 0.005 | 0.233 | < 0.01 |
| CR18-03 | 701215 | 441.00 | 442.50 | 1.50 | 10 | < 5 | < 5 | 0.014 | 140 | 0.67 | < 0.005 | 0.228 | 0.02 |
| CR18-03 | 701216 | 442.50 | 444.00 | 1.50 | < 2 | 13 | 7 | 0.015 | 150 | 0.63 | < 0.005 | 0.223 | < 0.01 |
| CR18-03 | 701217 | 444.00 | 445.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.220 | < 0.01 |
| CR18-03 | 701218 | 445.50 | 447.00 | 1.50 | 3 | < 5 | 6 | 0.014 | 140 | 0.70 | < 0.005 | 0.222 | 0.02 |
| CR18-03 | 701219 | 447.00 | 448.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.65 | < 0.005 | 0.222 | < 0.01 |
| CR18-03 | 701220 | 448.50 | 450.00 | 1.50 | 11 | 18 | 49 | 0.015 | 150 | 0.65 | < 0.005 | 0.225 | < 0.01 |
| CR18-03 | 701221 | 450.00 | 451.50 | 1.50 | < 2 | 7 | 7 | 0.013 | 130 | 0.63 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701222 | 451.50 | 453.00 | 1.50 | < 2 | 15 | 13 | 0.013 | 130 | 0.72 | < 0.005 | 0.218 | < 0.01 |
| CR18-03 | 701223 | 453.00 | 454.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.217 | 0.01 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|---------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-03 | 701224 | 454.50 | 456.00 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.64 | < 0.005 | 0.225 | 0.01 |
| CR18-03 | 701225 | 456.00 | 457.50 | 1.50 | 3 | < 5 | 11 | 0.014 | 140 | 0.73 | < 0.005 | 0.222 | < 0.01 |
| CR18-03 | 701226 | 457.50 | 459.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.70 | < 0.005 | 0.225 | < 0.01 |
| CR18-03 | 701227 | 459.00 | 460.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.74 | < 0.005 | 0.219 | < 0.01 |
| CR18-03 | 701228 | 460.50 | 462.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.75 | < 0.005 | 0.222 | 0.03 |
| CR18-03 | 701229 | 462.00 | 463.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.70 | < 0.005 | 0.217 | < 0.01 |
| CR18-03 | 701230 | 463.50 | 465.00 | 1.50 | < 2 | < 5 | 8 | 0.014 | 140 | 0.78 | < 0.005 | 0.224 | < 0.01 |
| CR18-03 | 701231 | 465.00 | 466.50 | 1.50 | < 2 | 5 | 26 | 0.016 | 160 | 0.83 | < 0.005 | 0.234 | 0.02 |
| CR18-03 | 701232 | 466.50 | 468.00 | 1.50 | < 2 | < 5 | 14 | 0.014 | 140 | 0.80 | < 0.005 | 0.225 | < 0.01 |
| CR18-03 | 701233 | 468.00 | 469.50 | 1.50 | 5 | 17 | 27 | 0.014 | 140 | 0.74 | < 0.005 | 0.227 | < 0.01 |
| CR18-03 | 701234 | 469.50 | 471.00 | 1.50 | < 2 | 6 | 23 | 0.014 | 140 | 0.76 | < 0.005 | 0.228 | < 0.01 |
| CR18-03 | 701235 | 471.00 | 472.50 | 1.50 | 5 | 7 | 29 | 0.014 | 140 | 0.82 | < 0.005 | 0.231 | < 0.01 |
| CR18-03 | 701236 | 472.50 | 474.00 | 1.50 | < 2 | 11 | 18 | 0.014 | 140 | 0.74 | < 0.005 | 0.230 | < 0.01 |
| CR18-03 | 701237 | 474.00 | 475.50 | 1.50 | < 2 | 5 | 17 | 0.014 | 140 | 0.88 | < 0.005 | 0.244 | < 0.01 |
| CR18-03 | 701238 | 475.50 | 477.00 | 1.50 | < 2 | 8 | 11 | 0.015 | 150 | 0.90 | < 0.005 | 0.264 | 0.01 |
| CR18-03 | 701239 | 477.00 | 478.50 | 1.50 | < 2 | < 5 | 15 | 0.015 | 150 | 0.63 | < 0.005 | 0.248 | < 0.01 |
| CR18-03 | 701240 | 478.50 | 480.00 | 1.50 | < 2 | 11 | 19 | 0.015 | 150 | 0.74 | < 0.005 | 0.247 | < 0.01 |
| CR18-03 | 701241 | 480.00 | 481.50 | 1.50 | < 2 | 14 | 23 | 0.014 | 140 | 0.84 | < 0.005 | 0.260 | 0.02 |
| CR18-03 | 701242 | 481.50 | 483.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.83 | < 0.005 | 0.266 | < 0.01 |
| CR18-03 | 701243 | 483.00 | 484.50 | 1.50 | < 2 | < 5 | 13 | 0.014 | 140 | 0.80 | < 0.005 | 0.255 | 0.02 |
| CR18-03 | 701244 | 484.50 | 486.00 | 1.50 | < 2 | 12 | 17 | 0.015 | 150 | 0.84 | < 0.005 | 0.263 | 0.02 |
| CR18-03 | 701245 | 486.00 | 487.50 | 1.50 | 8 | < 5 | 6 | 0.014 | 140 | 0.75 | < 0.005 | 0.296 | 0.02 |
| CR18-03 | 701246 | 487.50 | 489.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.76 | < 0.005 | 0.266 | 0.02 |
| CR18-03 | 701247 | 489.00 | 490.50 | 1.50 | < 2 | 7 | 26 | 0.014 | 140 | 0.68 | < 0.005 | 0.283 | 0.01 |
| CR18-03 | 701248 | 490.50 | 492.00 | 1.50 | < 2 | 20 | 19 | 0.014 | 140 | 0.69 | < 0.005 | 0.269 | 0.02 |
| CR18-03 | 701249 | 492.00 | 493.50 | 1.50 | 4 | 567 | 219 | 0.014 | 140 | 0.66 | < 0.005 | 0.285 | 0.02 |
| CR18-03 | 701250 | 493.50 | 495.00 | 1.50 | < 2 | 117 | 66 | 0.014 | 140 | 0.64 | < 0.005 | 0.302 | < 0.01 |
| CR18-03 | 701251 | 495.00 | 496.50 | 1.50 | 7 | 147 | 41 | 0.014 | 140 | 0.64 | < 0.005 | 0.319 | 0.01 |
| CR18-03 | 701252 | 496.50 | 498.00 | 1.50 | < 2 | 71 | 29 | 0.014 | 140 | 0.63 | < 0.005 | 0.322 | 0.04 |
| CR18-03 | 701253 | 498.00 | 499.50 | 1.50 | < 2 | 79 | 82 | 0.014 | 140 | 0.67 | < 0.005 | 0.299 | 0.01 |
| CR18-03 | 701254 | 499.50 | 501.00 | 1.50 | < 2 | 14 | 24 | 0.014 | 140 | 0.66 | < 0.005 | 0.295 | 0.01 |
| CR18-03 | 701255 | 501.00 | 502.50 | 1.50 | < 2 | 28 | 24 | 0.013 | 130 | 0.62 | < 0.005 | 0.293 | < 0.01 |
| CR18-03 | 701256 | 502.50 | 504.00 | 1.50 | < 2 | 87 | 115 | 0.013 | 130 | 0.62 | < 0.005 | 0.306 | 0.02 |
| CR18-03 | 701257 | 504.00 | 505.50 | 1.50 | 3 | 361 | 132 | 0.014 | 140 | 0.68 | < 0.005 | 0.314 | < 0.01 |
| CR18-03 | 701258 | 505.50 | 507.00 | 1.50 | < 2 | 196 | 35 | 0.014 | 140 | 0.67 | < 0.005 | 0.321 | 0.03 |
| CR18-03 | 701259 | 507.00 | 508.50 | 1.50 | 37 | 472 | 49 | 0.014 | 140 | 0.64 | < 0.005 | 0.342 | 0.01 |
| CR18-03 | 701260 | 508.50 | 510.00 | 1.50 | 29 | 513 | 50 | 0.014 | 140 | 0.58 | < 0.005 | 0.332 | 0.01 |
| CR18-03 | 701261 | 510.00 | 511.50 | 1.50 | 77 | 509 | 77 | 0.014 | 140 | 0.53 | < 0.005 | 0.344 | 0.03 |
| CR18-03 | 701262 | 511.50 | 513.00 | 1.50 | 10 | 25 | 9 | 0.014 | 140 | 0.53 | < 0.005 | 0.404 | 0.04 |
| CR18-03 | 701263 | 513.00 | 514.50 | 1.50 | < 2 | 12 | < 5 | 0.015 | 150 | 0.51 | < 0.005 | 0.408 | 0.05 |
| CR18-03 | 701264 | 514.50 | 516.00 | 1.50 | < 2 | 20 | 6 | 0.015 | 150 | 0.46 | < 0.005 | 0.409 | 0.06 |
| CR18-03 | 701265 | 516.00 | 517.50 | 1.50 | < 2 | 16 | 6 | 0.015 | 150 | 0.32 | < 0.005 | 0.368 | 0.04 |
| CR18-03 | 701266 | 517.50 | 519.00 | 1.50 | < 2 | 17 | < 5 | 0.015 | 150 | 0.29 | < 0.005 | 0.411 | 0.07 |
| CR18-03 | 701267 | 519.00 | 520.50 | 1.50 | < 2 | 12 | < 5 | 0.014 | 140 | 0.32 | < 0.005 | 0.336 | 0.03 |
| CR18-03 | 701268 | 520.50 | 522.00 | 1.50 | < 2 | 22 | 8 | 0.014 | 140 | 0.39 | < 0.005 | 0.331 | 0.05 |
| CR18-03 | 701269 | 522.00 | 523.50 | 1.50 | < 2 | 13 | < 5 | 0.014 | 140 | 0.38 | 0.009 | 0.298 | 0.06 |
| CR18-03 | 701270 | 523.50 | 525.00 | 1.50 | < 2 | 14 | < 5 | 0.014 | 140 | 0.39 | < 0.005 | 0.307 | 0.03 |
| CR18-03 | 701271 | 525.00 | 526.50 | 1.50 | < 2 | 19 | 9 | 0.014 | 140 | 0.36 | < 0.005 | 0.335 | 0.04 |
| CR18-03 | 701272 | 526.50 | 528.00 | 1.50 | < 2 | 18 | < 5 | 0.014 | 140 | 0.28 | < 0.005 | 0.306 | 0.06 |
| CR18-03 | 701273 | 528.00 | 529.50 | 1.50 | < 2 | 15 | < 5 | 0.014 | 140 | 0.25 | < 0.005 | 0.293 | 0.04 |
| CR18-03 | 701274 | 529.50 | 531.00 | 1.50 | < 2 | 21 | < 5 | 0.013 | 130 | 0.26 | < 0.005 | 0.306 | 0.06 |
| CR18-03 | 701275 | 531.00 | 532.50 | 1.50 | < 2 | 11 | < 5 | 0.013 | 130 | 0.24 | < 0.005 | 0.270 | 0.07 |
| CR18-03 | 701276 | 532.50 | 534.00 | 1.50 | < 2 | 12 | < 5 | 0.013 | 130 | 0.25 | < 0.005 | 0.285 | 0.05 |
| CR18-03 | 701277 | 534.00 | 535.50 | 1.50 | < 2 | 20 | < 5 | 0.012 | 120 | 0.26 | < 0.005 | 0.300 | 0.07 |
| CR18-03 | 701278 | 535.50 | 537.00 | 1.50 | < 2 | 23 | < 5 | 0.014 | 140 | 0.38 | < 0.005 | 0.337 | 0.07 |
| CR18-03 | 701279 | 537.00 | 538.50 | 1.50 | < 2 | 14 | < 5 | 0.013 | 130 | 0.46 | < 0.005 | 0.334 | 0.06 |
| CR18-03 | 701280 | 538.50 | 540.00 | 1.50 | < 2 | 22 | < 5 | 0.014 | 140 | 0.35 | < 0.005 | 0.319 | 0.05 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|------------------|------------|----------|--------|-------------|--------|--------|--------|---------|--------|--------|---------|----------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-03 | 701281 | 540.00 | 541.50 | 1.50 | < 2 | 19 | < 5 | 0.014 | 140 | 0.30 | < 0.005 | 0.314 | 0.05 |
| CR18-03 | 701282 | 541.50 | 543.00 | 1.50 | < 2 | 16 | 6 | 0.015 | 150 | 0.32 | < 0.005 | 0.305 | 0.03 |
| CR18-03 | 701283 | 543.00 | 544.50 | 1.50 | < 2 | 10 | < 5 | 0.014 | 140 | 0.25 | 0.018 | 0.331 | 0.06 |
| CR18-03 | 701284 | 544.50 | 546.00 | 1.50 | < 2 | 18 | < 5 | 0.014 | 140 | 0.27 | < 0.005 | 0.310 | 0.04 |
| CR18-03 | 701285 | 546.00 | 547.50 | 1.50 | < 2 | 11 | < 5 | 0.013 | 130 | 0.23 | 0.006 | 0.300 | 0.06 |
| CR18-03 | 701286 | 547.50 | 549.00 | 1.50 | 4 | 13 | < 5 | 0.011 | 110 | 0.20 | 0.017 | 0.241 | 0.04 |
| CR18-03 | 701287 | 549.00 | 550.50 | 1.50 | < 2 | 10 | < 5 | 0.012 | 120 | 0.22 | < 0.005 | 0.240 | 0.05 |
| CR18-03 | 701288 | 550.50 | 552.00 | 1.50 | < 2 | 7 | < 5 | 0.014 | 140 | 0.23 | < 0.005 | 0.302 | 0.06 |
| CR18-03 | 701289 | 552.00 | 553.50 | 1.50 | < 2 | 8 | < 5 | 0.013 | 130 | 0.36 | < 0.005 | 0.259 | 0.05 |
| CR18-03 | 701290 | 553.50 | 555.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.307 | 0.05 |
| CR18-03 | 701291 | 555.00 | 556.50 | 1.50 | 5 | 6 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.275 | 0.06 |
| CR18-03 | 701292 | 556.50 | 558.00 | 1.50 | < 2 | 8 | < 5 | 0.014 | 140 | 0.67 | < 0.005 | 0.329 | 0.08 |
| CR18-03 | 701293 | 558.00 | 559.50 | 1.50 | < 2 | 27 | 37 | 0.013 | 130 | 0.62 | < 0.005 | 0.292 | 0.05 |
| CR18-03 | 701294 | 559.50 | 561.00 | 1.50 | < 2 | 6 | 12 | 0.014 | 140 | 0.66 | < 0.005 | 0.252 | 0.05 |
| CR18-03 | 701295 | 561.00 | 562.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.63 | < 0.005 | 0.265 | < 0.01 |
| CR18-03 | 701296 | 562.50 | 564.00 | 1.50 | < 2 | 6 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.266 | 0.03 |
| CR18-03 | 701297 | 564.00 | 565.50 | 1.50 | 5 | 11 | 10 | 0.014 | 140 | 0.63 | < 0.005 | 0.284 | 0.02 |
| CR18-03 | 701298 | 565.50 | 567.00 | 1.50 | < 2 | 6 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.289 | 0.04 |
| CR18-03 | 701299 | 567.00 | 568.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.64 | < 0.005 | 0.281 | 0.03 |
| CR18-03 | 701300 | 568.50 | 570.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.62 | < 0.005 | 0.270 | 0.02 |
| CR18-03 | 701301 | 570.00 | 571.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.68 | < 0.005 | 0.272 | 0.01 |
| CR18-03 | 701302 | 571.50 | 573.00 | 1.50 | < 2 | 8 | 19 | 0.014 | 140 | 0.82 | < 0.005 | 0.267 | 0.02 |
| CR18-03 | 701303 | 573.00 | 574.50 | 1.50 | < 2 | 5 | < 5 | 0.015 | 150 | 0.76 | < 0.005 | 0.256 | 0.02 |
| CR18-03 | 701304 | 574.50 | 576.00 | 1.50 | 2 | < 5 | < 5 | 0.015 | 150 | 0.70 | < 0.005 | 0.293 | 0.02 |
| CR18-03 | 701305 | 576.00 | 577.50 | 1.50 | < 2 | < 5 | 17 | 0.014 | 140 | 0.66 | < 0.005 | 0.283 | 0.04 |
| CR18-03 | 701306 | 577.50 | 579.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.72 | < 0.005 | 0.269 | 0.03 |
| CR18-03 | 701307 | 579.00 | 580.50 | 1.50 | < 2 | < 5 | < 5 | 0.015 | 150 | 0.67 | < 0.005 | 0.268 | 0.02 |
| CR18-03 | 701308 | 580.50 | 582.00 | 1.50 | < 2 | < 5 | 21 | 0.014 | 140 | 0.73 | < 0.005 | 0.243 | 0.02 |
| CR18-03 | 701309 | 582.00 | 583.50 | 1.50 | < 2 | < 5 | 12 | 0.015 | 150 | 0.69 | < 0.005 | 0.283 | 0.04 |
| CR18-03 | 701310 | 583.50 | 585.00 | 1.50 | < 2 | 7 | 29 | 0.014 | 140 | 0.63 | < 0.005 | 0.256 | 0.02 |
| CR18-03 | 701311 | 585.00 | 586.50 | 1.50 | < 2 | < 5 | 13 | 0.014 | 140 | 0.65 | < 0.005 | 0.267 | 0.02 |
| CR18-03 | 701312 | 586.50 | 588.00 | 1.50 | < 2 | 9 | 14 | 0.015 | 150 | 0.68 | < 0.005 | 0.272 | < 0.01 |
| CR18-03 | 701313 | 588.00 | 589.50 | 1.50 | < 2 | 6 | 21 | 0.014 | 140 | 0.62 | < 0.005 | 0.275 | 0.03 |
| CR18-03 | 701314 | 589.50 | 591.00 | 1.50 | 3 | 32 | 115 | 0.015 | 150 | 0.59 | < 0.005 | 0.301 | 0.02 |
| CR18-03 | 701315 | 591.00 | 592.50 | 1.50 | 5 | 15 | 63 | 0.015 | 150 | 0.63 | < 0.005 | 0.311 | 0.05 |
| CR18-03 | 701316 | 592.50 | 594.00 | 1.50 | < 2 | 105 | 179 | 0.014 | 140 | 0.55 | < 0.005 | 0.302 | 0.03 |
| CR18-03 | 701317 | 594.00 | 595.50 | 1.50 | < 2 | 114 | 49 | 0.015 | 150 | 0.57 | < 0.005 | 0.349 | 0.05 |
| CR18-03 | 701318 | 595.50 | 597.00 | 1.50 | < 2 | 10 | 26 | 0.013 | 130 | 0.35 | < 0.005 | 0.282 | 0.03 |
| CR18-03 | 701319 | 597.00 | 598.50 | 1.50 | < 2 | 10 | 33 | 0.013 | 130 | 0.27 | < 0.005 | 0.273 | < 0.01 |
| CR18-03 | 701320 | 598.50 | 600.00 | 1.50 | 5 | 57 | 185 | 0.013 | 130 | 0.31 | < 0.005 | 0.271 | 0.03 |
| CR18-03 | 701321 | 600.00 | 601.50 | 1.50 | 86 | 132 | 196 | 0.013 | 130 | 0.32 | < 0.005 | 0.296 | 0.03 |
| CR18-03 | 701322 | 601.50 | 603.00 | 1.50 | 113 | 251 | 86 | 0.014 | 140 | 0.32 | < 0.005 | 0.311 | 0.02 |
| CR18-03 | 701323 | 603.00 | 604.50 | 1.50 | 9 | 50 | 6 | 0.014 | 140 | 0.41 | < 0.005 | 0.343 | 0.03 |
| CR18-03 | 701324 | 604.50 | 606.00 | 1.50 | 8 | 153 | 17 | 0.014 | 140 | 0.34 | < 0.005 | 0.384 | 0.05 |
| CRAW18-04 | | | | | | | | | | | | | |
| CR18-04 | 701325 | 61.50 | 63.00 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | 0.02 |
| CR18-04 | 701326 | 63.00 | 64.50 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | < 0.01 |
| CR18-04 | 701327 | 64.50 | 66.00 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | 0.01 |
| CR18-04 | 701328 | 66.00 | 67.50 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | 0.01 |
| CR18-04 | 701329 | 67.50 | 69.00 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | < 0.01 |
| CR18-04 | 701330 | 69.00 | 70.50 | 1.50 | < 2 | < 5 | < 5 | < 0.002 | <20 | < 0.01 | < 0.005 | < 0.005 | 0.01 |
| CR18-04 | 701331 | 70.50 | 71.50 | 1.00 | 5 | < 5 | < 5 | 0.002 | 20 | 0.03 | < 0.005 | 0.011 | 0.01 |
| CR18-04 | 701332 | 71.50 | 72.40 | 0.90 | 2 | 8 | 13 | 0.007 | 70 | 0.25 | < 0.005 | 0.082 | < 0.01 |
| CR18-04 | 701333 | 72.40 | 73.50 | 1.10 | < 2 | < 5 | 7 | 0.010 | 100 | 0.43 | 0.005 | 0.147 | 0.02 |
| CR18-04 | 701334 | 73.50 | 75.00 | 1.50 | 3 | 9 | 9 | 0.012 | 120 | 0.53 | < 0.005 | 0.180 | 0.06 |
| CR18-04 | 701335 | 75.00 | 76.50 | 1.50 | 3 | 7 | 5 | 0.012 | 120 | 0.49 | < 0.005 | 0.175 | 0.05 |
| CR18-04 | 701336 | 76.50 | 78.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.54 | < 0.005 | 0.179 | 0.06 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|--------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-04 | 701337 | 78.00 | 79.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.54 | < 0.005 | 0.179 | 0.05 |
| CR18-04 | 701338 | 79.50 | 81.00 | 1.50 | < 2 | < 5 | 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.184 | 0.05 |
| CR18-04 | 701339 | 81.00 | 82.50 | 1.50 | < 2 | 8 | 10 | 0.012 | 120 | 0.52 | < 0.005 | 0.174 | 0.04 |
| CR18-04 | 701340 | 82.50 | 84.00 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.51 | < 0.005 | 0.173 | 0.09 |
| CR18-04 | 701341 | 84.00 | 85.50 | 1.50 | < 2 | 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.168 | 0.05 |
| CR18-04 | 701342 | 85.50 | 87.00 | 1.50 | 3 | < 5 | < 5 | 0.011 | 110 | 0.45 | < 0.005 | 0.161 | 0.09 |
| CR18-04 | 701343 | 87.00 | 88.50 | 1.50 | 17 | < 5 | < 5 | 0.011 | 110 | 0.40 | < 0.005 | 0.153 | 0.04 |
| CR18-04 | 701344 | 88.50 | 90.00 | 1.50 | 4 | < 5 | < 5 | 0.012 | 120 | 0.40 | < 0.005 | 0.175 | 0.02 |
| CR18-04 | 701345 | 90.00 | 91.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.41 | < 0.005 | 0.162 | 0.02 |
| CR18-04 | 701346 | 91.50 | 93.00 | 1.50 | < 2 | 7 | < 5 | 0.012 | 120 | 0.40 | < 0.005 | 0.156 | 0.04 |
| CR18-04 | 701347 | 93.00 | 94.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.39 | < 0.005 | 0.138 | 0.01 |
| CR18-04 | 701348 | 94.50 | 96.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.40 | < 0.005 | 0.139 | 0.01 |
| CR18-04 | 701349 | 96.00 | 97.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.40 | < 0.005 | 0.138 | 0.02 |
| CR18-04 | 701350 | 97.50 | 99.00 | 1.50 | 3 | < 5 | < 5 | 0.012 | 120 | 0.40 | < 0.005 | 0.137 | 0.01 |
| CR18-04 | 701351 | 99.00 | 100.50 | 1.50 | 4 | 9 | 17 | 0.012 | 120 | 0.43 | < 0.005 | 0.150 | < 0.01 |
| CR18-04 | 701352 | 100.50 | 102.00 | 1.50 | 2 | 40 | 33 | 0.012 | 120 | 0.41 | < 0.005 | 0.136 | < 0.01 |
| CR18-04 | 701353 | 102.00 | 103.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.39 | < 0.005 | 0.131 | 0.01 |
| CR18-04 | 701354 | 103.50 | 105.00 | 1.50 | < 2 | < 5 | 13 | 0.011 | 110 | 0.47 | < 0.005 | 0.138 | 0.02 |
| CR18-04 | 701355 | 105.00 | 106.50 | 1.50 | < 2 | 186 | 109 | 0.012 | 120 | 0.47 | < 0.005 | 0.175 | 0.02 |
| CR18-04 | 701356 | 106.50 | 108.00 | 1.50 | 2 | 5 | 16 | 0.013 | 130 | 0.49 | < 0.005 | 0.174 | 0.02 |
| CR18-04 | 701357 | 108.00 | 109.50 | 1.50 | < 2 | 7 | 18 | 0.013 | 130 | 0.48 | < 0.005 | 0.169 | 0.01 |
| CR18-04 | 701358 | 109.50 | 111.00 | 1.50 | < 2 | < 5 | 9 | 0.013 | 130 | 0.46 | < 0.005 | 0.159 | < 0.01 |
| CR18-04 | 701359 | 111.00 | 112.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.46 | < 0.005 | 0.169 | 0.02 |
| CR18-04 | 701360 | 112.50 | 114.00 | 1.50 | < 2 | < 5 | 7 | 0.013 | 130 | 0.53 | < 0.005 | 0.188 | 0.02 |
| CR18-04 | 701361 | 114.00 | 115.50 | 1.50 | 3 | 7 | 9 | 0.013 | 130 | 0.51 | < 0.005 | 0.173 | < 0.01 |
| CR18-04 | 701362 | 115.50 | 117.00 | 1.50 | < 2 | 6 | 5 | 0.012 | 120 | 0.49 | 0.007 | 0.173 | 0.02 |
| CR18-04 | 701363 | 117.00 | 118.50 | 1.50 | < 2 | 8 | 8 | 0.014 | 140 | 0.49 | 0.017 | 0.178 | 0.03 |
| CR18-04 | 701364 | 118.50 | 120.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | 0.006 | 0.172 | < 0.01 |
| CR18-04 | 701365 | 120.00 | 121.50 | 1.50 | < 2 | 6 | 15 | 0.011 | 110 | 0.51 | < 0.005 | 0.183 | 0.02 |
| CR18-04 | 701366 | 121.50 | 123.00 | 1.50 | 9 | 11 | < 5 | 0.039 | 390 | 0.51 | 0.134 | 0.350 | 0.29 |
| CR18-04 | 701367 | 123.00 | 124.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | 0.008 | 0.166 | 0.01 |
| CR18-04 | 701368 | 124.50 | 126.00 | 1.50 | 9 | 9 | 22 | 0.012 | 120 | 0.52 | < 0.005 | 0.171 | < 0.01 |
| CR18-04 | 701369 | 126.00 | 127.50 | 1.50 | 33 | < 5 | < 5 | 0.013 | 130 | 0.52 | < 0.005 | 0.173 | 0.02 |
| CR18-04 | 701370 | 127.50 | 129.00 | 1.50 | < 2 | < 5 | 12 | 0.012 | 120 | 0.55 | < 0.005 | 0.182 | 0.01 |
| CR18-04 | 701371 | 129.00 | 130.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.54 | < 0.005 | 0.186 | 0.04 |
| CR18-04 | 701372 | 130.50 | 132.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.173 | 0.02 |
| CR18-04 | 701373 | 132.00 | 133.50 | 1.50 | 2 | < 5 | 6 | 0.012 | 120 | 0.55 | < 0.005 | 0.187 | < 0.01 |
| CR18-04 | 701374 | 133.50 | 135.00 | 1.50 | < 2 | 8 | 12 | 0.012 | 120 | 0.50 | < 0.005 | 0.169 | 0.01 |
| CR18-04 | 701375 | 135.00 | 136.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.51 | < 0.005 | 0.165 | 0.03 |
| CR18-04 | 701376 | 136.50 | 138.00 | 1.50 | < 2 | < 5 | 8 | 0.011 | 110 | 0.47 | < 0.005 | 0.155 | 0.01 |
| CR18-04 | 701377 | 138.00 | 139.50 | 1.50 | 4 | 13 | 12 | 0.011 | 110 | 0.46 | < 0.005 | 0.156 | 0.03 |
| CR18-04 | 701378 | 139.50 | 141.00 | 1.50 | < 2 | < 5 | 8 | 0.011 | 110 | 0.52 | < 0.005 | 0.170 | 0.02 |
| CR18-04 | 701379 | 141.00 | 142.50 | 1.50 | < 2 | 9 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.184 | 0.02 |
| CR18-04 | 701380 | 142.50 | 144.00 | 1.50 | 5 | 11 | 13 | 0.012 | 120 | 0.54 | < 0.005 | 0.182 | 0.01 |
| CR18-04 | 701381 | 144.00 | 145.50 | 1.50 | < 2 | 17 | 12 | 0.012 | 120 | 0.54 | < 0.005 | 0.181 | 0.02 |
| CR18-04 | 701382 | 145.50 | 147.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.172 | 0.01 |
| CR18-04 | 701383 | 147.00 | 148.50 | 1.50 | < 2 | 9 | < 5 | 0.009 | 90 | 0.37 | < 0.005 | 0.125 | < 0.01 |
| CR18-04 | 701384 | 148.50 | 150.00 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.41 | < 0.005 | 0.134 | < 0.01 |
| CR18-04 | 701385 | 150.00 | 151.50 | 1.50 | < 2 | < 5 | 10 | 0.011 | 110 | 0.47 | < 0.005 | 0.156 | < 0.01 |
| CR18-04 | 701386 | 151.50 | 153.00 | 1.50 | < 2 | < 5 | 8 | 0.011 | 110 | 0.46 | < 0.005 | 0.152 | < 0.01 |
| CR18-04 | 701387 | 153.00 | 154.50 | 1.50 | < 2 | < 5 | < 5 | 0.011 | 110 | 0.46 | < 0.005 | 0.155 | < 0.01 |
| CR18-04 | 701388 | 154.50 | 156.00 | 1.50 | 9 | < 5 | < 5 | 0.011 | 110 | 0.47 | < 0.005 | 0.157 | < 0.01 |
| CR18-04 | 701389 | 156.00 | 157.50 | 1.50 | 3 | 126 | 16 | 0.011 | 110 | 0.53 | < 0.005 | 0.177 | < 0.01 |
| CR18-04 | 701390 | 157.50 | 159.00 | 1.50 | 30 | 49 | 17 | 0.012 | 120 | 0.56 | < 0.005 | 0.184 | < 0.01 |
| CR18-04 | 701391 | 159.00 | 160.50 | 1.50 | < 2 | < 5 | 11 | 0.012 | 120 | 0.55 | < 0.005 | 0.179 | 0.01 |
| CR18-04 | 701392 | 160.50 | 162.00 | 1.50 | 2 | < 5 | < 5 | 0.012 | 120 | 0.53 | < 0.005 | 0.173 | < 0.01 |
| CR18-04 | 701393 | 162.00 | 163.50 | 1.50 | < 2 | 8 | 6 | 0.012 | 120 | 0.54 | < 0.005 | 0.177 | < 0.01 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|---------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-04 | 701394 | 163.50 | 165.00 | 1.50 | 7 | 6 | 5 | 0.012 | 120 | 0.52 | < 0.005 | 0.182 | < 0.01 |
| CR18-04 | 701395 | 165.00 | 166.50 | 1.50 | 6 | 570 | 69 | 0.012 | 120 | 0.51 | < 0.005 | 0.182 | < 0.01 |
| CR18-04 | 701396 | 166.50 | 168.00 | 1.50 | < 2 | 7 | < 5 | 0.012 | 120 | 0.55 | < 0.005 | 0.195 | 0.02 |
| CR18-04 | 701397 | 168.00 | 169.50 | 1.50 | < 2 | 7 | 7 | 0.011 | 110 | 0.54 | < 0.005 | 0.184 | 0.01 |
| CR18-04 | 701398 | 169.50 | 171.00 | 1.50 | < 2 | 23 | 12 | 0.011 | 110 | 0.54 | < 0.005 | 0.191 | < 0.01 |
| CR18-04 | 701399 | 171.00 | 172.50 | 1.50 | < 2 | 40 | 13 | 0.012 | 120 | 0.53 | < 0.005 | 0.184 | < 0.01 |
| CR18-04 | 701400 | 172.50 | 174.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.54 | < 0.005 | 0.187 | 0.01 |
| CR18-04 | 701401 | 174.00 | 175.50 | 1.50 | 3 | 9 | 8 | 0.012 | 120 | 0.55 | < 0.005 | 0.187 | < 0.01 |
| CR18-04 | 701402 | 175.50 | 177.00 | 1.50 | < 2 | 11 | 7 | 0.012 | 120 | 0.54 | < 0.005 | 0.194 | < 0.01 |
| CR18-04 | 701403 | 177.00 | 178.50 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.51 | < 0.005 | 0.179 | 0.03 |
| CR18-04 | 701404 | 178.50 | 180.00 | 1.50 | < 2 | 9 | 6 | 0.011 | 110 | 0.50 | < 0.005 | 0.184 | 0.03 |
| CR18-04 | 701405 | 180.00 | 181.50 | 1.50 | < 2 | < 5 | 6 | 0.011 | 110 | 0.49 | < 0.005 | 0.177 | 0.08 |
| CR18-04 | 701406 | 181.50 | 183.00 | 1.50 | < 2 | 13 | 10 | 0.012 | 120 | 0.51 | < 0.005 | 0.179 | 0.04 |
| CR18-04 | 701407 | 183.00 | 184.50 | 1.50 | < 2 | < 5 | 6 | 0.012 | 120 | 0.51 | < 0.005 | 0.185 | 0.07 |
| CR18-04 | 701408 | 184.50 | 186.00 | 1.50 | < 2 | 6 | 16 | 0.012 | 120 | 0.52 | < 0.005 | 0.186 | 0.09 |
| CR18-04 | 701409 | 186.00 | 187.50 | 1.50 | < 2 | 14 | 13 | 0.013 | 130 | 0.47 | < 0.005 | 0.179 | 0.16 |
| CR18-04 | 701410 | 187.50 | 189.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | < 0.005 | 0.180 | 0.12 |
| CR18-04 | 701411 | 189.00 | 190.50 | 1.50 | < 2 | < 5 | 7 | 0.012 | 120 | 0.51 | < 0.005 | 0.180 | 0.13 |
| CR18-04 | 701412 | 190.50 | 192.00 | 1.50 | < 2 | < 5 | < 5 | 0.012 | 120 | 0.50 | < 0.005 | 0.179 | 0.19 |
| CR18-04 | 701413 | 192.00 | 193.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.53 | < 0.005 | 0.190 | 0.12 |
| CR18-04 | 701414 | 193.50 | 195.00 | 1.50 | < 2 | 6 | 23 | 0.014 | 140 | 0.57 | < 0.005 | 0.208 | 0.12 |
| CR18-04 | 701415 | 195.00 | 196.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.56 | < 0.005 | 0.192 | 0.13 |
| CR18-04 | 701416 | 196.50 | 198.00 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.58 | < 0.005 | 0.203 | 0.12 |
| CR18-04 | 701417 | 198.00 | 199.50 | 1.50 | < 2 | 6 | 7 | 0.012 | 120 | 0.53 | < 0.005 | 0.195 | 0.13 |
| CR18-04 | 701418 | 199.50 | 201.00 | 1.50 | 32 | 8 | 12 | 0.014 | 140 | 0.62 | < 0.005 | 0.210 | 0.15 |
| CR18-04 | 701419 | 201.00 | 202.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.62 | < 0.005 | 0.196 | 0.14 |
| CR18-04 | 701420 | 202.50 | 204.00 | 1.50 | < 2 | 7 | 11 | 0.012 | 120 | 0.48 | < 0.005 | 0.191 | 0.15 |
| CR18-04 | 701421 | 204.00 | 205.50 | 1.50 | < 2 | 24 | 14 | 0.011 | 110 | 0.44 | 0.006 | 0.182 | 0.30 |
| CR18-04 | 701422 | 205.50 | 207.00 | 1.50 | < 2 | 63 | 24 | 0.018 | 180 | 0.73 | < 0.005 | 0.352 | 0.28 |
| CR18-04 | 701423 | 207.00 | 208.50 | 1.50 | < 2 | 44 | 16 | 0.016 | 160 | 0.66 | < 0.005 | 0.286 | 0.22 |
| CR18-04 | 701424 | 208.50 | 210.00 | 1.50 | < 2 | 60 | 23 | 0.018 | 180 | 0.71 | 0.032 | 0.449 | 0.42 |
| CR18-04 | 701425 | 210.00 | 211.50 | 1.50 | < 2 | 85 | 74 | 0.018 | 180 | 0.67 | 0.039 | 0.452 | 0.45 |
| CR18-04 | 701426 | 211.50 | 213.00 | 1.50 | < 2 | 70 | 23 | 0.023 | 230 | 0.70 | 0.029 | 0.560 | 0.58 |
| CR18-04 | 701427 | 213.00 | 214.50 | 1.50 | < 2 | 84 | 24 | 0.023 | 230 | 0.75 | 0.042 | 0.578 | 0.57 |
| CR18-04 | 701428 | 214.50 | 216.00 | 1.50 | < 2 | 80 | 26 | 0.023 | 230 | 0.69 | 0.035 | 0.533 | 0.49 |
| CR18-04 | 701429 | 216.00 | 217.50 | 1.50 | < 2 | 65 | 27 | 0.026 | 260 | 0.76 | 0.047 | 0.647 | 0.60 |
| CR18-04 | 701430 | 217.50 | 219.00 | 1.50 | < 2 | 66 | 21 | 0.023 | 230 | 0.70 | 0.044 | 0.574 | 0.54 |
| CR18-04 | 701431 | 219.00 | 220.50 | 1.50 | < 2 | 52 | 18 | 0.022 | 220 | 0.75 | 0.043 | 0.461 | 0.45 |
| CR18-04 | 701432 | 220.50 | 222.00 | 1.50 | < 2 | 24 | 12 | 0.017 | 170 | 0.71 | 0.014 | 0.349 | 0.33 |
| CR18-04 | 701433 | 222.00 | 223.50 | 1.50 | < 2 | < 5 | < 5 | 0.014 | 140 | 0.63 | < 0.005 | 0.222 | 0.16 |
| CR18-04 | 701434 | 223.50 | 225.00 | 1.50 | < 2 | 34 | 13 | 0.014 | 140 | 0.78 | 0.014 | 0.254 | 0.20 |
| CR18-04 | 701435 | 225.00 | 226.50 | 1.50 | < 2 | < 5 | < 5 | 0.013 | 130 | 0.66 | 0.008 | 0.212 | 0.20 |
| CR18-04 | 701436 | 226.50 | 228.00 | 1.50 | < 2 | 32 | 22 | 0.012 | 120 | 0.68 | 0.013 | 0.220 | 0.21 |
| CR18-04 | 701437 | 228.00 | 229.50 | 1.50 | < 2 | 21 | 11 | 0.012 | 120 | 0.74 | 0.012 | 0.225 | 0.20 |
| CR18-04 | 701438 | 229.50 | 231.00 | 1.50 | < 2 | 43 | 14 | 0.013 | 130 | 0.74 | < 0.005 | 0.263 | 0.19 |
| CR18-04 | 701439 | 231.00 | 232.50 | 1.50 | < 2 | 52 | 19 | 0.015 | 150 | 0.77 | 0.007 | 0.287 | 0.20 |
| CR18-04 | 701440 | 232.50 | 234.00 | 1.50 | < 2 | 46 | 21 | 0.016 | 160 | 0.74 | < 0.005 | 0.359 | 0.19 |
| CR18-04 | 701441 | 234.00 | 235.50 | 1.50 | < 2 | 41 | 25 | 0.016 | 160 | 0.78 | < 0.005 | 0.323 | 0.18 |
| CR18-04 | 701442 | 235.50 | 237.00 | 1.50 | < 2 | 53 | 33 | 0.014 | 140 | 0.85 | < 0.005 | 0.269 | 0.11 |
| CR18-04 | 701443 | 237.00 | 238.50 | 1.50 | < 2 | 25 | 18 | 0.013 | 130 | 0.73 | < 0.005 | 0.257 | 0.09 |
| CR18-04 | 701444 | 238.50 | 240.00 | 1.50 | 5 | 22 | 18 | 0.013 | 130 | 0.74 | < 0.005 | 0.252 | 0.10 |
| CR18-04 | 701445 | 240.00 | 241.50 | 1.50 | < 2 | 63 | 17 | 0.013 | 130 | 0.58 | < 0.005 | 0.235 | 0.11 |
| CR18-04 | 701446 | 241.50 | 243.00 | 1.50 | < 2 | 36 | 11 | 0.013 | 130 | 0.67 | < 0.005 | 0.259 | 0.14 |
| CR18-04 | 701447 | 243.00 | 244.50 | 1.50 | < 2 | 52 | 31 | 0.014 | 140 | 0.85 | < 0.005 | 0.312 | 0.15 |
| CR18-04 | 701448 | 244.50 | 246.00 | 1.50 | < 2 | 20 | 8 | 0.013 | 130 | 0.73 | < 0.005 | 0.281 | 0.12 |
| CR18-04 | 701449 | 246.00 | 247.50 | 1.50 | < 2 | 69 | 20 | 0.016 | 160 | 0.93 | < 0.005 | 0.402 | 0.19 |
| CR18-04 | 701450 | 247.50 | 249.00 | 1.50 | < 2 | 49 | 20 | 0.015 | 150 | 0.81 | < 0.005 | 0.309 | 0.17 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb | Pd ppb | Pt ppb | Co % | Co ppm | Cr % | Cu % | Ni % | S % |
|---------|------------|----------|--------|-------------|--------|--------|--------|-------|--------|------|---------|--------------|------|
| | | | | | FA | FA | FA | ICP | ICP | ICP | ICP | ICP | |
| CR18-04 | 701451 | 249.00 | 250.50 | 1.50 | < 2 | 9 | < 5 | 0.014 | 140 | 0.71 | < 0.005 | 0.275 | 0.12 |
| CR18-04 | 701452 | 250.50 | 252.00 | 1.50 | < 2 | 56 | 17 | 0.012 | 120 | 0.74 | < 0.005 | 0.265 | 0.11 |
| CR18-04 | 701453 | 252.00 | 253.50 | 1.50 | < 2 | 48 | 27 | 0.015 | 150 | 0.83 | < 0.005 | 0.326 | 0.17 |
| CR18-04 | 701454 | 253.50 | 255.00 | 1.50 | < 2 | 50 | 15 | 0.012 | 120 | 0.75 | < 0.005 | 0.299 | 0.16 |
| CR18-04 | 701455 | 255.00 | 256.50 | 1.50 | < 2 | 32 | 20 | 0.014 | 140 | 0.86 | 0.009 | 0.337 | 0.22 |
| CR18-04 | 701456 | 256.50 | 258.00 | 1.50 | < 2 | 50 | 21 | 0.015 | 150 | 0.73 | 0.013 | 0.392 | 0.27 |
| CR18-04 | 701457 | 258.00 | 259.50 | 1.50 | < 2 | 68 | 18 | 0.017 | 170 | 0.77 | 0.022 | 0.515 | 0.41 |
| CR18-04 | 701458 | 259.50 | 261.00 | 1.50 | < 2 | 32 | 14 | 0.015 | 150 | 0.75 | < 0.005 | 0.327 | 0.19 |
| CR18-04 | 701459 | 261.00 | 262.50 | 1.50 | < 2 | 17 | < 5 | 0.013 | 130 | 0.70 | 0.006 | 0.266 | 0.17 |
| CR18-04 | 701460 | 262.50 | 264.00 | 1.50 | < 2 | 34 | 5 | 0.014 | 140 | 0.69 | 0.008 | 0.315 | 0.19 |
| CR18-04 | 701461 | 264.00 | 265.50 | 1.50 | < 2 | 31 | 17 | 0.016 | 160 | 0.71 | 0.006 | 0.392 | 0.25 |
| CR18-04 | 701462 | 265.50 | 267.00 | 1.50 | < 2 | 47 | 21 | 0.015 | 150 | 0.77 | 0.007 | 0.432 | 0.25 |
| CR18-04 | 701463 | 267.00 | 268.50 | 1.50 | 3 | 41 | 23 | 0.015 | 150 | 0.74 | 0.019 | 0.444 | 0.29 |
| CR18-04 | 701464 | 268.50 | 270.00 | 1.50 | < 2 | 52 | 12 | 0.018 | 180 | 0.69 | 0.013 | 0.495 | 0.32 |
| CR18-04 | 701465 | 270.00 | 271.50 | 1.50 | < 2 | 22 | 12 | 0.015 | 150 | 0.64 | 0.016 | 0.340 | 0.24 |
| CR18-04 | 701466 | 271.50 | 273.00 | 1.50 | < 2 | 25 | 10 | 0.015 | 150 | 0.62 | 0.012 | 0.356 | 0.25 |
| CR18-04 | 701467 | 273.00 | 274.50 | 1.50 | < 2 | 31 | 10 | 0.014 | 140 | 0.55 | 0.015 | 0.367 | 0.24 |
| CR18-04 | 701468 | 274.50 | 276.00 | 1.50 | < 2 | 37 | 13 | 0.017 | 170 | 0.56 | < 0.005 | 0.436 | 0.24 |
| CR18-04 | 701469 | 276.00 | 277.50 | 1.50 | < 2 | 23 | 11 | 0.012 | 120 | 0.54 | 0.010 | 0.280 | 0.16 |
| CR18-04 | 701470 | 277.50 | 279.00 | 1.50 | < 2 | 25 | 11 | 0.013 | 130 | 0.55 | < 0.005 | 0.331 | 0.16 |
| CR18-04 | 701471 | 279.00 | 280.50 | 1.50 | < 2 | 34 | 12 | 0.015 | 150 | 0.50 | < 0.005 | 0.368 | 0.17 |
| CR18-04 | 701472 | 280.50 | 282.00 | 1.50 | < 2 | 21 | 6 | 0.014 | 140 | 0.45 | 0.009 | 0.323 | 0.19 |
| CR18-04 | 701473 | 282.00 | 283.50 | 1.50 | < 2 | 35 | 14 | 0.016 | 160 | 0.37 | 0.014 | 0.441 | 0.24 |
| CR18-04 | 701474 | 283.50 | 285.00 | 1.50 | < 2 | 28 | 14 | 0.016 | 160 | 0.40 | 0.009 | 0.391 | 0.19 |
| CR18-04 | 701475 | 285.00 | 286.50 | 1.50 | < 2 | 20 | 6 | 0.013 | 130 | 0.40 | < 0.005 | 0.306 | 0.13 |
| CR18-04 | 701476 | 286.50 | 288.00 | 1.50 | < 2 | 19 | 11 | 0.014 | 140 | 0.36 | 0.005 | 0.322 | 0.14 |
| CR18-04 | 701477 | 288.00 | 289.50 | 1.50 | 6 | 14 | 7 | 0.014 | 140 | 0.30 | 0.012 | 0.319 | 0.13 |
| CR18-04 | 701478 | 289.50 | 291.00 | 1.50 | < 2 | 17 | < 5 | 0.014 | 140 | 0.30 | 0.005 | 0.323 | 0.14 |
| CR18-04 | 701479 | 291.00 | 292.50 | 1.50 | < 2 | 25 | 8 | 0.014 | 140 | 0.29 | < 0.005 | 0.356 | 0.16 |
| CR18-04 | 701480 | 292.50 | 294.00 | 1.50 | < 2 | 16 | < 5 | 0.016 | 160 | 0.31 | 0.015 | 0.331 | 0.16 |
| CR18-04 | 701481 | 294.00 | 295.50 | 1.50 | < 2 | 17 | 5 | 0.016 | 160 | 0.27 | 0.009 | 0.334 | 0.18 |
| CR18-04 | 701482 | 295.50 | 297.00 | 1.50 | < 2 | 15 | < 5 | 0.013 | 130 | 0.24 | < 0.005 | 0.295 | 0.15 |
| CR18-04 | 701483 | 297.00 | 298.50 | 1.50 | < 2 | 16 | 13 | 0.012 | 120 | 0.26 | < 0.005 | 0.283 | 0.12 |
| CR18-04 | 701484 | 298.50 | 300.00 | 1.50 | < 2 | 15 | < 5 | 0.012 | 120 | 0.26 | < 0.005 | 0.307 | 0.13 |
| CR18-04 | 701485 | 300.00 | 301.50 | 1.50 | < 2 | 15 | < 5 | 0.013 | 130 | 0.26 | 0.008 | 0.315 | 0.16 |
| CR18-04 | 701486 | 301.50 | 303.00 | 1.50 | < 2 | 20 | 12 | 0.015 | 150 | 0.25 | < 0.005 | 0.365 | 0.17 |
| CR18-04 | 701487 | 303.00 | 304.50 | 1.50 | < 2 | 12 | < 5 | 0.011 | 110 | 0.26 | < 0.005 | 0.281 | 0.13 |
| CR18-04 | 701488 | 304.50 | 306.00 | 1.50 | < 2 | 16 | 7 | 0.011 | 110 | 0.33 | < 0.005 | 0.327 | 0.12 |
| CR18-04 | 701489 | 306.00 | 307.50 | 1.50 | < 2 | 17 | 12 | 0.013 | 130 | 0.33 | < 0.005 | 0.345 | 0.12 |
| CR18-04 | 701490 | 307.50 | 309.00 | 1.50 | < 2 | 14 | < 5 | 0.011 | 110 | 0.32 | < 0.005 | 0.275 | 0.09 |
| CR18-04 | 701491 | 309.00 | 310.50 | 1.50 | < 2 | 18 | < 5 | 0.012 | 120 | 0.36 | < 0.005 | 0.303 | 0.11 |
| CR18-04 | 701492 | 310.50 | 312.00 | 1.50 | < 2 | 10 | < 5 | 0.011 | 110 | 0.39 | < 0.005 | 0.289 | 0.09 |
| CR18-04 | 701493 | 312.00 | 313.50 | 1.50 | < 2 | 14 | 8 | 0.013 | 130 | 0.38 | < 0.005 | 0.332 | 0.12 |
| CR18-04 | 701494 | 313.50 | 315.00 | 1.50 | < 2 | 16 | 9 | 0.011 | 110 | 0.39 | < 0.005 | 0.305 | 0.14 |
| CR18-04 | 701495 | 315.00 | 316.50 | 1.50 | < 2 | 16 | 5 | 0.012 | 120 | 0.33 | < 0.005 | 0.306 | 0.11 |
| CR18-04 | 701496 | 316.50 | 318.00 | 1.50 | < 2 | 20 | < 5 | 0.013 | 130 | 0.30 | < 0.005 | 0.336 | 0.13 |
| CR18-04 | 701497 | 318.00 | 319.50 | 1.50 | < 2 | 15 | < 5 | 0.011 | 110 | 0.27 | < 0.005 | 0.279 | 0.10 |
| CR18-04 | 701498 | 319.50 | 321.00 | 1.50 | 4 | 14 | < 5 | 0.012 | 120 | 0.29 | < 0.005 | 0.297 | 0.11 |
| CR18-04 | 701499 | 321.00 | 322.50 | 1.50 | < 2 | 10 | 5 | 0.010 | 100 | 0.30 | < 0.005 | 0.268 | 0.12 |
| CR18-04 | 701500 | 322.50 | 324.00 | 1.50 | < 2 | 16 | 14 | 0.012 | 120 | 0.33 | < 0.005 | 0.321 | 0.17 |
| CR18-04 | 705501 | 324.00 | 325.50 | 1.50 | < 2 | 14 | 7 | 0.012 | 120 | 0.27 | < 0.005 | 0.311 | 0.14 |
| CR18-04 | 705502 | 325.50 | 327.00 | 1.50 | < 2 | 15 | 7 | 0.012 | 120 | 0.25 | < 0.005 | 0.336 | 0.15 |
| CR18-04 | 705503 | 327.00 | 328.50 | 1.50 | < 2 | 15 | 7 | 0.011 | 110 | 0.38 | < 0.005 | 0.296 | 0.11 |
| CR18-04 | 705504 | 328.50 | 330.00 | 1.50 | < 2 | 6 | < 5 | 0.011 | 110 | 0.37 | < 0.005 | 0.310 | 0.10 |
| CR18-04 | 705505 | 330.00 | 331.50 | 1.50 | < 2 | 14 | 9 | 0.011 | 110 | 0.37 | < 0.005 | 0.304 | 0.12 |
| CR18-04 | 705506 | 331.50 | 333.00 | 1.50 | < 2 | 19 | < 5 | 0.014 | 140 | 0.38 | < 0.005 | 0.391 | 0.15 |
| CR18-04 | 705507 | 333.00 | 334.50 | 1.50 | < 2 | 11 | < 5 | 0.010 | 100 | 0.38 | < 0.005 | 0.301 | 0.13 |

| DDH No. | Sample No. | From (m) | To (m) | Core Length | Au ppb FA | Pd ppb FA | Pt ppb FA | Co % ICP | Co ppm ICP | Cr % ICP | Cu % ICP | Ni % ICP | S % ICP |
|---------|------------|----------|--------|-------------|--------------|--------------|--------------|-------------|---------------|-------------|-------------|--------------|------------|
| CR18-04 | 705508 | 334.50 | 336.00 | 1.50 | < 2 | 21 | 8 | 0.013 | 130 | 0.42 | 0.005 | 0.379 | 0.18 |
| CR18-04 | 705509 | 336.00 | 337.50 | 1.50 | < 2 | 23 | 7 | 0.012 | 120 | 0.46 | < 0.005 | 0.350 | 0.14 |
| CR18-04 | 705510 | 337.50 | 339.00 | 1.50 | < 2 | 25 | 7 | 0.013 | 130 | 0.44 | < 0.005 | 0.427 | 0.20 |
| CR18-04 | 705511 | 339.00 | 340.50 | 1.50 | < 2 | 16 | 6 | 0.012 | 120 | 0.42 | < 0.005 | 0.334 | 0.15 |
| CR18-04 | 705512 | 340.50 | 342.00 | 1.50 | < 2 | 19 | < 5 | 0.010 | 100 | 0.40 | < 0.005 | 0.268 | 0.13 |
| CR18-04 | 705513 | 342.00 | 343.50 | 1.50 | < 2 | 17 | < 5 | 0.010 | 100 | 0.42 | < 0.005 | 0.316 | 0.16 |
| CR18-04 | 705514 | 343.50 | 345.00 | 1.50 | < 2 | 12 | < 5 | 0.010 | 100 | 0.50 | < 0.005 | 0.262 | 0.11 |
| CR18-04 | 705515 | 345.00 | 346.50 | 1.50 | < 2 | 14 | < 5 | 0.011 | 110 | 0.53 | < 0.005 | 0.305 | 0.17 |
| CR18-04 | 705516 | 346.50 | 348.00 | 1.50 | < 2 | 13 | 7 | 0.010 | 100 | 0.52 | < 0.005 | 0.252 | 0.12 |
| CR18-04 | 705517 | 348.00 | 349.50 | 1.50 | < 2 | 11 | < 5 | 0.010 | 100 | 0.54 | < 0.005 | 0.249 | 0.12 |
| CR18-04 | 705518 | 349.50 | 351.00 | 1.50 | < 2 | 13 | < 5 | 0.011 | 110 | 0.55 | < 0.005 | 0.308 | 0.13 |
| CR18-04 | 705519 | 351.00 | 352.50 | 1.50 | < 2 | 13 | < 5 | 0.011 | 110 | 0.54 | < 0.005 | 0.301 | 0.13 |
| CR18-04 | 705520 | 352.50 | 354.00 | 1.50 | < 2 | 17 | 7 | 0.011 | 110 | 0.56 | < 0.005 | 0.322 | 0.13 |
| CR18-04 | 705521 | 354.00 | 355.50 | 1.50 | < 2 | 16 | < 5 | 0.012 | 120 | 0.60 | < 0.005 | 0.345 | 0.15 |
| CR18-04 | 705522 | 355.50 | 357.00 | 1.50 | < 2 | 15 | < 5 | 0.013 | 130 | 0.57 | < 0.005 | 0.374 | 0.18 |
| CR18-04 | 705523 | 357.00 | 358.50 | 1.50 | < 2 | 9 | < 5 | 0.012 | 120 | 0.61 | < 0.005 | 0.318 | 0.13 |
| CR18-04 | 705524 | 358.50 | 360.00 | 1.50 | < 2 | 13 | 7 | 0.011 | 110 | 0.62 | < 0.005 | 0.345 | 0.14 |
| CR18-04 | 705525 | 360.00 | 361.50 | 1.50 | < 2 | 10 | 9 | 0.011 | 110 | 0.60 | < 0.005 | 0.313 | 0.12 |
| CR18-04 | 705526 | 361.50 | 363.00 | 1.50 | < 2 | 13 | 6 | 0.012 | 120 | 0.68 | < 0.005 | 0.336 | 0.13 |
| CR18-04 | 705527 | 363.00 | 364.50 | 1.50 | < 2 | 14 | < 5 | 0.011 | 110 | 0.68 | < 0.005 | 0.350 | 0.13 |
| CR18-04 | 705528 | 364.50 | 366.00 | 1.50 | < 2 | 13 | < 5 | 0.012 | 120 | 0.61 | < 0.005 | 0.351 | 0.15 |
| CR18-04 | 705529 | 366.00 | 367.50 | 1.50 | < 2 | 18 | < 5 | 0.012 | 120 | 0.69 | < 0.005 | 0.329 | 0.14 |
| CR18-04 | 705530 | 367.50 | 369.00 | 1.50 | < 2 | 16 | < 5 | 0.011 | 110 | 0.67 | < 0.005 | 0.296 | 0.11 |
| CR18-04 | 705531 | 369.00 | 370.50 | 1.50 | < 2 | 17 | 12 | 0.012 | 120 | 0.70 | < 0.005 | 0.349 | 0.13 |
| CR18-04 | 705532 | 370.50 | 372.00 | 1.50 | < 2 | 14 | 7 | 0.012 | 120 | 0.70 | < 0.005 | 0.336 | 0.13 |
| CR18-04 | 705533 | 372.00 | 373.50 | 1.50 | < 2 | 10 | < 5 | 0.012 | 120 | 0.68 | < 0.005 | 0.322 | 0.14 |
| CR18-04 | 705534 | 373.50 | 375.00 | 1.50 | < 2 | 11 | 9 | 0.011 | 110 | 0.64 | < 0.005 | 0.251 | 0.09 |
| CR18-04 | 705535 | 375.00 | 376.50 | 1.50 | < 2 | 16 | 8 | 0.013 | 130 | 0.74 | < 0.005 | 0.294 | 0.13 |
| CR18-04 | 705536 | 376.50 | 378.00 | 1.50 | < 2 | 16 | < 5 | 0.011 | 110 | 0.69 | < 0.005 | 0.273 | 0.13 |
| CR18-04 | 705537 | 378.00 | 379.50 | 1.50 | < 2 | 18 | < 5 | 0.013 | 130 | 0.65 | < 0.005 | 0.298 | 0.15 |
| CR18-04 | 705538 | 379.50 | 381.00 | 1.50 | < 2 | 19 | 6 | 0.013 | 130 | 0.73 | < 0.005 | 0.284 | 0.16 |
| CR18-04 | 705539 | 381.00 | 382.50 | 1.50 | < 2 | 26 | 10 | 0.014 | 140 | 0.74 | < 0.005 | 0.313 | 0.14 |
| CR18-04 | 705540 | 382.50 | 384.00 | 1.50 | < 2 | 20 | 8 | 0.012 | 120 | 0.66 | < 0.005 | 0.277 | 0.13 |
| CR18-04 | 705541 | 384.00 | 385.50 | 1.50 | < 2 | 21 | 11 | 0.013 | 130 | 0.73 | < 0.005 | 0.318 | 0.16 |
| CR18-04 | 705542 | 385.50 | 387.00 | 1.50 | < 2 | 16 | 5 | 0.011 | 110 | 0.67 | < 0.005 | 0.270 | 0.13 |
| CR18-04 | 705543 | 387.00 | 388.50 | 1.50 | 5 | 29 | 7 | 0.013 | 130 | 0.70 | < 0.005 | 0.315 | 0.15 |
| CR18-04 | 705544 | 388.50 | 390.00 | 1.50 | 3 | 12 | 7 | 0.011 | 110 | 0.68 | < 0.005 | 0.265 | 0.12 |
| CR18-04 | 705545 | 390.00 | 391.50 | 1.50 | < 2 | 14 | 8 | 0.010 | 100 | 0.70 | < 0.005 | 0.274 | 0.12 |
| CR18-04 | 705546 | 391.50 | 393.00 | 1.50 | < 2 | 18 | < 5 | 0.012 | 120 | 0.69 | < 0.005 | 0.293 | 0.16 |
| CR18-04 | 705547 | 393.00 | 394.50 | 1.50 | 40 | 27 | 9 | 0.014 | 140 | 0.68 | < 0.005 | 0.358 | 0.21 |
| CR18-04 | 705548 | 394.50 | 396.00 | 1.50 | < 2 | 24 | 5 | 0.012 | 120 | 0.69 | < 0.005 | 0.313 | 0.16 |
| CR18-04 | 705549 | 396.00 | 397.50 | 1.50 | < 2 | 24 | 5 | 0.013 | 130 | 0.68 | < 0.005 | 0.338 | 0.18 |
| CR18-04 | 705550 | 397.50 | 399.00 | 1.50 | < 2 | 30 | 7 | 0.014 | 140 | 0.70 | < 0.005 | 0.356 | 0.19 |
| CR18-04 | 705551 | 399.00 | 400.50 | 1.50 | 15 | 21 | 6 | 0.012 | 120 | 0.71 | < 0.005 | 0.318 | 0.19 |
| CR18-04 | 705552 | 400.50 | 402.00 | 1.50 | < 2 | 33 | 5 | 0.013 | 130 | 0.71 | < 0.005 | 0.354 | 0.22 |

APPENDIX 4

MAGNETIC SUSCEPTIBILITY MEASUREMENTS ON DRILL CORE

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 60 | 205 | 24 | 68.8 | 63 | 0.143 | 42 | 42.4 |
| 61 | 158 | 25 | 69.8 | 64 | 0.177 | 43 | 0 |
| 62 | 134 | 26 | 37.1 | 65 | 0.176 | 44 | 0 |
| 63 | 119 | 27 | 163 | 66 | 0.092 | 45 | 0 |
| 64 | 157 | 28 | 946 | 67 | 0.25 | 46 | 0 |
| 65 | 159 | 29 | 79.7 | 68 | 0.175 | 47 | 0 |
| 66 | 212 | 30 | 111 | 69 | 0.26 | 48 | 0 |
| 67 | 165 | 31 | 262 | 70 | 0.24 | 49 | 0 |
| 68 | 117 | 32 | 55.3 | 71 | 0.285 | 50 | 0.041 |
| 69 | 137 | 33 | 96.2 | 72 | 0.227 | 51 | |
| 70 | 162 | 34 | 70.6 | 73 | 0 | 52 | |
| 71 | 148 | 35 | 75.2 | 74 | 0 | 53 | |
| 72 | 145 | 36 | 81.1 | 75 | 0 | 54 | |
| 73 | 237 | 37 | 114 | 76 | 0 | 55 | 0.337 |
| 74 | 180 | 38 | 79.4 | 77 | 0.064 | 56 | |
| 75 | 190 | 39 | 92.7 | 78 | 0.19 | 57 | |
| 76 | 148 | 40 | 56.3 | 79 | 0.149 | 58 | |
| 77 | 164 | 41 | 102 | 80 | 0.163 | 59 | |
| 78 | 149 | 42 | 96 | 81 | 0.225 | 60 | 0 |
| 79 | 109 | 43 | 52.8 | 82 | 0.172 | 61 | 0 |
| 80 | 172 | 44 | 67.5 | 83 | 0.253 | 62 | 0 |
| 81 | 159 | 45 | 164 | 84 | 0.267 | 63 | 0.036 |
| 82 | 210 | 46 | 61.3 | 85 | 0.294 | 64 | 0.439 |
| 83 | 261 | 47 | 43.7 | 86 | 0.215 | 65 | 0.449 |
| 84 | 170 | 48 | 61.1 | 87 | 0.194 | 66 | 0.723 |
| 85 | 202 | 49 | 78.7 | 88 | 0 | 67 | 0.775 |
| 86 | 187 | 50 | 71 | 89 | 0 | 68 | 0.552 |
| 87 | 126 | 51 | 44.2 | 90 | 0 | 69 | 0.474 |
| 88 | 167 | 52 | 227 | 91 | 0 | 70 | 0.642 |
| 89 | 127 | 53 | 92.3 | 92 | 0 | 71 | 0.77 |
| 90 | 177 | 54 | 1584 | 93 | 0.172 | 72 | 3.76 |
| 91 | 182 | 55 | 81 | 94 | 0.104 | 73 | 77.5 |
| 92 | 207 | 56 | 66.9 | 95 | 0.112 | 74 | 71.2 |
| 93 | 154 | 57 | 72.8 | 96 | 0.1 | 75 | 55.9 |
| 94 | 185 | 58 | 80.7 | 97 | 0.106 | 76 | 61.6 |
| 95 | 125 | 59 | 41.5 | 98 | 0.184 | 77 | 86 |
| 96 | 181 | 60 | 53.8 | 99 | 0.153 | 78 | 64 |
| 97 | 191 | 61 | 85.7 | 100 | 0.157 | 79 | 75.1 |
| 98 | 172 | 62 | 584 | 101 | 0.212 | 80 | 54.6 |
| 99 | 160 | 63 | 74.1 | 102 | 0.214 | 81 | 46.7 |
| 100 | 159 | 64 | 79 | 103 | 0.186 | 82 | 46.8 |
| 101 | 172 | 65 | 99.2 | 104 | | 83 | 70.3 |
| 102 | 267 | 66 | 71.8 | 105 | | 84 | 65.2 |
| 103 | 152 | 67 | 60.1 | 106 | | 85 | 102 |
| 104 | 140 | 68 | 209 | 107 | | 86 | 16.2 |
| 105 | 117 | 69 | 115 | 108 | | 87 | 23.1 |
| 106 | 124 | 70 | 1.01 | 109 | | 88 | 1.26 |
| 107 | 178 | 71 | 42.9 | 110 | | 89 | 0.787 |
| 108 | 941 | 72 | 62.8 | 111 | | 90 | 1.21 |
| 109 | 139 | 73 | 174 | 112 | | 91 | 1.35 |
| 110 | 136 | 74 | 59.3 | 113 | | 92 | 3.35 |
| 111 | 178 | 75 | 83.2 | 114 | | 93 | 4.79 |
| 112 | 214 | 76 | 79.2 | 115 | | 94 | 0 |
| 113 | 259 | 77 | 373 | 116 | | 95 | 0.889 |
| 114 | 103 | 78 | 35.4 | 117 | | 96 | 0 |
| 115 | 210 | 79 | 43.4 | 118 | | 97 | 3.21 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 116 | 146 | 80 | 190 | 119 | | 98 | 2.06 |
| 117 | 140 | 81 | 50 | 120 | | 99 | 1.18 |
| 118 | 238 | 82 | 98.9 | 121 | | 100 | 0.929 |
| 119 | 170 | 83 | 56.8 | 122 | | 101 | 0.9238 |
| 120 | 156 | 84 | 106 | 123 | | 102 | 12.1 |
| 121 | 115 | 85 | 120 | 124 | | 103 | 41.2 |
| 122 | 96.9 | 86 | 341 | 125 | | 104 | 22 |
| 123 | 109 | 87 | 46.8 | 126 | | 105 | 34.5 |
| 124 | 216 | 88 | 30.5 | 127 | | 106 | 79.7 |
| 125 | 139 | 89 | 74.4 | 128 | | 107 | 97.2 |
| 126 | 139 | 90 | 24.3 | 129 | | 108 | 200 |
| 127 | 199 | 91 | 42.5 | 130 | | 109 | 97.1 |
| 128 | 154 | 92 | 63.7 | 131 | | 110 | 102 |
| 129 | 308 | 93 | 70.4 | 132 | | 111 | 32.8 |
| 130 | 124 | 94 | 40 | 133 | | 112 | 221 |
| 131 | 205 | 95 | 56.9 | 134 | | 113 | 74.8 |
| 132 | 141 | 96 | 32.1 | 135 | | 114 | 89.7 |
| 133 | 190 | 97 | 75.7 | 136 | | 115 | 136 |
| 134 | 201 | 98 | 60.6 | 137 | | 116 | 134 |
| 135 | 116 | 99 | 203 | 138 | | 117 | 110 |
| 136 | 138 | 100 | 48.6 | 139 | | 118 | 141 |
| 137 | 84 | 101 | 59.2 | 140 | | 119 | 53.4 |
| 138 | 186 | 102 | 54.7 | 141 | | 120 | 91.3 |
| 139 | 127 | 103 | 149 | 142 | | 121 | 104 |
| 140 | 217 | 104 | 60.3 | 143 | | 122 | 105 |
| 141 | 130 | 105 | 52.9 | 144 | | 123 | 114 |
| 142 | 210 | 106 | 45.6 | 145 | | 124 | 96.7 |
| 143 | 173 | 107 | 61.6 | 146 | | 125 | 55.2 |
| 144 | 423 | 108 | 66.7 | 147 | | 126 | 164 |
| 145 | 117 | 109 | 76.2 | 148 | | 127 | 12.7 |
| 146 | 222 | 110 | 64.2 | 149 | | 128 | 129 |
| 147 | 257 | 111 | 592 | 150 | | 129 | 56.3 |
| 148 | 96.7 | 112 | 162 | 151 | | 130 | 71.6 |
| 149 | 174 | 113 | 84 | 152 | | 131 | 9.96 |
| 150 | 121 | 114 | 88.2 | 153 | | 132 | 3.89 |
| 151 | 174 | 115 | 98.7 | 154 | 0 | 133 | 2.75 |
| 152 | 193 | 116 | 100 | 155 | 0.328 | 134 | 2.22 |
| 153 | 127 | 117 | 76.1 | 156 | 0.62 | 135 | 1.17 |
| 154 | 74.3 | 118 | 75 | 157 | 0.228 | 136 | 1.1 |
| 155 | 251 | 119 | 76.5 | 158 | 0.498 | 137 | 0.639 |
| 156 | 345 | 120 | 82.8 | 159 | 0.408 | 138 | 0.844 |
| 157 | 408 | 121 | 59.3 | 160 | 0.364 | 139 | 0.739 |
| 158 | 166 | 122 | 52.6 | 161 | 0.686 | 140 | 0.871 |
| 159 | 107 | 123 | 64.7 | 162 | 0.831 | 141 | 0.705 |
| 160 | 199 | 124 | 47.2 | 163 | 1.36 | 142 | 0.624 |
| 161 | 505 | 125 | 882 | 164 | 0.489 | 143 | 0.588 |
| 162 | 104 | 126 | 71.2 | 165 | 0.502 | 144 | 0.242 |
| 163 | 507 | 127 | 64.9 | 166 | 0.903 | 145 | 0.747 |
| 164 | 132 | 128 | 105 | 167 | 0.843 | 146 | 0.916 |
| 165 | 131 | 129 | 181 | 168 | 0.183 | 147 | 1.18 |
| 166 | 397 | 130 | 65.7 | 169 | 0.643 | 148 | 6.19 |
| 167 | 189 | 131 | 79.6 | 170 | 0.651 | 149 | 12.1 |
| 168 | 397 | 132 | 116 | 171 | 0.301 | 150 | 51.6 |
| 169 | 224 | 133 | 106 | 172 | 0.512 | 151 | 71.6 |
| 170 | 307 | 134 | 241 | 173 | 0.448 | 152 | 21.9 |
| 171 | 125 | 135 | 77.9 | 174 | 0.377 | 153 | 56.3 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 172 | 355 | 136 | 257 | 175 | 0.286 | 154 | 23.4 |
| 173 | 285 | 137 | 96.3 | 176 | 0.204 | 155 | 37.1 |
| 174 | 195 | 138 | 93.9 | 177 | 0.585 | 156 | 9.15 |
| 175 | 224 | 139 | 127 | 178 | 0.598 | 157 | 25.8 |
| 176 | 163 | 140 | 84.7 | 179 | 0.554 | 158 | 72.2 |
| 177 | 200 | 141 | 134 | 180 | 0.709 | 159 | 78.7 |
| 178 | 109 | 142 | 151 | 181 | 0.414 | 160 | 78.5 |
| 179 | 160 | 143 | 205 | 182 | 1.43 | 161 | 125 |
| 180 | 181 | 144 | 86.7 | 183 | 0.754 | 162 | 98.5 |
| 181 | 131 | 145 | 89.2 | 184 | 0.275 | 163 | 17.9 |
| 182 | 150 | 146 | 92.3 | 185 | 0.376 | 164 | 69 |
| 183 | 103 | 147 | 123 | 186 | 1.09 | 165 | 98.1 |
| 184 | 141 | 148 | 85.9 | 187 | 0.508 | 166 | 91.9 |
| 185 | 177 | 149 | 86.1 | 188 | 0.837 | 167 | 142 |
| 186 | 92.5 | 150 | 87.9 | 189 | | 168 | 89 |
| 187 | 117 | 151 | 210 | 190 | | 169 | 117 |
| 188 | 254 | 152 | 142 | 191 | | 170 | 134 |
| 189 | 164 | 153 | 728 | 192 | | 171 | 88.1 |
| 190 | 100 | 154 | 80.8 | 193 | | 172 | 121 |
| 191 | 268 | 155 | 134 | 194 | | 173 | 69.8 |
| 192 | 723 | 156 | 105 | 195 | | 174 | 84.7 |
| 193 | 97.5 | 157 | 116 | 196 | | 175 | 104 |
| 194 | 165 | 158 | 177 | 197 | | 176 | 67.9 |
| 195 | 90.6 | 159 | 131 | 198 | | 177 | 53.8 |
| 196 | 100 | 160 | 102 | 199 | | 178 | 32 |
| 197 | 137 | 161 | 163 | 200 | | 179 | 103 |
| 198 | 171 | 162 | 89.8 | 201 | | 180 | 71.4 |
| 199 | 109 | 163 | 137 | 202 | | 181 | 51.9 |
| 200 | 117 | 164 | 133 | 203 | | 182 | 35.1 |
| 201 | 177 | 165 | 145 | 204 | | 183 | 32.7 |
| 202 | 162 | 166 | 187 | 205 | | 184 | 35.7 |
| 203 | 150 | 167 | 227 | 206 | | 185 | 37.1 |
| 204 | 133 | 168 | 89.2 | 207 | | 186 | 68.6 |
| 205 | 187 | 169 | 117 | 208 | | 187 | 67.7 |
| 206 | 123 | 170 | 133 | 209 | | 188 | 71.3 |
| 207 | 217 | 171 | 121 | 210 | | 189 | 43.9 |
| 208 | 177 | 172 | 136 | 211 | | 190 | 80.6 |
| 209 | 239 | 173 | 111 | 212 | | 191 | 33.4 |
| 210 | 176 | 174 | 150 | 213 | | 192 | 89.8 |
| 211 | 145 | 175 | 136 | 214 | | 193 | 38.4 |
| 212 | 156 | 176 | 105 | 215 | | 194 | 110 |
| 213 | 97.7 | 177 | 102 | 216 | | 195 | 229 |
| 214 | 193 | 178 | 135 | 217 | | 196 | 113 |
| 215 | 472 | 179 | 128 | 218 | | 197 | 77.8 |
| 216 | 217 | 180 | 116 | 219 | | 198 | 169 |
| 217 | 165 | 181 | 136 | 220 | | 199 | 158 |
| 218 | 232 | 182 | 131 | 221 | | 200 | 233 |
| 219 | 108 | 183 | 678 | 222 | | 201 | 158 |
| 220 | 141 | 184 | 198 | 223 | | 202 | 117 |
| 221 | 261 | 185 | 148 | 224 | | 203 | 360 |
| 222 | 177 | 186 | 153 | 225 | | 204 | 187 |
| 223 | 154 | 187 | 111 | 226 | | 205 | 66.2 |
| 224 | 198 | 188 | 133 | 227 | | 206 | 208 |
| 225 | 120 | 189 | 158 | 228 | | 207 | 122 |
| 226 | 105 | 190 | 123 | 229 | | 208 | 85.6 |
| 227 | 133 | 191 | 205 | 230 | | 209 | 141 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 228 | 225 | 192 | 144 | 231 | | 210 | 123 |
| 229 | 72.2 | 193 | 151 | 232 | | 211 | 108 |
| 230 | 112 | 194 | 166 | 233 | | 212 | 118 |
| 231 | 149 | 195 | 92.5 | 234 | | 213 | 265 |
| 232 | 94.7 | 196 | 157 | 235 | | 214 | 126 |
| 233 | 195 | 197 | 135 | 236 | | 215 | 81.5 |
| 234 | 112 | 198 | 128 | 237 | | 216 | 120 |
| 235 | 126 | 199 | 116 | 238 | | 217 | 167 |
| 236 | 153 | 200 | 123 | 239 | | 218 | 194 |
| 237 | 606 | 201 | 123 | 240 | | 219 | 330 |
| 238 | 123 | 202 | 136 | 241 | | 220 | 216 |
| 239 | 200 | 203 | 137 | 242 | | 221 | 195 |
| 240 | 131 | 204 | 128 | 243 | | 222 | 183 |
| 241 | 133 | 205 | 139 | 244 | | 223 | 115 |
| 242 | 187 | 206 | 157 | 245 | | 224 | 109 |
| 243 | 163 | 207 | 119 | 246 | | 225 | 159 |
| 244 | 181 | 208 | 146 | 247 | | 226 | 240 |
| 245 | 141 | 209 | 131 | 248 | | 227 | 218 |
| 246 | 91.7 | 210 | 131 | 249 | | 228 | 91 |
| 247 | 325 | 211 | 126 | 250 | | 229 | 135 |
| 248 | 147 | 212 | 252 | 251 | | 230 | 248 |
| 249 | 115 | 213 | 135 | 252 | | 231 | 104 |
| 250 | 74 | 214 | 113 | 253 | | 232 | 137 |
| 251 | 532 | 215 | 164 | 254 | | 233 | 154 |
| 252 | 138 | 216 | 121 | 255 | | 234 | 141 |
| 253 | 235 | | | 256 | | 235 | 174 |
| 254 | 127 | | | 257 | | 236 | 172 |
| 255 | 151 | | | 258 | | 237 | 172 |
| 256 | 69.5 | | | 259 | | 238 | 199 |
| 257 | 103 | | | 260 | | 239 | 143 |
| 258 | 153 | | | 261 | | 240 | 217 |
| 259 | 88.3 | | | 262 | | 241 | 195 |
| 260 | 156 | | | 263 | | 242 | 245 |
| 261 | 65.8 | | | 264 | | 243 | 202 |
| 262 | 28.5 | | | 265 | | 244 | 218 |
| 263 | 60.6 | | | 266 | | 245 | 172 |
| 264 | 132 | | | 267 | | 246 | 207 |
| 265 | 186 | | | 268 | | 247 | 207 |
| 266 | 133 | | | 269 | | 248 | 217 |
| 267 | 301 | | | 270 | | 249 | 166 |
| 268 | 171 | | | 271 | | 250 | 192 |
| 269 | 239 | | | 272 | 0 | 251 | 135 |
| 270 | 123 | | | 273 | 0 | 252 | 170 |
| 271 | 104 | | | 274 | 0 | 253 | 223 |
| 272 | 119 | | | 275 | 0 | 254 | 214 |
| 273 | 88.9 | | | 276 | 0 | 255 | 62.2 |
| 274 | 122 | | | 277 | 0.884 | 256 | 145 |
| 275 | 107 | | | 278 | 0.779 | 257 | 241 |
| 276 | 94.2 | | | 279 | 1.13 | 258 | 335 |
| 277 | 94.4 | | | 280 | 0.662 | 259 | 163 |
| 278 | 889 | | | 281 | 1.81 | 260 | 228 |
| 279 | 130 | | | 282 | 107 | 261 | 94.4 |
| 280 | 128 | | | 283 | 127 | 262 | 176 |
| 281 | 49.1 | | | 284 | 94.2 | 263 | 137 |
| 282 | 91.1 | | | 285 | 190 | 264 | 173 |
| 283 | 80.2 | | | 286 | 89 | 265 | 149 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 284 | 153 | | | 287 | 189 | 266 | 170 |
| 285 | 105 | | | 288 | 222 | 267 | 215 |
| 286 | 63.5 | | | 289 | 147 | 268 | 215 |
| 287 | 78.1 | | | 290 | 239 | 269 | 184 |
| 288 | 142 | | | 291 | 141 | 270 | 199 |
| 289 | 47.5 | | | 292 | 172 | 271 | 146 |
| 290 | 80.1 | | | 293 | 228 | 272 | 158 |
| 291 | 189 | | | 294 | 206 | 273 | 199 |
| 292 | 83.6 | | | 295 | 184 | 274 | 91 |
| 293 | 89.3 | | | 296 | 26.8 | 275 | 206 |
| 294 | 100 | | | 297 | 139 | 276 | 177 |
| 295 | 135 | | | 298 | 177 | 277 | 234 |
| 296 | 97.2 | | | 299 | 160 | 278 | 214 |
| 297 | 95 | | | 300 | 204 | 279 | 188 |
| 298 | 97.6 | | | 301 | 183 | 280 | 178 |
| 299 | 185 | | | 302 | 212 | 281 | 154 |
| 300 | 107 | | | 303 | 183 | 282 | 167 |
| 301 | 75 | | | 304 | 255 | 283 | 149 |
| 302 | 97.2 | | | 305 | 149 | 284 | 124 |
| 303 | 96.4 | | | 306 | 173 | 285 | 216 |
| 304 | 221 | | | 307 | 148 | 286 | 239 |
| 305 | 104 | | | 308 | 139 | 287 | 178 |
| 306 | 50.2 | | | 309 | 149 | 288 | 128 |
| 307 | 104 | | | 310 | 269 | 289 | 190 |
| 308 | 106 | | | 311 | 195 | 290 | 92.9 |
| 309 | 112 | | | 312 | 258 | 291 | 208 |
| 310 | 93.9 | | | 313 | 232 | 292 | 200 |
| 311 | 60.5 | | | 314 | 114 | 293 | 204 |
| 312 | 104 | | | 315 | 177 | 294 | 284 |
| 313 | 97.7 | | | 316 | 170 | 295 | 247 |
| 314 | 97.9 | | | 317 | 184 | 296 | 188 |
| 315 | 266 | | | 318 | 67.2 | 297 | 186 |
| 316 | 110 | | | 319 | 76 | 298 | 103 |
| 317 | 95.2 | | | 320 | 180 | 299 | 189 |
| 318 | 91.8 | | | 321 | 109 | 300 | 68.7 |
| 319 | 90.8 | | | 322 | 70.1 | 301 | 231 |
| 320 | 52.1 | | | 323 | 218 | 302 | 211 |
| 321 | 87 | | | 324 | 218 | 303 | 259 |
| 322 | 94.2 | | | 325 | 152 | 304 | 144 |
| 323 | 85.7 | | | 326 | 178 | 305 | 224 |
| 324 | 61.2 | | | 327 | 138 | 306 | 225 |
| 325 | 77 | | | 328 | 106 | 307 | 207 |
| 326 | 90.9 | | | 329 | 238 | 308 | 131 |
| 327 | 80.2 | | | 330 | 120 | 309 | 209 |
| 328 | 181 | | | 331 | 180 | 310 | 110 |
| 329 | 75.1 | | | 332 | 203 | 311 | 203 |
| 330 | 71 | | | 333 | 251 | 312 | 202 |
| 331 | 71.9 | | | 334 | 141 | 313 | 363 |
| 332 | 127 | | | 335 | 144 | 314 | 250 |
| 333 | 89.8 | | | 336 | 109 | 315 | 194 |
| 334 | 82.7 | | | 337 | 118 | 316 | 172 |
| 335 | 85 | | | 338 | 140 | 317 | 184 |
| 336 | 295 | | | 339 | 124 | 318 | 193 |
| 337 | 85.4 | | | 340 | 137 | 319 | 145 |
| 338 | 253 | | | 341 | 184 | 320 | 176 |
| 339 | 72.8 | | | 342 | 145 | 321 | 192 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 340 | 83.5 | | | 343 | 126 | 322 | 150 |
| 341 | 78.6 | | | 344 | 148 | 323 | 89.6 |
| 342 | 69.8 | | | 345 | 193 | 324 | 76.1 |
| 343 | 74.7 | | | 346 | 131 | 325 | 129 |
| 344 | 76.7 | | | 347 | 193 | 326 | 168 |
| 345 | 84.8 | | | 348 | 117 | 327 | 202 |
| 346 | 76.6 | | | 349 | 114 | 328 | 183 |
| 347 | 57.2 | | | 350 | 142 | 329 | 172 |
| 348 | 64.1 | | | 351 | 194 | 330 | 149 |
| 349 | 77.9 | | | 352 | 150 | 331 | 162 |
| 350 | 98.2 | | | 353 | 201 | 332 | 151 |
| 351 | 73.8 | | | 354 | 144 | 333 | 165 |
| 352 | 62.7 | | | 355 | 229 | 334 | 159 |
| 353 | 60.6 | | | 356 | 144 | 335 | 110 |
| 354 | 81.3 | | | 357 | 130 | 336 | 127 |
| 355 | 85.7 | | | 358 | 135 | 337 | 155 |
| 356 | 54.3 | | | 359 | 16.9 | 338 | 149 |
| 357 | 78 | | | 360 | 7.43 | 339 | 156 |
| 358 | 63 | | | 361 | 39.5 | 340 | 74.1 |
| 359 | 74.5 | | | 362 | 44.3 | 341 | 102 |
| 360 | 68.9 | | | 363 | 32 | 342 | 75.6 |
| 361 | 77.1 | | | 364 | 78.2 | 343 | 82.4 |
| 362 | 54.8 | | | 365 | 55.6 | 344 | |
| 363 | 70.3 | | | 366 | 67.2 | 345 | |
| 364 | 199 | | | 367 | 87.1 | 346 | |
| 365 | 74.4 | | | 368 | 41.4 | 347 | |
| 366 | 69.9 | | | 369 | 30.2 | 348 | 1.02 |
| 367 | 56.6 | | | 370 | 46.3 | 349 | 114 |
| 368 | 62.6 | | | 371 | 36.6 | 350 | 149 |
| 369 | 69.1 | | | 372 | 29.3 | 351 | 103 |
| 370 | 64.5 | | | 373 | 28.1 | 352 | 158 |
| 371 | 59.2 | | | 374 | 79 | 353 | 160 |
| 372 | 81.7 | | | 375 | 215 | 354 | 139 |
| 373 | 77.2 | | | 376 | 203 | 355 | 171 |
| 374 | 78.8 | | | 377 | 102 | 356 | 136 |
| 375 | 69.5 | | | 378 | 303 | 357 | 205 |
| 376 | 66.4 | | | 379 | 165 | 358 | 196 |
| 377 | 60.9 | | | 380 | 312 | 359 | 161 |
| 378 | 62 | | | 381 | 208 | 360 | 127 |
| 379 | 107 | | | 382 | 101 | 361 | 239 |
| 380 | 84.7 | | | 383 | 246 | 362 | 194 |
| 381 | 72.7 | | | 384 | 127 | 363 | 501 |
| 382 | 74.5 | | | 385 | 244 | 364 | 133 |
| 383 | 81.4 | | | 386 | 105 | 365 | 76.7 |
| 384 | 75.5 | | | 387 | 232 | 366 | 126 |
| 385 | 76.1 | | | 388 | 167 | 367 | 188 |
| 386 | 93.8 | | | 389 | 197 | 368 | 148 |
| 387 | 110 | | | 390 | 219 | 369 | 154 |
| 388 | 98.7 | | | 391 | 361 | 370 | 149 |
| 389 | 95.8 | | | 392 | 208 | 371 | 166 |
| 390 | 70 | | | 393 | 176 | 372 | 147 |
| 391 | 110 | | | 394 | 175 | 373 | 169 |
| 392 | 100 | | | 395 | 208 | 374 | 111 |
| 393 | 98.2 | | | 396 | 165 | 375 | 132 |
| 394 | 117 | | | 397 | 240 | 376 | 111 |
| 395 | 64.1 | | | 398 | 155 | 377 | 129 |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 396 | 93.7 | | | 399 | 65.6 | 378 | 75.7 |
| 397 | 101 | | | 400 | 155 | 379 | 69.3 |
| 398 | 107 | | | 401 | 141 | 380 | 59.2 |
| 399 | 72.4 | | | 402 | 147 | 381 | 160 |
| 400 | 129 | | | 403 | 166 | 382 | 137 |
| 401 | 82.2 | | | 404 | 155 | 383 | 144 |
| 402 | 55.3 | | | 405 | 143 | 384 | 302 |
| 403 | 99.3 | | | 406 | 205 | 385 | 159 |
| 404 | 77.8 | | | 407 | 146 | 386 | 152 |
| 405 | 72 | | | 408 | 173 | 387 | 107 |
| 406 | 65.6 | | | 409 | 123 | 388 | 108 |
| 407 | 57.4 | | | 410 | 184 | 389 | 166 |
| 408 | 208 | | | 411 | 170 | 390 | 149 |
| 409 | 75.7 | | | 412 | 167 | 391 | 133 |
| 410 | 81.5 | | | 413 | 221 | 392 | 134 |
| 411 | 71.6 | | | 414 | 168 | 393 | 110 |
| 412 | 62.1 | | | 415 | 153 | 394 | 102 |
| 413 | 55 | | | 416 | 168 | 395 | 135 |
| 414 | 30 | | | 417 | 183 | 396 | 114 |
| 415 | 60.3 | | | 418 | 190 | 397 | 105 |
| 416 | 51.1 | | | 419 | 191 | 398 | 120 |
| 417 | 34.3 | | | 420 | 181 | 399 | 120 |
| 418 | 28.8 | | | 421 | 196 | 400 | 146 |
| 419 | 111 | | | 422 | 269 | 401 | 153 |
| 420 | 185 | | | 423 | 170 | 402 | 126 |
| 421 | 52.2 | | | 424 | 157 | | |
| 422 | 59.9 | | | 425 | 208 | | |
| 423 | 122 | | | 426 | 297 | | |
| 424 | 29.1 | | | 427 | 182 | | |
| 425 | 49.2 | | | 428 | 128 | | |
| 426 | 35.5 | | | 429 | 19 | | |
| 427 | 193 | | | 430 | 230 | | |
| 428 | 69.9 | | | 431 | 199 | | |
| 429 | 71.8 | | | 432 | 279 | | |
| 430 | 125 | | | 433 | 220 | | |
| 431 | 107 | | | 434 | 203 | | |
| 432 | 32.2 | | | 435 | 191 | | |
| 433 | 25.8 | | | 436 | 234 | | |
| 434 | 32.9 | | | 437 | 194 | | |
| 435 | 36 | | | 438 | 180 | | |
| 436 | 0.94 | | | 439 | 179 | | |
| 437 | 3.05 | | | 440 | 145 | | |
| 438 | 2.74 | | | 441 | 103 | | |
| 439 | 68.2 | | | 442 | 149 | | |
| 440 | 72.2 | | | 443 | 115 | | |
| 441 | 46.7 | | | 444 | 108 | | |
| 442 | 94.7 | | | 445 | 129 | | |
| 443 | 30.7 | | | 446 | 102 | | |
| 444 | 45.5 | | | 447 | 157 | | |
| 445 | 59.4 | | | 448 | 220 | | |
| 446 | 102 | | | 449 | 109 | | |
| 447 | 73.9 | | | 450 | 148 | | |
| 448 | 53 | | | 451 | 159 | | |
| 449 | 49.2 | | | 452 | 143 | | |
| 450 | 44.7 | | | 453 | 185 | | |
| 451 | 54.1 | | | 454 | 98.6 | | |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 452 | 125 | | | 455 | 103 | | |
| 453 | 199 | | | 456 | 197 | | |
| 454 | 51.4 | | | 457 | 136 | | |
| 455 | 114 | | | 458 | 108 | | |
| 456 | 101 | | | 459 | 116 | | |
| 457 | 84.6 | | | 460 | 150 | | |
| 458 | 60.2 | | | 461 | 105 | | |
| 459 | 53 | | | 462 | 241 | | |
| 460 | 101 | | | 463 | 96.7 | | |
| 461 | 86.3 | | | 464 | 114 | | |
| 462 | 118 | | | 465 | 93.8 | | |
| 463 | 53.8 | | | 466 | 94.4 | | |
| 464 | 37.4 | | | 467 | 159 | | |
| 465 | 52.2 | | | 468 | 111 | | |
| 466 | 73.6 | | | 469 | 589 | | |
| 467 | 38.7 | | | 470 | 81.3 | | |
| 468 | 44.3 | | | 471 | 98.6 | | |
| 469 | 44 | | | 472 | 87.5 | | |
| 470 | 162 | | | 473 | 93.4 | | |
| 471 | 34.1 | | | 474 | 95 | | |
| 472 | 169 | | | 475 | 97.7 | | |
| 473 | 232 | | | 476 | 65.5 | | |
| 474 | 55.1 | | | 477 | 107 | | |
| 475 | 170 | | | 478 | 146 | | |
| 476 | 89.2 | | | 479 | 90.6 | | |
| 477 | 203 | | | 480 | 77.6 | | |
| 478 | 113 | | | 481 | 119 | | |
| 479 | 138 | | | 482 | 71.1 | | |
| 480 | 169 | | | 483 | 120 | | |
| 481 | 107 | | | 484 | 106 | | |
| 482 | 96.5 | | | 485 | 162 | | |
| 483 | 92.3 | | | 486 | 91 | | |
| 484 | 54.3 | | | 487 | 79.6 | | |
| 485 | 162 | | | 488 | 117 | | |
| 486 | 94.4 | | | 489 | 81.4 | | |
| 487 | 85.7 | | | 490 | 70.9 | | |
| 488 | 41.9 | | | 491 | 40.9 | | |
| 489 | 107 | | | 492 | 44.2 | | |
| 490 | 57.2 | | | 493 | 36 | | |
| 491 | 144 | | | 494 | 33.4 | | |
| 492 | 158 | | | 495 | 94 | | |
| 493 | 199 | | | 496 | 45.2 | | |
| 494 | 166 | | | 497 | 77.7 | | |
| 495 | 164 | | | 498 | 100 | | |
| 496 | 146 | | | 499 | 39 | | |
| 497 | 97.6 | | | 500 | 187 | | |
| 498 | 63.5 | | | 501 | 27 | | |
| 499 | 86.4 | | | 502 | 39.2 | | |
| 500 | 73.9 | | | 503 | 48.7 | | |
| 501 | 113 | | | 504 | 36.9 | | |
| 502 | 158 | | | 505 | 52.6 | | |
| 503 | 90.5 | | | 506 | 44.5 | | |
| 504 | 167 | | | 507 | 54.7 | | |
| 505 | 75.3 | | | 508 | 30.7 | | |
| 506 | 135 | | | 509 | 121 | | |
| 507 | 121 | | | 510 | 31.7 | | |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 508 | 43.9 | | | 511 | 219 | | |
| 509 | 43.8 | | | 512 | 34.7 | | |
| 510 | 120 | | | 513 | 111 | | |
| 511 | 159 | | | 514 | 44.9 | | |
| 512 | 103 | | | 515 | 68.4 | | |
| 513 | 165 | | | 516 | 31.5 | | |
| 514 | 191 | | | 517 | 31.3 | | |
| 515 | 111 | | | 518 | 30.8 | | |
| 516 | 94.3 | | | 519 | 72.2 | | |
| 517 | 148 | | | 520 | 44.7 | | |
| 518 | 248 | | | 521 | 30.6 | | |
| 519 | 159 | | | 522 | 28.6 | | |
| 520 | 114 | | | 523 | 31.9 | | |
| 521 | 101 | | | 524 | 29.5 | | |
| 522 | 147 | | | 525 | 41.9 | | |
| 523 | 125 | | | 526 | 36.6 | | |
| 524 | 83.2 | | | 527 | 81.4 | | |
| 525 | 129 | | | 528 | 57.2 | | |
| 526 | 95.5 | | | 529 | 66.9 | | |
| 527 | 131 | | | 530 | 98.1 | | |
| 528 | 172 | | | 531 | 45.9 | | |
| 529 | 208 | | | 532 | 67.2 | | |
| 530 | 174 | | | 533 | 90.2 | | |
| 531 | 117 | | | 534 | 67 | | |
| 532 | 135 | | | 535 | 102 | | |
| 533 | 127 | | | 536 | 70.4 | | |
| 534 | 98.3 | | | 537 | 56.4 | | |
| 535 | 129 | | | 538 | 75.9 | | |
| 536 | 75.3 | | | 539 | 95.2 | | |
| 537 | 52.1 | | | 540 | 42.5 | | |
| 538 | 36.6 | | | 541 | 93.4 | | |
| 539 | 61.6 | | | 542 | 50.7 | | |
| 540 | 82.1 | | | 543 | 57.7 | | |
| 541 | 75.1 | | | 544 | 72.4 | | |
| 542 | 71 | | | 545 | 60.5 | | |
| 543 | 102 | | | 546 | 43.8 | | |
| 544 | 102 | | | 547 | 72.7 | | |
| 545 | 143 | | | 548 | 155 | | |
| 546 | 154 | | | 549 | 153 | | |
| 547 | 117 | | | 550 | 75.8 | | |
| 548 | 182 | | | 551 | 108 | | |
| 549 | 165 | | | 552 | 133 | | |
| 550 | 165 | | | 553 | 139 | | |
| 551 | 126 | | | 554 | 131 | | |
| 552 | 127 | | | 555 | 119 | | |
| 553 | 144 | | | 556 | 153 | | |
| 554 | 156 | | | 557 | 84.5 | | |
| 555 | 195 | | | 558 | 125 | | |
| 556 | 231 | | | 559 | 98.8 | | |
| 557 | 182 | | | 560 | 123 | | |
| 558 | 199 | | | 561 | 92.3 | | |
| 559 | 156 | | | 562 | 35.7 | | |
| 560 | 157 | | | 563 | 88.6 | | |
| 561 | 218 | | | 564 | 40 | | |
| 562 | 138 | | | 565 | 31.7 | | |
| 563 | 151 | | | 566 | 58.5 | | |

| CRAW18-01 | | CRAW18-02 | | CRAW18-03 | | CRAW18-04 | |
|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|
| Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. | Depth (m) | Magnetic suscept. |
| 564 | 125 | | | 567 | 93.7 | | |
| 565 | 127 | | | 568 | 89.5 | | |
| 566 | 138 | | | 569 | 26.6 | | |
| 567 | 181 | | | 570 | 28.1 | | |
| 568 | 82.9 | | | 571 | 37.3 | | |
| 569 | 222 | | | 572 | 71.7 | | |
| 570 | 163 | | | 573 | 51 | | |
| 571 | 124 | | | 574 | 25.5 | | |
| 572 | 221 | | | 575 | 57.5 | | |
| 573 | 198 | | | 576 | 60.4 | | |
| 574 | 162 | | | 577 | 73.4 | | |
| 575 | 264 | | | 578 | 73.9 | | |
| 576 | 109 | | | 579 | 38 | | |
| 577 | 122 | | | 580 | 36 | | |
| 578 | 139 | | | 581 | 33 | | |
| 579 | 110 | | | 582 | 81.3 | | |
| 580 | 152 | | | 583 | 49.8 | | |
| 581 | 101 | | | 584 | 80.8 | | |
| 582 | 108 | | | 585 | 50.9 | | |
| 583 | 111 | | | 586 | 27.9 | | |
| 584 | 110 | | | 587 | 44 | | |
| 585 | 100 | | | 588 | 74.4 | | |
| 586 | 108 | | | 589 | 34.9 | | |
| 587 | 134 | | | 590 | 60.9 | | |
| 588 | 83.7 | | | 591 | 165 | | |
| 589 | 42.4 | | | 592 | 85.6 | | |
| 590 | 93.5 | | | 593 | 112 | | |
| 591 | 100 | | | 594 | 55.8 | | |
| 592 | 101 | | | 595 | 53.1 | | |
| 593 | 72.7 | | | 596 | 27.4 | | |
| 594 | 110 | | | 597 | 30.7 | | |
| | | | | 598 | 28.3 | | |
| | | | | 599 | 31.7 | | |
| | | | | 600 | 31.9 | | |
| | | | | 601 | 56.5 | | |
| | | | | 602 | 27.1 | | |
| | | | | 603 | 25.7 | | |
| | | | | 604 | 27.2 | | |
| | | | | 605 | 64.8 | | |
| | | | | 606 | 46.3 | | |

APPENDIX 5

SPECIFIC GRAVITY MEASUREMENTS ON DRILL CORE

| Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) |
|-----------|---------|---------|-----------|-----------|---------|---------|-----------|-----------|---------|---------|-----------|-----------|---------|---------|-----------|
| CRAW18-01 | | | | CRAW18-02 | | | | CRAW18-03 | | | | CRAW18-04 | | | |
| 273 | 177.2 | 108.9 | 2.59 | | | | | 292 | 179.5 | 111.1 | 2.62 | 286 | 285.0 | 175.8 | 2.61 |
| 277 | 267.2 | 164.4 | 2.60 | | | | | 295 | 399.5 | 249.0 | 2.65 | 290 | 196.5 | 122.8 | 2.67 |
| 282 | 191.9 | 117.1 | 2.57 | | | | | 299 | 285.0 | 176.5 | 2.63 | 294 | 245.4 | 152.7 | 2.65 |
| 286 | 199.6 | 121.8 | 2.57 | | | | | 303 | 294.1 | 182.8 | 2.64 | 299 | 433.2 | 269.9 | 2.65 |
| 290 | 241.1 | 148.3 | 2.60 | | | | | 308 | 329.0 | 204.4 | 2.64 | 303 | 303.1 | 185.5 | 2.58 |
| 294 | 179.5 | 109.9 | 2.58 | | | | | 312 | 289.9 | 181.6 | 2.68 | 308 | 381.0 | 238.2 | 2.67 |
| 298 | 359.6 | 220.7 | 2.59 | | | | | 317 | 256.9 | 158.7 | 2.62 | 311 | 475.1 | 297.1 | 2.67 |
| 303 | 201.1 | 123.0 | 2.57 | | | | | 321 | 264.9 | 165.1 | 2.65 | 316 | 237.3 | 148.5 | 2.67 |
| 308 | 306.1 | 188.9 | 2.61 | | | | | 325 | 311.2 | 192.9 | 2.63 | 320 | 160.7 | 98.3 | 2.58 |
| 312 | 283.2 | 171.2 | 2.53 | | | | | 330 | 454.0 | 282.1 | 2.64 | 324 | 345.0 | 213.5 | 2.62 |
| 316 | 305.2 | 181.8 | 2.47 | | | | | 334 | 480.3 | 300.0 | 2.66 | 328 | 225.5 | 140.5 | 2.65 |
| 320 | 170.3 | 103.1 | 2.53 | | | | | 338 | 193.5 | 120.6 | 2.65 | 333 | 216.8 | 134.4 | 2.63 |
| 324 | 199.1 | 121.7 | 2.57 | | | | | 342 | 191.5 | 118.2 | 2.61 | 337 | 149.1 | 89.6 | 2.51 |
| 328 | 187.8 | 112.5 | 2.49 | | | | | 346 | 335.6 | 207.7 | 2.62 | 341 | 231.3 | 139.7 | 2.53 |
| 332 | 331.8 | 200.8 | 2.53 | | | | | 350 | 186.1 | 114.0 | 2.58 | 345 | 479.6 | 307.6 | 2.79 |
| 336 | 176.4 | 106.8 | 2.53 | | | | | 355 | 234.6 | 143.1 | 2.56 | 349 | 309.8 | 188.7 | 2.56 |
| 340 | 188.1 | 113.6 | 2.52 | | | | | 359 | 379.0 | 250.7 | 2.95 | 353 | 369.9 | 228.9 | 2.62 |
| 344 | 306.2 | 185.8 | 2.54 | | | | | 363 | 513.8 | 339.8 | 2.95 | 358 | 226.1 | 138.1 | 2.57 |
| 348 | 314.4 | 191.1 | 2.55 | | | | | 367 | 271.0 | 177.4 | 2.90 | 362 | 411.2 | 254.9 | 2.63 |
| 352 | 137.9 | 83.7 | 2.54 | | | | | 371 | 273.2 | 172.8 | 2.72 | 366 | 186.5 | 116.6 | 2.67 |
| 357 | 255.1 | 155.8 | 2.57 | | | | | 375 | 332.1 | 209.3 | 2.70 | 371 | 204.8 | 127.4 | 2.65 |
| 361 | 201.1 | 121.0 | 2.51 | | | | | 379 | 336.9 | 208.6 | 2.63 | 375 | 309.4 | 191.2 | 2.62 |
| 365 | 133.2 | 80.2 | 2.51 | | | | | 383 | 216.9 | 135.1 | 2.65 | 378 | 239.1 | 147.2 | 2.60 |
| 369 | 261.1 | 158.2 | 2.54 | | | | | 388 | 337.6 | 208.5 | 2.62 | 384 | 311.6 | 194.6 | 2.66 |
| 374 | 327.6 | 199.3 | 2.55 | | | | | 392 | 324.0 | 203.7 | 2.69 | 388 | 417.4 | 259.2 | 2.64 |
| 378 | 379.5 | 229.7 | 2.53 | | | | | 396 | 339.6 | 211.7 | 2.66 | 392 | 257.0 | 156.9 | 2.57 |
| 382 | 152.5 | 91.7 | 2.51 | | | | | 402 | 490.7 | 305.7 | 2.65 | 397 | 486.2 | 300.3 | 2.62 |
| 388 | 240.5 | 147.0 | 2.57 | | | | | 405 | 499.1 | 303.8 | 2.56 | 401 | 351.6 | 218.6 | 2.64 |
| 392 | 215.8 | 132.2 | 2.58 | | | | | 409 | 375.8 | 234.1 | 2.65 | | | | |
| 395 | 273.7 | 168.3 | 2.60 | | | | | 413 | 359.4 | 225.1 | 2.68 | | | | |
| 400 | 127.3 | 78.0 | 2.58 | | | | | 417 | 295.1 | 184.1 | 2.66 | | | | |
| 404 | 140.0 | 86.0 | 2.59 | | | | | 422 | 273.6 | 170.9 | 2.66 | | | | |
| 408 | 237.5 | 144.8 | 2.56 | | | | | 428 | 376.3 | 233.9 | 2.64 | | | | |
| 412 | 161.5 | 98.3 | 2.56 | | | | | 432 | 131.8 | 82.4 | 2.67 | | | | |
| 416 | 124.3 | 76.1 | 2.58 | | | | | 435 | 217.4 | 136.6 | 2.69 | | | | |
| 422 | 378.8 | 231.3 | 2.57 | | | | | 439 | 380.1 | 237.5 | 2.67 | | | | |
| 425 | 307.1 | 187.5 | 2.57 | | | | | 443 | 330.0 | 205.1 | 2.64 | | | | |
| 429 | 221.3 | 135.4 | 2.58 | | | | | 447 | 438.0 | 272.8 | 2.65 | | | | |
| 433 | 129.4 | 79.2 | 2.58 | | | | | 451 | 238.0 | 148.8 | 2.67 | | | | |
| 437 | 345.5 | 237.4 | 3.20 | | | | | 456 | 303.0 | 189.9 | 2.68 | | | | |
| 441 | 161.6 | 98.9 | 2.58 | | | | | 460 | 220.2 | 136.2 | 2.62 | | | | |
| 446 | 166.5 | 102.9 | 2.62 | | | | | 464 | 538.6 | 334.2 | 2.64 | | | | |
| 450 | 173.4 | 105.7 | 2.56 | | | | | 469 | 383.9 | 235.6 | 2.59 | | | | |
| 454 | 359.4 | 219.3 | 2.57 | | | | | 473 | 272.6 | 164.7 | 2.53 | | | | |
| 458 | 270.3 | 166.4 | 2.60 | | | | | 477 | 456.6 | 275.3 | 2.52 | | | | |
| 462 | 117.0 | 71.3 | 2.56 | | | | | 481 | 223.9 | 137.8 | 2.60 | | | | |
| 466 | 208.5 | 127.3 | 2.57 | | | | | 487 | 397.5 | 248.3 | 2.66 | | | | |
| 471 | 145.8 | 89.0 | 2.57 | | | | | 490 | 279.6 | 171.4 | 2.58 | | | | |
| 475 | 177.6 | 108.8 | 2.58 | | | | | 494 | 214.8 | 129.7 | 2.52 | | | | |
| 479 | 137.3 | 84.1 | 2.58 | | | | | 499 | 323.6 | 195.0 | 2.52 | | | | |
| 483 | 357.8 | 220.9 | 2.61 | | | | | 503 | 283.3 | 174.8 | 2.61 | | | | |
| 486 | 220.7 | 137.3 | 2.65 | | | | | 507 | 374.9 | 230.6 | 2.60 | | | | |
| 491 | 231.7 | 142.4 | 2.59 | | | | | 511 | 203.0 | 122.8 | 2.53 | | | | |
| 495 | 143.1 | 88.2 | 2.61 | | | | | 516 | 265.4 | 164.4 | 2.63 | | | | |
| 500 | 277.7 | 172.6 | 2.64 | | | | | 520 | 235.8 | 144.1 | 2.57 | | | | |
| 504 | 145.6 | 90.2 | 2.63 | | | | | 524 | 363.3 | 228.5 | 2.70 | | | | |

| Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) | Depth (m) | Dry (g) | Wet (g) | SG (g/ml) |
|------------------|---------|---------|-----------|------------------|---------|---------|-----------|------------------|---------|---------|-----------|------------------|---------|---------|-----------|
| CRAW18-01 | | | | CRAW18-02 | | | | CRAW18-03 | | | | CRAW18-04 | | | |
| 508 | 214.7 | 132.4 | 2.61 | | | | | 529 | 228.3 | 140.2 | 2.59 | | | | |
| 512 | 336.6 | 207.3 | 2.60 | | | | | 533 | 252.8 | 156.2 | 2.62 | | | | |
| 516 | 136.7 | 84.8 | 2.63 | | | | | 537 | 257.5 | 159.3 | 2.62 | | | | |
| 521 | 154.3 | 95.5 | 2.62 | | | | | 542 | 368.7 | 234.0 | 2.74 | | | | |
| 524 | 123.0 | 76.3 | 2.63 | | | | | 547 | 228.9 | 139.0 | 2.55 | | | | |
| 529 | 286.4 | 179.7 | 2.68 | | | | | 551 | 249.6 | 151.3 | 2.54 | | | | |
| 533 | 188.2 | 117.7 | 2.67 | | | | | 555 | 176.3 | 108.0 | 2.58 | | | | |
| 537 | 204.5 | 126.5 | 2.62 | | | | | 559 | 388.0 | 235.2 | 2.54 | | | | |
| 541 | 270.0 | 167.8 | 2.64 | | | | | 563 | 182.3 | 112.4 | 2.61 | | | | |
| 546 | 125.4 | 77.4 | 2.61 | | | | | 568 | 337.0 | 214.1 | 2.74 | | | | |
| 550 | 239.2 | 149.0 | 2.65 | | | | | 572 | 349.3 | 222.3 | 2.75 | | | | |
| 554 | 143.5 | 89.2 | 2.64 | | | | | 576 | 123.4 | 78.3 | 2.74 | | | | |
| 558 | 218.6 | 136.5 | 2.66 | | | | | 580 | 193.5 | 124.2 | 2.79 | | | | |
| 562 | 219.6 | 136.7 | 2.65 | | | | | 585 | 437.4 | 281.1 | 2.80 | | | | |
| 565 | 233.1 | 144.6 | 2.63 | | | | | 589 | 468.8 | 298.3 | 2.75 | | | | |
| 570 | 160.7 | 98.4 | 2.58 | | | | | 594 | 167.0 | 104.8 | 2.68 | | | | |
| 575 | 231.0 | 143.3 | 2.63 | | | | | 598 | 441.6 | 283.0 | 2.78 | | | | |
| 578 | 240.9 | 149.8 | 2.64 | | | | | 602 | 202.3 | 127.3 | 2.70 | | | | |
| 582 | 399.9 | 247.5 | 2.62 | | | | | 606 | 194.9 | 123.8 | 2.74 | | | | |
| 586 | 132.2 | 81.6 | 2.61 | | | | | | | | | | | | |
| 590 | 319.4 | 197.3 | 2.62 | | | | | | | | | | | | |
| 594 | 326.4 | 202.1 | 2.63 | | | | | | | | | | | | |

APPENDIX 6
CERTIFICATES OF ANALYSIS



Date Submitted: 07-Dec-18
Invoice No.: A18-18862
Invoice Date: 25-Jan-19
Your Reference: December 06/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

36 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT A18-18862

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 07-Dec-18
Invoice No.: A18-18862
Invoice Date: 25-Jan-19
Your Reference: December 06/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

36 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18862**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| GBW 07113 Meas | | | | 6.78 | | < 0.001 | 0.42 | | | | 2.21 | 4.5 | | 0.08 | 0.11 | | | | | | 34.4 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.01 | | 24.3 | | | | | | 47.8 | | 22.5 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | 3.38 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.014 | 1.50 | < 0.005 | | | | 30.4 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 19.1 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07238 (NCS DC 70006) Meas | | | | | < 0.01 | | | | | 0.011 | | | | | 1.09 | < 0.005 | < 0.01 | | | | | | 0.343 | 0.01 |
| GBW 07238 (NCS DC 70006) Cert | | | | | 0.00016 0 | | | | | 0.00936 | | | | | 1.084 | 0.00178 | 0.00187 | | | | | | 0.360 | 0.00655 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.6 | | | | | 3.23 | | 7.40 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.136 | | | | | | | | 19.9 | 0.01 | | | | 17.6 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.137 | | | | | | | | 20.4 | 0.01 | | | | 17.5 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | | | | | | | | | | 0.02 | | | | | | | | | | |
| MP-1b Cert | | | | | | | | | | | | | | 0.024 | | | | | | | | | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.7 | | | | 0.27 | | | | | | | 13.8 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 44.1 | | | | 0.27 | | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.2 | | | | 0.27 | | | | | | | 13.5 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.52 | | | 5.65 | | 1.06 | | 8.49 | 2.2 | | 3.01 | 0.13 | | | 1.17 | | | 22.6 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.74 | | | | | | | | | | < 0.005 | |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.88 | | | | | | | | | | 0.007 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4620 | 5800 | 4730 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4790 | 5910 | 4830 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| CZN-4 Meas | | | | 0.07 | 0.03 | | | 0.010 | | 0.405 | | | | | | | | 33.2 | | | | | 53.5 | |
| CZN-4 Cert | | | | 0.0715 | 0.0356 | | | 0.0094 | | 0.403 | | | | | | | | 33.07 | | | | | 55.07 | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 | |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | | 2.09 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.229 | 5.78 | 2.6 | < 0.01 | 1.58 | 0.09 | < 0.005 | < 0.01 | 0.98 | | | 31.0 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.226 | 5.73 | 2.6 | < 0.01 | 1.55 | 0.09 | < 0.005 | < 0.01 | 0.37 | | | 30.9 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.032 | | 23.0 | 31.7 | | | 0.72 | 0.01 | | | 0.70 | 36.1 | 0.01 | | | | 3.00 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 22.3 | 31.1 | | | 0.70 | 0.01 | | | 0.67 | 35.9 | < 0.01 | | | | 2.87 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| 693090 Orig | < 2 | 13 | < 5 | 0.58 | < 0.01 | < 0.001 | 0.44 | 0.014 | 0.61 | < 0.005 | 7.56 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.210 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 | |
| 693090 Dup | < 2 | 13 | 6 | 0.58 | < 0.01 | < 0.001 | 0.48 | 0.014 | 0.60 | < 0.005 | 7.43 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.208 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 | |
| 693096 Orig | | | | 0.55 | < 0.01 | < 0.001 | 0.60 | 0.013 | 0.61 | < 0.005 | 7.08 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.209 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 | |
| 693096 Dup | | | | 0.55 | < 0.01 | < 0.001 | 0.58 | 0.013 | 0.62 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.214 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 | |
| 693100 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| 693100 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| 693110 Orig | < 2 | 11 | 13 | | | | | | | | | | | | | | | | | | | | | |
| 693110 Dup | < 2 | 8 | 9 | | | | | | | | | | | | | | | | | | | | | |
| 693113 Orig | | | | 0.55 | < 0.01 | < 0.001 | 1.80 | 0.014 | 0.53 | 0.009 | 7.53 | < 0.1 | < 0.01 | 21.9 | 0.11 | 0.213 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.03 | < 0.005 | 0.01 | |
| 693113 Dup | | | | 0.53 | < 0.01 | < 0.001 | 1.64 | 0.013 | 0.52 | < 0.005 | 7.32 | < 0.1 | < 0.01 | 22.0 | 0.10 | 0.207 | < 0.01 | 0.06 | < 0.01 | 15.7 | 0.03 | < 0.005 | < 0.01 | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |



Date Submitted: 05-Dec-18
Invoice No.: A18-18888
Invoice Date: 22-Jan-19
Your Reference: December 06/18

Spruce Ridge Resources
1080 CONC 14 RR\$
Simcoe ON N3Y 4K3
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

30 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18888**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E' at the beginning.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 05-Dec-18
Invoice No.: A18-18888
Invoice Date: 22-Jan-19
Your Reference: December 06/18

Spruce Ridge Resources
1080 CONC 14 RR\$
Simcoe ON N3Y 4K3
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

30 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-18888**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| 693051 | 12 | < 5 | 11 | 0.74 | < 0.01 | < 0.001 | 0.99 | 0.014 | 0.59 | < 0.005 | 7.23 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.217 | < 0.01 | 0.07 | < 0.01 | 17.1 | 0.04 | < 0.005 | < 0.01 | |
| 693052 | 9 | < 5 | < 5 | 0.73 | < 0.01 | < 0.001 | 0.53 | 0.014 | 0.57 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 22.0 | 0.10 | 0.191 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.04 | < 0.005 | < 0.01 | |
| 693053 | 14 | < 5 | 18 | 0.61 | < 0.01 | < 0.001 | 0.27 | 0.014 | 0.59 | < 0.005 | 7.58 | < 0.1 | < 0.01 | 22.3 | 0.11 | 0.202 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 | |
| 693054 | 8 | < 5 | 13 | 0.58 | < 0.01 | < 0.001 | 0.30 | 0.014 | 0.59 | < 0.005 | 7.57 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.202 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.03 | < 0.005 | < 0.01 | |
| 693055 | 4 | 16 | 9 | 0.64 | < 0.01 | < 0.001 | 0.34 | 0.014 | 0.60 | < 0.005 | 7.68 | < 0.1 | < 0.01 | 23.0 | 0.10 | 0.208 | < 0.01 | 0.04 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 | |
| 693056 | 3 | < 5 | < 5 | 0.55 | < 0.01 | < 0.001 | 0.19 | 0.014 | 0.59 | < 0.005 | 7.54 | < 0.1 | < 0.01 | 21.8 | 0.10 | 0.200 | < 0.01 | 0.05 | < 0.01 | 15.4 | 0.03 | < 0.005 | 0.01 | |
| 693057 | < 2 | < 5 | < 5 | 0.66 | < 0.01 | < 0.001 | 0.29 | 0.014 | 0.63 | < 0.005 | 7.23 | < 0.1 | < 0.01 | 23.0 | 0.10 | 0.214 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.03 | < 0.005 | 0.01 | |
| 693058 | 9 | 32 | 7 | 0.78 | < 0.01 | < 0.001 | 0.54 | 0.015 | 0.60 | < 0.005 | 7.65 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.214 | < 0.01 | 0.04 | < 0.01 | 17.3 | 0.04 | < 0.005 | 0.01 | |
| 693059 | 32 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.42 | 0.012 | 0.50 | < 0.005 | 6.24 | < 0.1 | < 0.01 | 19.2 | 0.09 | 0.172 | < 0.01 | 0.03 | < 0.01 | 14.1 | 0.03 | < 0.005 | < 0.01 | |
| 693060 | 5 | < 5 | < 5 | 0.59 | < 0.01 | < 0.001 | 0.64 | 0.013 | 0.57 | < 0.005 | 7.66 | < 0.1 | < 0.01 | 22.8 | 0.09 | 0.181 | < 0.01 | 0.04 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 | |
| 693061 | 3 | < 5 | < 5 | 0.62 | < 0.01 | < 0.001 | 0.36 | 0.015 | 0.60 | < 0.005 | 8.02 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.206 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.04 | < 0.005 | < 0.01 | |
| 693062 | 4 | < 5 | < 5 | 0.63 | < 0.01 | < 0.001 | 0.52 | 0.014 | 0.58 | < 0.005 | 7.33 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.201 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 | |
| 693063 | < 2 | < 5 | < 5 | 0.61 | < 0.01 | < 0.001 | 0.40 | 0.015 | 0.59 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.202 | < 0.01 | 0.03 | < 0.01 | 17.1 | 0.03 | < 0.005 | < 0.01 | |
| 693064 | 6 | < 5 | 7 | 1.03 | < 0.01 | < 0.001 | 0.64 | 0.015 | 0.58 | < 0.005 | 7.42 | < 0.1 | < 0.01 | 22.9 | 0.09 | 0.200 | < 0.01 | 0.04 | < 0.01 | 17.1 | 0.11 | < 0.005 | < 0.01 | |
| 693065 | 3 | < 5 | < 5 | 0.59 | < 0.01 | < 0.001 | 0.42 | 0.015 | 0.57 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 23.0 | 0.10 | 0.208 | < 0.01 | 0.04 | < 0.01 | 16.6 | 0.04 | < 0.005 | < 0.01 | |
| 693066 | < 2 | < 5 | < 5 | 0.60 | < 0.01 | < 0.001 | 0.43 | 0.015 | 0.60 | < 0.005 | 7.59 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.206 | < 0.01 | 0.03 | < 0.01 | 16.9 | 0.03 | < 0.005 | < 0.01 | |
| 693067 | 3 | < 5 | < 5 | 0.65 | < 0.01 | < 0.001 | 0.44 | 0.015 | 0.57 | < 0.005 | 8.16 | < 0.1 | < 0.01 | 23.1 | 0.11 | 0.206 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.04 | < 0.005 | < 0.01 | |
| 693068 | 13 | 20 | 12 | 0.83 | < 0.01 | < 0.001 | 0.42 | 0.015 | 0.53 | < 0.005 | 7.45 | < 0.1 | < 0.01 | 22.4 | 0.10 | 0.193 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.05 | < 0.005 | < 0.01 | |
| 693069 | 2 | < 5 | 6 | 0.64 | < 0.01 | < 0.001 | 0.33 | 0.015 | 0.59 | < 0.005 | 7.39 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.207 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 | |
| 693070 | < 2 | < 5 | < 5 | 0.60 | < 0.01 | < 0.001 | 0.45 | 0.014 | 0.59 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 22.4 | 0.11 | 0.203 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.04 | < 0.005 | < 0.01 | |
| 693071 | 3 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.14 | 0.008 | 0.41 | < 0.005 | 3.86 | < 0.1 | < 0.01 | 7.92 | 0.06 | 0.084 | < 0.01 | 0.02 | < 0.01 | 10.5 | 0.02 | < 0.005 | < 0.01 | |
| 693072 | < 2 | < 5 | 5 | 0.55 | < 0.01 | < 0.001 | 0.35 | 0.014 | 0.63 | < 0.005 | 7.33 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.201 | < 0.01 | 0.04 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 | |
| 693073 | < 2 | 8 | < 5 | 0.76 | < 0.01 | < 0.001 | 0.45 | 0.014 | 0.57 | < 0.005 | 7.07 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.193 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.08 | < 0.005 | < 0.01 | |
| 693074 | 4 | 20 | < 5 | 0.58 | < 0.01 | < 0.001 | 0.33 | 0.014 | 0.61 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.210 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 | |
| 693075 | < 2 | < 5 | < 5 | 0.58 | < 0.01 | < 0.001 | 0.40 | 0.015 | 0.58 | < 0.005 | 7.69 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.199 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 | |
| 693076 | 9 | < 5 | < 5 | 0.60 | < 0.01 | < 0.001 | 0.41 | 0.015 | 0.58 | 0.008 | 7.72 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.199 | < 0.01 | 0.04 | < 0.01 | 16.8 | 0.03 | < 0.005 | 0.01 | |
| 693077 | 3 | < 5 | < 5 | 0.62 | < 0.01 | < 0.001 | 0.39 | 0.015 | 0.60 | < 0.005 | 7.59 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.204 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 | |
| 693078 | 8 | 5 | < 5 | 0.58 | < 0.01 | < 0.001 | 0.77 | 0.014 | 0.59 | < 0.005 | 7.61 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.197 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 | |
| 693079 | < 2 | < 5 | 6 | 0.59 | < 0.01 | < 0.001 | 0.57 | 0.013 | 0.60 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.207 | < 0.01 | 0.03 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 | |
| 693080 | 5 | 16 | < 5 | 1.04 | < 0.01 | < 0.001 | 0.85 | 0.014 | 0.55 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 22.3 | 0.09 | 0.190 | < 0.01 | 0.04 | < 0.01 | 17.0 | 0.08 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|-------------------------------|--------|--------|--------|-----------|--------------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|---------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| GBW 07113 Meas | | | | 6.78 | | < 0.001 | 0.42 | | | | 2.21 | 4.5 | | 0.08 | 0.11 | | | | | | 34.4 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.01 | | 24.3 | | | | | | 47.8 | | 22.5 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | 3.38 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.014 | 1.50 | < 0.005 | | | | 30.4 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 19.1 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07238 (NCS DC 70006) Meas | | | | | < 0.01 | | | | | 0.011 | | | | | 1.09 | < 0.005 | < 0.01 | | | | | | 0.343 | 0.01 |
| GBW 07238 (NCS DC 70006) Cert | | | | | 0.00016 0 | | | | | 0.00936 | | | | | 1.084 | 0.00178 | 0.00187 | | | | | | 0.360 | 0.00655 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.6 | | | | | 3.23 | | 7.40 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.136 | | | | | | | | 19.9 | 0.01 | | | | 17.6 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.137 | | | | | | | | 20.4 | 0.01 | | | | 17.5 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | | | | | | | | | | 0.02 | | | | | | | | | | |
| MP-1b Cert | | | | | | | | | | | | | | 0.024 | | | | | | | | | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.7 | | | | 0.27 | | | | | | | 13.8 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 44.1 | | | | 0.27 | | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.2 | | | | 0.27 | | | | | | | 13.5 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.52 | | | 5.65 | | 1.06 | | 8.49 | 2.2 | | 3.01 | 0.13 | | | 1.17 | | | 22.6 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.74 | | | | | | | | | | < 0.005 | |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.88 | | | | | | | | | | 0.007 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|--|---------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4810 | 5970 | 4860 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4510 | 5720 | 4660 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| CZN-4 Meas | | | | 0.07 | 0.03 | | | 0.010 | | 0.405 | | | | | | | | 33.2 | | | | | 53.5 |
| CZN-4 Cert | | | | 0.0715 | 0.0356 | | | 0.0094 | | 0.403 | | | | | | | | 33.07 | | | | | 55.07 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.09 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.229 | 5.78 | 2.6 | < 0.01 | 1.58 | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 31.0 | 0.45 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.226 | 5.73 | 2.6 | < 0.01 | 1.55 | 0.09 | < 0.005 | < 0.01 | 0.37 | | | 30.9 | 0.45 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.032 | | 23.0 | 31.7 | | | 0.72 | 0.01 | | | 0.70 | 36.1 | 0.01 | | | 3.00 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 22.3 | 31.1 | | | 0.70 | 0.01 | | | 0.67 | 35.9 | < 0.01 | | | 2.87 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | 3.02 |
| CDN-PGMS-28 Meas | 173 | 1670 | 1440 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 693055 Orig | | | | 0.64 | < 0.01 | < 0.001 | 0.35 | 0.014 | 0.60 | < 0.005 | 7.76 | < 0.1 | < 0.01 | 23.2 | 0.11 | 0.213 | < 0.01 | 0.04 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 693055 Dup | | | | 0.63 | < 0.01 | < 0.001 | 0.32 | 0.015 | 0.60 | < 0.005 | 7.59 | < 0.1 | < 0.01 | 22.7 | 0.10 | 0.202 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.04 | < 0.005 | < 0.01 |
| 693061 Orig | 3 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693061 Dup | 4 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693066 Orig | | | | 0.59 | < 0.01 | < 0.001 | 0.42 | 0.015 | 0.59 | < 0.005 | 7.49 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.206 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 693066 Dup | | | | 0.60 | < 0.01 | < 0.001 | 0.43 | 0.015 | 0.61 | < 0.005 | 7.70 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.207 | < 0.01 | 0.03 | < 0.01 | 17.1 | 0.03 | < 0.005 | < 0.01 |
| 693070 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693070 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693077 Orig | | | | 0.61 | < 0.01 | < 0.001 | 0.39 | 0.015 | 0.60 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.207 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 693077 Dup | | | | 0.62 | < 0.01 | < 0.001 | 0.39 | 0.014 | 0.59 | < 0.005 | 7.57 | < 0.1 | < 0.01 | 23.2 | 0.11 | 0.202 | < 0.01 | 0.04 | < 0.01 | 16.6 | 0.03 | < 0.005 | 0.01 |
| 693080 Orig | 4 | 14 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693080 Dup | 5 | 17 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |



Date Submitted: 10-Dec-18
Invoice No.: A18-18928
Invoice Date: 14-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

06 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18928**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E'.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 10-Dec-18
Invoice No.: A18-18928
Invoice Date: 14-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

86 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-18928**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693117 | < 2 | 47 | 12 | 0.49 | < 0.01 | < 0.001 | 0.21 | 0.015 | 0.57 | < 0.005 | 7.69 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.225 | < 0.01 | 0.07 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 693118 | < 2 | 9 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.88 | 0.014 | 0.58 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 22.8 | 0.10 | 0.206 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 693119 | < 2 | 12 | < 5 | 0.51 | < 0.01 | < 0.001 | 1.19 | 0.014 | 0.57 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 23.0 | 0.10 | 0.211 | < 0.01 | 0.06 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 693120 | < 2 | 32 | < 5 | 0.52 | < 0.01 | < 0.001 | 1.34 | 0.015 | 0.55 | 0.006 | 7.90 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.222 | < 0.01 | 0.08 | < 0.01 | 15.6 | 0.03 | < 0.005 | < 0.01 |
| 693121 | < 2 | 21 | 11 | 0.51 | < 0.01 | < 0.001 | 1.40 | 0.014 | 0.58 | < 0.005 | 7.32 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.220 | < 0.01 | 0.06 | < 0.01 | 16.0 | 0.03 | < 0.005 | < 0.01 |
| 693122 | 4 | 37 | 20 | 0.42 | < 0.01 | < 0.001 | 0.88 | 0.015 | 0.57 | < 0.005 | 7.80 | < 0.1 | < 0.01 | 23.1 | 0.12 | 0.248 | < 0.01 | 0.08 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 693123 | 2 | 38 | 18 | 0.45 | < 0.01 | < 0.001 | 0.46 | 0.015 | 0.59 | < 0.005 | 7.51 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.242 | < 0.01 | 0.07 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693124 | 6 | 51 | 19 | 0.43 | < 0.01 | < 0.001 | 0.48 | 0.016 | 0.60 | 0.014 | 7.59 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.298 | < 0.01 | 0.08 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693125 | < 2 | 32 | 11 | 0.42 | < 0.01 | < 0.001 | 0.52 | 0.015 | 0.59 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.249 | < 0.01 | 0.07 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693126 | < 2 | 22 | 12 | 0.43 | < 0.01 | < 0.001 | 0.16 | 0.014 | 0.57 | < 0.005 | 6.93 | < 0.1 | < 0.01 | 24.0 | 0.12 | 0.221 | < 0.01 | 0.07 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693127 | 2 | 6 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.60 | 0.008 | 7.98 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.211 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693128 | 3 | 9 | 16 | 0.55 | < 0.01 | < 0.001 | 0.14 | 0.014 | 0.62 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 25.2 | 0.11 | 0.210 | < 0.01 | 0.06 | < 0.01 | 17.5 | 0.03 | < 0.005 | < 0.01 |
| 693129 | 8 | 9 | 12 | 1.27 | < 0.01 | < 0.001 | 2.38 | 0.011 | 0.48 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 21.7 | 0.10 | 0.163 | < 0.01 | 0.05 | < 0.01 | 16.6 | 0.04 | < 0.005 | < 0.01 |
| 693130 | 2 | 18 | 5 | 0.43 | < 0.01 | < 0.001 | 0.51 | 0.013 | 0.61 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 23.6 | 0.10 | 0.208 | < 0.01 | 0.07 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693131 | < 2 | 15 | 9 | 0.43 | < 0.01 | < 0.001 | 0.41 | 0.014 | 0.59 | < 0.005 | 7.95 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.199 | < 0.01 | 0.06 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 693132 | < 2 | 68 | 36 | 0.43 | < 0.01 | < 0.001 | 0.29 | 0.018 | 0.57 | < 0.005 | 8.34 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.264 | < 0.01 | 0.09 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 693133 | 3 | 50 | 21 | 0.46 | < 0.01 | < 0.001 | 0.16 | 0.012 | 0.62 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.214 | < 0.01 | 0.06 | < 0.01 | 16.9 | 0.03 | < 0.005 | < 0.01 |
| 693134 | 6 | 27 | 14 | 0.41 | < 0.01 | < 0.001 | 0.23 | 0.014 | 0.68 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.214 | < 0.01 | 0.08 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693135 | 2 | 46 | 12 | 0.40 | < 0.01 | < 0.001 | 0.24 | 0.020 | 0.67 | 0.019 | 8.72 | < 0.1 | < 0.01 | 25.9 | 0.11 | 0.272 | < 0.01 | 0.13 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 693136 | 14 | 35 | 9 | 0.37 | < 0.01 | < 0.001 | 0.35 | 0.016 | 0.64 | 0.007 | 8.54 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.264 | < 0.01 | 0.11 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 693137 | 9 | 87 | 29 | 0.35 | < 0.01 | < 0.001 | 0.08 | 0.024 | 0.73 | 0.034 | 9.75 | < 0.1 | < 0.01 | 22.9 | 0.12 | 0.669 | < 0.01 | 0.28 | < 0.01 | 15.3 | 0.02 | < 0.005 | < 0.01 |
| 693138 | 16 | 86 | 29 | 0.40 | < 0.01 | < 0.001 | 0.13 | 0.025 | 0.83 | 0.025 | 9.55 | < 0.1 | < 0.01 | 26.5 | 0.12 | 0.523 | < 0.01 | 0.21 | < 0.01 | 18.0 | 0.02 | < 0.005 | < 0.01 |
| 693139 | 20 | 28 | 18 | 0.42 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.75 | 0.007 | 7.27 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.203 | < 0.01 | 0.08 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693140 | 15 | 27 | 16 | 0.43 | < 0.01 | < 0.001 | 0.12 | 0.015 | 0.77 | 0.005 | 7.73 | < 0.1 | < 0.01 | 23.3 | 0.12 | 0.170 | < 0.01 | 0.08 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693141 | 6 | 16 | 10 | 0.38 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.76 | < 0.005 | 7.68 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.200 | < 0.01 | 0.11 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693142 | 3 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.11 | 0.013 | 0.72 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.224 | < 0.01 | 0.05 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693143 | 6 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.71 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 24.4 | 0.13 | 0.216 | < 0.01 | 0.06 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693144 | < 2 | < 5 | < 5 | 0.39 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.73 | < 0.005 | 8.35 | < 0.1 | < 0.01 | 23.0 | 0.12 | 0.221 | < 0.01 | 0.05 | < 0.01 | 14.6 | 0.02 | < 0.005 | < 0.01 |
| 693145 | < 2 | < 5 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.61 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 24.5 | 0.12 | 0.225 | < 0.01 | 0.04 | < 0.01 | 15.0 | 0.01 | < 0.005 | < 0.01 |
| 693146 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.60 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.228 | < 0.01 | 0.05 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693147 | < 2 | < 5 | 9 | 0.34 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.63 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.230 | < 0.01 | 0.02 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 693148 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.04 | 0.015 | 0.73 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.233 | < 0.01 | 0.04 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 693149 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.06 | 0.017 | 0.80 | < 0.005 | 8.07 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.259 | < 0.01 | 0.05 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 693150 | < 2 | < 5 | < 5 | 0.35 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.69 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 24.5 | 0.12 | 0.216 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.03 | < 0.005 | < 0.01 |
| 693151 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.74 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.245 | < 0.01 | 0.05 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693152 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.62 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 24.5 | 0.12 | 0.225 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693153 | 5 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.73 | < 0.005 | 7.72 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.221 | < 0.01 | 0.05 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 693154 | < 2 | < 5 | 9 | 0.29 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.73 | < 0.005 | 7.99 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.231 | < 0.01 | 0.04 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693155 | 2 | < 5 | 19 | 0.26 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.76 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 25.4 | 0.10 | 0.243 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 693156 | < 2 | < 5 | 48 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.76 | < 0.005 | 6.86 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.230 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693157 | < 2 | < 5 | 26 | 0.28 | < 0.01 | < 0.001 | 0.04 | 0.015 | 0.76 | < 0.005 | 7.17 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.233 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693158 | 4 | 24 | 50 | 0.30 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.81 | < 0.005 | 7.47 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.233 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 693159 | < 2 | < 5 | 16 | 0.29 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.66 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.233 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 |
| 693160 | < 2 | < 5 | 8 | 0.30 | < 0.01 | < 0.001 | 0.05 | 0.016 | 0.66 | < 0.005 | 7.87 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.252 | < 0.01 | 0.03 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693161 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.64 | < 0.005 | 7.56 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.232 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 693162 | < 2 | < 5 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.64 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 25.1 | 0.10 | 0.230 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 693163 | < 2 | < 5 | 6 | 0.27 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.62 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.223 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693164 | < 2 | < 5 | 9 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.61 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.228 | < 0.01 | < 0.01 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693165 | < 2 | 9 | 27 | 0.32 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.79 | < 0.005 | 7.39 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.227 | < 0.01 | < 0.01 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693166 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.64 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.223 | < 0.01 | 0.02 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693167 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.65 | < 0.005 | 7.51 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.220 | < 0.01 | 0.01 | < 0.01 | 15.4 | 0.02 | < 0.005 | < 0.01 |
| 693168 | < 2 | < 5 | 14 | 0.27 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.62 | < 0.005 | 7.46 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.226 | < 0.01 | 0.04 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 |
| 693169 | < 2 | 6 | 13 | 0.25 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.58 | < 0.005 | 7.33 | < 0.1 | < 0.01 | 23.2 | 0.10 | 0.212 | < 0.01 | 0.01 | < 0.01 | 14.8 | 0.01 | < 0.005 | < 0.01 |
| 693170 | < 2 | < 5 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.016 | 0.61 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.221 | < 0.01 | 0.03 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 |
| 693171 | < 2 | < 5 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.58 | < 0.005 | 7.23 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.214 | < 0.01 | 0.05 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693172 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.78 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.226 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693173 | < 2 | 13 | 26 | 0.27 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.74 | < 0.005 | 6.85 | < 0.1 | < 0.01 | 22.7 | 0.10 | 0.210 | < 0.01 | 0.01 | < 0.01 | 14.4 | 0.01 | < 0.005 | < 0.01 |
| 693174 | < 2 | < 5 | 14 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.74 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.207 | < 0.01 | < 0.01 | < 0.01 | 14.2 | 0.01 | < 0.005 | < 0.01 |
| 693175 | < 2 | 8 | 18 | 0.27 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.75 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.222 | < 0.01 | 0.01 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 |
| 693176 | < 2 | 6 | 23 | 0.28 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.74 | < 0.005 | 7.91 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.218 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 |
| 693177 | < 2 | 6 | 22 | 0.28 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.79 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.228 | < 0.01 | 0.05 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693178 | < 2 | 10 | 69 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.75 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.221 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693179 | < 2 | 15 | 54 | 0.27 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.70 | < 0.005 | 7.71 | < 0.1 | < 0.01 | 24.0 | 0.09 | 0.220 | < 0.01 | 0.03 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693180 | < 2 | 9 | 46 | 0.26 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.73 | < 0.005 | 6.92 | < 0.1 | < 0.01 | 24.3 | 0.08 | 0.225 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693181 | < 2 | 11 | 38 | 0.24 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.67 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.228 | < 0.01 | 0.01 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693182 | < 2 | 22 | 79 | 0.26 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.72 | < 0.005 | 6.95 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.241 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|-------------------------------|--------|--------|--------|-----------|--------------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|---------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| GBW 07113 Meas | | | | 6.78 | | < 0.001 | 0.42 | | | | 2.21 | 4.5 | | 0.08 | 0.11 | | | | | | 34.4 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.01 | | 24.3 | | | | | | 47.8 | | 22.5 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | 3.38 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.014 | 1.50 | < 0.005 | | | | 30.4 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 19.1 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07238 (NCS DC 70006) Meas | | | | | < 0.01 | | | | | 0.011 | | | | | 1.09 | < 0.005 | < 0.01 | | | | | | 0.343 | 0.01 |
| GBW 07238 (NCS DC 70006) Cert | | | | | 0.00016 0 | | | | | 0.00936 | | | | | 1.084 | 0.00178 | 0.00187 | | | | | | 0.360 | 0.00655 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.6 | | | | | 3.23 | | 7.40 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.136 | | | | | | | | 19.9 | 0.01 | | | | 17.6 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.137 | | | | | | | | 20.4 | 0.01 | | | | 17.5 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | | | | | | | | | | 0.02 | | | | | | | | | | |
| MP-1b Cert | | | | | | | | | | | | | | 0.024 | | | | | | | | | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.7 | | | | 0.27 | | | | | | | 13.8 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 44.1 | | | | 0.27 | | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.2 | | | | 0.27 | | | | | | | 13.5 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.52 | | | 5.65 | | 1.06 | | 8.49 | 2.2 | | 3.01 | 0.13 | | | 1.17 | | | 22.6 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.74 | | | | | | | | | | < 0.005 | |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.88 | | | | | | | | | | 0.007 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|--|---------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4630 | 5780 | 4820 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4850 | 6030 | 4830 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| CZN-4 Meas | | | | 0.07 | 0.03 | | | 0.010 | | 0.405 | | | | | | | | 33.2 | | | | | | 53.5 |
| CZN-4 Cert | | | | 0.0715 | 0.0356 | | | 0.0094 | | 0.403 | | | | | | | | 33.07 | | | | | | 55.07 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 | |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.09 | |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 | |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.229 | 5.78 | 2.6 | < 0.01 | 1.58 | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 31.0 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.226 | 5.73 | 2.6 | < 0.01 | 1.55 | 0.09 | < 0.005 | < 0.01 | 0.37 | | | 30.9 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.032 | | 23.0 | 31.7 | | | 0.72 | 0.01 | | | 0.70 | 36.1 | 0.01 | | | | 3.00 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 22.3 | 31.1 | | | 0.70 | 0.01 | | | 0.67 | 35.9 | < 0.01 | | | | 2.87 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CDN-PGMS-28 Meas | 195 | 1760 | 1570 | | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 176 | 1690 | 1430 | | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | | |
| 693122 Orig | | | | 0.42 | < 0.01 | < 0.001 | 0.87 | 0.016 | 0.57 | < 0.005 | 7.85 | < 0.1 | < 0.01 | 23.2 | 0.11 | 0.248 | < 0.01 | 0.08 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 | |
| 693122 Dup | | | | 0.42 | < 0.01 | < 0.001 | 0.89 | 0.015 | 0.58 | 0.005 | 7.75 | < 0.1 | < 0.01 | 23.1 | 0.12 | 0.249 | < 0.01 | 0.08 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 | |
| 693126 Orig | < 2 | 21 | 14 | | | | | | | | | | | | | | | | | | | | | |
| 693126 Dup | < 2 | 22 | 10 | | | | | | | | | | | | | | | | | | | | | |
| 693133 Orig | | | | 0.45 | < 0.01 | < 0.001 | 0.17 | 0.011 | 0.60 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.211 | < 0.01 | 0.06 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 | |
| 693133 Dup | | | | 0.47 | < 0.01 | < 0.001 | 0.16 | 0.012 | 0.63 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 25.6 | 0.11 | 0.217 | < 0.01 | 0.06 | < 0.01 | 17.3 | 0.03 | < 0.005 | < 0.01 | |
| 693136 Orig | 11 | 33 | 7 | | | | | | | | | | | | | | | | | | | | | |
| 693136 Dup | 16 | 37 | 10 | | | | | | | | | | | | | | | | | | | | | |
| 693146 Orig | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.04 | 0.015 | 0.61 | < 0.005 | 7.28 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.227 | < 0.01 | 0.04 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|-----------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 693146 Dup | 3 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.60 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.230 | < 0.01 | 0.06 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 693158 Orig | | | | 0.27 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.75 | 0.010 | 6.82 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.233 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693158 Dup | | | | 0.27 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.77 | < 0.005 | 6.90 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.228 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693161 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693161 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693166 Split PREP DUP | < 2 | < 5 | 6 | 0.32 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.61 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.218 | < 0.01 | 0.02 | < 0.01 | 15.0 | 0.01 | < 0.005 | < 0.01 |
| 693166 Orig | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.64 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.223 | < 0.01 | 0.02 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693169 Orig | | | | 0.24 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.55 | < 0.005 | 6.92 | < 0.1 | < 0.01 | 22.0 | 0.09 | 0.200 | < 0.01 | 0.02 | < 0.01 | 14.0 | 0.01 | < 0.005 | < 0.01 |
| 693169 Dup | | | | 0.27 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.60 | < 0.005 | 7.74 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.224 | < 0.01 | 0.01 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693170 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693170 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693176 Orig | | | | 0.29 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.75 | < 0.005 | 7.91 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.219 | < 0.01 | 0.02 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 |
| 693176 Dup | | | | 0.28 | < 0.01 | < 0.001 | 0.04 | 0.015 | 0.73 | < 0.005 | 7.91 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.218 | < 0.01 | 0.02 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 |
| 693180 Orig | < 2 | 8 | 49 | | | | | | | | | | | | | | | | | | | | |
| 693180 Dup | < 2 | 10 | 43 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |



Date Submitted: 10-Dec-18
Invoice No.: A18-18961
Invoice Date: 21-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

06 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-18961**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized initial "E".

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 10-Dec-18
Invoice No.: A18-18961
Invoice Date: 21-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

86 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18961**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-18961

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| 693237 | < 2 | 11 | 13 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.010 | 0.30 | < 0.005 | 6.42 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.251 | < 0.01 | 0.06 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 | |
| 693238 | < 2 | < 5 | 9 | 0.15 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.26 | < 0.005 | 6.47 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.270 | < 0.01 | 0.06 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693239 | < 2 | 14 | 9 | 0.16 | < 0.01 | < 0.001 | 0.04 | 0.010 | 0.30 | < 0.005 | 6.60 | < 0.1 | < 0.01 | 24.7 | 0.09 | 0.256 | < 0.01 | 0.05 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 | |
| 693240 | < 2 | 16 | 10 | 0.16 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.31 | < 0.005 | 6.39 | < 0.1 | < 0.01 | 23.7 | 0.08 | 0.266 | < 0.01 | 0.05 | < 0.01 | 15.6 | < 0.01 | < 0.005 | < 0.01 | |
| 693241 | < 2 | 9 | < 5 | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.29 | < 0.005 | 6.19 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.257 | < 0.01 | 0.05 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 | |
| 693242 | < 2 | 10 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.32 | < 0.005 | 6.37 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.255 | < 0.01 | 0.06 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 693243 | < 2 | 13 | 5 | 0.18 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.30 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 24.9 | 0.13 | 0.256 | < 0.01 | 0.08 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 | |
| 693244 | < 2 | 5 | < 5 | 0.18 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.34 | < 0.005 | 6.77 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.243 | < 0.01 | 0.06 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 | |
| 693245 | < 2 | 11 | 10 | 0.18 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.30 | < 0.005 | 6.48 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.240 | < 0.01 | 0.06 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 | |
| 693246 | < 2 | 9 | 7 | 0.20 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.36 | < 0.005 | 6.54 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.246 | < 0.01 | 0.06 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 | |
| 693247 | < 2 | 10 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.37 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.238 | < 0.01 | 0.05 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 | |
| 693248 | < 2 | 9 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.38 | < 0.005 | 6.85 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.248 | < 0.01 | 0.07 | < 0.01 | 15.0 | 0.01 | < 0.005 | < 0.01 | |
| 693249 | < 2 | 15 | 11 | 0.18 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.43 | < 0.005 | 6.44 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.248 | < 0.01 | 0.06 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 | |
| 693250 | < 2 | 20 | 5 | 0.17 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.46 | < 0.005 | 6.50 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.262 | < 0.01 | 0.07 | < 0.01 | 15.7 | < 0.01 | < 0.005 | < 0.01 | |
| 693251 | < 2 | 15 | 5 | 0.19 | < 0.01 | < 0.001 | 0.03 | 0.009 | 0.47 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 24.9 | 0.13 | 0.245 | < 0.01 | 0.07 | < 0.01 | 14.9 | < 0.01 | < 0.005 | < 0.01 | |
| 693252 | < 2 | 14 | < 5 | 0.19 | < 0.01 | < 0.001 | 0.02 | 0.009 | 0.47 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.242 | < 0.01 | 0.05 | < 0.01 | 14.8 | < 0.01 | < 0.005 | < 0.01 | |
| 693253 | < 2 | 18 | < 5 | 0.21 | < 0.01 | < 0.001 | 0.01 | 0.011 | 0.56 | < 0.005 | 5.99 | < 0.1 | < 0.01 | 24.5 | 0.08 | 0.321 | < 0.01 | 0.09 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 | |
| 693254 | < 2 | 15 | 7 | 0.21 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.55 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.288 | < 0.01 | 0.07 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 693255 | < 2 | < 5 | 9 | 0.22 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.62 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 23.9 | 0.09 | 0.288 | < 0.01 | 0.06 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693256 | < 2 | 12 | 8 | 0.24 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.74 | < 0.005 | 6.58 | < 0.1 | < 0.01 | 23.8 | 0.09 | 0.286 | < 0.01 | 0.07 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 | |
| 693257 | < 2 | 14 | 5 | 0.21 | < 0.01 | < 0.001 | 0.07 | 0.010 | 0.63 | < 0.005 | 6.28 | < 0.1 | < 0.01 | 24.0 | 0.09 | 0.281 | < 0.01 | 0.06 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693258 | < 2 | 8 | 5 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.67 | < 0.005 | 6.19 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.293 | < 0.01 | 0.04 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693259 | < 2 | 13 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.65 | < 0.005 | 6.10 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.292 | < 0.01 | 0.04 | < 0.01 | 15.6 | 0.01 | < 0.005 | 0.01 | |
| 693260 | < 2 | 19 | 5 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.68 | < 0.005 | 6.76 | < 0.1 | < 0.01 | 25.9 | 0.10 | 0.336 | < 0.01 | 0.07 | < 0.01 | 16.7 | 0.01 | < 0.005 | < 0.01 | |
| 693261 | 3 | 12 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.68 | < 0.005 | 5.93 | < 0.1 | < 0.01 | 23.9 | 0.08 | 0.301 | < 0.01 | 0.06 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 693262 | < 2 | 11 | 9 | 0.24 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.70 | < 0.005 | 5.80 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.294 | < 0.01 | 0.04 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 693263 | < 2 | 14 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.69 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.314 | < 0.01 | 0.06 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 | |
| 693264 | < 2 | 23 | 7 | 0.24 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.67 | < 0.005 | 6.17 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.305 | < 0.01 | 0.04 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 693265 | < 2 | 13 | 15 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.64 | < 0.005 | 6.18 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.284 | < 0.01 | 0.05 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 | |
| 693266 | < 2 | 11 | 9 | 0.22 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.67 | < 0.005 | 5.89 | < 0.1 | < 0.01 | 23.8 | 0.08 | 0.291 | < 0.01 | 0.03 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 | |
| 693267 | < 2 | 22 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.66 | < 0.005 | 6.06 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.302 | < 0.01 | 0.04 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 693268 | 2 | 15 | 10 | 0.23 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.65 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.302 | < 0.01 | 0.05 | < 0.01 | 15.4 | 0.01 | < 0.005 | 0.01 | |
| 693269 | < 2 | 16 | 10 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.68 | < 0.005 | 5.79 | < 0.1 | < 0.01 | 23.9 | 0.09 | 0.307 | < 0.01 | 0.05 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693270 | < 2 | 12 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.67 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.311 | < 0.01 | 0.05 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 693271 | < 2 | 17 | 7 | 0.22 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.64 | < 0.005 | 5.87 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.291 | < 0.01 | 0.04 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 693272 | < 2 | 14 | 7 | 0.22 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.65 | < 0.005 | 5.80 | < 0.1 | < 0.01 | 24.3 | 0.08 | 0.301 | < 0.01 | 0.03 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 | |
| 693273 | < 2 | 13 | 7 | 0.23 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.66 | < 0.005 | 5.87 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.306 | < 0.01 | 0.04 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 | |
| 693274 | < 2 | 18 | 8 | 0.23 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.67 | < 0.005 | 5.77 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.301 | < 0.01 | 0.04 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 | |
| 693275 | < 2 | 21 | 14 | 0.22 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.65 | < 0.005 | 5.74 | < 0.1 | < 0.01 | 24.0 | 0.09 | 0.300 | < 0.01 | 0.04 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 | |
| 693276 | < 2 | 21 | 8 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.65 | < 0.005 | 5.82 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.312 | < 0.01 | 0.04 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 | |
| 693277 | < 2 | 19 | 10 | 0.22 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.65 | < 0.005 | 5.91 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.309 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693278 | < 2 | 19 | 14 | 0.21 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.65 | < 0.005 | 5.82 | < 0.1 | < 0.01 | 24.3 | 0.08 | 0.299 | < 0.01 | 0.01 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 |
| 693279 | < 2 | 12 | 10 | 0.25 | < 0.01 | < 0.001 | 0.09 | 0.011 | 0.64 | < 0.005 | 6.06 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.280 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693280 | < 2 | 9 | 6 | 0.22 | < 0.01 | < 0.001 | 0.10 | 0.011 | 0.70 | < 0.005 | 5.89 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.298 | < 0.01 | 0.02 | < 0.01 | 15.8 | < 0.01 | < 0.005 | < 0.01 |
| 693281 | < 2 | 26 | 10 | 0.23 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.68 | < 0.005 | 5.61 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.303 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 693282 | < 2 | 27 | 5 | 0.23 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.71 | < 0.005 | 6.27 | < 0.1 | < 0.01 | 25.8 | 0.10 | 0.313 | < 0.01 | 0.04 | < 0.01 | 16.6 | 0.01 | < 0.005 | < 0.01 |
| 693283 | < 2 | 23 | 9 | 0.23 | < 0.01 | < 0.001 | 0.11 | 0.011 | 0.67 | < 0.005 | 5.82 | < 0.1 | < 0.01 | 25.3 | 0.10 | 0.312 | < 0.01 | 0.05 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693284 | < 2 | 30 | 11 | 0.22 | < 0.01 | < 0.001 | 0.08 | 0.011 | 0.69 | < 0.005 | 5.91 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.311 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693285 | < 2 | 15 | 6 | 0.23 | < 0.01 | < 0.001 | 0.06 | 0.010 | 0.67 | < 0.005 | 5.68 | < 0.1 | < 0.01 | 25.8 | 0.10 | 0.295 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693286 | < 2 | 26 | 7 | 0.23 | < 0.01 | < 0.001 | 0.08 | 0.011 | 0.70 | < 0.005 | 6.04 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.301 | < 0.01 | 0.04 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693287 | < 2 | 33 | 16 | 0.22 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.65 | < 0.005 | 5.61 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.336 | < 0.01 | 0.04 | < 0.01 | 16.0 | < 0.01 | < 0.005 | < 0.01 |
| 693288 | < 2 | 18 | 13 | 0.23 | < 0.01 | < 0.001 | 0.20 | 0.011 | 0.72 | < 0.005 | 5.67 | < 0.1 | < 0.01 | 25.2 | 0.08 | 0.317 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693289 | < 2 | 14 | 7 | 0.24 | < 0.01 | < 0.001 | 0.17 | 0.011 | 0.71 | < 0.005 | 5.96 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.299 | < 0.01 | 0.07 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693290 | < 2 | 19 | 9 | 0.25 | < 0.01 | < 0.001 | 0.54 | 0.011 | 0.69 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.296 | < 0.01 | 0.03 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693291 | < 2 | 11 | 9 | 0.28 | < 0.01 | < 0.001 | 0.26 | 0.011 | 0.70 | < 0.005 | 5.04 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.288 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693292 | < 2 | 31 | 15 | 0.27 | < 0.01 | < 0.001 | 0.64 | 0.011 | 0.70 | < 0.005 | 5.03 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.309 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693293 | < 2 | 9 | 10 | 0.24 | < 0.01 | < 0.001 | 1.27 | 0.011 | 0.64 | < 0.005 | 4.84 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.289 | < 0.01 | 0.03 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 |
| 693294 | < 2 | 12 | < 5 | 0.25 | < 0.01 | < 0.001 | 3.60 | 0.010 | 0.66 | < 0.005 | 4.79 | < 0.1 | < 0.01 | 23.6 | 0.09 | 0.260 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.01 | < 0.005 | < 0.01 |
| 693295 | < 2 | 20 | 8 | 0.24 | < 0.01 | < 0.001 | 3.11 | 0.010 | 0.65 | < 0.005 | 4.71 | < 0.1 | < 0.01 | 23.2 | 0.10 | 0.271 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.01 | < 0.005 | < 0.01 |
| 693296 | < 2 | 15 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.28 | 0.011 | 0.72 | < 0.005 | 4.99 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.287 | < 0.01 | 0.01 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693297 | < 2 | 19 | 14 | 0.28 | < 0.01 | < 0.001 | 0.17 | 0.011 | 0.73 | < 0.005 | 5.03 | < 0.1 | < 0.01 | 25.5 | 0.09 | 0.281 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693298 | < 2 | 6 | 8 | 0.28 | < 0.01 | < 0.001 | 0.48 | 0.011 | 0.68 | < 0.005 | 4.92 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.279 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693299 | < 2 | 10 | 7 | 0.28 | < 0.01 | < 0.001 | 0.09 | 0.011 | 0.69 | < 0.005 | 4.90 | < 0.1 | < 0.01 | 25.5 | 0.09 | 0.287 | < 0.01 | 0.02 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693300 | < 2 | 14 | 8 | 0.28 | < 0.01 | < 0.001 | 0.17 | 0.011 | 0.72 | < 0.005 | 4.67 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.292 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 693301 | < 2 | 28 | 12 | 0.33 | < 0.01 | < 0.001 | 0.11 | 0.011 | 0.78 | < 0.005 | 4.47 | < 0.1 | < 0.01 | 25.7 | 0.09 | 0.292 | < 0.01 | 0.07 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 693302 | < 2 | 41 | 5 | 0.29 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.80 | < 0.005 | 4.44 | < 0.1 | < 0.01 | 26.3 | 0.08 | 0.321 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|-------------------------------|--------|--------|--------|-----------|-----------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| GBW 07113 Meas | | | | 6.85 | | < 0.001 | 0.42 | | | | 2.18 | 4.3 | | 0.08 | 0.11 | | | | | 34.2 | 0.17 | | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | | |
| GBW 07113 Meas | | | | 6.73 | | | 0.44 | | | | 2.19 | 4.5 | | 0.09 | 0.10 | | | | | 34.1 | 0.18 | | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | | |
| GBW 07113 Meas | | | | 6.87 | | | 0.43 | | | | 2.15 | 4.4 | | 0.08 | 0.11 | | | | | 33.1 | 0.17 | | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 24.3 | | | | | | 47.4 | 21.9 | | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | 22.4 | | | | | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.4 | 22.8 | | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | 22.4 | | | | | | | |
| CD-1 Meas | | | | | 0.68 | | | | | | | | | | | | | | | | 3.59 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | 3.55 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.013 | 1.53 | < 0.005 | | | | 29.9 | 0.08 | 0.370 | < 0.01 | | < 0.01 | 18.7 | | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | 18.4 | | | 0.00450 | |
| DTS-2b Meas | | | | | | | | 0.013 | 1.49 | < 0.005 | | | | 29.9 | 0.08 | 0.361 | < 0.01 | | < 0.01 | 18.3 | | | < 0.01 | |
| DTS-2b Cert | | | | | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | 18.4 | | | 0.00450 | |
| GBW 07239 (NCS DC 70007) Meas | | | | | < 0.01 | | | < 0.002 | | < 0.005 | | | | | 1.15 | < 0.005 | < 0.01 | | | | | | 0.095 | 0.01 |
| GBW 07239 (NCS DC 70007) Cert | | | | | 0.0001 | | | 0.00135 | | 0.005 | | | | | 1.15 | 0.00209 | 0.003 | | | | | | 0.10 | 0.01 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | 0.123 | 13.4 | | | | | 3.25 | 7.42 | | | 14.8 | | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | 7.25 | | | 15.14 | | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.128 | 13.3 | | | | | 3.19 | 7.06 | | | 14.8 | | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | 7.25 | | | 15.14 | | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.118 | 13.4 | | | | | 3.12 | 7.42 | | | 15.0 | | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | 7.25 | | | 15.14 | | | | |
| MP-1b Meas | | | | | 2.25 | | 2.38 | | | 3.17 | 7.89 | | | 0.02 | | | 2.05 | 13.5 | | | 16.5 | | 0.104 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.01 | < 0.005 | < 0.01 | 0.08 | < 0.01 | 42.3 | 0.16 | < 0.005 | < 0.01 | |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|--|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| AMIS 0129 Meas | | | | | | | | | | | 43.1 | | | | 0.27 | | | | | | | 13.4 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| AMIS 0129 Meas | | | | | | | | | | | 43.6 | | | | 0.29 | | | | | | | 13.7 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| OREAS 13b (fusion) Meas | | | | 8.33 | | | 5.44 | | 1.05 | | 8.24 | 2.3 | | 2.93 | 0.13 | | | 1.18 | | | 23.2 | 0.72 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| OREAS 13b (fusion) Meas | | | | 8.31 | | | 5.45 | | 1.05 | | 8.17 | 2.3 | | 2.88 | 0.13 | | | 1.18 | | | 22.2 | 0.71 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | | 0.009 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4920 | 5980 | 4920 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4800 | 6000 | 4950 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.10 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.15 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| PTC-1b Meas | | | | | 0.02 | | | 0.308 | | | 36.4 | | | | | 11.2 | 0.09 | 29.1 | | | 2.35 | | 0.20 |
| PTC-1b Cert | | | | | 0.02 | | | 0.325 | | | 36.78 | | | | | 11.29 | 0.08 | 29.95 | | | 2.468 | | 0.2083 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.65 | | | | 0.002 | < 0.01 | 0.221 | 5.69 | 2.5 | < 0.01 | 1.56 | 0.09 | < 0.005 | < 0.01 | 0.37 | | | 30.6 | 0.45 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.36 | | | | 0.002 | < 0.01 | 0.224 | 5.53 | 2.5 | < 0.01 | 1.55 | 0.07 | 0.013 | < 0.01 | 0.35 | | | 30.1 | 0.44 | 0.02 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.0043 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.21 | | | | 0.002 | < 0.01 | 0.219 | 5.63 | 2.5 | < 0.01 | 1.53 | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 30.1 | 0.44 | 0.03 |
| OREAS 922 (Peroxide Fusion) | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |



Date Submitted: 10-Dec-18
Invoice No.: A18-18974
Invoice Date: 27-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

80 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-18974**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with a large, looped initial "E".

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 10-Dec-18
Invoice No.: A18-18974
Invoice Date: 27-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

80 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18974**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693344 | < 2 | 6 | 11 | 0.42 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.82 | < 0.005 | 5.38 | < 0.1 | < 0.01 | 25.7 | 0.08 | 0.268 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693345 | < 2 | 6 | 11 | 0.35 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.68 | < 0.005 | 5.89 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.256 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693346 | < 2 | < 5 | 14 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.72 | < 0.005 | 5.63 | < 0.1 | < 0.01 | 25.1 | 0.07 | 0.262 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693347 | < 2 | 18 | 13 | 0.34 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.70 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.269 | < 0.01 | 0.04 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693348 | < 2 | 8 | 11 | 0.49 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.64 | < 0.005 | 5.57 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.261 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 693349 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.68 | < 0.005 | 4.84 | < 0.1 | < 0.01 | 25.5 | 0.07 | 0.279 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 693350 | < 2 | < 5 | 6 | 0.46 | < 0.01 | < 0.001 | 0.09 | 0.011 | 0.63 | < 0.005 | 5.54 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.248 | < 0.01 | 0.04 | < 0.01 | 15.6 | 0.03 | < 0.005 | < 0.01 |
| 693351 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.10 | 0.011 | 0.64 | < 0.005 | 5.24 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.254 | < 0.01 | 0.05 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 693352 | < 2 | 11 | 8 | 0.37 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.72 | < 0.005 | 5.55 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.263 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 693353 | 76 | < 5 | 10 | 0.42 | < 0.01 | < 0.001 | 0.09 | 0.011 | 0.69 | < 0.005 | 5.02 | < 0.1 | < 0.01 | 24.6 | 0.09 | 0.267 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693354 | < 2 | < 5 | 7 | 0.41 | < 0.01 | < 0.001 | 0.09 | 0.011 | 0.67 | < 0.005 | 4.95 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.271 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693355 | < 2 | < 5 | 11 | 0.32 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.64 | < 0.005 | 5.83 | < 0.1 | < 0.01 | 24.8 | 0.07 | 0.253 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693356 | 3 | < 5 | 11 | 0.35 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.65 | < 0.005 | 5.55 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.249 | < 0.01 | 0.04 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 693357 | 9 | 14 | 15 | 0.29 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.63 | < 0.005 | 6.10 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.245 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693358 | < 2 | < 5 | 7 | 0.34 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.65 | < 0.005 | 5.72 | < 0.1 | < 0.01 | 25.6 | 0.08 | 0.247 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693359 | < 2 | < 5 | 8 | 0.37 | < 0.01 | < 0.001 | 0.22 | 0.012 | 0.61 | < 0.005 | 5.76 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.232 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693360 | < 2 | < 5 | 6 | 0.35 | < 0.01 | < 0.001 | 0.32 | 0.011 | 0.61 | < 0.005 | 5.62 | < 0.1 | < 0.01 | 24.8 | 0.07 | 0.233 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693361 | < 2 | < 5 | 5 | 0.37 | < 0.01 | < 0.001 | 0.34 | 0.012 | 0.58 | < 0.005 | 5.85 | < 0.1 | < 0.01 | 24.8 | 0.07 | 0.227 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693362 | < 2 | < 5 | 10 | 0.35 | < 0.01 | < 0.001 | 0.23 | 0.012 | 0.59 | < 0.005 | 5.51 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.231 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|------------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| GBW 07113 Meas | | | | 6.85 | | < 0.001 | 0.42 | | | | 2.18 | 4.3 | | | 0.08 | 0.11 | | | | | 34.2 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | |
| GBW 07113 Meas | | | | 6.73 | | | 0.44 | | | | 2.19 | 4.5 | | | 0.09 | 0.10 | | | | | 34.1 | 0.18 | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | |
| GBW 07113 Meas | | | | 6.87 | | | 0.43 | | | | 2.15 | 4.4 | | | 0.08 | 0.11 | | | | | 33.1 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 24.3 | | | | | | 47.4 | | 21.9 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.4 | | 22.8 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.68 | | | | | | | | | | | | | | | | | 3.59 | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | | 3.55 | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.013 | 1.53 | < 0.005 | | | | 29.9 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 18.7 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| DTS-2b Meas | | | | | | | | 0.013 | 1.49 | < 0.005 | | | | 29.9 | 0.08 | 0.361 | < 0.01 | | < 0.01 | | 18.3 | | < 0.01 | |
| DTS-2b Cert | | | | | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07239 (NCS DC 70007) Meas | | | | | < 0.01 | | | < 0.002 | | < 0.005 | | | | | 1.15 | < 0.005 | < 0.01 | | | | | | 0.095 | 0.01 |
| GBW 07239 (NCS DC 70007) Cert | | | | | 0.0001 | | | 0.00135 | | 0.005 | | | | | 1.15 | 0.00209 | 0.003 | | | | | | 0.10 | 0.01 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | 0.123 | 13.4 | | | | | 3.25 | | 7.42 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.128 | 13.3 | | | | | 3.19 | | 7.06 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.118 | 13.4 | | | | | 3.12 | | 7.42 | | | 15.0 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| MP-1b Meas | | | | | 2.25 | | 2.38 | | | 3.17 | 7.89 | | | 0.02 | | | 2.05 | 13.5 | | | 16.5 | | 0.104 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.01 | < 0.005 | < 0.01 | 0.08 | < 0.01 | | 42.3 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | 0.09 | | | | 42.24 | 0.16 | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| AMIS 0129 Meas | | | | | | | | | | | 43.1 | | | | 0.27 | | | | | | 13.4 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.6 | | | | 0.29 | | | | | | 13.7 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.33 | | | 5.44 | | 1.05 | | 8.24 | 2.3 | | 2.93 | 0.13 | | | 1.18 | | 23.2 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.31 | | | 5.45 | | 1.05 | | 8.17 | 2.3 | | 2.88 | 0.13 | | | 1.18 | | 22.2 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | 0.009 | |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4420 | 5350 | 4540 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5660 | 4640 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5710 | 4580 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4530 | 5580 | 4610 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4500 | 5540 | 4540 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.10 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.15 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| PTC-1b Meas | | | | | 0.02 | | | 0.308 | | | 36.4 | | | | | 11.2 | 0.09 | 29.1 | | 2.35 | | | 0.20 |
| PTC-1b Cert | | | | | 0.02 | | | 0.325 | | | 36.78 | | | | | 11.29 | 0.08 | 29.95 | | 2.468 | | | 0.2083 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.65 | | | | 0.002 | < 0.01 | 0.221 | 5.69 | 2.5 | < 0.01 | 1.56 | 0.09 | < 0.005 | < 0.01 | 0.37 | | 30.6 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.36 | | | | 0.002 | < 0.01 | 0.224 | 5.53 | 2.5 | < 0.01 | 1.55 | 0.07 | 0.013 | < 0.01 | 0.35 | | 30.1 | 0.44 | | 0.02 |
| OREAS 922 | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.0043 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | | |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | | |
| (Peroxide Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.21 | | | | 0.002 | < 0.01 | 0.219 | 5.63 | 2.5 | < 0.01 | 1.53 | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 30.1 | 0.44 | | 0.03 | |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 | |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.031 | | 23.6 | 31.3 | | | 0.71 | < 0.01 | | 0.70 | 36.1 | 0.01 | | | | | 3.05 | |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.032 | | 23.0 | 30.9 | | | 0.72 | < 0.01 | | 0.70 | 35.2 | 0.01 | | | | | | 2.94 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.030 | | 23.2 | 30.9 | | | 0.70 | 0.01 | | 0.71 | 36.2 | 0.01 | | | | | | 3.01 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | | | 3.02 |
| 693310 Orig | | | | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.82 | < 0.005 | 3.69 | < 0.1 | < 0.01 | 26.2 | 0.08 | 0.322 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 | | |
| 693310 Dup | | | | 0.31 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.82 | < 0.005 | 3.65 | < 0.1 | < 0.01 | 26.4 | 0.08 | 0.311 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | | |
| 693312 Orig | < 2 | 6 | 14 | | | | | | | | | | | | | | | | | | | | | | |
| 693312 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| 693320 Orig | | | | 0.41 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.83 | < 0.005 | 5.26 | < 0.1 | < 0.01 | 25.5 | 0.07 | 0.291 | < 0.01 | 0.06 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 | | |
| 693320 Dup | | | | 0.41 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.84 | < 0.005 | 5.33 | < 0.1 | < 0.01 | 25.3 | 0.07 | 0.315 | < 0.01 | 0.07 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | | |
| 693322 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| 693322 Dup | < 2 | < 5 | 10 | | | | | | | | | | | | | | | | | | | | | | |
| 693332 Orig | < 2 | 5 | 11 | | | | | | | | | | | | | | | | | | | | | | |
| 693332 Dup | < 2 | 7 | 18 | | | | | | | | | | | | | | | | | | | | | | |
| 693337 Orig | | | | 0.35 | < 0.01 | < 0.001 | 0.55 | 0.013 | 0.78 | < 0.005 | 3.54 | < 0.1 | < 0.01 | 25.6 | 0.07 | 0.285 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | | |
| 693337 Dup | | | | 0.35 | < 0.01 | < 0.001 | 0.59 | 0.011 | 0.77 | < 0.005 | 3.50 | < 0.1 | < 0.01 | 25.7 | 0.07 | 0.275 | < 0.01 | 0.03 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 | | |
| 693342 Orig | | | | 0.34 | < 0.01 | < 0.001 | 0.14 | 0.012 | 0.78 | < 0.005 | 4.49 | < 0.1 | < 0.01 | 25.5 | 0.07 | 0.282 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | | |
| 693342 Dup | | | | 0.35 | < 0.01 | < 0.001 | 0.13 | 0.013 | 0.81 | < 0.005 | 4.58 | < 0.1 | < 0.01 | 25.8 | 0.07 | 0.283 | < 0.01 | 0.04 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 | | |
| 693347 Orig | < 2 | 18 | 16 | | | | | | | | | | | | | | | | | | | | | | |
| 693347 Dup | < 2 | 18 | 10 | | | | | | | | | | | | | | | | | | | | | | |
| 693348 Orig | | | | 0.49 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.65 | < 0.005 | 5.57 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.262 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 | | |
| 693348 Dup | | | | 0.48 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.64 | < 0.005 | 5.58 | < 0.1 | < 0.01 | 25.0 | 0.08 | 0.260 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 | | |
| 693349 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| 693349 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| 693357 Orig | 12 | 17 | 16 | | | | | | | | | | | | | | | | | | | | | | |
| 693357 Dup | 6 | 10 | 14 | | | | | | | | | | | | | | | | | | | | | | |
| 693358 Orig | | | | 0.34 | < 0.01 | < 0.001 | 0.11 | 0.012 | 0.66 | < 0.005 | 5.72 | < 0.1 | < 0.01 | 26.0 | 0.08 | 0.249 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 | | |
| 693358 Dup | | | | 0.34 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.64 | < 0.005 | 5.73 | < 0.1 | < 0.01 | 25.2 | 0.08 | 0.245 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |



Date Submitted: 12-Dec-18
Invoice No.: A18-19099
Invoice Date: 27-Feb-19
Your Reference: December 12/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

126 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-19099**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with some loops and flourishes.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 12-Dec-18
Invoice No.: A18-19099
Invoice Date: 27-Feb-19
Your Reference: December 12/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

126 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19099**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results**Activation Laboratories Ltd.****Report: A18-19099**

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693363 | 8 | 9 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.37 | 0.012 | 0.64 | < 0.005 | 5.58 | < 0.1 | < 0.01 | 25.8 | 0.09 | 0.254 | < 0.01 | 0.05 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693364 | 3 | < 5 | 6 | 0.35 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.72 | < 0.005 | 6.18 | < 0.1 | < 0.01 | 26.7 | 0.13 | 0.263 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693365 | 4 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.67 | < 0.005 | 5.69 | < 0.1 | < 0.01 | 25.9 | 0.09 | 0.263 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693366 | 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.68 | < 0.005 | 5.33 | < 0.1 | < 0.01 | 26.4 | 0.08 | 0.275 | < 0.01 | 0.03 | < 0.01 | 17.3 | 0.02 | < 0.005 | < 0.01 |
| 693367 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.67 | < 0.005 | 5.84 | < 0.1 | < 0.01 | 26.1 | 0.07 | 0.271 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 693368 | < 2 | 6 | < 5 | 0.43 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.65 | < 0.005 | 5.32 | < 0.1 | < 0.01 | 26.0 | 0.08 | 0.263 | < 0.01 | 0.03 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 693369 | 3 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.63 | < 0.005 | 5.37 | < 0.1 | < 0.01 | 25.8 | 0.08 | 0.273 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 693370 | < 2 | 6 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.64 | < 0.005 | 5.51 | < 0.1 | < 0.01 | 26.4 | 0.07 | 0.265 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 693371 | < 2 | < 5 | < 5 | 0.51 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.64 | < 0.005 | 5.31 | < 0.1 | < 0.01 | 25.7 | 0.07 | 0.274 | < 0.01 | 0.03 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 693372 | 4 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 1.56 | 0.013 | 0.55 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.238 | < 0.01 | 0.04 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693373 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.16 | 0.013 | 0.60 | < 0.005 | 5.43 | < 0.1 | < 0.01 | 25.9 | 0.07 | 0.247 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693374 | 3 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.59 | < 0.005 | 5.44 | < 0.1 | < 0.01 | 25.6 | 0.08 | 0.245 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693375 | 2 | < 5 | 5 | 0.62 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.68 | < 0.005 | 6.75 | < 0.1 | < 0.01 | 25.7 | 0.08 | 0.255 | < 0.01 | 0.05 | < 0.01 | 17.8 | 0.02 | < 0.005 | < 0.01 |
| 693376 | 2 | 17 | < 5 | 0.62 | < 0.01 | < 0.001 | 1.20 | 0.014 | 0.74 | < 0.005 | 6.41 | < 0.1 | < 0.01 | 28.2 | 0.11 | 0.267 | < 0.01 | 0.05 | < 0.01 | 19.3 | 0.02 | < 0.005 | < 0.01 |
| 693377 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.61 | 0.012 | 0.58 | < 0.005 | 5.66 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.244 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693378 | 3 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.38 | 0.012 | 0.58 | < 0.005 | 6.62 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.250 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693379 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.20 | 0.014 | 0.63 | < 0.005 | 7.83 | < 0.1 | < 0.01 | 27.6 | 0.11 | 0.247 | < 0.01 | 0.04 | < 0.01 | 17.4 | 0.02 | < 0.005 | < 0.01 |
| 693380 | 3 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.30 | 0.012 | 0.58 | < 0.005 | 5.87 | < 0.1 | < 0.01 | 25.3 | 0.10 | 0.232 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693381 | < 2 | < 5 | 6 | 0.50 | < 0.01 | < 0.001 | 0.98 | 0.012 | 0.58 | < 0.005 | 5.83 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.227 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693382 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.64 | 0.012 | 0.58 | < 0.005 | 5.93 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.232 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693383 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.72 | 0.012 | 0.58 | < 0.005 | 5.50 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.229 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693384 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 8.22 | 0.010 | 0.42 | < 0.005 | 4.36 | < 0.1 | < 0.01 | 20.4 | 0.09 | 0.175 | < 0.01 | 0.02 | < 0.01 | 12.8 | 0.02 | < 0.005 | < 0.01 |
| 693385 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 6.39 | 0.011 | 0.52 | < 0.005 | 4.69 | < 0.1 | < 0.01 | 20.7 | 0.08 | 0.197 | < 0.01 | 0.01 | < 0.01 | 14.9 | 0.02 | < 0.005 | < 0.01 |
| 693386 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 5.93 | 0.011 | 0.51 | < 0.005 | 5.00 | < 0.1 | < 0.01 | 22.0 | 0.08 | 0.204 | < 0.01 | 0.07 | < 0.01 | 15.1 | 0.02 | < 0.005 | < 0.01 |
| 693387 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 5.78 | 0.011 | 0.52 | < 0.005 | 5.09 | < 0.1 | < 0.01 | 21.9 | 0.08 | 0.202 | < 0.01 | 0.02 | < 0.01 | 14.9 | 0.02 | < 0.005 | < 0.01 |
| 693388 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 7.40 | 0.010 | 0.46 | < 0.005 | 4.46 | < 0.1 | < 0.01 | 21.3 | 0.08 | 0.187 | < 0.01 | < 0.01 | < 0.01 | 13.5 | 0.02 | < 0.005 | < 0.01 |
| 693389 | 5 | 144 | 26 | 0.43 | < 0.01 | < 0.001 | 2.56 | 0.011 | 0.42 | < 0.005 | 5.05 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.334 | < 0.01 | 0.07 | < 0.01 | 14.8 | 0.02 | < 0.005 | < 0.01 |
| 693390 | 4 | 39 | 14 | 0.43 | < 0.01 | < 0.001 | 1.31 | 0.012 | 0.50 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.236 | < 0.01 | 0.03 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693391 | < 2 | 122 | 16 | 0.44 | < 0.01 | < 0.001 | 1.22 | 0.012 | 0.50 | < 0.005 | 6.10 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.236 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693392 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 1.03 | 0.012 | 0.53 | < 0.005 | 6.33 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.238 | < 0.01 | 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693393 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.23 | 0.012 | 0.57 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.261 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693394 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.34 | 0.012 | 0.57 | < 0.005 | 5.70 | < 0.1 | < 0.01 | 25.7 | 0.08 | 0.232 | < 0.01 | 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 693395 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.22 | 0.012 | 0.58 | < 0.005 | 6.28 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.231 | < 0.01 | 0.02 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 693396 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.20 | 0.012 | 0.57 | < 0.005 | 6.29 | < 0.1 | < 0.01 | 25.6 | 0.09 | 0.232 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693397 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.11 | 0.013 | 0.57 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 25.4 | 0.10 | 0.228 | < 0.01 | 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693398 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.56 | < 0.005 | 6.84 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.236 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 693399 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.56 | < 0.005 | 6.86 | < 0.1 | < 0.01 | 25.3 | 0.10 | 0.232 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693400 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.57 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 25.7 | 0.10 | 0.226 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 693401 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.60 | < 0.005 | 6.93 | < 0.1 | < 0.01 | 25.4 | 0.10 | 0.234 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693402 | < 2 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.58 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 25.2 | 0.10 | 0.231 | < 0.01 | 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693403 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.57 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 24.9 | 0.10 | 0.233 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 693404 | < 2 | 19 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.33 | 0.013 | 0.56 | < 0.005 | 8.13 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.248 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693405 | 4 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.35 | 0.013 | 0.59 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.258 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693406 | 2 | 30 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.11 | 0.013 | 0.62 | < 0.005 | 7.08 | < 0.1 | < 0.01 | 25.1 | 0.10 | 0.259 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693407 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.61 | < 0.005 | 6.54 | < 0.1 | < 0.01 | 25.9 | 0.10 | 0.247 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693408 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.58 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 25.7 | 0.10 | 0.226 | < 0.01 | 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693409 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.58 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 25.8 | 0.10 | 0.229 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693410 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.61 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 25.9 | 0.10 | 0.233 | < 0.01 | 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | 0.01 |
| 693411 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.16 | 0.012 | 0.56 | < 0.005 | 6.13 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.230 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693412 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.19 | 0.013 | 0.58 | < 0.005 | 6.70 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.231 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693413 | < 2 | < 5 | < 5 | 0.51 | < 0.01 | < 0.001 | 0.22 | 0.012 | 0.58 | < 0.005 | 5.76 | < 0.1 | < 0.01 | 25.6 | 0.09 | 0.241 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 693414 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.17 | 0.012 | 0.56 | < 0.005 | 5.39 | < 0.1 | < 0.01 | 25.8 | 0.09 | 0.258 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | 0.01 |
| 693415 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.22 | 0.011 | 0.57 | < 0.005 | 5.46 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.255 | < 0.01 | 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 693416 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.26 | 0.012 | 0.55 | < 0.005 | 5.88 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.263 | < 0.01 | 0.01 | < 0.01 | 17.0 | 0.03 | < 0.005 | < 0.01 |
| 693417 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.17 | 0.012 | 0.55 | < 0.005 | 5.59 | < 0.1 | < 0.01 | 25.6 | 0.10 | 0.261 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.03 | < 0.005 | 0.01 |
| 693418 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.24 | 0.012 | 0.57 | < 0.005 | 5.54 | < 0.1 | < 0.01 | 25.5 | 0.10 | 0.264 | < 0.01 | < 0.01 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 693419 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.24 | 0.011 | 0.61 | < 0.005 | 4.97 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.272 | < 0.01 | 0.01 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 693420 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.25 | 0.012 | 0.60 | < 0.005 | 5.55 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.267 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | 0.01 |
| 693421 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.30 | 0.011 | 0.59 | < 0.005 | 5.70 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.267 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 693422 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.29 | 0.011 | 0.54 | < 0.005 | 5.75 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.274 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 693423 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.13 | 0.012 | 0.70 | < 0.005 | 5.83 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.244 | < 0.01 | 0.08 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693424 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.69 | < 0.005 | 6.05 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.221 | < 0.01 | 0.09 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693425 | < 2 | 8 | 7 | 0.60 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.84 | < 0.005 | 7.82 | < 0.1 | < 0.01 | 24.6 | 0.09 | 0.200 | < 0.01 | 0.07 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 693426 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.71 | < 0.005 | 6.10 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.212 | < 0.01 | 0.09 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693427 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.70 | < 0.005 | 6.51 | < 0.1 | < 0.01 | 24.6 | 0.09 | 0.207 | < 0.01 | 0.09 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693428 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.68 | < 0.005 | 7.35 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.220 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693429 | < 2 | < 5 | < 5 | 0.53 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.63 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 24.6 | 0.09 | 0.235 | < 0.01 | 0.08 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693430 | < 2 | 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.69 | < 0.005 | 6.23 | < 0.1 | < 0.01 | 25.7 | 0.10 | 0.244 | < 0.01 | 0.09 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 693431 | < 2 | < 5 | < 5 | 0.39 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.69 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 25.5 | 0.09 | 0.249 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693432 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.66 | < 0.005 | 8.82 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.244 | < 0.01 | 0.06 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 693433 | < 2 | < 5 | < 5 | 0.40 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.65 | < 0.005 | 6.99 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.244 | < 0.01 | 0.06 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693434 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.65 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 24.4 | 0.12 | 0.240 | < 0.01 | 0.06 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693435 | < 2 | < 5 | < 5 | 0.40 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.69 | < 0.005 | 6.32 | < 0.1 | < 0.01 | 24.7 | 0.09 | 0.254 | < 0.01 | 0.08 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693436 | < 2 | 7 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.62 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 25.6 | 0.08 | 0.249 | < 0.01 | 0.08 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693437 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.67 | < 0.005 | 5.39 | < 0.1 | < 0.01 | 25.9 | 0.08 | 0.250 | < 0.01 | 0.08 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 693438 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.64 | < 0.005 | 5.61 | < 0.1 | < 0.01 | 25.6 | 0.09 | 0.245 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693439 | < 2 | < 5 | < 5 | 0.43 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.64 | < 0.005 | 5.49 | < 0.1 | < 0.01 | 25.5 | 0.08 | 0.251 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693440 | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.64 | < 0.005 | 5.75 | < 0.1 | < 0.01 | 25.4 | 0.08 | 0.241 | < 0.01 | 0.09 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 693441 | < 2 | < 5 | < 5 | 0.67 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.61 | < 0.005 | 7.30 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.219 | < 0.01 | 0.07 | < 0.01 | 16.5 | 0.03 | < 0.005 | 0.01 |
| 693442 | < 2 | < 5 | < 5 | 0.72 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.63 | < 0.005 | 5.96 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.225 | < 0.01 | 0.07 | < 0.01 | 17.0 | 0.03 | < 0.005 | < 0.01 |
| 693443 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.56 | < 0.005 | 7.97 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.216 | < 0.01 | 0.07 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693444 | < 2 | < 5 | < 5 | 0.56 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.62 | < 0.005 | 6.41 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.234 | < 0.01 | 0.07 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693445 | < 2 | < 5 | 8 | 0.60 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.60 | < 0.005 | 5.97 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.237 | < 0.01 | 0.05 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 693446 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.64 | < 0.005 | 4.78 | < 0.1 | < 0.01 | 25.6 | 0.07 | 0.246 | < 0.01 | 0.07 | < 0.01 | 17.0 | 0.02 | < 0.005 | 0.01 |
| 693447 | < 2 | < 5 | 6 | 0.57 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.67 | < 0.005 | 5.14 | < 0.1 | < 0.01 | 25.7 | 0.07 | 0.238 | < 0.01 | 0.05 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 693448 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.66 | < 0.005 | 6.29 | < 0.1 | < 0.01 | 24.3 | 0.07 | 0.233 | < 0.01 | 0.10 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 693449 | < 2 | < 5 | < 5 | 0.63 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.67 | < 0.005 | 5.37 | < 0.1 | < 0.01 | 25.0 | 0.08 | 0.243 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693450 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.64 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 25.5 | 0.07 | 0.238 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701001 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.63 | < 0.005 | 5.40 | < 0.1 | < 0.01 | 25.4 | 0.07 | 0.243 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701002 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.60 | < 0.005 | 7.02 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.235 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701003 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.63 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.254 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701004 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.64 | < 0.005 | 6.62 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.261 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 701005 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.69 | < 0.005 | 4.87 | < 0.1 | < 0.01 | 26.4 | 0.08 | 0.271 | < 0.01 | 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | 0.01 |
| 701006 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.71 | < 0.005 | 6.85 | < 0.1 | < 0.01 | 25.5 | 0.09 | 0.252 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701007 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.72 | < 0.005 | 5.43 | < 0.1 | < 0.01 | 25.7 | 0.07 | 0.240 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701008 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.69 | < 0.005 | 6.21 | < 0.1 | < 0.01 | 25.7 | 0.08 | 0.233 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701009 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.66 | < 0.005 | 4.36 | < 0.1 | < 0.01 | 26.6 | 0.08 | 0.234 | < 0.01 | 0.01 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 701010 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.61 | < 0.005 | 6.59 | < 0.1 | < 0.01 | 24.5 | 0.08 | 0.226 | < 0.01 | 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701011 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.61 | < 0.005 | 5.38 | < 0.1 | < 0.01 | 23.9 | 0.07 | 0.227 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701012 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.66 | < 0.005 | 6.31 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.232 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701013 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.60 | < 0.005 | 6.51 | < 0.1 | < 0.01 | 24.3 | 0.13 | 0.231 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701014 | < 2 | < 5 | < 5 | 0.55 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.56 | < 0.005 | 7.86 | < 0.1 | < 0.01 | 23.4 | 0.15 | 0.218 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701015 | < 2 | < 5 | < 5 | 0.39 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.60 | < 0.005 | 4.40 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.233 | < 0.01 | 0.02 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 701016 | 6 | < 5 | 7 | 0.51 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.62 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.223 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 |
| 701017 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.70 | < 0.005 | 5.79 | < 0.1 | < 0.01 | 26.6 | 0.10 | 0.250 | < 0.01 | 0.01 | < 0.01 | 17.9 | 0.03 | < 0.005 | < 0.01 |
| 701018 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.62 | < 0.005 | 5.69 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.228 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701019 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.69 | < 0.005 | 5.51 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.236 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701020 | < 2 | 7 | < 5 | 0.55 | < 0.01 | < 0.001 | 0.11 | 0.012 | 0.57 | < 0.005 | 5.16 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.229 | < 0.01 | 0.03 | < 0.01 | 17.0 | 0.03 | < 0.005 | < 0.01 |
| 701021 | < 2 | < 5 | 11 | 0.54 | < 0.01 | < 0.001 | 0.11 | 0.012 | 0.63 | < 0.005 | 4.89 | < 0.1 | < 0.01 | 25.2 | 0.08 | 0.229 | < 0.01 | 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 701022 | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.13 | 0.013 | 0.55 | < 0.005 | 4.85 | < 0.1 | < 0.01 | 25.6 | 0.08 | 0.244 | < 0.01 | < 0.01 | < 0.01 | 17.1 | 0.02 | < 0.005 | < 0.01 |
| 701023 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.61 | < 0.005 | 4.32 | < 0.1 | < 0.01 | 25.2 | 0.08 | 0.236 | < 0.01 | 0.01 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 701024 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.60 | < 0.005 | 6.59 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.237 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701025 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.64 | < 0.005 | 5.05 | < 0.1 | < 0.01 | 26.4 | 0.10 | 0.237 | < 0.01 | 0.02 | < 0.01 | 18.0 | 0.03 | < 0.005 | < 0.01 |
| 701026 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.69 | < 0.005 | 4.93 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.245 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 701027 | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.55 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 23.9 | 0.08 | 0.221 | < 0.01 | 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701028 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.56 | < 0.005 | 5.45 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.226 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701029 | < 2 | < 5 | < 5 | 0.62 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.51 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 23.1 | 0.07 | 0.205 | < 0.01 | 0.01 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 701030 | 8 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.59 | < 0.005 | 5.60 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.232 | < 0.01 | 0.01 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701031 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.55 | < 0.005 | 5.58 | < 0.1 | < 0.01 | 24.8 | 0.07 | 0.224 | < 0.01 | 0.06 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 701032 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.56 | < 0.005 | 5.54 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.224 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 701033 | < 2 | < 5 | < 5 | 0.78 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.55 | < 0.005 | 5.52 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.214 | < 0.01 | 0.01 | < 0.01 | 16.6 | 0.04 | < 0.005 | < 0.01 |
| 701034 | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.58 | < 0.005 | 5.33 | < 0.1 | < 0.01 | 24.9 | 0.10 | 0.237 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 |
| 701035 | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.54 | < 0.005 | 5.10 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.225 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 701036 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.56 | < 0.005 | 5.28 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.224 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701037 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.58 | < 0.005 | 5.96 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.212 | < 0.01 | 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701038 | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.10 | 0.011 | 0.58 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.221 | < 0.01 | 0.01 | < 0.01 | 16.0 | 0.03 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|------------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| GBW 07113 Meas | | | | 6.96 | | < 0.001 | 0.40 | | | | 2.26 | 4.7 | | 0.08 | 0.11 | | | | | | 34.9 | 0.18 | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | |
| GBW 07113 Meas | | | | 6.71 | | < 0.001 | 0.43 | | | | 2.25 | 4.4 | | 0.08 | 0.11 | | | | | | 34.1 | 0.17 | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | |
| PTM-1a Meas | | | | | 0.22 | | | 2.11 | | 24.2 | | | | | | 49.2 | | 23.1 | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 25.0 | | | | | | 48.8 | | 23.2 | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | | 3.57 | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | |
| CD-1 Meas | | | | | 0.69 | | | | | | | | | | | | | | | | | 3.58 | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | |
| DTS-2b Meas | | | | | | | | 0.014 | 1.52 | < 0.005 | | | | 30.0 | 0.08 | 0.368 | < 0.01 | | < 0.01 | | 18.6 | | < 0.01 |
| DTS-2b Cert | | | | | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.3 | | | | | 3.22 | | 7.61 | | | 15.1 | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | | 13.6 | | | | | 3.22 | | 7.38 | | | 15.1 | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.140 | 12.4 | | | | | | | 20.4 | 0.01 | | | | 17.9 |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.140 | 12.4 | | | | | | | 20.3 | < 0.01 | | | | 18.4 |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 |
| MP-1b Meas | | | | | 2.36 | | 2.55 | | | 2.98 | 8.14 | | | 0.02 | | | 2.09 | 13.8 | | | 16.8 | 0.113 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 2.98 | 8.18 | | | 0.02 | | | 2.03 | 13.8 | | | 16.7 | 0.111 | 16.2 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | | | | | | | | | | | | | | | | | 40.8 | | |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | | | | | 42.24 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.7 | | | | 0.27 | | | | | | | 13.8 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| AMIS 0129 Meas | | | | | | | | | | | 44.8 | | | | 0.27 | | | | | | | 13.6 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| OREAS 13b (fusion) Meas | | | | 8.45 | | | 5.61 | | 1.11 | | 8.24 | 2.3 | | 2.87 | 0.13 | | | 1.13 | | 23.1 | 0.73 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.39 | | | 5.71 | | 1.10 | | 8.46 | 2.4 | | 3.03 | 0.13 | | | 1.19 | | 23.2 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.008 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.007 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4420 | 5350 | 4540 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5660 | 4640 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5710 | 4580 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 5050 | 6150 | 5110 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5810 | 5120 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4490 | 5580 | 4680 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.58 | | | | 0.002 | < 0.01 | 0.218 | 5.67 | 2.5 | < 0.01 | 1.55 | 0.09 | < 0.005 | < 0.01 | 0.37 | | 30.8 | 0.44 | | 0.02 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.62 | | | | 0.003 | < 0.01 | 0.216 | 5.77 | 2.6 | < 0.01 | 1.63 | 0.09 | 0.006 | < 0.01 | 0.38 | | 31.3 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|------------------|---------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.031 | | 23.3 | 30.7 | | | | 0.69 | < 0.01 | | 0.71 | 35.7 | 0.01 | | | 3.08 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.031 | | 22.5 | 31.4 | | | | 0.71 | < 0.01 | | 0.70 | 35.8 | < 0.01 | | | 3.00 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | 3.02 |
| CDN-PGMS-28 Meas | 167 | 1620 | 1370 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 693372 Orig | 5 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 1.53 | 0.012 | 0.55 | < 0.005 | 6.43 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.236 | < 0.01 | 0.05 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693372 Dup | 3 | 6 | < 5 | 0.52 | < 0.01 | < 0.001 | 1.58 | 0.013 | 0.55 | < 0.005 | 6.46 | < 0.1 | < 0.01 | 25.0 | 0.08 | 0.241 | < 0.01 | 0.04 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693382 Orig | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.66 | 0.012 | 0.59 | < 0.005 | 5.95 | < 0.1 | < 0.01 | 25.3 | 0.09 | 0.229 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693382 Dup | < 2 | < 5 | < 5 | 0.48 | < 0.01 | < 0.001 | 0.63 | 0.012 | 0.58 | < 0.005 | 5.91 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.235 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 693392 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693392 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693397 Orig | | | | 0.41 | < 0.01 | < 0.001 | 0.11 | 0.013 | 0.56 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 25.5 | 0.10 | 0.231 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 693397 Dup | | | | 0.41 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.57 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 25.2 | 0.10 | 0.226 | < 0.01 | 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693406 Orig | | | | 0.42 | < 0.01 | < 0.001 | 0.12 | 0.013 | 0.61 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 24.9 | 0.10 | 0.255 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 693406 Dup | | | | 0.41 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.62 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 25.2 | 0.10 | 0.263 | < 0.01 | 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 693407 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693407 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693417 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693417 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693421 Orig | | | | 0.53 | < 0.01 | < 0.001 | 0.31 | 0.011 | 0.59 | < 0.005 | 5.69 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.268 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 693421 Dup | | | | 0.53 | < 0.01 | < 0.001 | 0.29 | 0.011 | 0.59 | < 0.005 | 5.71 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.266 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 693427 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693427 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693436 Orig | < 2 | 7 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693436 Dup | < 2 | 8 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693442 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693442 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693443 Orig | | | | 0.57 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.56 | < 0.005 | 7.99 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.217 | < 0.01 | 0.06 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 693443 Dup | | | | 0.57 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.56 | < 0.005 | 7.96 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.216 | < 0.01 | 0.08 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701002 Orig | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.60 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 25.0 | 0.08 | 0.237 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.02 | < 0.005 | 0.01 |
| 701002 Dup | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.61 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.234 | < 0.01 | 0.04 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701012 Orig | 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701012 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701019 Orig | | | | 0.48 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.69 | < 0.005 | 5.56 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.237 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701019 Dup | | | | 0.46 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.68 | < 0.005 | 5.45 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.236 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.03 | < 0.005 | < 0.01 |
| 701027 Orig | < 2 | < 5 | < 5 | 0.45 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.53 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 23.9 | 0.08 | 0.226 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701027 Dup | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.56 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 23.9 | 0.08 | 0.215 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701037 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701037 Dup | < 2 | < 5 | 8 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | 0.02 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | 0.06 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |



Date Submitted: 14-Dec-18
Invoice No.: A18-19146
Invoice Date: 06-Feb-19
Your Reference: December 14/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

114 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19146**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized initial 'E'.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 14-Dec-18
Invoice No.: A18-19146
Invoice Date: 06-Feb-19
Your Reference: December 14/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

114 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-19146**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19146

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701039 | 9 | 26 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.11 | 0.012 | 0.59 | < 0.005 | 6.36 | < 0.1 | < 0.01 | 23.9 | 0.08 | 0.218 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701040 | 3 | 30 | 6 | 0.36 | < 0.01 | < 0.001 | 0.06 | 0.011 | 0.52 | < 0.005 | 6.87 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.214 | < 0.01 | 0.04 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701041 | < 2 | 21 | 25 | 0.41 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.56 | < 0.005 | 5.71 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.216 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701042 | < 2 | 54 | 38 | 0.48 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.53 | < 0.005 | 7.08 | < 0.1 | < 0.01 | 23.6 | 0.15 | 0.203 | < 0.01 | 0.02 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701043 | < 2 | 8 | 22 | 0.50 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.53 | < 0.005 | 8.31 | < 0.1 | < 0.01 | 22.9 | 0.12 | 0.243 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701044 | < 2 | < 5 | < 5 | 0.41 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.54 | < 0.005 | 7.84 | < 0.1 | < 0.01 | 23.9 | 0.14 | 0.192 | < 0.01 | 0.07 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701045 | < 2 | 47 | 10 | 0.40 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.61 | < 0.005 | 5.35 | < 0.1 | < 0.01 | 24.8 | 0.09 | 0.243 | < 0.01 | 0.01 | < 0.01 | 17.1 | 0.02 | < 0.005 | < 0.01 |
| 701046 | < 2 | 6 | 13 | 0.41 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.57 | < 0.005 | 6.64 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701047 | < 2 | 7 | 14 | 0.43 | < 0.01 | < 0.001 | 0.08 | 0.011 | 0.53 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 21.3 | 0.10 | 0.196 | < 0.01 | 0.01 | < 0.01 | 14.6 | 0.02 | < 0.005 | < 0.01 |
| 701048 | < 2 | < 5 | < 5 | 0.44 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.54 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 23.5 | 0.09 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701049 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.56 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 23.5 | 0.09 | 0.203 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701050 | < 2 | < 5 | 6 | 0.49 | < 0.01 | < 0.001 | 0.29 | 0.014 | 0.55 | < 0.005 | 6.29 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.218 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701051 | < 2 | < 5 | < 5 | 0.43 | < 0.01 | < 0.001 | 0.27 | 0.013 | 0.56 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 23.3 | 0.09 | 0.197 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701052 | 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.17 | 0.012 | 0.50 | < 0.005 | 8.16 | < 0.1 | < 0.01 | 22.5 | 0.09 | 0.194 | < 0.01 | 0.01 | < 0.01 | 15.9 | 0.03 | < 0.005 | < 0.01 |
| 701053 | < 2 | < 5 | < 5 | 0.51 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.60 | < 0.005 | 6.33 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.221 | < 0.01 | 0.01 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 701054 | < 2 | < 5 | 9 | 0.47 | < 0.01 | < 0.001 | 0.14 | 0.013 | 0.53 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 22.8 | 0.24 | 0.206 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 701055 | < 2 | < 5 | 8 | 0.45 | < 0.01 | < 0.001 | 0.33 | 0.014 | 0.54 | < 0.005 | 6.94 | < 0.1 | < 0.01 | 23.8 | 0.13 | 0.217 | < 0.01 | 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701056 | < 2 | < 5 | 7 | 0.44 | < 0.01 | < 0.001 | 0.24 | 0.013 | 0.53 | < 0.005 | 5.94 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.205 | < 0.01 | 0.02 | < 0.01 | 16.9 | 0.02 | < 0.005 | < 0.01 |
| 701057 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.36 | 0.013 | 0.49 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 22.5 | 0.09 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701058 | < 2 | < 5 | < 5 | 0.49 | < 0.01 | < 0.001 | 0.31 | 0.013 | 0.51 | < 0.005 | 6.54 | < 0.1 | < 0.01 | 23.0 | 0.09 | 0.201 | < 0.01 | < 0.01 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701059 | < 2 | < 5 | < 5 | 0.46 | < 0.01 | < 0.001 | 0.39 | 0.013 | 0.53 | < 0.005 | 8.29 | < 0.1 | < 0.01 | 23.1 | 0.09 | 0.208 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701060 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.46 | 0.013 | 0.52 | < 0.005 | 8.28 | < 0.1 | < 0.01 | 22.9 | 0.09 | 0.201 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701061 | < 2 | < 5 | 6 | 0.67 | < 0.01 | < 0.001 | 0.32 | 0.013 | 0.76 | < 0.005 | 6.86 | < 0.1 | < 0.01 | 23.3 | 0.08 | 0.218 | < 0.01 | 0.02 | < 0.01 | 16.9 | 0.03 | < 0.005 | < 0.01 |
| 701062 | < 2 | < 5 | < 5 | 0.76 | < 0.01 | < 0.001 | 0.29 | 0.013 | 0.95 | < 0.005 | 6.74 | < 0.1 | < 0.01 | 21.6 | 0.09 | 0.191 | < 0.01 | < 0.01 | < 0.01 | 15.3 | 0.03 | < 0.005 | < 0.01 |
| 701063 | 3 | 18 | 14 | 0.83 | < 0.01 | < 0.001 | 0.34 | 0.012 | 0.81 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.219 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 |
| 701064 | < 2 | < 5 | < 5 | 0.77 | < 0.01 | < 0.001 | 0.55 | 0.013 | 0.85 | < 0.005 | 7.27 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.203 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 701065 | < 2 | 18 | 8 | 0.53 | < 0.01 | < 0.001 | 0.55 | 0.013 | 0.46 | < 0.005 | 6.79 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.207 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701066 | < 2 | 11 | 15 | 0.64 | < 0.01 | < 0.001 | 0.83 | 0.013 | 0.34 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 23.3 | 0.09 | 0.206 | < 0.01 | < 0.01 | < 0.01 | 16.9 | 0.03 | < 0.005 | < 0.01 |
| 701067 | < 2 | < 5 | 7 | 0.98 | < 0.01 | < 0.001 | 1.25 | 0.012 | 0.43 | < 0.005 | 7.83 | < 0.1 | < 0.01 | 22.2 | 0.10 | 0.195 | < 0.01 | < 0.01 | < 0.01 | 17.2 | 0.05 | < 0.005 | < 0.01 |
| 701068 | < 2 | 18 | 9 | 0.66 | < 0.01 | < 0.001 | 0.80 | 0.013 | 0.54 | < 0.005 | 6.13 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.218 | < 0.01 | < 0.01 | < 0.01 | 17.2 | 0.03 | < 0.005 | < 0.01 |
| 701069 | < 2 | < 5 | 6 | 0.79 | < 0.01 | < 0.001 | 0.81 | 0.014 | 0.89 | < 0.005 | 6.42 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 |
| 701070 | < 2 | < 5 | 8 | 0.80 | < 0.01 | < 0.001 | 0.82 | 0.013 | 0.87 | < 0.005 | 6.52 | < 0.1 | < 0.01 | 23.1 | 0.11 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 |
| 701071 | < 2 | < 5 | 5 | 0.79 | < 0.01 | < 0.001 | 0.95 | 0.013 | 0.52 | < 0.005 | 7.54 | < 0.1 | < 0.01 | 22.9 | 0.10 | 0.206 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701072 | < 2 | < 5 | 6 | 0.87 | < 0.01 | < 0.001 | 0.48 | 0.012 | 0.53 | < 0.005 | 8.04 | < 0.1 | < 0.01 | 22.4 | 0.13 | 0.186 | < 0.01 | 0.01 | < 0.01 | 16.4 | 0.04 | < 0.005 | < 0.01 |
| 701073 | < 2 | < 5 | < 5 | 0.75 | < 0.01 | < 0.001 | 0.81 | 0.013 | 0.43 | < 0.005 | 6.94 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.200 | < 0.01 | < 0.01 | < 0.01 | 17.4 | 0.03 | < 0.005 | < 0.01 |
| 701074 | < 2 | < 5 | < 5 | 0.93 | < 0.01 | < 0.001 | 0.64 | 0.014 | 0.43 | < 0.005 | 7.47 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.197 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701075 | < 2 | 7 | 10 | 0.96 | < 0.01 | < 0.001 | 0.81 | 0.013 | 0.73 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.178 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.04 | < 0.005 | < 0.01 |
| 701076 | < 2 | 14 | 9 | 0.93 | < 0.01 | < 0.001 | 0.92 | 0.013 | 0.76 | < 0.005 | 7.57 | < 0.1 | < 0.01 | 22.2 | 0.11 | 0.190 | < 0.01 | 0.01 | < 0.01 | 16.6 | 0.04 | < 0.005 | < 0.01 |
| 701077 | < 2 | < 5 | 6 | 0.98 | < 0.01 | < 0.001 | 0.70 | 0.014 | 0.78 | < 0.005 | 7.96 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.189 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.04 | < 0.005 | < 0.01 |
| 701078 | < 2 | < 5 | < 5 | 0.88 | < 0.01 | < 0.001 | 1.05 | 0.014 | 0.74 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 22.5 | 0.12 | 0.170 | < 0.01 | < 0.01 | < 0.01 | 17.3 | 0.04 | < 0.005 | < 0.01 |
| 701079 | < 2 | < 5 | < 5 | 0.97 | < 0.01 | < 0.001 | 1.29 | 0.014 | 0.65 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 22.2 | 0.11 | 0.169 | < 0.01 | 0.01 | < 0.01 | 17.2 | 0.04 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19146

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701080 | < 2 | < 5 | < 5 | 0.83 | < 0.01 | < 0.001 | 1.69 | 0.014 | 0.74 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.168 | < 0.01 | < 0.01 | < 0.01 | 17.3 | 0.04 | < 0.005 | < 0.01 |
| 701081 | < 2 | 459 | 38 | 0.92 | < 0.01 | < 0.001 | 1.14 | 0.013 | 0.79 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 22.8 | 0.11 | 0.187 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701082 | < 2 | < 5 | < 5 | 0.91 | < 0.01 | < 0.001 | 1.45 | 0.014 | 0.73 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 22.0 | 0.10 | 0.184 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701083 | < 2 | < 5 | < 5 | 1.14 | < 0.01 | < 0.001 | 0.78 | 0.013 | 0.75 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 22.3 | 0.11 | 0.172 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.04 | < 0.005 | < 0.01 |
| 701084 | < 2 | < 5 | < 5 | 1.10 | < 0.01 | < 0.001 | 1.24 | 0.014 | 0.69 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 21.9 | 0.10 | 0.179 | < 0.01 | < 0.01 | < 0.01 | 16.9 | 0.04 | < 0.005 | < 0.01 |
| 701085 | < 2 | < 5 | < 5 | 0.94 | < 0.01 | < 0.001 | 1.13 | 0.014 | 0.62 | < 0.005 | 7.46 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.183 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701086 | < 2 | 11 | < 5 | 0.85 | < 0.01 | < 0.001 | 0.50 | 0.013 | 0.73 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 23.1 | 0.12 | 0.192 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.03 | < 0.005 | < 0.01 |
| 701087 | < 2 | < 5 | < 5 | 0.79 | < 0.01 | < 0.001 | 0.44 | 0.011 | 0.59 | < 0.005 | 7.27 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.189 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701088 | < 2 | 10 | < 5 | 0.80 | < 0.01 | < 0.001 | 0.72 | 0.012 | 0.57 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.185 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701089 | < 2 | 19 | 14 | 0.74 | < 0.01 | < 0.001 | 0.78 | 0.012 | 0.65 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 22.9 | 0.10 | 0.185 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701090 | < 2 | 15 | 12 | 0.78 | < 0.01 | < 0.001 | 0.99 | 0.012 | 0.61 | < 0.005 | 6.83 | < 0.1 | < 0.01 | 23.1 | 0.11 | 0.191 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 701091 | < 2 | < 5 | < 5 | 0.88 | < 0.01 | < 0.001 | 0.92 | 0.012 | 0.53 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 22.5 | 0.10 | 0.183 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.04 | < 0.005 | < 0.01 |
| 701092 | < 2 | < 5 | 6 | 0.84 | < 0.01 | < 0.001 | 0.90 | 0.012 | 0.57 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.190 | < 0.01 | < 0.01 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 701093 | < 2 | 21 | 14 | 0.67 | < 0.01 | < 0.001 | 1.05 | 0.013 | 0.47 | < 0.005 | 7.27 | < 0.1 | < 0.01 | 22.7 | 0.11 | 0.191 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 701094 | < 2 | < 5 | < 5 | 0.65 | < 0.01 | < 0.001 | 1.16 | 0.013 | 0.39 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 22.7 | 0.11 | 0.186 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 701095 | < 2 | < 5 | 5 | 0.78 | < 0.01 | < 0.001 | 1.13 | 0.013 | 0.51 | < 0.005 | 7.70 | < 0.1 | < 0.01 | 22.4 | 0.11 | 0.188 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.04 | < 0.005 | < 0.01 |
| 701096 | < 2 | < 5 | < 5 | 0.87 | < 0.01 | < 0.001 | 0.91 | 0.013 | 0.53 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.181 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701097 | < 2 | < 5 | < 5 | 0.97 | < 0.01 | < 0.001 | 1.00 | 0.014 | 0.56 | < 0.005 | 7.57 | < 0.1 | < 0.01 | 22.2 | 0.11 | 0.174 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.04 | < 0.005 | < 0.01 |
| 701098 | < 2 | < 5 | < 5 | 0.71 | < 0.01 | < 0.001 | 0.84 | 0.014 | 0.56 | < 0.005 | 7.58 | < 0.1 | < 0.01 | 22.4 | 0.11 | 0.177 | < 0.01 | < 0.01 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 |
| 701099 | < 2 | < 5 | < 5 | 0.77 | < 0.01 | < 0.001 | 0.81 | 0.014 | 0.47 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.182 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 701100 | < 2 | < 5 | < 5 | 0.84 | < 0.01 | < 0.001 | 0.49 | 0.013 | 0.43 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 23.2 | 0.11 | 0.182 | < 0.01 | 0.01 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701101 | < 2 | < 5 | < 5 | 7.45 | < 0.01 | < 0.001 | 8.23 | 0.004 | < 0.01 | 0.016 | 5.46 | 0.3 | < 0.01 | 2.17 | 0.08 | 0.011 | < 0.01 | 0.53 | < 0.01 | 25.1 | 0.59 | < 0.005 | < 0.01 |
| 701102 | < 2 | < 5 | < 5 | 7.17 | < 0.01 | < 0.001 | 8.87 | 0.005 | < 0.01 | 0.014 | 4.12 | 0.2 | < 0.01 | 1.51 | 0.07 | 0.008 | < 0.01 | 0.14 | < 0.01 | 26.0 | 0.49 | < 0.005 | < 0.01 |
| 701103 | < 2 | < 5 | < 5 | 7.32 | < 0.01 | < 0.001 | 6.31 | 0.006 | < 0.01 | 0.043 | 3.52 | 0.1 | < 0.01 | 1.56 | 0.07 | 0.008 | < 0.01 | 0.14 | < 0.01 | 27.6 | 0.45 | < 0.005 | < 0.01 |
| 701104 | < 2 | < 5 | 5 | 7.77 | < 0.01 | < 0.001 | 3.91 | 0.004 | < 0.01 | 0.027 | 2.89 | 0.2 | < 0.01 | 1.44 | 0.05 | 0.006 | < 0.01 | 0.23 | < 0.01 | 29.0 | 0.50 | < 0.005 | < 0.01 |
| 701105 | < 2 | 18 | 17 | 4.45 | < 0.01 | < 0.001 | 10.6 | 0.008 | 0.18 | 0.016 | 7.81 | < 0.1 | < 0.01 | 8.52 | 0.12 | 0.071 | < 0.01 | 1.59 | < 0.01 | 19.8 | 0.23 | < 0.005 | 0.01 |
| 701106 | < 2 | 19 | 19 | 4.20 | < 0.01 | < 0.001 | 7.83 | 0.008 | 0.21 | 0.017 | 7.74 | < 0.1 | < 0.01 | 11.6 | 0.15 | 0.091 | < 0.01 | 0.73 | < 0.01 | 20.0 | 0.21 | < 0.005 | < 0.01 |
| 701107 | 23 | 27 | 17 | 3.93 | < 0.01 | < 0.001 | 8.64 | 0.012 | 0.22 | 0.040 | 7.80 | < 0.1 | < 0.01 | 11.8 | 0.15 | 0.126 | < 0.01 | 0.65 | < 0.01 | 20.5 | 0.20 | < 0.005 | < 0.01 |
| 701108 | < 2 | 14 | < 5 | 2.93 | < 0.01 | < 0.001 | 6.15 | 0.010 | 0.38 | 0.007 | 7.42 | < 0.1 | < 0.01 | 15.7 | 0.13 | 0.129 | < 0.01 | 0.25 | < 0.01 | 18.7 | 0.17 | < 0.005 | < 0.01 |
| 701109 | < 2 | 11 | 11 | 2.26 | < 0.01 | < 0.001 | 4.05 | 0.011 | 0.43 | < 0.005 | 7.72 | < 0.1 | < 0.01 | 18.2 | 0.13 | 0.144 | < 0.01 | 0.07 | < 0.01 | 18.2 | 0.13 | < 0.005 | < 0.01 |
| 701110 | < 2 | 21 | 17 | 2.77 | < 0.01 | < 0.001 | 6.26 | 0.011 | 0.39 | 0.006 | 7.58 | < 0.1 | < 0.01 | 16.0 | 0.14 | 0.140 | < 0.01 | 0.05 | < 0.01 | 18.9 | 0.17 | < 0.005 | < 0.01 |
| 701111 | < 2 | 25 | 8 | 2.36 | < 0.01 | < 0.001 | 5.19 | 0.012 | 0.41 | 0.015 | 7.61 | < 0.1 | < 0.01 | 17.6 | 0.15 | 0.149 | < 0.01 | 0.03 | < 0.01 | 17.4 | 0.15 | < 0.005 | < 0.01 |
| 701112 | < 2 | 6 | 5 | 1.09 | < 0.01 | < 0.001 | 1.17 | 0.013 | 0.56 | < 0.005 | 7.89 | < 0.1 | < 0.01 | 21.2 | 0.12 | 0.199 | < 0.01 | 0.01 | < 0.01 | 16.9 | 0.06 | < 0.005 | < 0.01 |
| 701113 | < 2 | 49 | 56 | 0.90 | < 0.01 | < 0.001 | 0.62 | 0.014 | 0.60 | < 0.005 | 7.77 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.207 | < 0.01 | 0.03 | < 0.01 | 17.0 | 0.05 | < 0.005 | < 0.01 |
| 701114 | < 2 | 13 | 14 | 0.72 | < 0.01 | < 0.001 | 0.79 | 0.014 | 0.60 | < 0.005 | 7.85 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.224 | < 0.01 | 0.06 | < 0.01 | 16.7 | 0.04 | < 0.005 | < 0.01 |
| 701115 | < 2 | 9 | 18 | 0.64 | < 0.01 | < 0.001 | 0.81 | 0.013 | 0.61 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 22.8 | 0.10 | 0.233 | < 0.01 | 0.07 | < 0.01 | 16.1 | 0.03 | < 0.005 | 0.01 |
| 701116 | < 2 | 48 | 59 | 0.84 | < 0.01 | < 0.001 | 0.94 | 0.013 | 0.61 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 22.5 | 0.09 | 0.222 | < 0.01 | 0.06 | < 0.01 | 16.3 | 0.04 | < 0.005 | < 0.01 |
| 701117 | < 2 | 8 | 23 | 0.73 | < 0.01 | < 0.001 | 1.12 | 0.013 | 0.62 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 22.6 | 0.10 | 0.212 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.04 | < 0.005 | < 0.01 |
| 701118 | < 2 | 9 | 272 | 0.75 | < 0.01 | < 0.001 | 0.85 | 0.013 | 0.78 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.205 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.04 | < 0.005 | < 0.01 |
| 701119 | < 2 | < 5 | 15 | 0.64 | < 0.01 | < 0.001 | 0.36 | 0.013 | 0.63 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.218 | < 0.01 | 0.05 | < 0.01 | 16.2 | 0.04 | < 0.005 | < 0.01 |
| 701120 | < 2 | < 5 | 6 | 0.64 | < 0.01 | < 0.001 | 0.28 | 0.013 | 0.68 | < 0.005 | 7.60 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.231 | < 0.01 | 0.07 | < 0.01 | 16.8 | 0.04 | < 0.005 | < 0.01 |
| 701121 | < 2 | 6 | 24 | 0.54 | < 0.01 | < 0.001 | 0.34 | 0.013 | 0.57 | < 0.005 | 7.76 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.199 | < 0.01 | 0.05 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19146

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701122 | < 2 | < 5 | 13 | 0.53 | < 0.01 | < 0.001 | 0.53 | 0.013 | 0.63 | < 0.005 | 7.43 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.217 | < 0.01 | 0.05 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701123 | < 2 | < 5 | < 5 | 0.62 | < 0.01 | < 0.001 | 0.31 | 0.013 | 0.69 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 23.5 | 0.09 | 0.194 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.04 | < 0.005 | < 0.01 |
| 701124 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.56 | 0.013 | 0.62 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 23.2 | 0.09 | 0.202 | < 0.01 | 0.05 | < 0.01 | 16.1 | 0.03 | < 0.005 | < 0.01 |
| 701125 | < 2 | < 5 | 5 | 0.60 | < 0.01 | < 0.001 | 0.69 | 0.014 | 0.63 | < 0.005 | 7.59 | < 0.1 | < 0.01 | 25.3 | 0.10 | 0.215 | < 0.01 | 0.05 | < 0.01 | 17.1 | 0.03 | < 0.005 | < 0.01 |
| 701126 | < 2 | 8 | 30 | 0.57 | < 0.01 | < 0.001 | 0.56 | 0.013 | 0.61 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.213 | < 0.01 | 0.05 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701127 | < 2 | < 5 | 6 | 0.61 | < 0.01 | < 0.001 | 0.88 | 0.013 | 0.61 | < 0.005 | 7.64 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.187 | < 0.01 | 0.03 | < 0.01 | 15.8 | 0.03 | < 0.005 | < 0.01 |
| 701128 | < 2 | < 5 | < 5 | 0.60 | < 0.01 | < 0.001 | 0.21 | 0.014 | 0.64 | < 0.005 | 7.61 | < 0.1 | < 0.01 | 23.6 | 0.10 | 0.229 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.03 | 0.006 | < 0.01 |
| 701129 | < 2 | < 5 | < 5 | 0.56 | < 0.01 | < 0.001 | 0.37 | 0.015 | 0.67 | < 0.005 | 8.41 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.235 | < 0.01 | 0.06 | < 0.01 | 15.8 | 0.03 | < 0.005 | < 0.01 |
| 701130 | < 2 | < 5 | < 5 | 0.54 | < 0.01 | < 0.001 | 0.39 | 0.013 | 0.63 | < 0.005 | 7.59 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.214 | < 0.01 | 0.05 | < 0.01 | 16.3 | 0.03 | < 0.005 | < 0.01 |
| 701131 | < 2 | < 5 | 9 | 0.58 | < 0.01 | < 0.001 | 0.71 | 0.013 | 0.61 | < 0.005 | 7.60 | < 0.1 | < 0.01 | 23.1 | 0.12 | 0.207 | < 0.01 | 0.09 | < 0.01 | 15.9 | 0.03 | < 0.005 | < 0.01 |
| 701132 | < 2 | 6 | 9 | 0.75 | < 0.01 | < 0.001 | 0.46 | 0.012 | 0.62 | < 0.005 | 6.82 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.215 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.04 | < 0.005 | < 0.01 |
| 701133 | < 2 | < 5 | < 5 | 0.58 | < 0.01 | < 0.001 | 1.90 | 0.013 | 0.58 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 22.6 | 0.12 | 0.206 | < 0.01 | 0.04 | < 0.01 | 15.7 | 0.03 | < 0.005 | < 0.01 |
| 701134 | < 2 | 9 | 16 | 0.60 | < 0.01 | < 0.001 | 0.56 | 0.013 | 0.61 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.211 | < 0.01 | 0.04 | < 0.01 | 16.3 | 0.03 | < 0.005 | < 0.01 |
| 701135 | < 2 | 9 | 43 | 0.58 | < 0.01 | < 0.001 | 0.57 | 0.013 | 0.62 | < 0.005 | 7.77 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.209 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701136 | < 2 | 6 | 17 | 0.58 | < 0.01 | < 0.001 | 0.64 | 0.014 | 0.62 | < 0.005 | 7.89 | < 0.1 | < 0.01 | 23.1 | 0.11 | 0.213 | < 0.01 | 0.04 | < 0.01 | 15.9 | 0.03 | < 0.005 | < 0.01 |
| 701137 | < 2 | 8 | 24 | 0.55 | < 0.01 | < 0.001 | 0.41 | 0.013 | 0.62 | < 0.005 | 7.07 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.220 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701138 | < 2 | < 5 | 17 | 0.55 | < 0.01 | < 0.001 | 0.53 | 0.013 | 0.62 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.216 | < 0.01 | 0.04 | < 0.01 | 16.8 | 0.03 | < 0.005 | < 0.01 |
| 701139 | < 2 | 9 | 15 | 0.48 | < 0.01 | < 0.001 | 0.31 | 0.015 | 0.52 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.223 | 0.02 | 0.06 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701140 | < 2 | 235 | 63 | 0.48 | < 0.01 | < 0.001 | 0.63 | 0.014 | 0.50 | < 0.005 | 7.33 | < 0.1 | < 0.01 | 23.7 | 0.11 | 0.264 | 0.01 | 0.06 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 701141 | < 2 | 41 | 48 | 0.50 | < 0.01 | < 0.001 | 0.54 | 0.014 | 0.57 | < 0.005 | 7.19 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.183 | < 0.01 | 0.04 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 701142 | < 2 | 40 | 29 | 0.50 | < 0.01 | < 0.001 | 0.46 | 0.014 | 0.60 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.184 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701143 | < 2 | 34 | 25 | 0.53 | < 0.01 | < 0.001 | 0.41 | 0.014 | 0.59 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.200 | < 0.01 | 0.05 | < 0.01 | 17.2 | 0.03 | < 0.005 | < 0.01 |
| 701144 | < 2 | < 5 | 9 | 0.59 | < 0.01 | < 0.001 | 0.72 | 0.014 | 0.60 | < 0.005 | 7.19 | < 0.1 | < 0.01 | 23.5 | 0.12 | 0.213 | 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701145 | < 2 | 7 | 13 | 0.55 | < 0.01 | < 0.001 | 0.86 | 0.013 | 0.61 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 23.3 | 0.12 | 0.213 | 0.01 | 0.05 | < 0.01 | 16.2 | 0.03 | < 0.005 | < 0.01 |
| 701146 | < 2 | 9 | 15 | 0.56 | < 0.01 | < 0.001 | 0.56 | 0.013 | 0.63 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 22.7 | 0.10 | 0.208 | < 0.01 | 0.03 | < 0.01 | 16.0 | 0.03 | < 0.005 | < 0.01 |
| 701147 | < 2 | 42 | 24 | 0.56 | < 0.01 | < 0.001 | 0.74 | 0.014 | 0.62 | < 0.005 | 6.99 | < 0.1 | < 0.01 | 23.1 | 0.10 | 0.215 | < 0.01 | 0.05 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701148 | < 2 | 36 | 25 | 0.50 | < 0.01 | < 0.001 | 0.62 | 0.014 | 0.61 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.208 | 0.01 | 0.04 | < 0.01 | 16.4 | 0.03 | < 0.005 | < 0.01 |
| 701149 | < 2 | 63 | 48 | 0.48 | < 0.01 | < 0.001 | 0.68 | 0.015 | 0.60 | < 0.005 | 7.39 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.212 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701150 | < 2 | 26 | 28 | 0.49 | < 0.01 | < 0.001 | 0.38 | 0.013 | 0.60 | < 0.005 | 7.56 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.221 | 0.01 | 0.04 | < 0.01 | 16.7 | 0.03 | < 0.005 | < 0.01 |
| 701151 | < 2 | 29 | 24 | 0.48 | < 0.01 | < 0.001 | 0.95 | 0.013 | 0.55 | < 0.005 | 7.22 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.209 | < 0.01 | 0.03 | < 0.01 | 15.8 | 0.03 | < 0.005 | < 0.01 |
| 701152 | < 2 | 32 | 23 | 0.45 | < 0.01 | < 0.001 | 1.62 | 0.014 | 0.53 | < 0.005 | 6.93 | < 0.1 | < 0.01 | 23.2 | 0.10 | 0.203 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.03 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|-------------------------------|--------|--------|--------|-----------|-----------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|--------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| GBW 07113 Meas | | | | 6.70 | | < 0.001 | | | | | 2.15 | 4.3 | | 0.08 | 0.10 | | | | | | 33.7 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 25.1 | | | | | | 48.0 | | 22.4 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.014 | 1.51 | < 0.005 | | | | 29.9 | 0.08 | 0.364 | < 0.01 | | < 0.01 | | 18.7 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07239 (NCS DC 70007) Meas | | | | | < 0.01 | | | < 0.002 | | 0.005 | | | | | 1.16 | 0.007 | < 0.01 | | | | | | 0.102 | 0.01 |
| GBW 07239 (NCS DC 70007) Cert | | | | | 0.0001 | | | 0.00135 | | 0.005 | | | | | 1.15 | 0.00209 | 0.003 | | | | | | 0.10 | 0.01 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.122 | 13.7 | | | | | 3.24 | | 7.58 | | | 15.4 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.120 | 13.6 | | | | | 3.20 | | 7.32 | | | 15.1 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 3.20 | 8.31 | | | 0.03 | | | 2.09 | 13.7 | | | 17.1 | | 0.111 | 16.8 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.29 | | 2.43 | | | 3.11 | 8.04 | | | 0.02 | | | 2.06 | 13.3 | | | 16.3 | | 0.107 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.01 | < 0.005 | < 0.01 | 0.07 | < 0.01 | | 42.5 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | |
| AMIS 0129 Meas | | | | | | | | | | | 44.9 | | | | 0.27 | | | | | | | 14.2 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.49 | | | 5.67 | | 1.09 | | 8.53 | 2.4 | | 2.95 | 0.13 | | | 1.19 | | | 23.5 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.56 | | | 5.39 | | 1.08 | | 8.27 | 2.3 | | 2.87 | 0.13 | | | 1.14 | | | 22.8 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | | 0.010 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|---------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4640 | 5890 | 4970 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4750 | 5920 | 4810 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4540 | 5710 | 4560 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.002 | < 0.01 | 0.226 | 5.79 | 2.6 | < 0.01 | 1.56 | 0.09 | 0.006 | < 0.01 | 0.39 | | 30.7 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 22.8 | 31.8 | | | 0.72 | < 0.01 | | 0.71 | 36.4 | 0.01 | | | | 3.01 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CDN-PGMS-28 Meas | 210 | 1680 | 1450 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 209 | 1640 | 1430 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 701048 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701048 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701049 Orig | | | | 0.45 | < 0.01 | < 0.001 | 0.22 | 0.013 | 0.55 | < 0.005 | 6.40 | < 0.1 | < 0.01 | 23.0 | 0.09 | 0.196 | < 0.01 | < 0.01 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701049 Dup | | | | 0.47 | < 0.01 | < 0.001 | 0.29 | 0.014 | 0.57 | < 0.005 | 6.49 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.210 | < 0.01 | 0.03 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 701057 Orig | | | | 0.47 | < 0.01 | < 0.001 | 0.38 | 0.014 | 0.50 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 22.9 | 0.09 | 0.199 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701057 Dup | | | | 0.45 | < 0.01 | < 0.001 | 0.34 | 0.013 | 0.48 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 22.0 | 0.09 | 0.201 | < 0.01 | < 0.01 | < 0.01 | 15.4 | 0.02 | < 0.005 | < 0.01 |
| 701058 Orig | < 2 | < 5 | 5 | | | | | | | | | | | | | | | | | | | | |
| 701058 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701068 Orig | < 2 | 18 | 8 | | | | | | | | | | | | | | | | | | | | |
| 701068 Dup | < 2 | 18 | 9 | | | | | | | | | | | | | | | | | | | | |
| 701073 Orig | | | | 0.75 | < 0.01 | < 0.001 | 0.82 | 0.014 | 0.42 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.205 | < 0.01 | < 0.01 | < 0.01 | 17.3 | 0.03 | < 0.005 | < 0.01 |
| 701073 Dup | | | | 0.75 | < 0.01 | < 0.001 | 0.81 | 0.013 | 0.44 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.195 | < 0.01 | 0.01 | < 0.01 | 17.4 | 0.03 | < 0.005 | < 0.01 |
| 701078 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701078 Dup | < 2 | < 5 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701088 Orig | < 2 | 10 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701088 Dup | < 2 | 10 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701098 Orig | < 2 | < 5 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701098 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701099 Orig | | | | 0.77 | < 0.01 | < 0.001 | 0.80 | 0.013 | 0.47 | < 0.005 | 7.43 | < 0.1 | < 0.01 | 22.8 | 0.11 | 0.181 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.03 | < 0.005 | < 0.01 |
| 701099 Dup | | | | 0.77 | < 0.01 | < 0.001 | 0.81 | 0.014 | 0.46 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 22.9 | 0.11 | 0.183 | < 0.01 | < 0.01 | < 0.01 | 17.0 | 0.03 | < 0.005 | < 0.01 |
| 701118 Orig | < 2 | 8 | 299 | | | | | | | | | | | | | | | | | | | | |
| 701118 Dup | < 2 | 9 | 245 | | | | | | | | | | | | | | | | | | | | |
| 701125 Orig | | | | 0.62 | < 0.01 | < 0.001 | 0.74 | 0.014 | 0.66 | < 0.005 | 7.90 | < 0.1 | < 0.01 | 26.1 | 0.11 | 0.221 | < 0.01 | 0.05 | < 0.01 | 17.7 | 0.04 | < 0.005 | < 0.01 |
| 701125 Dup | | | | 0.58 | < 0.01 | < 0.001 | 0.65 | 0.013 | 0.60 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.208 | < 0.01 | 0.06 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701128 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701128 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701138 Orig | < 2 | < 5 | 21 | | | | | | | | | | | | | | | | | | | | |
| 701138 Dup | < 2 | < 5 | 13 | | | | | | | | | | | | | | | | | | | | |
| 701147 Orig | | | | 0.56 | < 0.01 | < 0.001 | 0.75 | 0.014 | 0.63 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.213 | 0.01 | 0.06 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701147 Dup | | | | 0.57 | < 0.01 | < 0.001 | 0.74 | 0.014 | 0.61 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 23.2 | 0.10 | 0.217 | < 0.01 | 0.04 | < 0.01 | 16.6 | 0.03 | < 0.005 | < 0.01 |
| 701148 Orig | < 2 | 37 | 26 | | | | | | | | | | | | | | | | | | | | |
| 701148 Dup | < 2 | 35 | 25 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |



Date Submitted: 16-Dec-18
Invoice No.: A18-19201
Invoice Date: 27-Feb-19
Your Reference: December 16/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

78 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19201**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with some loops and flourishes.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 16-Dec-18
Invoice No.: A18-19201
Invoice Date: 27-Feb-19
Your Reference: December 16/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

78 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-19201**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19201

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701153 | < 2 | 6 | < 5 | 0.43 | < 0.01 | < 0.001 | 1.02 | 0.013 | 0.63 | < 0.005 | 6.83 | < 0.1 | < 0.01 | 23.4 | 0.10 | 0.201 | 0.01 | 0.05 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701154 | < 2 | < 5 | < 5 | 0.42 | < 0.01 | < 0.001 | 1.55 | 0.014 | 0.62 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 22.6 | 0.09 | 0.206 | 0.01 | 0.04 | < 0.01 | 15.9 | 0.03 | < 0.005 | < 0.01 |
| 701155 | < 2 | 10 | < 5 | 0.40 | < 0.01 | < 0.001 | 1.71 | 0.013 | 0.61 | < 0.005 | 6.80 | < 0.1 | < 0.01 | 22.4 | 0.08 | 0.195 | 0.01 | 0.02 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701156 | < 2 | 24 | < 5 | 0.36 | < 0.01 | < 0.001 | 2.84 | 0.013 | 0.58 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 21.9 | 0.09 | 0.199 | < 0.01 | 0.04 | < 0.01 | 15.0 | 0.02 | < 0.005 | < 0.01 |
| 701157 | 2 | 7 | < 5 | 0.37 | < 0.01 | < 0.001 | 2.50 | 0.013 | 0.58 | < 0.005 | 6.35 | < 0.1 | < 0.01 | 21.8 | 0.19 | 0.208 | 0.01 | 0.01 | < 0.01 | 15.1 | 0.02 | < 0.005 | < 0.01 |
| 701158 | 7 | 8 | < 5 | 0.40 | < 0.01 | < 0.001 | 3.63 | 0.012 | 0.54 | < 0.005 | 6.80 | < 0.1 | < 0.01 | 20.3 | 0.15 | 0.189 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 701159 | 3 | < 5 | < 5 | 0.39 | < 0.01 | < 0.001 | 1.82 | 0.012 | 0.54 | < 0.005 | 6.03 | < 0.1 | < 0.01 | 20.6 | 0.10 | 0.192 | < 0.01 | 0.02 | < 0.01 | 14.4 | 0.02 | < 0.005 | < 0.01 |
| 701160 | < 2 | 11 | < 5 | 0.39 | < 0.01 | < 0.001 | 1.42 | 0.012 | 0.51 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 19.6 | 0.10 | 0.175 | 0.02 | 0.01 | < 0.01 | 13.8 | 0.02 | < 0.005 | < 0.01 |
| 701161 | < 2 | < 5 | < 5 | 0.39 | < 0.01 | < 0.001 | 0.46 | 0.012 | 0.53 | < 0.005 | 6.80 | < 0.1 | < 0.01 | 20.2 | 0.10 | 0.180 | < 0.01 | 0.03 | < 0.01 | 13.7 | 0.02 | < 0.005 | < 0.01 |
| 701162 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.44 | 0.012 | 0.51 | < 0.005 | 6.17 | < 0.1 | < 0.01 | 20.5 | 0.12 | 0.186 | < 0.01 | 0.04 | < 0.01 | 13.3 | 0.02 | < 0.005 | < 0.01 |
| 701163 | < 2 | 16 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.73 | 0.012 | 0.51 | < 0.005 | 6.36 | < 0.1 | < 0.01 | 20.3 | 0.10 | 0.186 | < 0.01 | 0.04 | < 0.01 | 13.8 | 0.02 | < 0.005 | < 0.01 |
| 701164 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.40 | 0.012 | 0.53 | < 0.005 | 6.27 | < 0.1 | < 0.01 | 20.4 | 0.11 | 0.183 | 0.01 | 0.04 | < 0.01 | 14.5 | 0.02 | < 0.005 | < 0.01 |
| 701165 | 7 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 1.25 | 0.011 | 0.55 | < 0.005 | 5.93 | < 0.1 | < 0.01 | 19.8 | 0.10 | 0.174 | < 0.01 | 0.03 | < 0.01 | 14.6 | 0.02 | < 0.005 | < 0.01 |
| 701166 | < 2 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.82 | 0.012 | 0.50 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 21.1 | 0.11 | 0.187 | < 0.01 | 0.05 | < 0.01 | 12.9 | 0.02 | < 0.005 | < 0.01 |
| 701167 | < 2 | < 5 | < 5 | 0.40 | < 0.01 | < 0.001 | 1.51 | 0.012 | 0.53 | < 0.005 | 6.65 | < 0.1 | < 0.01 | 21.7 | 0.10 | 0.187 | < 0.01 | 0.02 | < 0.01 | 14.3 | 0.02 | < 0.005 | < 0.01 |
| 701168 | < 2 | < 5 | < 5 | 0.40 | < 0.01 | < 0.001 | 0.48 | 0.012 | 0.53 | < 0.005 | 6.41 | < 0.1 | < 0.01 | 22.5 | 0.10 | 0.193 | < 0.01 | 0.02 | < 0.01 | 15.1 | 0.02 | < 0.005 | < 0.01 |
| 701169 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 1.41 | 0.013 | 0.55 | < 0.005 | 6.74 | < 0.1 | < 0.01 | 21.6 | 0.12 | 0.201 | < 0.01 | 0.05 | < 0.01 | 14.7 | 0.02 | < 0.005 | < 0.01 |
| 701170 | < 2 | < 5 | < 5 | 0.38 | < 0.01 | < 0.001 | 0.61 | 0.013 | 0.55 | < 0.005 | 6.64 | < 0.1 | < 0.01 | 22.8 | 0.11 | 0.199 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 701171 | < 2 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.50 | 0.014 | 0.57 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 24.0 | 0.12 | 0.213 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701172 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.57 | 0.013 | 0.58 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 23.5 | 0.12 | 0.199 | < 0.01 | 0.03 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 701173 | < 2 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.51 | 0.013 | 0.61 | < 0.005 | 7.30 | < 0.1 | < 0.01 | 23.2 | 0.13 | 0.204 | < 0.01 | 0.01 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701174 | 3 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.18 | 0.013 | 0.59 | < 0.005 | 6.64 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.215 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701175 | < 2 | 7 | < 5 | 0.35 | < 0.01 | < 0.001 | 0.20 | 0.014 | 0.55 | < 0.005 | 7.64 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.207 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701176 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.21 | 0.014 | 0.57 | < 0.005 | 7.78 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.207 | 0.02 | 0.02 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701177 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.34 | 0.013 | 0.56 | < 0.005 | 7.90 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.206 | 0.01 | 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701178 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.58 | < 0.005 | 7.65 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.217 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701179 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.18 | 0.013 | 0.64 | < 0.005 | 6.55 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.213 | < 0.01 | 0.03 | < 0.01 | 16.6 | 0.02 | < 0.005 | 0.01 |
| 701180 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.22 | 0.013 | 0.59 | < 0.005 | 6.74 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.220 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701181 | < 2 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.43 | 0.014 | 0.57 | < 0.005 | 7.42 | < 0.1 | < 0.01 | 24.3 | 0.12 | 0.220 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701182 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.36 | 0.014 | 0.60 | < 0.005 | 7.51 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.211 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701183 | 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.63 | 0.014 | 0.59 | < 0.005 | 8.20 | < 0.1 | < 0.01 | 23.3 | 0.12 | 0.212 | < 0.01 | 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701184 | 2 | 7 | 5 | 0.32 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.63 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.217 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701185 | < 2 | < 5 | 6 | 0.33 | < 0.01 | < 0.001 | 0.40 | 0.014 | 0.62 | < 0.005 | 6.66 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.217 | 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701186 | 3 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.13 | 0.015 | 0.61 | < 0.005 | 8.54 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.207 | < 0.01 | 0.04 | < 0.01 | 15.4 | 0.02 | < 0.005 | < 0.01 |
| 701187 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.63 | < 0.005 | 7.58 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.216 | < 0.01 | 0.04 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701188 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.61 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.214 | 0.01 | 0.03 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701189 | 6 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.36 | 0.014 | 0.60 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 23.8 | 0.12 | 0.208 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701190 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.60 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 24.2 | 0.12 | 0.207 | 0.01 | 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701191 | < 2 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.62 | < 0.005 | 7.47 | < 0.1 | < 0.01 | 25.3 | 0.15 | 0.214 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.02 | < 0.005 | < 0.01 |
| 701192 | < 2 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.64 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 24.1 | 0.12 | 0.226 | 0.01 | 0.02 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701193 | 4 | 14 | < 5 | 0.27 | < 0.01 | < 0.001 | 2.54 | 0.013 | 0.52 | < 0.005 | 6.64 | < 0.1 | < 0.01 | 22.6 | 0.11 | 0.188 | 0.01 | 0.07 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19201

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701194 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.63 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 24.6 | 0.12 | 0.214 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701195 | 3 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.24 | 0.014 | 0.66 | < 0.005 | 7.03 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.223 | 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701196 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.18 | 0.013 | 0.63 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.216 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701197 | < 2 | < 5 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.60 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.217 | 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701198 | 3 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.62 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.217 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701199 | < 2 | < 5 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.16 | 0.014 | 0.61 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.216 | < 0.01 | < 0.01 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701200 | < 2 | < 5 | < 5 | 0.35 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.61 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.217 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701201 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.23 | 0.013 | 0.62 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.214 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701202 | < 2 | < 5 | < 5 | 0.36 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.66 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.217 | < 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | < 0.01 |
| 701203 | 4 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.12 | 0.013 | 0.64 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.215 | 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701204 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.01 | 0.014 | 0.61 | < 0.005 | 7.51 | < 0.1 | < 0.01 | 24.1 | 0.12 | 0.210 | 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701205 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.62 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 24.3 | 0.12 | 0.216 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701206 | 12 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 2.30 | 0.013 | 0.55 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 22.8 | 0.12 | 0.189 | 0.01 | < 0.01 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701207 | 8 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.65 | < 0.005 | 7.51 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.228 | < 0.01 | < 0.01 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701208 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.61 | < 0.005 | 7.97 | < 0.1 | < 0.01 | 23.6 | 0.13 | 0.219 | 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701209 | 2 | < 5 | 15 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.63 | < 0.005 | 8.02 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.222 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701210 | < 2 | < 5 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.61 | < 0.005 | 7.45 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.219 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701211 | 5 | < 5 | 6 | 0.35 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.64 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.217 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701212 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.63 | < 0.005 | 7.78 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.216 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701213 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.62 | < 0.005 | 7.60 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.226 | 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701214 | 4 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.04 | 0.016 | 0.66 | < 0.005 | 8.25 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.233 | 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701215 | 10 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.67 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.228 | < 0.01 | 0.02 | < 0.01 | 16.3 | 0.02 | < 0.005 | 0.01 |
| 701216 | < 2 | 13 | 7 | 0.33 | < 0.01 | < 0.001 | 0.02 | 0.015 | 0.63 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.223 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701217 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.62 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.220 | < 0.01 | < 0.01 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701218 | 3 | < 5 | 6 | 0.37 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.70 | < 0.005 | 6.67 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.222 | < 0.01 | 0.02 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |
| 701219 | < 2 | < 5 | < 5 | 0.34 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.65 | < 0.005 | 6.91 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.222 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701220 | 11 | 18 | 49 | 0.34 | < 0.01 | < 0.001 | 0.03 | 0.015 | 0.65 | < 0.005 | 7.17 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.225 | 0.01 | < 0.01 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701221 | < 2 | 7 | 7 | 0.34 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.63 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.217 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701222 | < 2 | 15 | 13 | 0.35 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.72 | < 0.005 | 7.02 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.218 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | 0.01 |
| 701223 | < 2 | < 5 | < 5 | 0.33 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.65 | < 0.005 | 6.81 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.217 | < 0.01 | 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701224 | < 2 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.64 | < 0.005 | 7.46 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.225 | < 0.01 | 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701225 | 3 | < 5 | 11 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.73 | < 0.005 | 7.89 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.222 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 701226 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.70 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.225 | 0.01 | < 0.01 | < 0.01 | 16.6 | 0.02 | < 0.005 | 0.01 |
| 701227 | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.015 | 0.74 | < 0.005 | 7.70 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.219 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | 0.01 |
| 701228 | < 2 | < 5 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.75 | < 0.005 | 6.79 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.222 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.02 | < 0.005 | 0.01 |
| 701229 | < 2 | < 5 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.70 | < 0.005 | 7.53 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.217 | 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | 0.01 |
| 701230 | < 2 | < 5 | 8 | 0.31 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.78 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.224 | < 0.01 | < 0.01 | < 0.01 | 15.6 | 0.02 | < 0.005 | 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| GBW 07113 Meas | | | | 6.96 | | < 0.001 | 0.40 | | | | 2.26 | 4.7 | | 0.08 | 0.11 | | | | | | 34.9 | 0.18 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| GBW 07113 Meas | | | | 6.90 | | < 0.001 | 0.56 | | | | 2.21 | 4.7 | | 0.09 | 0.11 | | | | | | 34.5 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.9 | | 22.6 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.03 | | 24.4 | | | | | | 49.5 | | 23.0 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.013 | 1.53 | < 0.005 | | | | 29.9 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 18.7 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07239 (NCS DC 70007) Meas | | | | | < 0.01 | | | < 0.002 | | < 0.005 | | | | | 1.14 | < 0.005 | < 0.01 | | | | | | 0.105 | 0.01 |
| GBW 07239 (NCS DC 70007) Cert | | | | | 0.0001 | | | 0.00135 | | 0.005 | | | | | 1.15 | 0.00209 | 0.003 | | | | | | 0.10 | 0.01 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.3 | | | | | 3.22 | | 7.61 | | | 15.1 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | 0.121 | 13.6 | | | | | 3.21 | | 7.61 | | | 14.7 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.122 | 13.7 | | | | | 3.24 | | 7.58 | | | 15.4 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.140 | 12.7 | | | | | | | 21.0 | 0.01 | | | | 18.4 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.134 | 12.3 | | | | | | | 20.5 | 0.01 | | | | 18.3 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | 2.25 | | 2.52 | | | 3.09 | 8.19 | | | 0.02 | | | 2.06 | 13.6 | | | 16.4 | 0.106 | 16.7 | |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 | |
| MP-1b Meas | | | | | 2.31 | | 2.35 | | | 3.08 | 8.20 | | | 0.02 | | | 2.06 | 13.8 | | | 16.8 | 0.105 | 16.4 | |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 3.20 | 8.31 | | | 0.03 | | | 2.09 | 13.7 | | 17.1 | | 0.111 | 16.8 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.02 | < 0.005 | < 0.01 | 0.06 | < 0.01 | 42.8 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | |
| AMIS 0129 Meas | | | | | | | | | | | 42.4 | | | | 0.26 | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | 13.75 | | |
| AMIS 0129 Meas | | | | | | | | | | | 44.1 | | | | 0.27 | | | | | | 13.5 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.24 | | | 5.40 | | 1.08 | | 8.40 | 2.3 | | 2.86 | 0.13 | | | 1.16 | | 22.6 | 0.70 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.36 | | | 5.59 | | 1.08 | | 8.51 | 2.3 | | 2.89 | 0.13 | | | 1.18 | | 22.9 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.49 | | | 5.67 | | 1.09 | | 8.53 | 2.4 | | 2.95 | 0.13 | | | 1.19 | | 23.5 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.85 | | | | | | | | | | 0.009 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.009 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | | < 0.005 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4420 | 5350 | 4540 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5660 | 4640 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5710 | 4580 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4460 | 5500 | 4750 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4720 | 5920 | 4900 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.20 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.53 | | | | 0.003 | < 0.01 | 0.219 | 5.59 | 2.6 | < 0.01 | 1.53 | 0.08 | < 0.005 | < 0.01 | 0.37 | | | 31.3 | 0.45 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.31 | | | | 0.003 | < 0.01 | 0.222 | 5.62 | 2.6 | < 0.01 | | 0.09 | 0.006 | 0.01 | 0.37 | | | 29.8 | 0.44 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| CCU-1e Meas | | | | 0.15 | 0.11 | | | 0.031 | | 22.8 | 30.3 | | | 0.69 | < 0.01 | | 0.68 | 36.2 | 0.01 | | | | 3.01 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.031 | | 22.6 | 30.4 | | | 0.74 | 0.01 | | 0.69 | 36.7 | 0.01 | | | | 2.87 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 23.6 | 31.3 | | | 0.71 | < 0.01 | | 0.70 | 36.1 | 0.01 | | | | 3.05 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | | 0.11 | | | 0.031 | | 23.0 | 30.2 | | | 0.70 | 0.01 | | 0.69 | 36.9 | 0.01 | | | | 2.86 |
| CCU-1e Cert | | | | | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| 701162 Orig | 4 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701162 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701163 Orig | | | | 0.37 | < 0.01 | < 0.001 | 0.72 | 0.012 | 0.51 | < 0.005 | 6.36 | < 0.1 | < 0.01 | 20.4 | 0.10 | 0.183 | < 0.01 | 0.04 | < 0.01 | 13.9 | 0.02 | < 0.005 | < 0.01 |
| 701163 Dup | | | | 0.38 | < 0.01 | < 0.001 | 0.74 | 0.012 | 0.51 | < 0.005 | 6.36 | < 0.1 | < 0.01 | 20.3 | 0.10 | 0.188 | < 0.01 | 0.04 | < 0.01 | 13.7 | 0.02 | < 0.005 | < 0.01 |
| 701172 Orig | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.61 | 0.013 | 0.58 | < 0.005 | 7.19 | < 0.1 | < 0.01 | 23.5 | 0.12 | 0.200 | < 0.01 | 0.04 | < 0.01 | 15.4 | 0.02 | < 0.005 | < 0.01 |
| 701172 Dup | < 2 | < 5 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.53 | 0.013 | 0.58 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.198 | < 0.01 | 0.02 | < 0.01 | 14.9 | 0.02 | < 0.005 | < 0.01 |
| 701182 Orig | 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701182 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701186 Orig | | | | 0.34 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.61 | < 0.005 | 8.51 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.211 | < 0.01 | 0.03 | < 0.01 | 15.3 | 0.02 | < 0.005 | < 0.01 |
| 701186 Dup | | | | 0.35 | < 0.01 | < 0.001 | 0.13 | 0.015 | 0.61 | < 0.005 | 8.57 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.203 | 0.01 | 0.05 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 701194 Orig | | | | 0.31 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.62 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.214 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701194 Dup | | | | 0.31 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.63 | < 0.005 | 7.45 | < 0.1 | < 0.01 | 24.9 | 0.12 | 0.214 | < 0.01 | 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701197 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701197 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701207 Orig | 13 | < 5 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701207 Dup | 3 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701210 Orig | | | | 0.29 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.61 | < 0.005 | 7.52 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.223 | 0.01 | < 0.01 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701210 Dup | | | | 0.29 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.60 | < 0.005 | 7.37 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.214 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701217 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701217 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701219 Orig | | | | 0.33 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.64 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.218 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701219 Dup | | | | 0.34 | < 0.01 | < 0.001 | 0.02 | 0.015 | 0.66 | < 0.005 | 6.94 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.226 | 0.01 | 0.02 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |



Date Submitted: 17-Dec-18
Invoice No.: A18-19202
Invoice Date: 22-Feb-19
Your Reference: December 17/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

120 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT A18-19202

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 17-Dec-18
Invoice No.: A18-19202
Invoice Date: 22-Feb-19
Your Reference: December 17/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

120 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19202**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19202

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701231 | < 2 | 5 | 26 | 0.34 | < 0.01 | < 0.001 | 0.06 | 0.016 | 0.83 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.234 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701232 | < 2 | < 5 | 14 | 0.32 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.80 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 23.7 | 0.11 | 0.225 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 |
| 701233 | 5 | 17 | 27 | 0.30 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.74 | < 0.005 | 7.49 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.227 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701234 | < 2 | 6 | 23 | 0.30 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.76 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.228 | < 0.01 | < 0.01 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701235 | 5 | 7 | 29 | 0.31 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.82 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.231 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701236 | < 2 | 11 | 18 | 0.29 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.74 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 23.5 | 0.10 | 0.230 | < 0.01 | < 0.01 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 701237 | < 2 | 5 | 17 | 0.32 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.88 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.244 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701238 | < 2 | 8 | 11 | 0.35 | < 0.01 | < 0.001 | 0.04 | 0.015 | 0.90 | < 0.005 | 6.53 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.264 | < 0.01 | 0.01 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701239 | < 2 | < 5 | 15 | 0.27 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.63 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.248 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.02 | < 0.005 | 0.01 |
| 701240 | < 2 | 11 | 19 | 0.29 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.74 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 23.4 | 0.10 | 0.247 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701241 | < 2 | 14 | 23 | 0.31 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.84 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.260 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701242 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.83 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.266 | < 0.01 | < 0.01 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701243 | < 2 | < 5 | 13 | 0.32 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.80 | < 0.005 | 7.79 | < 0.1 | < 0.01 | 23.7 | 0.11 | 0.255 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.02 | < 0.005 | < 0.01 |
| 701244 | < 2 | 12 | 17 | 0.29 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.84 | < 0.005 | 6.71 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.263 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701245 | 8 | < 5 | 6 | 0.24 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.75 | < 0.005 | 7.42 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.296 | < 0.01 | 0.02 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 701246 | < 2 | < 5 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.29 | 0.014 | 0.76 | < 0.005 | 7.02 | < 0.1 | < 0.01 | 23.4 | 0.12 | 0.266 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701247 | < 2 | 7 | 26 | 0.26 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.68 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.283 | < 0.01 | 0.01 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 701248 | < 2 | 20 | 19 | 0.28 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.69 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.269 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701249 | 4 | 567 | 219 | 0.26 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.66 | < 0.005 | 6.98 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.285 | < 0.01 | 0.02 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701250 | < 2 | 117 | 66 | 0.26 | < 0.01 | < 0.001 | 0.19 | 0.014 | 0.64 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.302 | < 0.01 | < 0.01 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701251 | 7 | 147 | 41 | 0.25 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.64 | < 0.005 | 7.10 | < 0.1 | < 0.01 | 23.5 | 0.11 | 0.319 | < 0.01 | 0.01 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 701252 | < 2 | 71 | 29 | 0.26 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.63 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.322 | < 0.01 | 0.04 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701253 | < 2 | 79 | 82 | 0.25 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.67 | < 0.005 | 6.83 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.299 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701254 | < 2 | 14 | 24 | 0.26 | < 0.01 | < 0.001 | 0.14 | 0.014 | 0.66 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.295 | < 0.01 | 0.01 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701255 | < 2 | 28 | 24 | 0.25 | < 0.01 | < 0.001 | 0.12 | 0.013 | 0.62 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.293 | < 0.01 | < 0.01 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701256 | < 2 | 87 | 115 | 0.24 | < 0.01 | < 0.001 | 0.09 | 0.013 | 0.62 | < 0.005 | 7.18 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.306 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701257 | 3 | 361 | 132 | 0.25 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.68 | < 0.005 | 7.54 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.314 | < 0.01 | < 0.01 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701258 | < 2 | 196 | 35 | 0.23 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.67 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.321 | < 0.01 | 0.03 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701259 | 37 | 472 | 49 | 0.23 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.64 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.342 | < 0.01 | 0.01 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701260 | 29 | 513 | 50 | 0.24 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.58 | < 0.005 | 7.30 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.332 | < 0.01 | 0.01 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701261 | 77 | 509 | 77 | 0.24 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.53 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.344 | < 0.01 | 0.03 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701262 | 10 | 25 | 9 | 0.27 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.53 | < 0.005 | 7.28 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.404 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701263 | < 2 | 12 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.09 | 0.015 | 0.51 | < 0.005 | 7.85 | < 0.1 | < 0.01 | 25.2 | 0.11 | 0.408 | < 0.01 | 0.05 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 701264 | < 2 | 20 | 6 | 0.18 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.46 | < 0.005 | 7.42 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.409 | < 0.01 | 0.06 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 701265 | < 2 | 16 | 6 | 0.17 | < 0.01 | < 0.001 | 0.11 | 0.015 | 0.32 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.368 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701266 | < 2 | 17 | < 5 | 0.14 | < 0.01 | < 0.001 | 0.09 | 0.015 | 0.29 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.411 | < 0.01 | 0.07 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 701267 | < 2 | 12 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.32 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.336 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701268 | < 2 | 22 | 8 | 0.15 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.39 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.331 | < 0.01 | 0.05 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701269 | < 2 | 13 | < 5 | 0.16 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.38 | 0.009 | 7.37 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.298 | < 0.01 | 0.06 | < 0.01 | 16.3 | < 0.01 | < 0.005 | < 0.01 |
| 701270 | < 2 | 14 | < 5 | 0.14 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.39 | < 0.005 | 7.46 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.307 | < 0.01 | 0.03 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701271 | < 2 | 19 | 9 | 0.14 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.36 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.335 | < 0.01 | 0.04 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701272 | < 2 | 18 | < 5 | 0.13 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.28 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.306 | < 0.01 | 0.06 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 701273 | < 2 | 15 | < 5 | 0.11 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.25 | < 0.005 | 7.35 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.293 | < 0.01 | 0.04 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701274 | < 2 | 21 | < 5 | 0.13 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.26 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 24.7 | 0.10 | 0.306 | < 0.01 | 0.06 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 |
| 701275 | < 2 | 11 | < 5 | 0.12 | < 0.01 | < 0.001 | 0.15 | 0.013 | 0.24 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.270 | < 0.01 | 0.07 | < 0.01 | 16.0 | < 0.01 | < 0.005 | < 0.01 |
| 701276 | < 2 | 12 | < 5 | 0.11 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.25 | < 0.005 | 7.88 | < 0.1 | < 0.01 | 26.5 | 0.11 | 0.285 | < 0.01 | 0.05 | < 0.01 | 17.4 | < 0.01 | < 0.005 | < 0.01 |
| 701277 | < 2 | 20 | < 5 | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.26 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.300 | < 0.01 | 0.07 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701278 | < 2 | 23 | < 5 | 0.14 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.38 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.337 | < 0.01 | 0.07 | < 0.01 | 16.3 | < 0.01 | < 0.005 | < 0.01 |
| 701279 | < 2 | 14 | < 5 | 0.15 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.46 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.334 | < 0.01 | 0.06 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 |
| 701280 | < 2 | 22 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.35 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.319 | < 0.01 | 0.05 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 701281 | < 2 | 19 | < 5 | 0.11 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.30 | < 0.005 | 7.25 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.314 | < 0.01 | 0.05 | < 0.01 | 16.5 | < 0.01 | < 0.005 | < 0.01 |
| 701282 | < 2 | 16 | 6 | 0.12 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.32 | < 0.005 | 7.68 | < 0.1 | < 0.01 | 25.8 | 0.11 | 0.305 | < 0.01 | 0.03 | < 0.01 | 17.0 | < 0.01 | < 0.005 | < 0.01 |
| 701283 | < 2 | 10 | < 5 | 0.12 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.25 | 0.018 | 7.52 | < 0.1 | < 0.01 | 24.7 | 0.10 | 0.331 | < 0.01 | 0.06 | < 0.01 | 16.5 | < 0.01 | < 0.005 | < 0.01 |
| 701284 | < 2 | 18 | < 5 | 0.14 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.27 | < 0.005 | 7.70 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.310 | < 0.01 | 0.04 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701285 | < 2 | 11 | < 5 | 0.13 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.23 | 0.006 | 7.38 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.300 | < 0.01 | 0.06 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701286 | 4 | 13 | < 5 | 0.14 | < 0.01 | < 0.001 | 3.84 | 0.011 | 0.20 | 0.017 | 6.12 | < 0.1 | < 0.01 | 22.2 | 0.08 | 0.241 | < 0.01 | 0.04 | < 0.01 | 15.1 | < 0.01 | < 0.005 | < 0.01 |
| 701287 | < 2 | 10 | < 5 | 0.13 | < 0.01 | < 0.001 | 3.17 | 0.012 | 0.22 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 22.4 | 0.09 | 0.240 | < 0.01 | 0.05 | < 0.01 | 15.3 | < 0.01 | < 0.005 | < 0.01 |
| 701288 | < 2 | 7 | < 5 | 0.10 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.23 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.302 | < 0.01 | 0.06 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 |
| 701289 | < 2 | 8 | < 5 | 0.19 | < 0.01 | < 0.001 | 0.34 | 0.013 | 0.36 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 23.7 | 0.10 | 0.259 | < 0.01 | 0.05 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 701290 | < 2 | < 5 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.64 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.307 | < 0.01 | 0.05 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701291 | 5 | 6 | < 5 | 0.19 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.62 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.275 | < 0.01 | 0.06 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701292 | < 2 | 8 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.67 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 24.0 | 0.12 | 0.329 | < 0.01 | 0.08 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701293 | < 2 | 27 | 37 | 0.20 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.62 | < 0.005 | 7.13 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.292 | < 0.01 | 0.05 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 |
| 701294 | < 2 | 6 | 12 | 0.23 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.66 | < 0.005 | 7.32 | < 0.1 | < 0.01 | 23.9 | 0.12 | 0.252 | < 0.01 | 0.05 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701295 | < 2 | < 5 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.18 | 0.013 | 0.63 | < 0.005 | 7.04 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.265 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701296 | < 2 | 6 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.37 | 0.014 | 0.62 | < 0.005 | 7.52 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.266 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 701297 | 5 | 11 | 10 | 0.28 | < 0.01 | < 0.001 | 0.47 | 0.014 | 0.63 | < 0.005 | 7.06 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.284 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701298 | < 2 | 6 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.85 | 0.014 | 0.63 | < 0.005 | 7.30 | < 0.1 | < 0.01 | 24.2 | 0.10 | 0.269 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701299 | < 2 | < 5 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.43 | 0.014 | 0.64 | < 0.005 | 7.45 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.281 | < 0.01 | 0.03 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701300 | < 2 | < 5 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.42 | 0.014 | 0.62 | < 0.005 | 7.32 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.270 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 701301 | < 2 | < 5 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.14 | 0.014 | 0.68 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 25.0 | 0.11 | 0.272 | < 0.01 | 0.01 | < 0.01 | 16.7 | 0.01 | < 0.005 | < 0.01 |
| 701302 | < 2 | 8 | 19 | 0.29 | < 0.01 | < 0.001 | 0.20 | 0.014 | 0.82 | < 0.005 | 7.48 | < 0.1 | < 0.01 | 25.3 | 0.12 | 0.267 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701303 | < 2 | 5 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.12 | 0.015 | 0.76 | < 0.005 | 7.66 | < 0.1 | < 0.01 | 25.5 | 0.12 | 0.256 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.02 | < 0.005 | < 0.01 |
| 701304 | 2 | < 5 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.14 | 0.015 | 0.70 | < 0.005 | 7.77 | < 0.1 | < 0.01 | 25.7 | 0.12 | 0.293 | < 0.01 | 0.02 | < 0.01 | 16.9 | 0.01 | < 0.005 | < 0.01 |
| 701305 | < 2 | < 5 | 17 | 0.27 | < 0.01 | < 0.001 | 0.14 | 0.014 | 0.66 | < 0.005 | 7.19 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.283 | < 0.01 | 0.04 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701306 | < 2 | < 5 | < 5 | 0.24 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.72 | < 0.005 | 7.52 | < 0.1 | < 0.01 | 24.6 | 0.12 | 0.269 | < 0.01 | 0.03 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701307 | < 2 | < 5 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.13 | 0.015 | 0.67 | < 0.005 | 7.56 | < 0.1 | < 0.01 | 25.3 | 0.12 | 0.268 | < 0.01 | 0.02 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 701308 | < 2 | < 5 | 21 | 0.23 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.73 | < 0.005 | 7.61 | < 0.1 | < 0.01 | 25.5 | 0.12 | 0.243 | < 0.01 | 0.02 | < 0.01 | 17.0 | 0.01 | < 0.005 | < 0.01 |
| 701309 | < 2 | < 5 | 12 | 0.24 | < 0.01 | < 0.001 | 0.28 | 0.015 | 0.69 | < 0.005 | 7.52 | < 0.1 | < 0.01 | 24.7 | 0.12 | 0.283 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701310 | < 2 | 7 | 29 | 0.22 | < 0.01 | < 0.001 | 0.24 | 0.014 | 0.63 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.256 | < 0.01 | 0.02 | < 0.01 | 16.6 | 0.01 | < 0.005 | < 0.01 |
| 701311 | < 2 | < 5 | 13 | 0.26 | < 0.01 | < 0.001 | 0.16 | 0.014 | 0.65 | < 0.005 | 7.27 | < 0.1 | < 0.01 | 25.4 | 0.12 | 0.267 | < 0.01 | 0.02 | < 0.01 | 16.7 | 0.01 | < 0.005 | < 0.01 |
| 701312 | < 2 | 9 | 14 | 0.25 | < 0.01 | < 0.001 | 0.23 | 0.015 | 0.68 | < 0.005 | 7.58 | < 0.1 | < 0.01 | 25.5 | 0.12 | 0.272 | < 0.01 | < 0.01 | < 0.01 | 16.8 | 0.01 | < 0.005 | < 0.01 |
| 701313 | < 2 | 6 | 21 | 0.24 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.62 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.275 | < 0.01 | 0.03 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19202

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701314 | 3 | 32 | 115 | 0.22 | < 0.01 | < 0.001 | 0.21 | 0.015 | 0.59 | < 0.005 | 7.60 | < 0.1 | < 0.01 | 25.1 | 0.11 | 0.301 | < 0.01 | 0.02 | < 0.01 | 16.8 | 0.01 | < 0.005 | < 0.01 |
| 701315 | 5 | 15 | 63 | 0.25 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.63 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 25.4 | 0.11 | 0.311 | < 0.01 | 0.05 | < 0.01 | 17.1 | 0.01 | < 0.005 | < 0.01 |
| 701316 | < 2 | 105 | 179 | 0.20 | < 0.01 | < 0.001 | 0.11 | 0.014 | 0.55 | < 0.005 | 7.63 | < 0.1 | < 0.01 | 26.2 | 0.11 | 0.302 | < 0.01 | 0.03 | < 0.01 | 17.4 | 0.01 | < 0.005 | < 0.01 |
| 701317 | < 2 | 114 | 49 | 0.22 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.57 | < 0.005 | 8.27 | < 0.1 | < 0.01 | 26.7 | 0.12 | 0.349 | < 0.01 | 0.05 | < 0.01 | 17.4 | 0.01 | < 0.005 | < 0.01 |
| 701318 | < 2 | 10 | 26 | 0.20 | < 0.01 | < 0.001 | 0.17 | 0.013 | 0.35 | < 0.005 | 7.41 | < 0.1 | < 0.01 | 25.3 | 0.11 | 0.282 | < 0.01 | 0.03 | < 0.01 | 16.8 | 0.01 | < 0.005 | < 0.01 |
| 701319 | < 2 | 10 | 33 | 0.17 | < 0.01 | < 0.001 | 0.17 | 0.013 | 0.27 | < 0.005 | 7.45 | < 0.1 | < 0.01 | 25.6 | 0.11 | 0.273 | < 0.01 | < 0.01 | < 0.01 | 17.1 | 0.01 | < 0.005 | < 0.01 |
| 701320 | 5 | 57 | 185 | 0.17 | < 0.01 | < 0.001 | 0.15 | 0.013 | 0.31 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 25.2 | 0.11 | 0.271 | < 0.01 | 0.03 | < 0.01 | 16.9 | 0.01 | < 0.005 | 0.01 |
| 701321 | 86 | 132 | 196 | 0.17 | < 0.01 | < 0.001 | 0.15 | 0.013 | 0.32 | < 0.005 | 7.53 | < 0.1 | < 0.01 | 25.5 | 0.11 | 0.296 | < 0.01 | 0.03 | < 0.01 | 17.2 | 0.01 | < 0.005 | < 0.01 |
| 701322 | 113 | 251 | 86 | 0.18 | < 0.01 | < 0.001 | 0.17 | 0.014 | 0.32 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 25.9 | 0.11 | 0.311 | < 0.01 | 0.02 | < 0.01 | 17.0 | < 0.01 | < 0.005 | < 0.01 |
| 701323 | 9 | 50 | 6 | 0.18 | < 0.01 | < 0.001 | 0.15 | 0.014 | 0.41 | < 0.005 | 8.37 | < 0.1 | < 0.01 | 25.1 | 0.12 | 0.343 | < 0.01 | 0.03 | < 0.01 | 16.4 | < 0.01 | < 0.005 | < 0.01 |
| 701324 | 8 | 153 | 17 | 0.15 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.34 | < 0.005 | 7.67 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.384 | < 0.01 | 0.05 | < 0.01 | 16.6 | < 0.01 | < 0.005 | < 0.01 |
| 701325 | < 2 | < 5 | < 5 | 8.35 | < 0.01 | < 0.001 | 0.44 | < 0.002 | < 0.01 | < 0.005 | 2.87 | 2.8 | < 0.01 | 1.83 | 0.04 | < 0.005 | < 0.01 | 0.02 | < 0.01 | 33.4 | 0.34 | < 0.005 | < 0.01 |
| 701326 | < 2 | < 5 | < 5 | 8.55 | < 0.01 | < 0.001 | 0.46 | < 0.002 | < 0.01 | < 0.005 | 3.07 | 3.0 | < 0.01 | 1.98 | 0.05 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | 31.2 | 0.35 | < 0.005 | < 0.01 |
| 701327 | < 2 | < 5 | < 5 | 7.71 | < 0.01 | < 0.001 | 2.04 | < 0.002 | < 0.01 | < 0.005 | 2.63 | 2.1 | < 0.01 | 1.82 | 0.05 | < 0.005 | < 0.01 | 0.01 | < 0.01 | 31.8 | 0.31 | < 0.005 | < 0.01 |
| 701328 | < 2 | < 5 | < 5 | 7.82 | < 0.01 | < 0.001 | 1.06 | < 0.002 | < 0.01 | < 0.005 | 2.60 | 1.3 | < 0.01 | 2.38 | 0.05 | < 0.005 | < 0.01 | 0.01 | < 0.01 | 31.9 | 0.32 | < 0.005 | < 0.01 |
| 701329 | < 2 | < 5 | < 5 | 7.85 | < 0.01 | < 0.001 | 1.74 | < 0.002 | < 0.01 | < 0.005 | 2.63 | 0.2 | < 0.01 | 1.32 | 0.04 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | 32.1 | 0.34 | < 0.005 | < 0.01 |
| 701330 | < 2 | < 5 | < 5 | 8.16 | < 0.01 | < 0.001 | 1.68 | < 0.002 | < 0.01 | < 0.005 | 2.88 | < 0.1 | < 0.01 | 1.45 | 0.05 | < 0.005 | < 0.01 | 0.01 | < 0.01 | 32.2 | 0.34 | < 0.005 | < 0.01 |
| 701331 | 5 | < 5 | < 5 | 8.01 | < 0.01 | < 0.001 | 5.40 | 0.002 | 0.03 | < 0.005 | 2.96 | < 0.1 | < 0.01 | 2.70 | 0.04 | 0.011 | < 0.01 | 0.01 | < 0.01 | 28.7 | 0.34 | < 0.005 | < 0.01 |
| 701332 | 2 | 8 | 13 | 3.03 | < 0.01 | < 0.001 | 10.0 | 0.007 | 0.25 | < 0.005 | 5.95 | < 0.1 | < 0.01 | 11.1 | 0.13 | 0.082 | < 0.01 | < 0.01 | < 0.01 | 19.7 | 0.17 | < 0.005 | < 0.01 |
| 701333 | < 2 | < 5 | 7 | 1.33 | < 0.01 | < 0.001 | 4.73 | 0.010 | 0.43 | 0.005 | 6.30 | < 0.1 | < 0.01 | 17.1 | 0.12 | 0.147 | < 0.01 | 0.02 | < 0.01 | 15.4 | 0.07 | < 0.005 | < 0.01 |
| 701334 | 3 | 9 | 9 | 1.16 | < 0.01 | < 0.001 | 2.59 | 0.012 | 0.53 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 19.1 | 0.11 | 0.180 | < 0.01 | 0.06 | < 0.01 | 16.8 | 0.07 | < 0.005 | < 0.01 |
| 701335 | 3 | 7 | 5 | 0.88 | < 0.01 | < 0.001 | 0.65 | 0.012 | 0.49 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 20.5 | 0.10 | 0.175 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.05 | < 0.005 | < 0.01 |
| 701336 | < 2 | < 5 | < 5 | 0.87 | < 0.01 | < 0.001 | 0.84 | 0.013 | 0.54 | < 0.005 | 7.38 | < 0.1 | < 0.01 | 20.4 | 0.11 | 0.179 | < 0.01 | 0.06 | < 0.01 | 16.1 | 0.05 | < 0.005 | < 0.01 |
| 701337 | < 2 | < 5 | < 5 | 0.80 | < 0.01 | < 0.001 | 0.55 | 0.012 | 0.54 | < 0.005 | 7.07 | < 0.1 | < 0.01 | 20.1 | 0.11 | 0.179 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.05 | < 0.005 | < 0.01 |
| 701338 | < 2 | < 5 | 5 | 0.92 | < 0.01 | < 0.001 | 1.16 | 0.013 | 0.56 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 20.0 | 0.10 | 0.184 | < 0.01 | 0.05 | < 0.01 | 16.7 | 0.05 | < 0.005 | < 0.01 |
| 701339 | < 2 | 8 | 10 | 0.86 | < 0.01 | < 0.001 | 0.73 | 0.012 | 0.52 | < 0.005 | 6.91 | < 0.1 | < 0.01 | 19.9 | 0.11 | 0.174 | < 0.01 | 0.04 | < 0.01 | 15.1 | 0.05 | < 0.005 | < 0.01 |
| 701340 | < 2 | < 5 | < 5 | 0.79 | < 0.01 | < 0.001 | 1.46 | 0.013 | 0.51 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 18.9 | 0.11 | 0.173 | < 0.01 | 0.09 | < 0.01 | 14.8 | 0.04 | < 0.005 | < 0.01 |
| 701341 | < 2 | 5 | < 5 | 0.72 | < 0.01 | < 0.001 | 0.85 | 0.012 | 0.51 | < 0.005 | 6.49 | < 0.1 | < 0.01 | 19.4 | 0.12 | 0.168 | < 0.01 | 0.05 | < 0.01 | 14.5 | 0.04 | < 0.005 | < 0.01 |
| 701342 | 3 | < 5 | < 5 | 0.79 | < 0.01 | < 0.001 | 2.04 | 0.011 | 0.45 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 18.2 | 0.10 | 0.161 | < 0.01 | 0.09 | < 0.01 | 15.0 | 0.04 | < 0.005 | < 0.01 |
| 701343 | 17 | < 5 | < 5 | 1.05 | < 0.01 | < 0.001 | 2.64 | 0.011 | 0.40 | < 0.005 | 6.03 | < 0.1 | < 0.01 | 18.0 | 0.11 | 0.153 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.06 | < 0.005 | < 0.01 |
| 701344 | 4 | < 5 | < 5 | 0.91 | < 0.01 | < 0.001 | 1.45 | 0.012 | 0.40 | < 0.005 | 6.28 | < 0.1 | < 0.01 | 18.5 | 0.10 | 0.175 | < 0.01 | 0.02 | < 0.01 | 15.2 | 0.05 | < 0.005 | < 0.01 |
| 701345 | < 2 | < 5 | < 5 | 0.94 | < 0.01 | < 0.001 | 0.91 | 0.012 | 0.41 | < 0.005 | 6.07 | < 0.1 | < 0.01 | 18.9 | 0.10 | 0.162 | < 0.01 | 0.02 | < 0.01 | 15.8 | 0.05 | < 0.005 | < 0.01 |
| 701346 | < 2 | 7 | < 5 | 0.83 | < 0.01 | < 0.001 | 0.74 | 0.012 | 0.40 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 18.9 | 0.10 | 0.156 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.05 | < 0.005 | < 0.01 |
| 701347 | < 2 | < 5 | < 5 | 0.70 | < 0.01 | < 0.001 | 1.88 | 0.012 | 0.39 | < 0.005 | 6.74 | < 0.1 | < 0.01 | 18.9 | 0.11 | 0.138 | < 0.01 | 0.01 | < 0.01 | 14.4 | 0.04 | < 0.005 | < 0.01 |
| 701348 | < 2 | < 5 | < 5 | 0.71 | < 0.01 | < 0.001 | 0.95 | 0.012 | 0.40 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 18.9 | 0.10 | 0.139 | < 0.01 | 0.01 | < 0.01 | 14.7 | 0.04 | < 0.005 | < 0.01 |
| 701349 | < 2 | < 5 | < 5 | 0.72 | < 0.01 | < 0.001 | 1.04 | 0.013 | 0.40 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 18.6 | 0.11 | 0.138 | < 0.01 | 0.02 | < 0.01 | 14.9 | 0.04 | < 0.005 | < 0.01 |
| 701350 | 3 | < 5 | < 5 | 0.71 | < 0.01 | < 0.001 | 0.79 | 0.012 | 0.40 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 18.6 | 0.11 | 0.137 | < 0.01 | 0.01 | < 0.01 | 15.4 | 0.04 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|-------------------------------|--------|--------|--------|-----------|-----------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | |
| GBW 07113 Meas | | | | 6.96 | | < 0.001 | 0.40 | | | | 2.26 | 4.7 | | 0.08 | 0.11 | | | | | | 34.9 | 0.18 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| GBW 07113 Meas | | | | 6.87 | | | 0.40 | | | | 2.23 | 4.4 | | 0.08 | 0.11 | | | | | | 33.8 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.06 | | 24.3 | | | | | | 48.7 | 22.8 | | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | 22.4 | | | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | 3.57 | | | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | 3.57 | | | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.014 | 1.50 | < 0.005 | | | | 29.9 | 0.08 | 0.367 | < 0.01 | | < 0.01 | | 18.6 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| GBW 07239 (NCS DC 70007) Meas | | | | | < 0.01 | | | < 0.002 | | < 0.005 | | | | | 1.14 | < 0.005 | < 0.01 | | | | | | 0.105 | 0.01 |
| GBW 07239 (NCS DC 70007) Cert | | | | | 0.0001 | | | 0.00135 | | 0.005 | | | | | 1.15 | 0.00209 | 0.003 | | | | | | 0.10 | 0.01 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.3 | | | | | 3.22 | | 7.61 | | 15.1 | | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | 15.14 | | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.123 | 13.8 | | | | | 3.19 | | 7.38 | | 14.8 | | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | 15.14 | | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.136 | 12.2 | | | | | | | 20.5 | 0.01 | | | | 18.0 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | 2.29 | | 2.46 | | | 3.05 | 7.98 | | | 0.03 | | | 2.04 | 13.6 | | | 16.8 | 0.109 | 16.6 | |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 | |
| MP-1b Meas | | | | | 2.30 | | 2.55 | | | 3.05 | 8.24 | | | 0.02 | | | 2.09 | 14.1 | | | 17.0 | 0.104 | 17.1 | |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 | |
| AMIS 0129 Meas | | | | | | | | | | | 44.9 | | | | 0.27 | | | | | | | 14.2 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |
| OREAS 13b (fusion) Meas | | | | 8.51 | | | 5.77 | | 1.08 | | 8.29 | 2.4 | | 2.85 | 0.13 | | | 1.19 | | | 23.4 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.48 | | | 5.52 | | 1.08 | | 8.54 | 2.3 | | 2.92 | 0.13 | | | 1.22 | | | 23.5 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | | 0.008 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|--|---------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5660 | 4640 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5710 | 4580 | | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | | 2.05 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | | 2.11 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.53 | | | | 0.003 | < 0.01 | 0.219 | 5.59 | 2.6 | < 0.01 | | 0.08 | < 0.005 | < 0.01 | 0.37 | | | 31.3 | 0.45 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.59 | | | | 0.003 | < 0.01 | 0.221 | 5.66 | 2.6 | < 0.01 | | 0.08 | < 0.005 | < 0.01 | 0.38 | | | 31.5 | 0.43 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.54 | | | | 0.003 | < 0.01 | 0.227 | 5.87 | 2.5 | < 0.01 | | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 31.0 | 0.44 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | | 0.03 |
| CCU-1e Meas | | | | | 0.11 | | | 0.031 | | 22.8 | 30.3 | | | 0.69 | < 0.01 | | 0.68 | 36.2 | 0.01 | | | | | 3.01 |
| CCU-1e Cert | | | | | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | | 3.02 |
| CCU-1e Meas | | | | | 0.11 | | | 0.031 | | 23.3 | 30.8 | | | 0.71 | 0.01 | | 0.70 | 36.7 | 0.01 | | | | | 2.86 |
| CCU-1e Cert | | | | | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | | 3.02 |
| CDN-PGMS-28 Meas | 181 | 1800 | 1500 | | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | | |
| 701240 Orig | < 2 | 12 | 11 | | | | | | | | | | | | | | | | | | | | | |
| 701240 Dup | < 2 | 11 | 28 | | | | | | | | | | | | | | | | | | | | | |
| 701241 Orig | | | | 0.31 | < 0.01 | < 0.001 | 0.05 | 0.014 | 0.85 | < 0.005 | 7.00 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.262 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 | |
| 701241 Dup | | | | 0.31 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.82 | < 0.005 | 6.91 | < 0.1 | < 0.01 | 23.4 | 0.10 | 0.258 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 | |
| 701242 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | | |
| 701242 Dup | < 2 | 18 | 34 | | | | | | | | | | | | | | | | | | | | | |
| 701250 Orig | | | | 0.26 | < 0.01 | < 0.001 | 0.19 | 0.014 | 0.64 | < 0.005 | 7.49 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.302 | < 0.01 | < 0.01 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 | |
| 701250 Dup | | | | 0.26 | < 0.01 | < 0.001 | 0.19 | 0.015 | 0.64 | < 0.005 | 7.47 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.301 | < 0.01 | 0.01 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|-----------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701262 Orig | 10 | 25 | 8 | 0.27 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.54 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.406 | < 0.01 | 0.04 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701262 Dup | 11 | 25 | 10 | 0.27 | < 0.01 | < 0.001 | 0.24 | 0.014 | 0.52 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.401 | < 0.01 | 0.04 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701270 Orig | < 2 | 13 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701270 Dup | < 2 | 14 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701273 Orig | | | | 0.11 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.25 | < 0.005 | 7.35 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.293 | < 0.01 | 0.04 | < 0.01 | 16.0 | < 0.01 | < 0.005 | < 0.01 |
| 701273 Dup | | | | 0.11 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.25 | < 0.005 | 7.35 | < 0.1 | < 0.01 | 24.9 | 0.11 | 0.293 | < 0.01 | 0.04 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701280 Split PREP DUP | < 2 | 21 | 12 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.36 | < 0.005 | 7.40 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.313 | < 0.01 | 0.05 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 701280 Orig | < 2 | 22 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701280 Dup | < 2 | 21 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701280 Orig | < 2 | 22 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.014 | 0.35 | < 0.005 | 7.16 | < 0.1 | < 0.01 | 24.0 | 0.10 | 0.319 | < 0.01 | 0.05 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 701287 Orig | | | | 0.13 | < 0.01 | < 0.001 | 3.22 | 0.012 | 0.22 | 0.014 | 6.99 | < 0.1 | < 0.01 | 22.7 | 0.09 | 0.237 | < 0.01 | 0.05 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 |
| 701287 Dup | | | | 0.12 | < 0.01 | < 0.001 | 3.12 | 0.012 | 0.22 | < 0.005 | 6.79 | < 0.1 | < 0.01 | 22.0 | 0.09 | 0.243 | < 0.01 | 0.04 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 |
| 701290 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701290 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701297 Orig | | | | 0.28 | < 0.01 | < 0.001 | 0.46 | 0.014 | 0.63 | < 0.005 | 7.06 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.287 | < 0.01 | 0.02 | < 0.01 | 16.0 | 0.02 | < 0.005 | < 0.01 |
| 701297 Dup | | | | 0.28 | < 0.01 | < 0.001 | 0.49 | 0.014 | 0.62 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.280 | < 0.01 | 0.02 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701310 Orig | 13 | 7 | 30 | 0.23 | < 0.01 | < 0.001 | 0.25 | 0.014 | 0.63 | < 0.005 | 7.47 | < 0.1 | < 0.01 | 25.1 | 0.11 | 0.255 | < 0.01 | 0.02 | < 0.01 | 16.8 | 0.01 | < 0.005 | < 0.01 |
| 701310 Dup | < 2 | 6 | 27 | 0.22 | < 0.01 | < 0.001 | 0.24 | 0.014 | 0.62 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.257 | < 0.01 | 0.02 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701319 Orig | | | | 0.17 | < 0.01 | < 0.001 | 0.17 | 0.013 | 0.27 | < 0.005 | 7.62 | < 0.1 | < 0.01 | 26.0 | 0.11 | 0.275 | < 0.01 | < 0.01 | < 0.01 | 17.5 | 0.01 | < 0.005 | < 0.01 |
| 701319 Dup | | | | 0.17 | < 0.01 | < 0.001 | 0.18 | 0.013 | 0.26 | < 0.005 | 7.28 | < 0.1 | < 0.01 | 25.2 | 0.11 | 0.272 | < 0.01 | 0.02 | < 0.01 | 16.8 | 0.01 | < 0.005 | < 0.01 |
| 701330 Split PREP DUP | 3 | < 5 | < 5 | 8.10 | < 0.01 | < 0.001 | 1.82 | < 0.002 | < 0.01 | < 0.005 | 2.87 | < 0.1 | < 0.01 | 1.48 | 0.05 | 0.008 | < 0.01 | < 0.01 | < 0.01 | 32.4 | 0.34 | < 0.005 | < 0.01 |
| 701330 Orig | 5 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701330 Dup | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701330 Orig | < 2 | < 5 | < 5 | 8.16 | < 0.01 | < 0.001 | 1.63 | < 0.002 | < 0.01 | < 0.005 | 2.88 | < 0.1 | < 0.01 | 1.45 | 0.05 | < 0.005 | < 0.01 | 0.01 | < 0.01 | 32.2 | 0.34 | < 0.005 | < 0.01 |
| 701335 Orig | | | | 0.88 | < 0.01 | < 0.001 | 0.66 | 0.012 | 0.49 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 20.5 | 0.10 | 0.176 | < 0.01 | 0.04 | < 0.01 | 16.5 | 0.05 | < 0.005 | < 0.01 |
| 701335 Dup | | | | 0.88 | < 0.01 | < 0.001 | 0.63 | 0.012 | 0.49 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 20.6 | 0.10 | 0.174 | < 0.01 | 0.05 | < 0.01 | 16.4 | 0.05 | < 0.005 | < 0.01 |
| 701340 Orig | < 2 | < 5 | 6 | | | | | | | | | | | | | | | | | | | | |
| 701340 Dup | 3 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701343 Orig | | | | 1.04 | < 0.01 | < 0.001 | 2.66 | 0.012 | 0.40 | < 0.005 | 6.05 | < 0.1 | < 0.01 | 18.0 | 0.11 | 0.154 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.06 | < 0.005 | < 0.01 |
| 701343 Dup | | | | 1.05 | < 0.01 | < 0.001 | 2.62 | 0.011 | 0.40 | < 0.005 | 6.01 | < 0.1 | < 0.01 | 18.1 | 0.11 | 0.153 | < 0.01 | 0.05 | < 0.01 | 14.6 | 0.06 | < 0.005 | < 0.01 |
| 701350 Orig | 2 | < 5 | < 5 | 0.71 | < 0.01 | < 0.001 | 0.81 | 0.011 | 0.40 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 18.7 | 0.11 | 0.135 | < 0.01 | 0.01 | < 0.01 | 15.5 | 0.04 | < 0.005 | < 0.01 |
| 701350 Dup | 3 | < 5 | < 5 | 0.71 | < 0.01 | < 0.001 | 0.78 | 0.012 | 0.40 | < 0.005 | 7.07 | < 0.1 | < 0.01 | 18.5 | 0.11 | 0.139 | < 0.01 | 0.02 | < 0.01 | 15.3 | 0.04 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |



Date Submitted: 19-Dec-18
Invoice No.: A18-19488
Invoice Date: 27-Feb-19
Your Reference: December 19/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

124 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19488**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

Emmanuel Eseme, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.905.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 19-Dec-18
Invoice No.: A18-19488
Invoice Date: 27-Feb-19
Your Reference: December 19/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

124 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES

REPORT **A18-19488**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.905.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701429 | < 2 | 65 | 27 | 0.37 | < 0.01 | < 0.001 | 0.03 | 0.026 | 0.76 | 0.047 | 9.22 | < 0.1 | < 0.01 | 22.5 | 0.10 | 0.647 | < 0.01 | 0.60 | < 0.01 | 15.4 | 0.02 | < 0.005 | 0.01 |
| 701430 | < 2 | 66 | 21 | 0.33 | < 0.01 | < 0.001 | 0.03 | 0.023 | 0.70 | 0.044 | 8.62 | < 0.1 | < 0.01 | 22.3 | 0.11 | 0.574 | < 0.01 | 0.54 | < 0.01 | 15.4 | 0.02 | < 0.005 | 0.02 |
| 701431 | < 2 | 52 | 18 | 0.35 | < 0.01 | < 0.001 | 0.03 | 0.022 | 0.75 | 0.043 | 8.47 | < 0.1 | < 0.01 | 22.2 | 0.10 | 0.461 | < 0.01 | 0.45 | < 0.01 | 15.4 | 0.02 | < 0.005 | 0.02 |
| 701432 | < 2 | 24 | 12 | 0.37 | < 0.01 | < 0.001 | 0.03 | 0.017 | 0.71 | 0.014 | 8.76 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.349 | < 0.01 | 0.33 | < 0.01 | 15.1 | 0.02 | < 0.005 | 0.01 |
| 701433 | < 2 | < 5 | < 5 | 0.35 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.63 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 22.8 | 0.10 | 0.222 | < 0.01 | 0.16 | < 0.01 | 15.4 | 0.02 | 0.006 | < 0.01 |
| 701434 | < 2 | 34 | 13 | 0.43 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.78 | 0.014 | 7.51 | < 0.1 | < 0.01 | 22.8 | 0.10 | 0.254 | < 0.01 | 0.20 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |
| 701435 | < 2 | < 5 | < 5 | 0.37 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.66 | 0.008 | 8.04 | < 0.1 | < 0.01 | 22.0 | 0.11 | 0.212 | 0.01 | 0.20 | < 0.01 | 15.4 | 0.02 | < 0.005 | 0.01 |
| 701436 | < 2 | 32 | 22 | 0.34 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.68 | 0.013 | 8.66 | < 0.1 | < 0.01 | 22.4 | 0.12 | 0.220 | < 0.01 | 0.21 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701437 | < 2 | 21 | 11 | 0.35 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.74 | 0.012 | 7.96 | < 0.1 | < 0.01 | 22.8 | 0.11 | 0.225 | < 0.01 | 0.20 | < 0.01 | 16.1 | 0.02 | < 0.005 | 0.02 |
| 701438 | < 2 | 43 | 14 | 0.37 | < 0.01 | < 0.001 | 0.15 | 0.013 | 0.74 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 23.3 | 0.12 | 0.263 | < 0.01 | 0.19 | < 0.01 | 15.7 | 0.02 | < 0.005 | 0.01 |
| 701439 | < 2 | 52 | 19 | 0.37 | < 0.01 | < 0.001 | 0.09 | 0.015 | 0.77 | 0.007 | 6.68 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.287 | 0.01 | 0.20 | < 0.01 | 16.2 | 0.02 | < 0.005 | 0.01 |
| 701440 | < 2 | 46 | 21 | 0.32 | < 0.01 | < 0.001 | 0.04 | 0.016 | 0.74 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 23.6 | 0.10 | 0.359 | < 0.01 | 0.19 | < 0.01 | 15.6 | 0.02 | < 0.005 | 0.01 |
| 701441 | < 2 | 41 | 25 | 0.36 | < 0.01 | < 0.001 | 0.18 | 0.016 | 0.78 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.323 | < 0.01 | 0.18 | < 0.01 | 15.7 | 0.02 | < 0.005 | 0.01 |
| 701442 | < 2 | 53 | 33 | 0.37 | < 0.01 | < 0.001 | 0.26 | 0.014 | 0.85 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.269 | < 0.01 | 0.11 | < 0.01 | 16.0 | 0.02 | < 0.005 | 0.01 |
| 701443 | < 2 | 25 | 18 | 0.33 | < 0.01 | < 0.001 | 0.19 | 0.013 | 0.73 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.257 | < 0.01 | 0.09 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |
| 701444 | 5 | 22 | 18 | 0.33 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.74 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 23.3 | 0.10 | 0.252 | < 0.01 | 0.10 | < 0.01 | 15.5 | 0.02 | < 0.005 | 0.01 |
| 701445 | < 2 | 63 | 17 | 0.30 | < 0.01 | < 0.001 | 0.58 | 0.013 | 0.58 | < 0.005 | 7.74 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.235 | < 0.01 | 0.11 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701446 | < 2 | 36 | 11 | 0.31 | < 0.01 | < 0.001 | 0.36 | 0.013 | 0.67 | < 0.005 | 7.31 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.259 | 0.01 | 0.14 | < 0.01 | 16.0 | 0.02 | < 0.005 | 0.01 |
| 701447 | < 2 | 52 | 31 | 0.35 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.85 | < 0.005 | 7.34 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.312 | < 0.01 | 0.15 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |
| 701448 | < 2 | 20 | 8 | 0.30 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.73 | < 0.005 | 7.56 | < 0.1 | < 0.01 | 23.4 | 0.10 | 0.281 | < 0.01 | 0.12 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 701449 | < 2 | 69 | 20 | 0.36 | < 0.01 | < 0.001 | 0.16 | 0.016 | 0.93 | < 0.005 | 8.32 | < 0.1 | < 0.01 | 26.5 | 0.11 | 0.402 | 0.01 | 0.19 | < 0.01 | 17.7 | 0.02 | < 0.005 | 0.01 |
| 701450 | < 2 | 49 | 20 | 0.36 | < 0.01 | < 0.001 | 0.18 | 0.015 | 0.81 | < 0.005 | 7.67 | < 0.1 | < 0.01 | 25.0 | 0.12 | 0.309 | < 0.01 | 0.17 | < 0.01 | 16.7 | 0.02 | < 0.005 | 0.01 |
| 701451 | < 2 | 9 | < 5 | 0.32 | < 0.01 | < 0.001 | 0.27 | 0.014 | 0.71 | < 0.005 | 7.54 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.275 | < 0.01 | 0.12 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 701452 | < 2 | 56 | 17 | 0.35 | < 0.01 | < 0.001 | 0.15 | 0.012 | 0.74 | < 0.005 | 7.68 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.265 | 0.01 | 0.11 | < 0.01 | 16.2 | 0.02 | < 0.005 | 0.01 |
| 701453 | < 2 | 48 | 27 | 0.33 | < 0.01 | < 0.001 | 0.11 | 0.015 | 0.83 | < 0.005 | 7.25 | 0.1 | < 0.01 | 23.9 | 0.11 | 0.326 | < 0.01 | 0.17 | < 0.01 | 16.0 | 0.02 | < 0.005 | 0.02 |
| 701454 | < 2 | 50 | 15 | 0.32 | < 0.01 | < 0.001 | 0.20 | 0.012 | 0.75 | < 0.005 | 7.06 | < 0.1 | < 0.01 | 24.0 | 0.11 | 0.299 | < 0.01 | 0.16 | < 0.01 | 16.3 | 0.02 | < 0.005 | 0.01 |
| 701455 | < 2 | 32 | 20 | 0.41 | < 0.01 | < 0.001 | 0.23 | 0.014 | 0.86 | 0.009 | 6.81 | < 0.1 | < 0.01 | 23.0 | 0.11 | 0.337 | < 0.01 | 0.22 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701456 | < 2 | 50 | 21 | 0.32 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.73 | 0.013 | 7.84 | < 0.1 | < 0.01 | 24.2 | 0.12 | 0.392 | 0.01 | 0.27 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701457 | < 2 | 68 | 18 | 0.35 | < 0.01 | < 0.001 | 0.28 | 0.017 | 0.77 | 0.022 | 7.21 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.515 | < 0.01 | 0.41 | < 0.01 | 16.4 | 0.02 | < 0.005 | 0.01 |
| 701458 | < 2 | 32 | 14 | 0.32 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.75 | < 0.005 | 7.32 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.327 | 0.01 | 0.19 | < 0.01 | 15.4 | 0.02 | < 0.005 | 0.01 |
| 701459 | < 2 | 17 | < 5 | 0.31 | < 0.01 | < 0.001 | 0.44 | 0.013 | 0.70 | 0.006 | 6.51 | < 0.1 | < 0.01 | 23.8 | 0.13 | 0.266 | < 0.01 | 0.17 | < 0.01 | 14.9 | 0.02 | < 0.005 | 0.02 |
| 701460 | < 2 | 34 | 5 | 0.33 | < 0.01 | < 0.001 | 0.27 | 0.014 | 0.69 | 0.008 | 7.70 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.315 | < 0.01 | 0.19 | < 0.01 | 15.8 | 0.02 | < 0.005 | 0.01 |
| 701461 | < 2 | 31 | 17 | 0.29 | < 0.01 | < 0.001 | 0.07 | 0.016 | 0.71 | 0.006 | 7.25 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.392 | < 0.01 | 0.25 | < 0.01 | 16.1 | 0.02 | < 0.005 | 0.01 |
| 701462 | < 2 | 47 | 21 | 0.31 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.77 | 0.007 | 7.68 | < 0.1 | < 0.01 | 23.6 | 0.10 | 0.432 | < 0.01 | 0.25 | < 0.01 | 15.8 | 0.02 | < 0.005 | 0.01 |
| 701463 | 3 | 41 | 23 | 0.29 | < 0.01 | < 0.001 | 0.08 | 0.015 | 0.74 | 0.019 | 7.53 | < 0.1 | < 0.01 | 23.4 | 0.11 | 0.444 | < 0.01 | 0.29 | < 0.01 | 15.8 | 0.01 | < 0.005 | 0.01 |
| 701464 | < 2 | 52 | 12 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.018 | 0.69 | 0.013 | 7.27 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.495 | < 0.01 | 0.32 | < 0.01 | 15.9 | 0.01 | < 0.005 | 0.01 |
| 701465 | < 2 | 22 | 12 | 0.31 | < 0.01 | < 0.001 | 0.11 | 0.015 | 0.64 | 0.016 | 6.77 | < 0.1 | < 0.01 | 23.5 | 0.12 | 0.340 | 0.01 | 0.24 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701466 | < 2 | 25 | 10 | 0.29 | < 0.01 | < 0.001 | 0.16 | 0.015 | 0.62 | 0.012 | 7.39 | < 0.1 | < 0.01 | 23.7 | 0.12 | 0.356 | < 0.01 | 0.25 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 701467 | < 2 | 31 | 10 | 0.30 | < 0.01 | < 0.001 | 0.23 | 0.014 | 0.55 | 0.015 | 6.47 | < 0.1 | < 0.01 | 23.9 | 0.11 | 0.367 | < 0.01 | 0.24 | < 0.01 | 16.2 | 0.02 | < 0.005 | < 0.01 |
| 701468 | < 2 | 37 | 13 | 0.28 | < 0.01 | < 0.001 | 0.10 | 0.017 | 0.58 | < 0.005 | 6.94 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.436 | < 0.01 | 0.24 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701469 | < 2 | 23 | 11 | 0.31 | < 0.01 | < 0.001 | 0.15 | 0.012 | 0.54 | 0.010 | 7.23 | < 0.1 | < 0.01 | 23.8 | 0.11 | 0.280 | < 0.01 | 0.16 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19488

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| 701470 | < 2 | 25 | 11 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.55 | < 0.005 | 7.12 | < 0.1 | < 0.01 | 25.1 | 0.10 | 0.331 | < 0.01 | 0.16 | < 0.01 | 16.8 | 0.02 | < 0.005 | < 0.01 |
| 701471 | < 2 | 34 | 12 | 0.25 | < 0.01 | < 0.001 | 0.05 | 0.015 | 0.50 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.368 | 0.01 | 0.17 | < 0.01 | 15.7 | 0.02 | < 0.005 | < 0.01 |
| 701472 | < 2 | 21 | 6 | 0.25 | < 0.01 | < 0.001 | 0.19 | 0.014 | 0.45 | 0.009 | 7.61 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.323 | < 0.01 | 0.19 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 701473 | < 2 | 35 | 14 | 0.22 | < 0.01 | < 0.001 | 0.14 | 0.016 | 0.37 | 0.014 | 6.57 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.441 | < 0.01 | 0.24 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701474 | < 2 | 28 | 14 | 0.23 | < 0.01 | < 0.001 | 0.04 | 0.016 | 0.40 | 0.009 | 7.05 | < 0.1 | < 0.01 | 24.5 | 0.11 | 0.391 | < 0.01 | 0.19 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701475 | < 2 | 20 | 6 | 0.20 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.40 | < 0.005 | 6.97 | < 0.1 | < 0.01 | 24.7 | 0.11 | 0.306 | 0.01 | 0.13 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701476 | < 2 | 19 | 11 | 0.20 | < 0.01 | < 0.001 | 0.02 | 0.014 | 0.36 | 0.005 | 7.29 | 0.1 | < 0.01 | 24.1 | 0.10 | 0.322 | < 0.01 | 0.14 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 701477 | 6 | 14 | 7 | 0.18 | < 0.01 | < 0.001 | 0.03 | 0.014 | 0.30 | 0.012 | 7.09 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.319 | < 0.01 | 0.13 | < 0.01 | 15.3 | < 0.01 | < 0.005 | < 0.01 |
| 701478 | < 2 | 17 | < 5 | 0.18 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.30 | 0.005 | 6.39 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.323 | 0.01 | 0.14 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701479 | < 2 | 25 | 8 | 0.18 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.29 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.356 | < 0.01 | 0.16 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701480 | < 2 | 16 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.04 | 0.016 | 0.31 | 0.015 | 7.21 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.331 | < 0.01 | 0.16 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 701481 | < 2 | 17 | 5 | 0.22 | < 0.01 | < 0.001 | 0.38 | 0.016 | 0.27 | 0.009 | 7.68 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.334 | < 0.01 | 0.18 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701482 | < 2 | 15 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.24 | 0.013 | 0.24 | < 0.005 | 6.83 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.295 | 0.01 | 0.15 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701483 | < 2 | 16 | 13 | 0.18 | < 0.01 | < 0.001 | 0.15 | 0.012 | 0.26 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.283 | < 0.01 | 0.12 | < 0.01 | 16.7 | 0.01 | < 0.005 | < 0.01 |
| 701484 | < 2 | 15 | < 5 | 0.16 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.26 | < 0.005 | 6.64 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.307 | < 0.01 | 0.13 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701485 | < 2 | 15 | < 5 | 0.22 | < 0.01 | < 0.001 | 0.28 | 0.013 | 0.26 | 0.008 | 6.58 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.315 | 0.01 | 0.16 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701486 | < 2 | 20 | 12 | 0.17 | < 0.01 | < 0.001 | 0.23 | 0.015 | 0.25 | < 0.005 | 7.28 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.365 | 0.01 | 0.17 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701487 | < 2 | 12 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.22 | 0.011 | 0.26 | < 0.005 | 6.99 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.281 | < 0.01 | 0.13 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 701488 | < 2 | 16 | 7 | 0.19 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.33 | < 0.005 | 6.92 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.327 | 0.01 | 0.12 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 701489 | < 2 | 17 | 12 | 0.20 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.33 | < 0.005 | 6.95 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.345 | < 0.01 | 0.12 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 701490 | < 2 | 14 | < 5 | 0.21 | < 0.01 | < 0.001 | 0.31 | 0.011 | 0.32 | < 0.005 | 6.65 | < 0.1 | < 0.01 | 23.6 | 0.10 | 0.275 | < 0.01 | 0.09 | < 0.01 | 15.1 | 0.01 | < 0.005 | < 0.01 |
| 701491 | < 2 | 18 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.17 | 0.012 | 0.36 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 24.3 | 0.11 | 0.303 | < 0.01 | 0.11 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701492 | < 2 | 10 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.30 | 0.011 | 0.39 | < 0.005 | 6.90 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.289 | < 0.01 | 0.09 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 701493 | < 2 | 14 | 8 | 0.23 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.38 | < 0.005 | 8.06 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.332 | < 0.01 | 0.12 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 701494 | < 2 | 16 | 9 | 0.23 | < 0.01 | < 0.001 | 1.11 | 0.011 | 0.39 | < 0.005 | 6.41 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.305 | < 0.01 | 0.14 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701495 | < 2 | 16 | 5 | 0.20 | < 0.01 | < 0.001 | < 0.01 | 0.012 | 0.33 | < 0.005 | 6.66 | < 0.1 | < 0.01 | 26.2 | 0.11 | 0.306 | < 0.01 | 0.11 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701496 | < 2 | 20 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.30 | < 0.005 | 7.22 | < 0.1 | < 0.01 | 25.7 | 0.10 | 0.336 | < 0.01 | 0.13 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 701497 | < 2 | 15 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.01 | 0.011 | 0.27 | < 0.005 | 7.03 | < 0.1 | < 0.01 | 26.1 | 0.11 | 0.279 | < 0.01 | 0.10 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 |
| 701498 | 4 | 14 | < 5 | 0.20 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.29 | < 0.005 | 7.15 | < 0.1 | < 0.01 | 25.6 | 0.11 | 0.297 | < 0.01 | 0.11 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701499 | < 2 | 10 | 5 | 0.21 | < 0.01 | < 0.001 | 0.02 | 0.010 | 0.30 | < 0.005 | 6.62 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.268 | < 0.01 | 0.12 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701500 | < 2 | 16 | 14 | 0.24 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.33 | < 0.005 | 6.05 | < 0.1 | < 0.01 | 25.2 | 0.07 | 0.321 | < 0.01 | 0.17 | < 0.01 | 16.6 | 0.01 | < 0.005 | < 0.01 |
| 705501 | < 2 | 14 | 7 | 0.21 | < 0.01 | < 0.001 | 0.19 | 0.012 | 0.27 | < 0.005 | 6.40 | < 0.1 | < 0.01 | 25.6 | 0.10 | 0.311 | < 0.01 | 0.14 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 705502 | < 2 | 15 | 7 | 0.21 | < 0.01 | < 0.001 | 0.59 | 0.012 | 0.25 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.336 | < 0.01 | 0.15 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 705503 | < 2 | 15 | 7 | 0.23 | < 0.01 | < 0.001 | 0.25 | 0.011 | 0.38 | < 0.005 | 6.66 | < 0.1 | < 0.01 | 26.0 | 0.11 | 0.296 | < 0.01 | 0.11 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 705504 | < 2 | 6 | < 5 | 0.23 | < 0.01 | < 0.001 | 0.08 | 0.011 | 0.37 | < 0.005 | 6.78 | < 0.1 | < 0.01 | 25.9 | 0.10 | 0.310 | < 0.01 | 0.10 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 705505 | < 2 | 14 | 9 | 0.26 | < 0.01 | < 0.001 | 0.22 | 0.011 | 0.37 | < 0.005 | 6.58 | < 0.1 | < 0.01 | 25.5 | 0.10 | 0.304 | < 0.01 | 0.12 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 705506 | < 2 | 19 | < 5 | 0.22 | < 0.01 | < 0.001 | < 0.01 | 0.014 | 0.38 | < 0.005 | 6.82 | < 0.1 | < 0.01 | 26.0 | 0.10 | 0.391 | < 0.01 | 0.15 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 705507 | < 2 | 11 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.17 | 0.010 | 0.38 | < 0.005 | 7.39 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.301 | < 0.01 | 0.13 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 705508 | < 2 | 21 | 8 | 0.23 | < 0.01 | < 0.001 | 0.41 | 0.013 | 0.42 | 0.005 | 6.92 | < 0.1 | < 0.01 | 24.8 | 0.10 | 0.379 | < 0.01 | 0.18 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 705509 | < 2 | 23 | 7 | 0.23 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.46 | < 0.005 | 6.47 | < 0.1 | < 0.01 | 25.2 | 0.10 | 0.350 | < 0.01 | 0.14 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 705510 | < 2 | 25 | 7 | 0.24 | < 0.01 | < 0.001 | 0.38 | 0.013 | 0.44 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 25.6 | 0.09 | 0.427 | < 0.01 | 0.20 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 705511 | < 2 | 16 | 6 | 0.22 | < 0.01 | < 0.001 | 2.93 | 0.012 | 0.42 | < 0.005 | 5.98 | < 0.1 | < 0.01 | 23.4 | 0.08 | 0.334 | < 0.01 | 0.15 | < 0.01 | 14.3 | 0.01 | 0.008 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19488

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| 705512 | < 2 | 19 | < 5 | 0.22 | < 0.01 | < 0.001 | 5.21 | 0.010 | 0.40 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 21.1 | 0.13 | 0.268 | < 0.01 | 0.13 | < 0.01 | 13.9 | 0.01 | < 0.005 | < 0.01 | |
| 705513 | < 2 | 17 | < 5 | 0.22 | < 0.01 | < 0.001 | 7.17 | 0.010 | 0.42 | < 0.005 | 5.52 | < 0.1 | < 0.01 | 18.6 | 0.09 | 0.316 | < 0.01 | 0.16 | < 0.01 | 12.4 | 0.01 | < 0.005 | < 0.01 | |
| 705514 | < 2 | 12 | < 5 | 0.23 | < 0.01 | < 0.001 | 1.69 | 0.010 | 0.50 | < 0.005 | 5.64 | < 0.1 | < 0.01 | 21.2 | 0.08 | 0.262 | < 0.01 | 0.11 | < 0.01 | 13.9 | 0.01 | < 0.005 | < 0.01 | |
| 705515 | < 2 | 14 | < 5 | 0.24 | < 0.01 | < 0.001 | 3.17 | 0.011 | 0.53 | < 0.005 | 6.05 | < 0.1 | < 0.01 | 21.9 | 0.09 | 0.305 | < 0.01 | 0.17 | < 0.01 | 14.1 | 0.01 | < 0.005 | < 0.01 | |
| 705516 | < 2 | 13 | 7 | 0.25 | < 0.01 | < 0.001 | 3.47 | 0.010 | 0.52 | < 0.005 | 5.52 | < 0.1 | < 0.01 | 22.8 | 0.08 | 0.252 | < 0.01 | 0.12 | < 0.01 | 14.6 | 0.01 | < 0.005 | < 0.01 | |
| 705517 | < 2 | 11 | < 5 | 0.23 | < 0.01 | < 0.001 | 2.77 | 0.010 | 0.54 | < 0.005 | 5.48 | < 0.1 | < 0.01 | 21.5 | 0.09 | 0.249 | < 0.01 | 0.12 | < 0.01 | 13.7 | 0.01 | < 0.005 | < 0.01 | |
| 705518 | < 2 | 13 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.90 | 0.011 | 0.55 | < 0.005 | 6.52 | < 0.1 | < 0.01 | 25.0 | 0.11 | 0.308 | < 0.01 | 0.13 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 | |
| 705519 | < 2 | 13 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.86 | 0.011 | 0.54 | < 0.005 | 6.19 | < 0.1 | < 0.01 | 25.8 | 0.09 | 0.301 | < 0.01 | 0.13 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705520 | < 2 | 17 | 7 | 0.25 | < 0.01 | < 0.001 | 0.26 | 0.011 | 0.56 | < 0.005 | 6.68 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.322 | < 0.01 | 0.13 | < 0.01 | 16.1 | 0.02 | < 0.005 | < 0.01 | |
| 705521 | < 2 | 16 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.60 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.345 | < 0.01 | 0.15 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 705522 | < 2 | 15 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.57 | < 0.005 | 6.39 | < 0.1 | < 0.01 | 25.2 | 0.10 | 0.374 | < 0.01 | 0.18 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 705523 | < 2 | 9 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.01 | 0.012 | 0.61 | < 0.005 | 7.30 | < 0.1 | < 0.01 | 25.0 | 0.11 | 0.318 | < 0.01 | 0.13 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 | |
| 705524 | < 2 | 13 | 7 | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.62 | < 0.005 | 6.66 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.345 | < 0.01 | 0.14 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 705525 | < 2 | 10 | 9 | 0.26 | < 0.01 | < 0.001 | < 0.01 | 0.011 | 0.60 | < 0.005 | 6.14 | < 0.1 | < 0.01 | 25.5 | 0.09 | 0.313 | < 0.01 | 0.12 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 | |
| 705526 | < 2 | 13 | 6 | 0.30 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.68 | < 0.005 | 7.55 | < 0.1 | < 0.01 | 26.4 | 0.10 | 0.336 | < 0.01 | 0.13 | < 0.01 | 17.1 | 0.01 | < 0.005 | < 0.01 | |
| 705527 | < 2 | 14 | < 5 | 0.27 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.68 | < 0.005 | 6.44 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.350 | < 0.01 | 0.13 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 705528 | < 2 | 13 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.61 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.351 | < 0.01 | 0.15 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 | |
| 705529 | < 2 | 18 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.69 | < 0.005 | 6.01 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.329 | < 0.01 | 0.14 | < 0.01 | 16.4 | 0.01 | < 0.005 | < 0.01 | |
| 705530 | < 2 | 16 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.01 | 0.011 | 0.67 | < 0.005 | 6.87 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.296 | < 0.01 | 0.11 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705531 | < 2 | 17 | 12 | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.70 | < 0.005 | 6.42 | < 0.1 | < 0.01 | 25.3 | 0.08 | 0.349 | < 0.01 | 0.13 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 | |
| 705532 | < 2 | 14 | 7 | 0.26 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.70 | < 0.005 | 6.49 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.336 | < 0.01 | 0.13 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705533 | < 2 | 10 | < 5 | 0.28 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.68 | < 0.005 | 5.79 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.322 | < 0.01 | 0.14 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705534 | < 2 | 11 | 9 | 0.26 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.64 | < 0.005 | 6.12 | < 0.1 | < 0.01 | 25.4 | 0.10 | 0.251 | < 0.01 | 0.09 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 705535 | < 2 | 16 | 8 | 0.26 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.74 | < 0.005 | 6.06 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.294 | < 0.01 | 0.13 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 | |
| 705536 | < 2 | 16 | < 5 | 0.30 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.69 | < 0.005 | 5.51 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.273 | < 0.01 | 0.13 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 | |
| 705537 | < 2 | 18 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.65 | < 0.005 | 5.82 | < 0.1 | < 0.01 | 25.3 | 0.08 | 0.298 | < 0.01 | 0.15 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705538 | < 2 | 19 | 6 | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.73 | < 0.005 | 5.49 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.284 | < 0.01 | 0.16 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 | |
| 705539 | < 2 | 26 | 10 | 0.27 | < 0.01 | < 0.001 | < 0.01 | 0.014 | 0.74 | < 0.005 | 6.59 | < 0.1 | < 0.01 | 24.9 | 0.08 | 0.313 | < 0.01 | 0.14 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 | |
| 705540 | < 2 | 20 | 8 | 0.26 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.66 | < 0.005 | 6.48 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.277 | < 0.01 | 0.13 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 705541 | < 2 | 21 | 11 | 0.28 | < 0.01 | < 0.001 | 0.04 | 0.013 | 0.73 | < 0.005 | 6.38 | < 0.1 | < 0.01 | 25.7 | 0.08 | 0.318 | < 0.01 | 0.16 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 | |
| 705542 | < 2 | 16 | 5 | 0.28 | < 0.01 | < 0.001 | 0.03 | 0.011 | 0.67 | < 0.005 | 6.31 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.270 | < 0.01 | 0.13 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 705543 | < 2 | 5 | 29 | 7 | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.70 | < 0.005 | 6.17 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.315 | < 0.01 | 0.15 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 705544 | < 2 | 3 | 12 | 7 | 0.27 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.68 | < 0.005 | 6.11 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.265 | < 0.01 | 0.12 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 705545 | < 2 | 14 | 8 | 0.28 | < 0.01 | < 0.001 | 0.07 | 0.010 | 0.70 | < 0.005 | 6.29 | < 0.1 | < 0.01 | 24.4 | 0.08 | 0.274 | < 0.01 | 0.12 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 705546 | < 2 | 18 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.69 | < 0.005 | 5.84 | < 0.1 | < 0.01 | 24.5 | 0.08 | 0.293 | < 0.01 | 0.16 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 | |
| 705547 | < 2 | 40 | 27 | 9 | 0.29 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.68 | < 0.005 | 5.80 | < 0.1 | < 0.01 | 24.8 | 0.08 | 0.358 | < 0.01 | 0.21 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 705548 | < 2 | 24 | 5 | 0.30 | < 0.01 | < 0.001 | 0.04 | 0.012 | 0.69 | < 0.005 | 5.74 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.313 | < 0.01 | 0.16 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 | |
| 705549 | < 2 | 24 | 5 | 0.30 | < 0.01 | < 0.001 | 0.03 | 0.013 | 0.68 | < 0.005 | 5.99 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.338 | < 0.01 | 0.18 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 | |
| 705550 | < 2 | 30 | 7 | 0.31 | < 0.01 | < 0.001 | 0.04 | 0.014 | 0.70 | < 0.005 | 6.05 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.356 | < 0.01 | 0.19 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 | |
| 705551 | < 2 | 15 | 21 | 6 | 0.28 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.71 | < 0.005 | 5.85 | < 0.1 | < 0.01 | 25.4 | 0.09 | 0.318 | < 0.01 | 0.19 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 705552 | < 2 | 33 | 5 | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.71 | < 0.005 | 5.82 | < 0.1 | < 0.01 | 25.4 | 0.08 | 0.354 | < 0.01 | 0.22 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|------------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| GBW 07113 Meas | | | | 6.90 | | < 0.001 | 0.56 | | | | 2.21 | 4.7 | | 0.09 | 0.11 | | | | | | 34.5 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.9 | | 22.6 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.03 | | 24.4 | | | | | | 49.5 | | 23.0 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.013 | 1.53 | < 0.005 | | | | 29.9 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 18.7 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | 0.121 | 13.6 | | | | | 3.21 | | 7.61 | | | 14.7 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.122 | 13.7 | | | | | 3.24 | | 7.58 | | | 15.4 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.140 | 12.7 | | | | | | | 21.0 | 0.01 | | | | 18.4 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.134 | 12.3 | | | | | | | 20.5 | 0.01 | | | | 18.3 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | 2.25 | | 2.52 | | | 3.09 | 8.19 | | | 0.02 | | | 2.06 | 13.6 | | | 16.4 | | 0.106 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.31 | | 2.35 | | | 3.08 | 8.20 | | | 0.02 | | | 2.06 | 13.8 | | | 16.8 | | 0.105 | 16.4 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 3.20 | 8.31 | | | 0.03 | | | 2.09 | 13.7 | | | 17.1 | | 0.111 | 16.8 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.02 | < 0.005 | < 0.01 | 0.06 | < 0.01 | | 42.8 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | |
| AMIS 0129 Meas | | | | | | | | | | | 42.4 | | | | 0.26 | | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn | |
|------------------------------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | |
| GBW 07113 Meas | | | | 6.90 | | < 0.001 | 0.56 | | | | 2.21 | 4.7 | | 0.09 | 0.11 | | | | | | 34.5 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.9 | | 22.6 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| PTM-1a Meas | | | | | 0.22 | | | 2.03 | | 24.4 | | | | | | 49.5 | | 23.0 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Meas | | | | | 0.65 | | | | | | | | | | | | | | | | 3.57 | | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | | |
| DTS-2b Meas | | | | 0.23 | | | | 0.013 | 1.53 | < 0.005 | | | | 29.9 | 0.08 | 0.370 | < 0.01 | | < 0.01 | | 18.7 | | < 0.01 | |
| DTS-2b Cert | | | | 0.240 | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | 0.121 | 13.6 | | | | | 3.21 | | 7.61 | | | 14.7 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.122 | 13.7 | | | | | 3.24 | | 7.58 | | | 15.4 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.012 | | 0.140 | 12.7 | | | | | | | 21.0 | 0.01 | | | | 18.4 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.134 | 12.3 | | | | | | | 20.5 | 0.01 | | | | 18.3 | |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 | |
| MP-1b Meas | | | | | 2.25 | | 2.52 | | | 3.09 | 8.19 | | | 0.02 | | | 2.06 | 13.6 | | | 16.4 | | 0.106 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.31 | | 2.35 | | | 3.08 | 8.20 | | | 0.02 | | | 2.06 | 13.8 | | | 16.8 | | 0.105 | 16.4 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 3.20 | 8.31 | | | 0.03 | | | 2.09 | 13.7 | | | 17.1 | | 0.111 | 16.8 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.02 | < 0.005 | < 0.01 | 0.06 | < 0.01 | | 42.8 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | |
| AMIS 0129 Meas | | | | | | | | | | | 42.4 | | | | 0.26 | | | | | | | 13.9 | | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|--|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| AMIS 0129 Meas | | | | | | | | | | | 44.1 | | | | 0.27 | | | | | | | 13.5 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| OREAS 13b (fusion) Meas | | | | 8.24 | | | 5.40 | | 1.08 | | 8.40 | 2.3 | | 2.86 | 0.13 | | | 1.16 | | 22.6 | 0.70 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.36 | | | 5.59 | | 1.08 | | 8.51 | 2.3 | | 2.89 | 0.13 | | | 1.18 | | 22.9 | 0.72 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| OREAS 13b (fusion) Meas | | | | 8.49 | | | 5.67 | | 1.09 | | 8.53 | 2.4 | | 2.95 | 0.13 | | | 1.19 | | 23.5 | 0.71 | | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | 22.9 | 0.711 | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.85 | | | | | | | | | | 0.009 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.009 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.81 | | | | | | | | | | < 0.005 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4800 | 5960 | 4940 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4810 | 5920 | 4980 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4850 | 5870 | 4900 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4580 | 5570 | 4690 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.20 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.31 | | | | 0.003 | < 0.01 | 0.222 | 5.62 | 2.6 | < 0.01 | 1.53 | 0.09 | 0.006 | 0.01 | 0.37 | | 29.8 | 0.44 | | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | 30.51 | 0.439 | | 0.03 |
| CCU-1e Meas | | | | 0.15 | 0.11 | | | 0.031 | | 22.6 | 30.4 | | | 0.74 | 0.01 | | 0.69 | 36.7 | 0.01 | | | | 2.87 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|-----------------------|---------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.11 | | | 0.031 | | 23.6 | 31.3 | | | 0.71 | < 0.01 | | 0.70 | 36.1 | 0.01 | | | | 3.05 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.031 | | 23.0 | 30.2 | | | 0.70 | 0.01 | | 0.69 | 36.9 | 0.01 | | | | 2.86 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CDN-PGMS-28 Meas | 208 | 1730 | 1530 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 213 | 1820 | 1600 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 208 | 1700 | 1480 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 701432 Orig | | | | 0.37 | < 0.01 | < 0.001 | 0.02 | 0.017 | 0.71 | 0.014 | 8.77 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.348 | < 0.01 | 0.37 | < 0.01 | 15.0 | 0.02 | < 0.005 | 0.01 |
| 701432 Dup | | | | 0.37 | < 0.01 | < 0.001 | 0.04 | 0.018 | 0.70 | 0.014 | 8.76 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.350 | < 0.01 | 0.30 | < 0.01 | 15.2 | 0.02 | < 0.005 | 0.01 |
| 701438 Orig | 2 | 46 | 16 | | | | | | | | | | | | | | | | | | | | |
| 701438 Dup | < 2 | 40 | 12 | | | | | | | | | | | | | | | | | | | | |
| 701441 Orig | | | | 0.36 | < 0.01 | < 0.001 | 0.20 | 0.016 | 0.79 | < 0.005 | 7.43 | 0.1 | < 0.01 | 23.3 | 0.10 | 0.320 | 0.01 | 0.24 | < 0.01 | 15.8 | 0.02 | < 0.005 | 0.01 |
| 701441 Dup | | | | 0.36 | < 0.01 | < 0.001 | 0.17 | 0.016 | 0.78 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 23.4 | 0.10 | 0.326 | < 0.01 | 0.12 | < 0.01 | 15.6 | 0.02 | < 0.005 | 0.02 |
| 701448 Orig | < 2 | 20 | 8 | | | | | | | | | | | | | | | | | | | | |
| 701448 Dup | < 2 | 19 | 8 | | | | | | | | | | | | | | | | | | | | |
| 701456 Orig | | | | 0.32 | < 0.01 | < 0.001 | 0.09 | 0.015 | 0.73 | 0.013 | 7.85 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.396 | 0.01 | 0.28 | < 0.01 | 15.5 | 0.02 | < 0.005 | < 0.01 |
| 701456 Dup | | | | 0.33 | < 0.01 | < 0.001 | 0.11 | 0.015 | 0.73 | 0.012 | 7.83 | < 0.1 | < 0.01 | 24.7 | 0.12 | 0.388 | 0.01 | 0.27 | < 0.01 | 15.5 | 0.02 | < 0.005 | 0.01 |
| 701458 Orig | < 2 | 31 | 11 | | | | | | | | | | | | | | | | | | | | |
| 701458 Dup | < 2 | 33 | 17 | | | | | | | | | | | | | | | | | | | | |
| 701465 Orig | | | | 0.31 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.64 | 0.016 | 6.69 | < 0.1 | < 0.01 | 23.5 | 0.12 | 0.325 | 0.01 | 0.23 | < 0.01 | 15.6 | 0.02 | < 0.005 | < 0.01 |
| 701465 Dup | | | | 0.31 | < 0.01 | < 0.001 | 0.11 | 0.015 | 0.64 | 0.016 | 6.66 | < 0.1 | < 0.01 | 23.6 | 0.12 | 0.355 | 0.01 | 0.25 | < 0.01 | 15.8 | 0.02 | < 0.005 | < 0.01 |
| 701473 Orig | < 2 | 34 | 14 | | | | | | | | | | | | | | | | | | | | |
| 701473 Dup | < 2 | 36 | 14 | | | | | | | | | | | | | | | | | | | | |
| 701478 Split PREP DUP | < 2 | 17 | 6 | 0.18 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.30 | 0.006 | 6.55 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.351 | 0.01 | 0.16 | < 0.01 | 16.3 | < 0.01 | < 0.005 | < 0.01 |
| 701478 Orig | < 2 | 17 | < 5 | 0.18 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.30 | 0.005 | 6.39 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.323 | 0.01 | 0.14 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 701479 Orig | | | | 0.18 | < 0.01 | < 0.001 | 0.12 | 0.014 | 0.29 | 0.005 | 6.86 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.356 | < 0.01 | 0.19 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701479 Dup | | | | 0.18 | < 0.01 | < 0.001 | 0.13 | 0.014 | 0.28 | < 0.005 | 6.90 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.356 | < 0.01 | 0.14 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 701482 Orig | < 2 | 15 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701482 Dup | < 2 | 15 | 6 | | | | | | | | | | | | | | | | | | | | |
| 701492 Orig | < 2 | 11 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701492 Dup | < 2 | 8 | 5 | | | | | | | | | | | | | | | | | | | | |
| 705504 Orig | | | | 0.23 | < 0.01 | < 0.001 | 0.08 | 0.012 | 0.38 | < 0.005 | 6.85 | < 0.1 | < 0.01 | 26.0 | 0.10 | 0.317 | < 0.01 | 0.11 | < 0.01 | 16.7 | 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|--------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 705504 Dup | | | | 0.23 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.36 | < 0.005 | 6.72 | < 0.1 | < 0.01 | 25.8 | 0.09 | 0.304 | < 0.01 | 0.10 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 705507 Orig | < 2 | 11 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 705507 Dup | < 2 | 11 | 7 | | | | | | | | | | | | | | | | | | | | |
| 705517 Orig | < 2 | 12 | 8 | | | | | | | | | | | | | | | | | | | | |
| 705517 Dup | < 2 | 9 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 705527 Orig | 7 | 13 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 705527 Dup | < 2 | 15 | 19 | | | | | | | | | | | | | | | | | | | | |
| 705528 Split PREP DUP | < 2 | 15 | 6 | 0.30 | < 0.01 | < 0.001 | 0.02 | 0.011 | 0.64 | < 0.005 | 5.83 | < 0.1 | < 0.01 | 25.0 | 0.09 | 0.341 | < 0.01 | 0.15 | < 0.01 | 16.5 | 0.01 | < 0.005 | < 0.01 |
| 705528 Orig | < 2 | 13 | < 5 | 0.29 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.61 | < 0.005 | 5.86 | < 0.1 | < 0.01 | 25.1 | 0.09 | 0.351 | < 0.01 | 0.15 | < 0.01 | 16.5 | 0.02 | < 0.005 | < 0.01 |
| 705531 Orig | | | | 0.27 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.71 | < 0.005 | 6.35 | < 0.1 | < 0.01 | 25.4 | 0.08 | 0.347 | < 0.01 | 0.13 | < 0.01 | 16.3 | 0.01 | < 0.005 | < 0.01 |
| 705531 Dup | | | | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.69 | < 0.005 | 6.49 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.352 | < 0.01 | 0.13 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 705538 Orig | | | | 0.26 | < 0.01 | < 0.001 | 0.02 | 0.012 | 0.71 | < 0.005 | 5.46 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.278 | < 0.01 | 0.18 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 705538 Dup | | | | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.76 | < 0.005 | 5.52 | < 0.1 | < 0.01 | 25.1 | 0.08 | 0.290 | < 0.01 | 0.15 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 705541 Orig | < 2 | 21 | 13 | | | | | | | | | | | | | | | | | | | | |
| 705541 Dup | < 2 | 21 | 10 | | | | | | | | | | | | | | | | | | | | |
| 705551 Orig | 4 | 21 | 6 | | | | | | | | | | | | | | | | | | | | |
| 705551 Dup | 27 | 21 | 6 | | | | | | | | | | | | | | | | | | | | |
| 705552 Orig | | | | 0.27 | < 0.01 | < 0.001 | 0.03 | 0.012 | 0.72 | < 0.005 | 5.83 | < 0.1 | < 0.01 | 25.3 | 0.08 | 0.354 | < 0.01 | 0.21 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 705552 Dup | | | | 0.27 | < 0.01 | < 0.001 | 0.02 | 0.013 | 0.71 | < 0.005 | 5.80 | < 0.1 | < 0.01 | 25.4 | 0.08 | 0.353 | < 0.01 | 0.23 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.03 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.008 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | |



Date Submitted: 10-Dec-18
Invoice No.: A18-18928Final2
Invoice Date: 02-Apr-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

86 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1E3 Aqua Regia ICP(AQUAAGEO)
Code 4C (1-10) Whole Rock Analysis-XRF
Code 4F-CO2 Infrared

REPORT **A18-18928Final2**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Eseme". The signature is written in a cursive style with some loops and flourishes.

Emmanuel Eseme, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-18928

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693137 | 0.34 | 0.033 | 0.044 | 0.848 | 31.96 | 0.66 | 14.05 | 0.147 | 36.87 | 0.01 | 0.02 | < 0.01 | 0.04 | 0.01 | 1.11 | 0.007 | 98.49 | < 0.2 | < 0.5 | 267 | 775 | < 1 | 4310 |

Results

Activation Laboratories Ltd.

Report: A18-18928

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693137 | < 2 | 17 | 0.20 | < 2 | 48 | < 10 | < 0.5 | 3 | < 0.01 | 193 | 2000 | 7.22 | < 10 | < 1 | < 0.01 | < 10 | 15.8 | 0.010 | 0.002 | 0.19 | 11 | 4 | < 1 |

Results

Activation Laboratories Ltd.

Report: A18-18928

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 693137 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 18 | < 10 | < 1 | 2 | 12.69 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 | 0.12 | < 20 | < 1 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-4 Meas | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 | 0.12 | < 20 | 4 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-6 Meas | 260 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| GXR-6 Meas | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 923 (AQUA REGIA) Meas | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| OREAS 923 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 |
| OREAS 907 (Aqua Regia) Cert | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 |
| Oreas 621 (Aqua Regia) Meas | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Oreas 621 (Aqua Regia) Meas | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 2 | < 10 | 77 | 14 | 11 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-4 Meas | < 2 | < 10 | 75 | 14 | 10 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-6 Meas | < 2 | < 10 | 176 | < 10 | 6 | 14 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| GXR-6 Meas | < 2 | < 10 | 171 | < 10 | 6 | 15 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | |
| USZ 25-2006 Cert | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 200 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 197 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 923 (AQUA REGIA) Meas | < 2 | < 10 | 35 | < 10 | 18 | 22 |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 | < 2 | < 10 | 36 | < 10 | 19 | 21 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| CaCO3 Meas | | | | | | |
| CaCO3 Cert | | | | | | |
| OREAS 907 (Aqua Regia) Meas | < 2 | < 10 | 6 | < 10 | 7 | 40 |
| OREAS 907 (Aqua Regia) Cert | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 69 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 68 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |
| Method Blank | | | | | | |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |



Date Submitted: 10-Dec-18
Invoice No.: A18-18929Final2
Invoice Date: 02-Apr-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

54 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4C (1-10) Whole Rock Analysis-XRF

Code 4F-CO2 Infrared

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT A18-18929Final2

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-18929

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693186 | 0.26 | 0.018 | < 0.005 | 0.389 | 34.31 | 0.50 | 9.20 | 0.109 | 39.95 | < 0.01 | 0.02 | < 0.01 | 0.03 | 0.01 | 1.09 | 0.004 | 99.05 | < 0.2 | < 0.5 | 4 | 598 | < 1 | 2030 |
| 693189 | 0.26 | 0.024 | < 0.005 | 0.648 | 34.30 | 0.43 | 11.25 | 0.102 | 39.80 | < 0.01 | 0.04 | < 0.01 | 0.03 | 0.01 | 0.92 | 0.003 | 100.8 | < 0.2 | < 0.5 | 23 | 570 | < 1 | 3320 |
| 693218 | 0.24 | 0.021 | 0.007 | 0.445 | 33.91 | 0.29 | 10.61 | 0.113 | 39.72 | < 0.01 | 0.03 | < 0.01 | 0.02 | 0.01 | 0.44 | 0.003 | 99.43 | < 0.2 | < 0.5 | 43 | 651 | < 1 | 2320 |

Results

Activation Laboratories Ltd.

Report: A18-18929

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693186 | < 2 | 13 | 0.05 | < 2 | 15 | < 10 | < 0.5 | 3 | < 0.01 | 105 | 335 | 4.59 | < 10 | < 1 | < 0.01 | < 10 | 17.3 | 0.011 | 0.001 | 0.01 | 2 | 4 | < 1 |
| 693189 | < 2 | 26 | 0.07 | < 2 | 18 | < 10 | < 0.5 | < 2 | < 0.01 | 149 | 507 | 5.69 | < 10 | < 1 | < 0.01 | < 10 | 17.1 | 0.011 | 0.001 | 0.11 | 3 | 4 | < 1 |
| 693218 | < 2 | 32 | 0.09 | < 2 | 25 | < 10 | < 0.5 | 2 | < 0.01 | 130 | 839 | 5.61 | < 10 | < 1 | < 0.01 | < 10 | 17.0 | 0.011 | 0.001 | 0.13 | 4 | 4 | < 1 |

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 693186 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 5 | < 10 | < 1 | 1 | 13.42 |
| 693189 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 7 | < 10 | < 1 | 2 | 13.20 |
| 693218 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 10 | < 10 | < 1 | 2 | 13.82 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 | |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 | |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 | |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 | 0.12 | < 20 | < 1 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-4 Meas | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 | 0.12 | < 20 | 4 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-6 Meas | 260 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| GXR-6 Meas | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 923 (AQUA REGIA) Meas | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| OREAS 923 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 |
| OREAS 907 (Aqua Regia) Cert | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 |
| Oreas 621 (Aqua Regia) Meas | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Oreas 621 (Aqua Regia) Meas | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 2 | < 10 | 77 | 14 | 11 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-4 Meas | < 2 | < 10 | 75 | 14 | 10 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-6 Meas | < 2 | < 10 | 176 | < 10 | 6 | 14 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| GXR-6 Meas | < 2 | < 10 | 171 | < 10 | 6 | 15 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | |
| USZ 25-2006 Cert | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 200 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 197 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 923 (AQUA REGIA) Meas | < 2 | < 10 | 35 | < 10 | 18 | 22 |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 | < 2 | < 10 | 36 | < 10 | 19 | 21 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| CaCO3 Meas | | | | | | |
| CaCO3 Cert | | | | | | |
| OREAS 907 (Aqua Regia) Meas | < 2 | < 10 | 6 | < 10 | 7 | 40 |
| OREAS 907 (Aqua Regia) Cert | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 69 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 68 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |
| Method Blank | | | | | | |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |



Date Submitted: 10-Dec-18
Invoice No.: A18-18974Final2
Invoice Date: 02-Apr-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

80 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

- Code 1E3 Aqua Regia ICP(AQUAREGEO)
- Code 4C (1-10) Whole Rock Analysis-XRF
- Code 4F-CO2 Infrared

REPORT A18-18974Final2

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithen Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-18974

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693309 | 0.26 | 0.016 | < 0.005 | 0.400 | 34.87 | 0.57 | 6.01 | 0.108 | 42.28 | 0.04 | 0.03 | < 0.01 | 0.03 | 0.01 | 1.18 | 0.005 | 100.3 | < 0.2 | < 0.5 | 2 | 563 | < 1 | 2030 |

Results

Activation Laboratories Ltd.

Report: A18-18974

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693309 | < 2 | 14 | 0.13 | < 2 | 22 | < 10 | < 0.5 | < 2 | 0.02 | 85 | 555 | 2.83 | < 10 | < 1 | < 0.01 | < 10 | 17.9 | 0.009 | 0.001 | 0.02 | 4 | 4 | < 1 |

Results

Activation Laboratories Ltd.

Report: A18-18974

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 693309 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 6 | < 10 | < 1 | 1 | 14.79 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 | |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 | |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 | |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 | 0.12 | < 20 | < 1 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-4 Meas | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 | 0.12 | < 20 | 4 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-6 Meas | 260 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| GXR-6 Meas | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 923 (AQUA REGIA) Meas | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| OREAS 923 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 |
| OREAS 907 (Aqua Regia) Cert | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 |
| Oreas 621 (Aqua Regia) Meas | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Oreas 621 (Aqua Regia) Meas | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 2 | < 10 | 77 | 14 | 11 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-4 Meas | < 2 | < 10 | 75 | 14 | 10 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-6 Meas | < 2 | < 10 | 176 | < 10 | 6 | 14 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| GXR-6 Meas | < 2 | < 10 | 171 | < 10 | 6 | 15 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | |
| USZ 25-2006 Cert | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 200 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 197 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 923 (AQUA REGIA) Meas | < 2 | < 10 | 35 | < 10 | 18 | 22 |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 | < 2 | < 10 | 36 | < 10 | 19 | 21 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| CaCO3 Meas | | | | | | |
| CaCO3 Cert | | | | | | |
| OREAS 907 (Aqua Regia) Meas | < 2 | < 10 | 6 | < 10 | 7 | 40 |
| OREAS 907 (Aqua Regia) Cert | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 69 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 68 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |
| Method Blank | | | | | | |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |



Date Submitted: 12-Dec-18
Invoice No.: A18-19099Final2
Invoice Date: 02-Apr-19
Your Reference: December 12/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

126 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4C (1-10) Whole Rock Analysis-XRF

Code 4F-CO2 Infrared

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT A18-19099Final2

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19099

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693419 | 0.30 | 0.014 | < 0.005 | 0.340 | 35.54 | 0.99 | 7.05 | 0.113 | 39.78 | 0.26 | 0.04 | < 0.01 | 0.05 | 0.01 | 0.88 | 0.004 | 99.00 | < 0.2 | < 0.5 | < 1 | 653 | < 1 | 1780 |

Results

Activation Laboratories Ltd.

Report: A18-19099

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 693419 | < 2 | 17 | 0.30 | < 2 | 18 | < 10 | < 0.5 | < 2 | 0.07 | 87 | 737 | 3.65 | < 10 | < 1 | < 0.01 | < 10 | 17.1 | 0.013 | 0.002 | 0.01 | 3 | 4 | < 1 |

Results

Activation Laboratories Ltd.

Report: A18-19099

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 693419 | < 0.01 | < 20 | 2 | < 2 | < 10 | 10 | < 10 | < 1 | 1 | 13.92 |

Results

Activation Laboratories Ltd.

Report: A18-19099

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 693419 | < 0.01 | < 20 | 2 | < 2 | < 10 | 10 | < 10 | < 1 | 1 | 13.92 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 | |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 | |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 | |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 | 0.12 | < 20 | < 1 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-4 Meas | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 | 0.12 | < 20 | 4 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-6 Meas | 260 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| GXR-6 Meas | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 923 (AQUA REGIA) Meas | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| OREAS 923 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 |
| OREAS 907 (Aqua Regia) Cert | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 |
| Oreas 621 (Aqua Regia) Meas | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Oreas 621 (Aqua Regia) Meas | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 2 | < 10 | 77 | 14 | 11 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-4 Meas | < 2 | < 10 | 75 | 14 | 10 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-6 Meas | < 2 | < 10 | 176 | < 10 | 6 | 14 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| GXR-6 Meas | < 2 | < 10 | 171 | < 10 | 6 | 15 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | |
| USZ 25-2006 Cert | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 200 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 197 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 923 (AQUA REGIA) Meas | < 2 | < 10 | 35 | < 10 | 18 | 22 |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 | < 2 | < 10 | 36 | < 10 | 19 | 21 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| CaCO3 Meas | | | | | | |
| CaCO3 Cert | | | | | | |
| OREAS 907 (Aqua Regia) Meas | < 2 | < 10 | 6 | < 10 | 7 | 40 |
| OREAS 907 (Aqua Regia) Cert | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 69 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 68 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |
| Method Blank | | | | | | |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |



Date Submitted: 17-Dec-18
Invoice No.: A18-19202Final2
Invoice Date: 02-Apr-19
Your Reference: December 17/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

120 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4C (1-10) Whole Rock Analysis-XRF

Code 4F-CO2 Infrared

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19202Final2**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19202

| Analyte Symbol | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni | Pb |
|----------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 |
| Method Code | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701260 | 0.018 | < 0.005 | 0.421 | 33.94 | 0.47 | 10.37 | 0.138 | 39.80 | 0.17 | 0.02 | < 0.01 | 0.03 | 0.01 | 0.89 | 0.004 | 99.27 | < 0.2 | < 0.5 | 4 | 774 | < 1 | 2170 | < 2 |
| 701278 | 0.018 | < 0.005 | 0.444 | 34.19 | 0.31 | 10.24 | 0.131 | 39.53 | 0.06 | 0.02 | < 0.01 | 0.02 | 0.01 | 0.58 | < 0.003 | 100.0 | < 0.2 | < 0.5 | 7 | 704 | < 1 | 2270 | < 2 |
| 701317 | 0.019 | < 0.005 | 0.376 | 34.32 | 0.35 | 11.00 | 0.138 | 39.96 | 0.09 | 0.03 | < 0.01 | 0.02 | 0.01 | 0.79 | 0.003 | 100.1 | < 0.2 | < 0.5 | < 1 | 733 | < 1 | 2050 | < 2 |

Results

Activation Laboratories Ltd.

Report: A18-19202

| Analyte Symbol | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % |
| Lower Limit | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701260 | 24 | 0.06 | < 2 | < 10 | < 10 | < 0.5 | < 2 | 0.04 | 108 | 420 | 5.22 | < 10 | < 1 | < 0.01 | < 10 | 17.0 | 0.010 | 0.001 | 0.01 | 3 | 3 | < 1 | < 0.01 |
| 701278 | 15 | 0.06 | < 2 | 22 | < 10 | < 0.5 | < 2 | 0.03 | 109 | 918 | 5.25 | < 10 | < 1 | < 0.01 | < 10 | 16.0 | 0.010 | 0.001 | 0.04 | 5 | 3 | < 1 | < 0.01 |
| 701317 | 18 | 0.09 | < 2 | 29 | < 10 | < 0.5 | < 2 | 0.05 | 110 | 747 | 5.65 | < 10 | < 1 | < 0.01 | < 10 | 17.2 | 0.011 | 0.002 | 0.02 | 5 | 4 | < 1 | < 0.01 |

| Analyte Symbol | Th | Te | Tl | U | V | W | Y | Zr | CO2 | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|------|-------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | % |
| Lower Limit | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | 0.01 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | CO2 | GRAV |
| 701260 | < 20 | 2 | < 2 | < 10 | 6 | < 10 | < 1 | 2 | 0.31 | 13.00 |
| 701278 | < 20 | < 1 | < 2 | < 10 | 8 | < 10 | < 1 | 2 | 0.36 | 14.47 |
| 701317 | < 20 | < 1 | < 2 | < 10 | 9 | < 10 | < 1 | 2 | 0.23 | 12.99 |

| Analyte Symbol | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | As |
|-----------------------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm |
| Lower Limit | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 |
| Method Code | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 | 98 |
| GXR-4 Cert | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 | 98.0 |
| GXR-4 Meas | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 | 98 |
| GXR-4 Cert | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 | 98.0 |
| GXR-6 Meas | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 | 260 |
| GXR-6 Cert | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 | 330 |
| GXR-6 Meas | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 | 264 |
| GXR-6 Cert | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 | 330 |
| DTS-2b Meas | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | | |
| DTS-2b Cert | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 | < 2 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 | 6.50 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 | < 2 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 | 6.50 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 | 4 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |

| Analyte Symbol | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | As |
|-----------------------------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm |
| Lower Limit | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | 2 |
| Method Code | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 | 3 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | 7.07 |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 | 33 |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | 37.0 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 | 81 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.60 | 75.0 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 | 80 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.60 | 75.0 |
| Method Blank | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 | < 2 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 | < 2 |

| Analyte Symbol | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | Tl |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm | ppm |
| Lower Limit | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.85 | 4 | 7 | 73 | 0.12 | < 20 | < 1 | < 2 |
| GXR-4 Cert | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 | 3.20 |
| GXR-4 Meas | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.83 | 3 | 7 | 73 | 0.12 | < 20 | 4 | < 2 |
| GXR-4 Cert | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 | 3.20 |
| GXR-6 Meas | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 | < 2 |
| GXR-6 Cert | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0180 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 | 2.20 |
| GXR-6 Meas | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 | < 2 |
| GXR-6 Cert | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0180 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 | 2.20 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | | |
| OREAS 45d (Aqua Regia) Cert | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | | |
| OREAS 45d (Aqua Regia) Meas | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | | |
| OREAS 45d (Aqua Regia) Cert | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | | |
| OREAS 923 (AQUA REGIA) Meas | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | | < 2 |
| OREAS 923 (AQUA REGIA) Cert | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | | 0.12 |
| OREAS 923 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | | < 2 |

| Analyte Symbol | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | Tl |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm | ppm |
| Lower Limit | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | | 0.12 |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 | < 2 |
| OREAS 907 (Aqua Regia) Cert | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 | 0.120 |
| Oreas 621 (Aqua Regia) Meas | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | | < 2 |
| Oreas 621 (Aqua Regia) Cert | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | | 0.770 |
| Oreas 621 (Aqua Regia) Meas | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | | < 2 |
| Oreas 621 (Aqua Regia) Cert | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | | 0.770 |
| Method Blank | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 | < 2 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 | < 2 |

| Analyte Symbol | U | V | W | Y | Zr | CO2 |
|-----------------------------------|--------|--------|--------|--------|--------|------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 10 | 1 | 10 | 1 | 1 | 0.01 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | CO2 |
| GXR-4 Meas | < 10 | 77 | 14 | 11 | 11 | |
| GXR-4 Cert | 6.20 | 87.0 | 30.8 | 14.0 | 186 | |
| GXR-4 Meas | < 10 | 75 | 14 | 10 | 11 | |
| GXR-4 Cert | 6.20 | 87.0 | 30.8 | 14.0 | 186 | |
| GXR-6 Meas | < 10 | 176 | < 10 | 6 | 14 | |
| GXR-6 Cert | 1.54 | 186 | 1.90 | 14.0 | 110 | |
| GXR-6 Meas | < 10 | 171 | < 10 | 6 | 15 | |
| GXR-6 Cert | 1.54 | 186 | 1.90 | 14.0 | 110 | |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | 1.08 |
| USZ 25-2006 Cert | | | | | | 1.04 |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 10 | 200 | | 4 | | |
| OREAS 45d (Aqua Regia) Cert | 1.64 | 201.0 | | 5.08 | | |
| OREAS 45d (Aqua Regia) Meas | < 10 | 197 | | 4 | | |
| OREAS 45d (Aqua Regia) Cert | 1.64 | 201.0 | | 5.08 | | |
| OREAS 923 (AQUA REGIA) Meas | < 10 | 35 | < 10 | 18 | 22 | |
| OREAS 923 (AQUA REGIA) Cert | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 | |
| OREAS 923 | < 10 | 36 | < 10 | 19 | 21 | |

| Analyte Symbol | U | V | W | Y | Zr | CO2 |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 10 | 1 | 10 | 1 | 1 | 0.01 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | CO2 |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 | |
| CaCO3 Meas | | | | | | 43.4 |
| CaCO3 Cert | | | | | | 44.1 |
| OREAS 907 (Aqua Regia) Meas | < 10 | 6 | < 10 | 7 | 40 | |
| OREAS 907 (Aqua Regia) Cert | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 | |
| Oreas 621 (Aqua Regia) Meas | < 10 | 13 | < 10 | 7 | 69 | |
| Oreas 621 (Aqua Regia) Cert | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 | |
| Oreas 621 (Aqua Regia) Meas | < 10 | 13 | < 10 | 7 | 68 | |
| Oreas 621 (Aqua Regia) Cert | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 | |
| Method Blank | < 10 | < 1 | < 10 | < 1 | < 1 | |
| Method Blank | | | | | | < 0.01 |
| Method Blank | < 10 | < 1 | < 10 | < 1 | < 1 | |



Date Submitted: 18-Dec-18
Invoice No.: A18-19339Final2
Invoice Date: 02-Apr-19
Your Reference: December 18/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

78 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4C (1-10) Whole Rock Analysis-XRF

Code 4F-CO2 Infrared

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT A18-19339Final2

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19339

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701395 | 20.0 | 0.016 | < 0.005 | 0.233 | 31.27 | 1.40 | 9.80 | 0.115 | 33.13 | 0.98 | 0.05 | 0.21 | 0.07 | 0.01 | 0.77 | 0.007 | 100.8 | < 0.2 | < 0.5 | 8 | 726 | < 1 | 495 |

Results

Activation Laboratories Ltd.

Report: A18-19339

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701395 | 4 | < 2 | 0.52 | < 2 | < 10 | < 10 | < 0.5 | < 2 | 0.58 | 52 | 1640 | 4.83 | < 10 | < 1 | 0.16 | < 10 | 9.97 | 0.016 | 0.002 | < 0.01 | 10 | 6 | 2 |

Results

Activation Laboratories Ltd.

Report: A18-19339

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 701395 | 0.02 | < 20 | < 1 | < 2 | < 10 | 24 | < 10 | < 1 | 2 | 22.76 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 | 40 | 70 | 2.82 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-4 Meas | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 | 38 | 68 | 2.78 |
| GXR-4 Cert | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 | 52.0 | 73.0 | 7.20 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 | 96 | 131 | 7.35 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| GXR-6 Meas | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 | 95 | 129 | 7.15 |
| GXR-6 Cert | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 | 101 | 118 | 17.7 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | 2.31 | | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | 2.27 | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | 0.28 | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | 0.29 | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | 0.26 | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | 0.26 | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | 0.06 | 0.01 | 1.32 | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | 0.053 | 0.010 | 1.290 | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 344 | 414 | | 186 | 13 | 34 | 5.83 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | 339 | 409 | | 183 | 14 | 33 | 5.71 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | 345.0 | 400.000 | | 176.0 | 17.00 | 30.6 | 4.860 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 | 80 | 342 | 2.95 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | TiO2 | P2O5 | Cr2O3 | Ag | Cd | Cu | Mn | Mo | Ni | Pb | Zn | Al | |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 | 2 | 2 | 0.01 | |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | |
| Cert | | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 | 81 | 340 | 2.97 | |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 | 81 | 335 | 2.80 | |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 | 32 | 142 | 1.23 | |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 | 34.1 | 139 | 0.945 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 | > 5000 | > 10000 | 1.87 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 | > 5000 | > 10000 | 1.89 | |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 | 13600 | 51700 | 1.80 | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 | < 2 | < 2 | < 0.01 | |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 | < 2 | 5 | < 0.01 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 | 0.12 | < 20 | < 1 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-4 Meas | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 | 0.12 | < 20 | 4 |
| GXR-4 Cert | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 | 0.29 | 22.5 | 0.970 |
| GXR-6 Meas | 260 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| GXR-6 Meas | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 | | < 20 | < 1 |
| GXR-6 Cert | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 | | 5.30 | 0.0180 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 45d (Aqua Regia) Meas | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 | | < 20 | |
| OREAS 45d (Aqua Regia) Cert | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 | | 11.3 | |
| OREAS 923 (AQUA REGIA) Meas | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 | | < 20 | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| OREAS 923 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 | | < 20 | |

| Analyte Symbol | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm | % | ppm | ppm |
| Lower Limit | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 | | 14.3 | |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 | 0.02 | < 20 | 1 |
| OREAS 907 (Aqua Regia) Cert | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 | 0.0170 | 8.04 | 0.230 |
| Oreas 621 (Aqua Regia) Meas | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Oreas 621 (Aqua Regia) Meas | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 | | < 20 | |
| Oreas 621 (Aqua Regia) Cert | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 | | 5.91 | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 | < 0.01 | < 20 | < 1 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | < 2 | < 10 | 77 | 14 | 11 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-4 Meas | < 2 | < 10 | 75 | 14 | 10 | 11 |
| GXR-4 Cert | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 |
| GXR-6 Meas | < 2 | < 10 | 176 | < 10 | 6 | 14 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| GXR-6 Meas | < 2 | < 10 | 171 | < 10 | 6 | 15 |
| GXR-6 Cert | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |
| DTS-2b Meas | | | | | | |
| DTS-2b Cert | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | |
| USZ 25-2006 Meas | | | | | | |
| USZ 25-2006 Cert | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 200 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 45d (Aqua Regia) Meas | | < 10 | 197 | | 4 | |
| OREAS 45d (Aqua Regia) Cert | | 1.64 | 201.0 | | 5.08 | |
| OREAS 923 (AQUA REGIA) Meas | < 2 | < 10 | 35 | < 10 | 18 | 22 |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| OREAS 923 | < 2 | < 10 | 36 | < 10 | 19 | 21 |

| Analyte Symbol | Tl | U | V | W | Y | Zr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 2 | 10 | 1 | 10 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 |
| CaCO3 Meas | | | | | | |
| CaCO3 Cert | | | | | | |
| OREAS 907 (Aqua Regia) Meas | < 2 | < 10 | 6 | < 10 | 7 | 40 |
| OREAS 907 (Aqua Regia) Cert | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 69 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Oreas 621 (Aqua Regia) Meas | < 2 | < 10 | 13 | < 10 | 7 | 68 |
| Oreas 621 (Aqua Regia) Cert | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |
| Method Blank | | | | | | |
| Method Blank | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 |



Date Submitted: 19-Dec-18
Invoice No.: A18-19488Final2
Invoice Date: 02-Apr-19
Your Reference: December 19/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

124 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4C (1-10) Whole Rock Analysis-XRF

Code 4F-CO2 Infrared

Code B-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT A18-19488Final2

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written in a cursive style with some loops and flourishes.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bithem Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-5611 or +1.866.228.5227 FAX +1.905.648.9513
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19488

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|----------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701429 | 1.00 | 0.035 | 0.061 | 0.815 | 32.86 | 0.76 | 13.28 | 0.123 | 36.65 | 0.01 | 0.02 | < 0.01 | 0.04 | 0.01 | 1.11 | 0.005 | 99.96 | < 0.2 | < 0.5 | 350 | 607 | < 1 | 4230 |
| 705510 | 0.96 | 0.016 | < 0.005 | 0.523 | 34.24 | 0.45 | 9.71 | 0.111 | 39.36 | 0.49 | 0.01 | < 0.01 | 0.02 | 0.01 | 0.65 | < 0.003 | 100.1 | < 0.2 | < 0.5 | 13 | 619 | < 1 | 2750 |

Results

Activation Laboratories Ltd.

Report: A18-19488

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| 701429 | < 2 | 15 | 0.23 | < 2 | 49 | < 10 | < 0.5 | 3 | 0.01 | 206 | 2380 | 6.78 | < 10 | < 1 | < 0.01 | < 10 | 15.7 | 0.012 | 0.002 | 0.40 | 14 | 4 | < 1 |
| 705510 | < 2 | 26 | 0.08 | < 2 | 23 | < 10 | < 0.5 | 4 | 0.26 | 103 | 451 | 5.02 | < 10 | < 1 | < 0.01 | < 10 | 16.6 | 0.011 | 0.001 | 0.13 | 4 | 4 | < 1 |

Results

Activation Laboratories Ltd.

Report: A18-19488

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| 701429 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 18 | < 10 | < 1 | 3 | 14.19 |
| 705510 | < 0.01 | < 20 | < 1 | < 2 | < 10 | 6 | < 10 | < 1 | 2 | 14.45 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|-----------------------------|------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|---------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | | | | | | | | | | | | | | | | | | 3.3 | < 0.5 | 6390 | 142 | 313 | 35 |
| GXR-4 Cert | | | | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 |
| GXR-4 Meas | | | | | | | | | | | | | | | | | | 3.2 | < 0.5 | 6240 | 144 | 304 | 35 |
| GXR-4 Cert | | | | | | | | | | | | | | | | | | 4.0 | 0.860 | 6520 | 155 | 310 | 42.0 |
| GXR-6 Meas | | | | | | | | | | | | | | | | | | 0.3 | < 0.5 | 68 | 1090 | 2 | 21 |
| GXR-6 Cert | | | | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 |
| GXR-6 Meas | | | | | | | | | | | | | | | | | | 0.4 | < 0.5 | 66 | 1070 | 2 | 22 |
| GXR-6 Cert | | | | | | | | | | | | | | | | | | 1.30 | 1.00 | 66.0 | 1010 | 2.40 | 27.0 |
| DTS-2b Meas | | | | | 38.85 | 0.45 | | | 48.78 | 0.12 | | | | | 2.31 | | | | | | | | |
| DTS-2b Cert | | | | | 39.4 | 0.450 | | | 49.4 | 0.120 | | | | | 2.27 | | | | | | | | |
| Oreas 73a (Fusion) Meas | | 0.040 | 0.118 | 1.852 | 36.10 | 2.44 | | | 31.93 | | | | | | 0.28 | | | | | | | | |
| Oreas 73a (Fusion) Cert | | 0.041 | 0.115 | 1.833 | 36.4 | 2.38 | | | 32.5 | | | | | | 0.29 | | | | | | | | |
| Oreas 74a (Fusion) Meas | | 0.080 | 0.158 | 4.164 | 32.40 | 2.31 | | | 27.65 | | | | | | 0.26 | | | | | | | | |
| Oreas 74a (Fusion) Cert | | 0.079 | 0.155 | 4.123 | 32.4 | 2.21 | | | 27.9 | | | | | | 0.26 | | | | | | | | |
| Oreas 75a (Fusion) Meas | | 0.126 | 0.250 | 6.648 | 27.14 | 1.92 | | | 22.08 | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | 0.122 | 0.251 | 6.681 | 27.3 | 1.99 | | | 22.3 | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | 1.08 | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | 1.04 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | 0.103 | 0.007 | 0.893 | 47.00 | 4.07 | 29.16 | 0.574 | 9.24 | 0.26 | 0.01 | | 0.06 | 0.01 | 1.32 | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | 0.099 | 0.007 | 0.900 | 46.77 | 4.07 | 29.40 | 0.580 | 9.16 | 0.251 | 0.019 | | 0.053 | 0.010 | 1.290 | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | | | | | 344 | 414 | 186 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | | | | | 345.0 | 400.000 | 176.0 |
| OREAS 45d (Aqua Regia) Meas | | | | | | | | | | | | | | | | | | | | | 339 | 409 | 183 |
| OREAS 45d (Aqua Regia) Cert | | | | | | | | | | | | | | | | | | | | | 345.0 | 400.000 | 176.0 |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 876 | < 1 | 30 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 |

| Analyte Symbol | CO2 | Co3O4 | CuO | NiO | SiO2 | Al2O3 | Fe2O3(T) | MnO | MgO | CaO | Na2O | K2O | TiO2 | P2O5 | Cr2O3 | V2O5 | Total | Ag | Cd | Cu | Mn | Mo | Ni |
|-----------------------------|--------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 0.01 | 0.005 | 0.005 | 0.003 | 0.01 | 0.01 | 0.01 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.2 | 0.5 | 1 | 5 | 1 | 1 |
| Method Code | CO2 | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | FUS-XRF | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | 1.6 | < 0.5 | 4400 | 884 | < 1 | 30 |
| OREAS 923 (AQUA REGIA) Cert | | | | | | | | | | | | | | | | | | 1.62 | 0.40 | 4248 | 850 | 0.84 | 32.7 |
| CaCO3 Meas | 43.4 | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | 44.1 | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | | | | | | | | | | | | | | | | | | 1.3 | < 0.5 | 6100 | 324 | 5 | 3 |
| OREAS 907 (Aqua Regia) Cert | | | | | | | | | | | | | | | | | | 1.30 | 0.540 | 6370 | 330 | 5.64 | 4.74 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | | | | 68.4 | 284 | 3790 | 550 | 13 | 24 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 |
| Oreas 621 (Aqua Regia) Meas | | | | | | | | | | | | | | | | | | 69.7 | 278 | 3770 | 556 | 13 | 29 |
| Oreas 621 (Aqua Regia) Cert | | | | | | | | | | | | | | | | | | 68.0 | 278 | 3660 | 520 | 13.3 | 25.8 |
| 701429 Orig | 0.99 | | | | | | | | | | | | | | | | | | | | | | |
| 701429 Dup | 1.01 | | | | | | | | | | | | | | | | | | | | | | |
| 705510 Orig | | 0.016 | < 0.005 | 0.519 | 34.13 | 0.46 | 9.68 | 0.110 | 39.35 | 0.49 | 0.02 | < 0.01 | 0.03 | 0.01 | 0.65 | < 0.003 | 99.92 | | | | | | |
| 705510 Dup | | 0.017 | < 0.005 | 0.528 | 34.35 | 0.45 | 9.74 | 0.112 | 39.38 | 0.49 | 0.01 | < 0.01 | 0.02 | 0.01 | 0.65 | < 0.003 | 100.2 | | | | | | |
| Method Blank | | | | | | | | | | | | | | | | | | < 0.2 | < 0.5 | < 1 | < 5 | < 1 | < 1 |
| Method Blank | < 0.01 | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | | | | | | | | | | | | | | | < 0.2 | < 0.5 | 2 | < 5 | < 1 | < 1 |

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| GXR-4 Meas | 40 | 70 | 2.82 | 98 | < 10 | 39 | 1.3 | 13 | 0.86 | 13 | 51 | 3.09 | < 10 | < 1 | 1.77 | 47 | 1.54 | 0.131 | 0.119 | 1.65 | 4 | 7 | 73 |
| GXR-4 Cert | 52.0 | 73.0 | 7.20 | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 |
| GXR-4 Meas | 38 | 68 | 2.78 | 98 | < 10 | 38 | 1.3 | 17 | 0.84 | 13 | 50 | 2.98 | < 10 | < 1 | 1.73 | 45 | 1.50 | 0.130 | 0.116 | 1.63 | 3 | 7 | 73 |
| GXR-4 Cert | 52.0 | 73.0 | 7.20 | 98.0 | 4.50 | 1640 | 1.90 | 19.0 | 1.01 | 14.6 | 64.0 | 3.09 | 20.0 | 0.110 | 4.01 | 64.5 | 1.66 | 0.564 | 0.120 | 1.77 | 4.80 | 7.70 | 221 |
| GXR-6 Meas | 96 | 131 | 7.35 | 280 | < 10 | 823 | 0.9 | < 2 | 0.14 | 13 | 77 | 5.72 | 20 | < 1 | 1.19 | 11 | 0.40 | 0.128 | 0.034 | 0.01 | 3 | 26 | 29 |
| GXR-6 Cert | 101 | 118 | 17.7 | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 |
| GXR-6 Meas | 95 | 129 | 7.15 | 264 | < 10 | 809 | 0.9 | < 2 | 0.14 | 13 | 76 | 5.59 | 10 | < 1 | 1.16 | 11 | 0.39 | 0.122 | 0.034 | 0.02 | 4 | 25 | 30 |
| GXR-6 Cert | 101 | 118 | 17.7 | 330 | 9.80 | 1300 | 1.40 | 0.290 | 0.180 | 13.8 | 96.0 | 5.58 | 35.0 | 0.0680 | 1.87 | 13.9 | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 |
| DTS-2b Meas | | | | | | | | | | | | | | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | 13 | 34 | 5.83 | < 2 | | 84 | | < 2 | 0.10 | 23 | 449 | 13.3 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.032 | 0.04 | | 44 | 13 |
| OREAS 45d (Aqua Regia) Cert | 17.00 | 30.6 | 4.860 | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 |
| OREAS 45d (Aqua Regia) Meas | 14 | 33 | 5.71 | < 2 | | 82 | | 3 | 0.10 | 23 | 441 | 13.0 | 20 | | 0.13 | 11 | 0.16 | 0.044 | 0.031 | 0.04 | | 43 | 13 |
| OREAS 45d (Aqua Regia) Cert | 17.00 | 30.6 | 4.860 | 6.50 | | 80 | | 0.30 | 0.09 | 26.2 | 467 | 13.650 | 17.9 | | 0.097 | 9.960 | 0.144 | 0.031 | 0.035 | 0.045 | | 41.50 | 11.0 |
| OREAS 923 (AQUA REGIA) Meas | 80 | 342 | 2.95 | 4 | | 74 | 0.7 | 13 | 0.42 | 20 | 39 | 5.98 | < 10 | | 0.44 | 33 | 1.42 | | 0.057 | 0.63 | < 2 | 4 | 14 |
| OREAS 923 (AQUA REGIA) Cert | 81 | 335 | 2.80 | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |
| OREAS 923 | 81 | 340 | 2.97 | 3 | | 76 | 0.7 | 14 | 0.42 | 22 | 40 | 6.06 | < 10 | | 0.45 | 34 | 1.44 | | 0.058 | 0.64 | < 2 | 4 | 14 |

| Analyte Symbol | Pb | Zn | Al | As | B | Ba | Be | Bi | Ca | Co | Cr | Fe | Ga | Hg | K | La | Mg | Na | P | S | Sb | Sc | Sr |
|-----------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| Unit Symbol | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | ppm | % | ppm | % | % | % | % | ppm | ppm | ppm |
| Lower Limit | 2 | 2 | 0.01 | 2 | 10 | 10 | 0.5 | 2 | 0.01 | 1 | 1 | 0.01 | 10 | 1 | 0.01 | 10 | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP |
| (AQUA REGIA) Meas | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | 81 | 335 | 2.80 | 7.07 | | 54 | 0.61 | 21.8 | 0.326 | 22.2 | 39.4 | 5.91 | 8.01 | | 0.322 | 30.0 | 1.43 | | 0.061 | 0.684 | 0.58 | 3.09 | 13.6 |
| CaCO3 Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | | | | | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 32 | 142 | 1.23 | 33 | | 236 | 1.0 | 21 | 0.27 | 47 | 8 | 7.76 | 20 | | 0.38 | 35 | 0.22 | 0.105 | 0.023 | 0.06 | 6 | 2 | 12 |
| OREAS 907 (Aqua Regia) Cert | 34.1 | 139 | 0.945 | 37.0 | | 225 | 0.870 | 22.3 | 0.280 | 43.7 | 8.59 | 8.18 | 14.7 | | 0.286 | 36.1 | 0.221 | 0.0860 | 0.0240 | 0.0660 | 2.28 | 2.16 | 11.7 |
| Oreas 621 (Aqua Regia) Meas | > 5000 | > 10000 | 1.87 | 81 | | | 0.6 | < 2 | 1.68 | 33 | 31 | 3.61 | < 10 | 3 | 0.41 | 20 | 0.44 | 0.173 | 0.033 | 4.42 | 124 | 2 | 19 |
| Oreas 621 (Aqua Regia) Cert | 13600 | 51700 | 1.60 | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 |
| Oreas 621 (Aqua Regia) Meas | > 5000 | > 10000 | 1.89 | 80 | | | 0.6 | < 2 | 1.69 | 33 | 40 | 3.65 | < 10 | 3 | 0.41 | 20 | 0.45 | 0.173 | 0.034 | 4.45 | 114 | 2 | 19 |
| Oreas 621 (Aqua Regia) Cert | 13600 | 51700 | 1.60 | 75.0 | | | 0.530 | 3.85 | 1.65 | 27.9 | 31.3 | 3.43 | 9.29 | 3.93 | 0.333 | 19.4 | 0.436 | 0.160 | 0.0335 | 4.50 | 107 | 2.20 | 18.9 |
| 701429 Orig | | | | | | | | | | | | | | | | | | | | | | | |
| 701429 Dup | | | | | | | | | | | | | | | | | | | | | | | |
| 705510 Orig | | | | | | | | | | | | | | | | | | | | | | | |
| 705510 Dup | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 2 | < 0.01 | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.011 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 |
| Method Blank | | | | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | 5 | < 0.01 | < 2 | < 10 | < 10 | < 0.5 | < 2 | < 0.01 | < 1 | < 1 | < 0.01 | < 10 | < 1 | < 0.01 | < 10 | < 0.01 | 0.012 | < 0.001 | < 0.01 | < 2 | < 1 | < 1 |

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| GXR-4 Meas | 0.12 | < 20 | < 1 | < 2 | < 10 | 77 | 14 | 11 | 11 | |
| GXR-4 Cert | 0.29 | 22.5 | 0.970 | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 | |
| GXR-4 Meas | 0.12 | < 20 | 4 | < 2 | < 10 | 75 | 14 | 10 | 11 | |
| GXR-4 Cert | 0.29 | 22.5 | 0.970 | 3.20 | 6.20 | 87.0 | 30.8 | 14.0 | 186 | |
| GXR-6 Meas | | < 20 | < 1 | < 2 | < 10 | 176 | < 10 | 6 | 14 | |
| GXR-6 Cert | | 5.30 | 0.0180 | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 | |
| GXR-6 Meas | | < 20 | < 1 | < 2 | < 10 | 171 | < 10 | 6 | 15 | |
| GXR-6 Cert | | 5.30 | 0.0180 | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 | |
| DTS-2b Meas | | | | | | | | | | |
| DTS-2b Cert | | | | | | | | | | |
| Oreas 73a (Fusion) Meas | | | | | | | | | | |
| Oreas 73a (Fusion) Cert | | | | | | | | | | |
| Oreas 74a (Fusion) Meas | | | | | | | | | | |
| Oreas 74a (Fusion) Cert | | | | | | | | | | |
| Oreas 75a (Fusion) Meas | | | | | | | | | | |
| Oreas 75a (Fusion) Cert | | | | | | | | | | |
| USZ 25-2006 Meas | | | | | | | | | | |
| USZ 25-2006 Cert | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Meas | | | | | | | | | | |
| OREAS 182 (Fusion XRF) Cert | | | | | | | | | | |
| OREAS 45d (Aqua Regia) Meas | | < 20 | | | < 10 | 200 | | 4 | | |
| OREAS 45d (Aqua Regia) Cert | | 11.3 | | | 1.64 | 201.0 | | 5.08 | | |
| OREAS 45d (Aqua Regia) Meas | | < 20 | | | < 10 | 197 | | 4 | | |
| OREAS 45d (Aqua Regia) Cert | | 11.3 | | | 1.64 | 201.0 | | 5.08 | | |
| OREAS 923 (AQUA REGIA) Meas | | < 20 | | < 2 | < 10 | 35 | < 10 | 18 | 22 | |
| OREAS 923 (AQUA REGIA) Cert | | 14.3 | | 0.12 | 1.80 | 30.6 | 1.96 | 14.3 | 22.5 | |
| OREAS 923 | | < 20 | | < 2 | < 10 | 36 | < 10 | 19 | 21 | |

| Analyte Symbol | Ti | Th | Te | Tl | U | V | W | Y | Zr | LOI |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Unit Symbol | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % |
| Lower Limit | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | GRAV |
| (AQUA REGIA) Meas | | | | | | | | | | |
| OREAS 923 (AQUA REGIA) Cert | | 14.3 | | 0.12 | 1.80 | 30.8 | 1.96 | 14.3 | 22.5 | |
| CaCO3 Meas | | | | | | | | | | |
| CaCO3 Cert | | | | | | | | | | |
| OREAS 907 (Aqua Regia) Meas | 0.02 | < 20 | 1 | < 2 | < 10 | 6 | < 10 | 7 | 40 | |
| OREAS 907 (Aqua Regia) Cert | 0.0170 | 8.04 | 0.230 | 0.120 | 2.15 | 5.12 | 0.980 | 6.52 | 43.7 | |
| Oreas 621 (Aqua Regia) Meas | | < 20 | | < 2 | < 10 | 13 | < 10 | 7 | 69 | |
| Oreas 621 (Aqua Regia) Cert | | 5.91 | | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 | |
| Oreas 621 (Aqua Regia) Meas | | < 20 | | < 2 | < 10 | 13 | < 10 | 7 | 68 | |
| Oreas 621 (Aqua Regia) Cert | | 5.91 | | 0.770 | 1.63 | 10.9 | 1.00 | 6.87 | 55.0 | |
| 701429 Orig | | | | | | | | | | |
| 701429 Dup | | | | | | | | | | |
| 705510 Orig | | | | | | | | | | 14.46 |
| 705510 Dup | | | | | | | | | | 14.45 |
| Method Blank | < 0.01 | < 20 | < 1 | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 | |
| Method Blank | | | | | | | | | | |
| Method Blank | < 0.01 | < 20 | < 1 | < 2 | < 10 | < 1 | < 10 | < 1 | < 1 | |



Date Submitted: 10-Dec-18
Invoice No.: A18-18929
Invoice Date: 27-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

54 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES.

REPORT **A18-18929**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized with a large, looped 'E' and a long, sweeping tail.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1 888 228 5227 FAX +1 905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 10-Dec-18
Invoice No.: A18-18929
Invoice Date: 27-Feb-19
Your Reference: December 10/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

54 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 8-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-18929**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Biltm Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1 888 228 5227 FAX +1 905 648 9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 693183 | 3 | 27 | 61 | 0.28 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.64 | < 0.005 | 6.39 | < 0.1 | < 0.01 | 24.5 | 0.08 | 0.271 | < 0.01 | 0.02 | < 0.01 | 16.2 | 0.01 | < 0.005 | < 0.01 |
| 693184 | < 2 | 46 | 89 | 0.27 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.69 | < 0.005 | 8.76 | < 0.1 | < 0.01 | 23.9 | 0.09 | 0.271 | < 0.01 | 0.03 | < 0.01 | 14.9 | 0.01 | < 0.005 | < 0.01 |
| 693185 | < 2 | 112 | 92 | 0.27 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.72 | < 0.005 | 6.51 | < 0.1 | < 0.01 | 24.8 | 0.10 | 0.277 | < 0.01 | 0.02 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693186 | 5 | 477 | 146 | 0.26 | < 0.01 | < 0.001 | 0.10 | 0.012 | 0.72 | < 0.005 | 6.33 | < 0.1 | < 0.01 | 24.7 | 0.08 | 0.297 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693187 | 3 | 332 | 37 | 0.26 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.69 | < 0.005 | 7.26 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.353 | < 0.01 | 0.03 | < 0.01 | 15.0 | 0.01 | < 0.005 | < 0.01 |
| 693188 | 3 | 347 | 38 | 0.23 | < 0.01 | < 0.001 | 0.09 | 0.012 | 0.59 | < 0.005 | 6.39 | < 0.1 | < 0.01 | 24.8 | 0.10 | 0.388 | < 0.01 | 0.04 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693189 | 2 | 64 | 27 | 0.23 | < 0.01 | < 0.001 | 0.07 | 0.017 | 0.58 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 24.2 | 0.08 | 0.487 | < 0.01 | 0.15 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693190 | < 2 | 21 | 15 | 0.24 | < 0.01 | < 0.001 | 0.07 | 0.015 | 0.66 | < 0.005 | 6.84 | < 0.1 | < 0.01 | 24.4 | 0.08 | 0.410 | < 0.01 | 0.11 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693191 | < 2 | 14 | < 5 | 0.26 | < 0.01 | < 0.001 | 0.10 | 0.013 | 0.65 | < 0.005 | 6.40 | < 0.1 | < 0.01 | 24.7 | 0.09 | 0.336 | < 0.01 | 0.15 | < 0.01 | 16.3 | 0.02 | < 0.005 | < 0.01 |
| 693192 | < 2 | 7 | < 5 | 0.25 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.63 | < 0.005 | 6.77 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.336 | < 0.01 | 0.09 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693193 | < 2 | 22 | 14 | 0.27 | < 0.01 | < 0.001 | 0.08 | 0.016 | 0.55 | 0.022 | 7.72 | < 0.1 | < 0.01 | 23.8 | 0.10 | 0.375 | < 0.01 | 0.16 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 |
| 693194 | < 2 | 18 | 13 | 0.25 | < 0.01 | < 0.001 | 0.10 | 0.014 | 0.58 | < 0.005 | 6.38 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.354 | < 0.01 | 0.10 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693195 | < 2 | 13 | < 5 | 0.24 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.53 | < 0.005 | 7.66 | < 0.1 | < 0.01 | 24.1 | 0.11 | 0.354 | < 0.01 | 0.14 | < 0.01 | 15.4 | 0.01 | < 0.005 | < 0.01 |
| 693196 | 4 | 29 | 18 | 0.23 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.56 | 0.007 | 6.85 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.316 | < 0.01 | 0.07 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693197 | < 2 | 20 | 11 | 0.21 | < 0.01 | < 0.001 | 0.08 | 0.015 | 0.49 | < 0.005 | 7.05 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.356 | < 0.01 | 0.11 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693198 | < 2 | 21 | 16 | 0.21 | < 0.01 | < 0.001 | 0.06 | 0.014 | 0.44 | 0.028 | 7.00 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.335 | < 0.01 | 0.09 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 |
| 693199 | < 2 | 18 | 7 | 0.21 | < 0.01 | < 0.001 | 0.10 | 0.015 | 0.45 | 0.008 | 7.20 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.352 | < 0.01 | 0.11 | < 0.01 | 15.8 | 0.01 | < 0.005 | < 0.01 |
| 693200 | < 2 | 8 | < 5 | 0.22 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.51 | < 0.005 | 6.26 | < 0.1 | < 0.01 | 24.6 | 0.08 | 0.302 | < 0.01 | 0.08 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693201 | < 2 | 14 | < 5 | 0.22 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.50 | 0.030 | 7.13 | < 0.1 | < 0.01 | 23.8 | 0.12 | 0.368 | < 0.01 | 0.19 | < 0.01 | 15.1 | 0.01 | < 0.005 | 0.01 |
| 693202 | < 2 | 19 | 12 | 0.23 | < 0.01 | < 0.001 | 0.07 | 0.013 | 0.45 | 0.056 | 7.31 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.308 | < 0.01 | 0.13 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693203 | < 2 | 27 | 23 | 0.19 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.47 | < 0.005 | 6.65 | < 0.1 | < 0.01 | 24.4 | 0.11 | 0.354 | < 0.01 | 0.15 | < 0.01 | 15.3 | 0.01 | < 0.005 | < 0.01 |
| 693204 | < 2 | 17 | 5 | 0.20 | < 0.01 | < 0.001 | 0.08 | 0.015 | 0.44 | 0.040 | 7.43 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.369 | < 0.01 | 0.17 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693205 | < 2 | 21 | 9 | 0.19 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.34 | 0.058 | 7.31 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.345 | < 0.01 | 0.15 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693206 | 2 | 24 | 15 | 0.17 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.34 | < 0.005 | 6.69 | < 0.1 | < 0.01 | 24.7 | 0.10 | 0.346 | < 0.01 | 0.11 | < 0.01 | 15.7 | 0.01 | < 0.005 | < 0.01 |
| 693207 | < 2 | 20 | < 5 | 0.16 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.29 | < 0.005 | 7.17 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.324 | < 0.01 | 0.12 | < 0.01 | 16.0 | < 0.01 | < 0.005 | < 0.01 |
| 693208 | < 2 | 18 | < 5 | 0.14 | < 0.01 | < 0.001 | 0.07 | 0.012 | 0.29 | < 0.005 | 8.23 | < 0.1 | < 0.01 | 23.8 | 0.12 | 0.301 | < 0.01 | 0.14 | < 0.01 | 15.3 | < 0.01 | < 0.005 | < 0.01 |
| 693209 | < 2 | 18 | 7 | 0.13 | < 0.01 | < 0.001 | 0.10 | 0.016 | 0.27 | < 0.005 | 5.99 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.392 | < 0.01 | 0.14 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 693210 | < 2 | 39 | 23 | 0.14 | < 0.01 | < 0.001 | 0.08 | 0.015 | 0.28 | < 0.005 | 6.19 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.423 | < 0.01 | 0.18 | < 0.01 | 15.6 | < 0.01 | < 0.005 | < 0.01 |
| 693211 | < 2 | 45 | 23 | 0.16 | < 0.01 | < 0.001 | 0.09 | 0.014 | 0.24 | < 0.005 | 7.36 | < 0.1 | < 0.01 | 23.7 | 0.11 | 0.425 | < 0.01 | 0.21 | < 0.01 | 15.2 | < 0.01 | < 0.005 | < 0.01 |
| 693212 | < 2 | 37 | 21 | 0.15 | < 0.01 | < 0.001 | 0.08 | 0.015 | 0.24 | < 0.005 | 6.61 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.477 | < 0.01 | 0.22 | < 0.01 | 15.3 | < 0.01 | < 0.005 | < 0.01 |
| 693213 | < 2 | 45 | 28 | 0.17 | < 0.01 | < 0.001 | 0.09 | 0.016 | 0.25 | 0.006 | 7.59 | < 0.1 | < 0.01 | 23.6 | 0.11 | 0.566 | < 0.01 | 0.29 | < 0.01 | 15.2 | < 0.01 | < 0.005 | < 0.01 |
| 693214 | < 2 | 34 | 12 | 0.14 | < 0.01 | < 0.001 | 0.07 | 0.017 | 0.25 | 0.013 | 4.98 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.518 | < 0.01 | 0.25 | < 0.01 | 16.2 | < 0.01 | < 0.005 | < 0.01 |
| 693215 | < 2 | 36 | 21 | 0.13 | < 0.01 | < 0.001 | 0.08 | 0.017 | 0.23 | 0.010 | 7.27 | < 0.1 | < 0.01 | 24.1 | 0.10 | 0.576 | < 0.01 | 0.29 | < 0.01 | 15.7 | < 0.01 | < 0.005 | < 0.01 |
| 693216 | < 2 | 18 | 14 | 0.12 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.23 | < 0.005 | 7.67 | < 0.1 | < 0.01 | 24.3 | 0.09 | 0.305 | < 0.01 | 0.12 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 |
| 693217 | < 2 | 21 | 11 | 0.13 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.23 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 25.1 | 0.10 | 0.340 | < 0.01 | 0.15 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 |
| 693218 | < 2 | 20 | 11 | 0.14 | < 0.01 | < 0.001 | 0.06 | 0.015 | 0.29 | < 0.005 | 7.39 | < 0.1 | < 0.01 | 24.7 | 0.09 | 0.345 | < 0.01 | 0.18 | < 0.01 | 15.0 | < 0.01 | < 0.005 | < 0.01 |
| 693219 | 3 | 27 | 21 | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.44 | < 0.005 | 5.54 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.322 | < 0.01 | 0.16 | < 0.01 | 16.1 | < 0.01 | < 0.005 | < 0.01 |
| 693220 | < 2 | 23 | 17 | 0.14 | < 0.01 | < 0.001 | 0.05 | 0.012 | 0.45 | < 0.005 | 6.27 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.299 | < 0.01 | 0.14 | < 0.01 | 15.1 | < 0.01 | < 0.005 | 0.01 |
| 693221 | < 2 | 14 | 9 | 0.17 | < 0.01 | < 0.001 | 0.06 | 0.010 | 0.43 | < 0.005 | 5.77 | < 0.1 | < 0.01 | 24.4 | 0.10 | 0.225 | < 0.01 | 0.12 | < 0.01 | 16.0 | < 0.01 | < 0.005 | < 0.01 |
| 693222 | < 2 | 16 | 17 | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.45 | < 0.005 | 6.50 | < 0.1 | < 0.01 | 24.6 | 0.10 | 0.258 | < 0.01 | 0.12 | < 0.01 | 15.6 | < 0.01 | < 0.005 | < 0.01 |
| 693223 | < 2 | 17 | 17 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.49 | < 0.005 | 7.23 | < 0.1 | < 0.01 | 24.9 | 0.12 | 0.253 | < 0.01 | 0.09 | < 0.01 | 15.5 | < 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 693224 | < 2 | 17 | 9 | 0.16 | < 0.01 | < 0.001 | 0.08 | 0.010 | 0.37 | < 0.005 | 8.46 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.237 | < 0.01 | 0.09 | < 0.01 | 15.1 | < 0.01 | < 0.005 | < 0.01 |
| 693225 | 2 | 22 | 13 | 0.16 | < 0.01 | < 0.001 | 0.06 | 0.012 | 0.44 | < 0.005 | 5.79 | < 0.1 | < 0.01 | 24.9 | 0.09 | 0.281 | < 0.01 | 0.11 | < 0.01 | 15.8 | < 0.01 | < 0.005 | < 0.01 |
| 693226 | < 2 | 17 | 13 | 0.14 | < 0.01 | < 0.001 | 0.06 | 0.010 | 0.42 | < 0.005 | 6.89 | < 0.1 | < 0.01 | 25.2 | 0.09 | 0.245 | < 0.01 | 0.07 | < 0.01 | 15.6 | < 0.01 | < 0.005 | < 0.01 |
| 693227 | < 2 | 13 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.45 | < 0.005 | 6.60 | < 0.1 | < 0.01 | 27.0 | 0.09 | 0.274 | < 0.01 | 0.09 | < 0.01 | 17.5 | < 0.01 | < 0.005 | < 0.01 |
| 693228 | < 2 | 10 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.04 | 0.010 | 0.42 | 0.005 | 6.91 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.243 | < 0.01 | 0.09 | < 0.01 | 15.6 | < 0.01 | < 0.005 | < 0.01 |
| 693229 | < 2 | 15 | < 5 | 0.17 | < 0.01 | < 0.001 | 0.04 | 0.010 | 0.33 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 24.8 | 0.11 | 0.228 | < 0.01 | 0.07 | < 0.01 | 15.7 | < 0.01 | < 0.005 | < 0.01 |
| 693230 | < 2 | 7 | 14 | 0.26 | < 0.01 | < 0.001 | 0.07 | 0.009 | 0.28 | < 0.005 | 7.73 | < 0.1 | < 0.01 | 24.0 | 0.12 | 0.199 | < 0.01 | 0.08 | < 0.01 | 15.4 | < 0.01 | < 0.005 | < 0.01 |
| 693231 | < 2 | 27 | 22 | 0.19 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.31 | < 0.005 | 6.18 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.236 | < 0.01 | 0.08 | < 0.01 | 16.1 | 0.01 | < 0.005 | < 0.01 |
| 693232 | < 2 | 20 | 16 | 0.16 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.28 | < 0.005 | 6.16 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.257 | < 0.01 | 0.11 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 693233 | < 2 | 9 | < 5 | 0.18 | < 0.01 | < 0.001 | 0.05 | 0.010 | 0.29 | < 0.005 | 6.36 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.235 | < 0.01 | 0.06 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693234 | < 2 | 12 | 6 | 0.15 | < 0.01 | < 0.001 | 0.04 | 0.010 | 0.28 | < 0.005 | 6.56 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.252 | < 0.01 | 0.06 | < 0.01 | 15.9 | 0.01 | < 0.005 | < 0.01 |
| 693235 | < 2 | 16 | 15 | 0.16 | < 0.01 | < 0.001 | 0.04 | 0.010 | 0.30 | < 0.005 | 7.01 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.253 | < 0.01 | 0.06 | < 0.01 | 15.6 | 0.01 | < 0.005 | < 0.01 |
| 693236 | < 2 | 13 | 14 | 0.21 | < 0.01 | < 0.001 | < 0.01 | 0.010 | 0.29 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 23.9 | 0.10 | 0.242 | < 0.01 | 0.07 | < 0.01 | 15.2 | 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|---------------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| GBW 07113 Meas | | | | 6.73 | | | 0.44 | | | | 2.19 | 4.5 | | 0.09 | 0.10 | | | | | 34.1 | 0.18 | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | |
| GBW 07113 Meas | | | | 6.67 | | | 0.43 | | | | 2.15 | 4.4 | | 0.08 | 0.11 | | | | | 33.1 | 0.17 | | |
| GBW 07113 Cert | | | | 6.88 | | | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | 34.03 | 0.18 | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 24.3 | | | | | | 47.4 | 21.9 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | 22.4 | | | | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.03 | | 24.4 | | | | | | 47.4 | 22.8 | | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | 22.4 | | | | | | |
| CD-1 Meas | | | | | 0.68 | | | | | | | | | | | | | | | | 3.59 | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | 3.55 | | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | 3.57 | | |
| DTS-2b Meas | | | | | | | | 0.013 | 1.49 | < 0.005 | | | | 29.9 | 0.08 | 0.361 | < 0.01 | | | < 0.01 | 18.3 | | < 0.01 |
| DTS-2b Cert | | | | | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | | 0.00006 00 | 18.4 | | 0.00450 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.128 | 13.3 | | | | | 3.19 | 7.06 | | | 14.8 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | 7.25 | | | 15.14 | | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.17 | 0.118 | 13.4 | | | | | 3.12 | 7.42 | | | 15.0 | | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | 7.25 | | | 15.14 | | | |
| MP-1b Meas | | | | | 2.25 | | 2.38 | | | 3.17 | 7.89 | | | 0.02 | | | 2.05 | 13.5 | | | 16.5 | 0.104 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | < 0.01 | < 0.001 | | < 0.002 | < 0.01 | < 0.005 | | | < 0.01 | | 0.01 | < 0.005 | < 0.01 | 0.08 | < 0.01 | 42.3 | 0.16 | < 0.005 | < 0.01 |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | 0.09 | | | 42.24 | 0.16 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.1 | | | | 0.27 | | | | | | | 13.4 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| AMIS 0129 Meas | | | | | | | | | | | 43.6 | | | | 0.29 | | | | | | | 13.7 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| OREAS 13b (fusion) Meas | | | | 8.33 | | | 5.44 | | 1.05 | | 8.24 | 2.3 | | 2.93 | 0.13 | | | 1.18 | | | 23.2 | 0.72 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| OREAS 13b (fusion) Meas | | | | 8.31 | | | 5.45 | | 1.05 | | 8.17 | 2.3 | | 2.88 | 0.13 | | | 1.18 | | | 22.2 | 0.71 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| NCS DC86314 | | | | | | | | | | | | | 1.81 | | | | | | | | | 0.009 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|---------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Meas | | | | | | | | | | | | | | | | | | | | | | | |
| NCS DC86314 Cert | | | | | | | | | | | | 1.81 | | | | | | | | | | | |
| PK2 Meas | 4420 | 5350 | 4540 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5660 | 4640 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4670 | 5710 | 4580 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4950 | 6160 | 4930 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.15 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.36 | | | | 0.002 | < 0.01 | 0.224 | 5.53 | 2.5 | < 0.01 | 1.55 | 0.07 | 0.013 | < 0.01 | 0.35 | | | 30.1 | 0.44 | 0.02 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.0043 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.21 | | | | 0.002 | < 0.01 | 0.219 | 5.63 | 2.5 | < 0.01 | 1.53 | 0.09 | < 0.005 | < 0.01 | 0.38 | | | 30.1 | 0.44 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| CCU-1e Meas | | | | 0.14 | 0.11 | | | 0.032 | | 23.0 | 30.9 | | | 0.72 | < 0.01 | | 0.70 | 35.2 | 0.01 | | | | 2.94 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.030 | | 23.2 | 30.9 | | | 0.70 | 0.01 | | 0.71 | 36.2 | 0.01 | | | | 3.01 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CDN-PGMS-28 Meas | 184 | 1700 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 171 | 1610 | 1370 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 693192 Orig | | | | 0.24 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.61 | < 0.005 | 6.73 | < 0.1 | < 0.01 | 24.2 | 0.09 | 0.337 | < 0.01 | 0.09 | < 0.01 | 16.0 | 0.01 | < 0.005 | < 0.01 |
| 693192 Dup | | | | 0.25 | < 0.01 | < 0.001 | 0.08 | 0.014 | 0.64 | < 0.005 | 6.82 | < 0.1 | < 0.01 | 24.4 | 0.09 | 0.335 | < 0.01 | 0.09 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693202 Orig | < 2 | 20 | 14 | 0.23 | < 0.01 | < 0.001 | 0.05 | 0.013 | 0.45 | 0.055 | 7.35 | < 0.1 | < 0.01 | 24.6 | 0.11 | 0.308 | < 0.01 | 0.12 | < 0.01 | 15.5 | 0.01 | < 0.005 | < 0.01 |
| 693202 Dup | < 2 | 18 | 10 | 0.23 | < 0.01 | < 0.001 | 0.08 | 0.013 | 0.44 | 0.057 | 7.28 | < 0.1 | < 0.01 | 24.2 | 0.11 | 0.307 | < 0.01 | 0.14 | < 0.01 | 15.6 | 0.01 | < 0.005 | 0.01 |
| 693207 Orig | < 2 | 20 | 9 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|--------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 693207 Dup | < 2 | 20 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693212 Orig | < 2 | 37 | 18 | | | | | | | | | | | | | | | | | | | | |
| 693212 Dup | < 2 | 37 | 24 | | | | | | | | | | | | | | | | | | | | |
| 693216 Orig | | | | 0.12 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.23 | < 0.005 | 7.64 | < 0.1 | < 0.01 | 24.1 | 0.09 | 0.304 | < 0.01 | 0.12 | < 0.01 | 15.4 | < 0.01 | < 0.005 | < 0.01 |
| 693216 Dup | | | | 0.12 | < 0.01 | < 0.001 | 0.06 | 0.013 | 0.23 | < 0.005 | 7.70 | < 0.1 | < 0.01 | 24.5 | 0.09 | 0.307 | < 0.01 | 0.13 | < 0.01 | 15.7 | < 0.01 | < 0.005 | < 0.01 |
| 693222 Orig | | | | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.47 | < 0.005 | 6.52 | < 0.1 | < 0.01 | 24.7 | 0.10 | 0.261 | < 0.01 | 0.12 | < 0.01 | 15.3 | < 0.01 | < 0.005 | < 0.01 |
| 693222 Dup | | | | 0.15 | < 0.01 | < 0.001 | 0.05 | 0.011 | 0.44 | < 0.005 | 6.48 | < 0.1 | < 0.01 | 24.5 | 0.10 | 0.255 | < 0.01 | 0.13 | < 0.01 | 15.8 | < 0.01 | < 0.005 | < 0.01 |
| 693227 Orig | < 2 | 14 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 693227 Dup | < 2 | 12 | 6 | | | | | | | | | | | | | | | | | | | | |
| 693232 Split PREP DUP | < 2 | 20 | 19 | 0.15 | < 0.01 | < 0.001 | 0.04 | 0.011 | 0.27 | < 0.005 | 6.15 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.257 | < 0.01 | 0.10 | < 0.01 | 15.2 | < 0.01 | < 0.005 | < 0.01 |
| 693232 Orig | < 2 | 20 | 16 | 0.16 | < 0.01 | < 0.001 | 0.07 | 0.011 | 0.28 | < 0.005 | 6.16 | < 0.1 | < 0.01 | 24.3 | 0.10 | 0.257 | < 0.01 | 0.11 | < 0.01 | 15.9 | < 0.01 | < 0.005 | < 0.01 |
| 693236 Orig | < 2 | 12 | 16 | | | | | | | | | | | | | | | | | | | | |
| 693236 Dup | < 2 | 13 | 11 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.05 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | < 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |



Date Submitted: 18-Dec-18
Invoice No.: A18-19339
Invoice Date: 31-Jan-19
Your Reference: December 18/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

78 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Timmins Fire Assay ICPOES.

REPORT **A18-19339**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized with a large, sweeping 'E' and 'S'.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1 888 228 5227 FAX +1 905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 18-Dec-18
Invoice No.: A18-19339
Invoice Date: 31-Jan-19
Your Reference: December 18/18

Spruce Ridge Resources
7735 Leslie Road West
Puslinch ON N0B 2J0
Canada

ATTN: John Ryan

CERTIFICATE OF ANALYSIS

78 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 8-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A18-19339**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Biltm Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1 888 228 5227 FAX +1 905 648 9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-19339

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701351 | 4 | 9 | 17 | 0.84 | < 0.01 | < 0.001 | 1.21 | 0.012 | 0.43 | < 0.005 | 7.24 | < 0.1 | < 0.01 | 18.4 | 0.10 | 0.150 | < 0.01 | < 0.01 | < 0.01 | 14.1 | 0.06 | < 0.005 | < 0.01 |
| 701352 | 2 | 40 | 33 | 0.67 | < 0.01 | < 0.001 | 0.95 | 0.012 | 0.41 | < 0.005 | 7.60 | < 0.1 | < 0.01 | 18.3 | 0.11 | 0.136 | < 0.01 | < 0.01 | < 0.01 | 13.8 | 0.04 | < 0.005 | < 0.01 |
| 701353 | < 2 | < 5 | < 5 | 1.01 | < 0.01 | < 0.001 | 2.43 | 0.011 | 0.39 | < 0.005 | 6.96 | < 0.1 | < 0.01 | 18.0 | 0.11 | 0.131 | < 0.01 | 0.01 | < 0.01 | 13.9 | 0.16 | < 0.005 | < 0.01 |
| 701354 | < 2 | < 5 | 13 | 1.00 | < 0.01 | < 0.001 | 1.54 | 0.011 | 0.47 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 18.4 | 0.11 | 0.138 | < 0.01 | 0.02 | < 0.01 | 14.6 | 0.14 | < 0.005 | < 0.01 |
| 701355 | < 2 | 186 | 109 | 0.57 | < 0.01 | < 0.001 | 1.00 | 0.012 | 0.47 | < 0.005 | 7.43 | < 0.1 | < 0.01 | 18.8 | 0.11 | 0.175 | < 0.01 | 0.02 | < 0.01 | 13.4 | 0.03 | < 0.005 | < 0.01 |
| 701356 | 2 | 5 | 16 | 0.73 | < 0.01 | < 0.001 | 3.49 | 0.013 | 0.49 | < 0.005 | 7.44 | < 0.1 | < 0.01 | 18.0 | 0.11 | 0.174 | < 0.01 | 0.02 | < 0.01 | 14.8 | 0.05 | < 0.005 | < 0.01 |
| 701357 | < 2 | 7 | 18 | 0.62 | < 0.01 | < 0.001 | 1.39 | 0.013 | 0.48 | < 0.005 | 7.90 | < 0.1 | < 0.01 | 19.9 | 0.11 | 0.169 | < 0.01 | 0.01 | < 0.01 | 15.1 | 0.04 | < 0.005 | < 0.01 |
| 701358 | < 2 | < 5 | 9 | 0.70 | < 0.01 | < 0.001 | 1.42 | 0.013 | 0.46 | < 0.005 | 7.21 | < 0.1 | < 0.01 | 19.8 | 0.09 | 0.159 | < 0.01 | < 0.01 | < 0.01 | 15.2 | 0.04 | < 0.005 | < 0.01 |
| 701359 | < 2 | < 5 | < 5 | 0.62 | < 0.01 | < 0.001 | 0.94 | 0.013 | 0.46 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 20.9 | 0.10 | 0.169 | < 0.01 | 0.02 | < 0.01 | 15.0 | 0.04 | < 0.005 | < 0.01 |
| 701360 | < 2 | < 5 | 7 | 0.66 | < 0.01 | < 0.001 | 0.89 | 0.013 | 0.53 | < 0.005 | 6.61 | < 0.1 | < 0.01 | 22.2 | 0.11 | 0.188 | < 0.01 | 0.02 | < 0.01 | 15.9 | 0.04 | < 0.005 | < 0.01 |
| 701361 | 3 | 7 | 9 | 0.58 | < 0.01 | < 0.001 | 1.74 | 0.013 | 0.51 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 20.0 | 0.10 | 0.173 | < 0.01 | < 0.01 | < 0.01 | 14.6 | 0.03 | < 0.005 | < 0.01 |
| 701362 | < 2 | 6 | 5 | 0.53 | < 0.01 | < 0.001 | 1.15 | 0.012 | 0.49 | 0.007 | 6.47 | < 0.1 | < 0.01 | 19.9 | 0.11 | 0.173 | < 0.01 | 0.02 | < 0.01 | 13.8 | 0.03 | < 0.005 | < 0.01 |
| 701363 | < 2 | 8 | 8 | 0.54 | < 0.01 | < 0.001 | 1.39 | 0.014 | 0.49 | 0.017 | 6.84 | < 0.1 | < 0.01 | 19.3 | 0.10 | 0.178 | < 0.01 | 0.03 | < 0.01 | 13.7 | 0.03 | < 0.005 | < 0.01 |
| 701364 | < 2 | < 5 | < 5 | 0.60 | < 0.01 | < 0.001 | 1.48 | 0.012 | 0.50 | 0.006 | 6.33 | < 0.1 | < 0.01 | 19.3 | 0.10 | 0.172 | < 0.01 | < 0.01 | < 0.01 | 14.6 | 0.03 | < 0.005 | < 0.01 |
| 701365 | < 2 | 6 | 15 | 0.50 | < 0.01 | < 0.001 | 1.33 | 0.011 | 0.51 | < 0.005 | 6.20 | < 0.1 | < 0.01 | 20.1 | 0.11 | 0.183 | < 0.01 | 0.02 | < 0.01 | 14.0 | 0.03 | < 0.005 | < 0.01 |
| 701366 | 9 | 11 | < 5 | 0.69 | < 0.01 | < 0.001 | 0.99 | 0.039 | 0.51 | 0.134 | 7.12 | < 0.1 | < 0.01 | 19.1 | 0.08 | 0.350 | < 0.01 | 0.29 | < 0.01 | 14.7 | 0.03 | < 0.005 | < 0.01 |
| 701367 | < 2 | < 5 | < 5 | 0.52 | < 0.01 | < 0.001 | 0.72 | 0.012 | 0.50 | 0.008 | 6.64 | < 0.1 | < 0.01 | 20.3 | 0.11 | 0.166 | < 0.01 | 0.01 | < 0.01 | 14.7 | 0.03 | < 0.005 | < 0.01 |
| 701368 | 9 | 9 | 22 | 0.54 | < 0.01 | < 0.001 | 0.55 | 0.012 | 0.52 | < 0.005 | 6.44 | < 0.1 | < 0.01 | 19.9 | 0.10 | 0.171 | < 0.01 | < 0.01 | < 0.01 | 13.8 | 0.03 | < 0.005 | < 0.01 |
| 701369 | 33 | < 5 | < 5 | 0.70 | < 0.01 | < 0.001 | 0.81 | 0.013 | 0.52 | < 0.005 | 6.34 | < 0.1 | < 0.01 | 20.1 | 0.11 | 0.173 | < 0.01 | 0.02 | < 0.01 | 14.3 | 0.04 | < 0.005 | < 0.01 |
| 701370 | < 2 | < 5 | 12 | 0.52 | < 0.01 | < 0.001 | 0.36 | 0.012 | 0.55 | < 0.005 | 6.65 | < 0.1 | < 0.01 | 21.2 | 0.11 | 0.182 | < 0.01 | 0.01 | < 0.01 | 14.6 | 0.03 | < 0.005 | < 0.01 |
| 701371 | < 2 | < 5 | < 5 | 0.58 | < 0.01 | < 0.001 | 0.73 | 0.013 | 0.54 | < 0.005 | 6.92 | < 0.1 | < 0.01 | 21.0 | 0.11 | 0.186 | < 0.01 | 0.04 | < 0.01 | 14.3 | 0.03 | < 0.005 | < 0.01 |
| 701372 | < 2 | < 5 | < 5 | 0.56 | < 0.01 | < 0.001 | 0.70 | 0.012 | 0.51 | < 0.005 | 6.76 | < 0.1 | < 0.01 | 20.4 | 0.09 | 0.173 | < 0.01 | 0.02 | < 0.01 | 14.4 | 0.03 | < 0.005 | < 0.01 |
| 701373 | 2 | < 5 | 6 | 0.50 | < 0.01 | < 0.001 | 0.41 | 0.012 | 0.55 | < 0.005 | 6.18 | < 0.1 | < 0.01 | 20.8 | 0.11 | 0.187 | < 0.01 | < 0.01 | < 0.01 | 14.6 | 0.03 | < 0.005 | < 0.01 |
| 701374 | < 2 | 8 | 12 | 0.56 | < 0.01 | < 0.001 | 0.76 | 0.012 | 0.50 | < 0.005 | 6.60 | < 0.1 | < 0.01 | 20.0 | 0.09 | 0.169 | < 0.01 | 0.01 | < 0.01 | 13.9 | 0.04 | < 0.005 | < 0.01 |
| 701375 | < 2 | < 5 | < 5 | 1.08 | < 0.01 | < 0.001 | 2.50 | 0.011 | 0.51 | < 0.005 | 6.62 | < 0.1 | < 0.01 | 18.7 | 0.09 | 0.165 | < 0.01 | 0.03 | < 0.01 | 14.5 | 0.06 | < 0.005 | < 0.01 |
| 701376 | < 2 | < 5 | 8 | 1.50 | < 0.01 | < 0.001 | 2.70 | 0.011 | 0.47 | < 0.005 | 6.59 | < 0.1 | < 0.01 | 17.3 | 0.10 | 0.155 | < 0.01 | 0.01 | < 0.01 | 16.0 | 0.09 | < 0.005 | < 0.01 |
| 701377 | 4 | 13 | 12 | 1.48 | < 0.01 | < 0.001 | 2.51 | 0.011 | 0.46 | < 0.005 | 6.83 | < 0.1 | < 0.01 | 18.1 | 0.10 | 0.156 | < 0.01 | 0.03 | < 0.01 | 16.5 | 0.09 | < 0.005 | < 0.01 |
| 701378 | < 2 | < 5 | 8 | 0.91 | < 0.01 | < 0.001 | 1.09 | 0.011 | 0.52 | < 0.005 | 6.29 | < 0.1 | < 0.01 | 19.6 | 0.10 | 0.170 | < 0.01 | 0.02 | < 0.01 | 14.6 | 0.05 | < 0.005 | < 0.01 |
| 701379 | < 2 | 9 | < 5 | 0.70 | < 0.01 | < 0.001 | 0.63 | 0.012 | 0.53 | < 0.005 | 6.04 | < 0.1 | < 0.01 | 20.4 | 0.09 | 0.184 | < 0.01 | 0.02 | < 0.01 | 14.8 | 0.04 | < 0.005 | < 0.01 |
| 701380 | 5 | 11 | 13 | 0.69 | < 0.01 | < 0.001 | 0.39 | 0.012 | 0.54 | < 0.005 | 6.59 | < 0.1 | < 0.01 | 20.1 | 0.09 | 0.182 | < 0.01 | 0.01 | < 0.01 | 14.8 | 0.04 | < 0.005 | < 0.01 |
| 701381 | < 2 | 17 | 12 | 0.74 | < 0.01 | < 0.001 | 0.67 | 0.012 | 0.54 | < 0.005 | 6.61 | < 0.1 | < 0.01 | 19.8 | 0.08 | 0.181 | < 0.01 | 0.02 | < 0.01 | 15.5 | 0.04 | < 0.005 | < 0.01 |
| 701382 | < 2 | < 5 | < 5 | 0.92 | < 0.01 | < 0.001 | 1.26 | 0.012 | 0.51 | < 0.005 | 6.50 | < 0.1 | < 0.01 | 19.8 | 0.09 | 0.172 | < 0.01 | 0.01 | < 0.01 | 15.3 | 0.05 | < 0.005 | < 0.01 |
| 701383 | < 2 | 9 | < 5 | 2.20 | < 0.01 | < 0.001 | 5.77 | 0.009 | 0.37 | < 0.005 | 6.70 | 0.3 | < 0.01 | 15.4 | 0.11 | 0.125 | < 0.01 | < 0.01 | < 0.01 | 15.4 | 0.14 | < 0.005 | < 0.01 |
| 701384 | < 2 | < 5 | < 5 | 2.03 | < 0.01 | < 0.001 | 4.84 | 0.011 | 0.41 | < 0.005 | 6.50 | < 0.1 | < 0.01 | 16.0 | 0.10 | 0.134 | < 0.01 | < 0.01 | < 0.01 | 16.3 | 0.12 | < 0.005 | < 0.01 |
| 701385 | < 2 | < 5 | 10 | 1.54 | < 0.01 | < 0.001 | 3.98 | 0.011 | 0.47 | < 0.005 | 6.77 | < 0.1 | < 0.01 | 17.4 | 0.09 | 0.156 | < 0.01 | < 0.01 | < 0.01 | 15.7 | 0.09 | < 0.005 | < 0.01 |
| 701386 | < 2 | < 5 | 8 | 1.48 | < 0.01 | < 0.001 | 3.63 | 0.011 | 0.46 | < 0.005 | 7.07 | < 0.1 | < 0.01 | 17.9 | 0.09 | 0.152 | < 0.01 | < 0.01 | < 0.01 | 15.5 | 0.08 | < 0.005 | < 0.01 |
| 701387 | < 2 | < 5 | < 5 | 1.43 | < 0.01 | < 0.001 | 3.04 | 0.011 | 0.46 | < 0.005 | 7.11 | < 0.1 | < 0.01 | 17.7 | 0.10 | 0.155 | < 0.01 | < 0.01 | < 0.01 | 15.5 | 0.08 | < 0.005 | < 0.01 |
| 701388 | 9 | < 5 | < 5 | 1.08 | < 0.01 | < 0.001 | 2.58 | 0.011 | 0.47 | < 0.005 | 6.71 | < 0.1 | < 0.01 | 18.5 | 0.10 | 0.157 | < 0.01 | < 0.01 | < 0.01 | 14.5 | 0.06 | < 0.005 | < 0.01 |
| 701389 | 3 | 126 | 16 | 0.90 | < 0.01 | < 0.001 | 1.10 | 0.011 | 0.53 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 20.1 | 0.10 | 0.177 | < 0.01 | < 0.01 | < 0.01 | 15.3 | 0.05 | < 0.005 | < 0.01 |
| 701390 | 30 | 49 | 17 | 0.87 | < 0.01 | < 0.001 | 1.05 | 0.012 | 0.56 | < 0.005 | 6.75 | < 0.1 | < 0.01 | 20.4 | 0.13 | 0.184 | < 0.01 | < 0.01 | < 0.01 | 15.2 | 0.05 | < 0.005 | < 0.01 |
| 701391 | < 2 | < 5 | 11 | 0.84 | < 0.01 | < 0.001 | 0.77 | 0.012 | 0.55 | < 0.005 | 6.63 | < 0.1 | < 0.01 | 20.3 | 0.11 | 0.179 | < 0.01 | 0.01 | < 0.01 | 15.2 | 0.05 | < 0.005 | < 0.01 |

Results

Activation Laboratories Ltd.

Report: A18-19339

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| 701392 | 2 | < 5 | < 5 | 0.75 | < 0.01 | < 0.001 | 0.73 | 0.012 | 0.53 | < 0.005 | 6.88 | < 0.1 | < 0.01 | 19.8 | 0.09 | 0.173 | < 0.01 | < 0.01 | < 0.01 | 14.8 | 0.04 | < 0.005 | < 0.01 |
| 701393 | < 2 | 8 | 6 | 0.76 | < 0.01 | < 0.001 | 0.75 | 0.012 | 0.54 | < 0.005 | 6.45 | < 0.1 | < 0.01 | 20.0 | 0.11 | 0.177 | < 0.01 | < 0.01 | < 0.01 | 15.0 | 0.04 | < 0.005 | < 0.01 |
| 701394 | 7 | 6 | 5 | 0.75 | < 0.01 | < 0.001 | 0.82 | 0.012 | 0.52 | < 0.005 | 7.14 | < 0.1 | < 0.01 | 20.5 | 0.09 | 0.182 | 0.01 | < 0.01 | < 0.01 | 14.7 | 0.04 | < 0.005 | < 0.01 |
| 701395 | 6 | 570 | 69 | 0.71 | < 0.01 | < 0.001 | 0.69 | 0.012 | 0.51 | < 0.005 | 6.73 | 0.2 | < 0.01 | 20.0 | 0.09 | 0.182 | < 0.01 | < 0.01 | < 0.01 | 14.3 | 0.04 | < 0.005 | < 0.01 |
| 701396 | < 2 | 7 | < 5 | 0.70 | < 0.01 | < 0.001 | 0.68 | 0.012 | 0.55 | < 0.005 | 6.47 | 0.4 | < 0.01 | 20.8 | 0.10 | 0.195 | 0.01 | 0.02 | < 0.01 | 15.0 | 0.04 | < 0.005 | < 0.01 |
| 701397 | < 2 | 7 | 7 | 0.69 | < 0.01 | < 0.001 | 0.65 | 0.011 | 0.54 | < 0.005 | 6.67 | 0.5 | < 0.01 | 20.5 | 0.11 | 0.184 | < 0.01 | 0.01 | < 0.01 | 14.9 | 0.04 | < 0.005 | < 0.01 |
| 701398 | < 2 | 23 | 12 | 0.65 | < 0.01 | < 0.001 | 0.63 | 0.011 | 0.54 | < 0.005 | 6.61 | 0.4 | < 0.01 | 20.1 | 0.10 | 0.191 | 0.01 | < 0.01 | < 0.01 | 14.4 | 0.04 | < 0.005 | < 0.01 |
| 701399 | < 2 | 40 | 13 | 0.63 | < 0.01 | < 0.001 | 0.48 | 0.012 | 0.53 | < 0.005 | 6.34 | 0.5 | < 0.01 | 20.3 | 0.09 | 0.184 | < 0.01 | < 0.01 | < 0.01 | 14.9 | 0.04 | < 0.005 | < 0.01 |
| 701400 | < 2 | < 5 | < 5 | 0.57 | < 0.01 | < 0.001 | 0.55 | 0.012 | 0.54 | < 0.005 | 6.33 | 0.3 | < 0.01 | 21.3 | 0.10 | 0.187 | 0.01 | 0.01 | < 0.01 | 14.8 | 0.03 | < 0.005 | < 0.01 |
| 701401 | 3 | 9 | 8 | 0.57 | < 0.01 | < 0.001 | 0.50 | 0.012 | 0.55 | < 0.005 | 6.28 | 0.2 | < 0.01 | 21.0 | 0.09 | 0.187 | < 0.01 | < 0.01 | < 0.01 | 15.0 | 0.03 | < 0.005 | < 0.01 |
| 701402 | < 2 | 11 | 7 | 0.53 | < 0.01 | < 0.001 | 1.18 | 0.012 | 0.54 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 21.5 | 0.12 | 0.194 | < 0.01 | < 0.01 | < 0.01 | 15.2 | 0.03 | < 0.005 | < 0.01 |
| 701403 | < 2 | < 5 | < 5 | 0.47 | < 0.01 | < 0.001 | 0.85 | 0.012 | 0.51 | < 0.005 | 6.39 | 0.2 | < 0.01 | 20.0 | 0.12 | 0.179 | 0.01 | 0.03 | < 0.01 | 13.9 | 0.03 | < 0.005 | < 0.01 |
| 701404 | < 2 | 9 | 6 | 0.54 | < 0.01 | < 0.001 | 0.72 | 0.011 | 0.50 | < 0.005 | 5.91 | 0.1 | < 0.01 | 20.4 | 0.10 | 0.184 | 0.01 | 0.03 | < 0.01 | 14.4 | 0.03 | < 0.005 | < 0.01 |
| 701405 | < 2 | < 5 | 6 | 0.48 | < 0.01 | < 0.001 | 0.61 | 0.011 | 0.49 | < 0.005 | 6.61 | 0.3 | < 0.01 | 20.3 | 0.08 | 0.177 | < 0.01 | 0.08 | < 0.01 | 14.0 | 0.03 | < 0.005 | < 0.01 |
| 701406 | < 2 | 13 | 10 | 0.51 | < 0.01 | < 0.001 | 0.30 | 0.012 | 0.51 | < 0.005 | 5.90 | 0.4 | < 0.01 | 20.4 | 0.09 | 0.179 | < 0.01 | 0.04 | < 0.01 | 14.7 | 0.03 | < 0.005 | < 0.01 |
| 701407 | < 2 | < 5 | 6 | 0.46 | < 0.01 | < 0.001 | 0.46 | 0.012 | 0.51 | < 0.005 | 6.69 | 0.1 | < 0.01 | 21.2 | 0.13 | 0.185 | < 0.01 | 0.07 | < 0.01 | 14.4 | 0.03 | < 0.005 | < 0.01 |
| 701408 | < 2 | 6 | 16 | 0.48 | < 0.01 | < 0.001 | 0.75 | 0.012 | 0.52 | < 0.005 | 6.54 | < 0.1 | < 0.01 | 21.3 | 0.12 | 0.186 | 0.01 | 0.09 | < 0.01 | 15.1 | 0.03 | < 0.005 | < 0.01 |
| 701409 | < 2 | 14 | 13 | 0.46 | < 0.01 | < 0.001 | 0.46 | 0.013 | 0.47 | < 0.005 | 7.96 | < 0.1 | < 0.01 | 20.4 | 0.11 | 0.179 | < 0.01 | 0.16 | < 0.01 | 13.4 | 0.03 | < 0.005 | < 0.01 |
| 701410 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.56 | 0.012 | 0.50 | < 0.005 | 6.41 | < 0.1 | < 0.01 | 20.6 | 0.11 | 0.180 | 0.01 | 0.12 | < 0.01 | 14.1 | 0.03 | < 0.005 | < 0.01 |
| 701411 | < 2 | < 5 | 7 | 0.52 | < 0.01 | < 0.001 | 0.99 | 0.012 | 0.51 | < 0.005 | 6.75 | < 0.1 | < 0.01 | 21.3 | 0.10 | 0.180 | < 0.01 | 0.13 | < 0.01 | 14.7 | 0.03 | < 0.005 | < 0.01 |
| 701412 | < 2 | < 5 | < 5 | 0.50 | < 0.01 | < 0.001 | 0.86 | 0.012 | 0.50 | < 0.005 | 6.15 | < 0.1 | < 0.01 | 21.1 | 0.10 | 0.179 | < 0.01 | 0.19 | < 0.01 | 14.4 | 0.03 | < 0.005 | < 0.01 |
| 701413 | < 2 | < 5 | < 5 | 0.51 | < 0.01 | < 0.001 | 1.70 | 0.013 | 0.53 | < 0.005 | 6.61 | < 0.1 | < 0.01 | 21.9 | 0.11 | 0.190 | < 0.01 | 0.12 | < 0.01 | 15.5 | 0.03 | < 0.005 | < 0.01 |
| 701414 | < 2 | 6 | 23 | 0.51 | < 0.01 | < 0.001 | 1.41 | 0.014 | 0.57 | < 0.005 | 6.94 | < 0.1 | < 0.01 | 22.7 | 0.12 | 0.208 | < 0.01 | 0.12 | < 0.01 | 15.8 | 0.03 | < 0.005 | < 0.01 |
| 701415 | < 2 | < 5 | < 5 | 0.55 | < 0.01 | < 0.001 | 2.42 | 0.013 | 0.56 | < 0.005 | 6.87 | < 0.1 | < 0.01 | 21.6 | 0.11 | 0.192 | < 0.01 | 0.13 | < 0.01 | 15.4 | 0.03 | < 0.005 | < 0.01 |
| 701416 | < 2 | < 5 | < 5 | 0.51 | < 0.01 | < 0.001 | 1.79 | 0.014 | 0.58 | < 0.005 | 6.71 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.203 | < 0.01 | 0.12 | < 0.01 | 15.8 | 0.03 | < 0.005 | < 0.01 |
| 701417 | < 2 | 6 | 7 | 0.49 | < 0.01 | < 0.001 | 2.53 | 0.012 | 0.53 | < 0.005 | 6.82 | < 0.1 | < 0.01 | 22.0 | 0.12 | 0.195 | 0.01 | 0.13 | < 0.01 | 15.0 | 0.03 | < 0.005 | < 0.01 |
| 701418 | 32 | 8 | 12 | 0.57 | < 0.01 | < 0.001 | 2.25 | 0.014 | 0.62 | < 0.005 | 7.61 | < 0.1 | < 0.01 | 23.3 | 0.11 | 0.210 | < 0.01 | 0.15 | < 0.01 | 16.6 | 0.03 | 0.006 | < 0.01 |
| 701419 | < 2 | < 5 | < 5 | 0.65 | < 0.01 | < 0.001 | 1.43 | 0.013 | 0.62 | < 0.005 | 7.29 | < 0.1 | < 0.01 | 22.7 | 0.10 | 0.196 | 0.01 | 0.14 | < 0.01 | 16.1 | 0.04 | < 0.005 | < 0.01 |
| 701420 | < 2 | 7 | 11 | 0.47 | < 0.01 | < 0.001 | 1.69 | 0.012 | 0.48 | < 0.005 | 7.50 | < 0.1 | < 0.01 | 21.6 | 0.10 | 0.191 | 0.01 | 0.15 | < 0.01 | 15.1 | 0.03 | < 0.005 | < 0.01 |
| 701421 | < 2 | 24 | 14 | 0.42 | < 0.01 | < 0.001 | 0.59 | 0.011 | 0.44 | 0.006 | 6.22 | < 0.1 | < 0.01 | 23.2 | 0.11 | 0.182 | 0.01 | 0.30 | < 0.01 | 15.2 | 0.02 | < 0.005 | < 0.01 |
| 701422 | < 2 | 63 | 24 | 0.53 | < 0.01 | < 0.001 | 0.20 | 0.018 | 0.73 | < 0.005 | 7.96 | < 0.1 | < 0.01 | 25.0 | 0.10 | 0.352 | < 0.01 | 0.28 | < 0.01 | 17.5 | 0.03 | < 0.005 | 0.01 |
| 701423 | < 2 | 44 | 16 | 0.37 | < 0.01 | < 0.001 | 0.15 | 0.016 | 0.66 | < 0.005 | 7.20 | < 0.1 | < 0.01 | 23.6 | 0.08 | 0.286 | 0.01 | 0.22 | < 0.01 | 16.0 | 0.02 | < 0.005 | 0.01 |
| 701424 | < 2 | 60 | 23 | 0.44 | < 0.01 | < 0.001 | 1.25 | 0.018 | 0.71 | 0.032 | 7.10 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.449 | < 0.01 | 0.42 | < 0.01 | 15.1 | 0.02 | < 0.005 | 0.01 |
| 701425 | < 2 | 85 | 74 | 0.43 | < 0.01 | < 0.001 | 1.53 | 0.018 | 0.67 | 0.039 | 6.81 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.452 | < 0.01 | 0.45 | < 0.01 | 15.5 | 0.02 | < 0.005 | 0.01 |
| 701426 | < 2 | 70 | 23 | 0.40 | < 0.01 | < 0.001 | 0.11 | 0.023 | 0.70 | 0.029 | 8.25 | < 0.1 | < 0.01 | 23.0 | 0.09 | 0.560 | < 0.01 | 0.58 | < 0.01 | 16.1 | 0.02 | < 0.005 | 0.01 |
| 701427 | < 2 | 84 | 24 | 0.37 | < 0.01 | < 0.001 | 0.08 | 0.023 | 0.75 | 0.042 | 7.88 | < 0.1 | < 0.01 | 23.1 | 0.08 | 0.578 | < 0.01 | 0.57 | < 0.01 | 15.9 | 0.02 | < 0.005 | 0.01 |
| 701428 | < 2 | 80 | 26 | 0.44 | < 0.01 | < 0.001 | 0.08 | 0.023 | 0.69 | 0.035 | 8.20 | < 0.1 | < 0.01 | 22.9 | 0.10 | 0.533 | < 0.01 | 0.49 | < 0.01 | 15.7 | 0.03 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|------------------------------|--------|--------|--------|-----------|-----------|--------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|---------------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| GBW 07113 Meas | | | | 6.96 | | < 0.001 | 0.40 | | | | 2.26 | 4.7 | | 0.08 | 0.11 | | | | | | 34.9 | 0.18 | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | |
| GBW 07113 Meas | | | | 6.71 | | < 0.001 | 0.43 | | | | 2.25 | 4.4 | | 0.08 | 0.11 | | | | | | 34.1 | 0.17 | |
| GBW 07113 Cert | | | | 6.88 | | 0.00040 0 | 0.42 | | | | 2.24 | 4.51 | | 0.10 | 0.11 | | | | | | 34.03 | 0.18 | |
| PTM-1a Meas | | | | | 0.22 | | | 2.11 | | 24.2 | | | | | | 49.2 | | 23.1 | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | |
| PTM-1a Meas | | | | | 0.21 | | | 2.05 | | 25.0 | | | | | | 48.8 | | 23.2 | | | | | |
| PTM-1a Cert | | | | | 0.220 | | | 2.05 | | 24.96 | | | | | | 47.44 | | 22.4 | | | | | |
| CD-1 Meas | | | | | 0.66 | | | | | | | | | | | | | | | | | 3.57 | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | |
| CD-1 Meas | | | | | 0.69 | | | | | | | | | | | | | | | | | 3.56 | |
| CD-1 Cert | | | | | 0.660 | | | | | | | | | | | | | | | | | 3.57 | |
| DTS-2b Meas | | | | | | | | 0.014 | 1.52 | < 0.005 | | | | 30.0 | 0.08 | 0.368 | < 0.01 | | < 0.01 | | 18.6 | | < 0.01 |
| DTS-2b Cert | | | | | | | | 0.0120 | 1.55 | 0.00030 0 | | | | 29.8 | 0.0830 | 0.378 | 0.00040 0 | | 0.00006 00 | | 18.4 | | 0.00450 |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.057 | 0.18 | 0.121 | 13.3 | | | | | 3.22 | | 7.61 | | | 15.1 | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | 0.124 | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | |
| Oreas 74a (Fusion) Meas | | | | | < 0.01 | | | 0.056 | 0.18 | | 13.6 | | | | | 3.22 | | 7.38 | | | 15.1 | | |
| Oreas 74a (Fusion) Cert | | | | | 0.005 | | | 0.058 | 0.18 | | 13.7 | | | | | 3.24 | | 7.25 | | | 15.14 | | |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.140 | 12.4 | | | | | | | 20.4 | 0.01 | | | | 17.9 |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 |
| OREAS 134b (Fusion) Meas | | | | | 0.02 | | | 0.011 | | 0.140 | 12.4 | | | | | | | 20.3 | < 0.01 | | | | 18.4 |
| OREAS 134b (Fusion) Cert | | | | | 0.02 | | | 0.010 | | 0.134 | 12.69 | | | | | | | 20.74 | 0.01 | | | | 18.12 |
| MP-1b Meas | | | | | 2.36 | | 2.55 | | | 2.98 | 8.14 | | | 0.02 | | | 2.09 | 13.8 | | | 16.8 | 0.113 | 16.7 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 |
| MP-1b Meas | | | | | 2.28 | | 2.47 | | | 2.98 | 8.18 | | | 0.02 | | | 2.03 | 13.8 | | | 16.7 | 0.111 | 16.2 |
| MP-1b Cert | | | | | 2.30 | | 2.47 | | | 3.07 | 8.19 | | | 0.024 | | | 2.09 | 13.79 | | | 16.79 | 0.110 | 16.7 |
| NCS DC73304 (GBW 07106) Meas | | | | | | | | | | | | | | | | | | | | | 40.8 | | |
| NCS DC73304 (GBW 07106) Cert | | | | | | | | | | | | | | | | | | | | | 42.24 | | |
| AMIS 0129 Meas | | | | | | | | | | | 43.7 | | | | 0.27 | | | | | | | 13.8 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------------------------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| AMIS 0129 Meas | | | | | | | | | | | 44.8 | | | | 0.27 | | | | | | | 13.6 | |
| AMIS 0129 Cert | | | | | | | | | | | 43.573 | | | | 0.28 | | | | | | | 13.75 | |
| OREAS 13b (fusion) Meas | | | | 8.45 | | | 5.61 | | 1.11 | | 8.24 | 2.3 | | 2.87 | 0.13 | | | 1.13 | | | 23.1 | 0.73 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| OREAS 13b (fusion) Meas | | | | 8.39 | | | 5.71 | | 1.10 | | 8.46 | 2.4 | | 3.03 | 0.13 | | | 1.19 | | | 23.2 | 0.72 | |
| OREAS 13b (fusion) Cert | | | | 8.41 | | | 5.57 | | 1.08 | | 8.41 | 2.30 | | 3.01 | 0.130 | | | 1.19 | | | 22.9 | 0.711 | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.008 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| NCS DC86314 Meas | | | | | | | | | | | | | 1.77 | | | | | | | | | | 0.007 |
| NCS DC86314 Cert | | | | | | | | | | | | | 1.81 | | | | | | | | | | |
| PK2 Meas | 4750 | 6080 | 4890 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4700 | 6010 | 5030 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| PK2 Meas | 4680 | 5940 | 4900 | | | | | | | | | | | | | | | | | | | | |
| PK2 Cert | 4785 | 5918 | 4749 | | | | | | | | | | | | | | | | | | | | |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.13 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Meas | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| W 106 Cert | | | | | | | | | | | | | | | | | | | | | | | 2.16 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.56 | | | | 0.002 | < 0.01 | 0.218 | 5.67 | 2.5 | < 0.01 | 1.55 | 0.09 | < 0.005 | < 0.01 | 0.37 | | | 30.8 | 0.44 | 0.02 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| OREAS 922 (Peroxide Fusion) Meas | | | | 7.62 | | | | 0.003 | < 0.01 | 0.216 | 5.77 | 2.6 | < 0.01 | 1.63 | 0.09 | 0.006 | < 0.01 | 0.38 | | | 31.3 | 0.45 | 0.03 |
| OREAS 922 (Peroxide Fusion) Cert | | | | 7.59 | | | | 0.002 | 0.009 | 0.222 | 5.71 | 2.60 | 0.003 | 1.61 | 0.09 | 0.004 | 0.006 | 0.389 | | | 30.51 | 0.439 | 0.03 |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.031 | | 23.3 | 30.7 | | | 0.69 | < 0.01 | | 0.71 | 35.7 | 0.01 | | | | 3.08 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CCU-1e Meas | | | | 0.13 | 0.10 | | | 0.031 | | 22.5 | 31.4 | | | 0.71 | < 0.01 | | 0.70 | 35.8 | < 0.01 | | | | 3.00 |
| CCU-1e Cert | | | | 0.139 | 0.101 | | | 0.0301 | | 22.9 | 30.7 | | | 0.706 | 0.00960 | | 0.703 | 35.3 | 0.0104 | | | | 3.02 |
| CDN-PGMS-28 | 162 | 1890 | 1670 | | | | | | | | | | | | | | | | | | | | |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|---------------------|---------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 | FUS-Na2O2 |
| Meas | | | | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Meas | 163 | 1700 | 1500 | | | | | | | | | | | | | | | | | | | | |
| CDN-PGMS-28 Cert | 193.000 | 1750 | 1510 | | | | | | | | | | | | | | | | | | | | |
| 701357 Orig | | | | 0.63 | < 0.01 | < 0.001 | 1.44 | 0.013 | 0.49 | < 0.005 | 8.17 | < 0.1 | < 0.01 | 20.4 | 0.11 | 0.171 | < 0.01 | 0.02 | < 0.01 | 15.3 | 0.04 | < 0.005 | < 0.01 |
| 701357 Dup | | | | 0.61 | < 0.01 | < 0.001 | 1.34 | 0.013 | 0.47 | < 0.005 | 7.64 | < 0.1 | < 0.01 | 19.4 | 0.10 | 0.166 | < 0.01 | 0.01 | < 0.01 | 15.0 | 0.04 | < 0.005 | < 0.01 |
| 701360 Orig | < 2 | < 5 | 8 | | | | | | | | | | | | | | | | | | | | |
| 701360 Dup | < 2 | < 5 | 6 | | | | | | | | | | | | | | | | | | | | |
| 701365 Orig | | | | 0.50 | < 0.01 | < 0.001 | 1.34 | 0.012 | 0.51 | < 0.005 | 6.19 | < 0.1 | < 0.01 | 20.0 | 0.11 | 0.182 | < 0.01 | 0.03 | < 0.01 | 13.9 | 0.03 | < 0.005 | < 0.01 |
| 701365 Dup | | | | 0.50 | < 0.01 | < 0.001 | 1.33 | 0.011 | 0.51 | < 0.005 | 6.20 | < 0.1 | < 0.01 | 20.1 | 0.11 | 0.184 | < 0.01 | 0.01 | < 0.01 | 14.0 | 0.03 | < 0.005 | < 0.01 |
| 701370 Orig | 7 | 6 | 11 | | | | | | | | | | | | | | | | | | | | |
| 701370 Dup | < 2 | < 5 | 14 | | | | | | | | | | | | | | | | | | | | |
| 701380 Orig | 2 | 9 | 18 | 0.69 | < 0.01 | < 0.001 | 0.38 | 0.011 | 0.54 | < 0.005 | 6.60 | < 0.1 | < 0.01 | 20.1 | 0.09 | 0.183 | < 0.01 | 0.01 | < 0.01 | 14.9 | 0.04 | < 0.005 | < 0.01 |
| 701380 Dup | 9 | 13 | 8 | 0.68 | < 0.01 | < 0.001 | 0.39 | 0.012 | 0.53 | < 0.005 | 6.57 | < 0.1 | < 0.01 | 20.0 | 0.08 | 0.181 | < 0.01 | 0.01 | < 0.01 | 14.7 | 0.04 | < 0.005 | 0.01 |
| 701389 Orig | | | | 0.89 | < 0.01 | < 0.001 | 1.11 | 0.012 | 0.53 | < 0.005 | 6.42 | < 0.1 | < 0.01 | 19.9 | 0.10 | 0.176 | < 0.01 | < 0.01 | < 0.01 | 15.1 | 0.05 | < 0.005 | < 0.01 |
| 701389 Dup | | | | 0.90 | < 0.01 | < 0.001 | 1.09 | 0.011 | 0.53 | < 0.005 | 6.49 | < 0.1 | < 0.01 | 20.3 | 0.10 | 0.178 | < 0.01 | 0.01 | < 0.01 | 15.4 | 0.05 | < 0.005 | < 0.01 |
| 701390 Orig | 29 | 46 | 16 | | | | | | | | | | | | | | | | | | | | |
| 701390 Dup | 31 | 52 | 19 | | | | | | | | | | | | | | | | | | | | |
| 701400 Orig | < 2 | 7 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701400 Dup | < 2 | < 5 | 8 | | | | | | | | | | | | | | | | | | | | |
| 701401 Orig | | | | 0.57 | < 0.01 | < 0.001 | 0.53 | 0.013 | 0.56 | < 0.005 | 6.36 | 0.2 | < 0.01 | 21.0 | 0.10 | 0.189 | 0.01 | < 0.01 | < 0.01 | 15.1 | 0.03 | < 0.005 | < 0.01 |
| 701401 Dup | | | | 0.56 | < 0.01 | < 0.001 | 0.48 | 0.012 | 0.54 | < 0.005 | 6.20 | 0.2 | < 0.01 | 20.9 | 0.09 | 0.185 | < 0.01 | 0.02 | < 0.01 | 14.8 | 0.03 | < 0.005 | < 0.01 |
| 701410 Orig | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| 701410 Dup | < 2 | < 5 | 7 | | | | | | | | | | | | | | | | | | | | |
| 701413 Orig | | | | 0.51 | < 0.01 | < 0.001 | 1.70 | 0.012 | 0.53 | < 0.005 | 6.57 | < 0.1 | < 0.01 | 21.7 | 0.11 | 0.190 | 0.01 | 0.11 | < 0.01 | 15.7 | 0.03 | 0.006 | < 0.01 |
| 701413 Dup | | | | 0.52 | < 0.01 | < 0.001 | 1.70 | 0.013 | 0.53 | < 0.005 | 6.65 | < 0.1 | < 0.01 | 22.1 | 0.11 | 0.190 | < 0.01 | 0.13 | < 0.01 | 15.3 | 0.03 | < 0.005 | < 0.01 |
| 701425 Orig | | | | 0.43 | < 0.01 | < 0.001 | 1.57 | 0.018 | 0.68 | 0.039 | 6.89 | < 0.1 | < 0.01 | 22.5 | 0.11 | 0.456 | < 0.01 | 0.46 | < 0.01 | 15.7 | 0.02 | < 0.005 | 0.01 |
| 701425 Dup | | | | 0.42 | < 0.01 | < 0.001 | 1.50 | 0.018 | 0.66 | 0.040 | 6.72 | < 0.1 | < 0.01 | 22.4 | 0.11 | 0.448 | < 0.01 | 0.43 | < 0.01 | 15.3 | 0.02 | < 0.005 | 0.01 |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | < 2 | < 5 | < 5 | | | | | | | | | | | | | | | | | | | | |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.01 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | 0.02 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |

| Analyte Symbol | Au | Pd | Pt | Al | As | Be | Ca | Co | Cr | Cu | Fe | K | Li | Mg | Mn | Ni | Pb | S | Sb | Si | Ti | W | Zn |
|----------------|--------|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Unit Symbol | ppb | ppb | ppb | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| Lower Limit | 2 | 5 | 5 | 0.01 | 0.01 | 0.001 | 0.01 | 0.002 | 0.01 | 0.005 | 0.05 | 0.1 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.005 | 0.01 |
| Method Code | FA-ICP | FA-ICP | FA-ICP | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 | FUS- Na2O2 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.04 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.006 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | 0.06 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |
| Method Blank | | | | < 0.01 | < 0.01 | < 0.001 | 0.02 | < 0.002 | < 0.01 | < 0.005 | < 0.05 | < 0.1 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.005 | < 0.01 |

APPENDIX 7
MINERALOGICAL STUDIES

Ni-Sulphide EDS Report

The rocks examined in this report consist predominantly of olivine, serpentine, serpentinized olivine, pyroxene, white mica, chromite, and magnetite. The dominant sulphide minerals are Co-pentlandite ($(\text{Fe,Ni})_9\text{S}_8$), Heazlewoodite (Ni_3S_2), Awaruite (Ni_2Fe), and minor amounts of Godlevskite ($(\text{Ni,Fe})_9\text{S}_8$). Grain sizes of the sulphides generally ranged from 5 micron to 100 microns. The sulphide inventory is dominated by Co-pentlandite (upto 50%), Heazlewoodite (up to 35%), and Awaruite (up to 15%). The sulphides are almost always associated with magnetite which would make a good exploration tool to follow mag-highs.

Sample 554 contained a mineral not noted in any other sample. A Co-S-Ni-Fe mineral in association with magnetite-heazlewoodite-awaruite. Pentlandite was not noted in this sample.

Each polished thin section was examined with a Zeiss Axioscope polarizing microscope with reflected light optics. Relevant textures of oxides and sulphides were captured digitally with a AmScope camera attached to a trinocular head. Areas of interest were circled with a diamond scribe in order to relocate the areas with the JEOL 733 Electron Microprobe. Scribed circles were relocated and Backscattered Electron Images (BEI) were captured and included in this report with corresponding scale bars. Areas of interest within each grain were analysed using an Oxford Instruments X-Act Energy Dispersive System attached to the microprobe. Locations of each analysis are depicted on each backscatter image.

General Compositions for the Ni-sulphides noted:

Heazlewoodite (Ni=73.3%, S=26.7%)

Awaruite (Ni=72.4%, Fe=27.6%)

Pentlandite (Fe=32.56%, Ni=34.21%, S=33.23%)

Godlevskite (Fe=7%, Ni=60%, S=32%)

Specimen Notes for '556' – Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite, Godlevskite

Groundmass areas between olivine grains are serpentine with inclusions of magnetite, spinel, and chromites intermixed with various Ni-sulphides detailed below.

SPOT 1 - Is a cluster of chromite-Magnetite with internal domain of Co-pentlandite

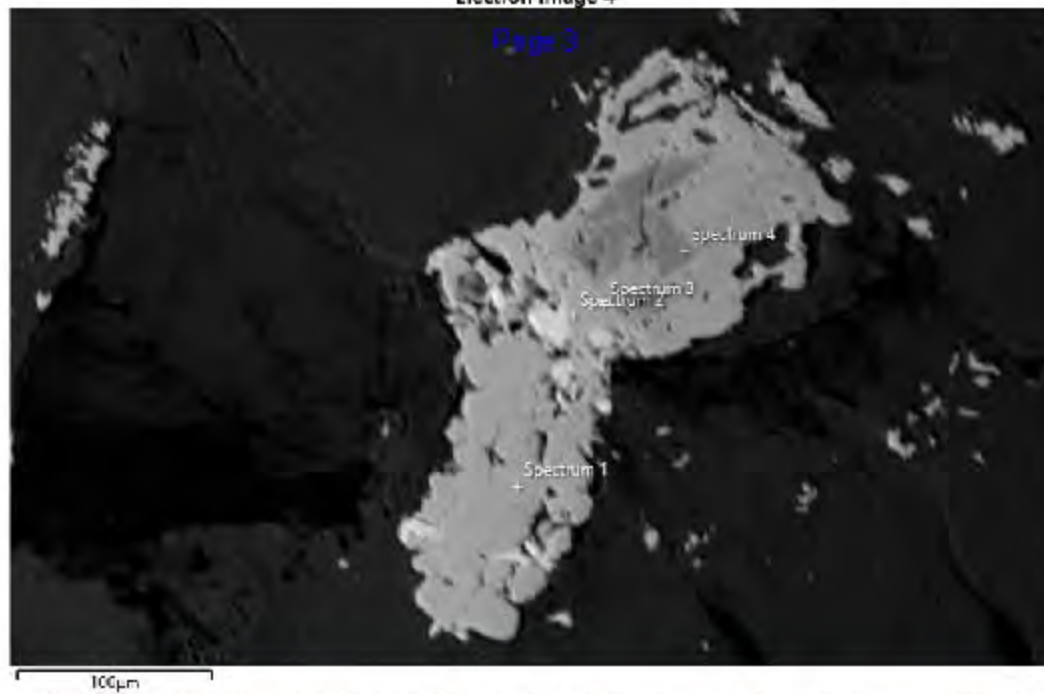
Throughout the section are tiny (5 micron) grains of awaruite and heazlewoodite in serpentinized areas between olivine grains

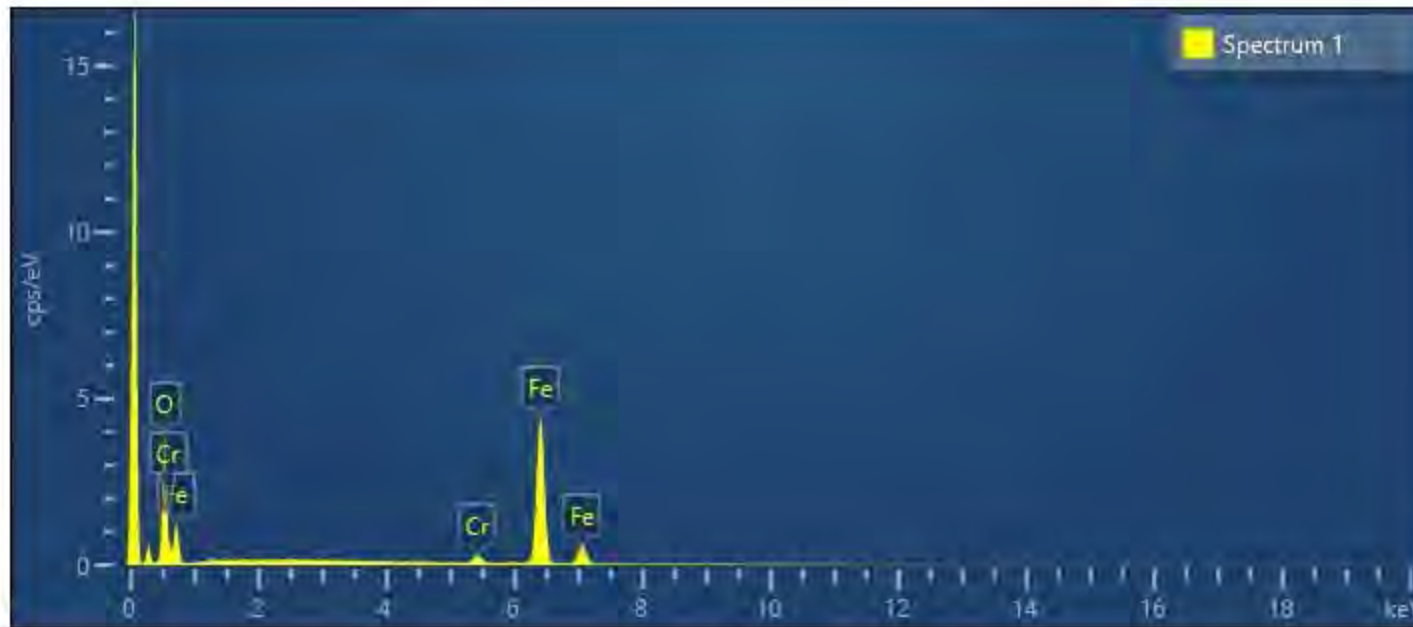
SITE 11 - is an occurrence of Awaruite within late stage fractures in olivine

SITE 14 is a grain of Heazlewoodite in an area between olivine grains

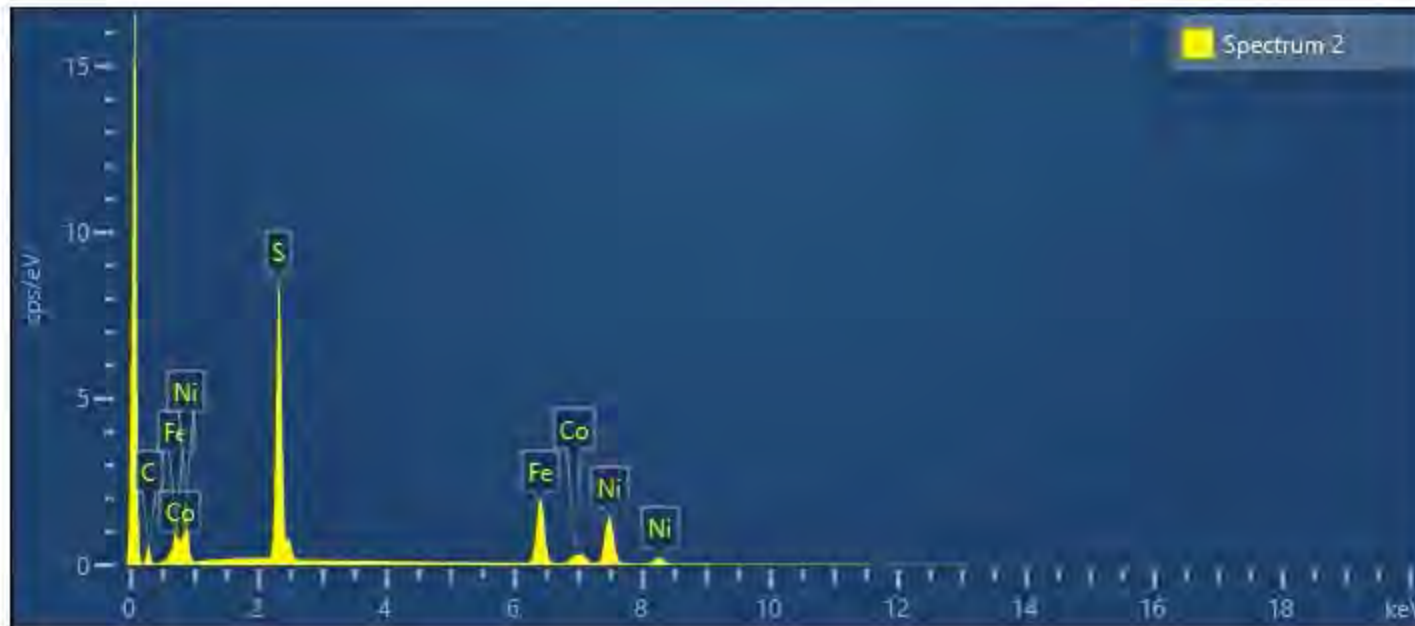
SITE 15 - has a grain of Co-pentlandite and godlevskite on the margin of a chromite grain within areas between olivine grains

SITE 20 also within area between olivine grains is an intergrowth of awaruite and heazlewoodite

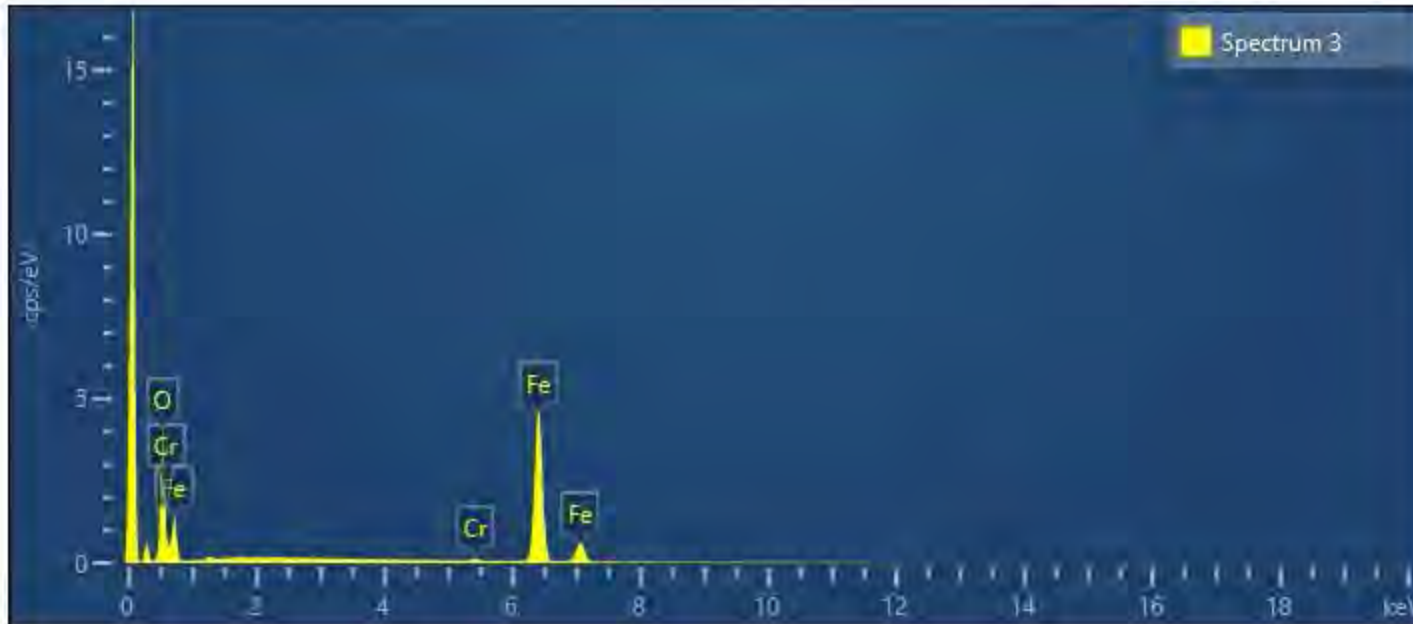




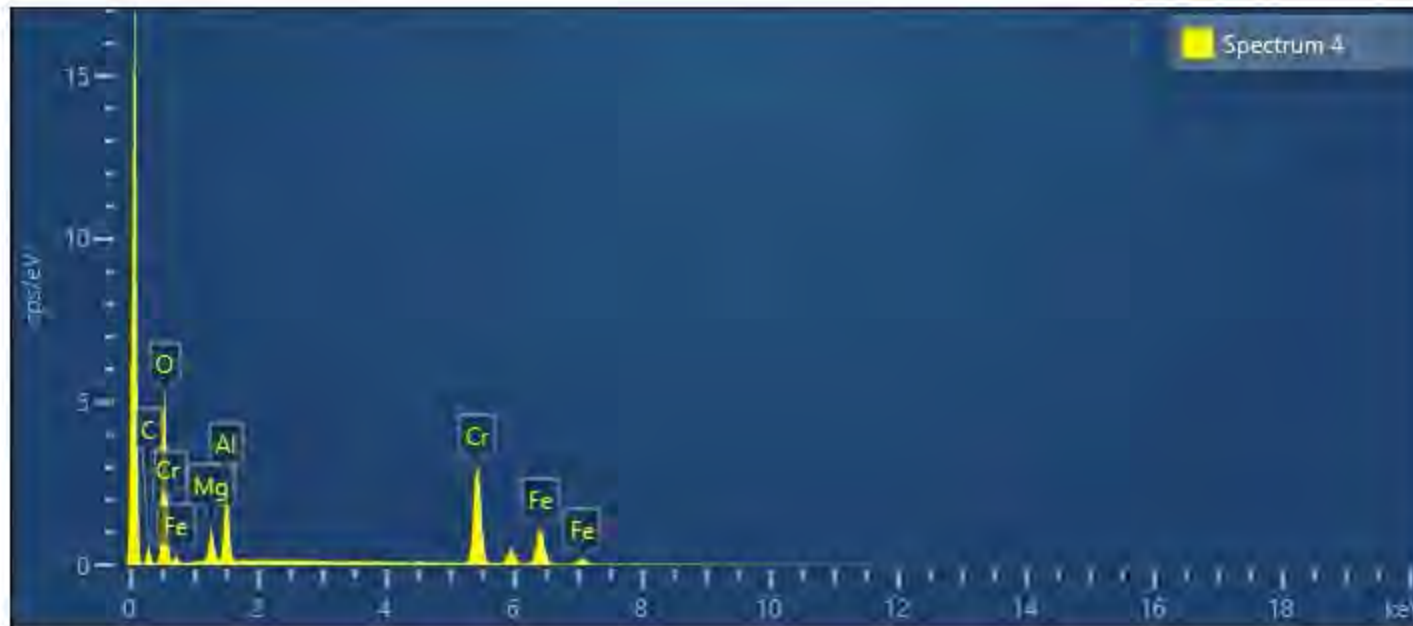
| Spectrum 1 | | | | | | | |
|------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.60 | 0.28 | 50.42 | | | |
| Fe | K series | 74.95 | 0.29 | 47.90 | FeO | 96.42 | 0.38 |
| Cr | K series | 2.45 | 0.11 | 1.68 | Cr2O3 | 3.58 | 0.17 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



| Spectrum 2 | | | | |
|------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.65 | 0.21 | 48.71 |
| Fe | K series | 28.47 | 0.23 | 22.98 |
| Ni | K series | 32.95 | 0.27 | 25.30 |
| Co | K series | 3.93 | 0.18 | 3.01 |
| Total | | 100.00 | | 100.00 |

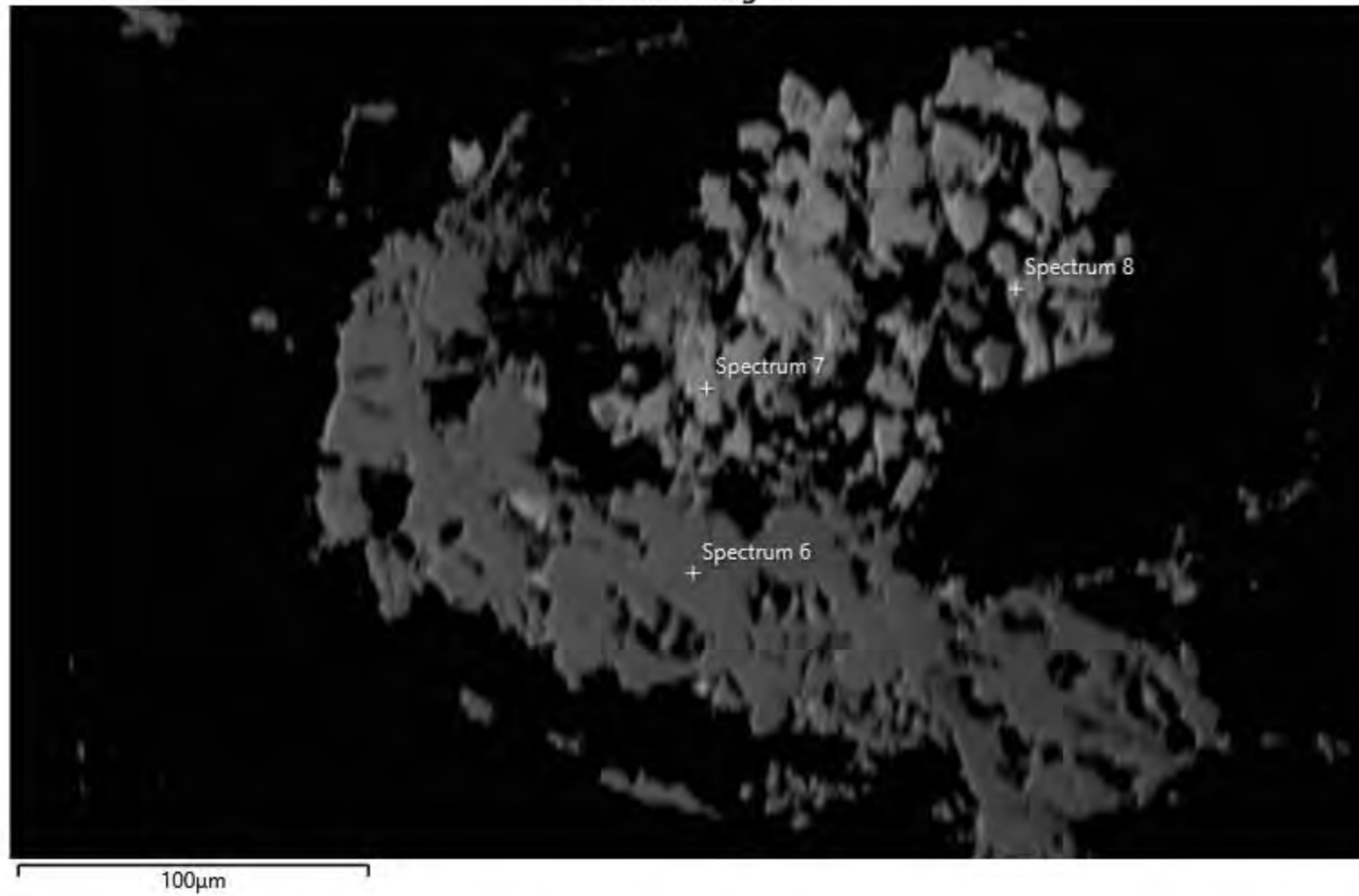


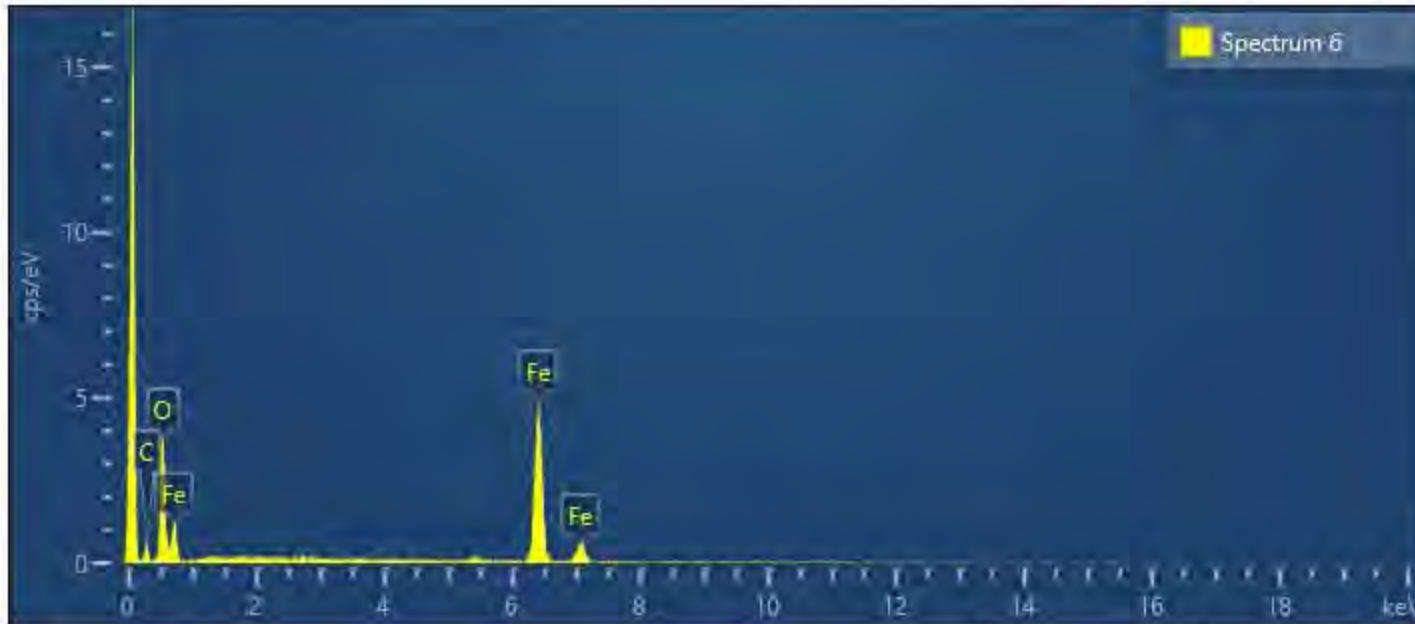
| Spectrum 3 | | | | |
|-------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.59 | 0.29 | 57.06 |
| Fe | K series | 71.85 | 0.29 | 42.58 |
| Cr | K series | 0.56 | 0.07 | 0.36 |
| Total | | 100.00 | | 100.00 |



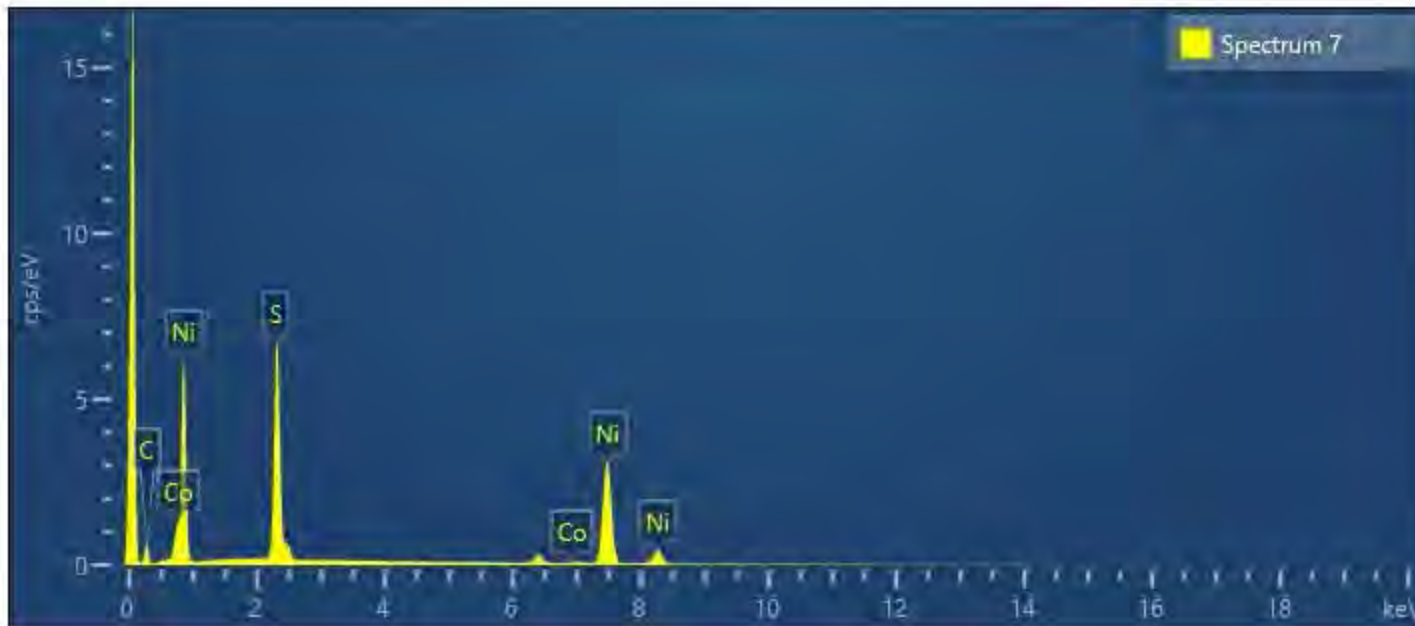
| Spectrum 4 | | | | | | | |
|------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 33.23 | 0.50 | 57.01 | | | |
| Mg | K series | 5.47 | 0.27 | 6.17 | MgO | 9.06 | 0.44 |
| Cr | K series | 33.04 | 0.49 | 17.44 | Cr2O3 | 48.29 | 0.71 |
| Fe | K series | 17.85 | 0.47 | 8.77 | FeO | 22.96 | 0.60 |
| Al | K series | 10.42 | 0.29 | 10.60 | Al2O3 | 19.69 | 0.55 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

Electron Image 2

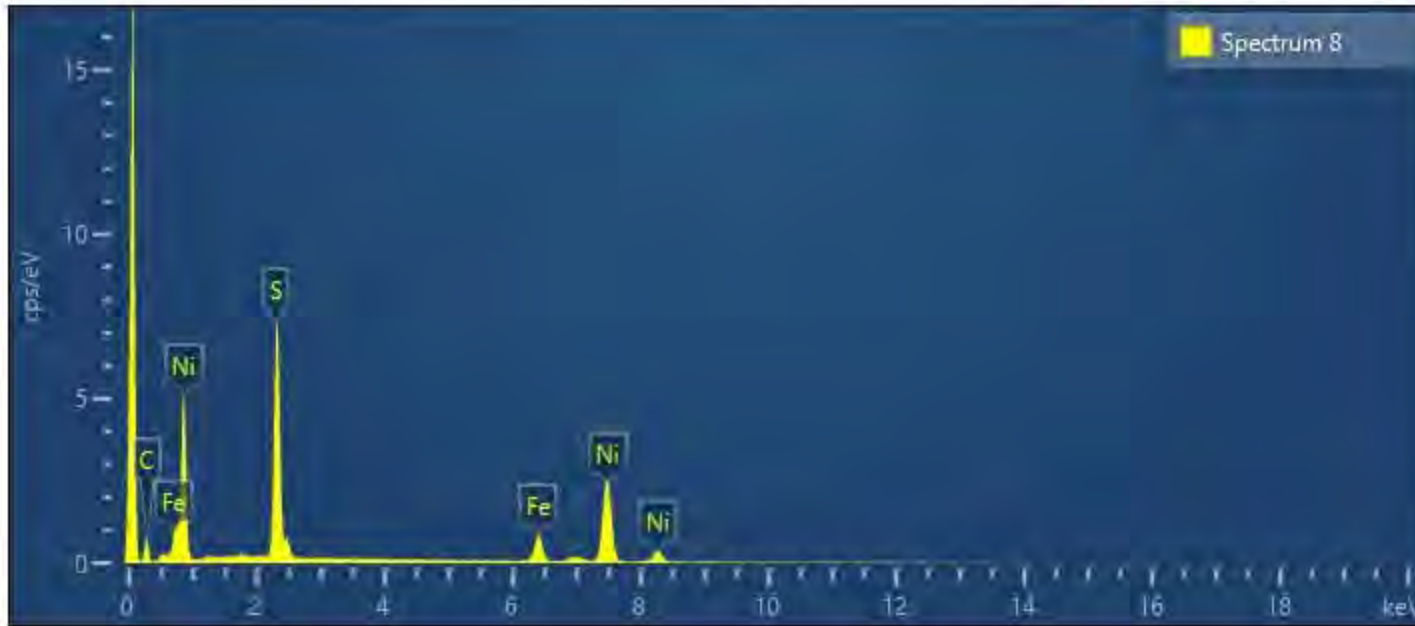




| Spectrum 6 | | | | | | | |
|------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.27 | 0.82 | 50.00 | | | |
| Fe | K series | 77.73 | 0.82 | 50.00 | FeO | 100.00 | 1.06 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

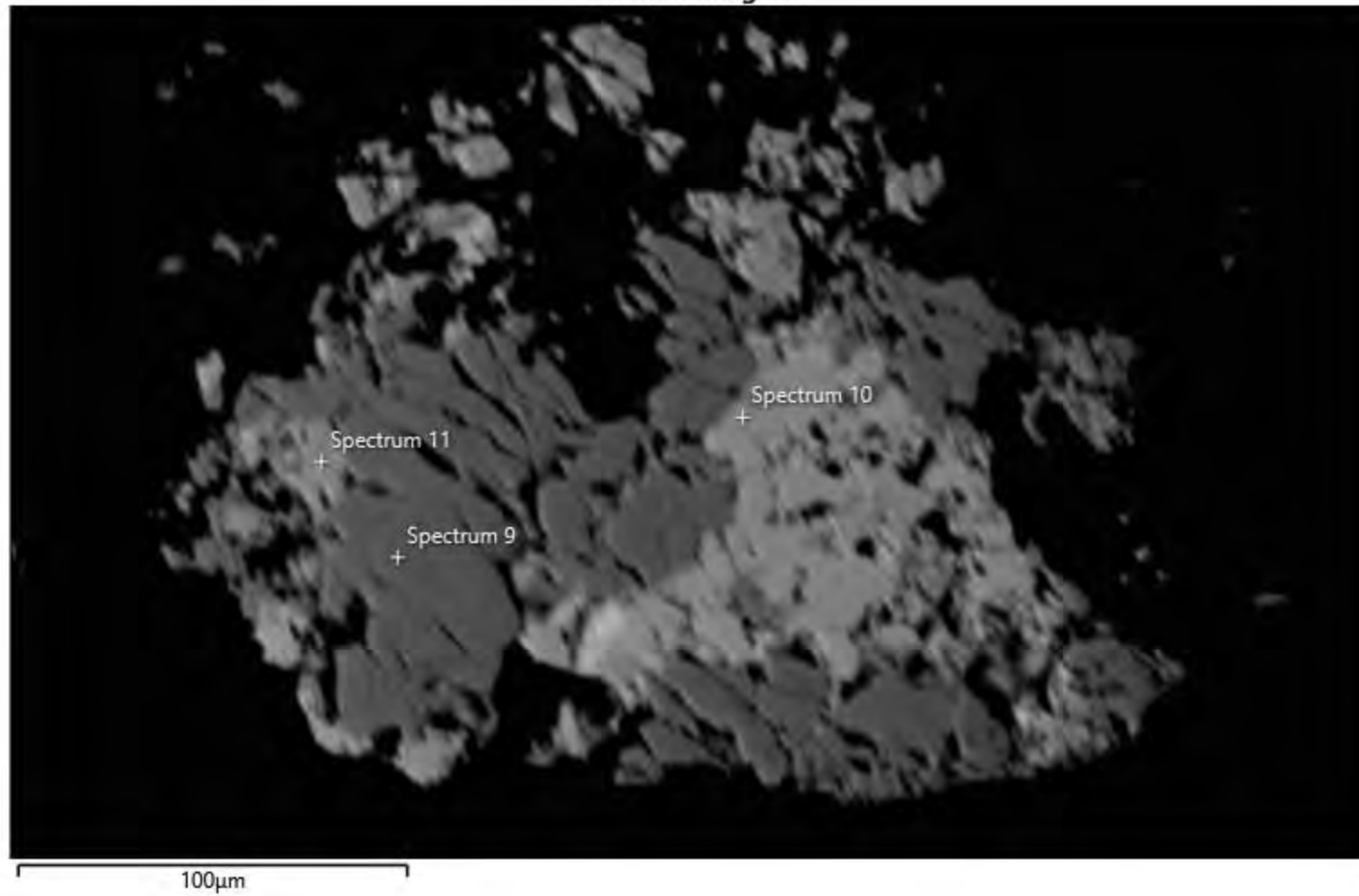


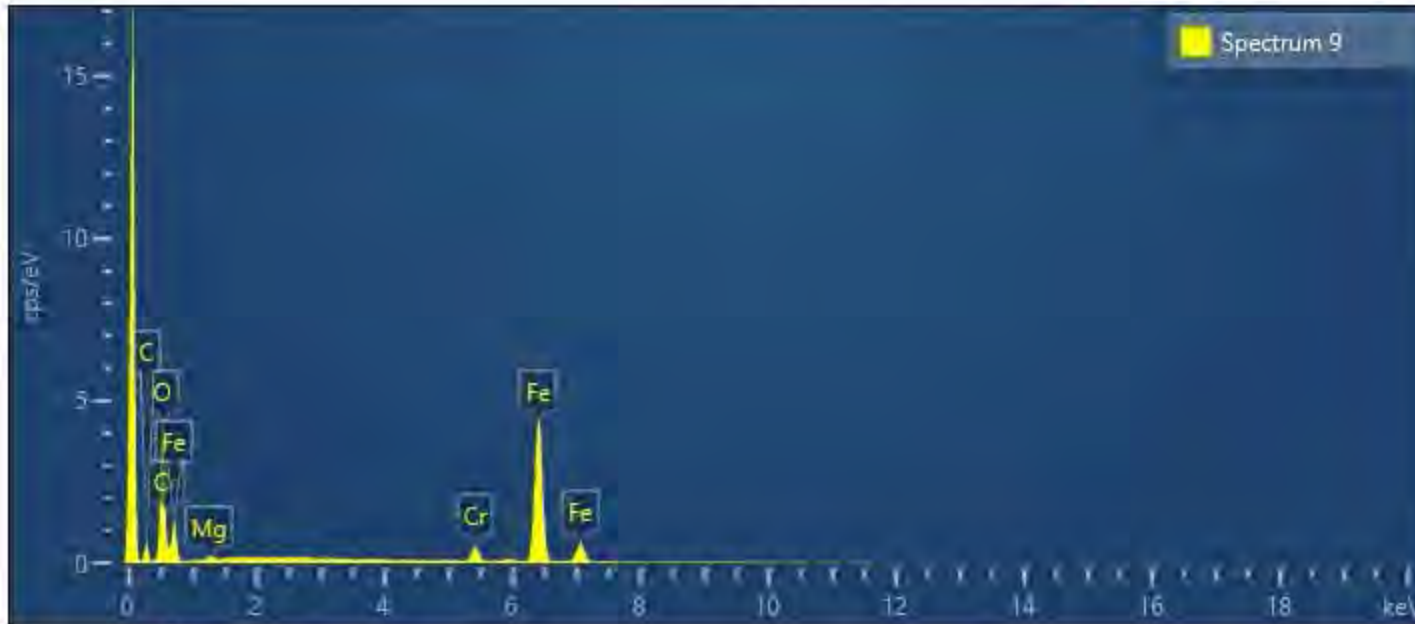
| Spectrum 7 | | | | |
|------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.60 | 0.21 | 43.50 |
| Ni | K series | 70.01 | 0.22 | 56.19 |
| Co | K series | 0.39 | 0.12 | 0.31 |
| Total | | 100.00 | | 100.00 |



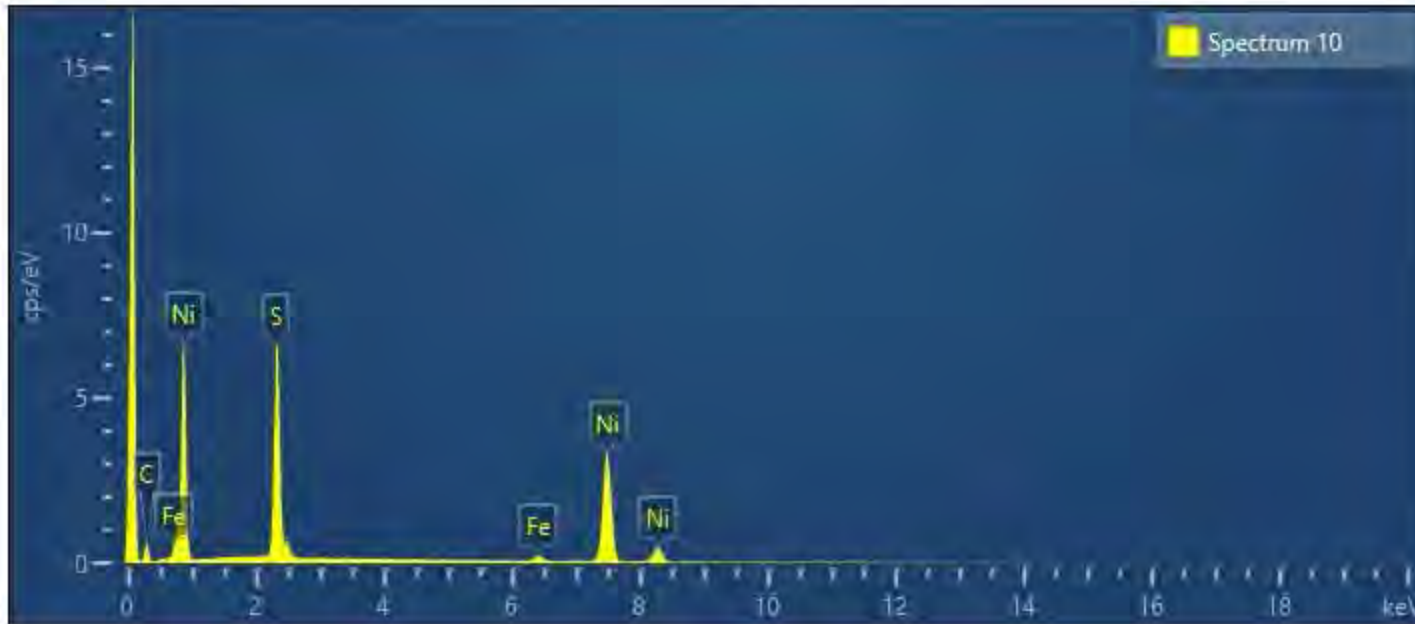
| Spectrum 8 | | | | |
|------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 31.94 | 0.33 | 46.02 |
| Fe | K series | 10.50 | 0.27 | 8.69 |
| Ni | K series | 57.56 | 0.40 | 45.30 |
| Total | | 100.00 | | 100.00 |

Electron Image 3

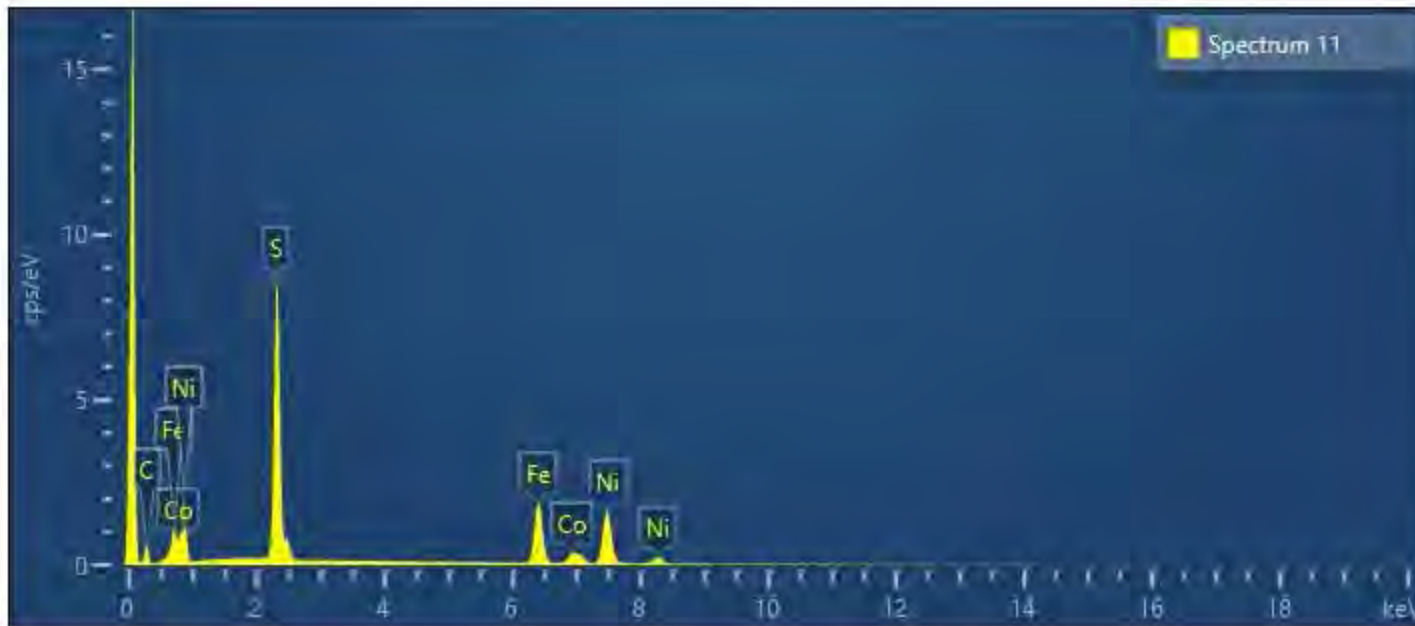




| Spectrum 9 | | | | |
|------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.06 | 0.55 | 57.19 |
| Cr | K series | 4.07 | 0.19 | 2.55 |
| Fe | K series | 67.03 | 0.56 | 39.14 |
| Mg | K series | 0.83 | 0.17 | 1.12 |
| Total | | 100.00 | | 100.00 |

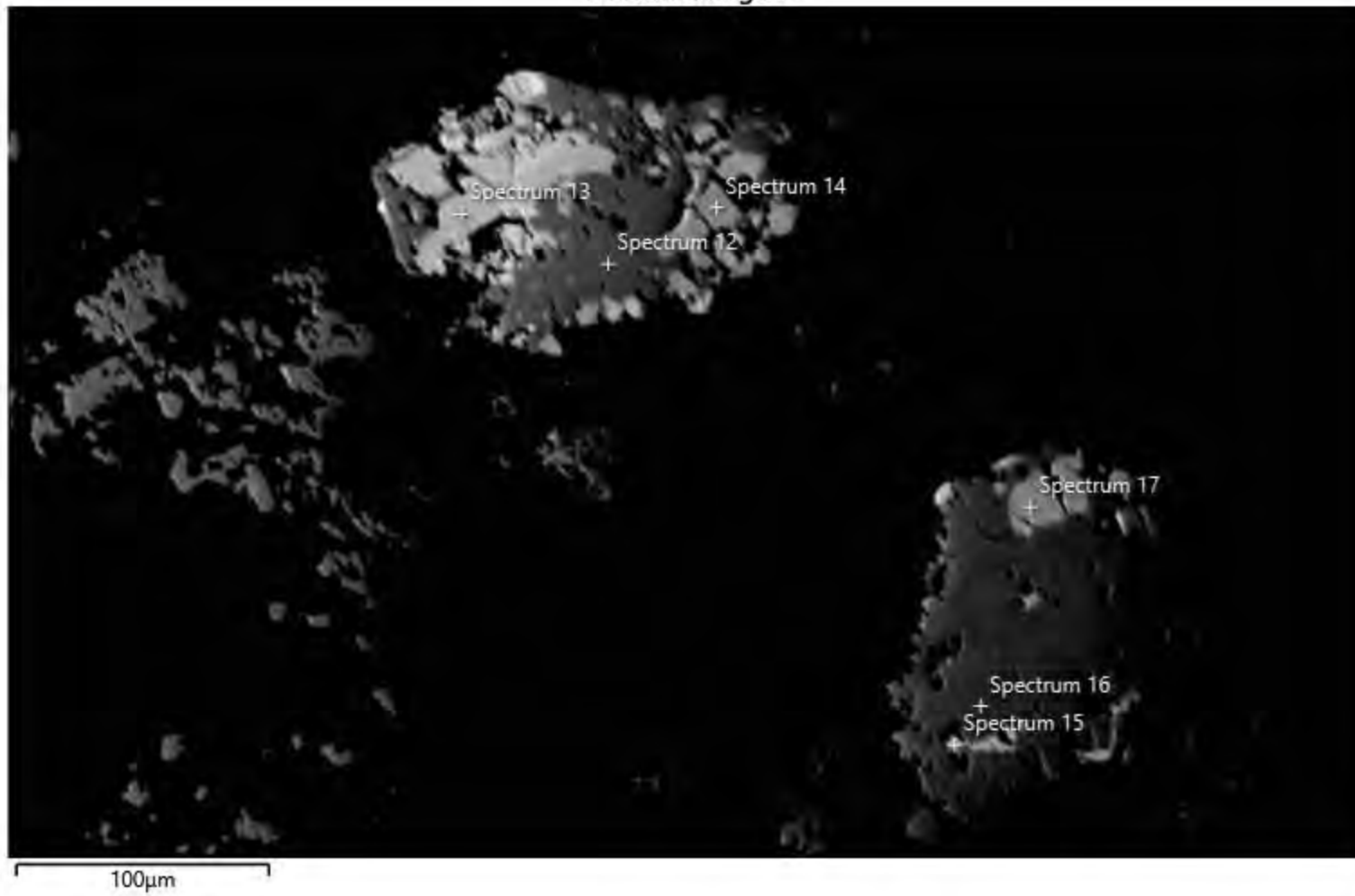


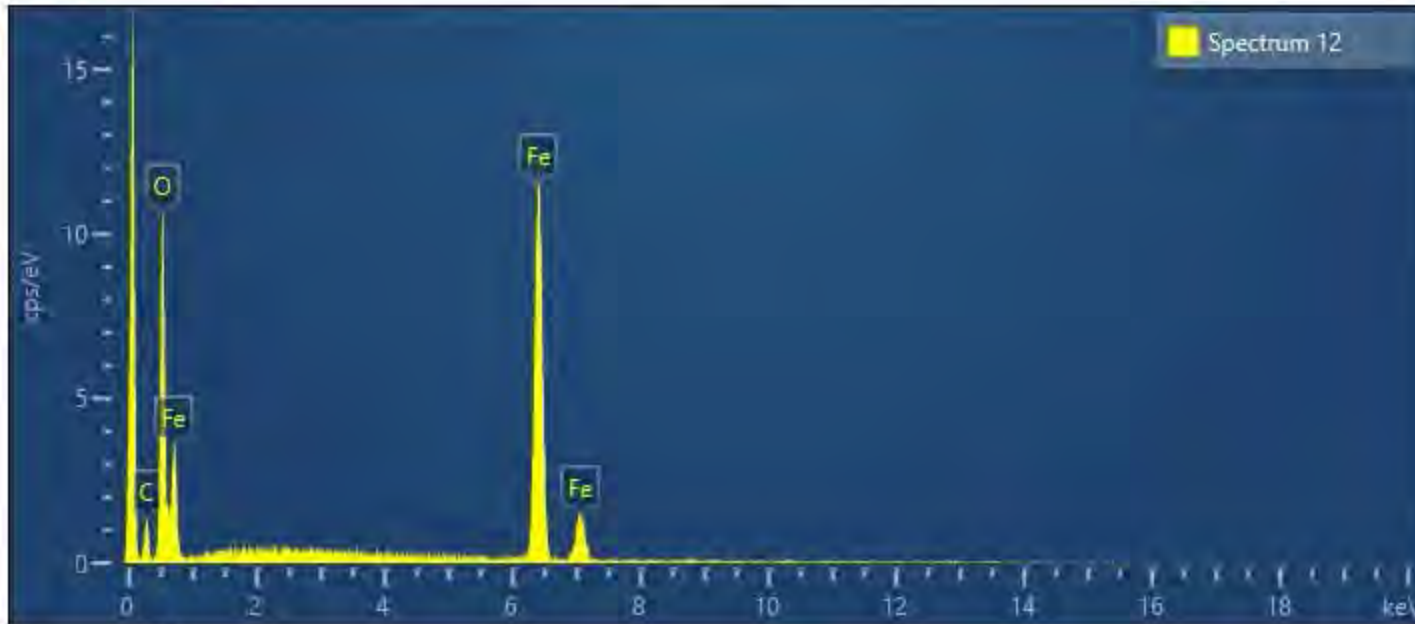
| Spectrum 10 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.89 | 0.20 | 41.42 |
| Ni | K series | 70.25 | 0.21 | 56.99 |
| Fe | K series | 1.86 | 0.10 | 1.59 |
| Total | | 100.00 | | 100.00 |



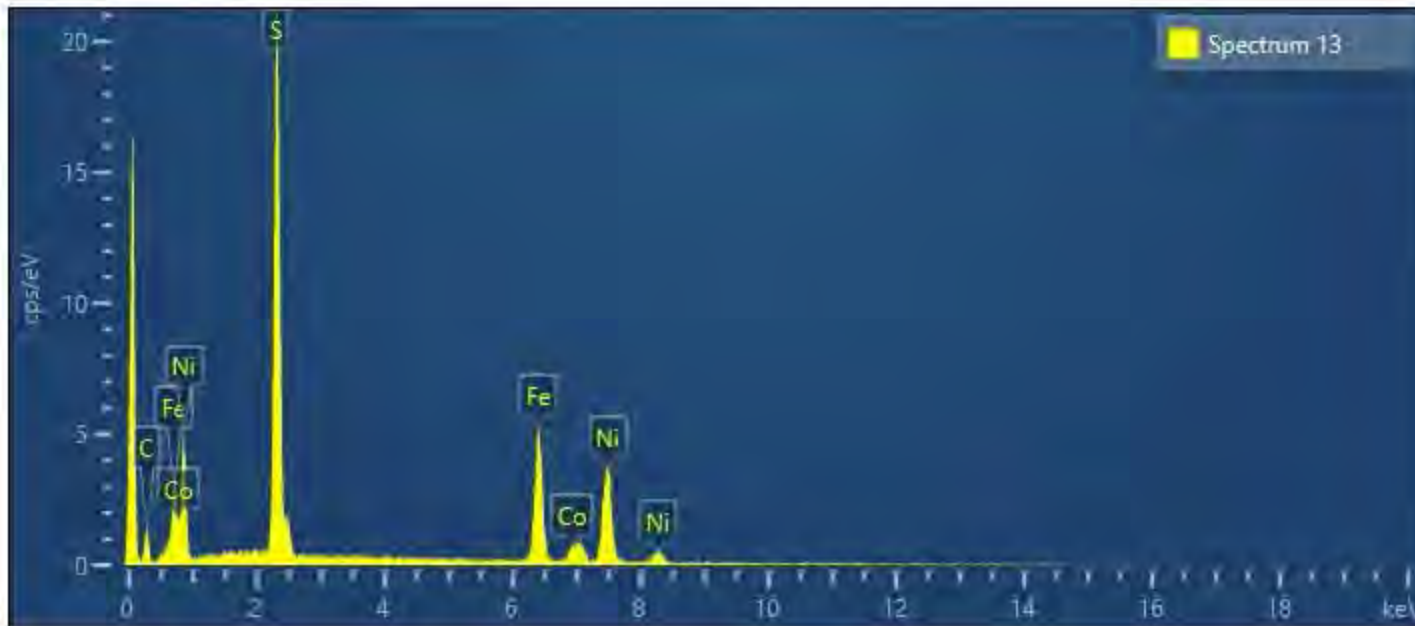
| Spectrum 11 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.19 | 0.21 | 48.26 |
| Fe | K series | 25.75 | 0.22 | 20.87 |
| Ni | K series | 34.91 | 0.27 | 26.91 |
| Co | K series | 5.15 | 0.18 | 3.96 |
| Total | | 100.00 | | 100.00 |

Electron Image 6

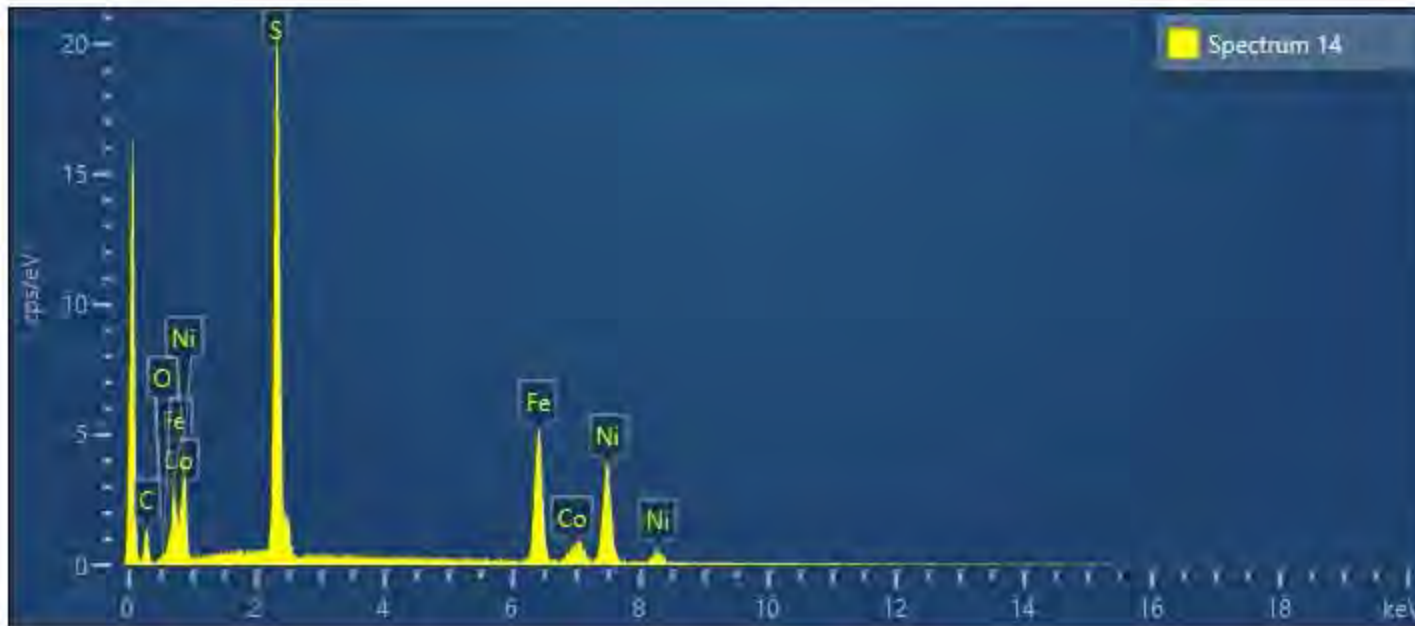




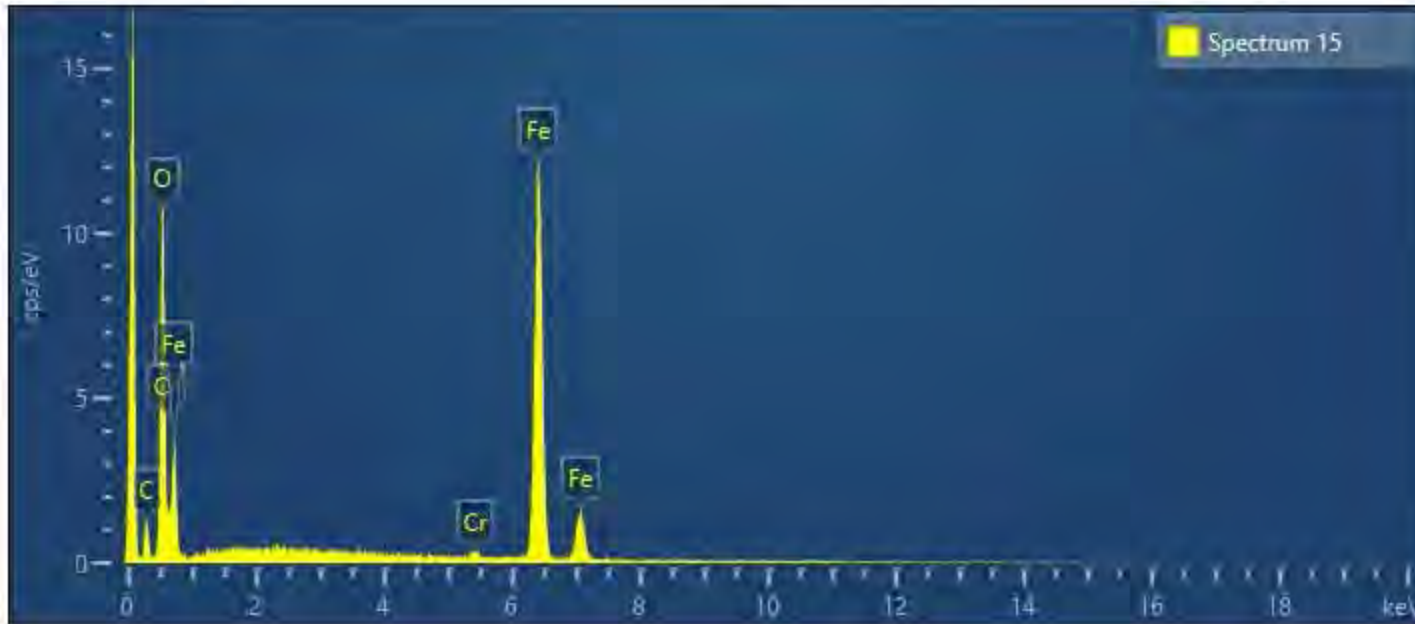
| Spectrum 12 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.31 | 0.69 | 57.95 |
| Fe | K series | 71.69 | 0.69 | 42.05 |
| Total | | 100.00 | | 100.00 |



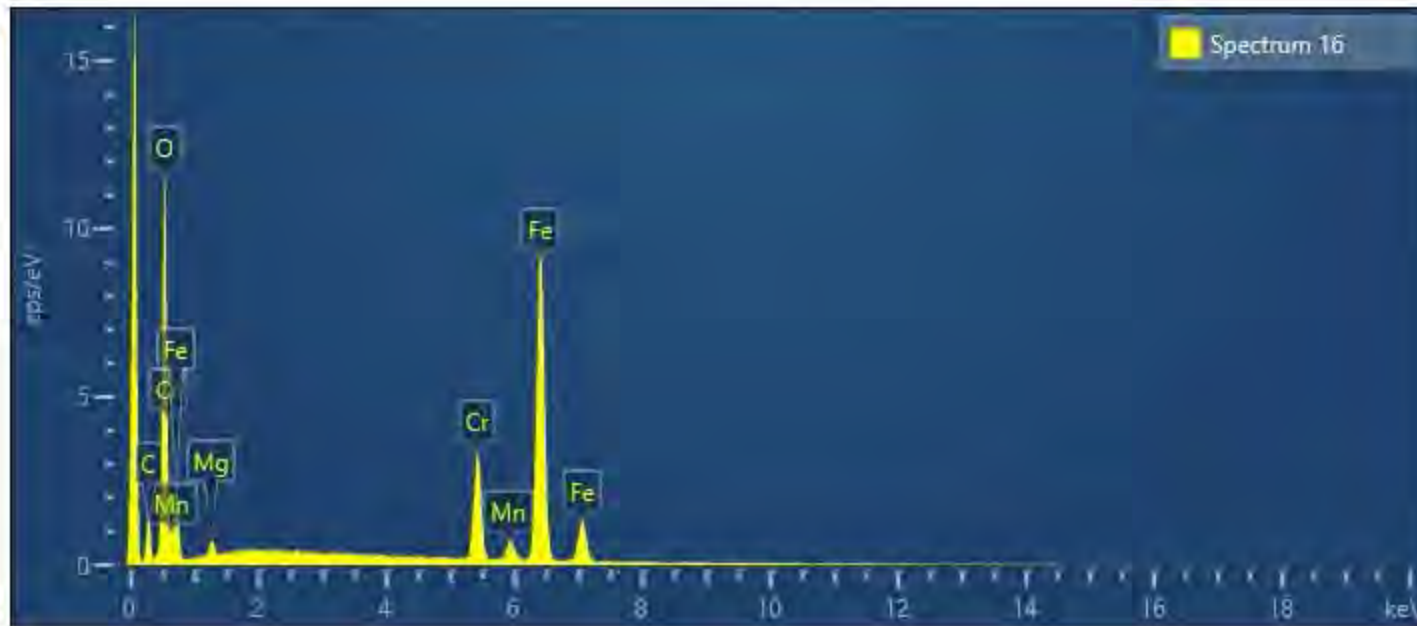
| Spectrum 13 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.40 | 0.50 | 48.45 |
| Fe | K series | 28.14 | 0.54 | 22.76 |
| Ni | K series | 33.71 | 0.64 | 25.92 |
| Co | K series | 3.75 | 0.42 | 2.87 |
| Total | | 100.00 | | 100.00 |



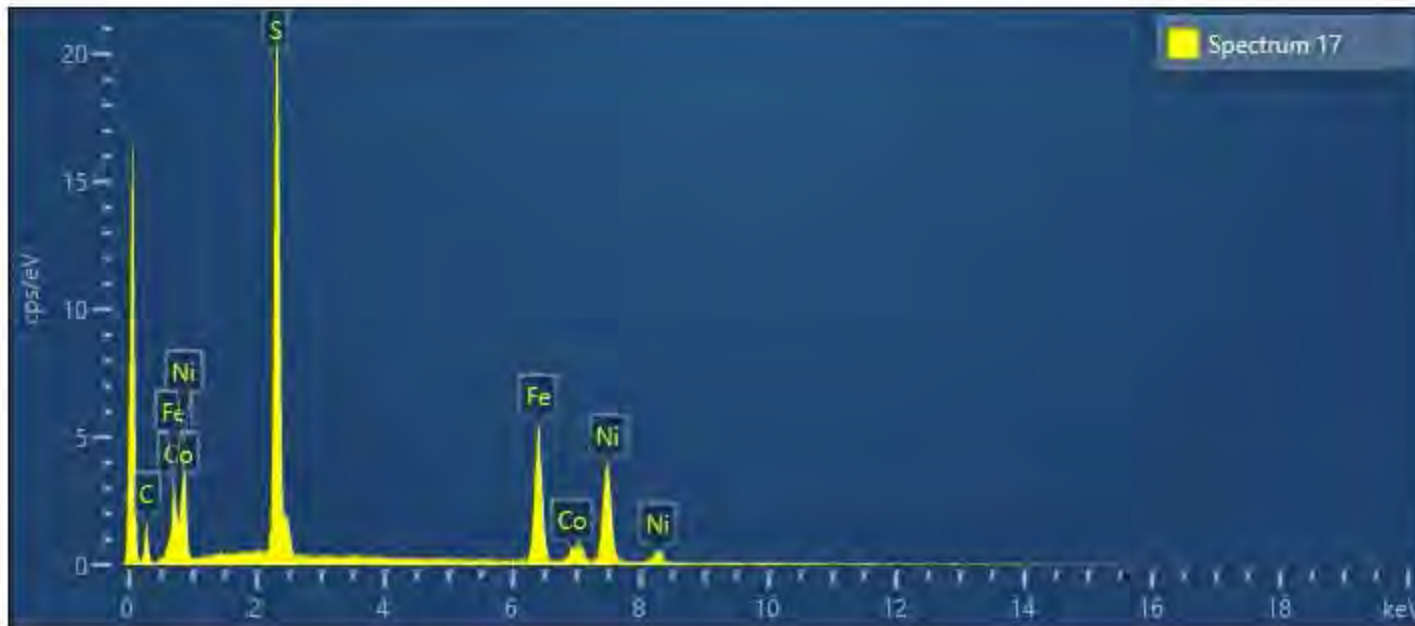
| Spectrum 14 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.18 | 0.46 | 45.31 |
| Fe | K series | 28.58 | 0.51 | 22.41 |
| Ni | K series | 33.12 | 0.59 | 24.70 |
| Co | K series | 3.22 | 0.38 | 2.39 |
| O | K series | 1.89 | 0.39 | 5.19 |
| Total | | 100.00 | | 100.00 |



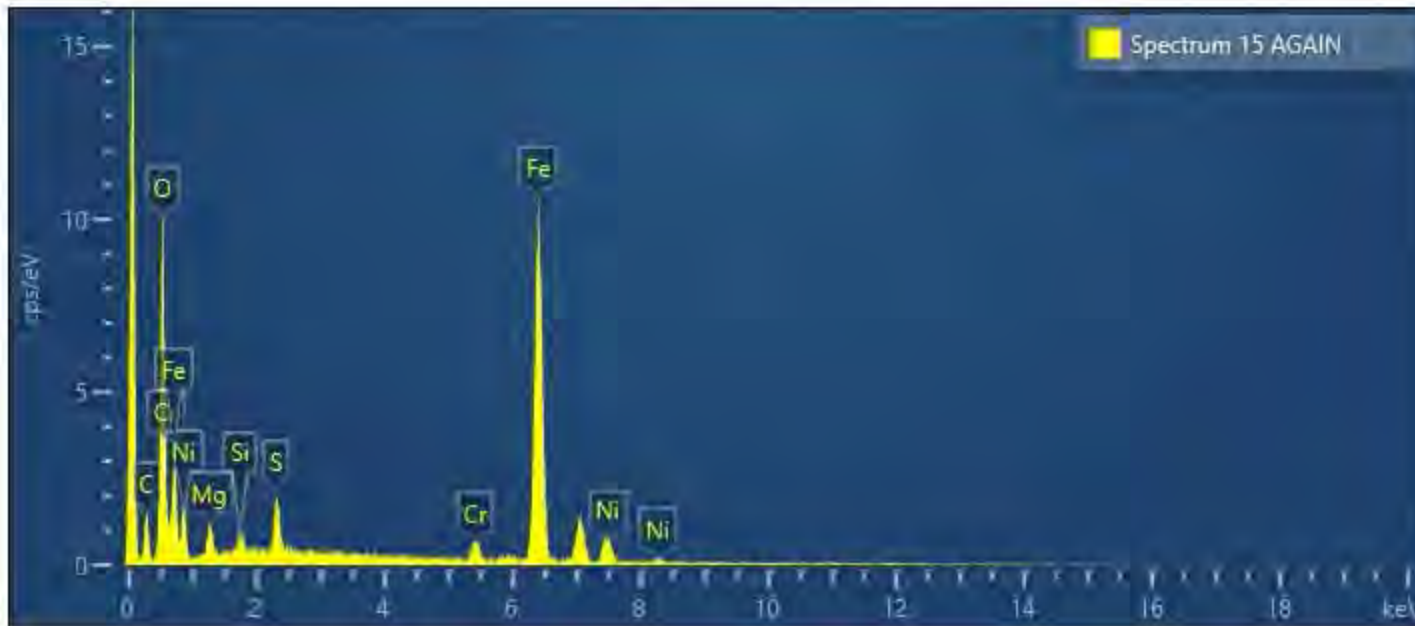
| Spectrum 15 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.35 | 0.45 | 50.11 | | | |
| Fe | K series | 77.04 | 0.46 | 49.47 | FeO | 99.11 | 0.60 |
| Cr | K series | 0.61 | 0.14 | 0.42 | Cr2O3 | 0.89 | 0.21 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



| Spectrum 16 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.11 | 0.39 | 56.85 |
| Mg | K series | 1.29 | 0.12 | 1.72 |
| Cr | K series | 12.12 | 0.21 | 7.54 |
| Fe | K series | 57.58 | 0.40 | 33.36 |
| Mn | K series | 0.90 | 0.17 | 0.53 |
| Total | | 100.00 | | 100.00 |



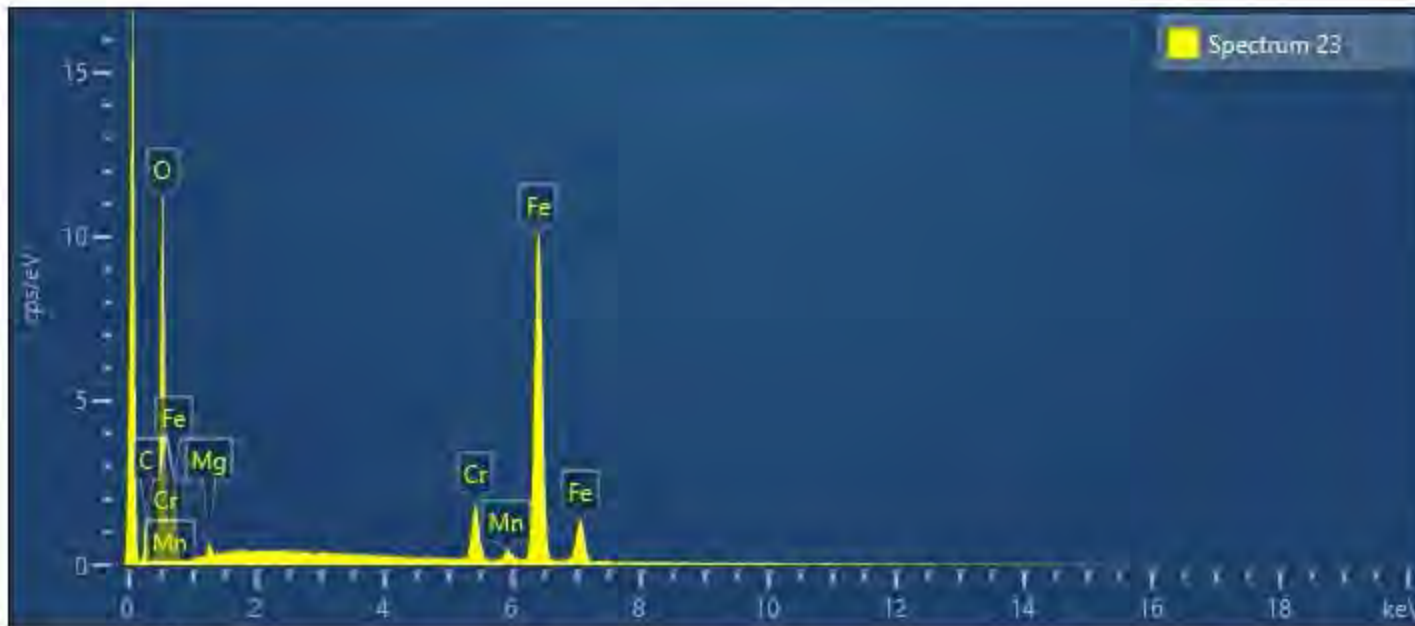
| Spectrum 17 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.25 | 0.48 | 48.28 |
| Fe | K series | 28.15 | 0.52 | 22.78 |
| Ni | K series | 34.27 | 0.61 | 26.38 |
| Co | K series | 3.32 | 0.39 | 2.55 |
| Total | | 100.00 | | 100.00 |



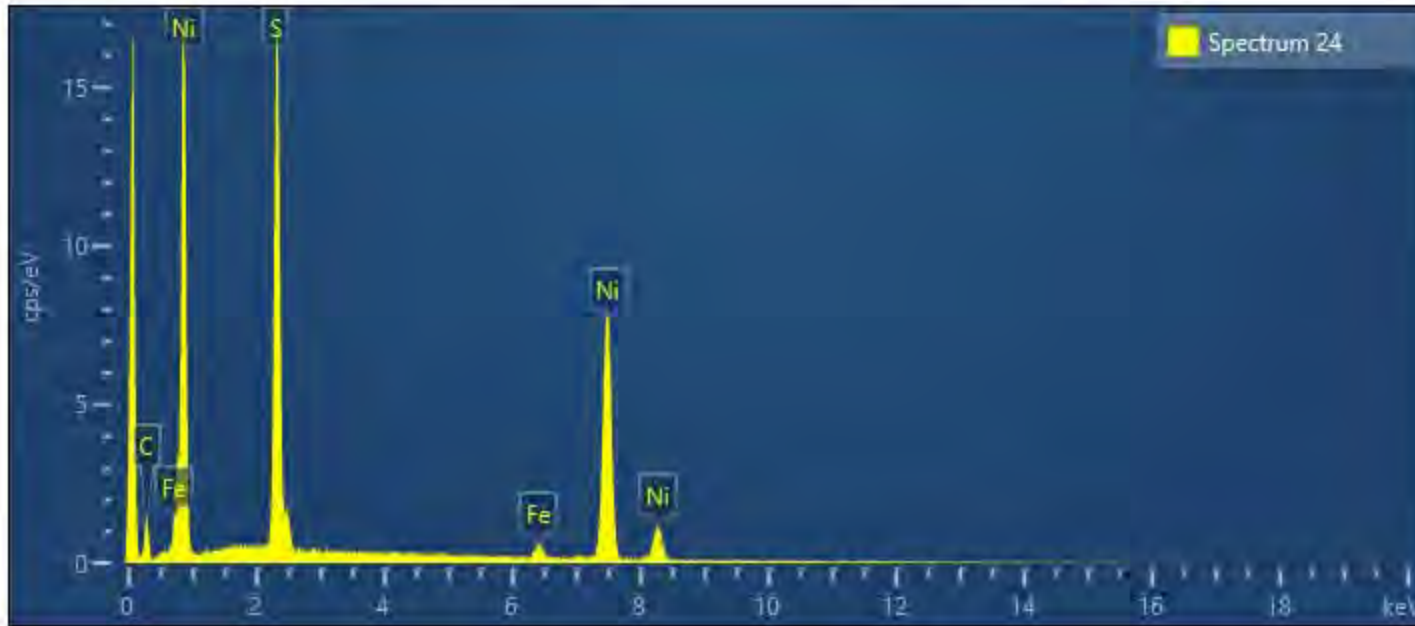
| Spectrum 15 AGAIN | | | | |
|-------------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 26.74 | 0.65 | 54.16 |
| Mg | K series | 2.34 | 0.23 | 3.11 |
| S | K series | 2.74 | 0.17 | 2.77 |
| Cr | K series | 2.28 | 0.18 | 1.42 |
| Fe | K series | 57.56 | 0.67 | 33.40 |
| Ni | K series | 7.46 | 0.42 | 4.11 |
| Si | K series | 0.89 | 0.14 | 1.03 |
| Total | | 100.00 | | 100.00 |

Electron Image 7





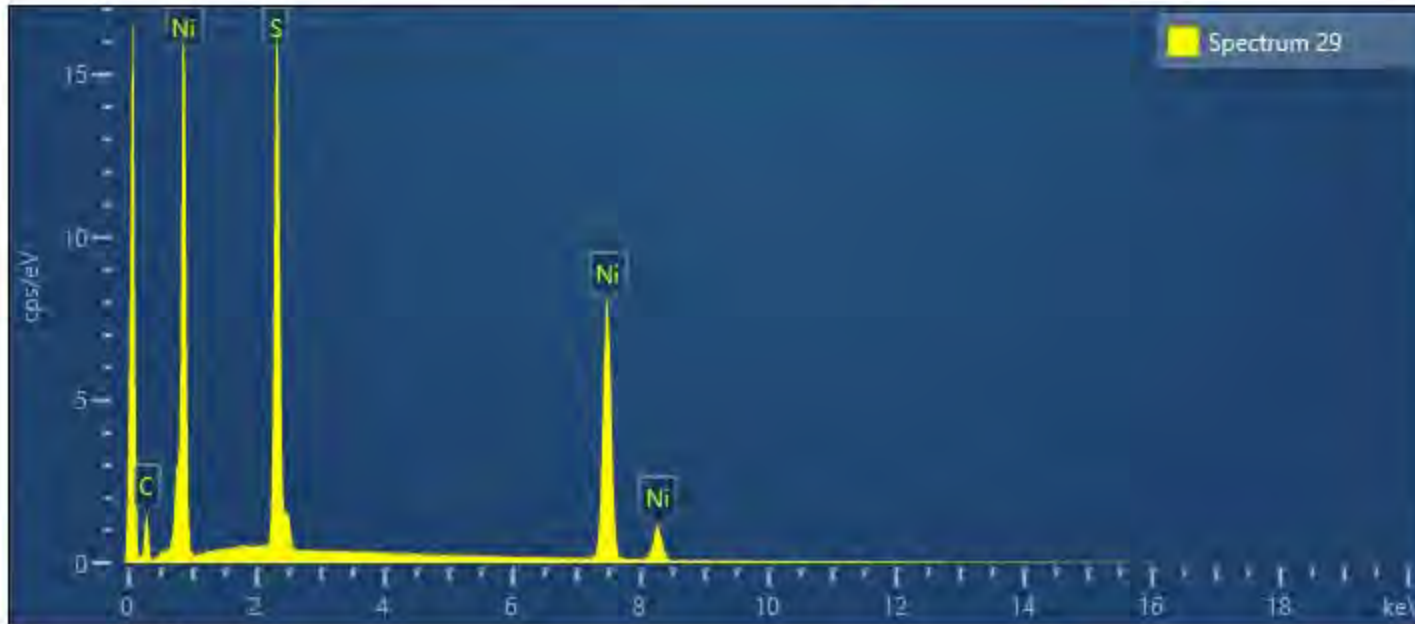
| Spectrum 23 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.55 | 0.42 | 57.62 |
| Cr | K series | 5.98 | 0.17 | 3.71 |
| Fe | K series | 63.82 | 0.44 | 36.91 |
| Mg | K series | 1.07 | 0.13 | 1.41 |
| Mn | K series | 0.58 | 0.15 | 0.34 |
| Total | | 100.00 | | 100.00 |



| Spectrum 24 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.00 | 0.34 | 42.74 |
| Fe | K series | 2.36 | 0.18 | 2.00 |
| Ni | K series | 68.64 | 0.37 | 55.26 |
| Total | | 100.00 | | 100.00 |

Electron Image 8

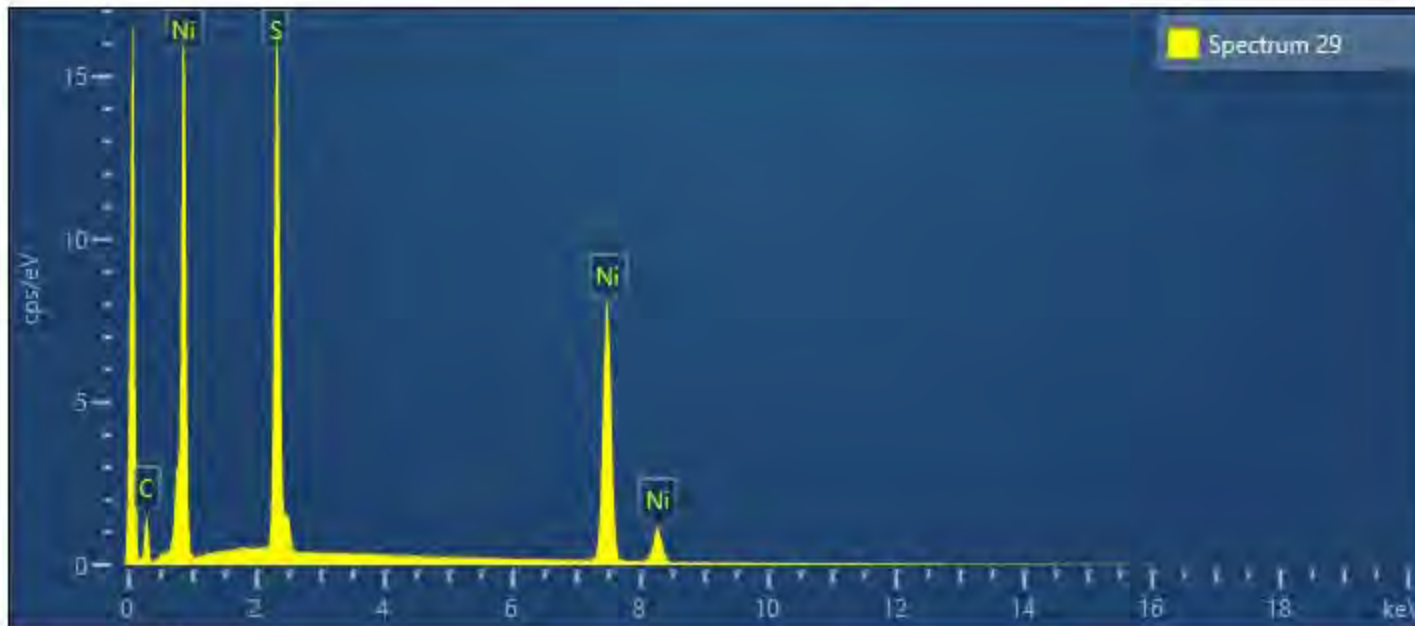




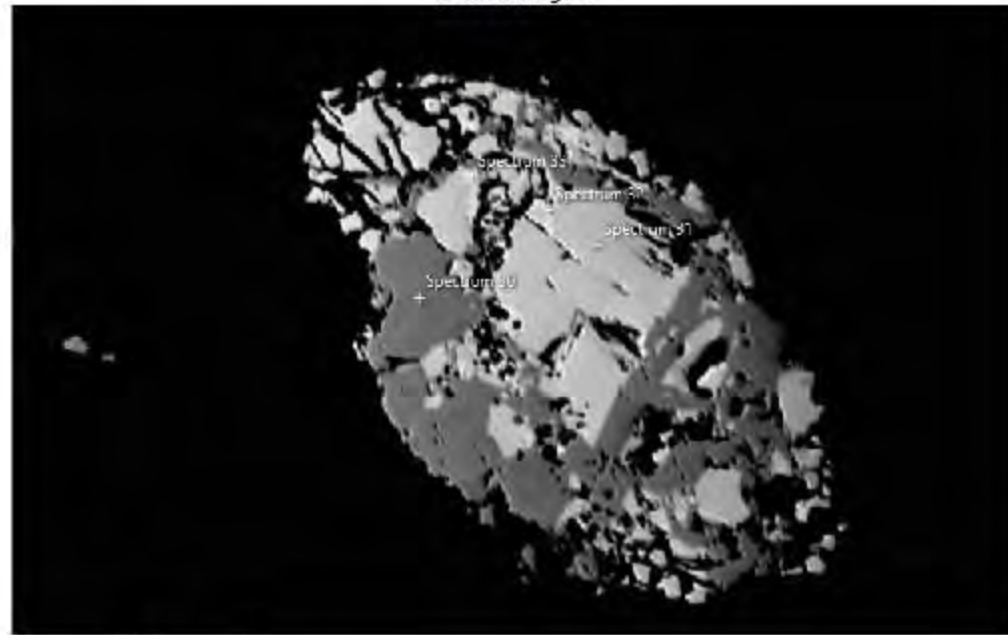
| Spectrum 29 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.24 | 0.20 | 43.07 |
| Ni | K series | 70.76 | 0.20 | 56.93 |
| Total | | 100.00 | | 100.00 |

Electron Image 8

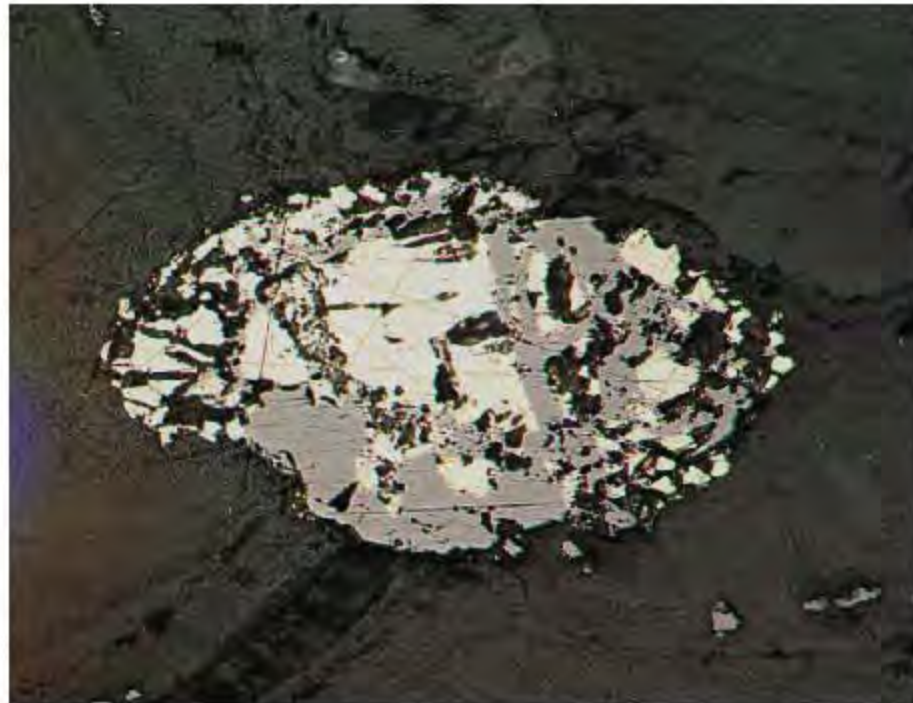


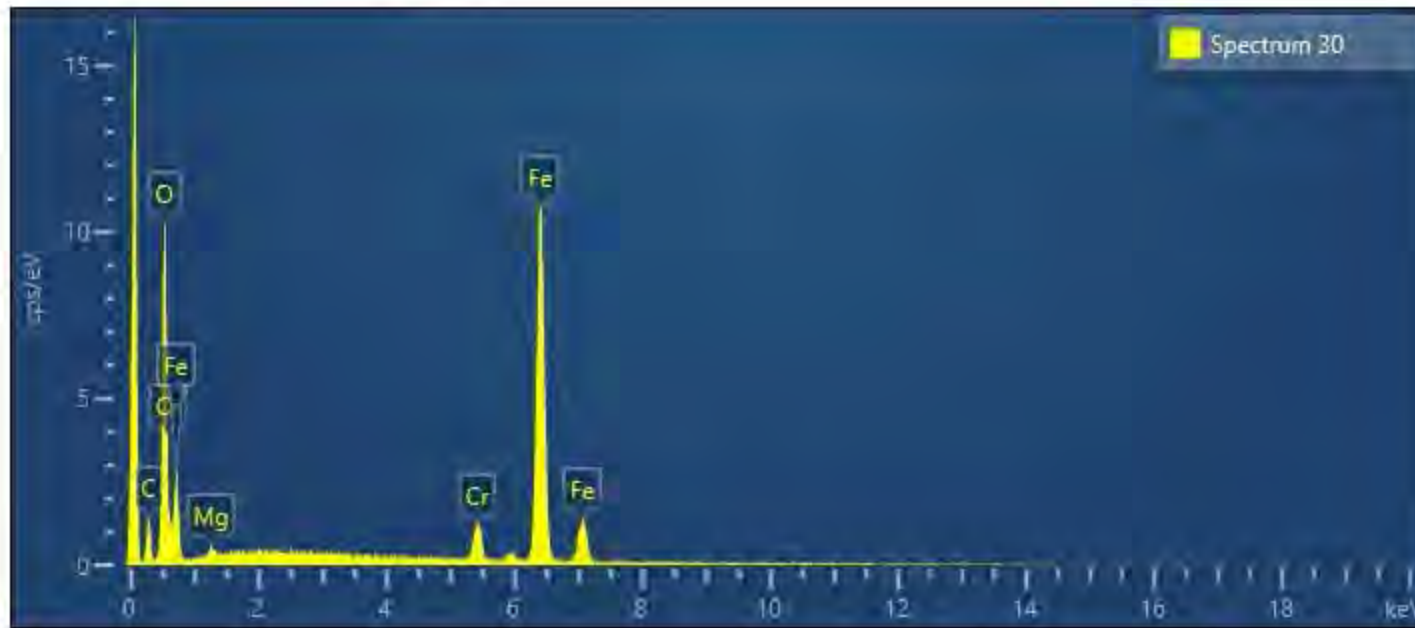


| Spectrum 29 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.24 | 0.20 | 43.07 |
| Ni | K series | 70.76 | 0.20 | 56.93 |
| Total | | 100.00 | | 100.00 |

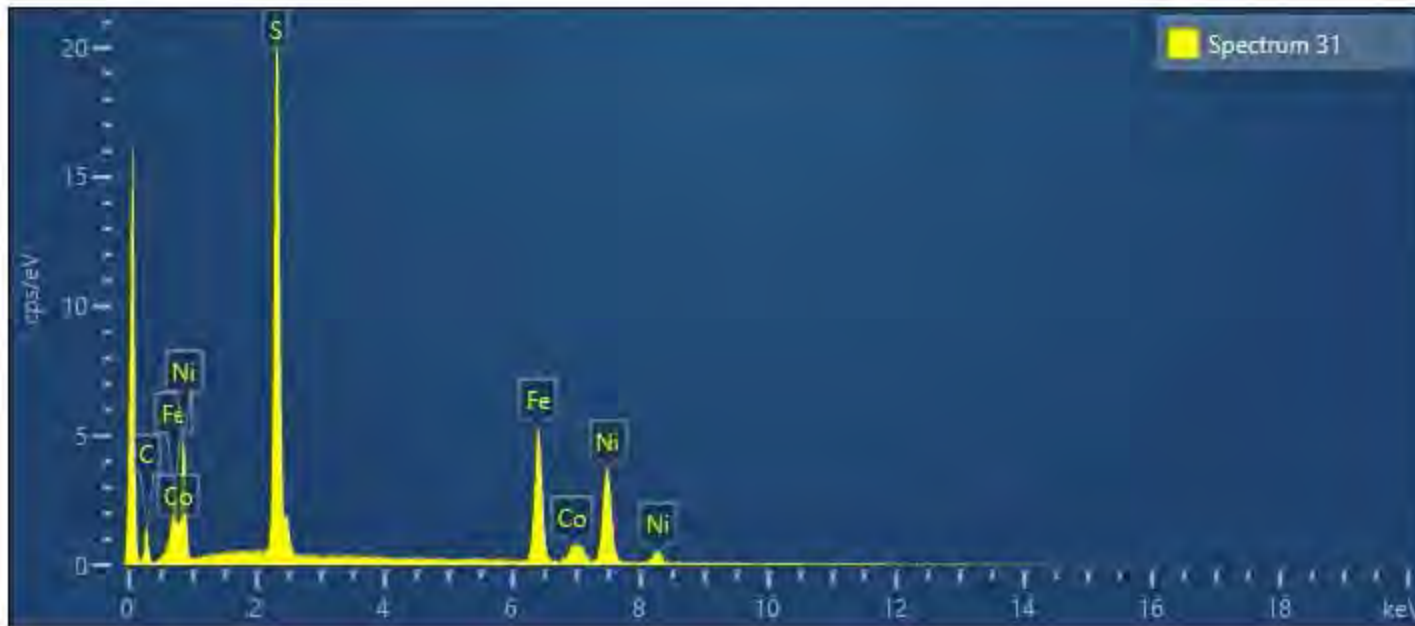


500µm

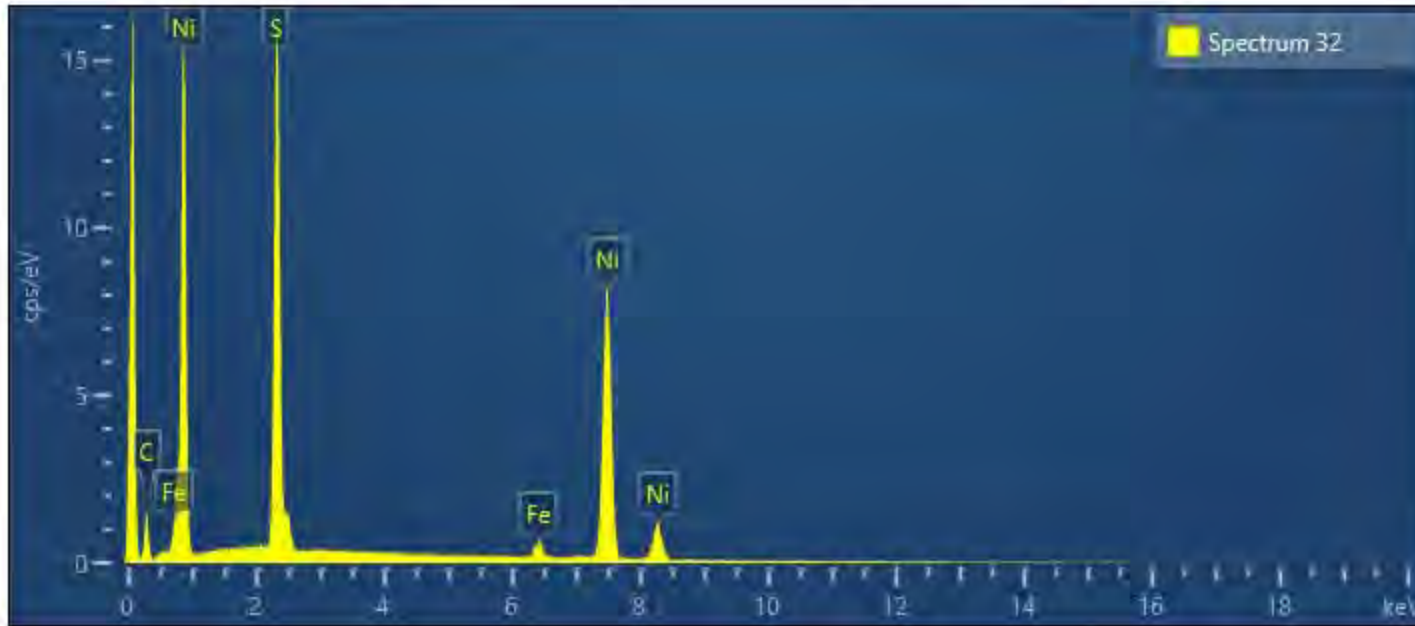




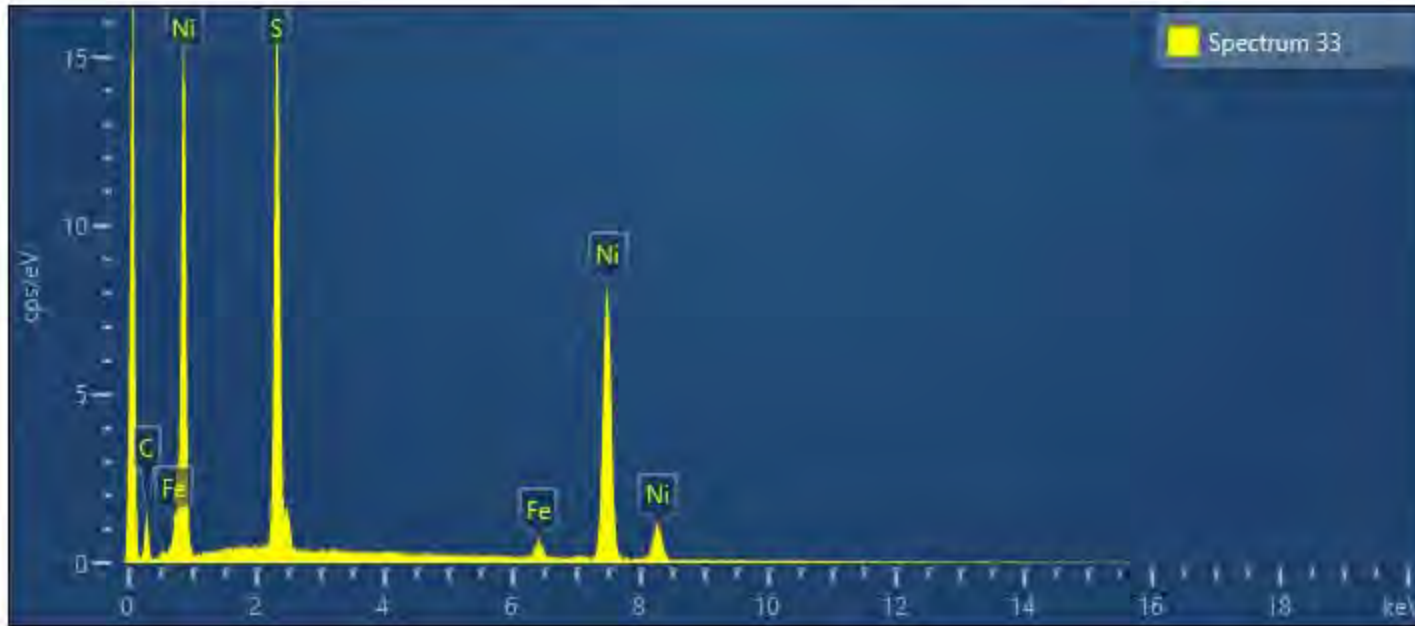
| Spectrum 30 | | | | | | | |
|-------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 23.17 | 0.44 | 50.80 | | | |
| Cr | K series | 4.73 | 0.22 | 3.19 | Cr ₂ O ₃ | 6.91 | 0.32 |
| Fe | K series | 71.21 | 0.49 | 44.73 | FeO | 91.62 | 0.63 |
| Mg | K series | 0.89 | 0.19 | 1.28 | MgO | 1.47 | 0.31 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



| Spectrum 31 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.17 | 0.41 | 48.18 |
| Fe | K series | 28.68 | 0.44 | 23.22 |
| Ni | K series | 33.33 | 0.52 | 25.66 |
| Co | K series | 3.82 | 0.34 | 2.93 |
| Total | | 100.00 | | 100.00 |



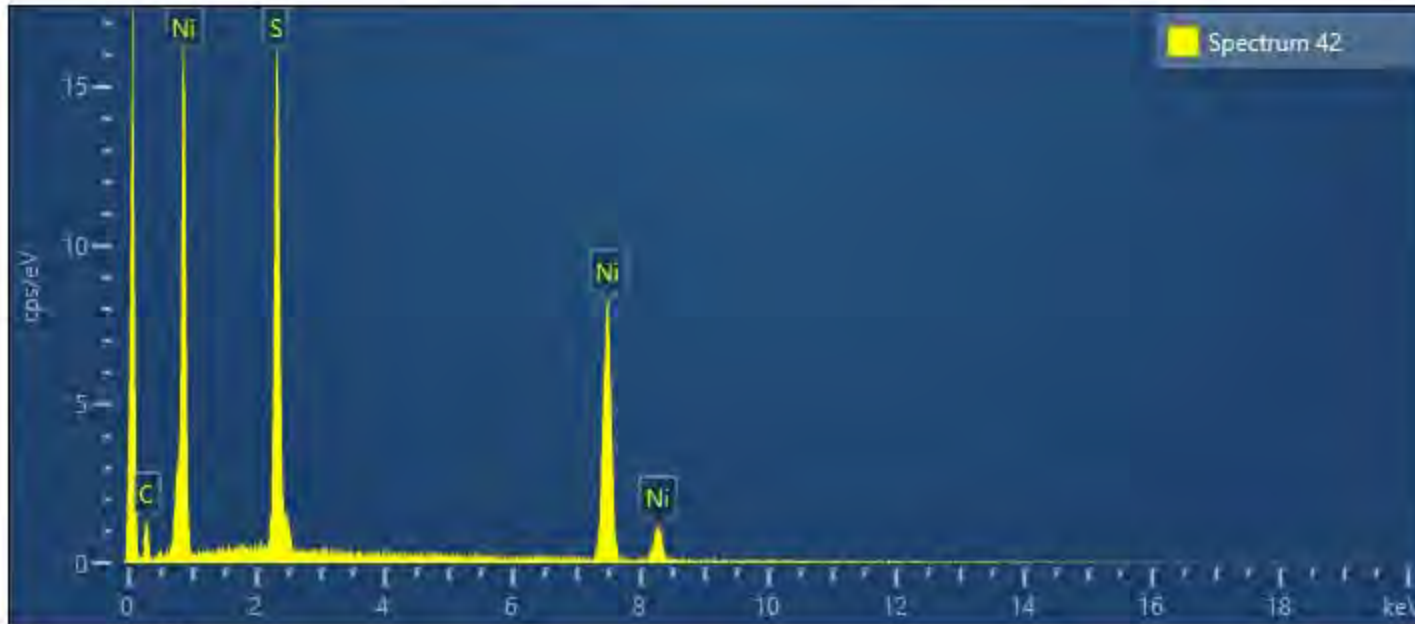
| Spectrum 32 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.93 | 0.27 | 41.47 |
| Fe | K series | 2.31 | 0.15 | 1.97 |
| Ni | K series | 69.75 | 0.29 | 56.56 |
| Total | | 100.00 | | 100.00 |



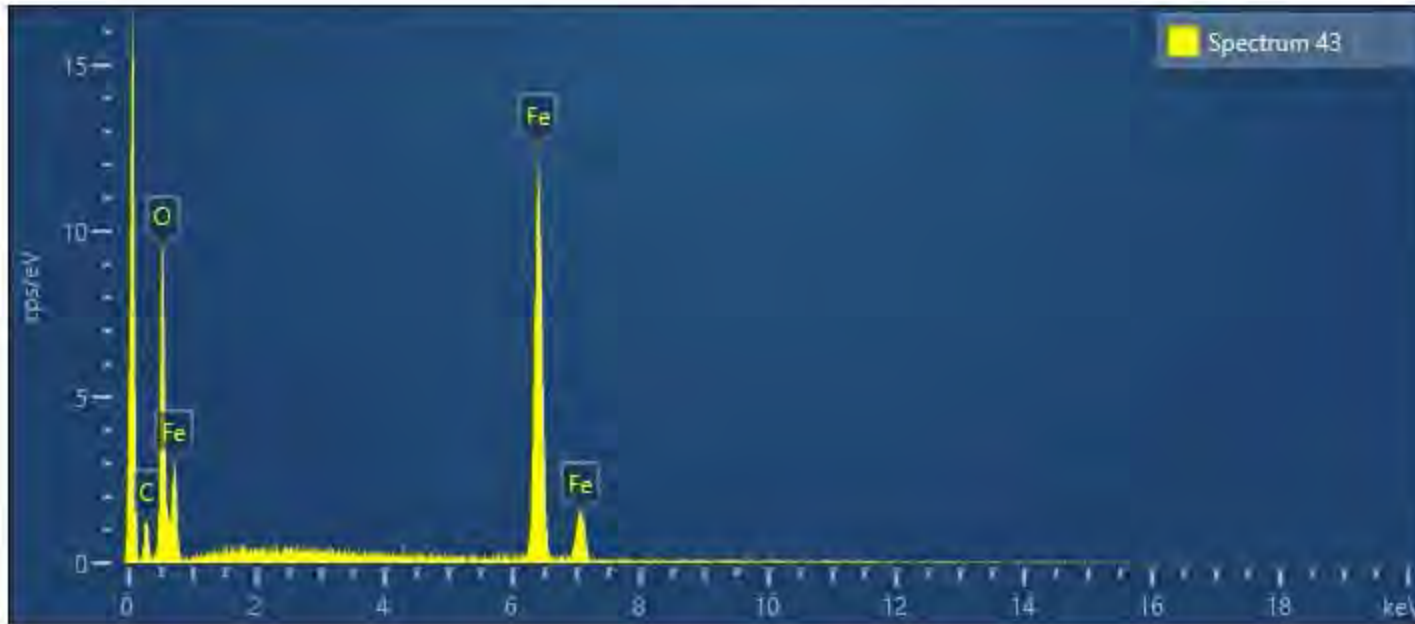
| Spectrum 33 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.53 | 0.28 | 40.97 |
| Ni | K series | 69.93 | 0.31 | 56.85 |
| Fe | K series | 2.54 | 0.15 | 2.17 |
| Total | | 100.00 | | 100.00 |

Electron Image 12

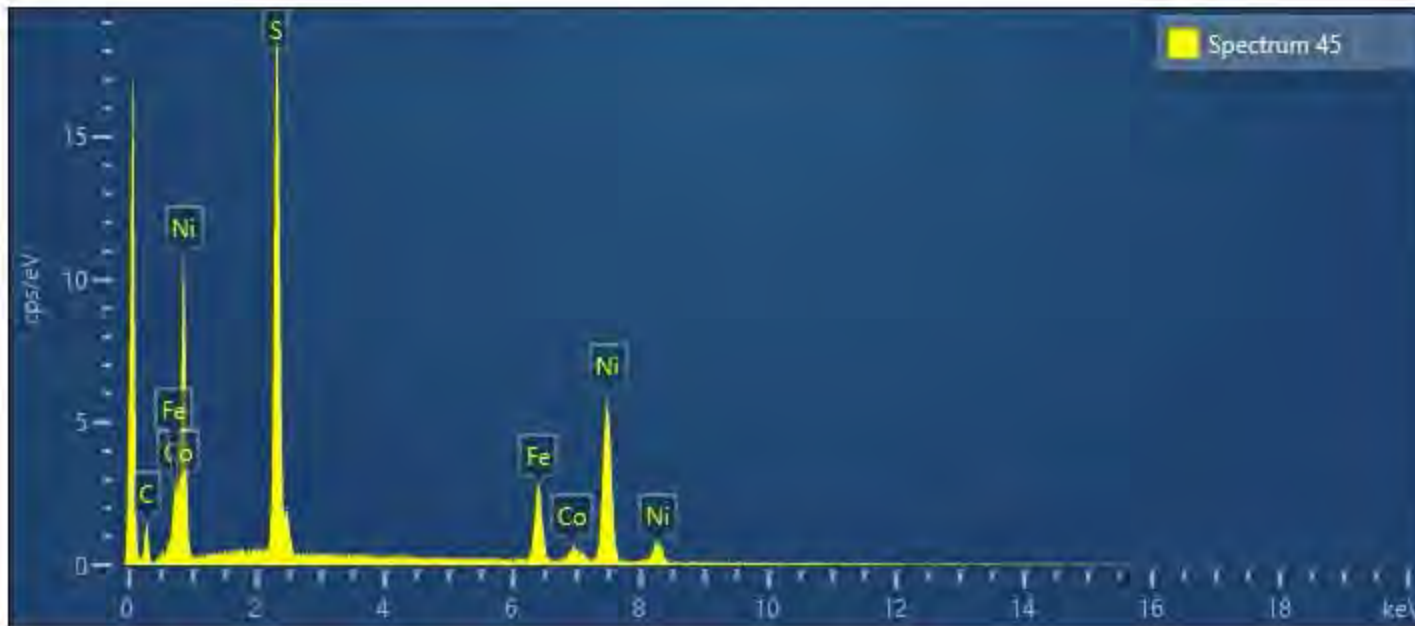




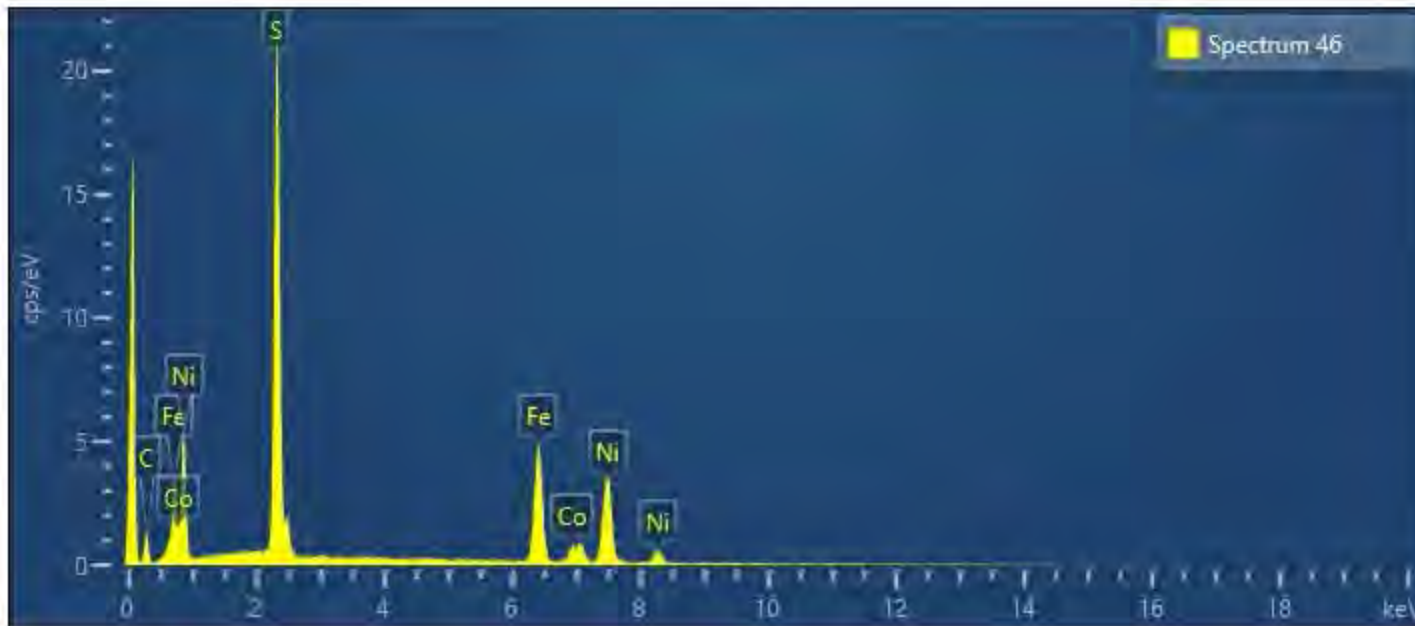
| Spectrum 42 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.34 | 0.56 | 42.00 |
| Ni | K series | 71.66 | 0.56 | 58.00 |
| Total | | 100.00 | | 100.00 |



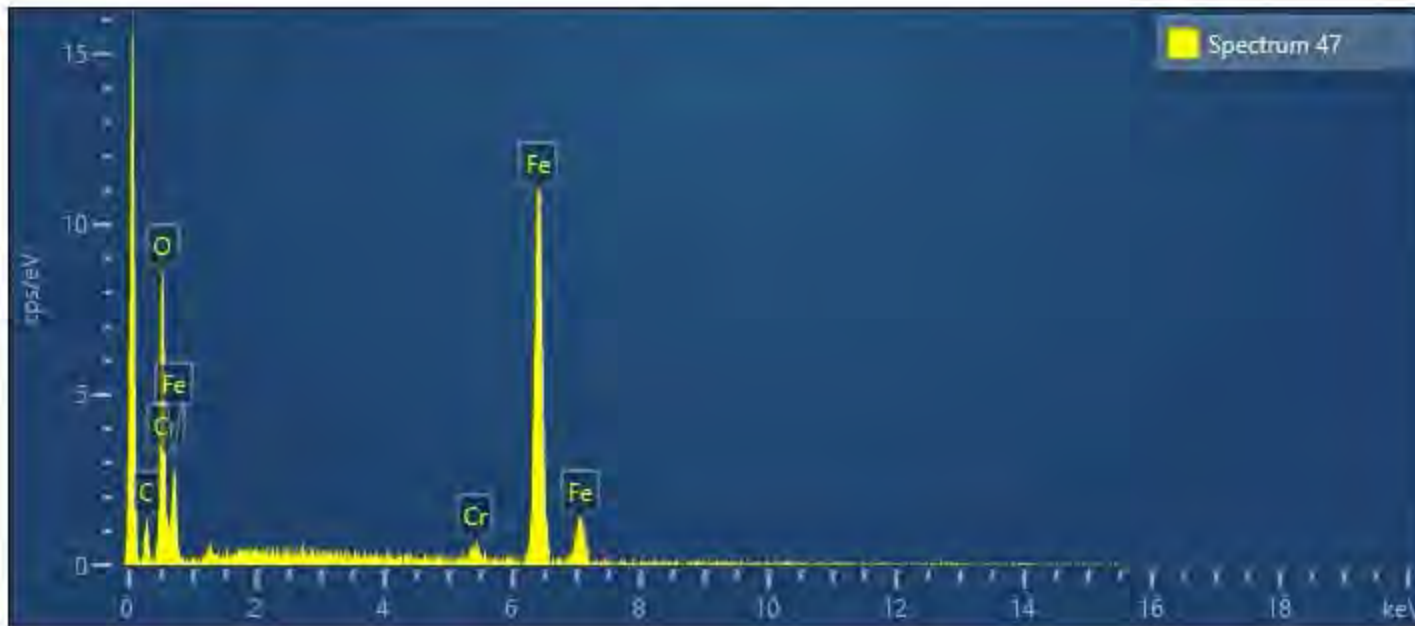
| Spectrum 43 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.27 | 0.66 | 50.00 | | | |
| Fe | K series | 77.73 | 0.66 | 50.00 | FeO | 100.00 | 0.85 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



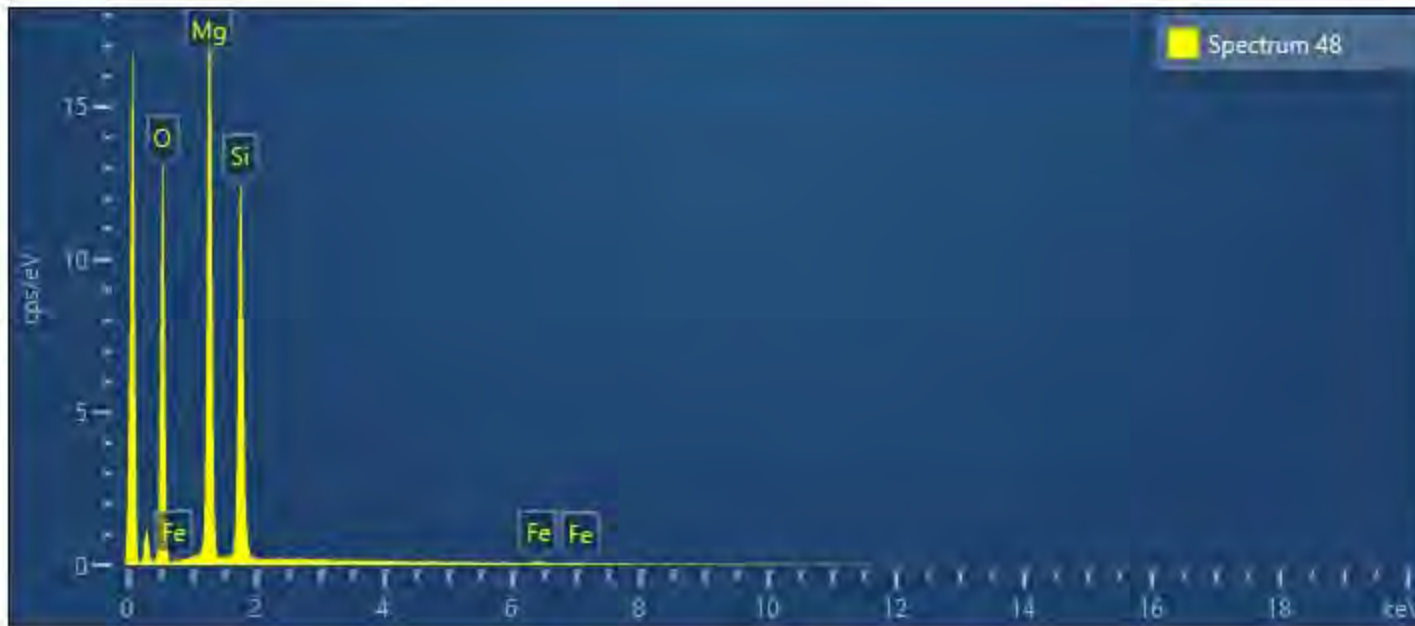
| Spectrum 45 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 31.76 | 0.41 | 45.75 |
| Fe | K series | 14.33 | 0.36 | 11.85 |
| Ni | K series | 50.96 | 0.53 | 40.09 |
| Co | K series | 2.95 | 0.32 | 2.31 |
| Total | | 100.00 | | 100.00 |



| Spectrum 46 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.19 | 0.44 | 49.32 |
| Fe | K series | 27.33 | 0.47 | 21.99 |
| Ni | K series | 33.71 | 0.55 | 25.81 |
| Co | K series | 3.77 | 0.37 | 2.88 |
| Total | | 100.00 | | 100.00 |

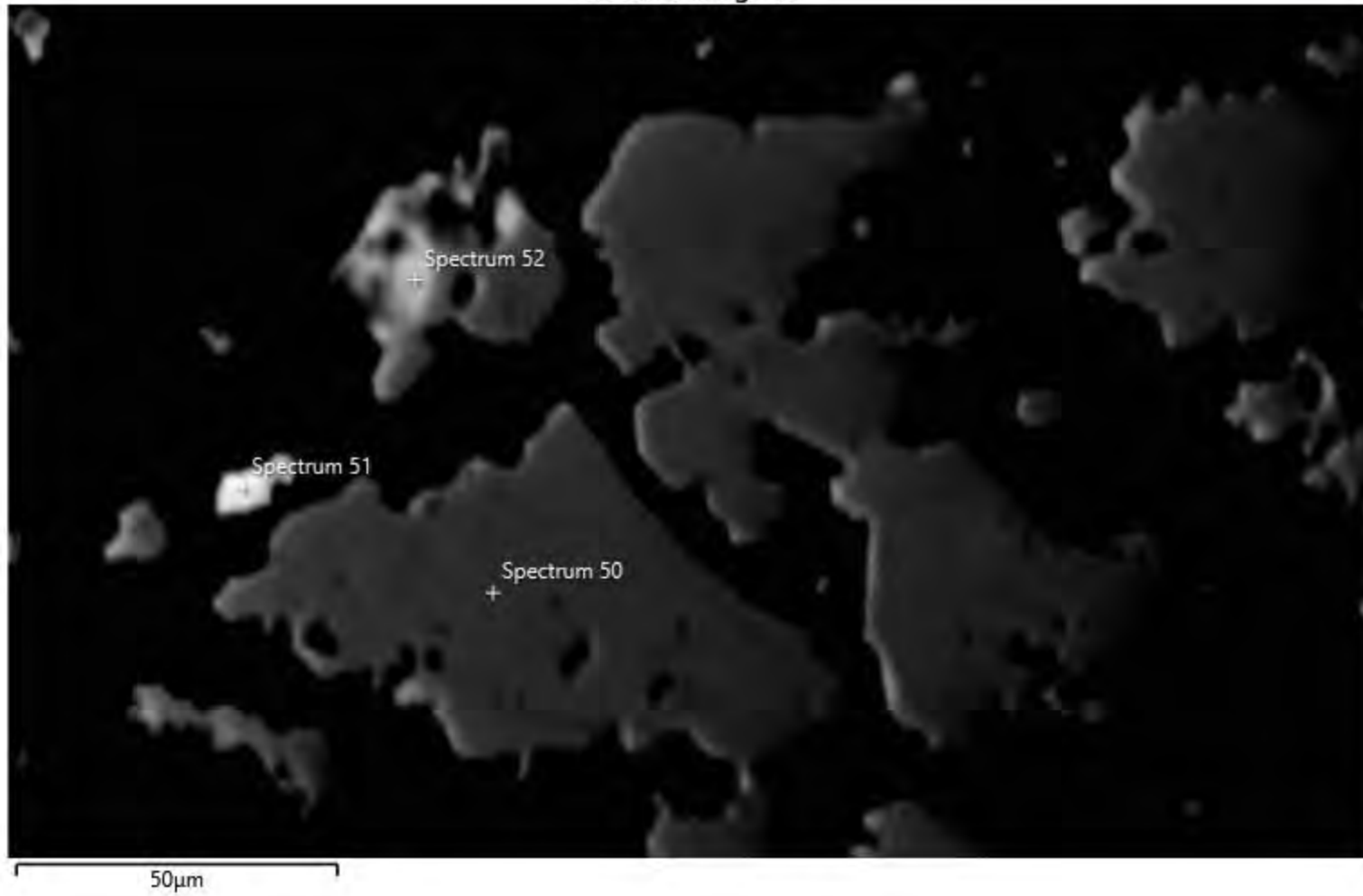


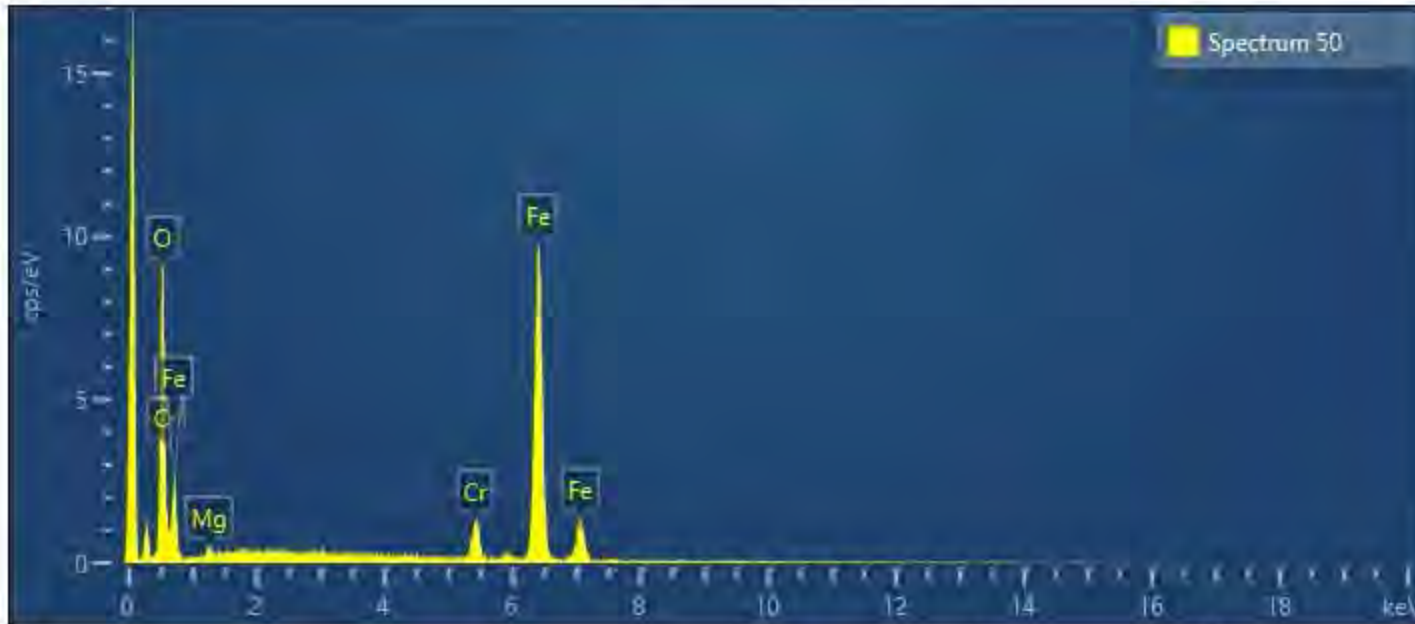
| Spectrum 47 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.47 | 0.87 | 50.25 | | | |
| Fe | K series | 76.07 | 0.91 | 48.74 | FeO | 97.87 | 1.17 |
| Cr | K series | 1.46 | 0.35 | 1.01 | Cr2O3 | 2.13 | 0.51 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



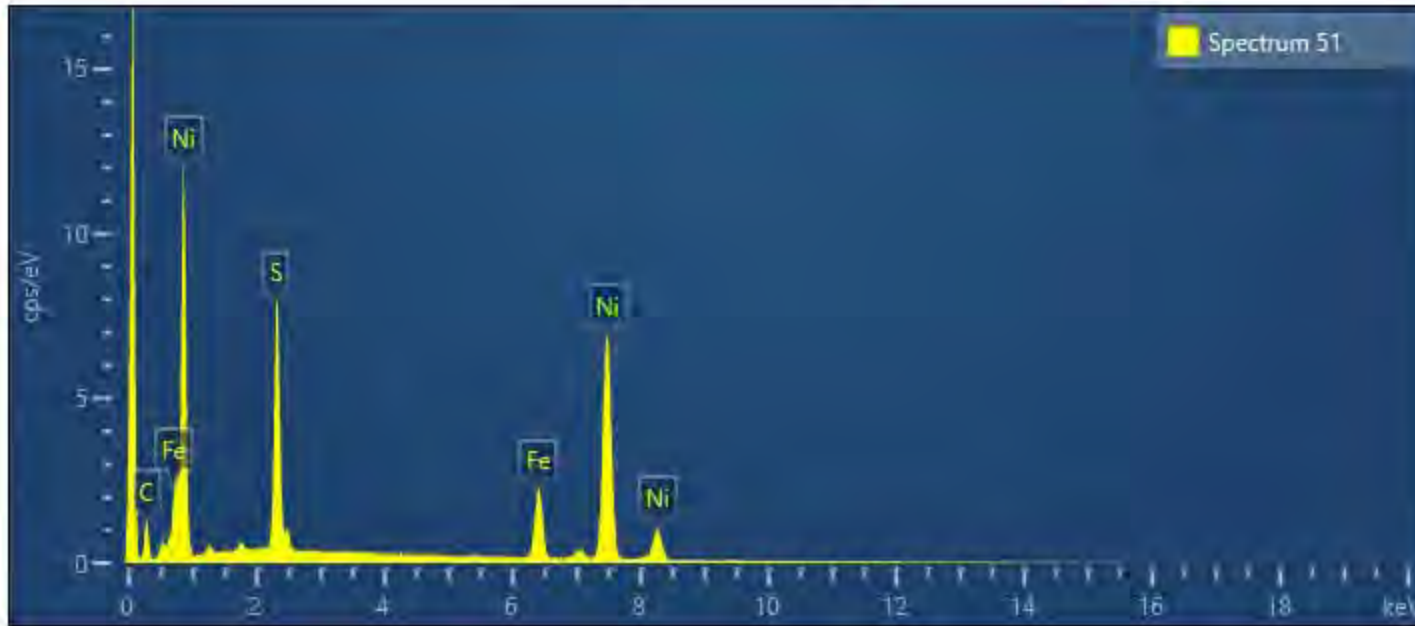
| Spectrum 48 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 46.43 | 0.23 | 58.44 | | | |
| Mg | K series | 29.59 | 0.21 | 24.52 | MgO | 49.07 | 0.34 |
| Si | K series | 23.55 | 0.20 | 16.88 | SiO2 | 50.37 | 0.42 |
| Fe | K series | 0.43 | 0.11 | 0.16 | FeO | 0.56 | 0.14 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

Electron Image 13

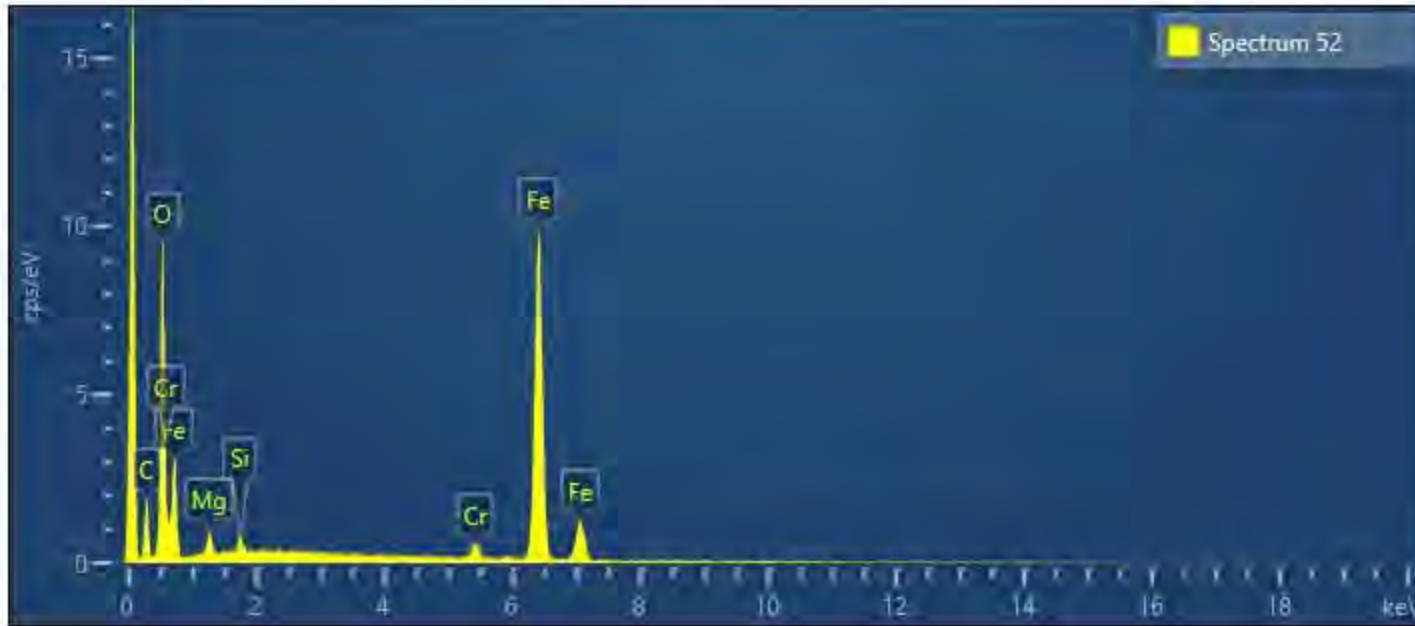




| Spectrum 50 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 23.33 | 0.53 | 50.88 | | | |
| Cr | K series | 5.24 | 0.26 | 3.52 | Cr2O3 | 7.66 | 0.39 |
| Fe | K series | 70.22 | 0.58 | 43.87 | FeO | 90.33 | 0.74 |
| Mg | K series | 1.21 | 0.22 | 1.74 | MgO | 2.01 | 0.36 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



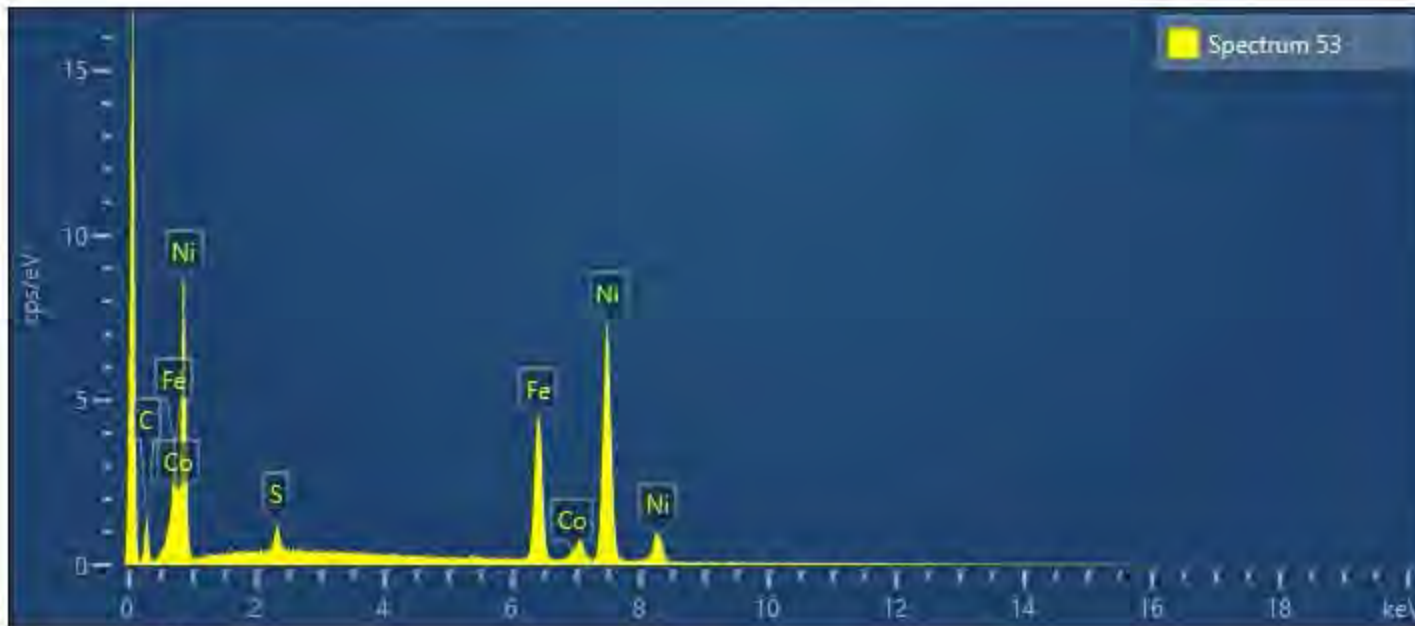
| Spectrum 51 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 16.22 | 0.23 | 26.02 |
| Fe | K series | 12.93 | 0.25 | 11.90 |
| Ni | K series | 70.85 | 0.33 | 62.07 |
| Total | | 100.00 | | 100.00 |



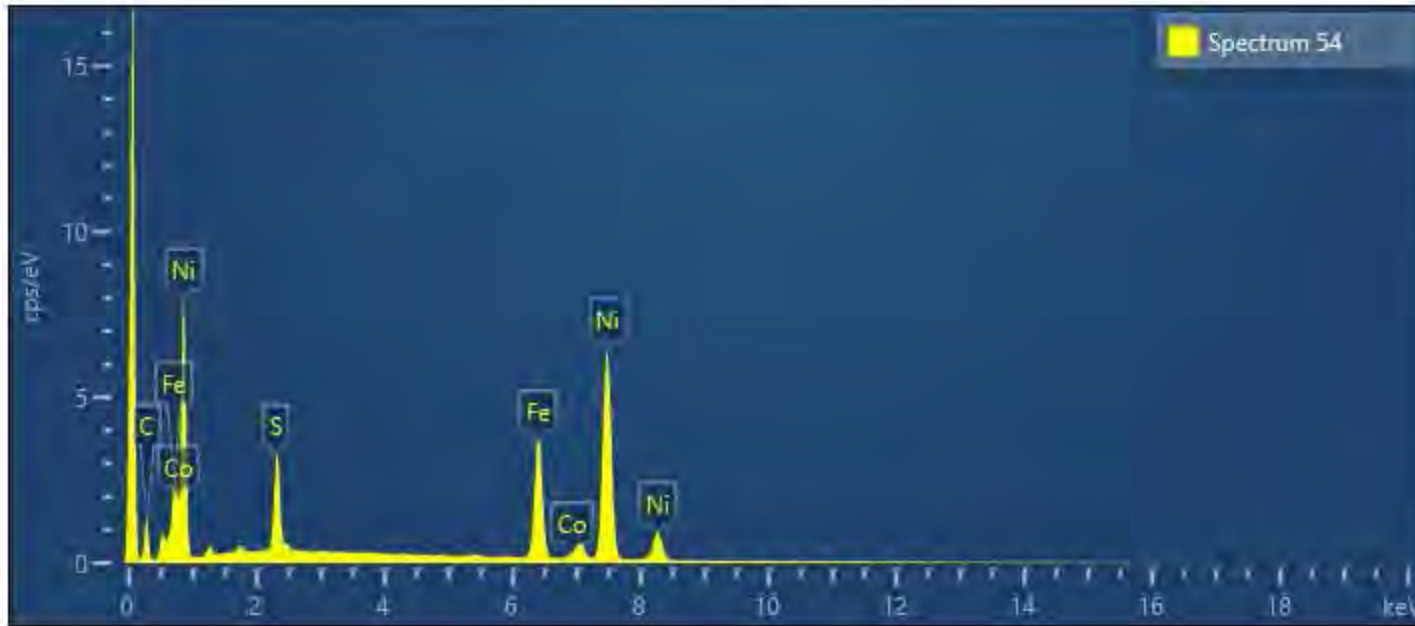
| Spectrum 52 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 23.84 | 0.44 | 50.90 | | | |
| Fe | K series | 70.97 | 0.48 | 43.41 | FeO | 91.30 | 0.62 |
| Mg | K series | 2.33 | 0.21 | 3.27 | MgO | 3.86 | 0.36 |
| Cr | K series | 1.90 | 0.16 | 1.25 | Cr2O3 | 2.78 | 0.24 |
| Si | K series | 0.96 | 0.13 | 1.17 | SiO2 | 2.05 | 0.27 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

Electron Image 14





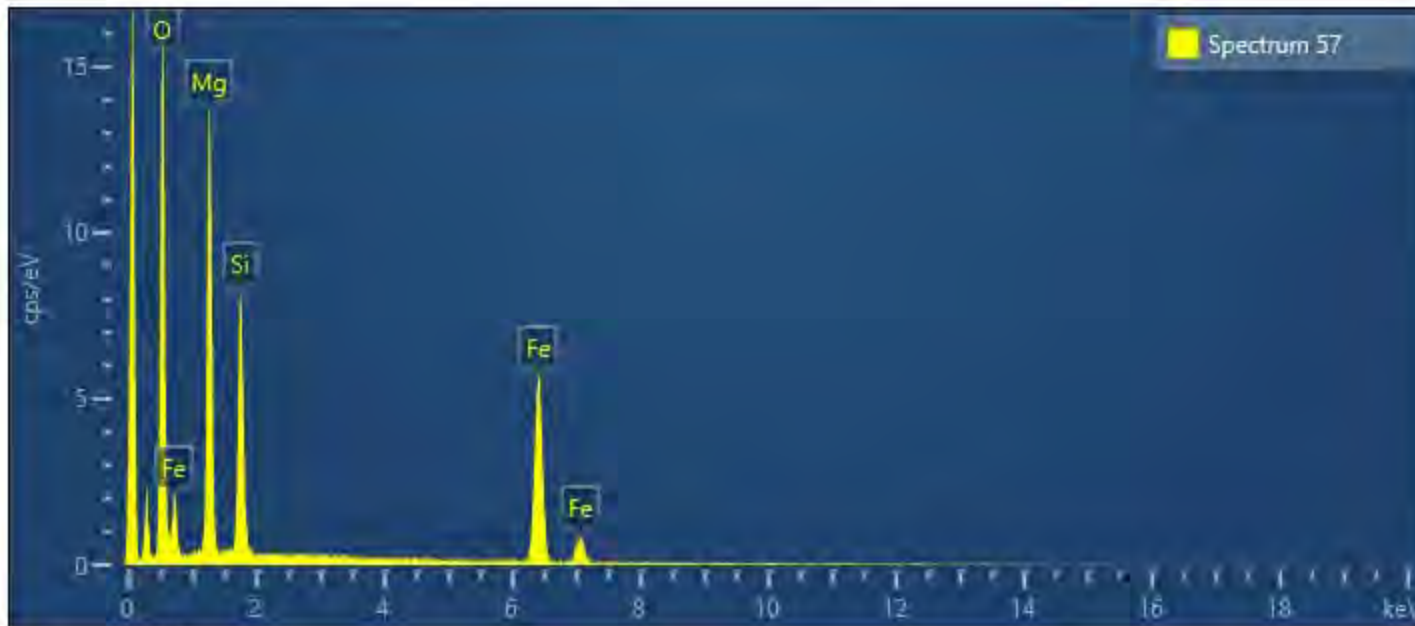
| Spectrum 53 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 26.55 | 0.31 | 27.17 |
| Ni | K series | 70.16 | 0.36 | 68.29 |
| S | K series | 1.67 | 0.10 | 2.97 |
| Co | K series | 1.62 | 0.23 | 1.57 |
| Total | | 100.00 | | 100.00 |



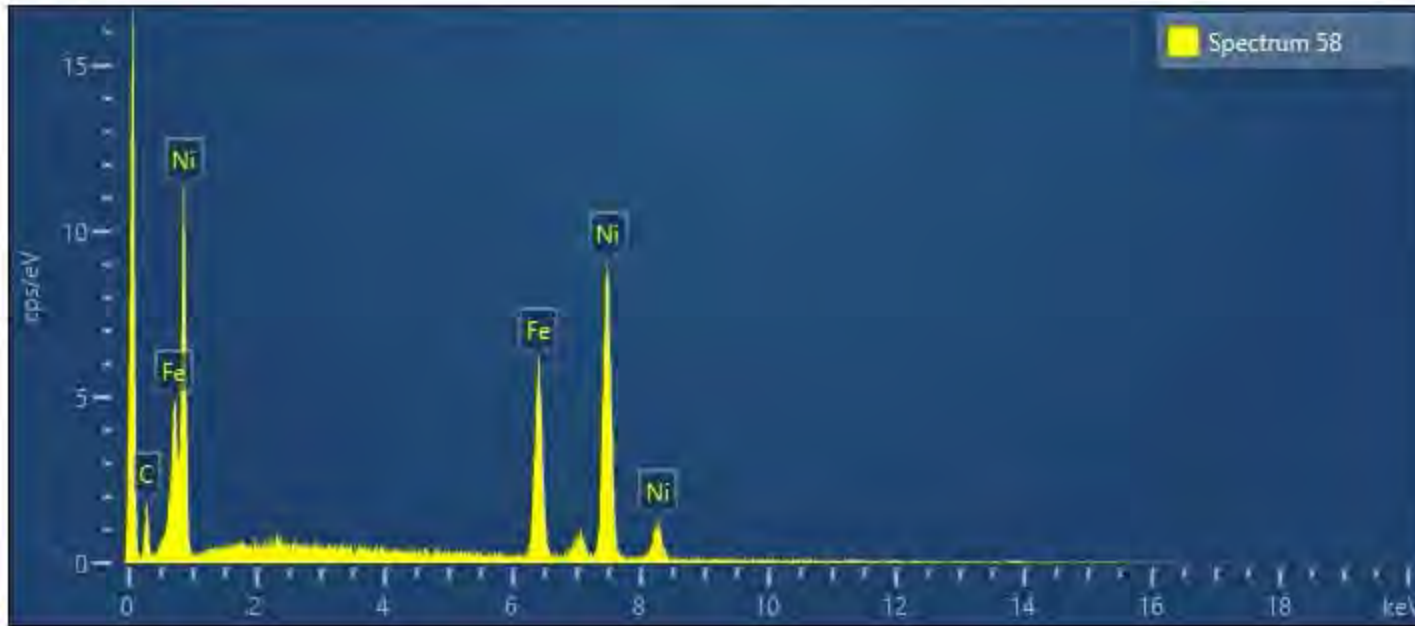
| Spectrum 54 | | | | |
|--------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 6.86 | 0.11 | 11.76 |
| Fe | K series | 23.08 | 0.21 | 22.71 |
| Ni | K series | 68.84 | 0.25 | 64.41 |
| Co | K series | 1.21 | 0.15 | 1.13 |
| Total | | 100.00 | | 100.00 |

Electron Image 16



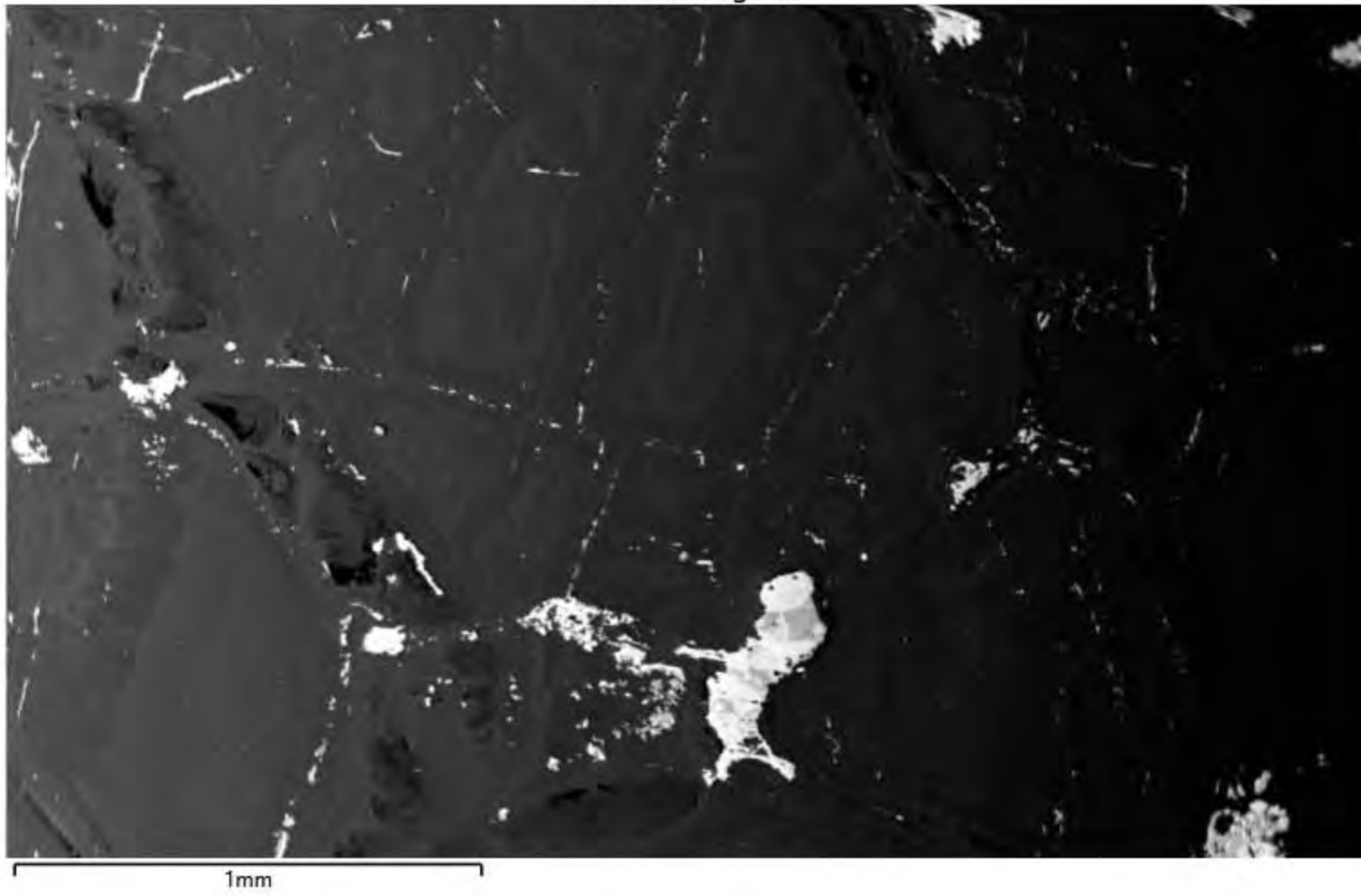


| Spectrum 57 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 40.14 | 0.48 | 59.20 |
| Mg | K series | 20.37 | 0.32 | 19.77 |
| Si | K series | 10.41 | 0.23 | 8.74 |
| Fe | K series | 29.09 | 0.44 | 12.29 |
| Total | | 100.00 | | 100.00 |

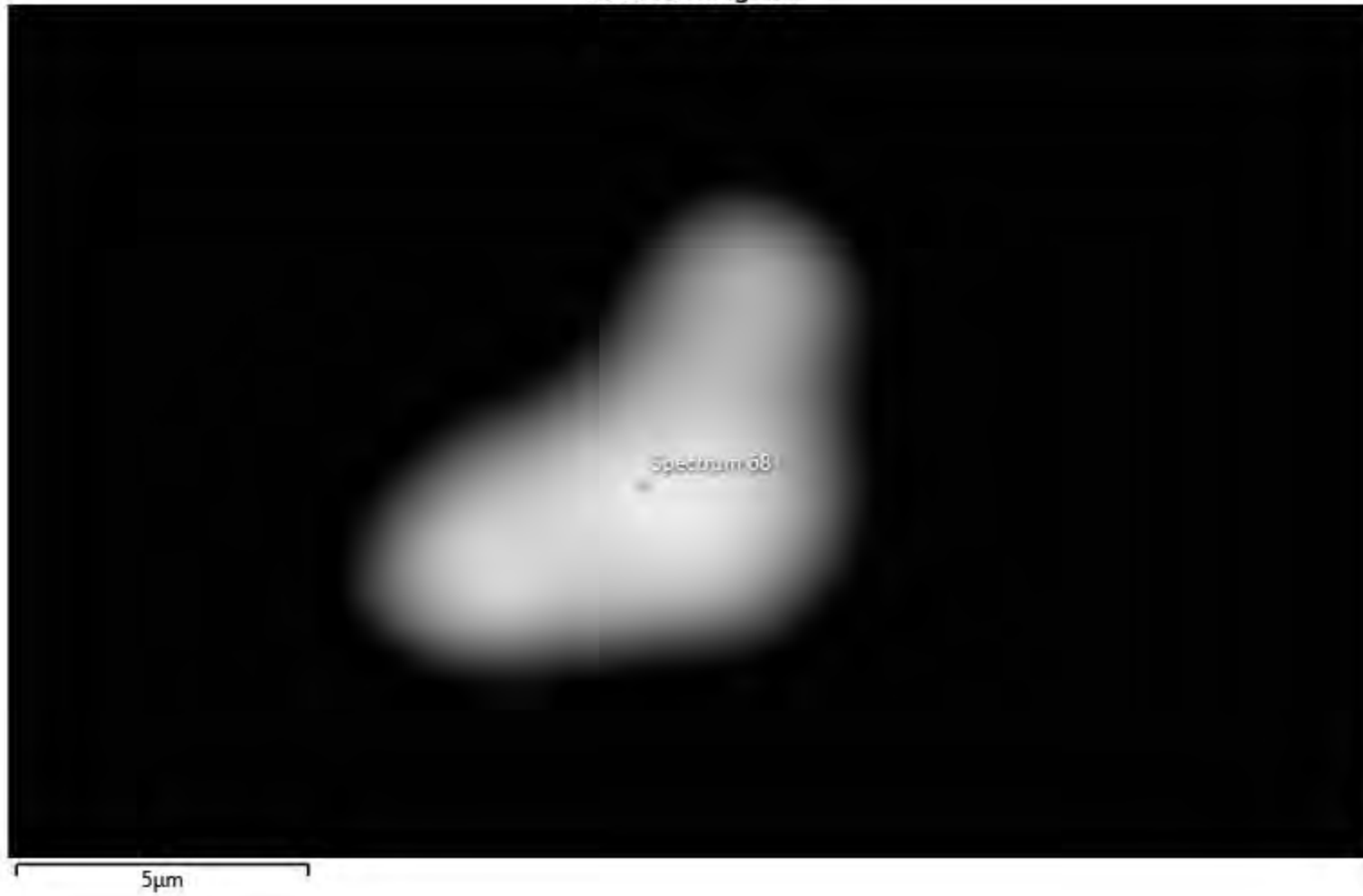


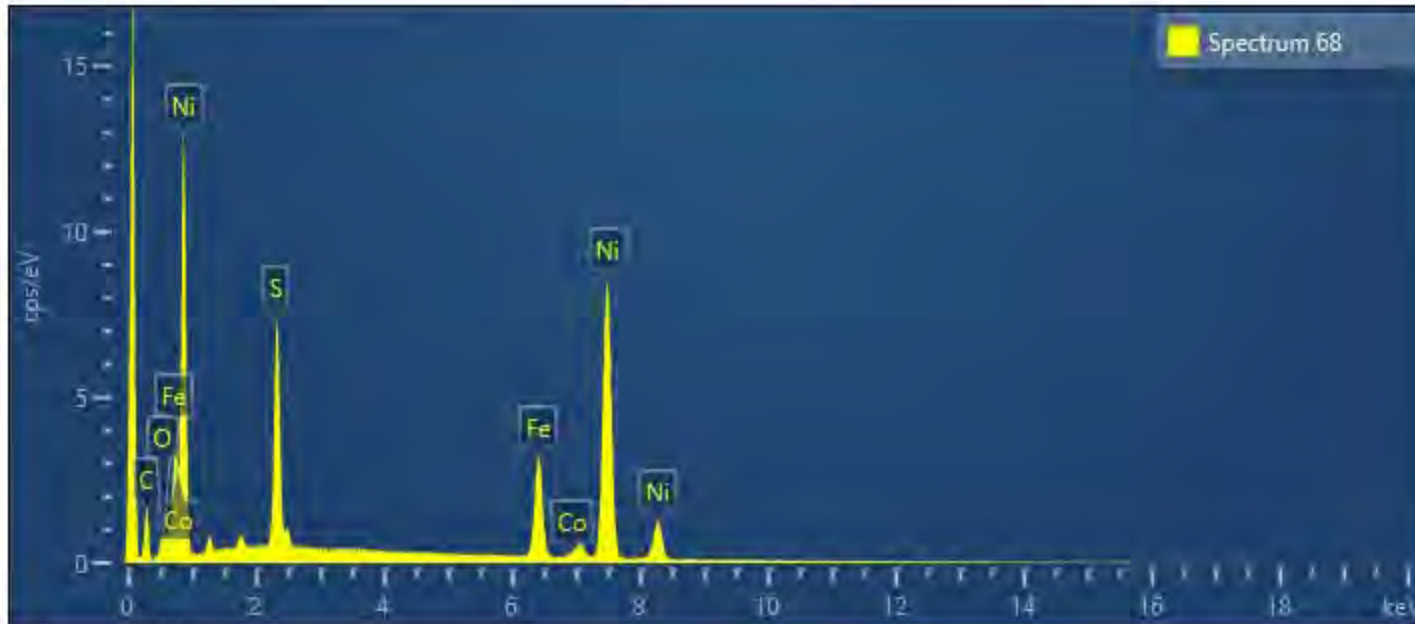
| Spectrum 58 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 27.57 | 0.58 | 28.57 |
| Ni | K series | 72.43 | 0.58 | 71.43 |
| Total | | 100.00 | | 100.00 |

Electron Image 18



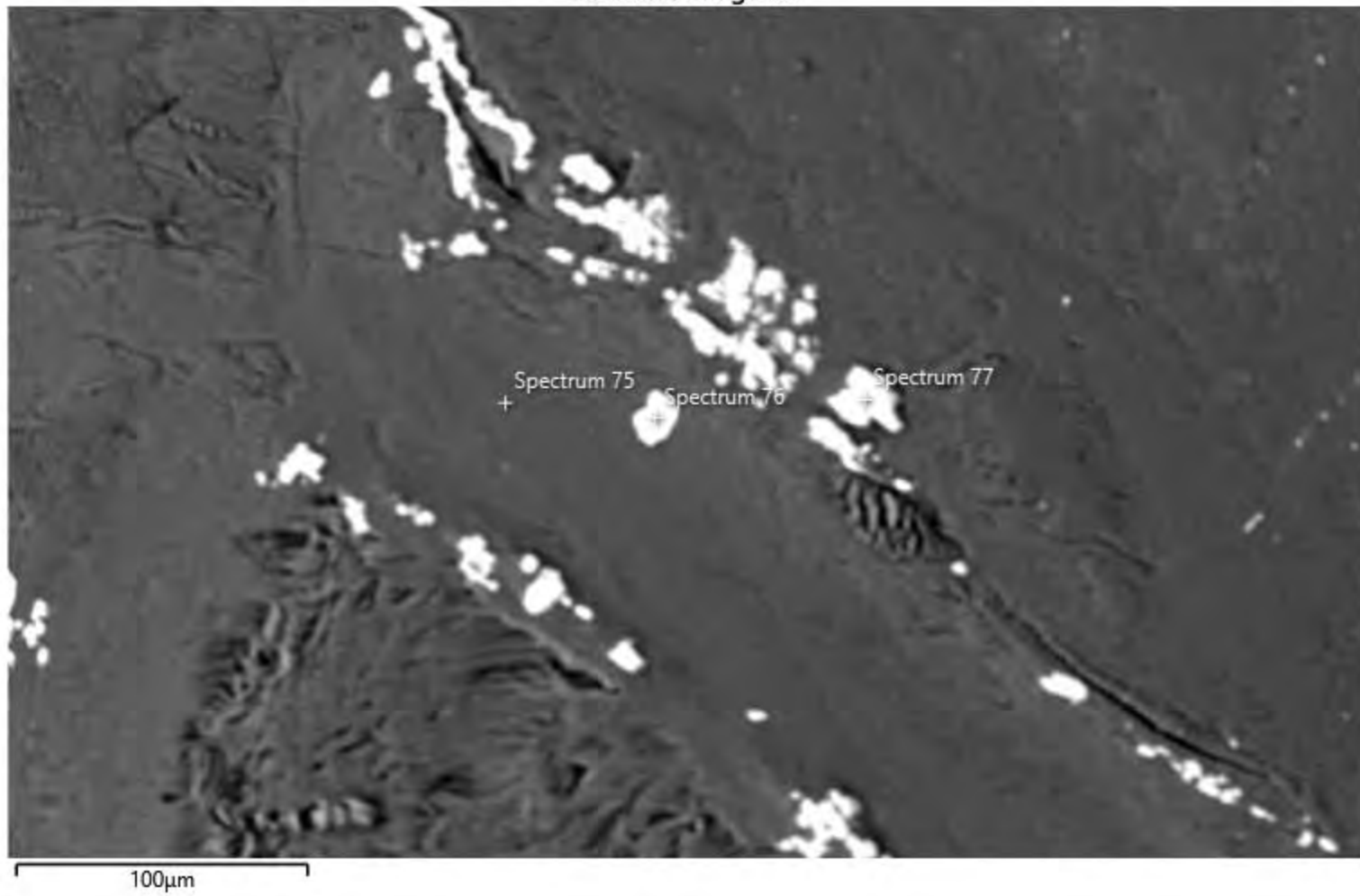
Electron Image 21

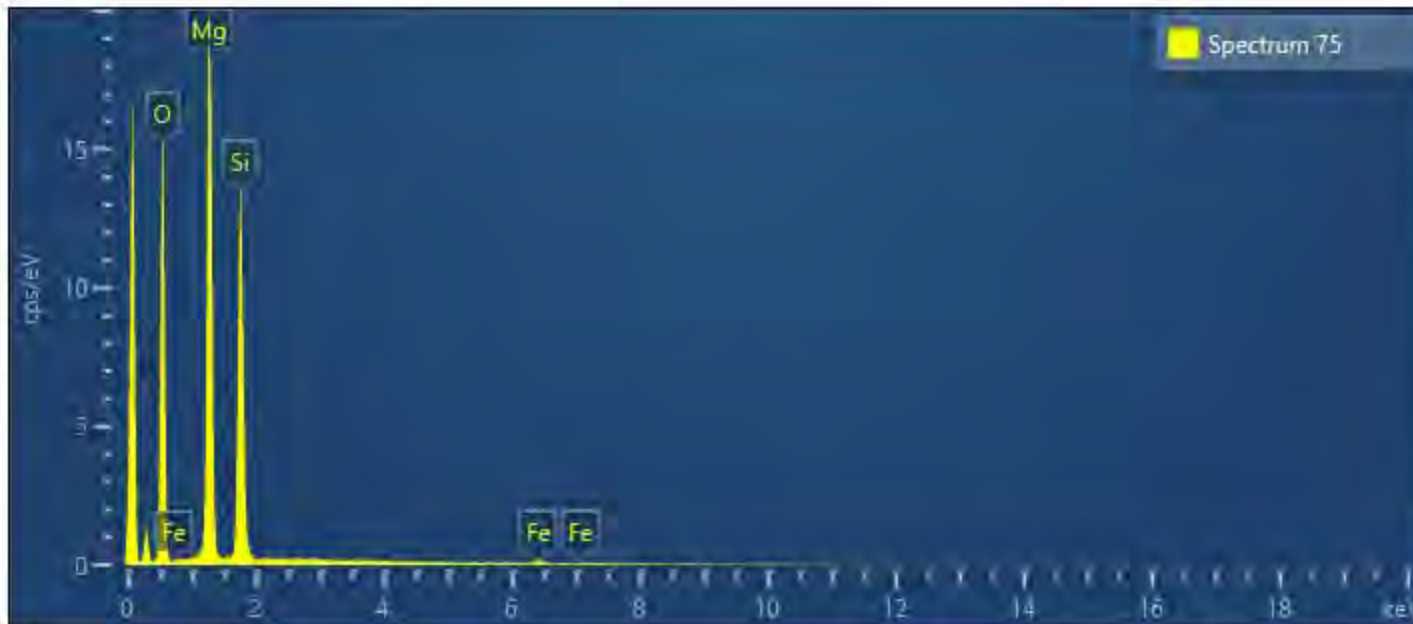




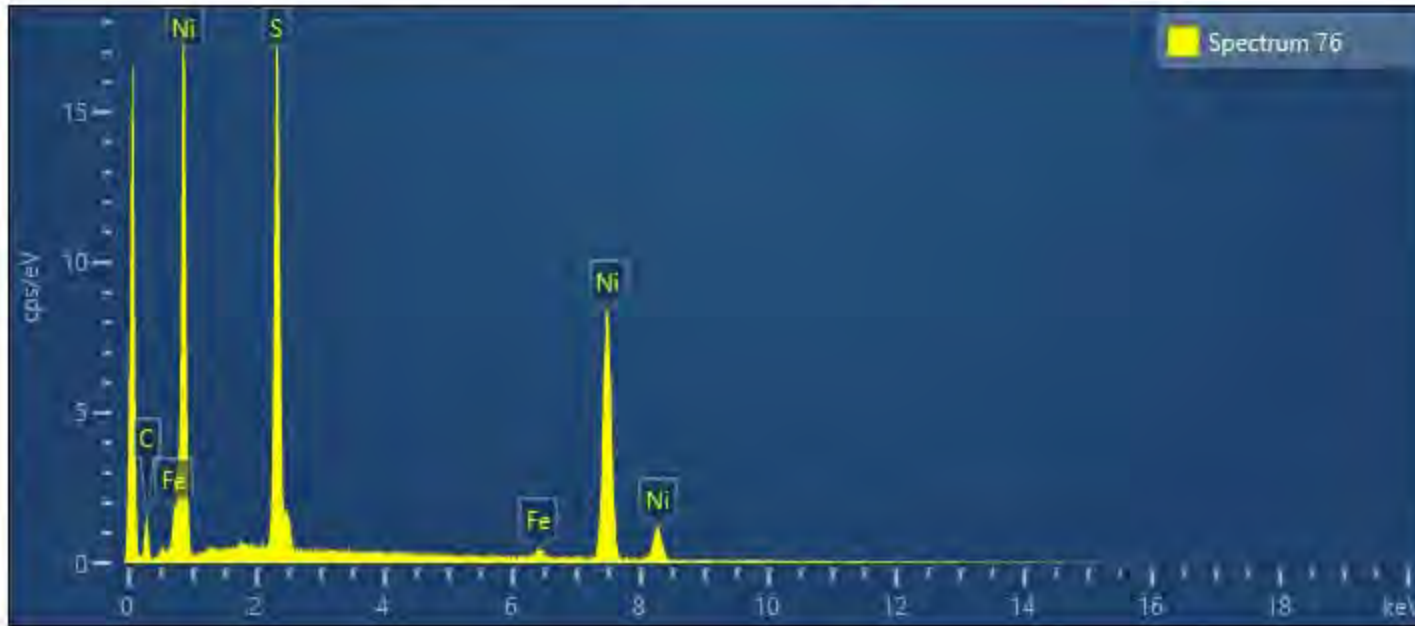
| Spectrum 68 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 11.97 | 0.15 | 18.78 |
| Fe | K series | 14.78 | 0.19 | 13.32 |
| Ni | K series | 70.20 | 0.29 | 60.17 |
| O | K series | 2.24 | 0.18 | 7.04 |
| Co | K series | 0.81 | 0.15 | 0.69 |
| Total | | 100.00 | | 100.00 |

Electron Image 23

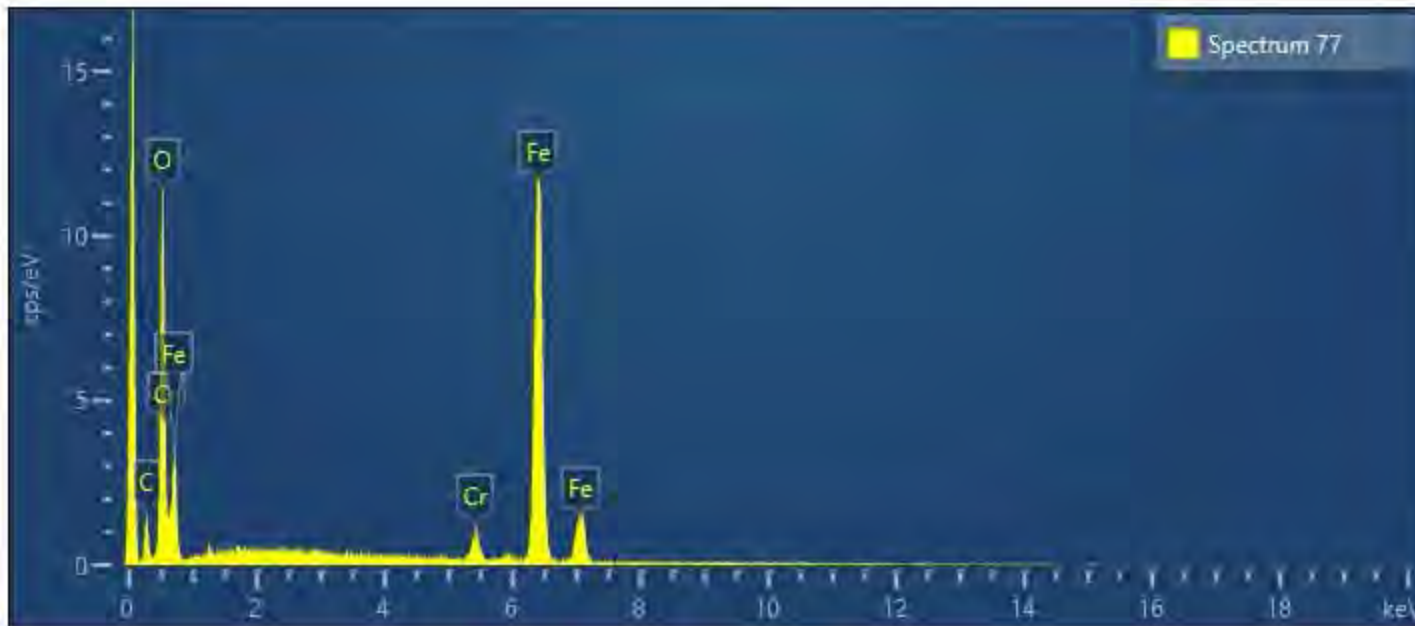




| Spectrum 75 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 46.04 | 0.32 | 58.21 | | | |
| Mg | K series | 29.97 | 0.29 | 24.93 | MgO | 49.69 | 0.48 |
| Si | K series | 22.81 | 0.27 | 16.43 | SiO2 | 48.79 | 0.59 |
| Fe | K series | 1.18 | 0.16 | 0.43 | FeO | 1.52 | 0.21 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

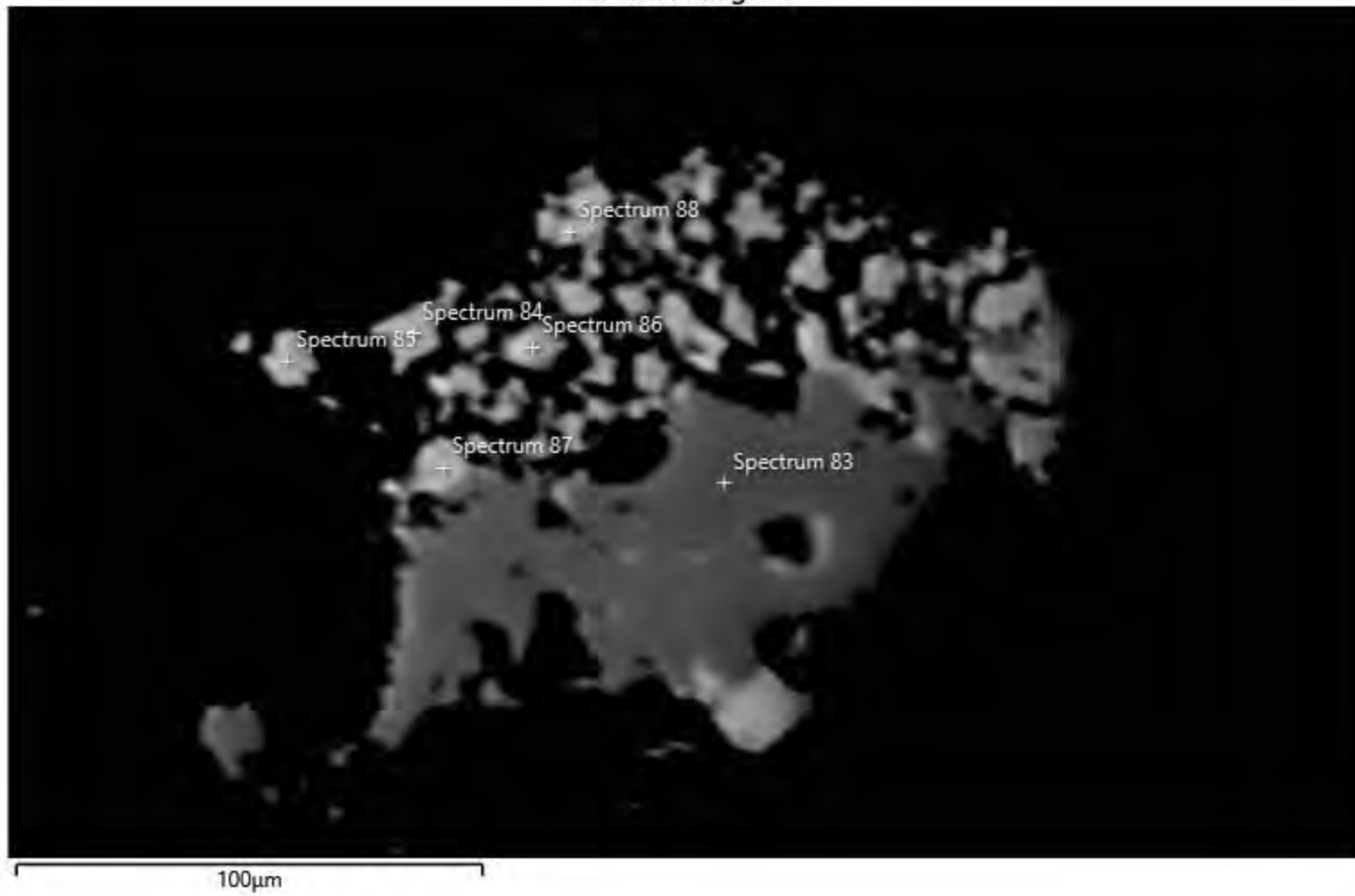


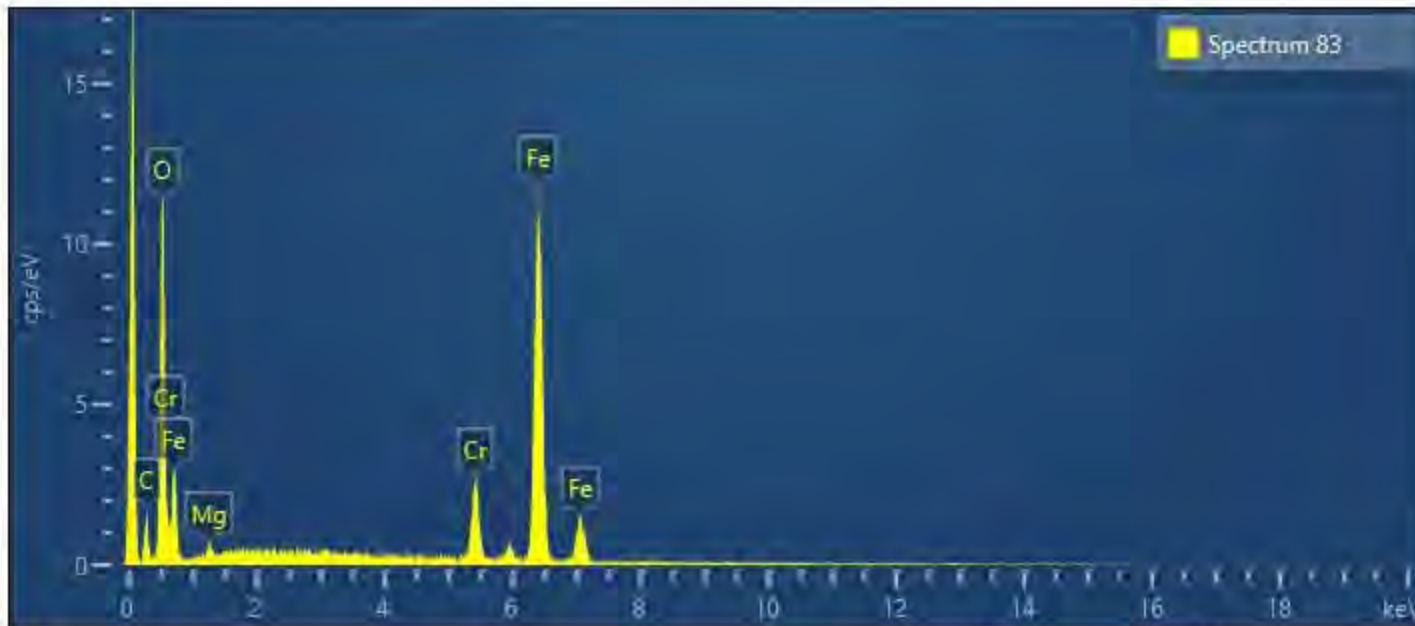
| Spectrum 76 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.67 | 0.35 | 42.37 |
| Ni | K series | 70.06 | 0.37 | 56.55 |
| Fe | K series | 1.27 | 0.17 | 1.08 |
| Total | | 100.00 | | 100.00 |



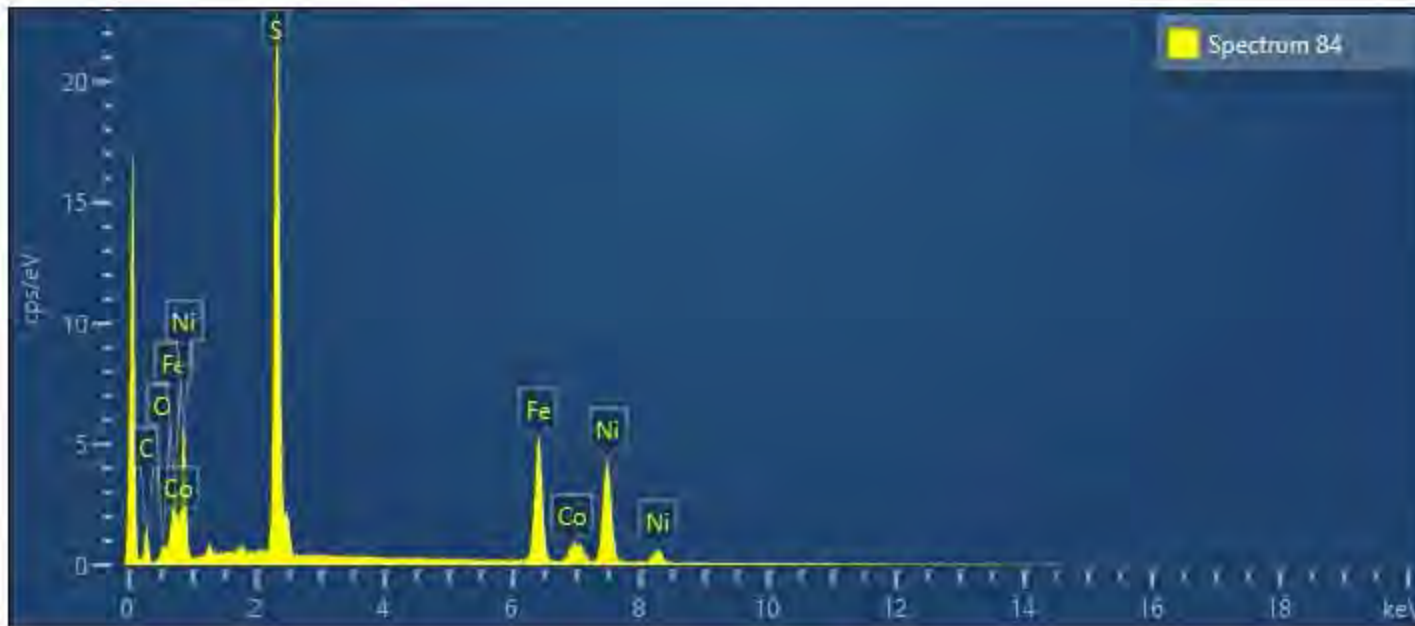
| Spectrum 77 | | | | | | | |
|-------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.68 | 0.48 | 50.52 | | | |
| Cr | K series | 3.02 | 0.21 | 2.07 | Cr ₂ O ₃ | 4.41 | 0.30 |
| Fe | K series | 74.31 | 0.50 | 47.42 | FeO | 95.59 | 0.64 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

Electron Image 25

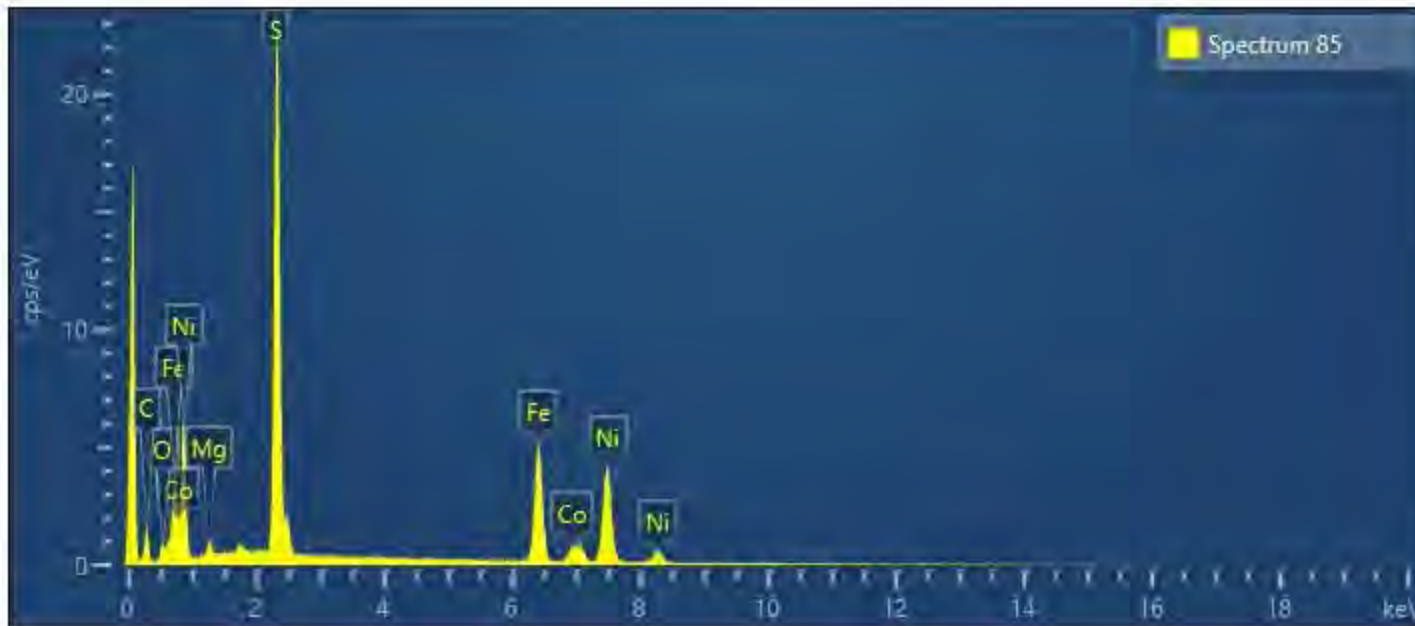




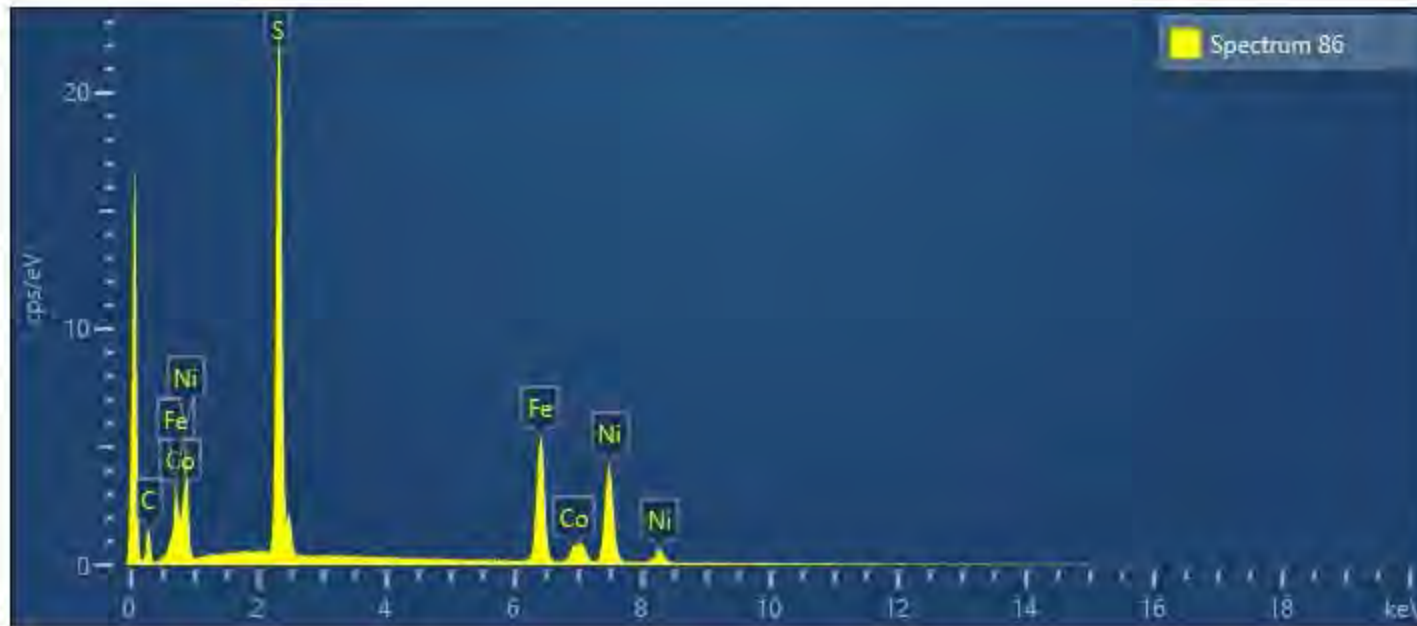
| Spectrum 83 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 23.80 | 0.54 | 51.46 | | | |
| Cr | K series | 8.77 | 0.33 | 5.84 | Cr2O3 | 12.82 | 0.48 |
| Fe | K series | 66.26 | 0.60 | 41.04 | FeO | 85.24 | 0.77 |
| Mg | K series | 1.17 | 0.23 | 1.66 | MgO | 1.94 | 0.37 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



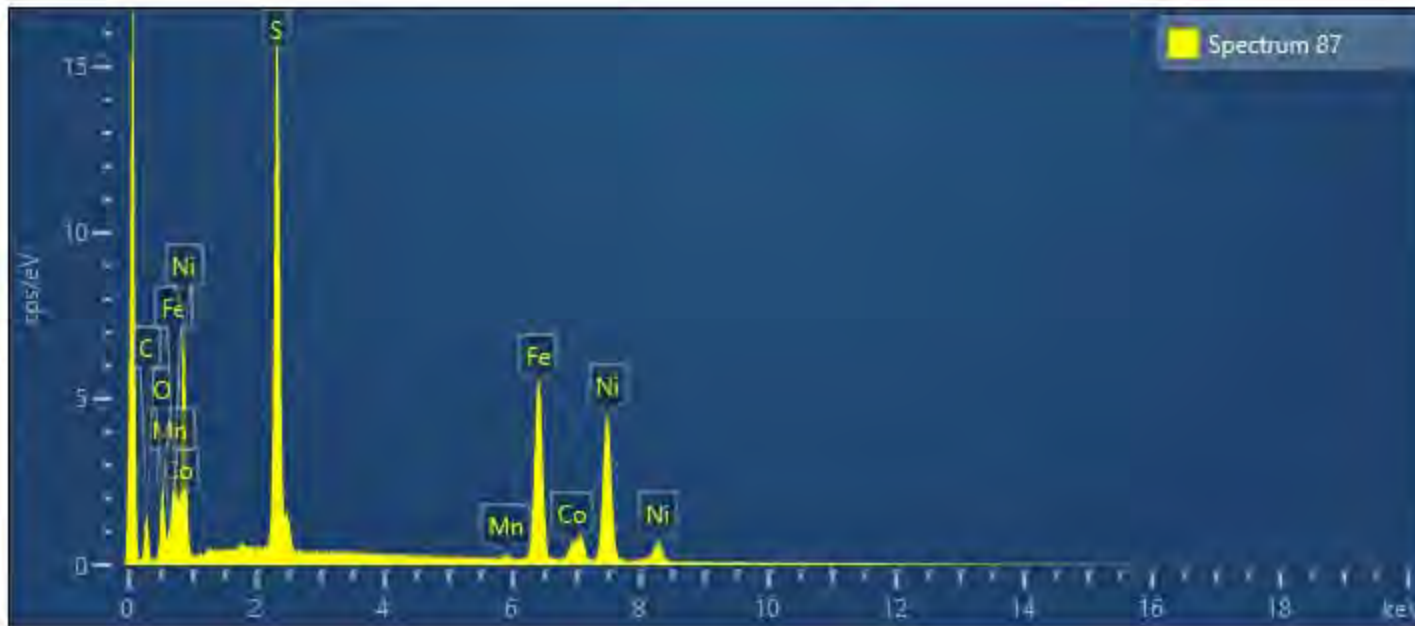
| Spectrum 84 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.48 | 0.30 | 44.27 |
| Fe | K series | 25.68 | 0.32 | 19.50 |
| Ni | K series | 33.12 | 0.38 | 23.92 |
| O | K series | 3.50 | 0.29 | 9.28 |
| Co | K series | 4.22 | 0.24 | 3.04 |
| Total | | 100.00 | | 100.00 |



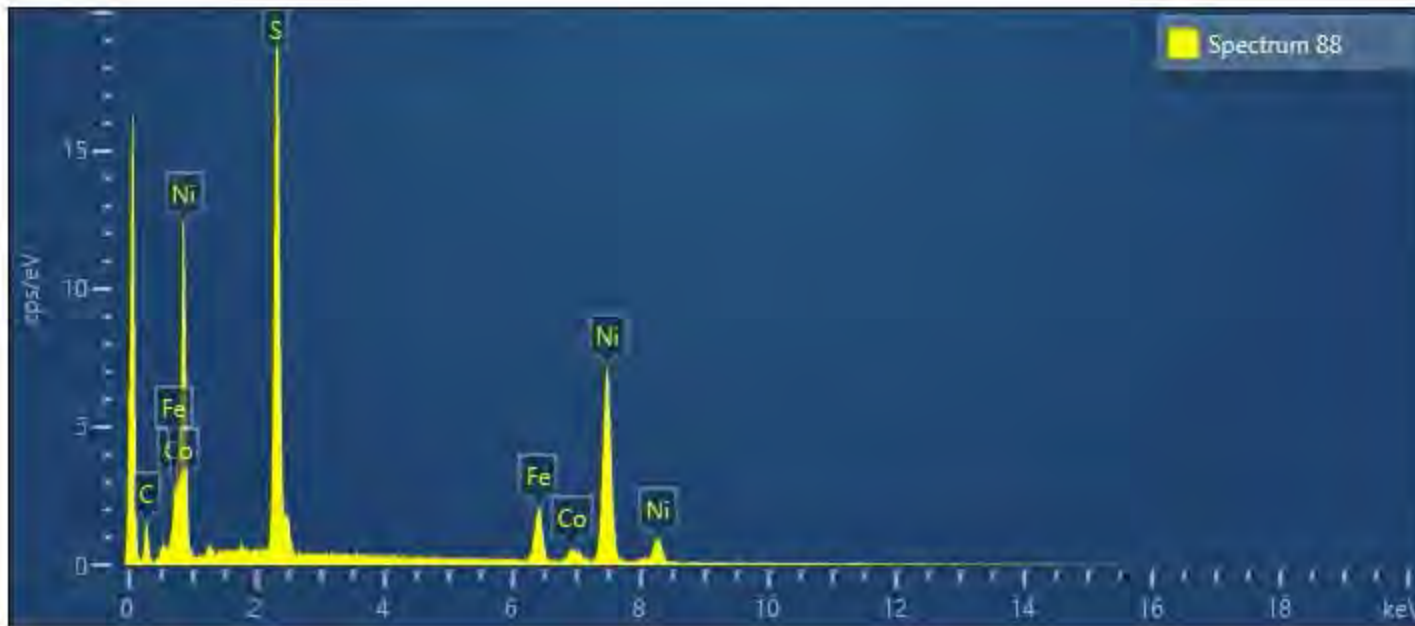
| Spectrum 85 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.35 | 0.36 | 42.94 |
| Fe | K series | 24.97 | 0.37 | 18.46 |
| Co | K series | 3.70 | 0.28 | 2.59 |
| Ni | K series | 32.38 | 0.45 | 22.77 |
| O | K series | 4.24 | 0.35 | 10.93 |
| Mg | K series | 1.36 | 0.15 | 2.31 |
| Total | | 100.00 | | 100.00 |



| Spectrum 86 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.56 | 0.27 | 48.63 |
| Fe | K series | 27.62 | 0.29 | 22.31 |
| Ni | K series | 33.55 | 0.34 | 25.79 |
| Co | K series | 4.27 | 0.23 | 3.27 |
| Total | | 100.00 | | 100.00 |

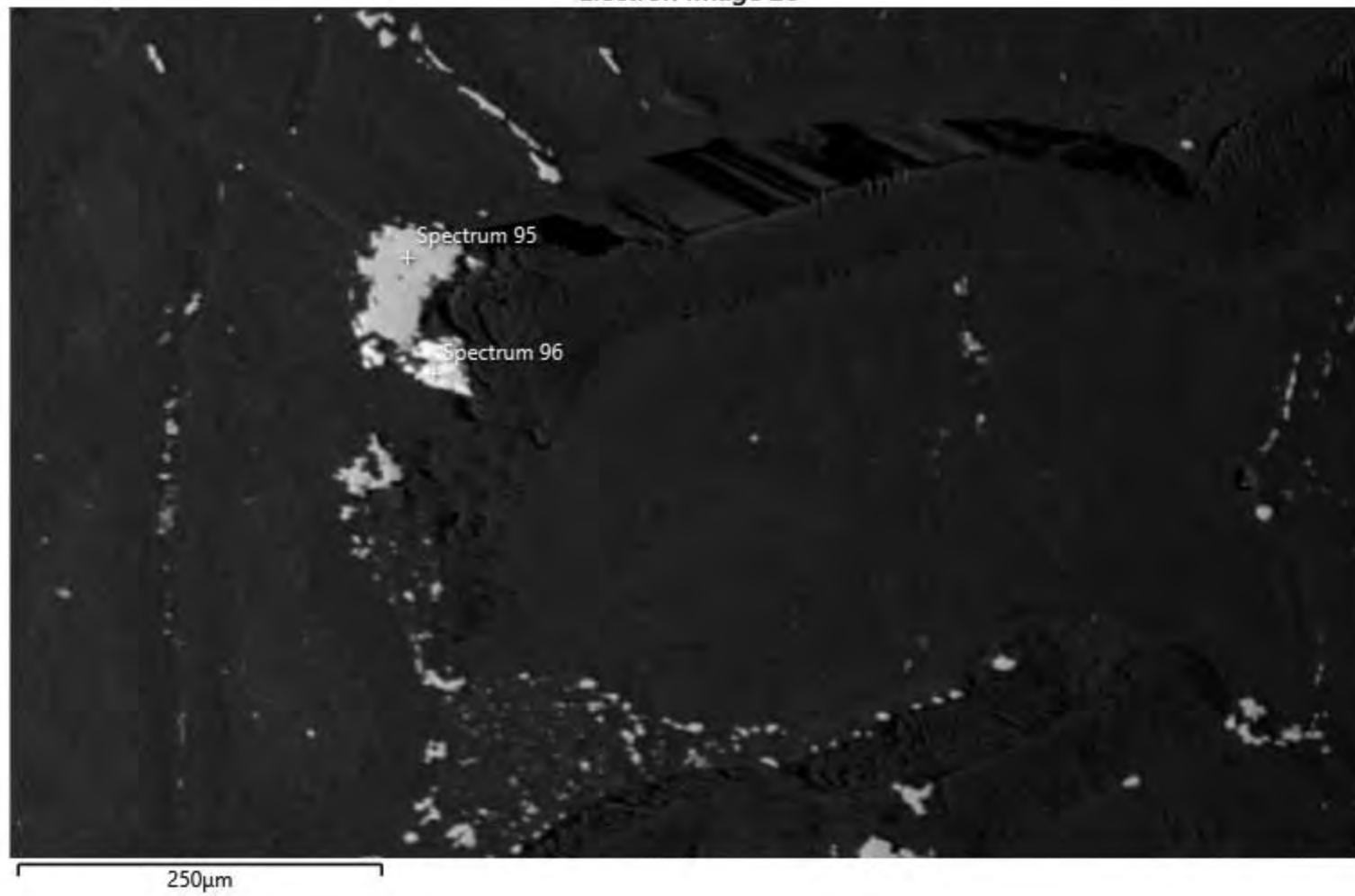


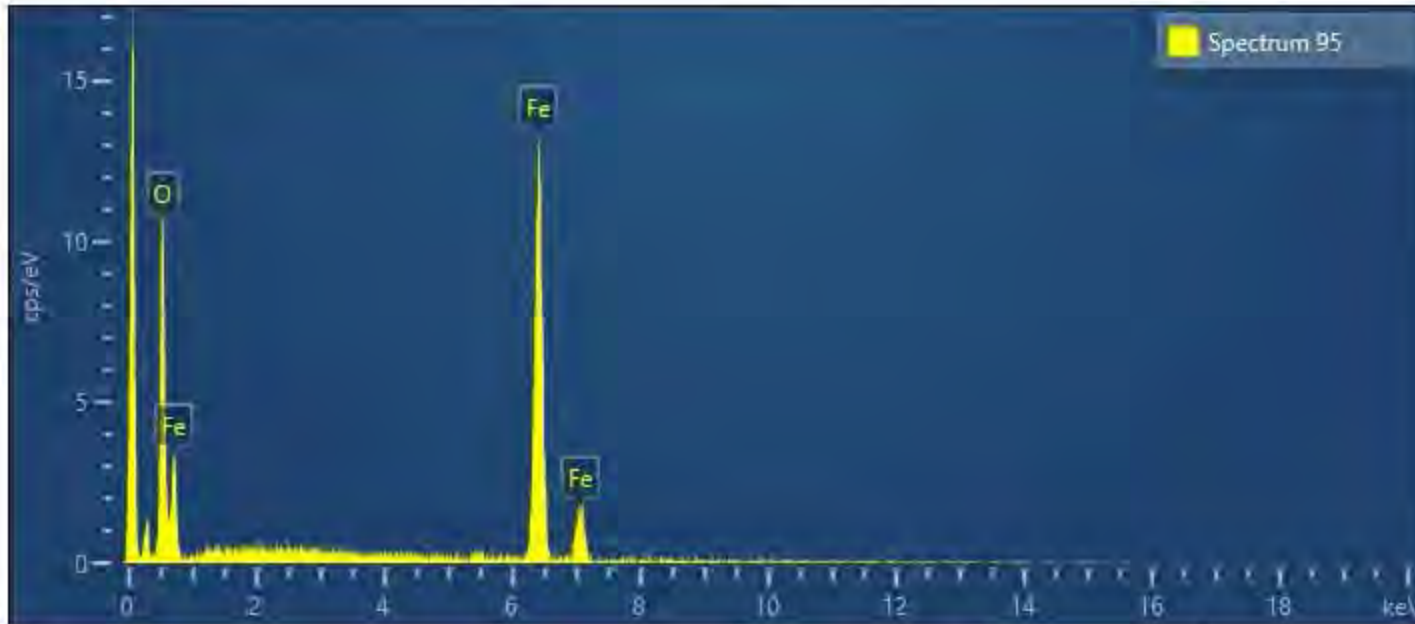
| Spectrum 87 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 9.72 | 0.29 | 24.28 |
| S | K series | 23.50 | 0.21 | 29.29 |
| Fe | K series | 27.83 | 0.28 | 19.91 |
| Ni | K series | 35.66 | 0.33 | 24.27 |
| Co | K series | 2.84 | 0.19 | 1.93 |
| Mn | K series | 0.44 | 0.10 | 0.32 |
| Total | | 100.00 | | 100.00 |



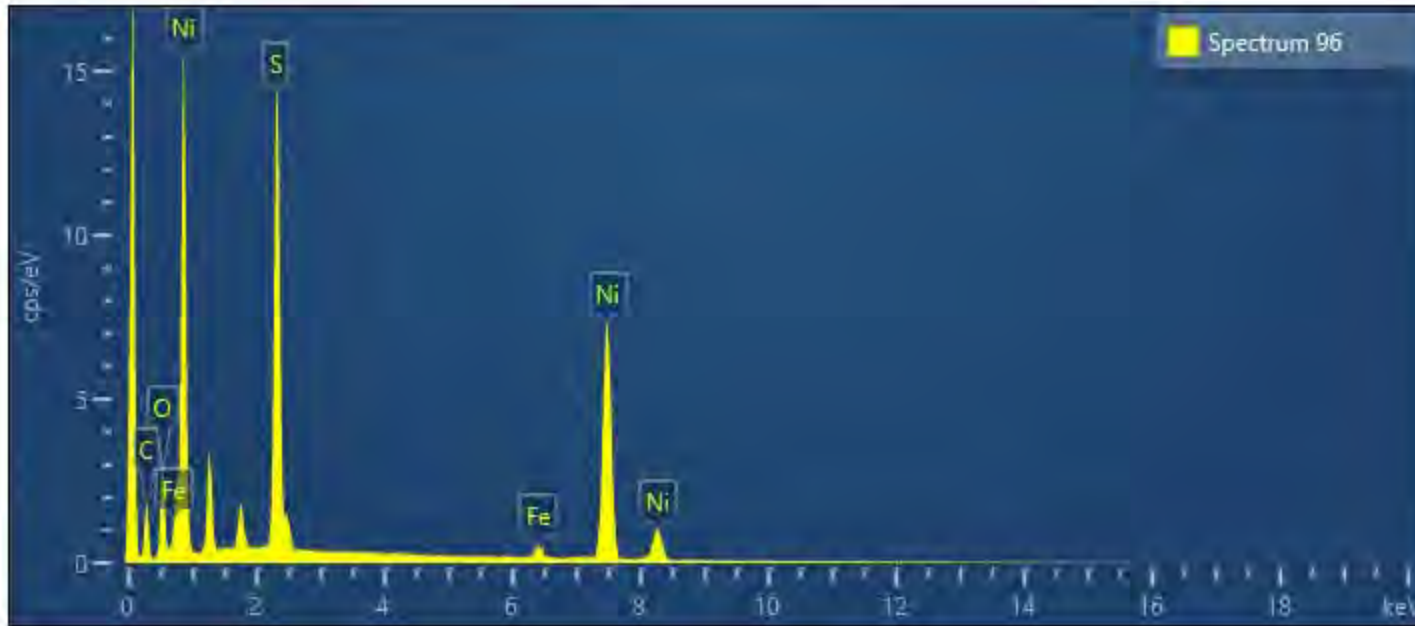
| Spectrum 88 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 30.90 | 0.34 | 44.84 |
| Fe | K series | 9.62 | 0.26 | 8.02 |
| Ni | K series | 56.50 | 0.43 | 44.79 |
| Co | K series | 2.98 | 0.25 | 2.35 |
| Total | | 100.00 | | 100.00 |

Electron Image 26



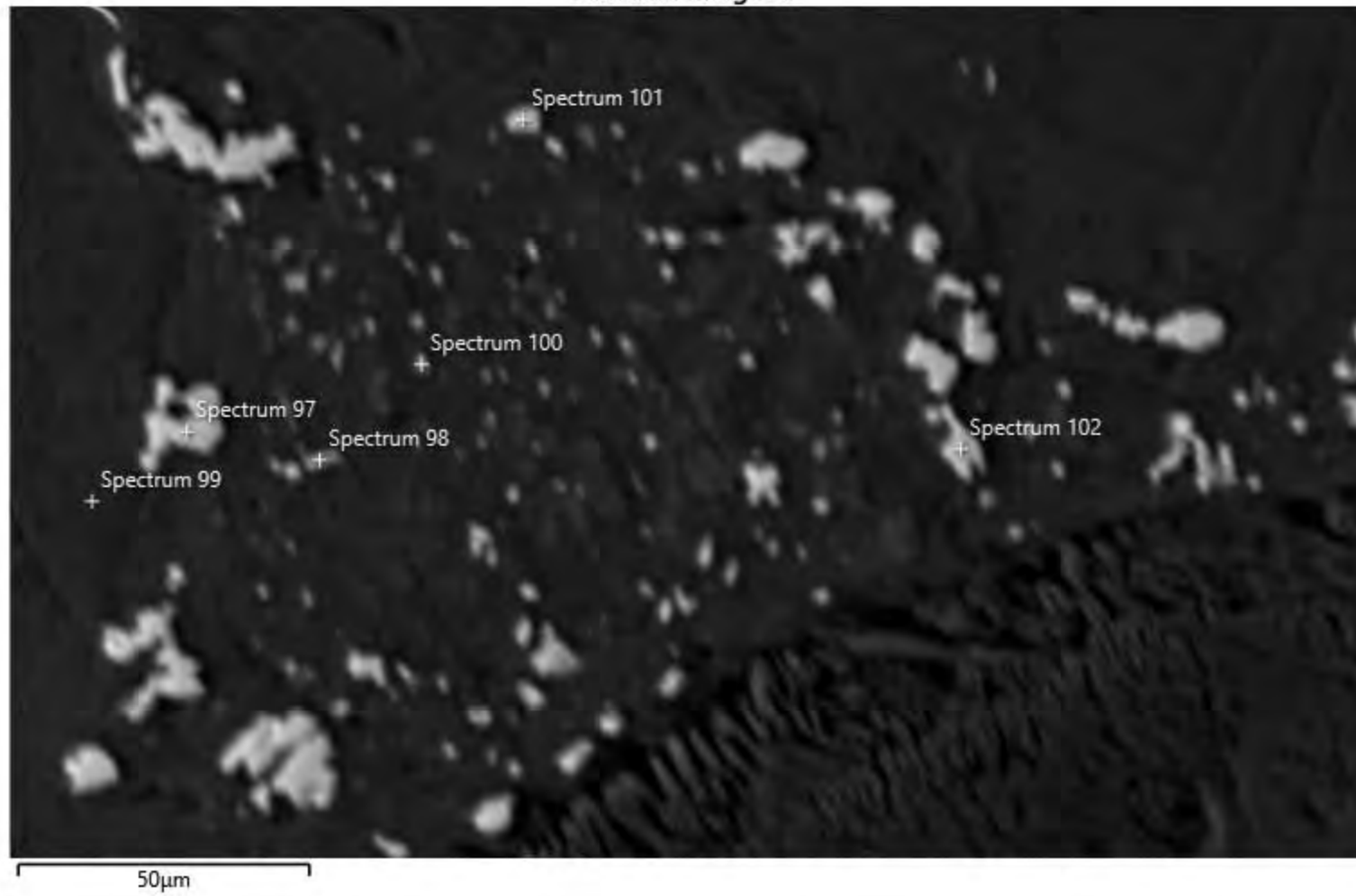


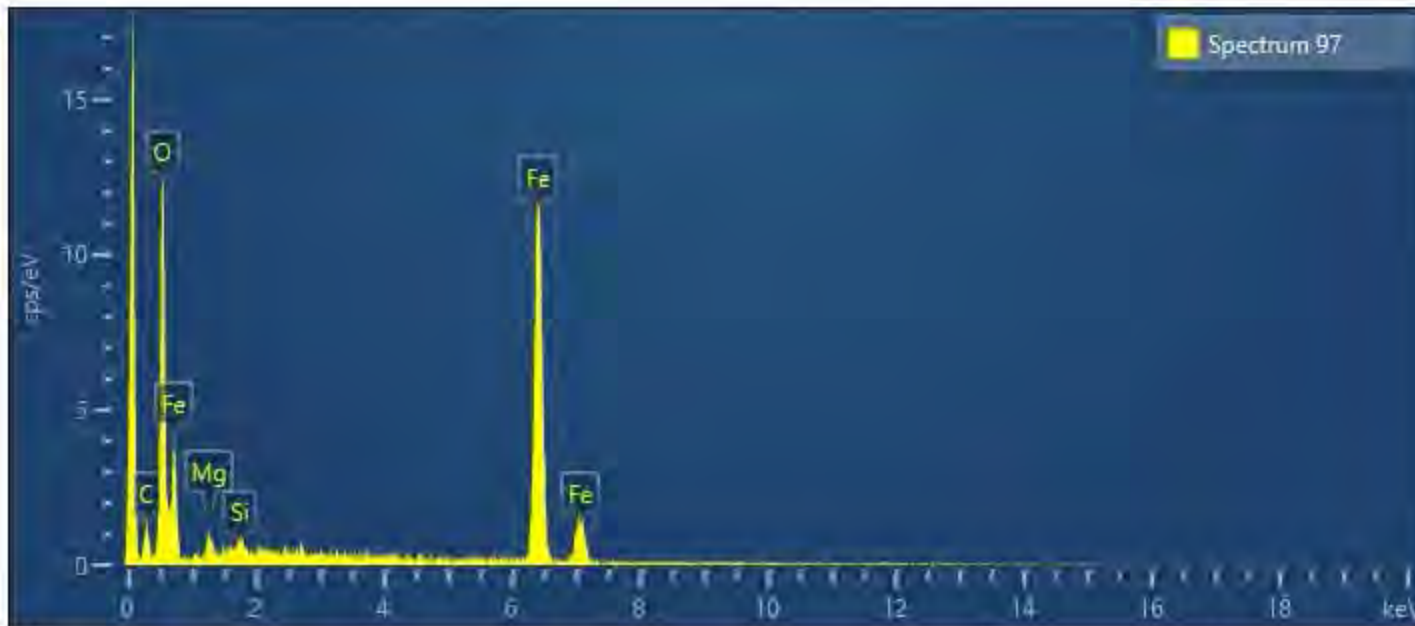
| Spectrum 95 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.27 | 0.76 | 50.00 | | | |
| Fe | K series | 77.73 | 0.76 | 50.00 | FeO | 100.00 | 0.98 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



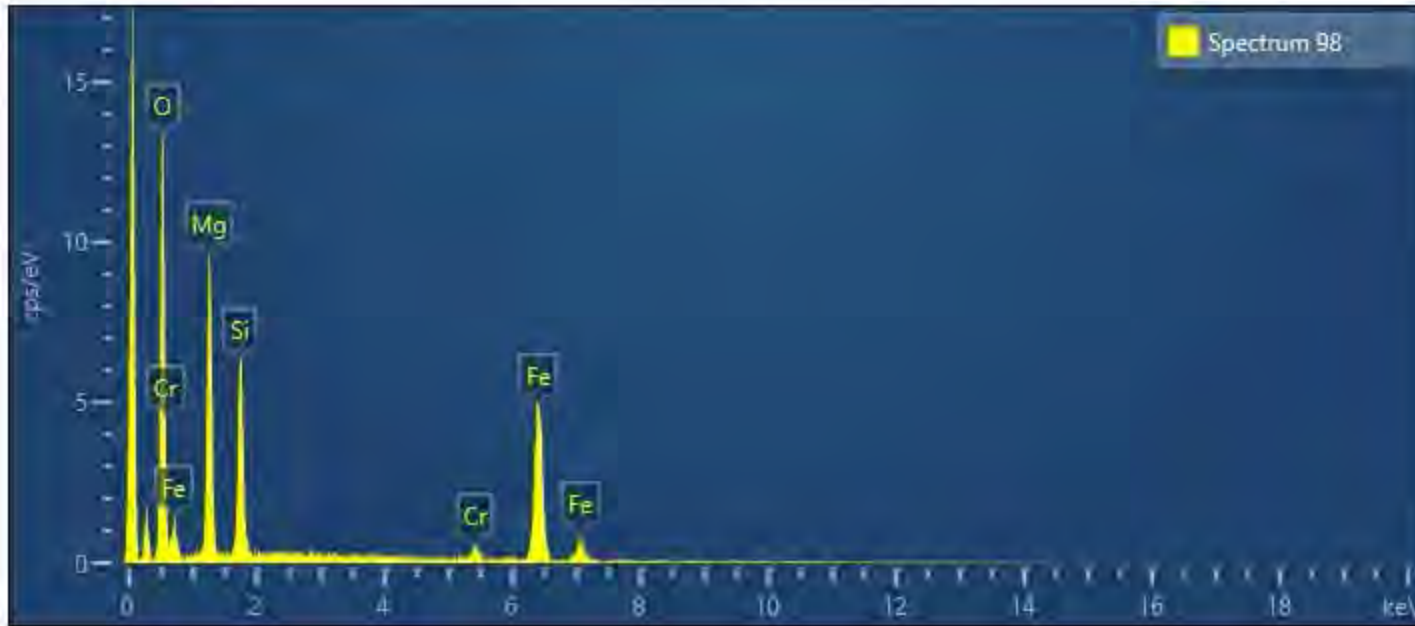
| Spectrum 96 | | | | |
|-------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 12.87 | 0.31 | 30.61 |
| S | K series | 23.84 | 0.23 | 28.30 |
| Ni | K series | 61.53 | 0.34 | 39.89 |
| Fe | K series | 1.76 | 0.12 | 1.20 |
| Total | | 100.00 | | 100.00 |

Electron Image 27

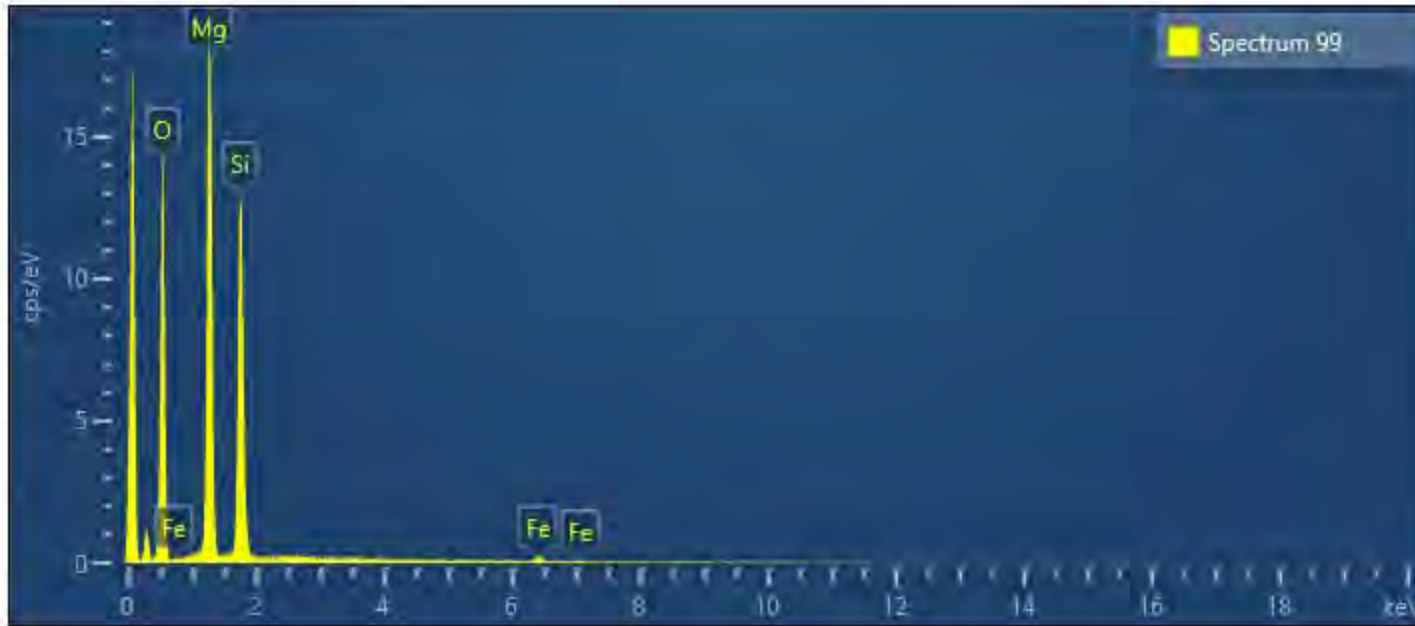




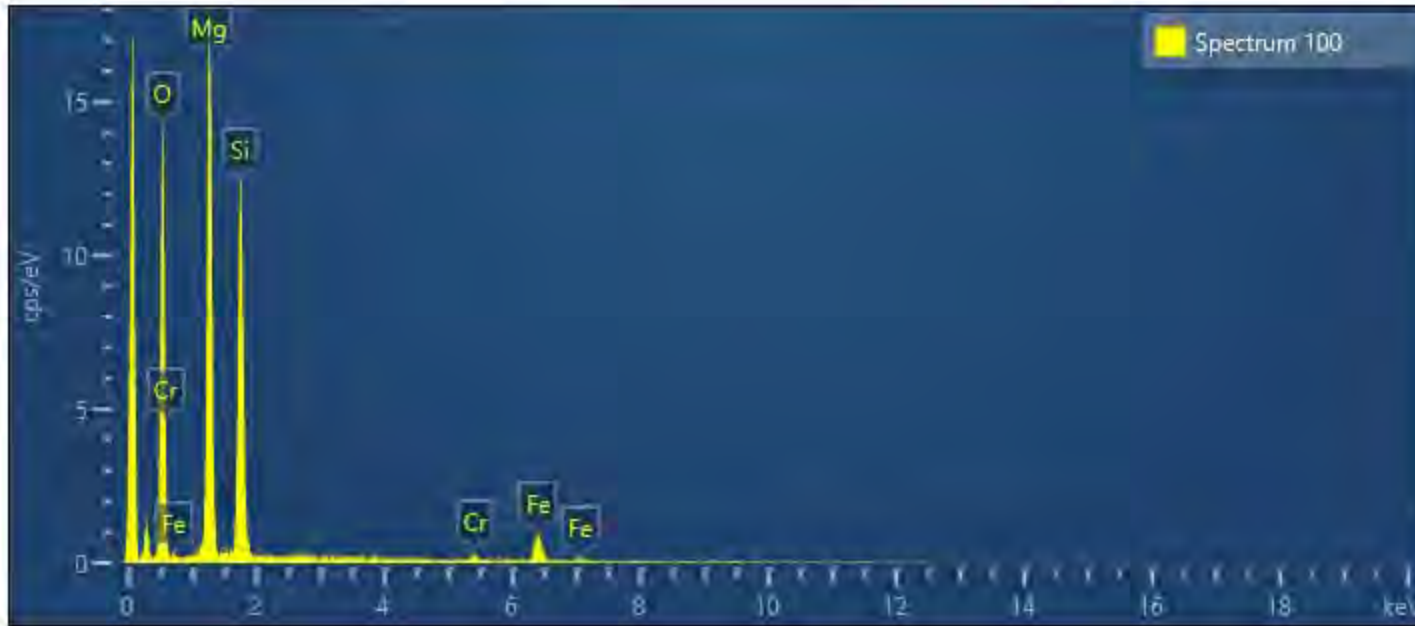
| Spectrum 97 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 23.41 | 0.76 | 50.52 | | | |
| Fe | K series | 73.71 | 0.82 | 45.56 | FeO | 94.82 | 1.06 |
| Mg | K series | 2.04 | 0.37 | 2.89 | MgO | 3.38 | 0.61 |
| Si | K series | 0.84 | 0.23 | 1.03 | SiO2 | 1.80 | 0.50 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



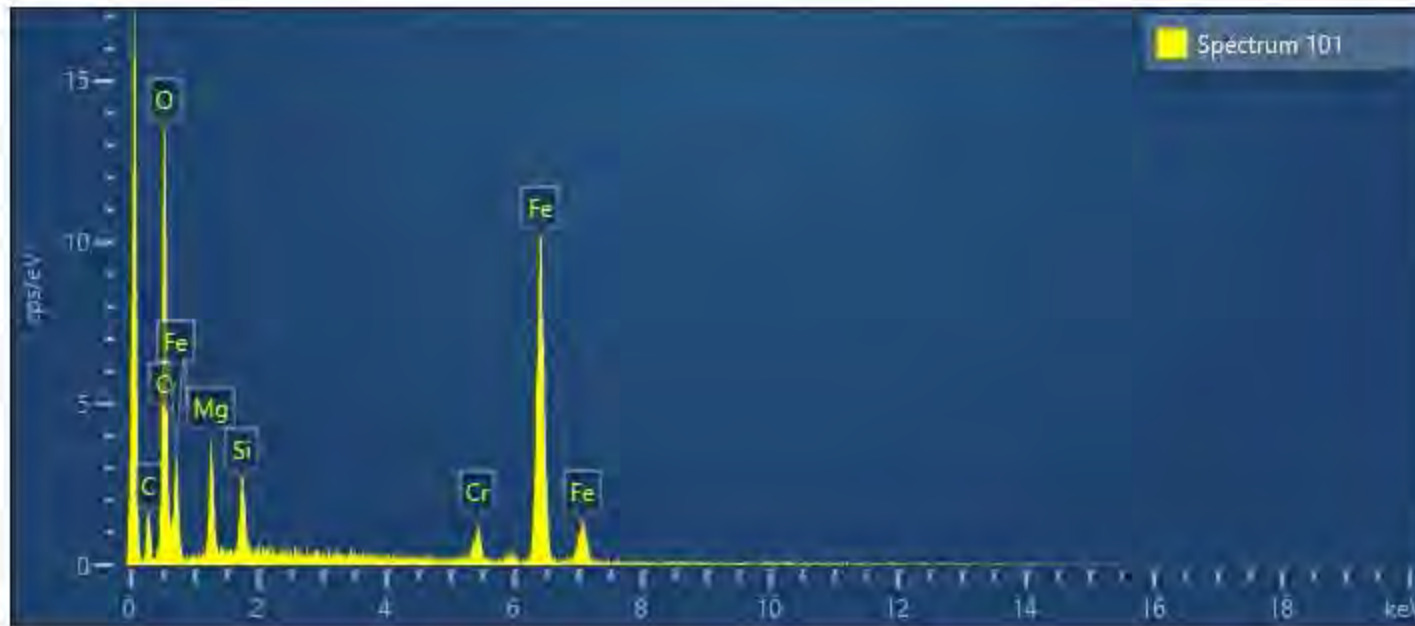
| Spectrum 98 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 35.34 | 0.57 | 55.09 | | | |
| Mg | K series | 19.20 | 0.44 | 19.69 | MgO | 31.83 | 0.73 |
| Si | K series | 11.00 | 0.32 | 9.77 | SiO2 | 23.53 | 0.69 |
| Cr | K series | 1.73 | 0.22 | 0.83 | Cr2O3 | 2.53 | 0.32 |
| Fe | K series | 32.74 | 0.61 | 14.62 | FeO | 42.12 | 0.79 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



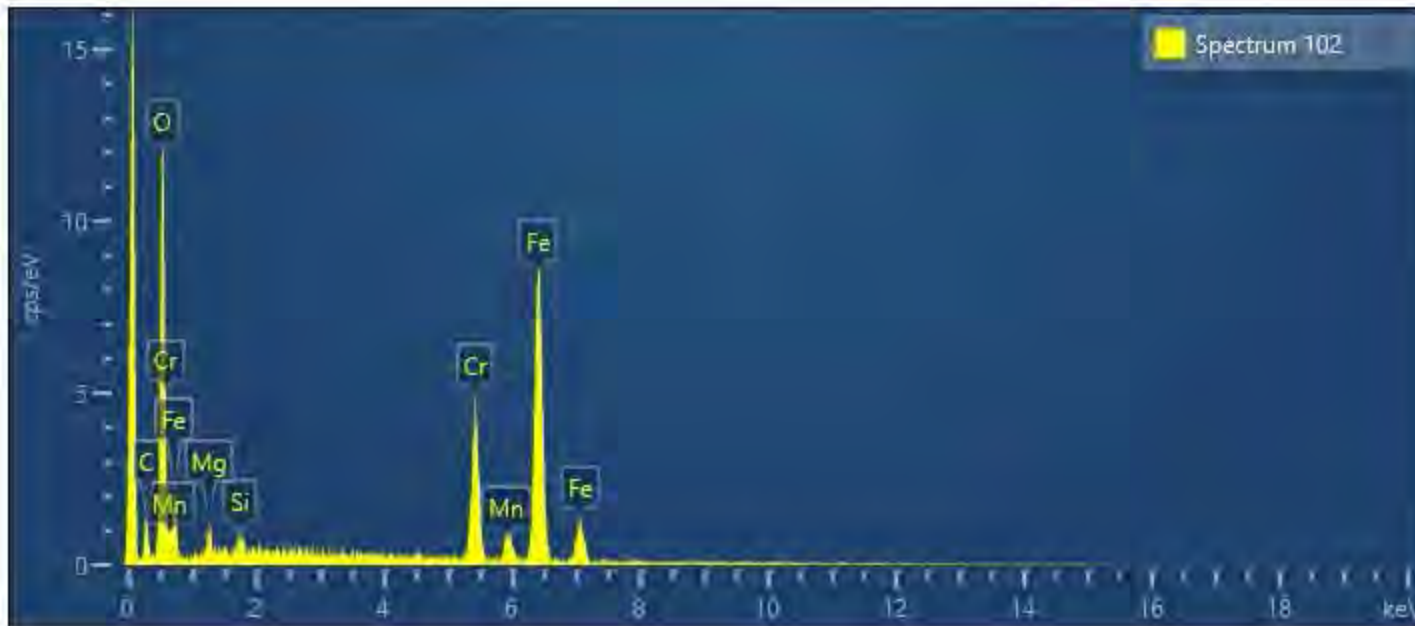
| Spectrum 99 | | | | | | | |
|-------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 46.03 | 0.40 | 58.28 | | | |
| Mg | K series | 29.59 | 0.35 | 24.65 | MgO | 49.06 | 0.58 |
| Si | K series | 22.96 | 0.34 | 16.56 | SiO2 | 49.12 | 0.72 |
| Fe | K series | 1.42 | 0.21 | 0.51 | FeO | 1.83 | 0.27 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



| Spectrum 100 | | | | | | | |
|--------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 44.46 | 0.56 | 58.00 | | | |
| Mg | K series | 27.52 | 0.47 | 23.63 | MgO | 45.64 | 0.78 |
| Si | K series | 21.33 | 0.44 | 15.85 | SiO ₂ | 45.63 | 0.93 |
| Fe | K series | 5.90 | 0.43 | 2.21 | FeO | 7.59 | 0.55 |
| Cr | K series | 0.78 | 0.21 | 0.31 | Cr ₂ O ₃ | 1.14 | 0.31 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

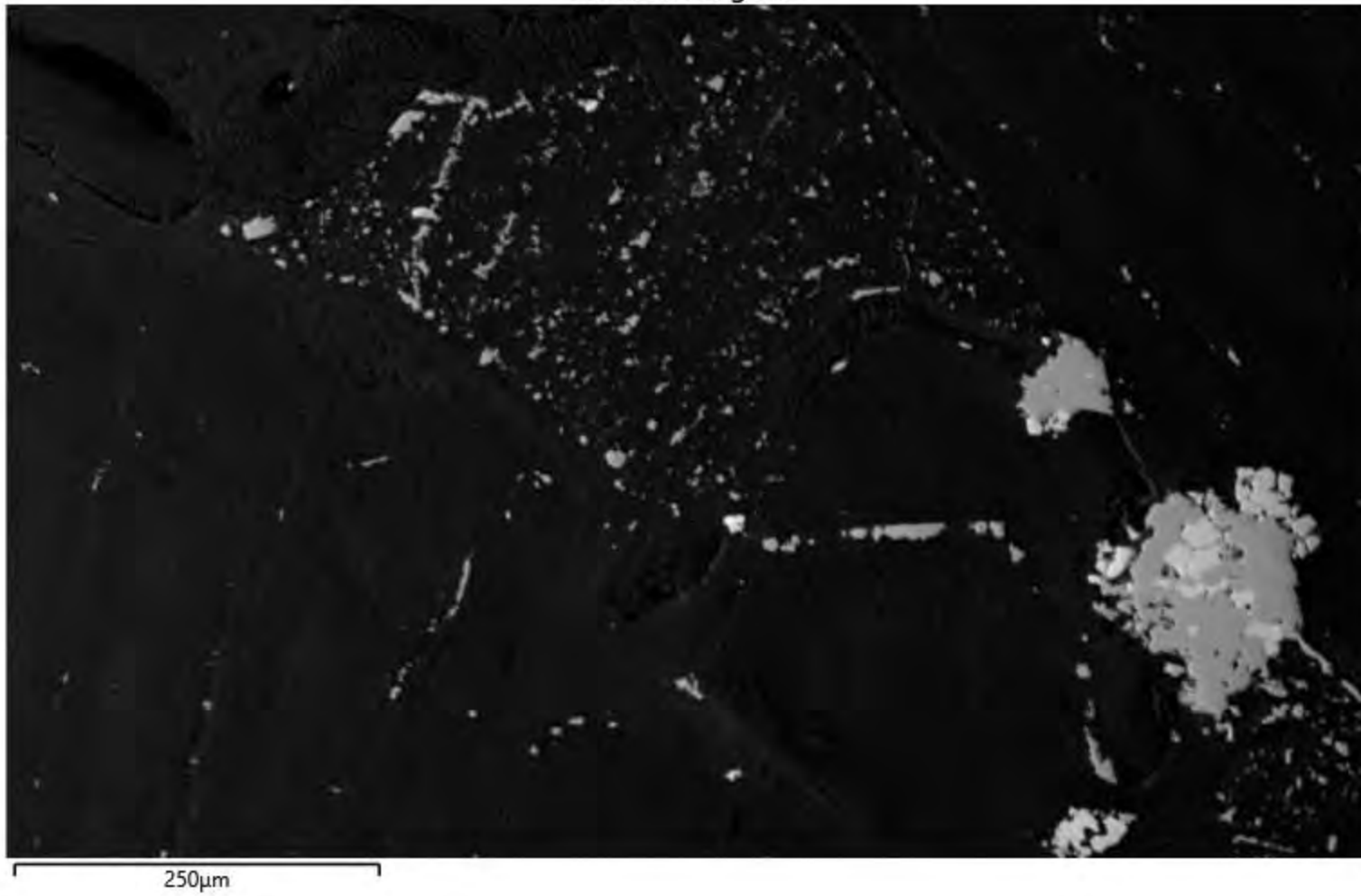


| Spectrum 101 | | | | | | | |
|--------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 27.68 | 0.75 | 52.61 | | | |
| Mg | K series | 8.17 | 0.47 | 10.22 | MgO | 13.55 | 0.78 |
| Si | K series | 3.91 | 0.30 | 4.23 | SiO ₂ | 8.36 | 0.63 |
| Cr | K series | 3.39 | 0.32 | 1.98 | Cr ₂ O ₃ | 4.95 | 0.47 |
| Fe | K series | 56.85 | 0.83 | 30.96 | FeO | 73.14 | 1.06 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

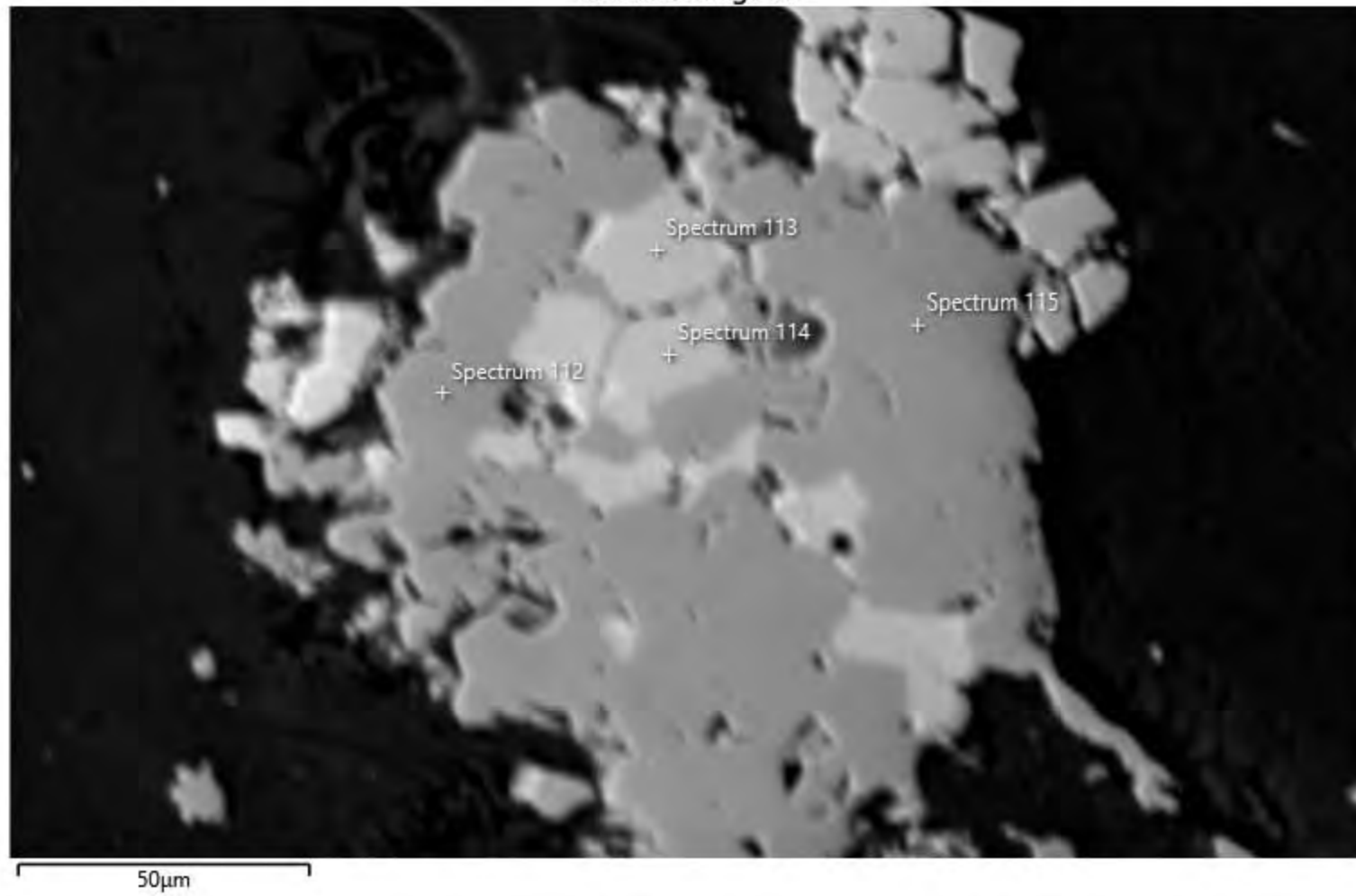


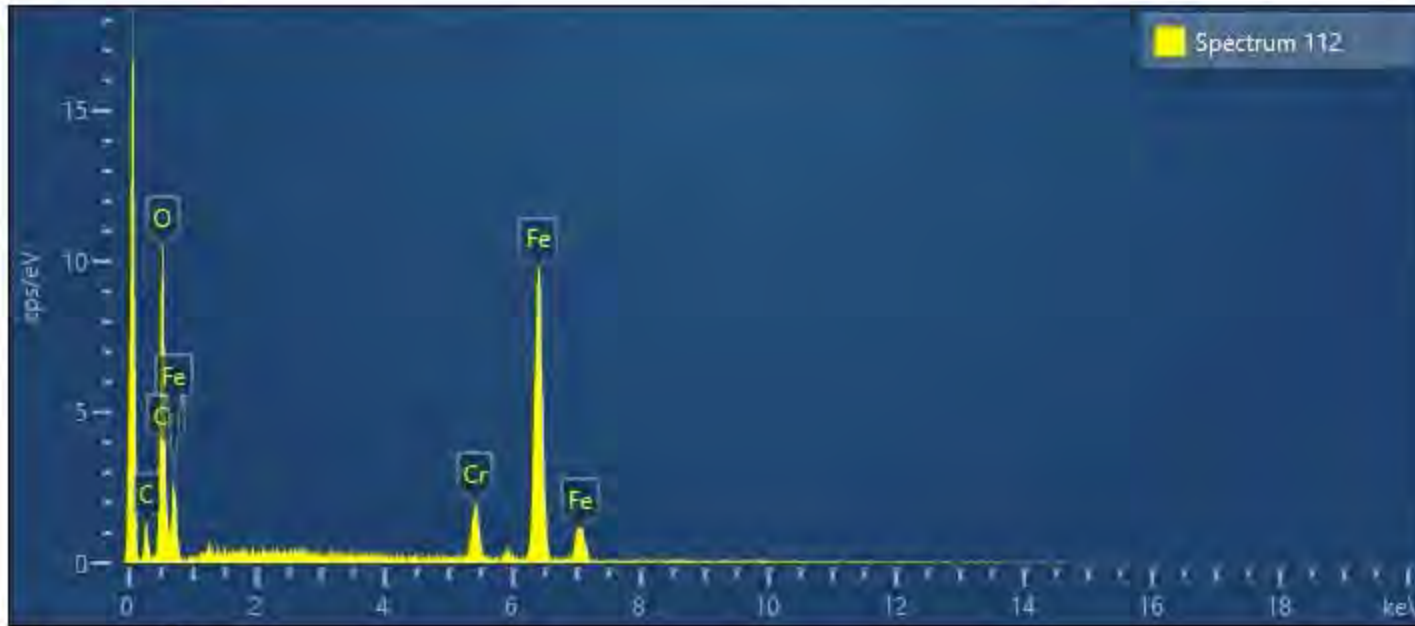
| Spectrum 102 | | | | | | | |
|--------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 25.55 | 0.71 | 53.04 | | | |
| Cr | K series | 16.28 | 0.53 | 10.40 | Cr ₂ O ₃ | 23.79 | 0.78 |
| Fe | K series | 53.85 | 0.82 | 32.02 | FeO | 69.27 | 1.05 |
| Mg | K series | 1.96 | 0.32 | 2.68 | MgO | 3.25 | 0.53 |
| Si | K series | 0.74 | 0.19 | 0.88 | SiO ₂ | 1.59 | 0.41 |
| Mn | K series | 1.62 | 0.41 | 0.98 | MnO | 2.10 | 0.53 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

Electron Image 28

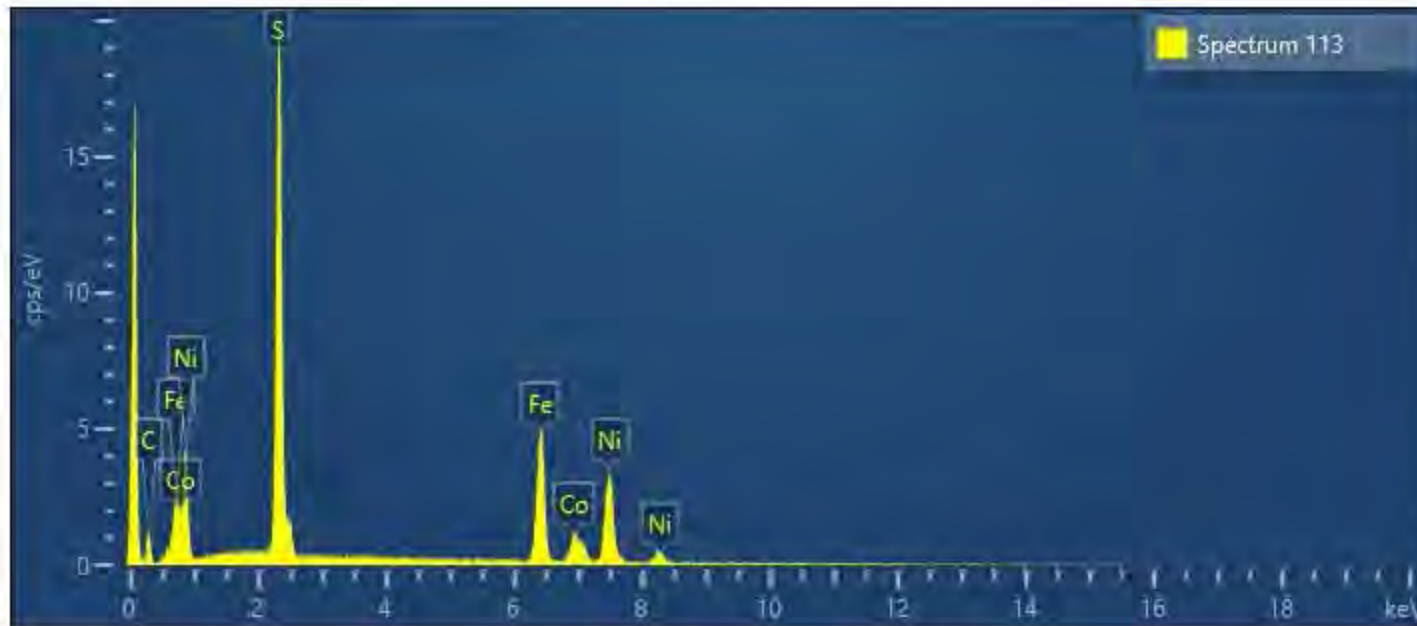


Electron Image 29

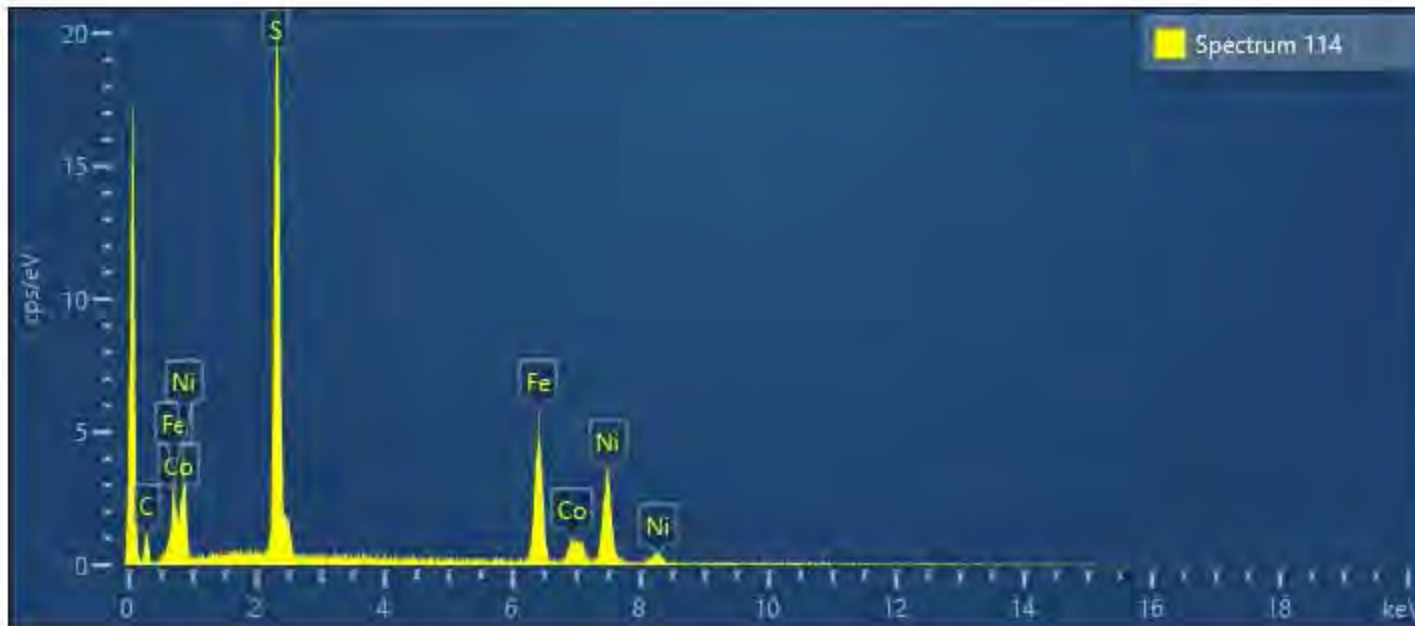




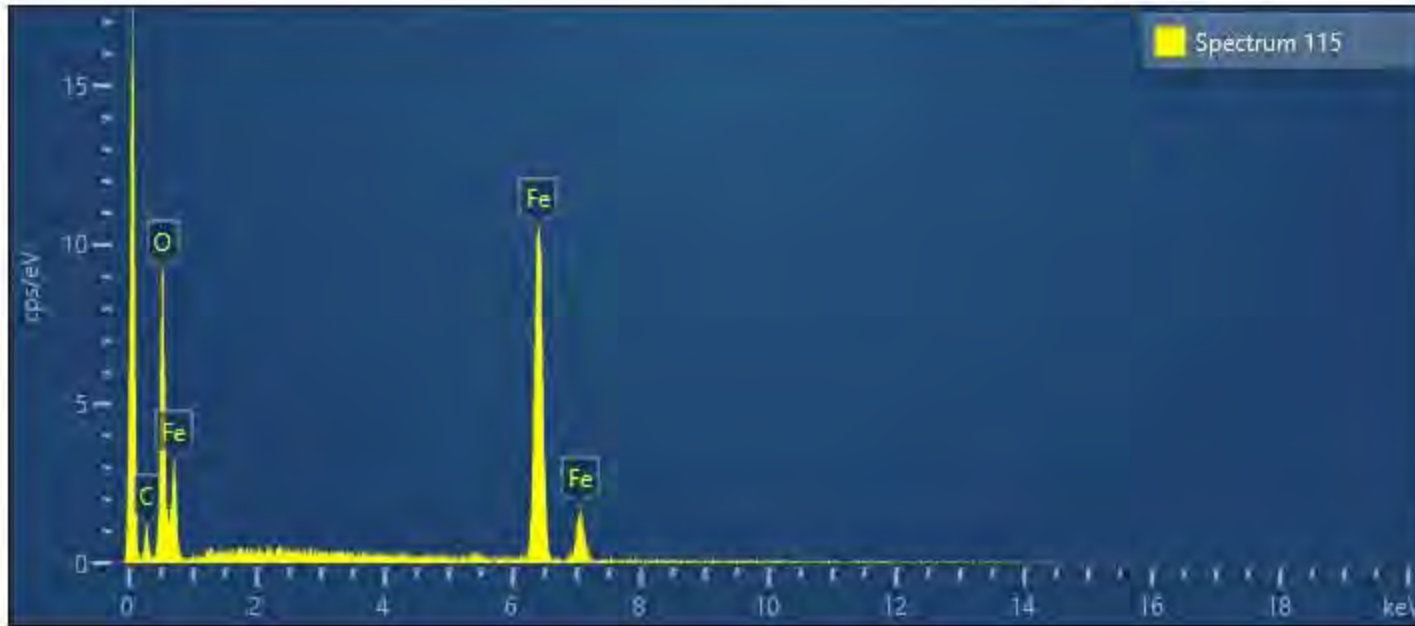
| Spectrum 112 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.07 | 0.94 | 58.68 |
| Cr | K series | 6.98 | 0.41 | 4.33 |
| Fe | K series | 63.96 | 0.94 | 36.99 |
| Total | | 100.00 | | 100.00 |



| Spectrum 113 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.39 | 0.49 | 47.32 |
| Fe | K series | 28.95 | 0.54 | 23.56 |
| Co | K series | 7.26 | 0.45 | 5.59 |
| Ni | K series | 30.40 | 0.62 | 23.53 |
| Total | | 100.00 | | 100.00 |



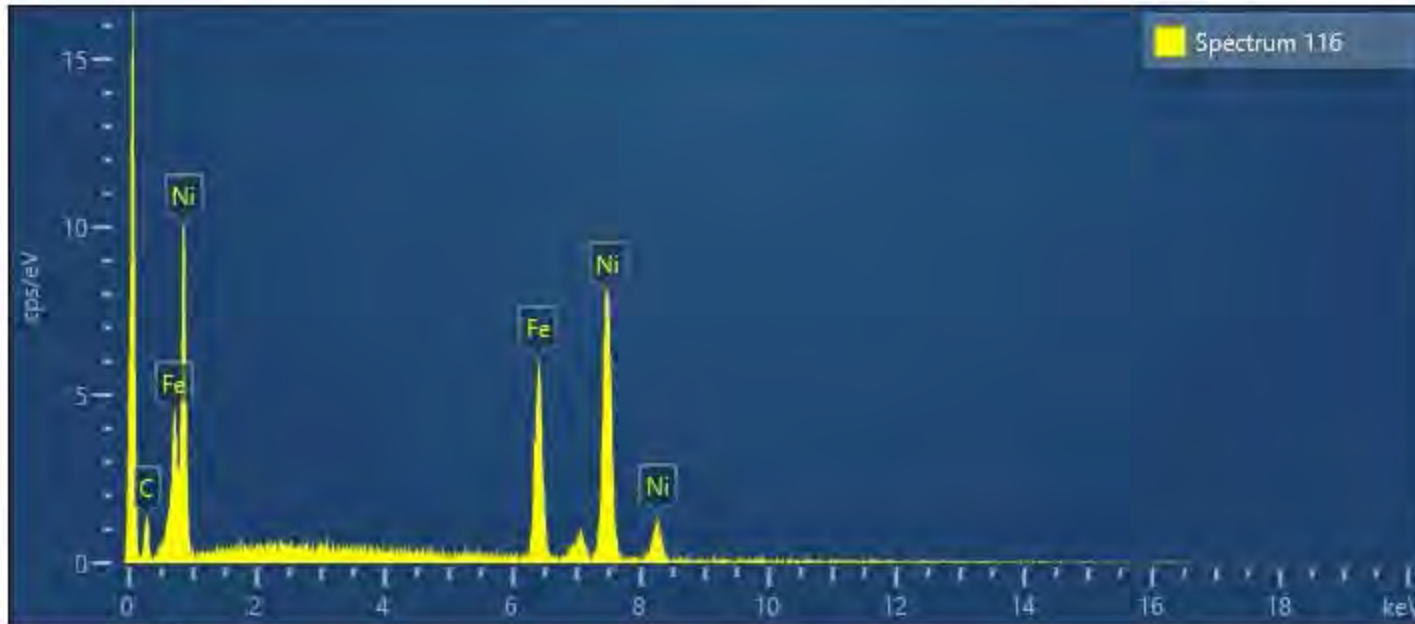
| Spectrum 114 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.84 | 0.62 | 48.92 |
| Fe | K series | 28.63 | 0.67 | 23.08 |
| Ni | K series | 30.97 | 0.77 | 23.75 |
| Co | K series | 5.56 | 0.55 | 4.25 |
| Total | | 100.00 | | 100.00 |



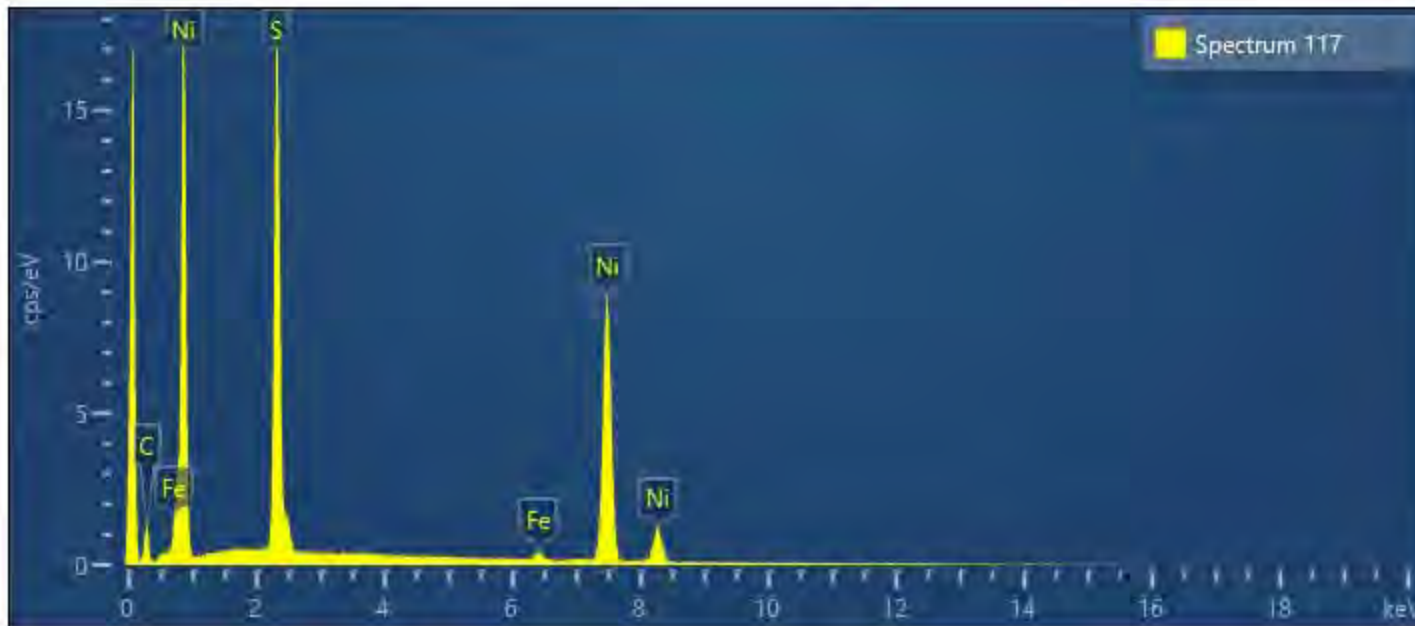
| Spectrum 115 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.31 | 0.75 | 56.74 |
| Fe | K series | 72.69 | 0.75 | 43.26 |
| Total | | 100.00 | | 100.00 |

Electron Image 30



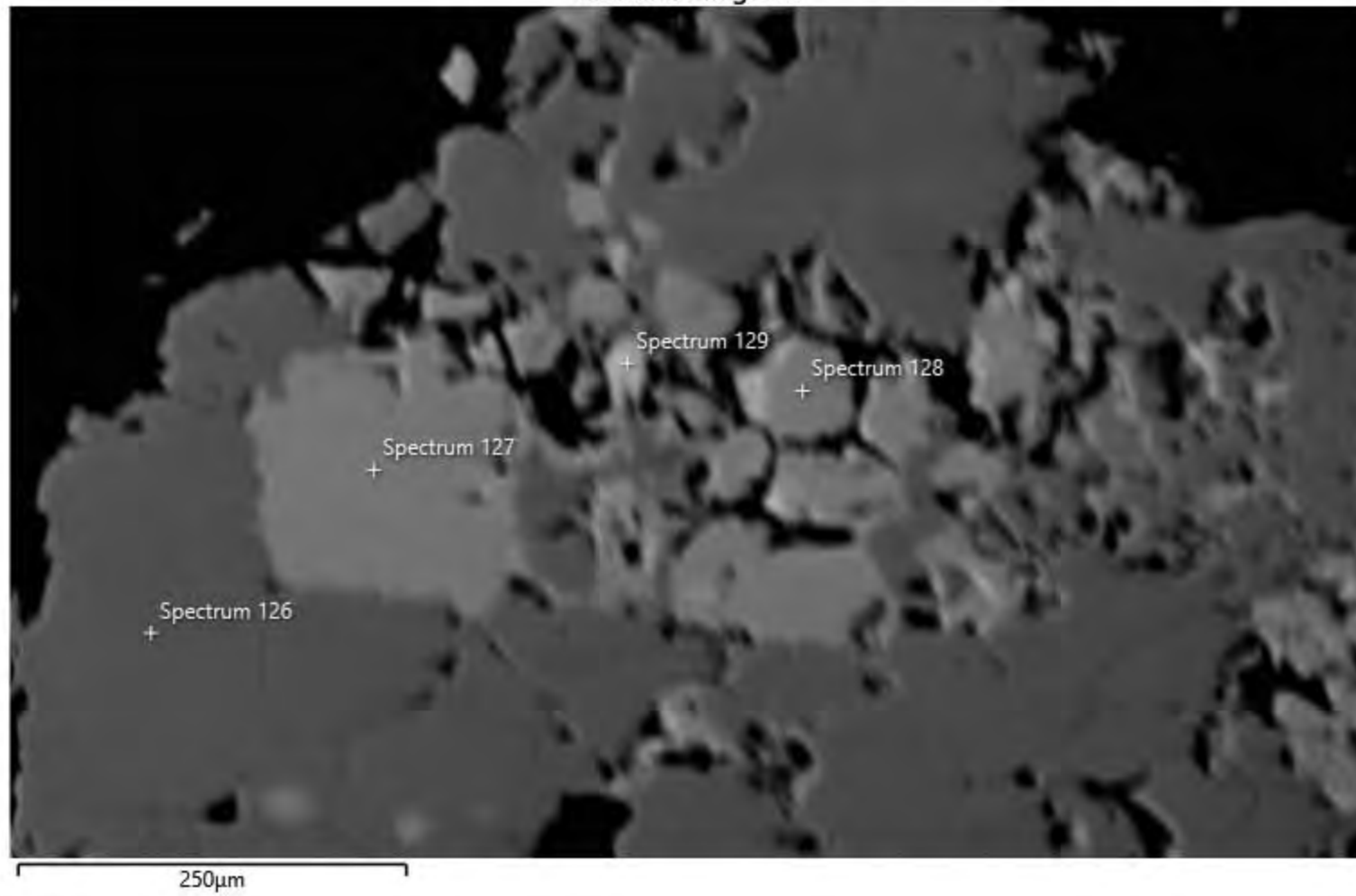


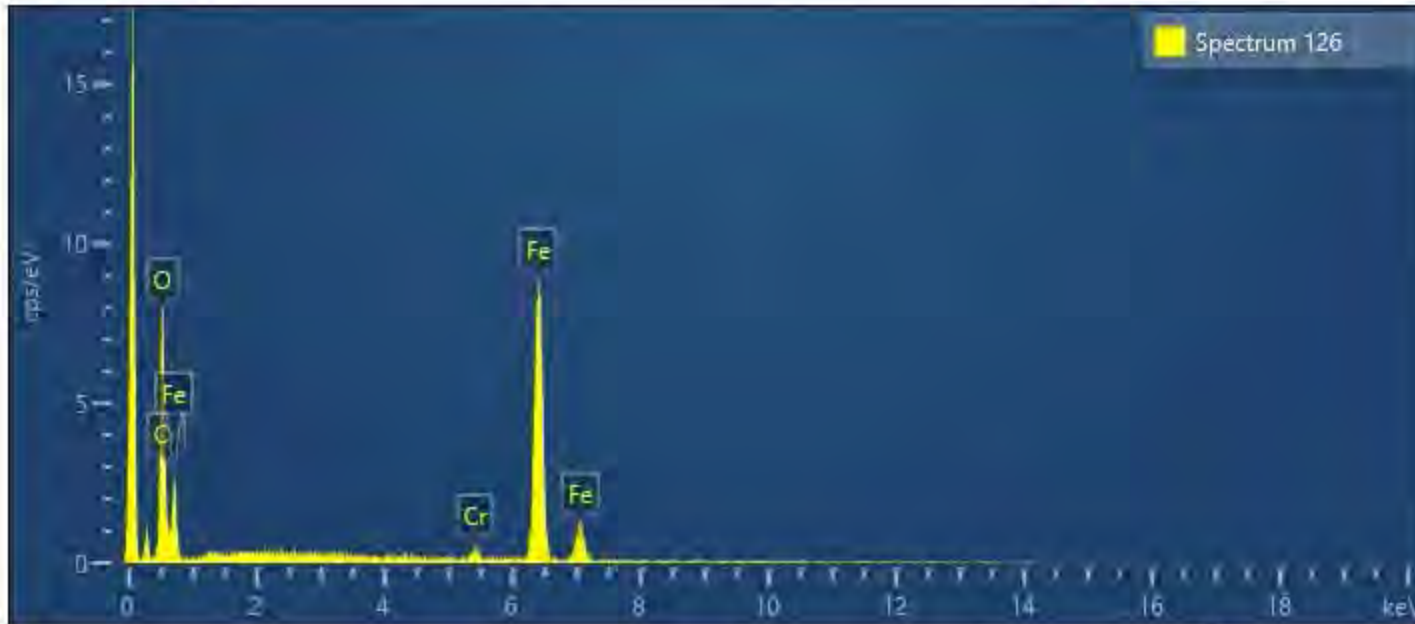
| Spectrum 116 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 27.92 | 0.72 | 28.93 |
| Ni | K series | 72.08 | 0.72 | 71.07 |
| Total | | 100.00 | | 100.00 |



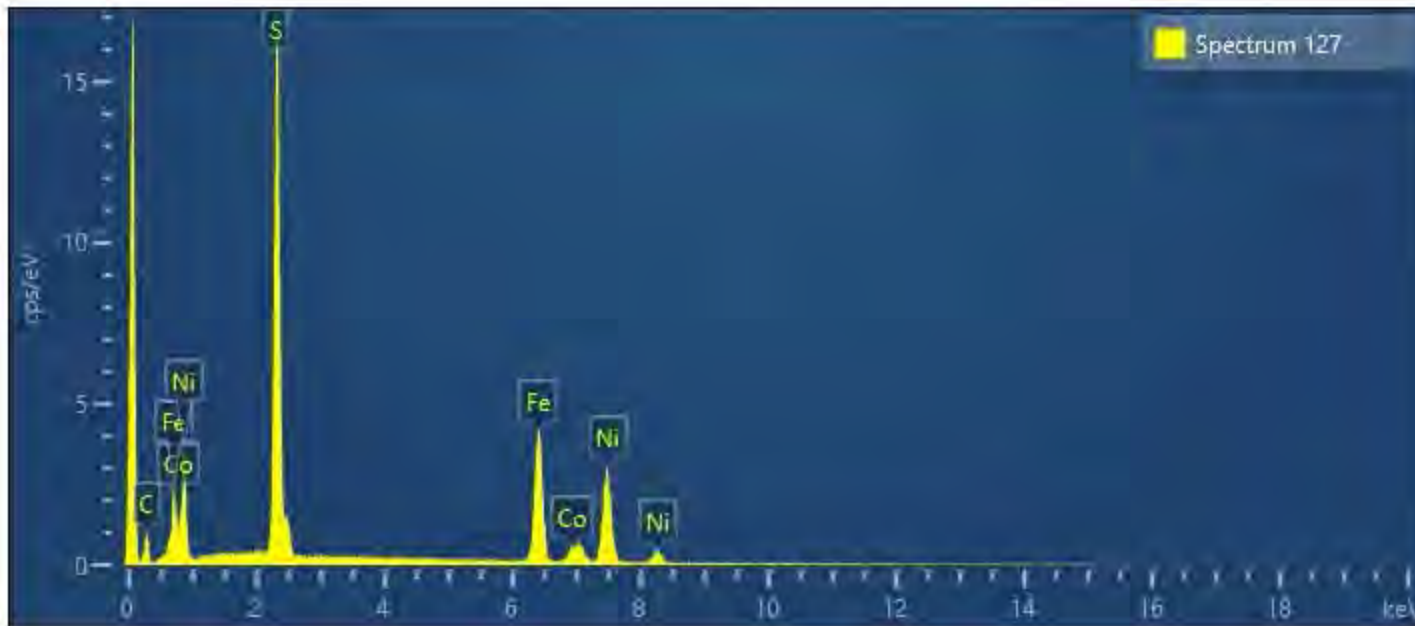
| Spectrum 117 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.31 | 0.24 | 41.94 |
| Ni | K series | 70.48 | 0.25 | 57.03 |
| Fe | K series | 1.21 | 0.11 | 1.03 |
| Total | | 100.00 | | 100.00 |

Electron Image 33

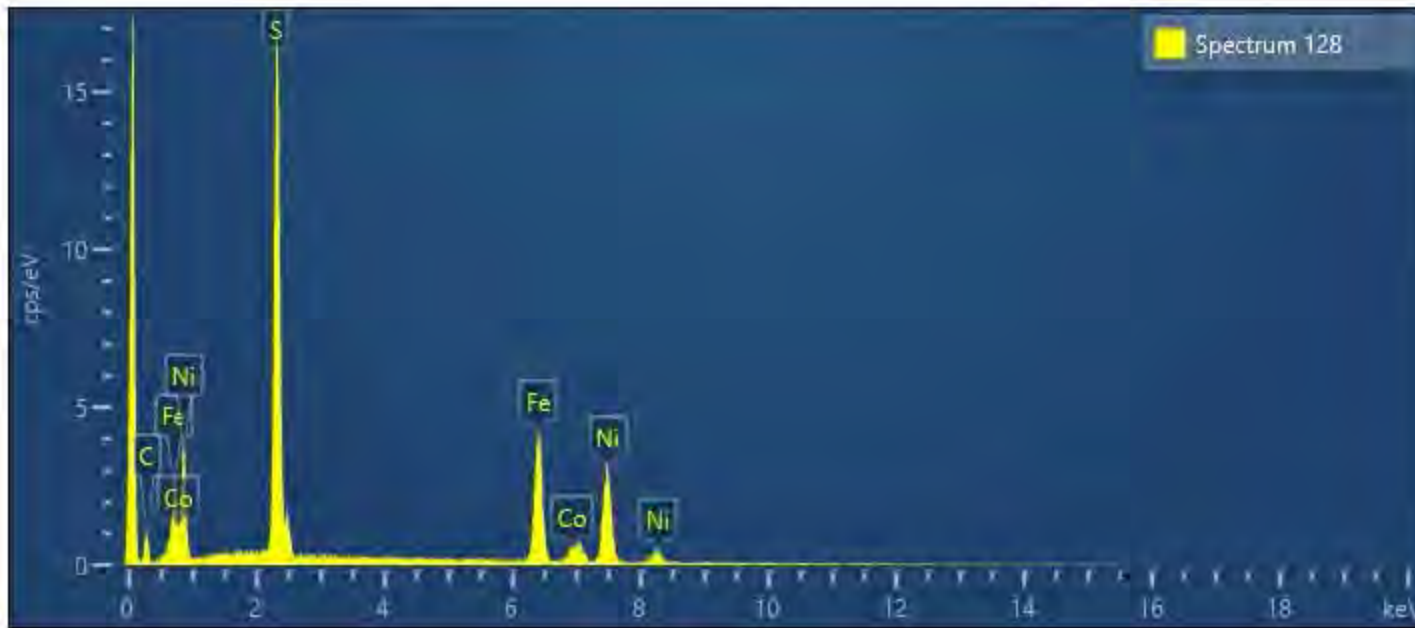




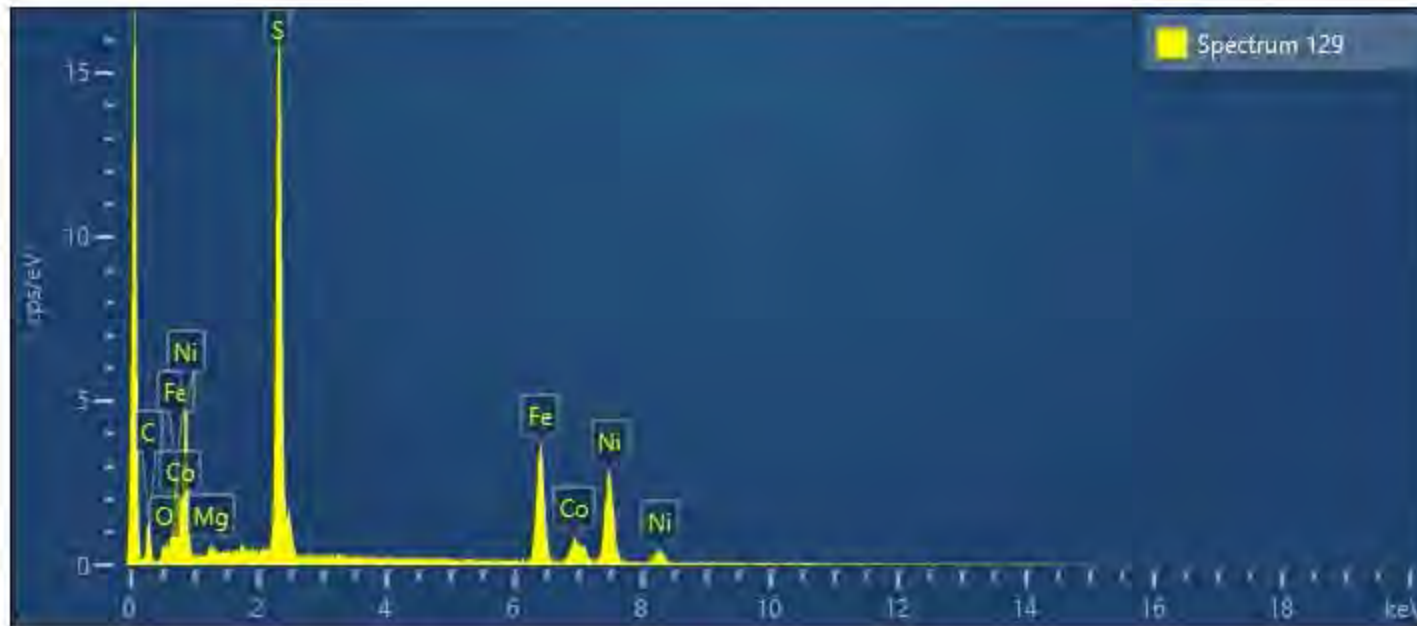
| Spectrum 126 | | | | | | | |
|--------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 22.48 | 0.69 | 50.26 | | | |
| Fe | K series | 75.99 | 0.72 | 48.68 | FeO | 97.76 | 0.92 |
| Cr | K series | 1.53 | 0.25 | 1.05 | Cr2O3 | 2.24 | 0.37 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



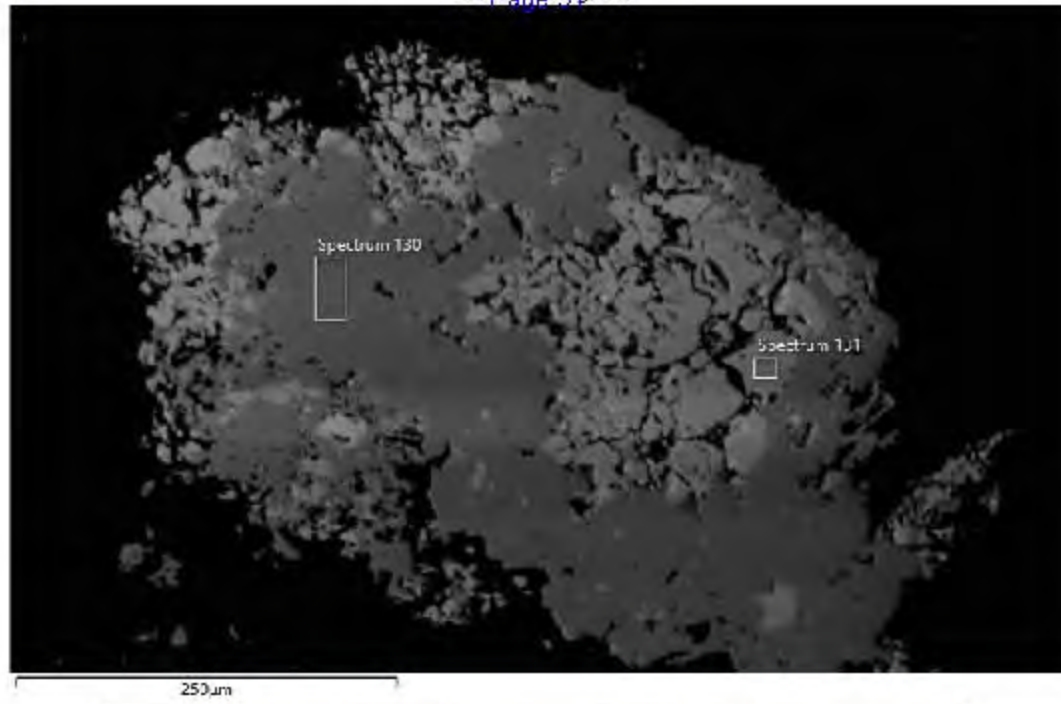
| Spectrum 127 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.97 | 0.44 | 47.95 |
| Fe | K series | 29.41 | 0.49 | 23.83 |
| Ni | K series | 32.87 | 0.56 | 25.34 |
| Co | K series | 3.75 | 0.37 | 2.88 |
| Total | | 100.00 | | 100.00 |

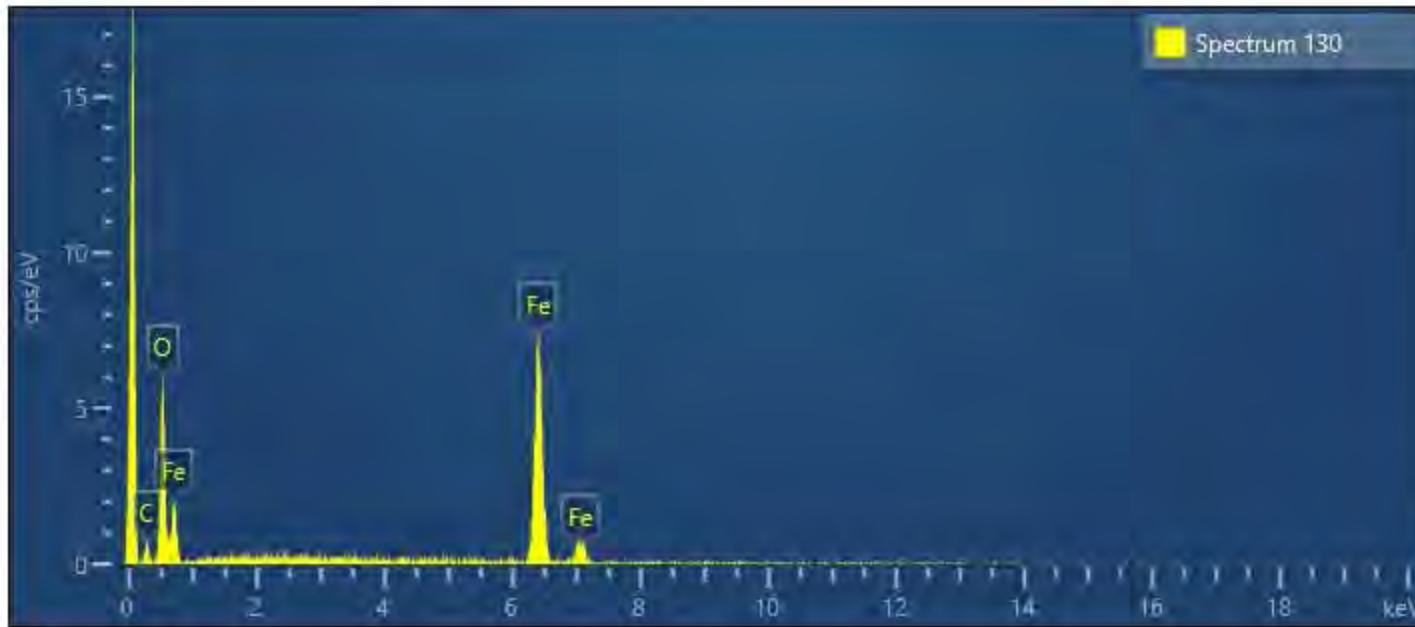


| Spectrum 128 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.55 | 0.46 | 48.60 |
| Fe | K series | 28.65 | 0.50 | 23.14 |
| Ni | K series | 32.97 | 0.58 | 25.33 |
| Co | K series | 3.83 | 0.38 | 2.93 |
| Total | | 100.00 | | 100.00 |

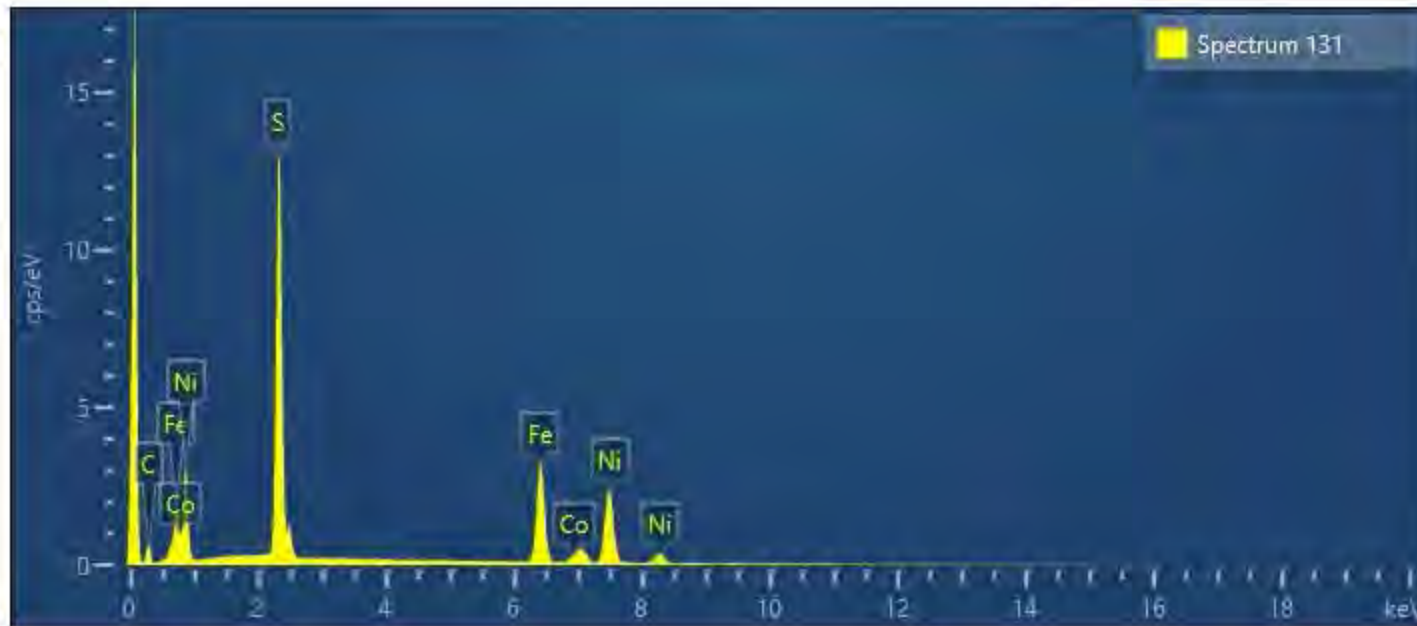


| Spectrum 129 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.42 | 0.46 | 43.09 |
| Fe | K series | 24.89 | 0.47 | 18.42 |
| Ni | K series | 31.00 | 0.57 | 21.83 |
| O | K series | 4.41 | 0.46 | 11.39 |
| Co | K series | 5.42 | 0.38 | 3.80 |
| Mg | K series | 0.86 | 0.18 | 1.47 |
| Total | | 100.00 | | 100.00 |





| Spectrum 130 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 26.61 | 1.14 | 55.86 |
| Fe | K series | 73.39 | 1.14 | 44.14 |
| Total | | 100.00 | | 100.00 |



| Spectrum 131 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.31 | 0.30 | 48.33 |
| Fe | K series | 28.93 | 0.32 | 23.40 |
| Ni | K series | 34.15 | 0.38 | 26.27 |
| Co | K series | 2.61 | 0.24 | 2.00 |
| Total | | 100.00 | | 100.00 |

**Specimen Notes for '559' - Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite
Unknown Oxide Mineral - Cu-Fe-Pd-Pt oxide mineral**

SITE 1 CIRCLE 8 = is a cluster of chromite grains intergrown with olivine

SITE 3 CIRCLE 7 is a magnetite grain with marginal growth of Co-pentlandite and heazlewoodite

SITE 8 CIRCLE 2 is magnetite with marginal domain of an unknown Ni-sulphide.

Spectrum 164

| Element | Weight % | σ |
|---------|----------|----------|
| Ni | 64.2 | 0.6 |
| Fe | 25.6 | 0.5 |
| S | 7.5 | 0.3 |
| Co | 2.7 | 0.4 |

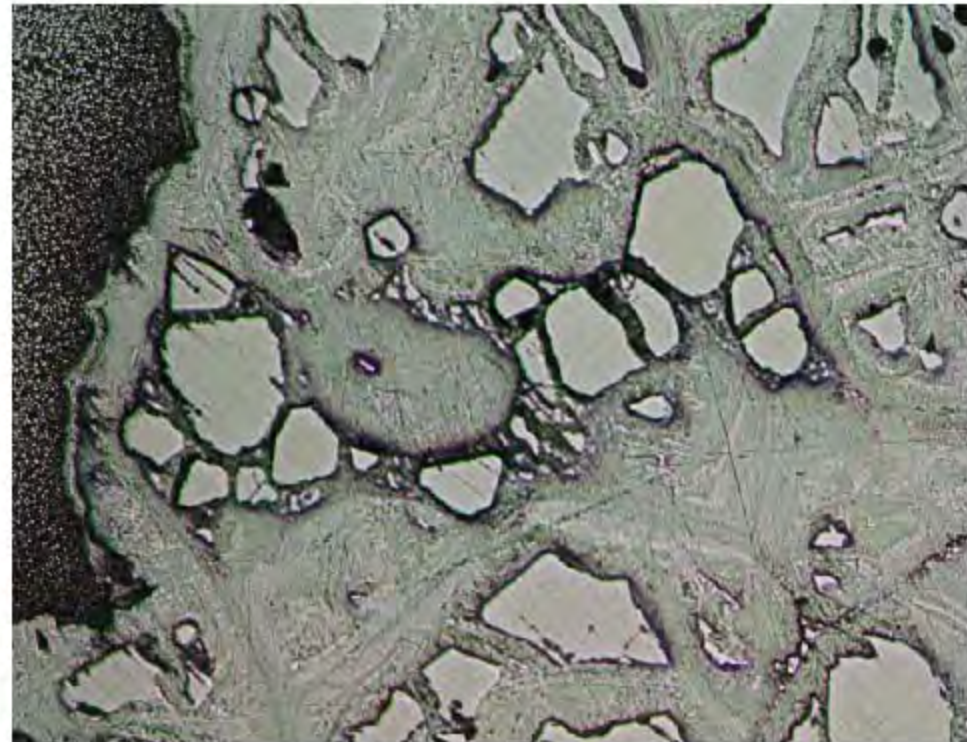
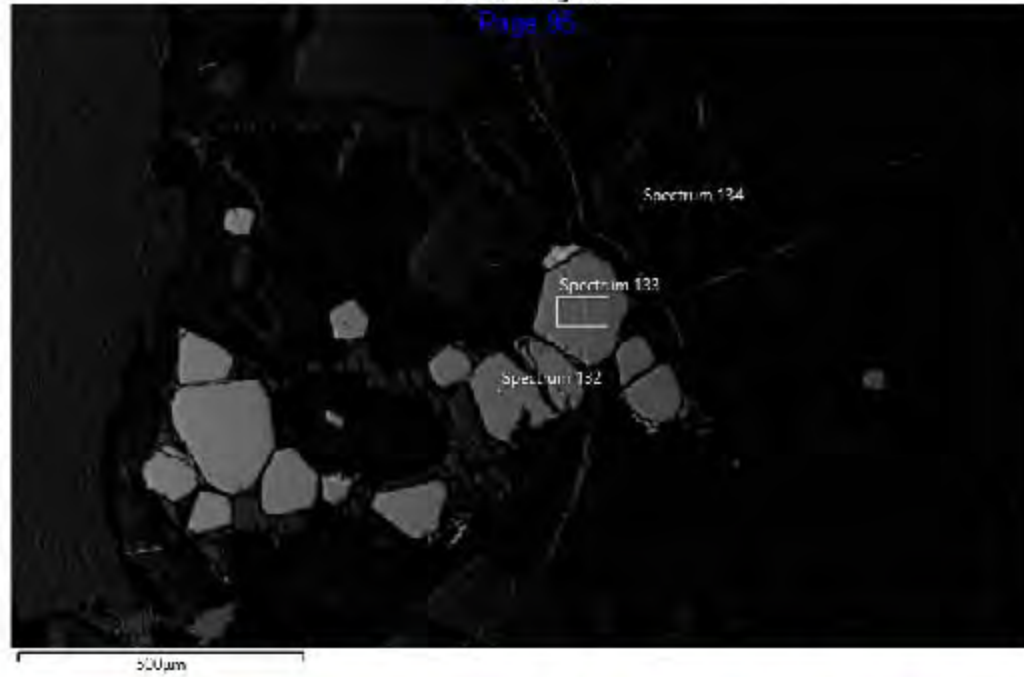
SITE 13 is an intergrowth of Co-pentlandite and awaruite within serpentinized areas between olivine and pyroxene grains

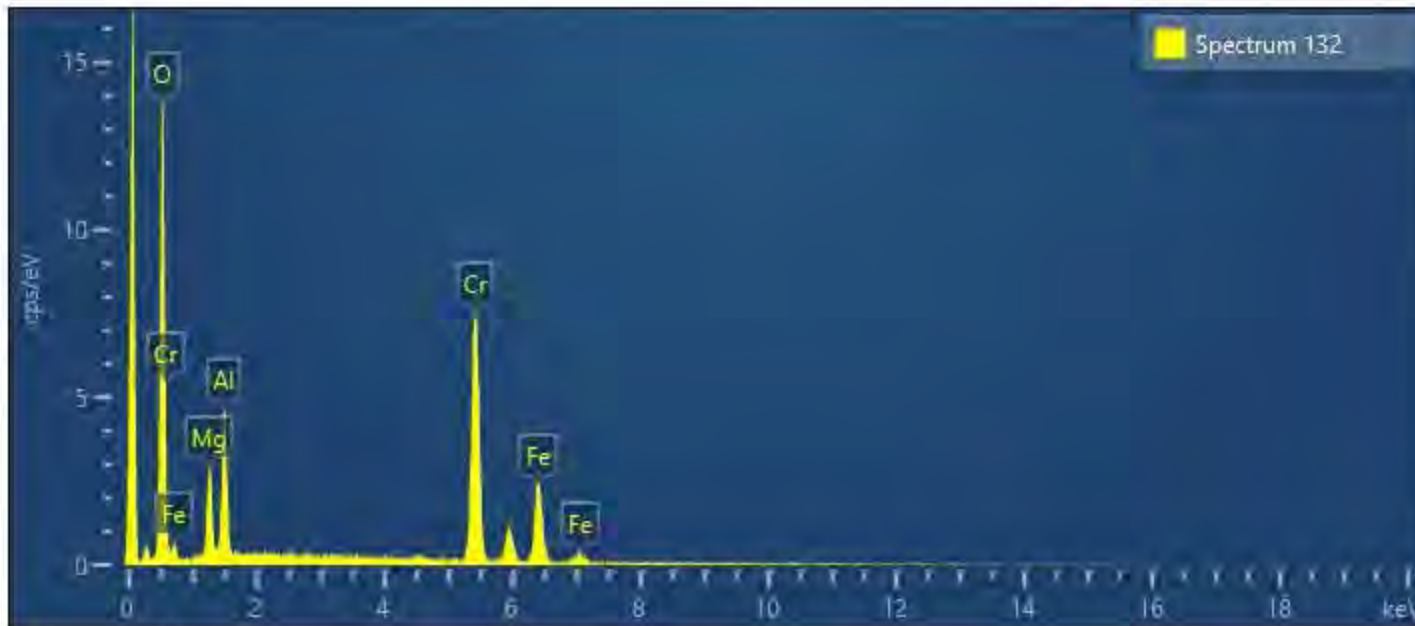
SITE 15 is a high magnification of an extremely bright spot on the margin of a magnetite grain which is a Cu-Fe-Pd-Pt mineral

Spectrum 202

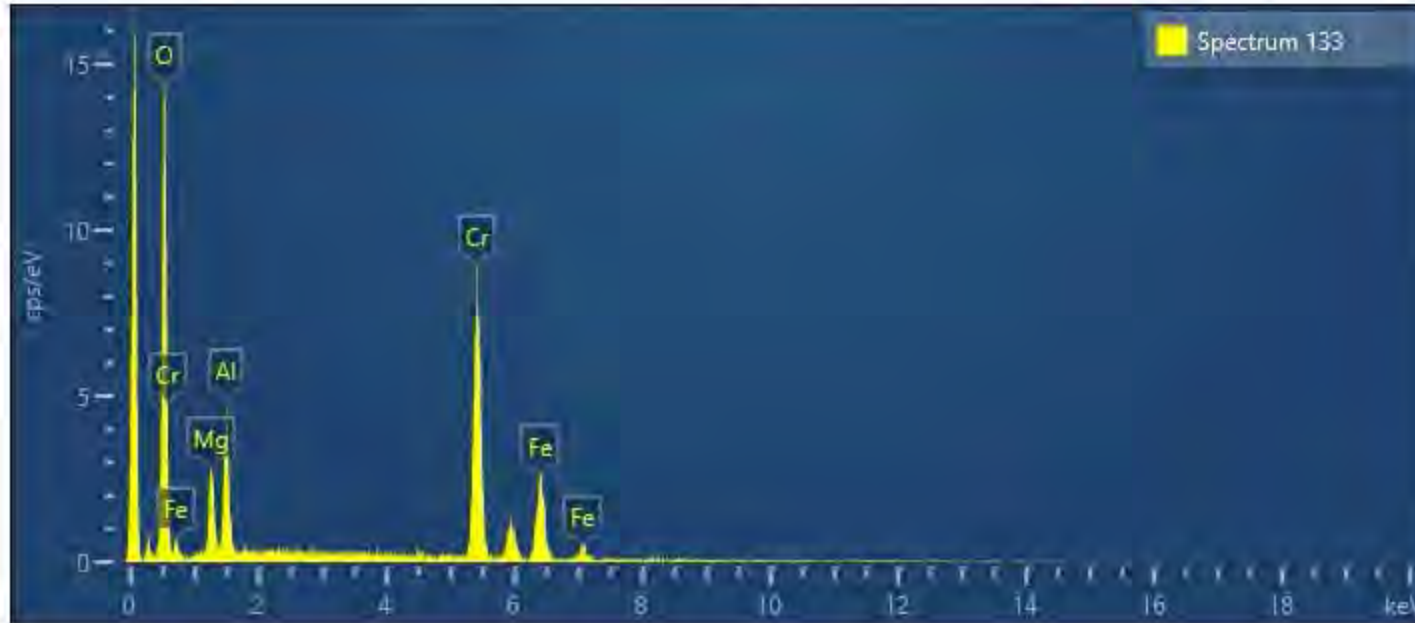
| Element | Weight % | σ |
|---------|----------|----------|
| Cu | 40.7 | 0.3 |
| O | 20.0 | 0.4 |
| Fe | 18.8 | 0.2 |
| Pd | 15.1 | 0.3 |
| Sn | 1.5 | 0.1 |
| Cr | 1.5 | 0.1 |
| Pt | 0.9 | 0.2 |

SITE 16 is awaruite within fractures in pyroxene

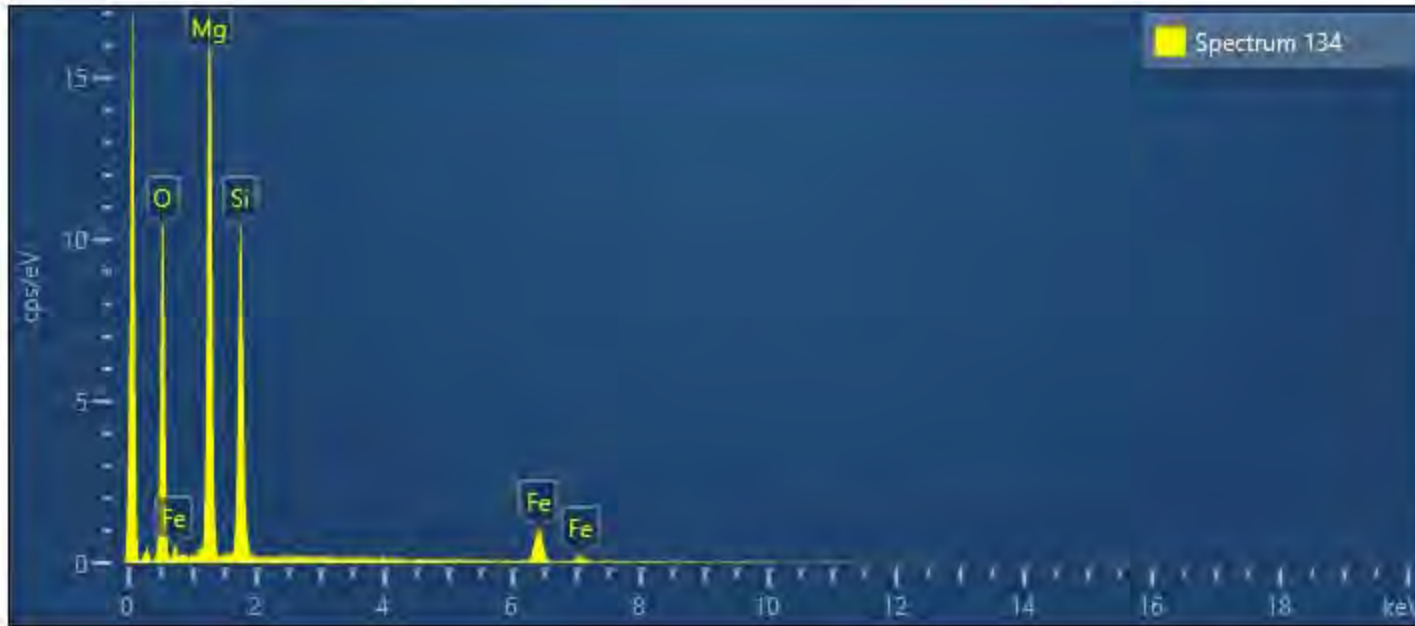




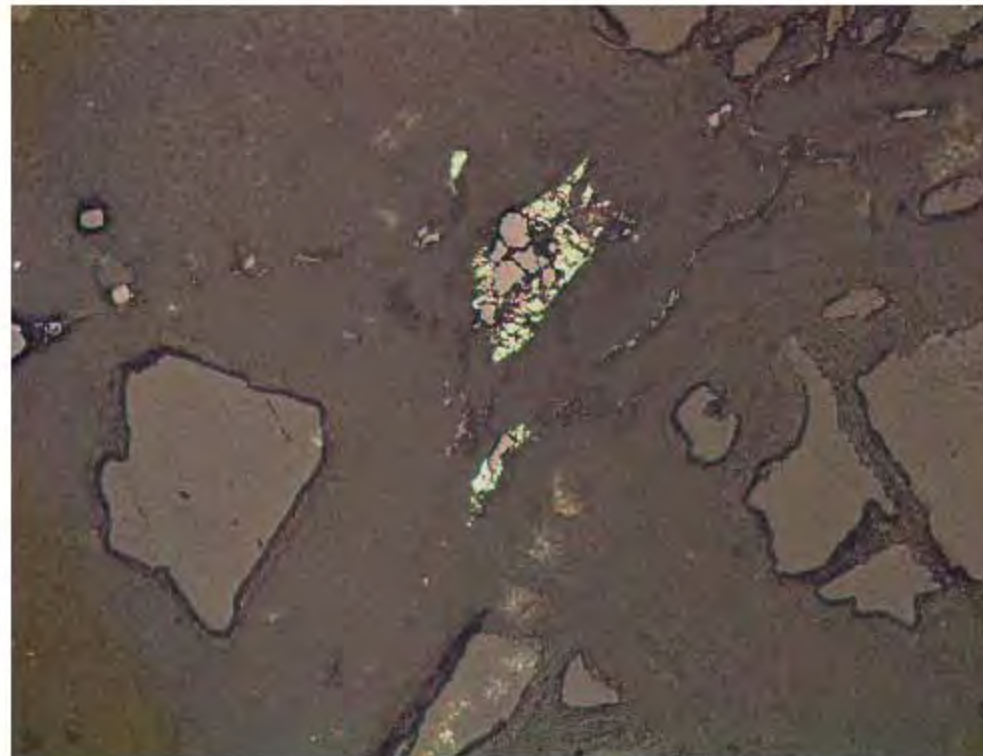
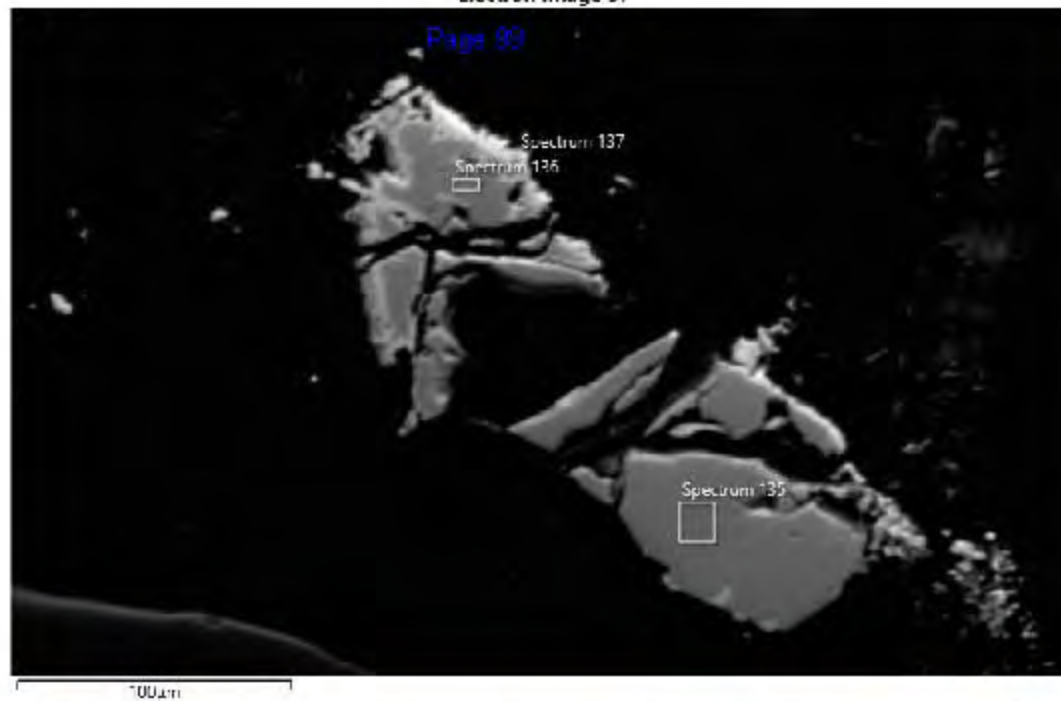
| Spectrum 132 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.41 | 0.64 | 59.49 |
| Mg | K series | 6.53 | 0.29 | 7.21 |
| Al | K series | 8.05 | 0.28 | 8.02 |
| Cr | K series | 33.83 | 0.53 | 17.49 |
| Fe | K series | 16.18 | 0.47 | 7.79 |
| Total | | 100.00 | | 100.00 |

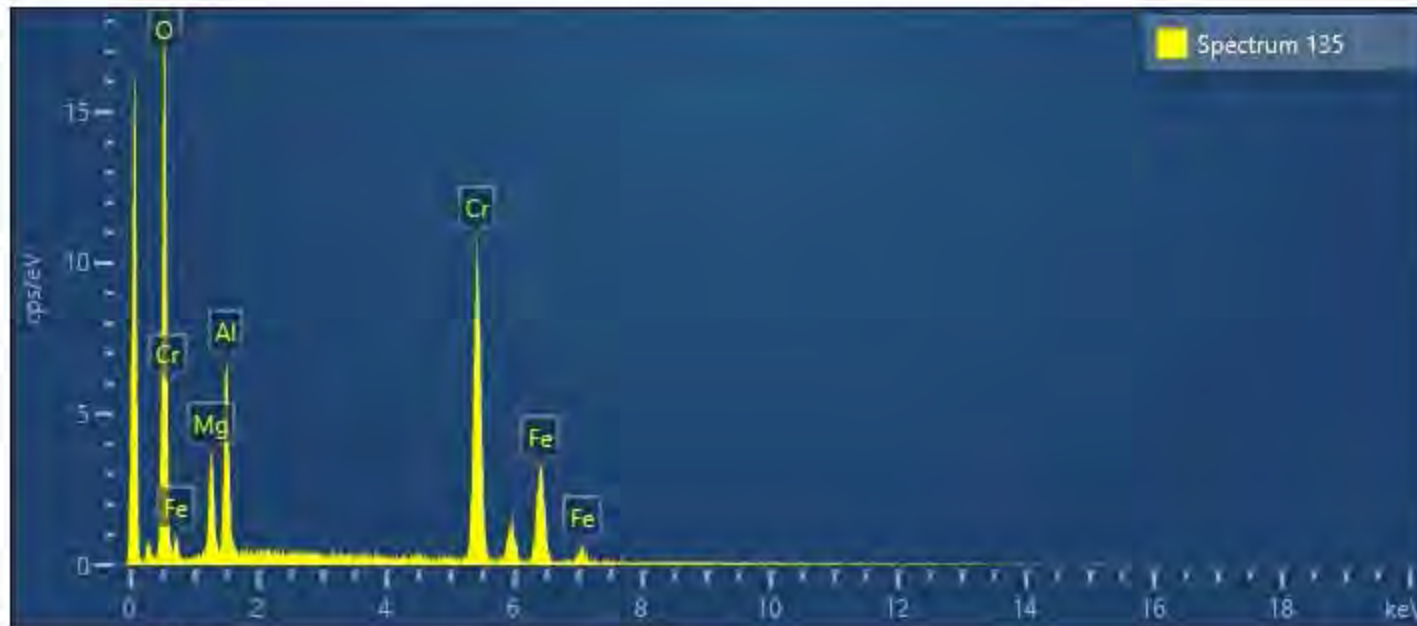


| Spectrum 133 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.95 | 0.78 | 60.37 |
| Mg | K series | 5.78 | 0.35 | 6.39 |
| Al | K series | 7.76 | 0.34 | 7.73 |
| Cr | K series | 34.03 | 0.67 | 17.58 |
| Fe | K series | 16.48 | 0.60 | 7.93 |
| Total | | 100.00 | | 100.00 |

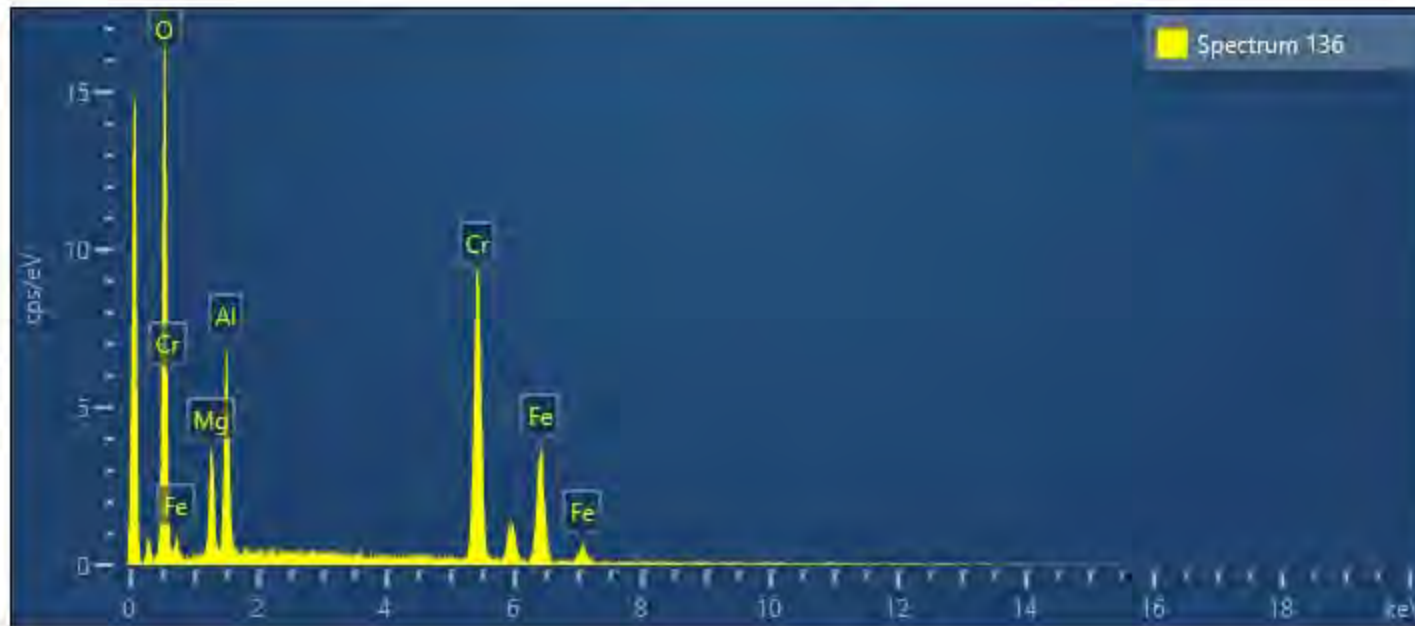


| Spectrum 134 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 44.58 | 0.64 | 58.31 |
| Mg | K series | 29.02 | 0.47 | 24.98 |
| Si | K series | 18.42 | 0.39 | 13.73 |
| Fe | K series | 7.97 | 0.41 | 2.99 |
| Total | | 100.00 | | 100.00 |

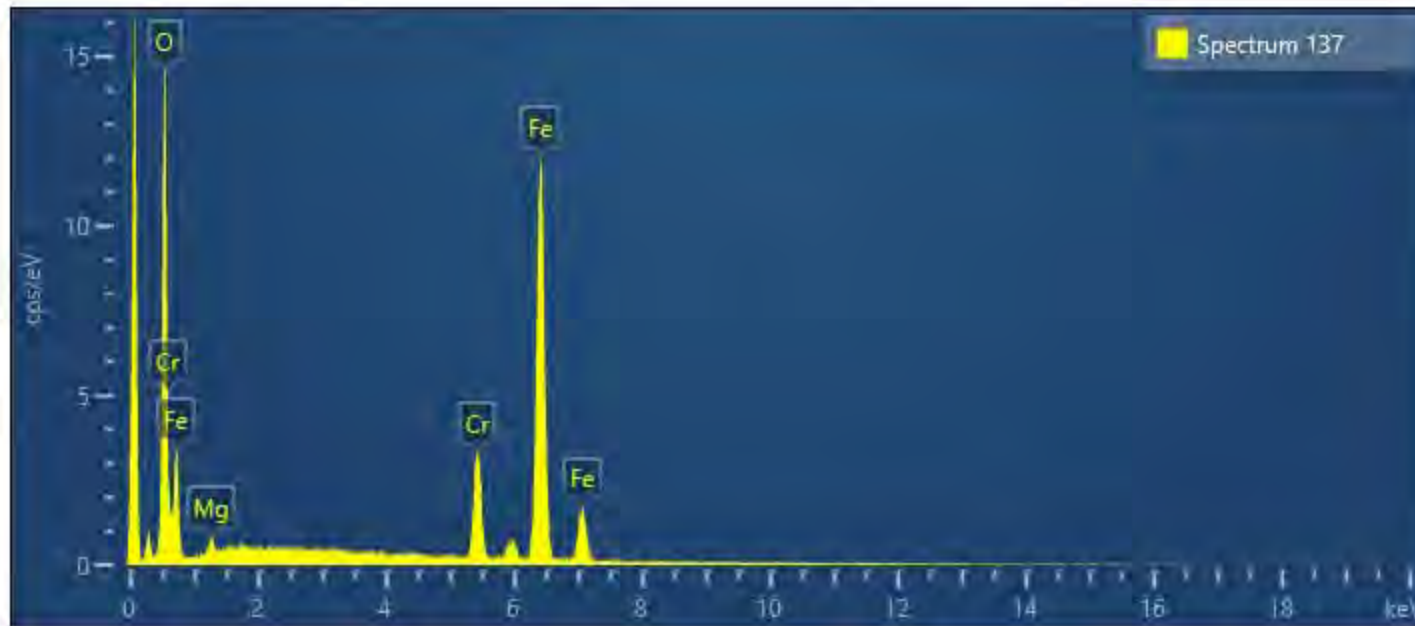




| Spectrum 135 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.51 | 0.71 | 59.58 |
| Mg | K series | 5.73 | 0.31 | 6.32 |
| Al | K series | 9.07 | 0.32 | 9.02 |
| Cr | K series | 33.36 | 0.59 | 17.22 |
| Fe | K series | 16.33 | 0.53 | 7.85 |
| Total | | 100.00 | | 100.00 |

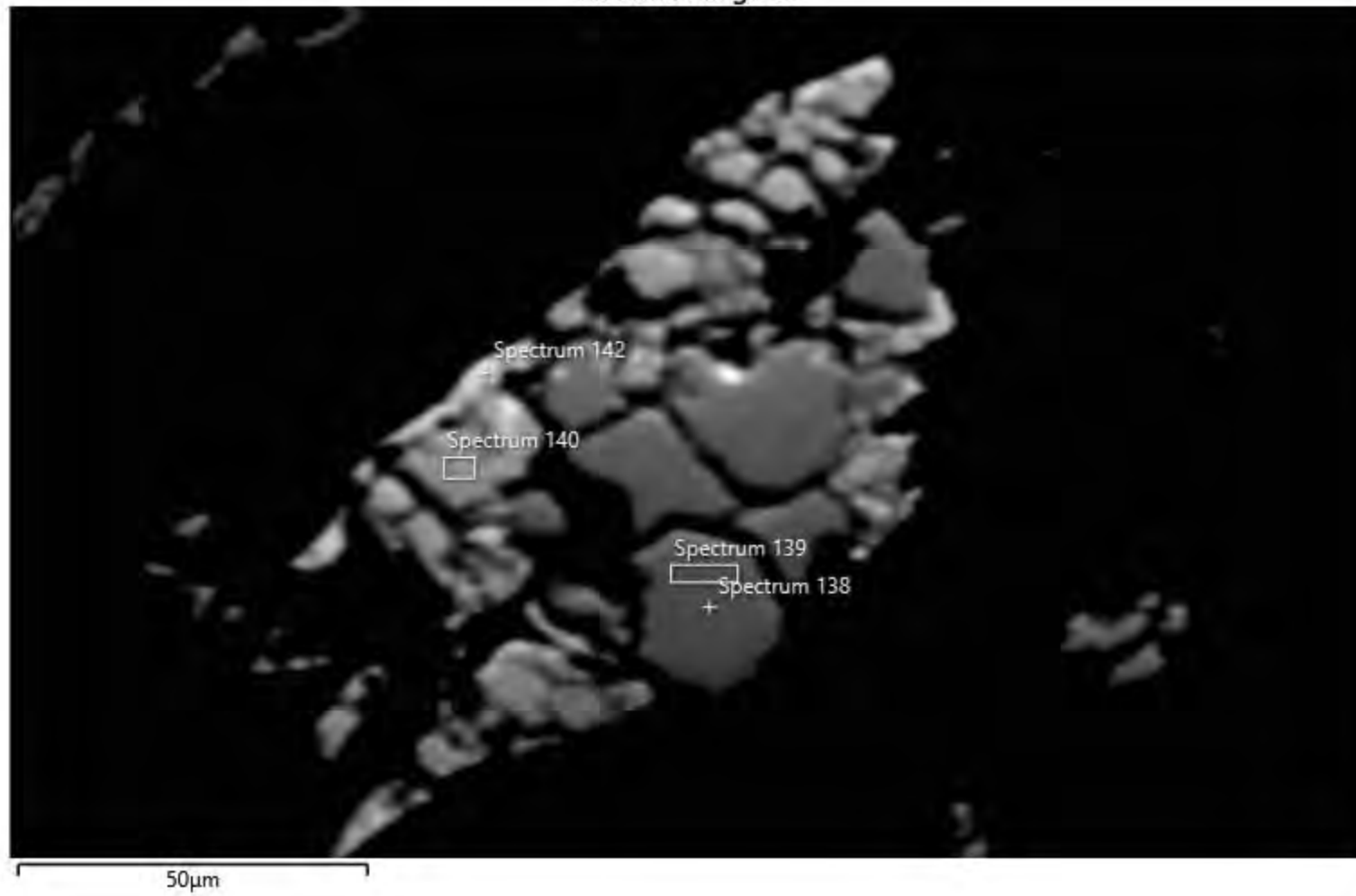


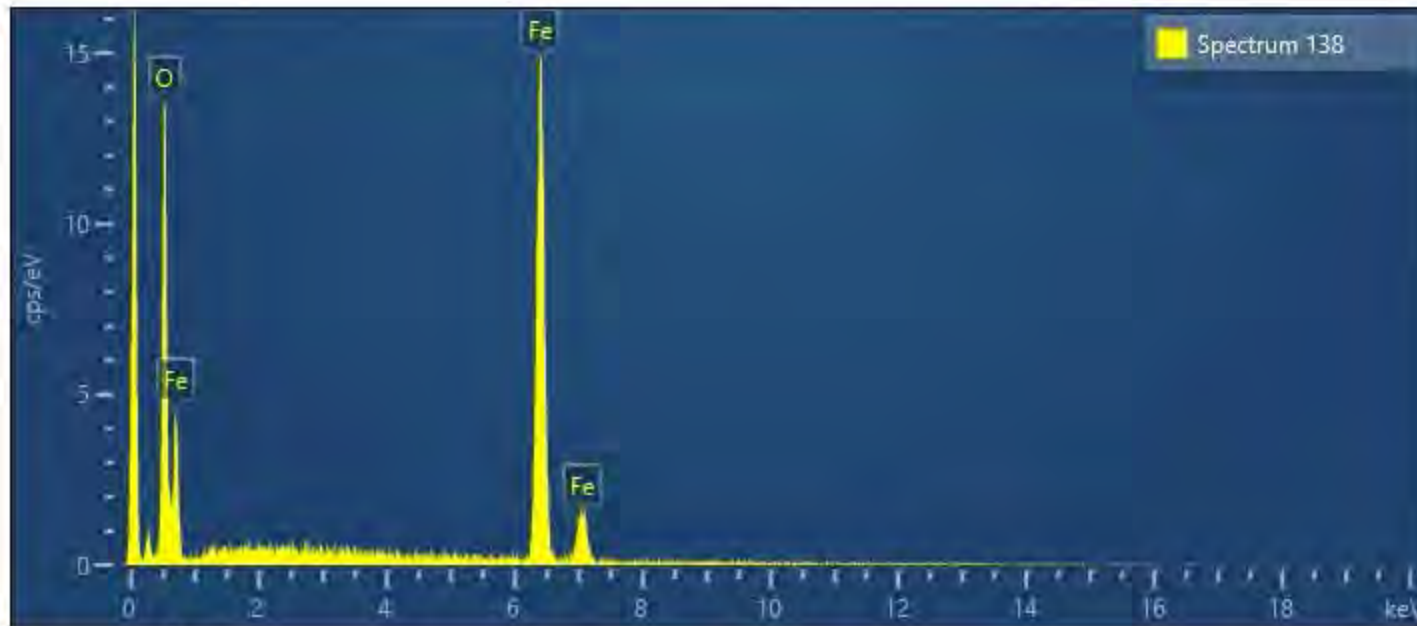
| Spectrum 136 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.83 | 0.65 | 58.85 |
| Mg | K series | 5.91 | 0.29 | 6.57 |
| Al | K series | 9.19 | 0.30 | 9.21 |
| Cr | K series | 31.63 | 0.54 | 16.44 |
| Fe | K series | 18.45 | 0.50 | 8.93 |
| Total | | 100.00 | | 100.00 |



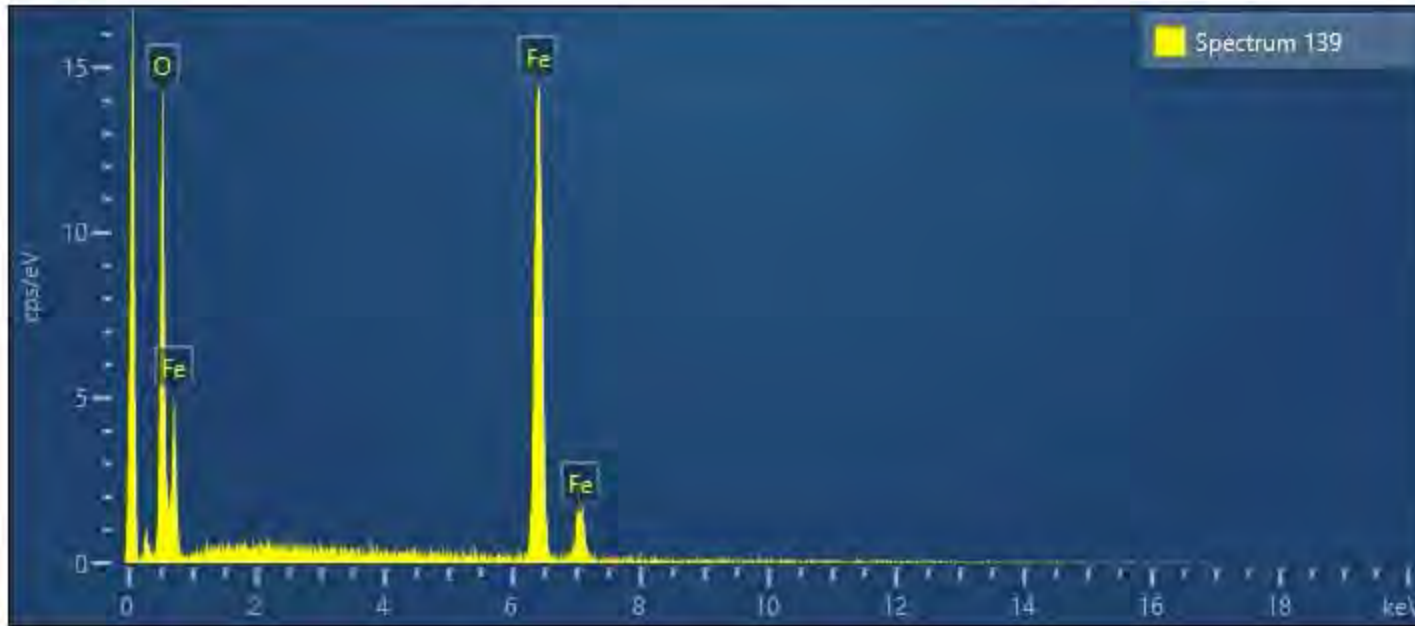
| Spectrum 137 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.92 | 0.44 | 59.15 |
| Cr | K series | 10.04 | 0.22 | 6.11 |
| Fe | K series | 59.04 | 0.45 | 33.44 |
| Mg | K series | 1.01 | 0.14 | 1.31 |
| Total | | 100.00 | | 100.00 |

Electron Image 38

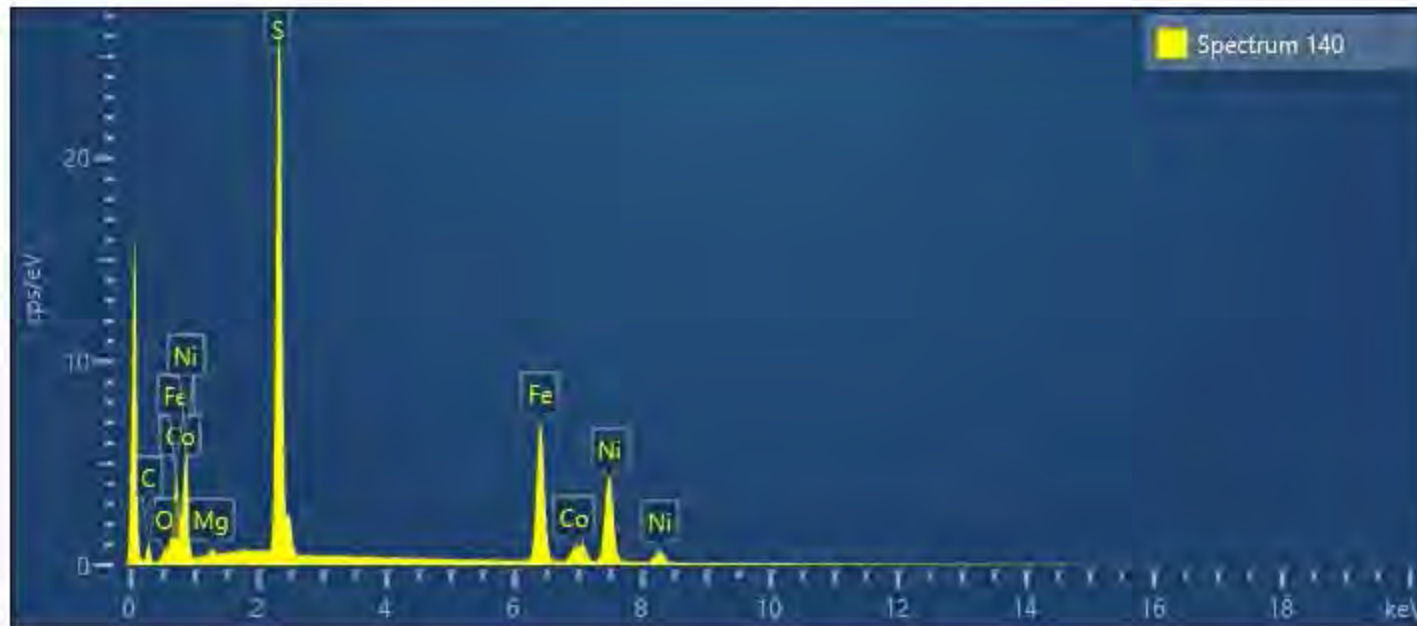




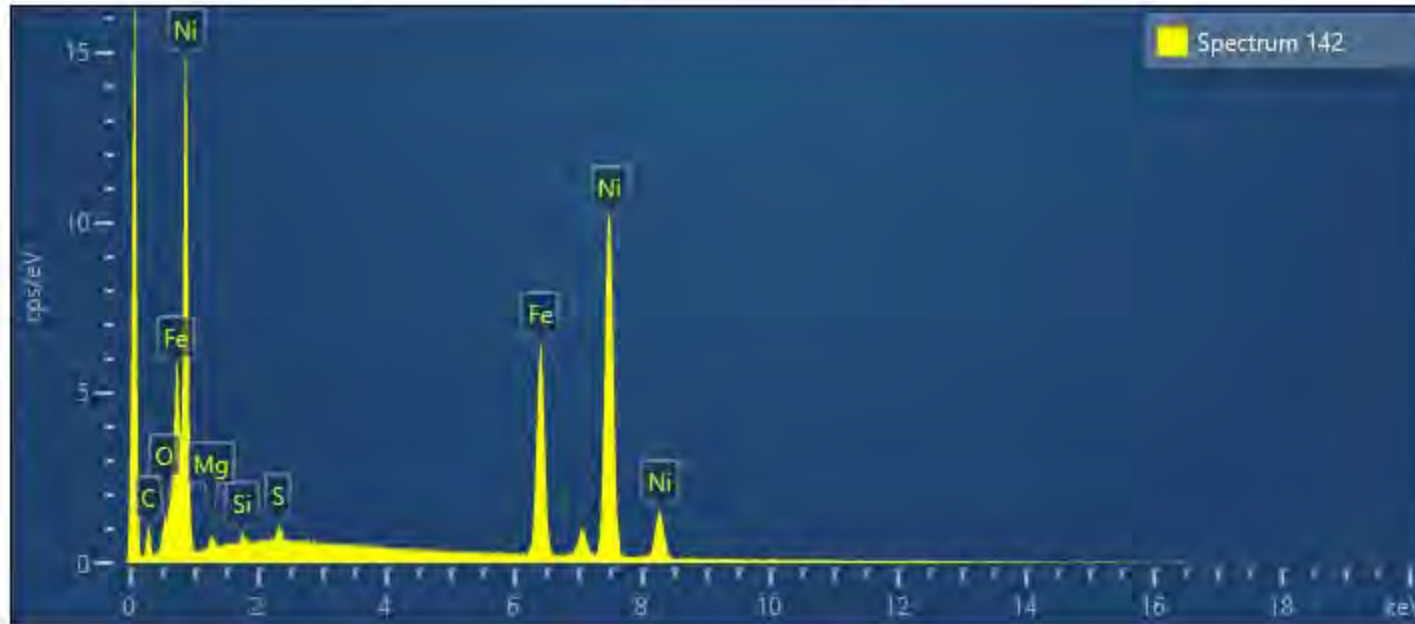
| Spectrum 138 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.83 | 0.70 | 58.57 |
| Fe | K series | 71.17 | 0.70 | 41.43 |
| Total | | 100.00 | | 100.00 |



| Spectrum 139 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.04 | 0.80 | 58.83 |
| Fe | K series | 70.96 | 0.80 | 41.17 |
| Total | | 100.00 | | 100.00 |

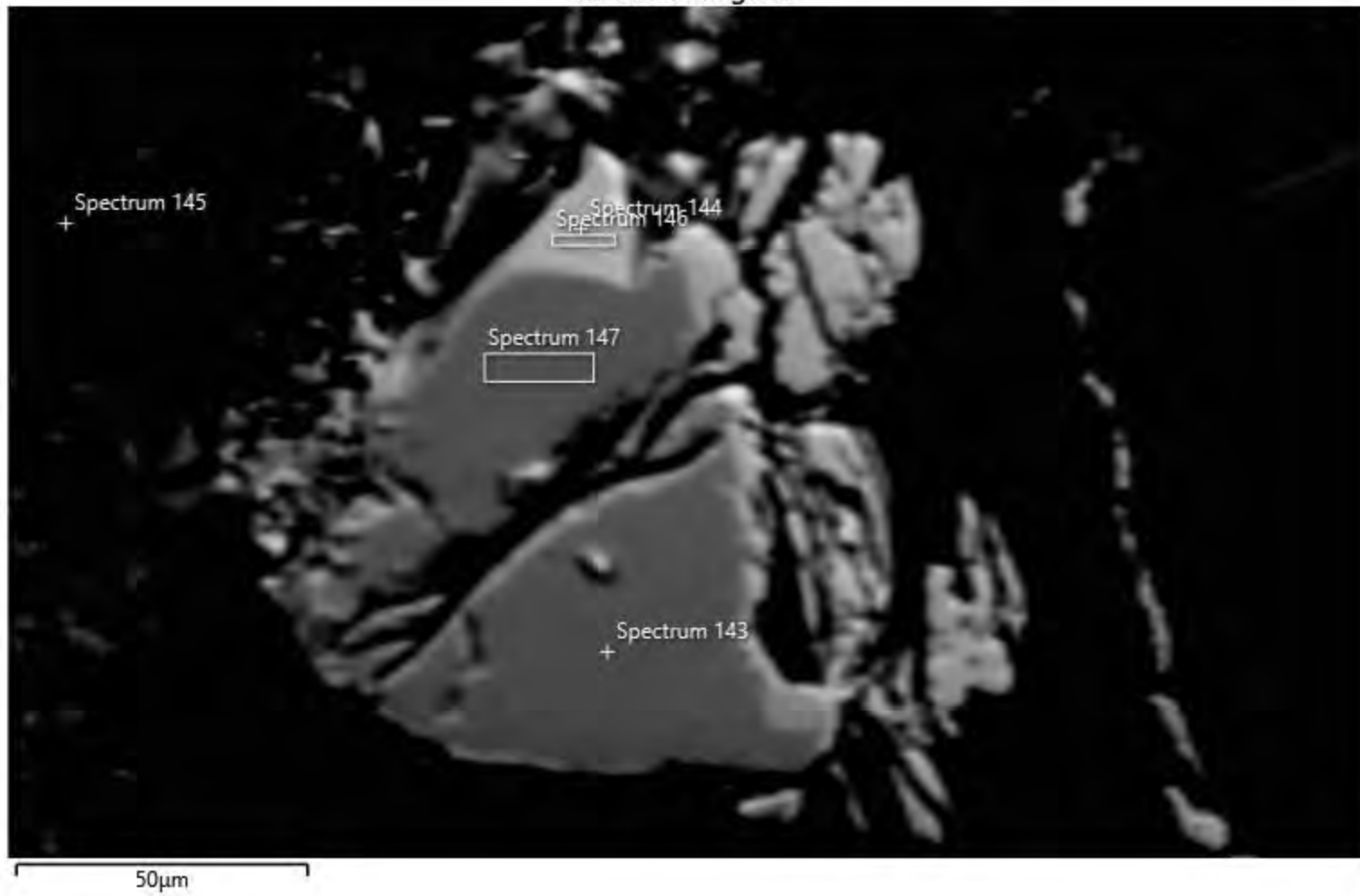


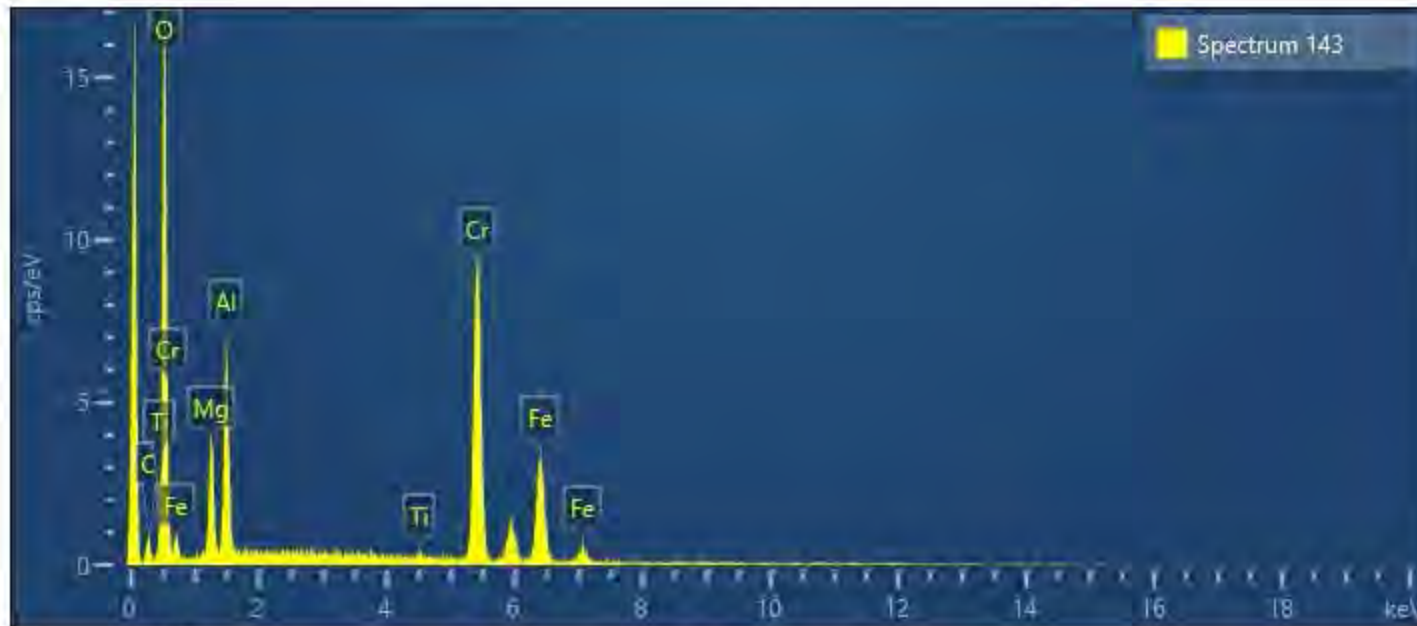
| Spectrum 140 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 2.53 | 0.24 | 6.76 |
| S | K series | 33.70 | 0.26 | 45.00 |
| Fe | K series | 29.89 | 0.28 | 22.92 |
| Ni | K series | 29.88 | 0.32 | 21.79 |
| Mg | K series | 0.61 | 0.10 | 1.07 |
| Co | K series | 3.39 | 0.20 | 2.46 |
| Total | | 100.00 | | 100.00 |



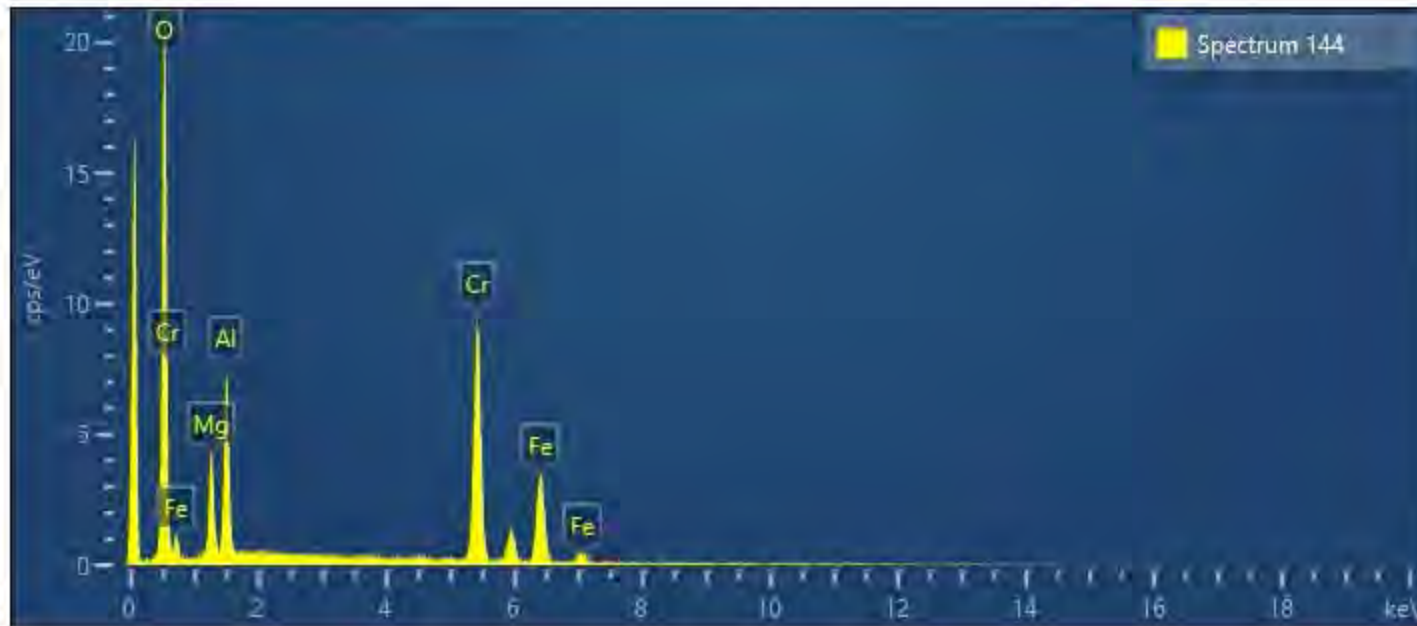
| Spectrum 142 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.48 | 0.23 | 23.41 |
| Ni | K series | 71.09 | 0.28 | 64.69 |
| O | K series | 2.30 | 0.17 | 7.70 |
| S | K series | 0.64 | 0.07 | 1.06 |
| Si | K series | 0.48 | 0.07 | 0.90 |
| Mg | K series | 1.02 | 0.12 | 2.24 |
| Total | | 100.00 | | 100.00 |

Electron Image 39

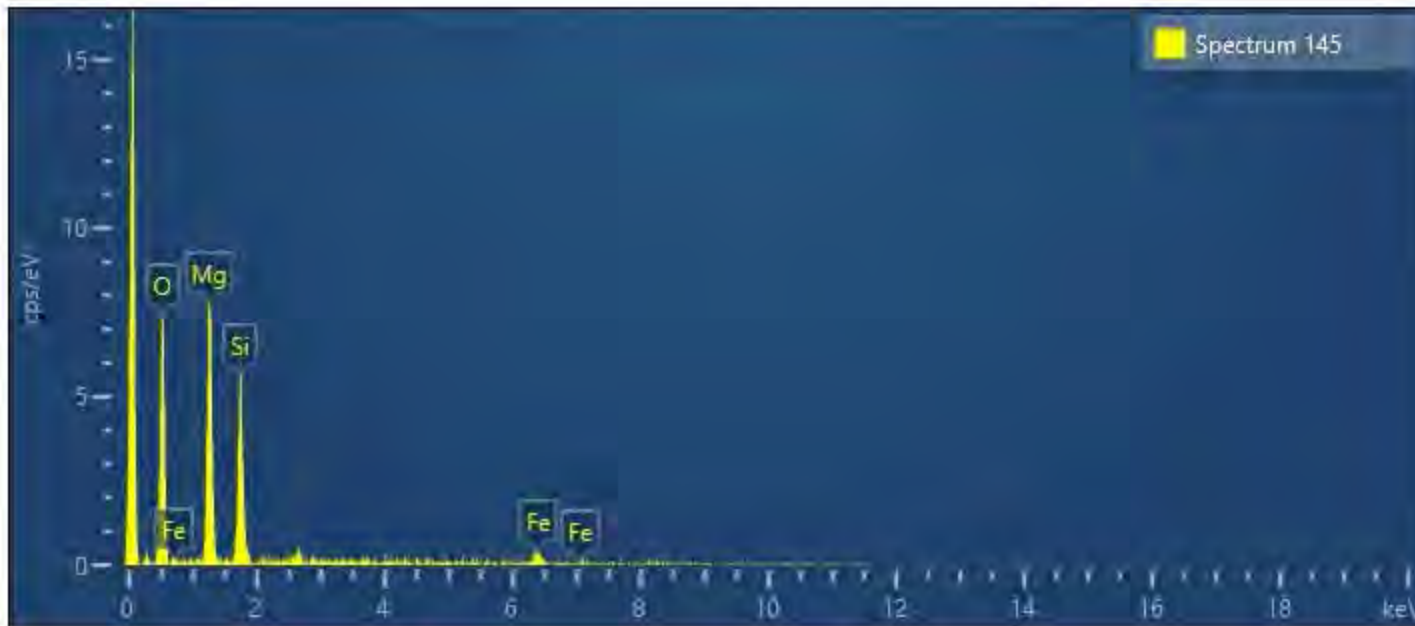




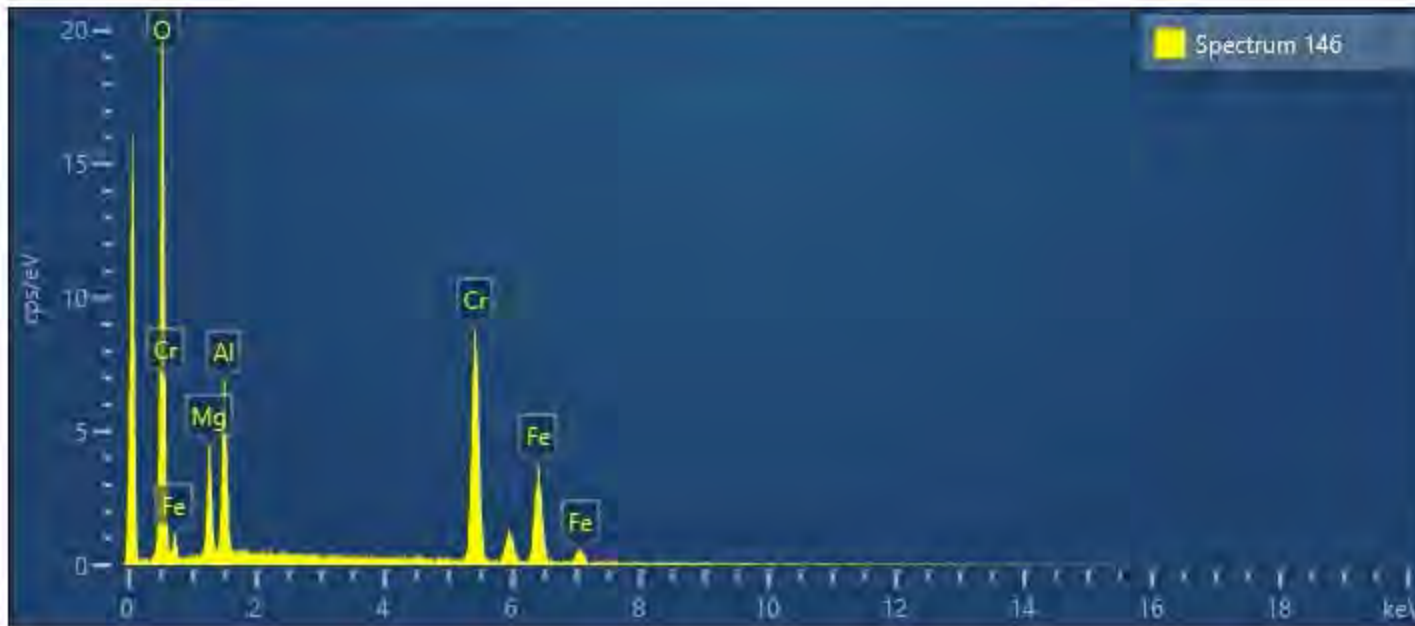
| Spectrum 143 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.36 | 0.72 | 59.23 |
| Mg | K series | 6.32 | 0.31 | 6.97 |
| Al | K series | 9.01 | 0.32 | 8.95 |
| Cr | K series | 32.16 | 0.59 | 16.58 |
| Fe | K series | 16.68 | 0.54 | 8.01 |
| Ti | K series | 0.47 | 0.14 | 0.26 |
| Total | | 100.00 | | 100.00 |



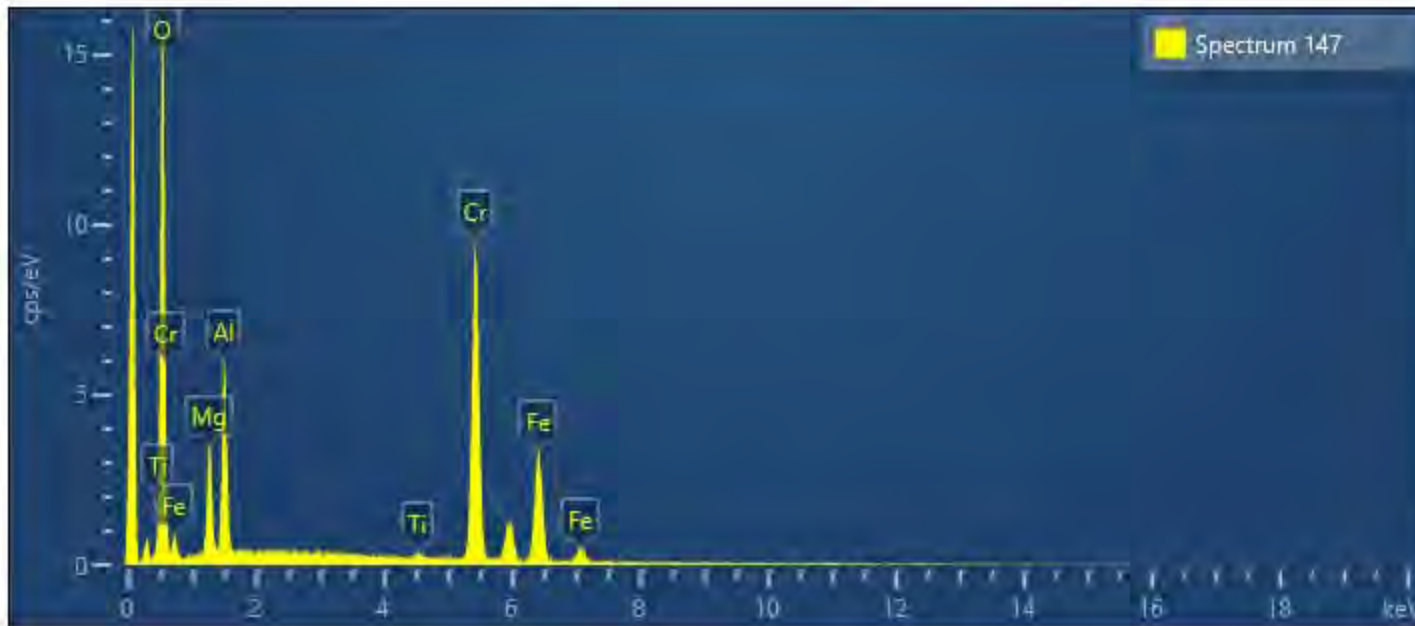
| Spectrum 144 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 39.16 | 0.56 | 62.80 |
| Mg | K series | 6.18 | 0.25 | 6.52 |
| Al | K series | 9.33 | 0.26 | 8.88 |
| Cr | K series | 28.80 | 0.45 | 14.21 |
| Fe | K series | 16.53 | 0.42 | 7.59 |
| Total | | 100.00 | | 100.00 |



| Spectrum 145 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.79 | 1.58 | 65.51 |
| Mg | K series | 24.93 | 1.14 | 20.36 |
| Si | K series | 17.70 | 0.96 | 12.51 |
| Fe | K series | 4.57 | 0.94 | 1.63 |
| Total | | 100.00 | | 100.00 |

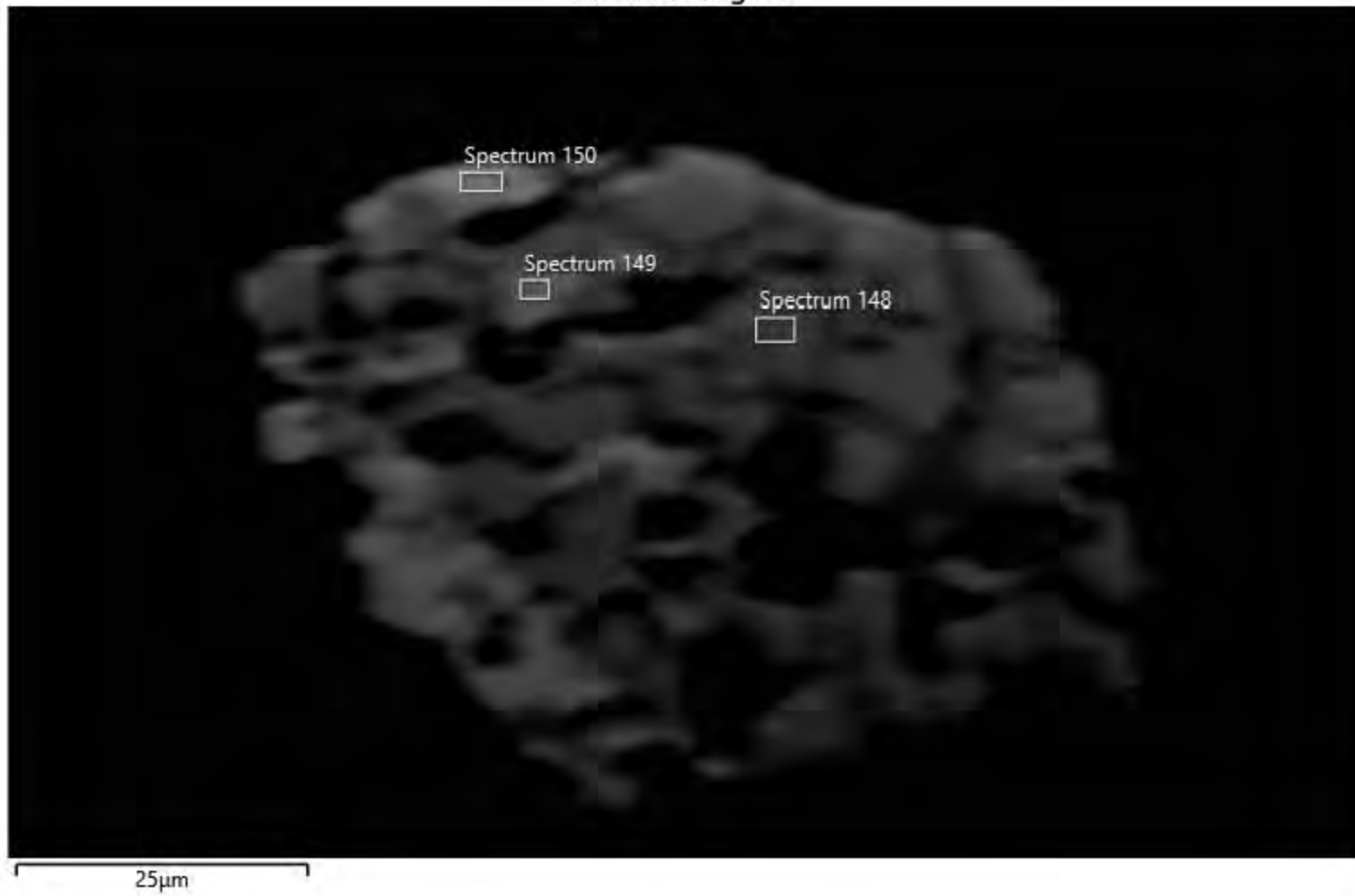


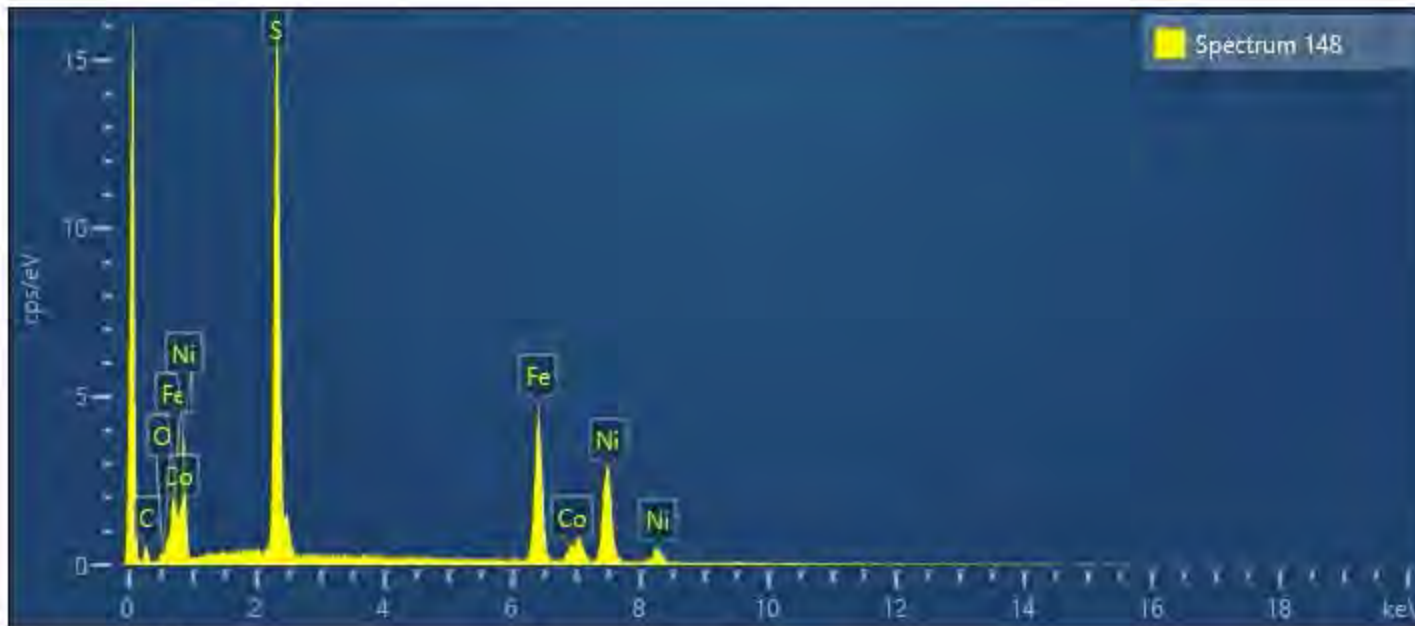
| Spectrum 146 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 38.86 | 0.56 | 62.48 |
| Mg | K series | 6.58 | 0.25 | 6.96 |
| Al | K series | 9.07 | 0.26 | 8.65 |
| Cr | K series | 28.31 | 0.44 | 14.01 |
| Fe | K series | 17.19 | 0.42 | 7.92 |
| Total | | 100.00 | | 100.00 |



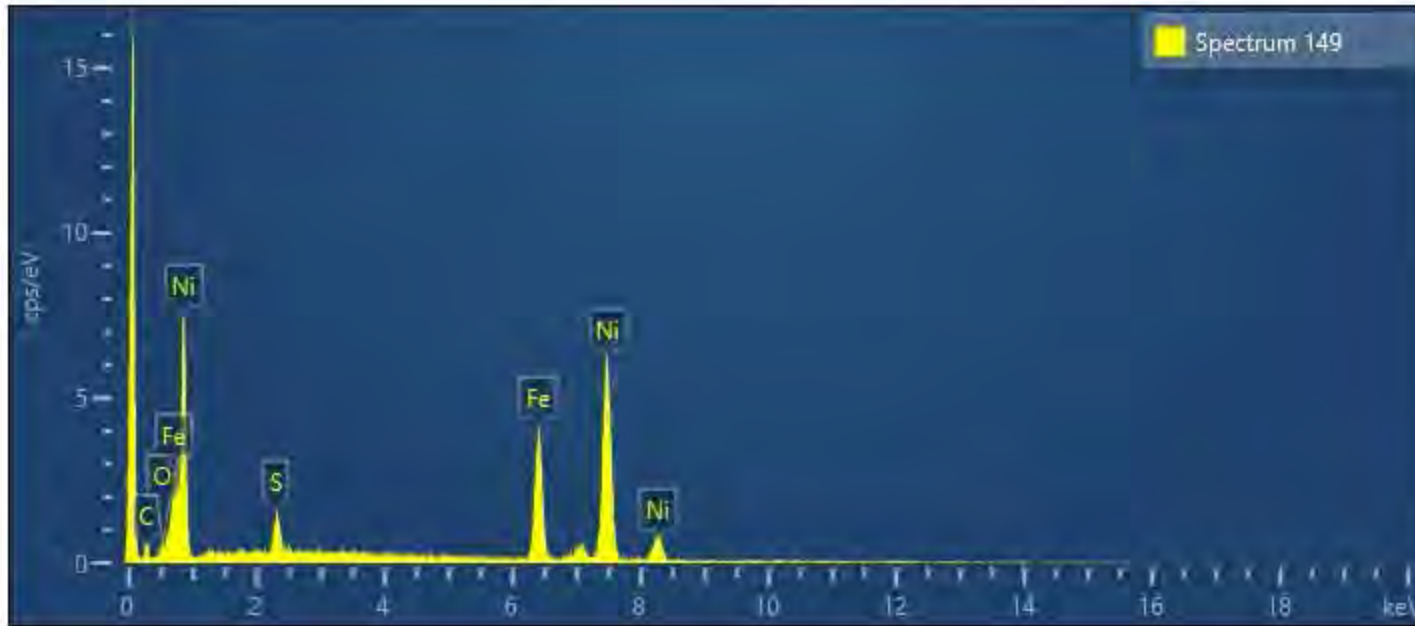
| Spectrum 147 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.49 | 0.46 | 59.61 |
| Mg | K series | 5.94 | 0.20 | 6.56 |
| Al | K series | 8.69 | 0.20 | 8.65 |
| Cr | K series | 32.11 | 0.37 | 16.60 |
| Fe | K series | 17.39 | 0.34 | 8.37 |
| Ti | K series | 0.39 | 0.09 | 0.22 |
| Total | | 100.00 | | 100.00 |

Electron Image 40

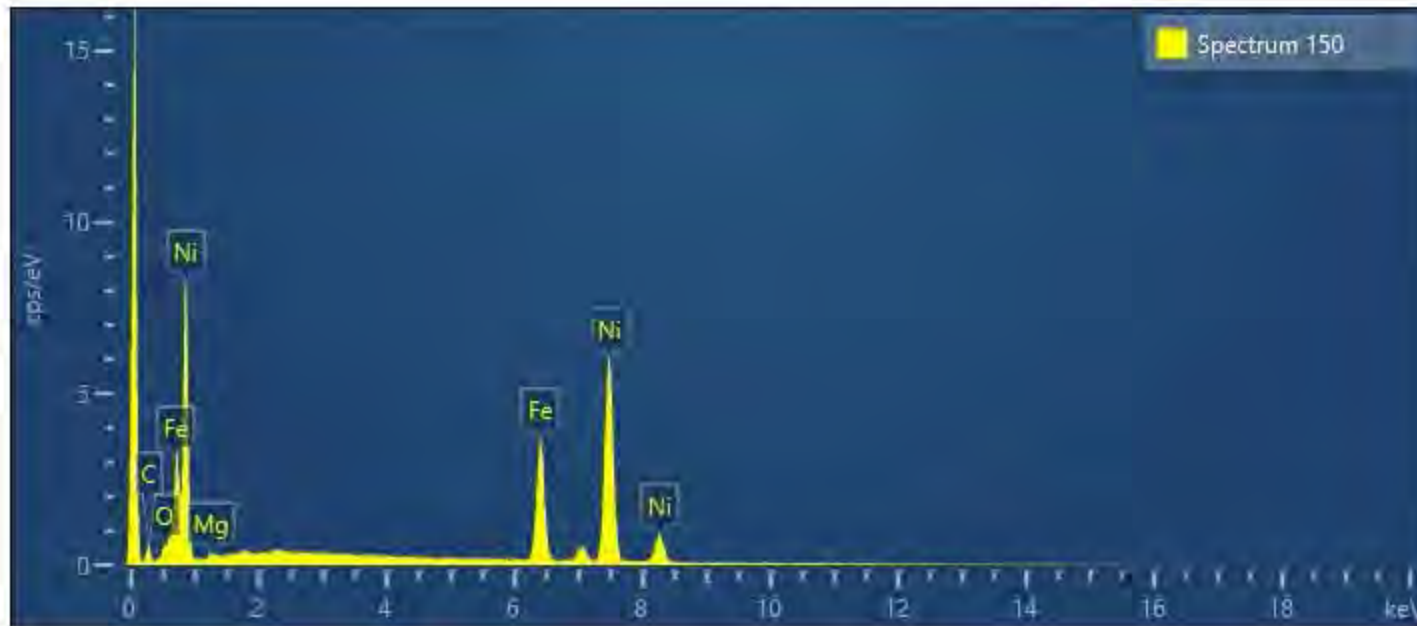




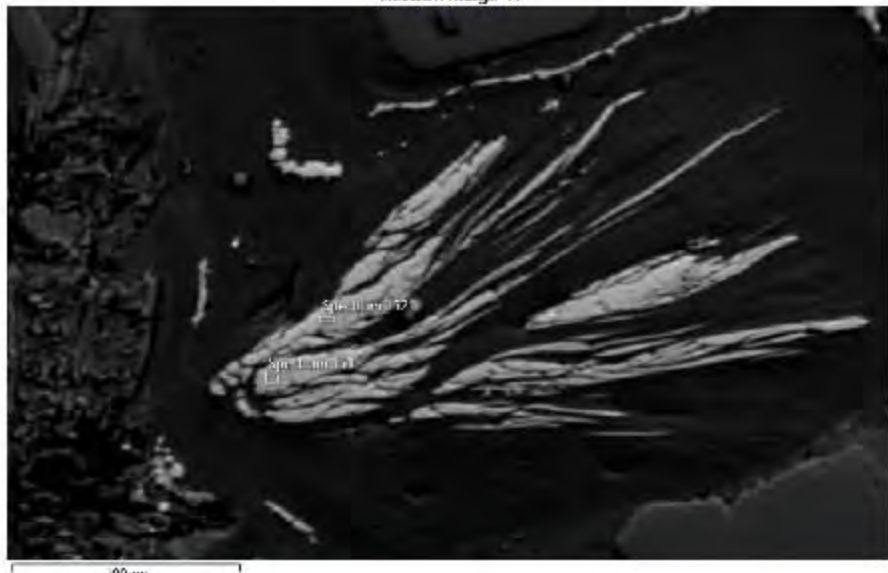
| Spectrum 148 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 32.08 | 0.47 | 44.06 |
| Fe | K series | 29.68 | 0.53 | 23.40 |
| Ni | K series | 32.04 | 0.61 | 24.03 |
| Co | K series | 4.26 | 0.41 | 3.18 |
| O | K series | 1.94 | 0.42 | 5.34 |
| Total | | 100.00 | | 100.00 |

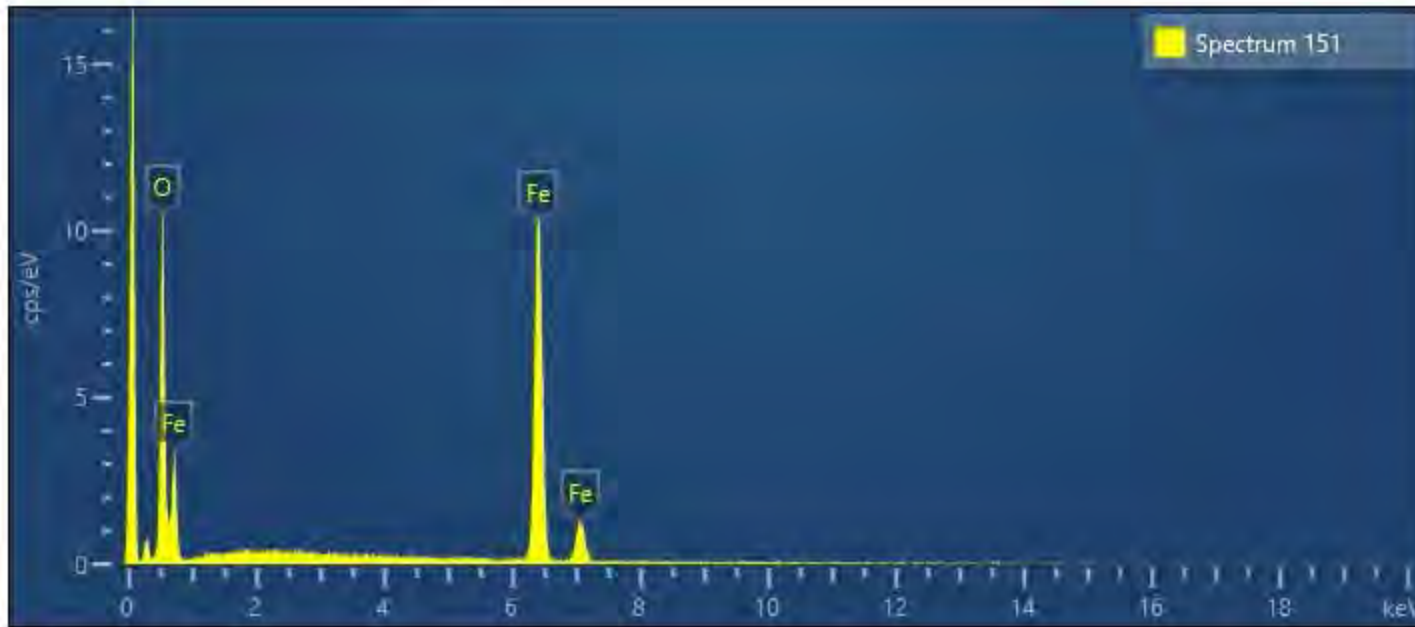


| Spectrum 149 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.24 | 0.63 | 24.41 |
| Ni | K series | 70.03 | 0.73 | 64.44 |
| S | K series | 2.86 | 0.25 | 4.82 |
| O | K series | 1.87 | 0.46 | 6.33 |
| Total | | 100.00 | | 100.00 |

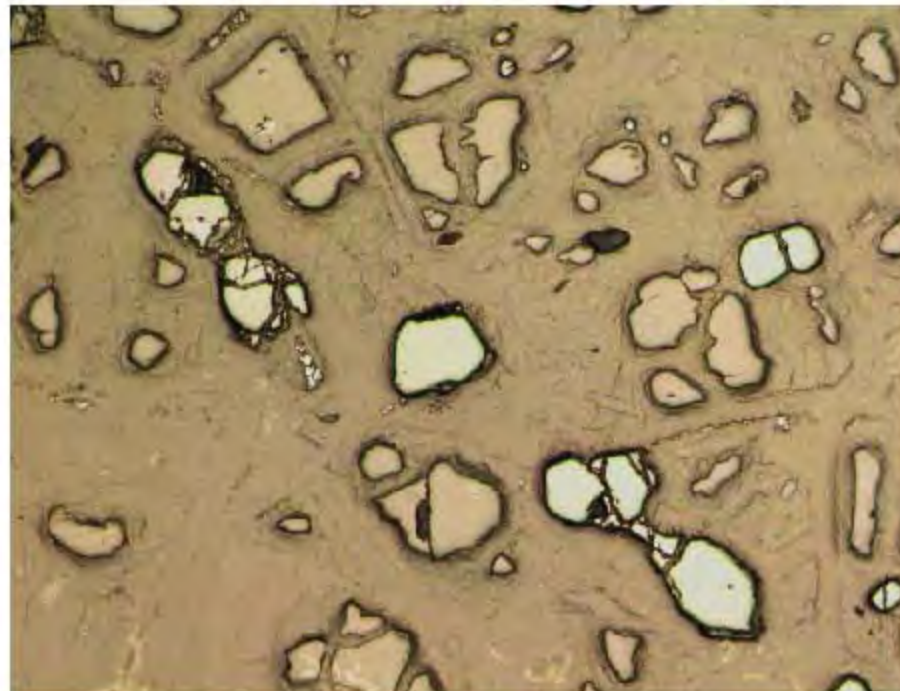
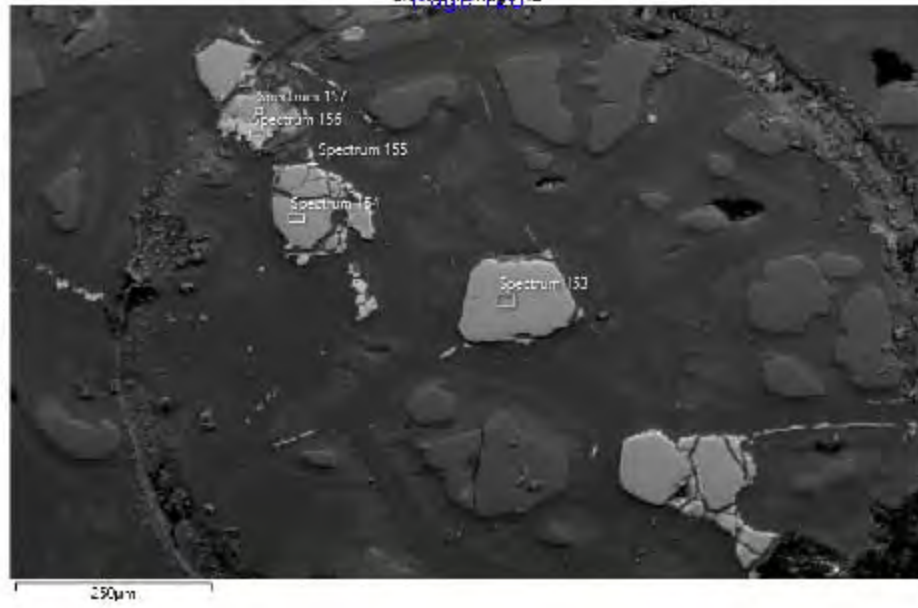


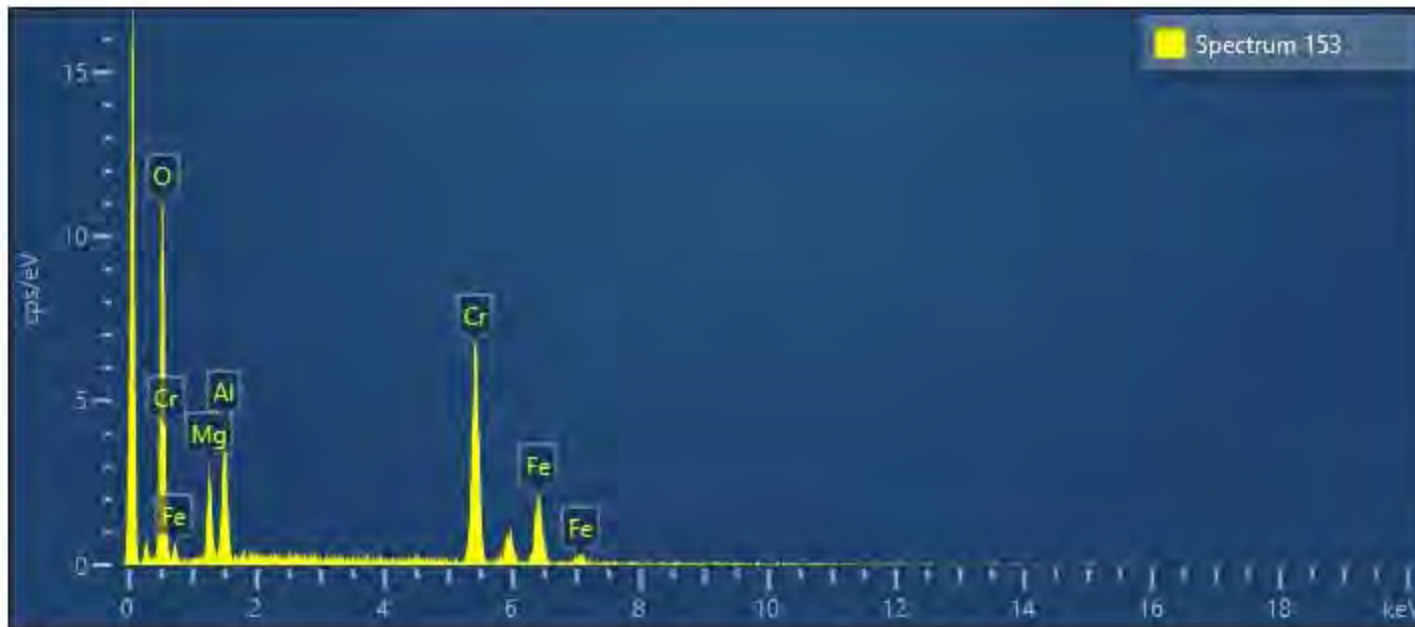
| Spectrum 150 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.36 | 0.34 | 23.91 |
| Ni | K series | 73.15 | 0.40 | 68.30 |
| O | K series | 1.86 | 0.24 | 6.36 |
| Mg | K series | 0.63 | 0.16 | 1.43 |
| Total | | 100.00 | | 100.00 |



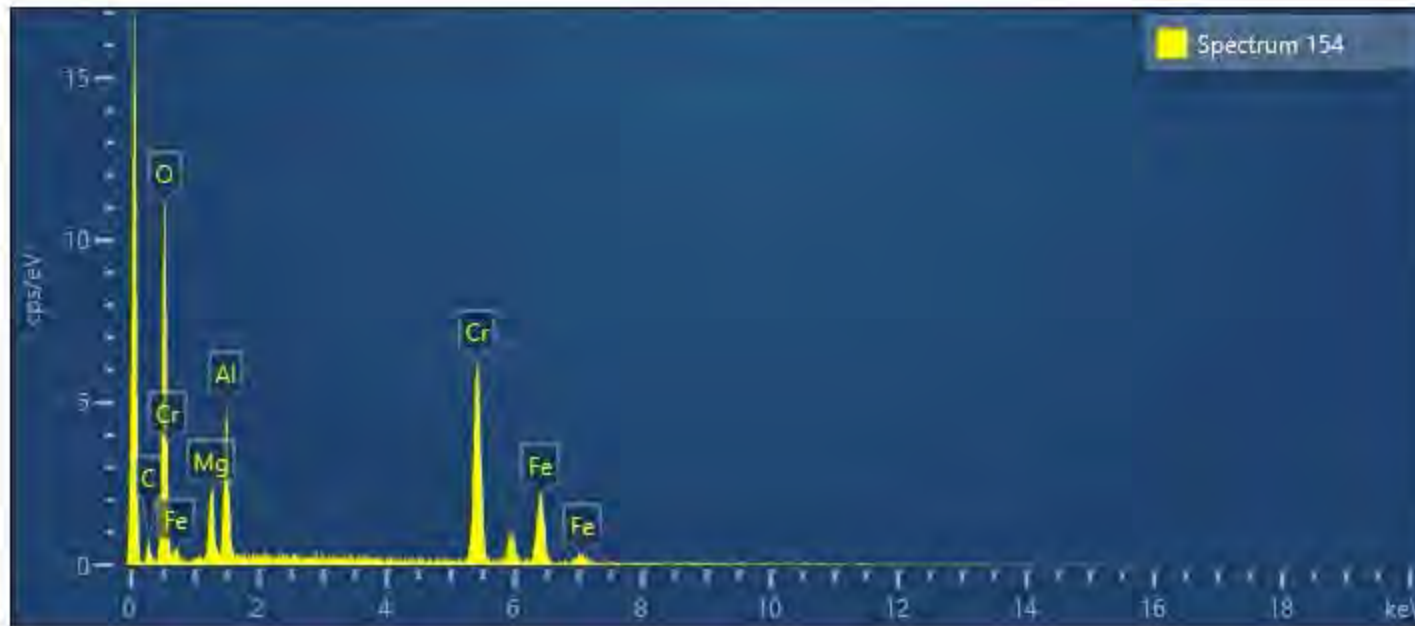


| Spectrum 151 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.96 | 0.49 | 59.89 |
| Fe | K series | 70.04 | 0.49 | 40.11 |
| Total | | 100.00 | | 100.00 |

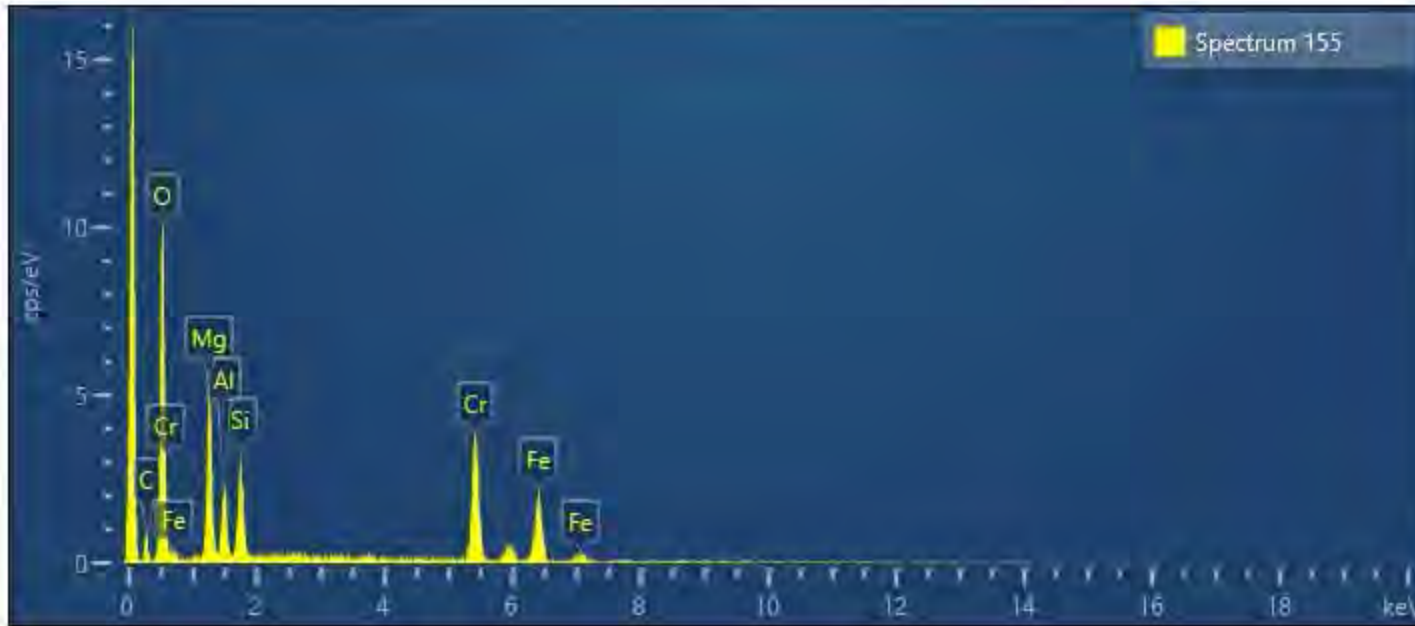




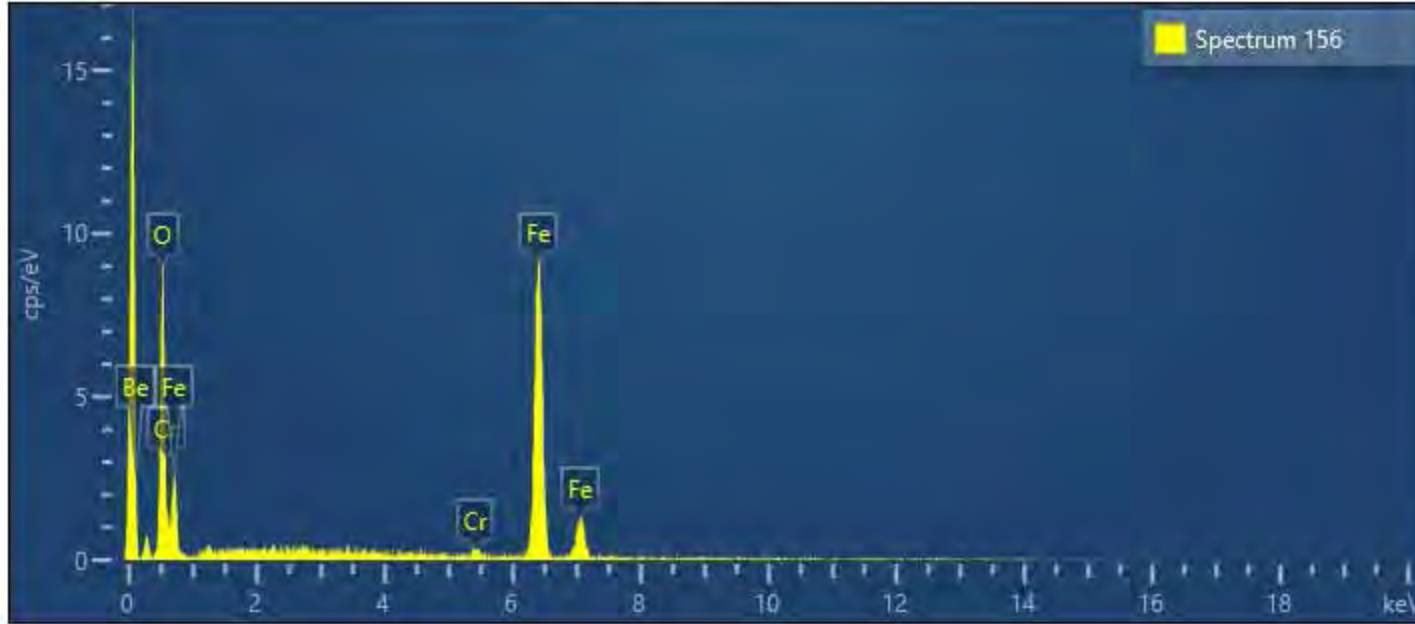
| Spectrum 153 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.24 | 0.97 | 57.96 |
| Mg | K series | 6.90 | 0.44 | 7.69 |
| Al | K series | 8.80 | 0.44 | 8.84 |
| Cr | K series | 34.49 | 0.81 | 17.96 |
| Fe | K series | 15.57 | 0.71 | 7.55 |
| Total | | 100.00 | | 100.00 |

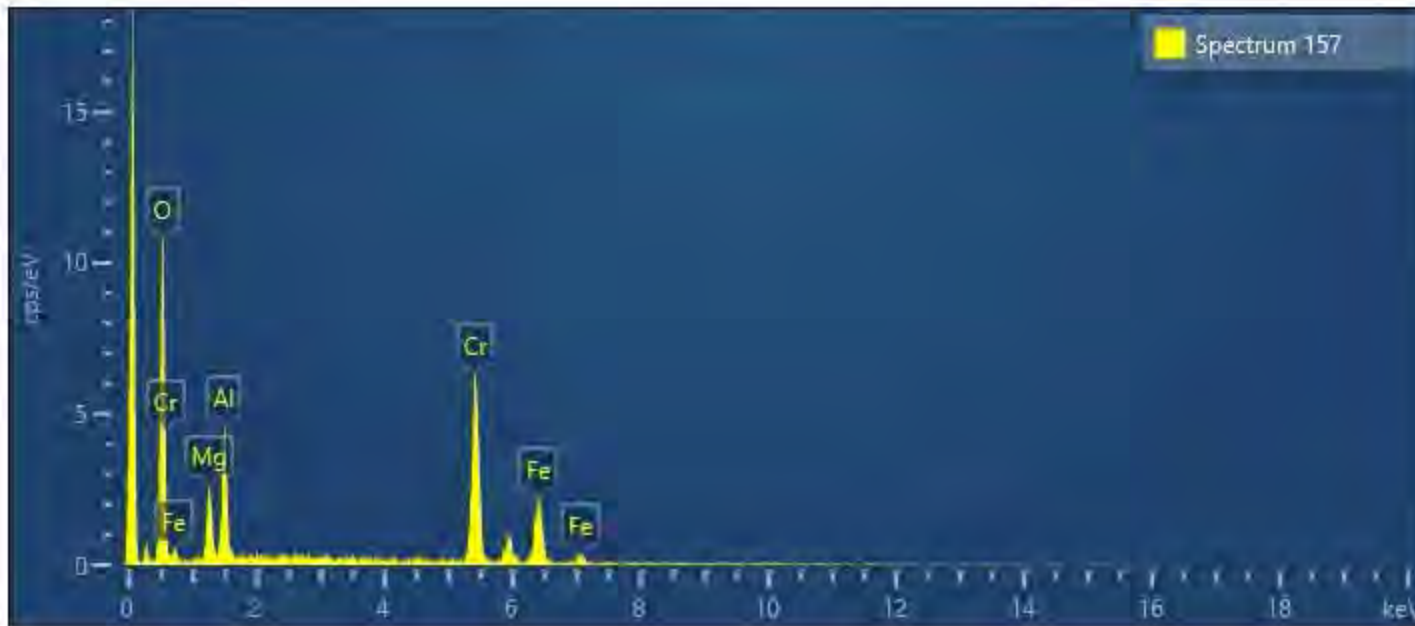


| Spectrum 154 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.86 | 0.87 | 58.59 |
| Mg | K series | 6.29 | 0.39 | 6.96 |
| Al | K series | 9.60 | 0.40 | 9.57 |
| Cr | K series | 32.47 | 0.72 | 16.79 |
| Fe | K series | 16.78 | 0.66 | 8.08 |
| Total | | 100.00 | | 100.00 |

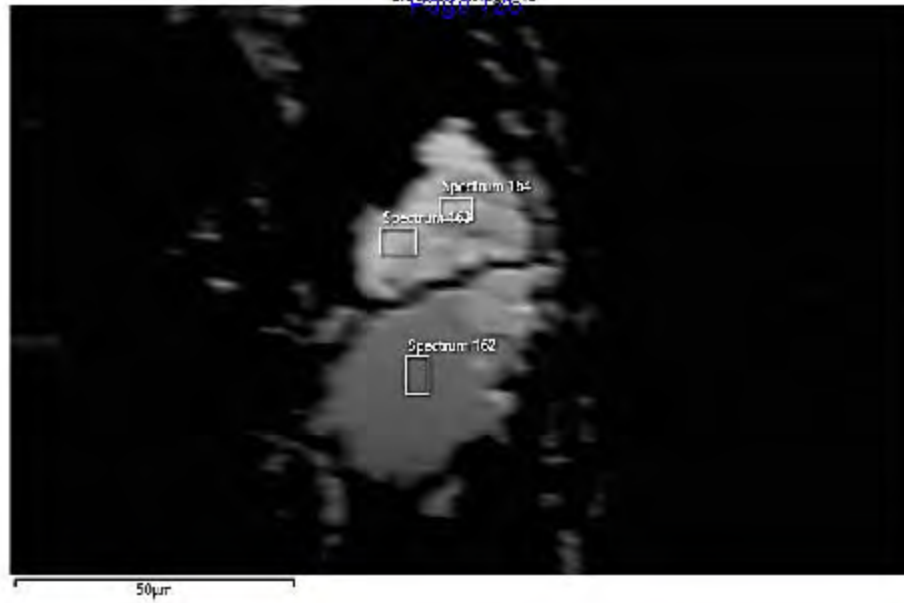


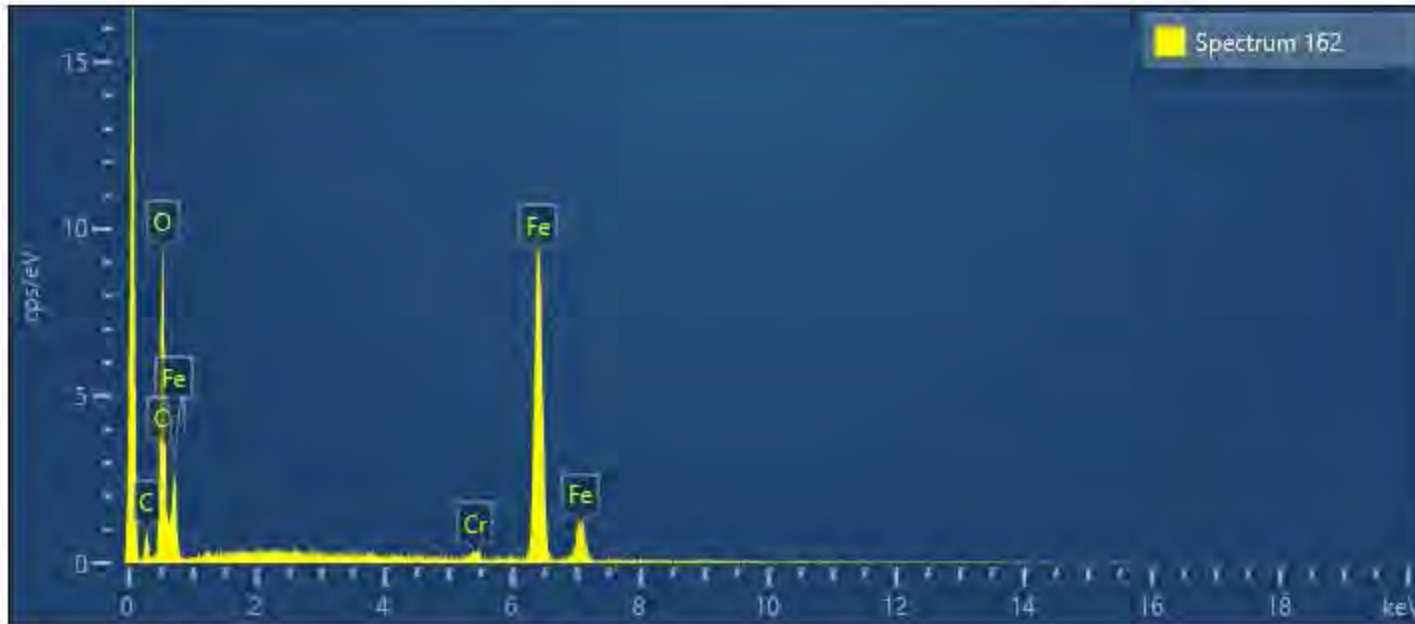
| Spectrum 155 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 38.52 | 0.99 | 59.58 |
| Mg | K series | 12.94 | 0.54 | 13.18 |
| Al | K series | 5.21 | 0.38 | 4.78 |
| Si | K series | 5.88 | 0.35 | 5.18 |
| Cr | K series | 20.89 | 0.68 | 9.94 |
| Fe | K series | 16.55 | 0.72 | 7.34 |
| Total | | 100.00 | | 100.00 |



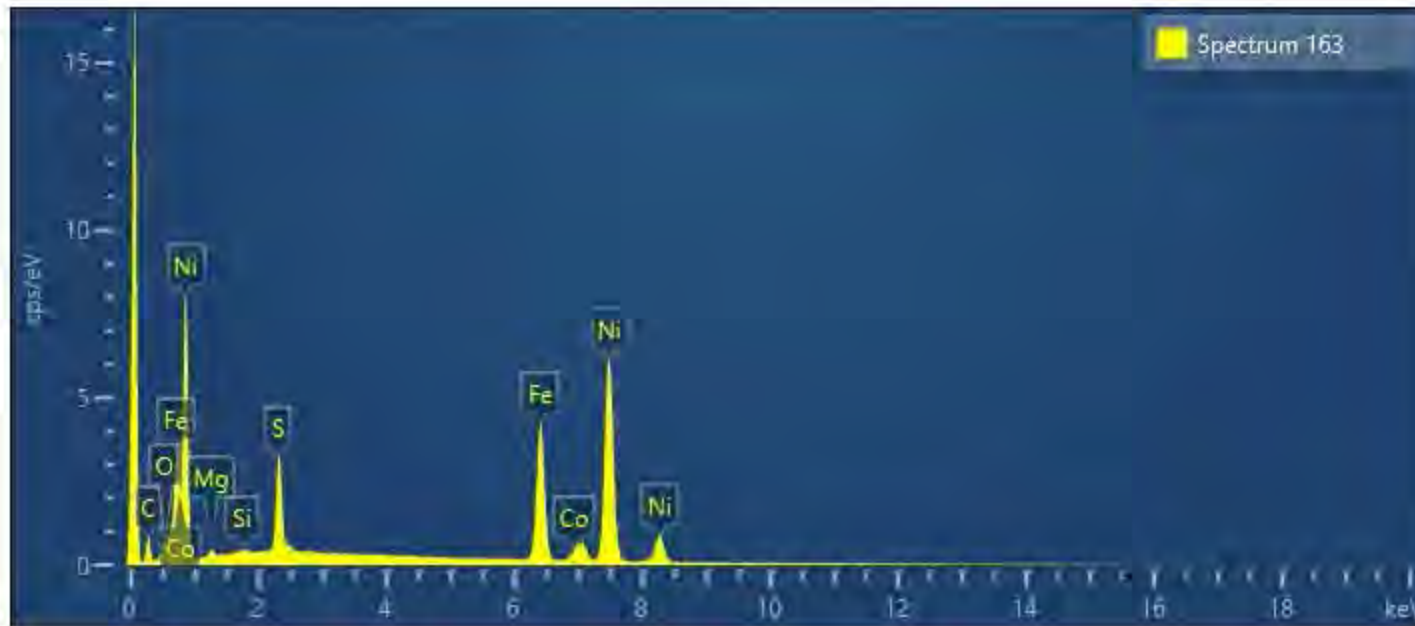


| Spectrum 157 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.67 | 1.00 | 58.30 |
| Mg | K series | 6.48 | 0.46 | 7.17 |
| Al | K series | 9.80 | 0.47 | 9.77 |
| Cr | K series | 31.66 | 0.82 | 16.38 |
| Fe | K series | 17.39 | 0.76 | 8.38 |
| Total | | 100.00 | | 100.00 |

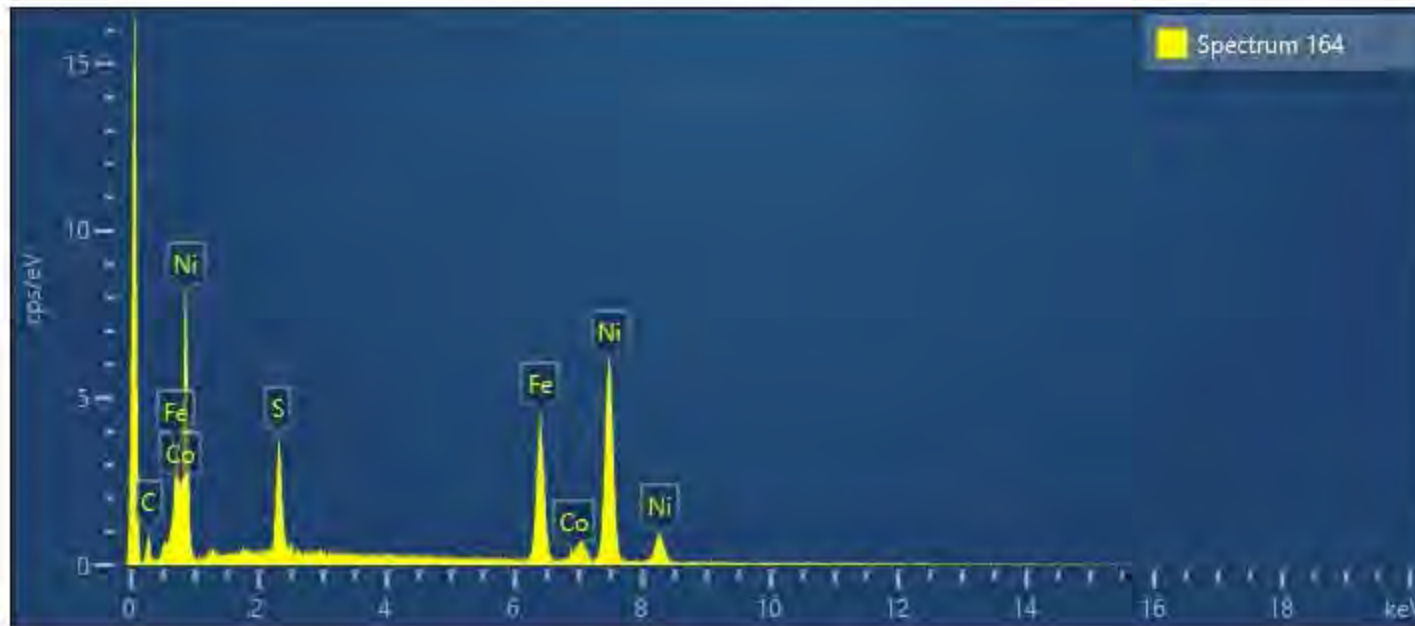




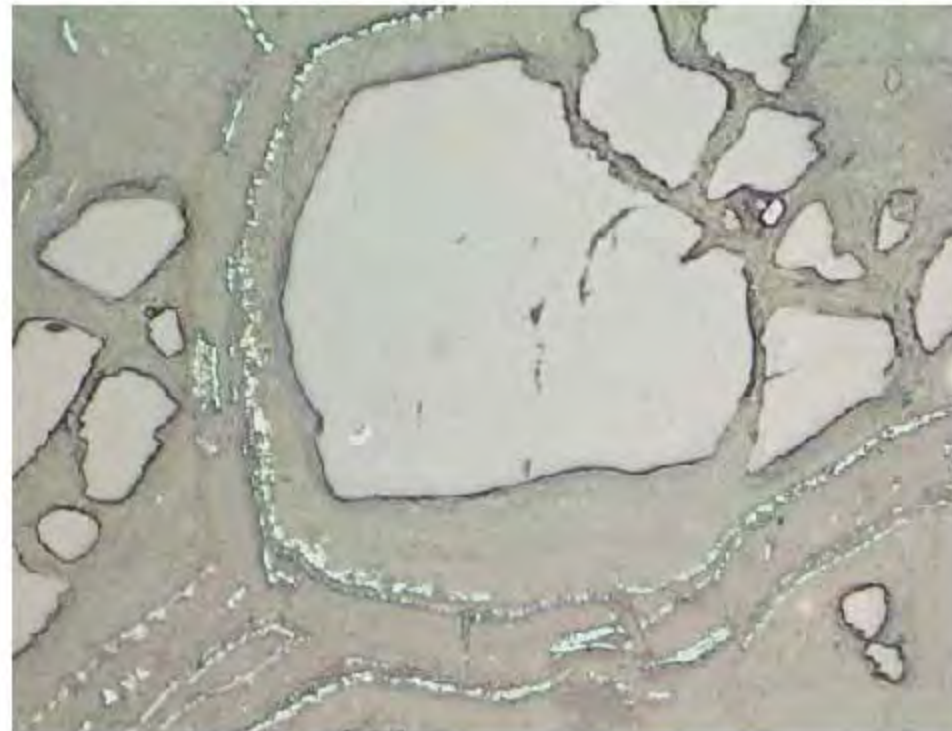
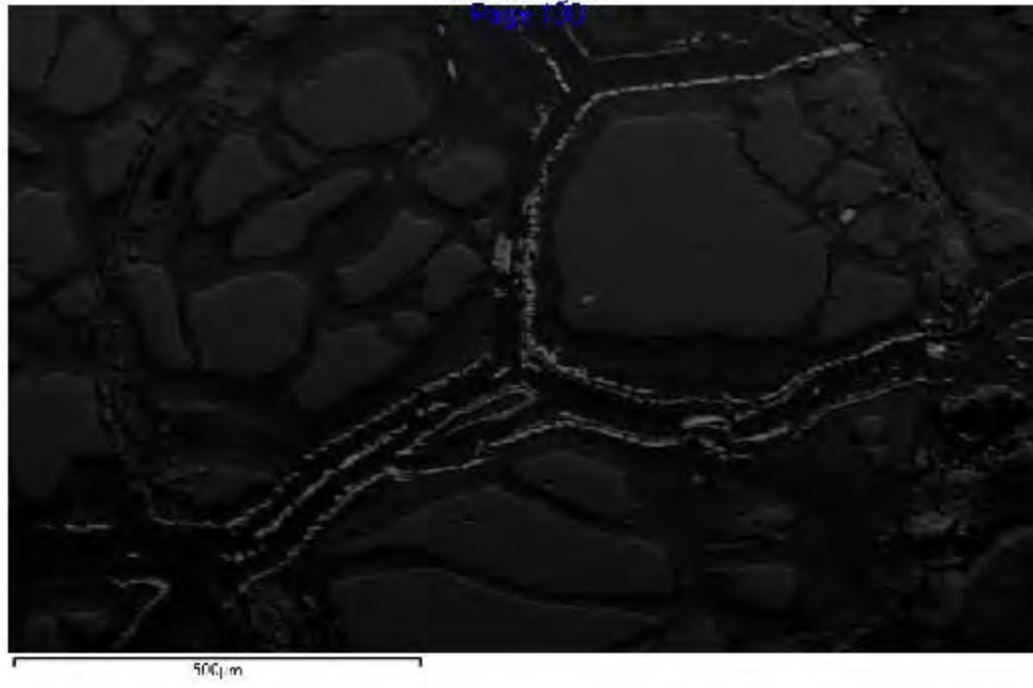
| Spectrum 162 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.61 | 0.83 | 58.29 |
| Fe | K series | 70.29 | 0.84 | 41.02 |
| Cr | K series | 1.10 | 0.20 | 0.69 |
| Total | | 100.00 | | 100.00 |



| Spectrum 163 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 6.22 | 0.12 | 10.02 |
| Fe | K series | 24.81 | 0.25 | 22.95 |
| Ni | K series | 63.25 | 0.32 | 55.67 |
| O | K series | 2.21 | 0.18 | 7.14 |
| Co | K series | 2.55 | 0.18 | 2.24 |
| Mg | K series | 0.74 | 0.11 | 1.58 |
| Si | K series | 0.22 | 0.07 | 0.41 |
| Total | | 100.00 | | 100.00 |

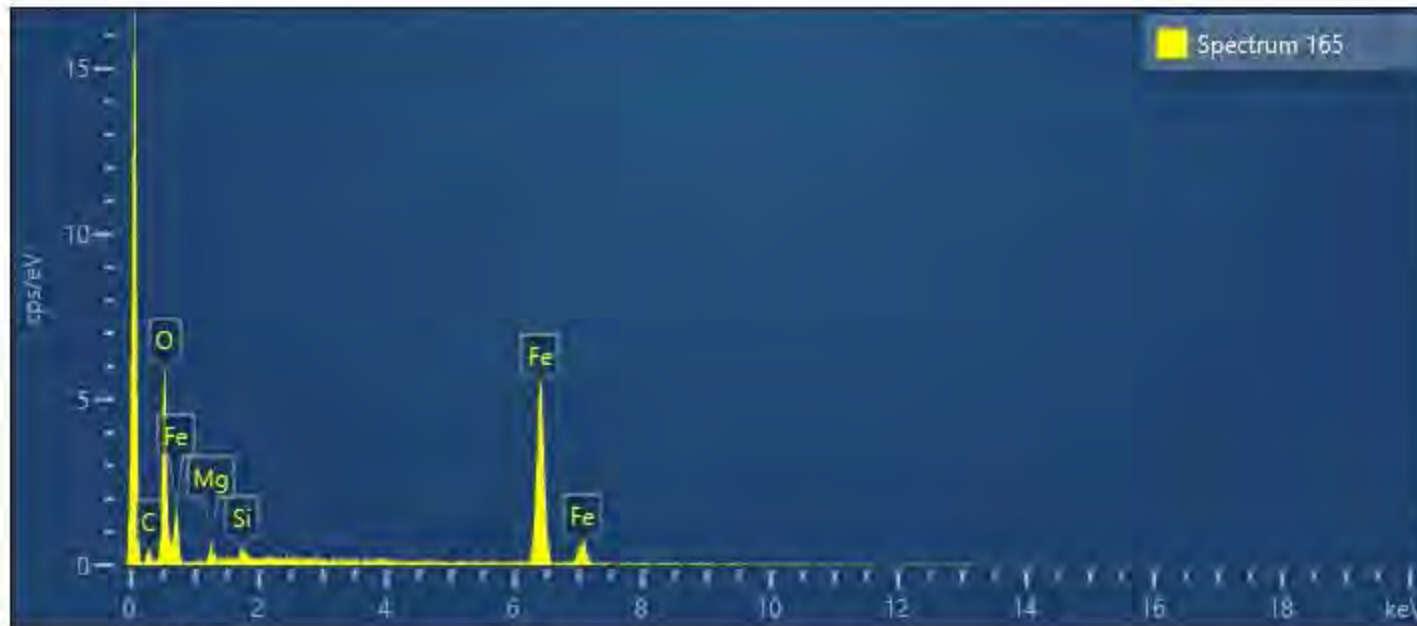


| Spectrum 164 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 7.46 | 0.26 | 12.71 |
| Fe | K series | 25.63 | 0.50 | 25.06 |
| Ni | K series | 64.24 | 0.59 | 59.75 |
| Co | K series | 2.67 | 0.38 | 2.47 |
| Total | | 100.00 | | 100.00 |



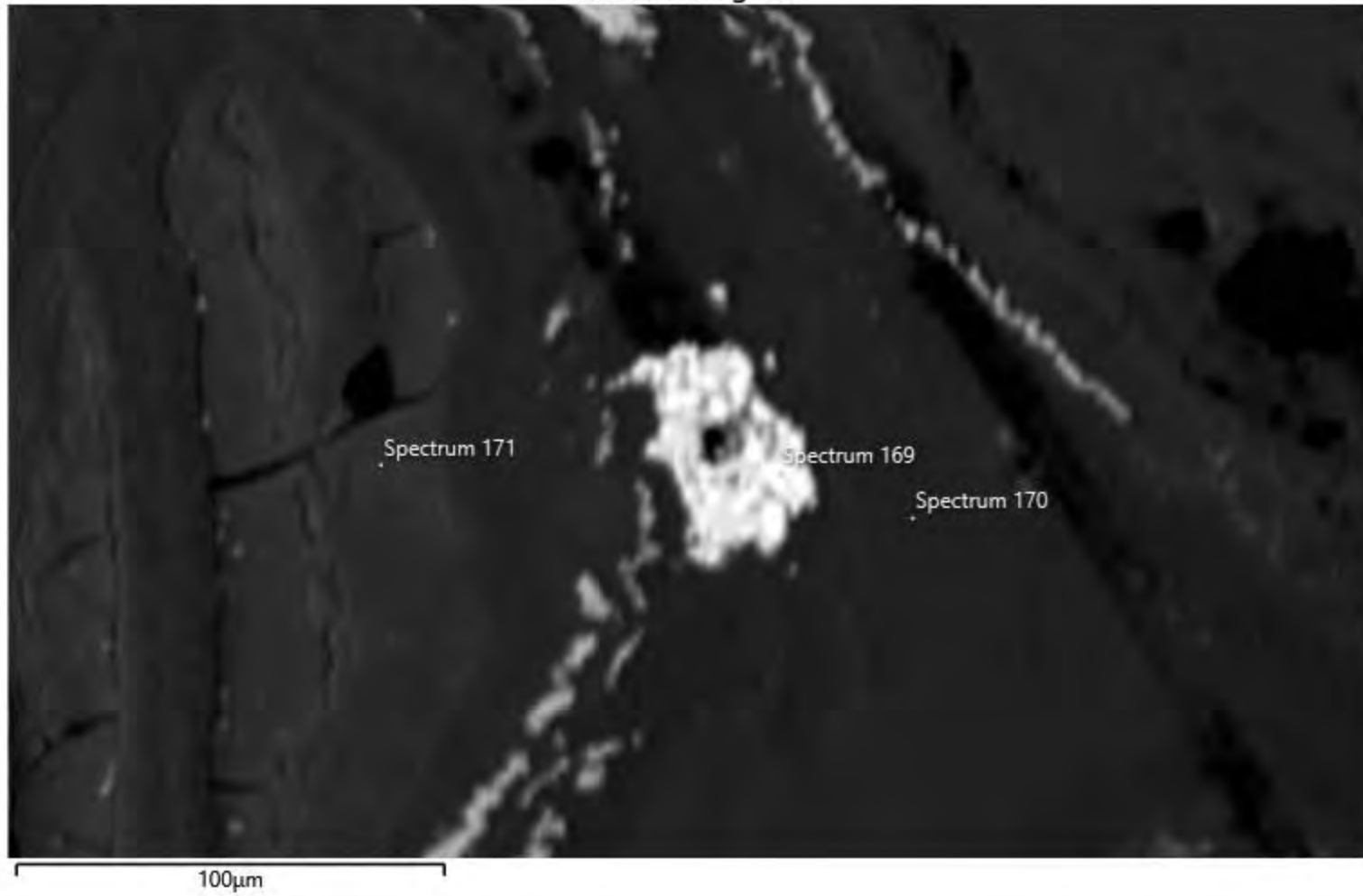
Electron Image 45

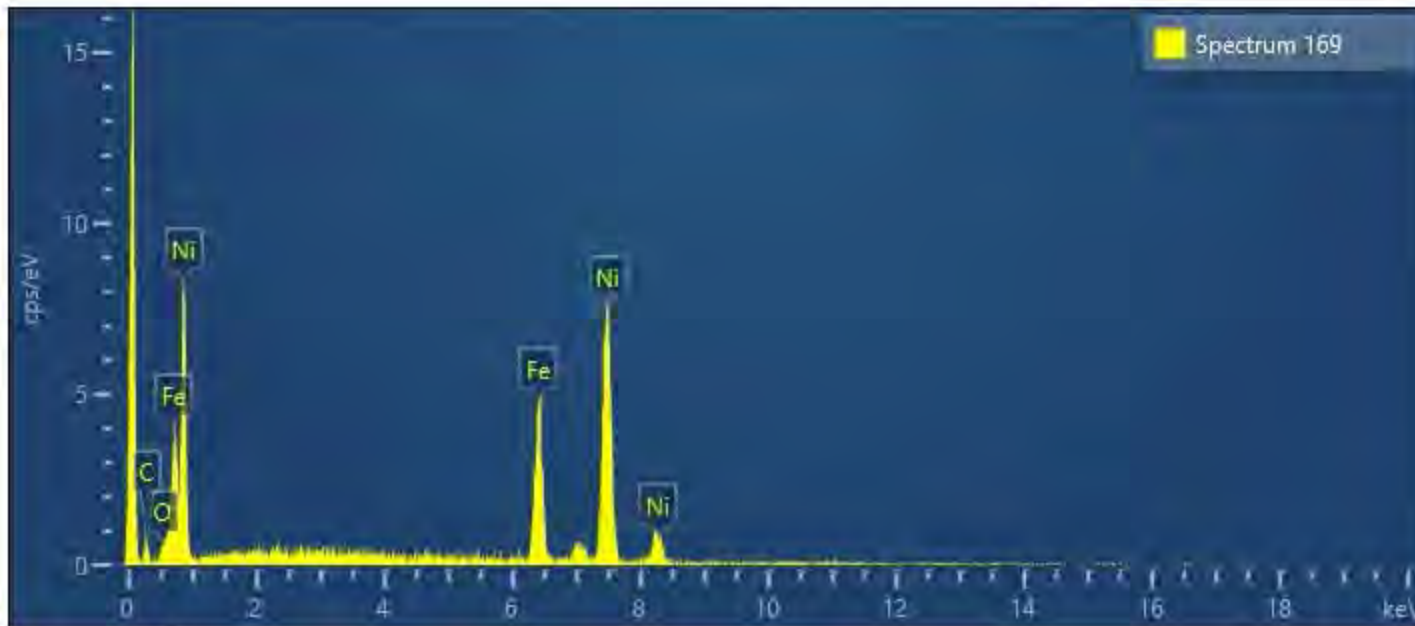




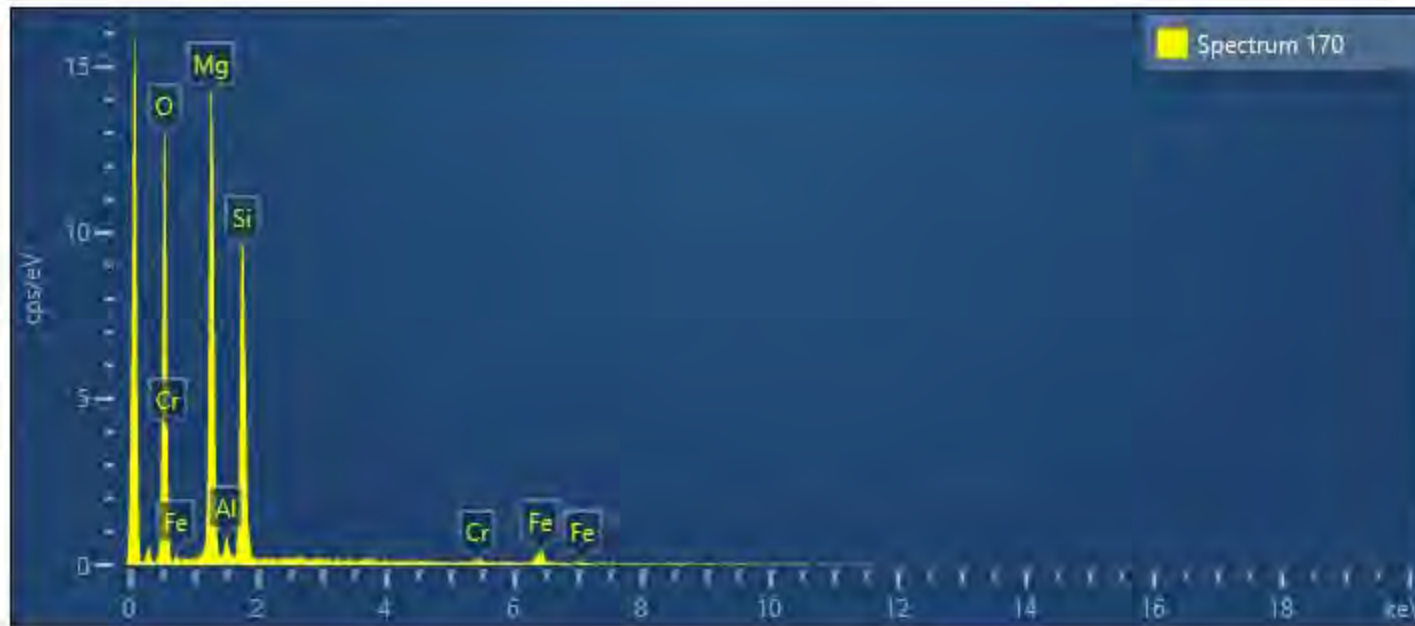
| Spectrum 165 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.03 | 0.96 | 59.66 |
| Fe | K series | 65.43 | 1.00 | 36.04 |
| Mg | K series | 2.52 | 0.40 | 3.19 |
| Si | K series | 1.02 | 0.25 | 1.11 |
| Total | | 100.00 | | 100.00 |

Electron Image 46

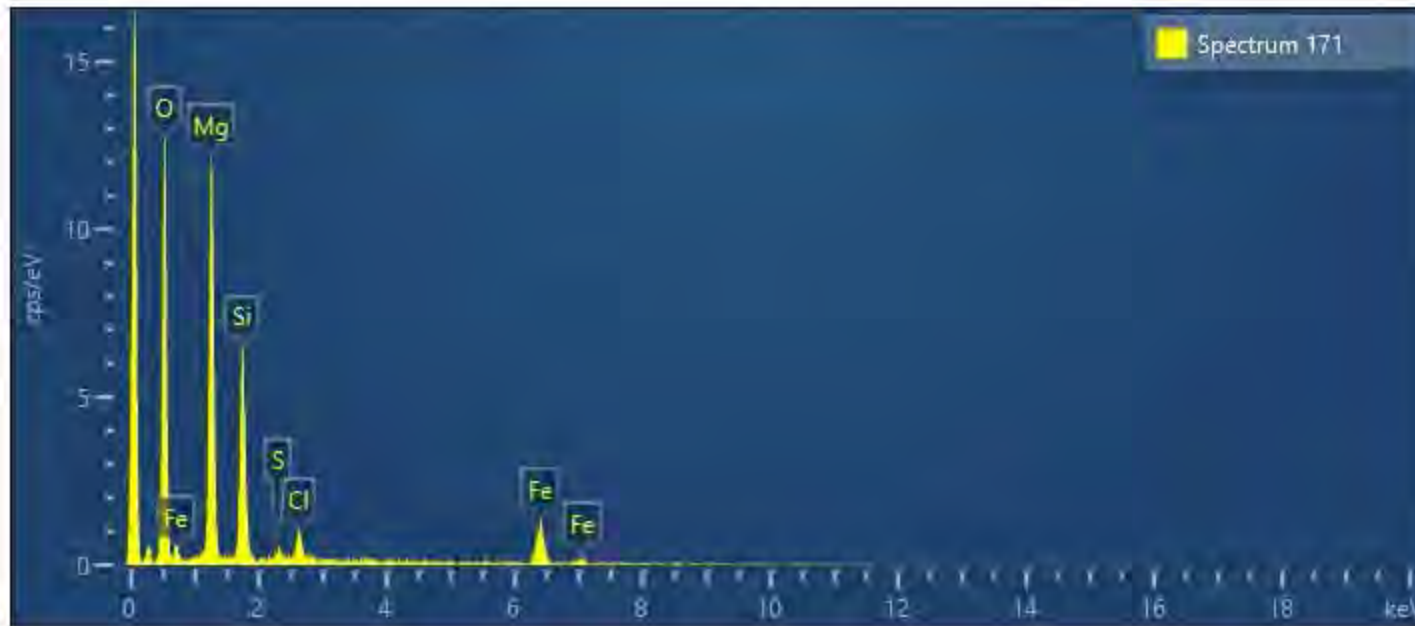




| Spectrum 169 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.15 | 0.87 | 24.75 |
| Ni | K series | 72.78 | 0.95 | 68.14 |
| O | K series | 2.07 | 0.53 | 7.10 |
| Total | | 100.00 | | 100.00 |



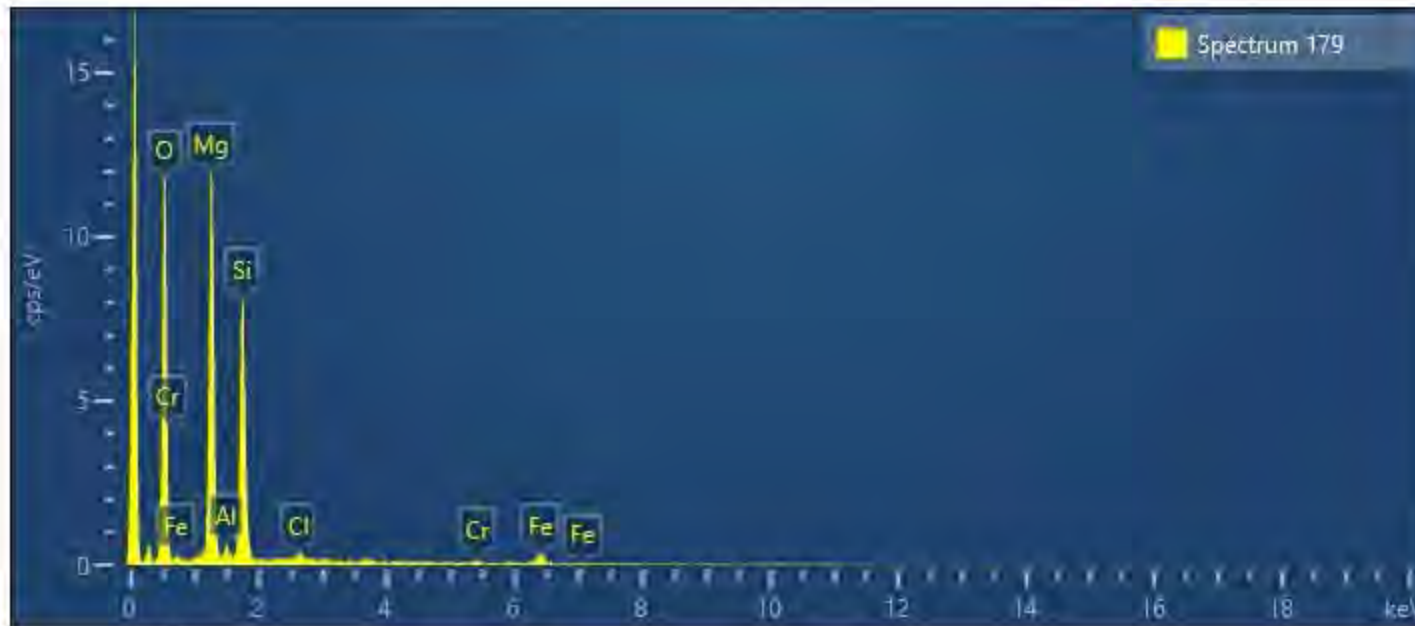
| Spectrum 170 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.46 | 0.66 | 64.92 |
| Mg | K series | 24.63 | 0.45 | 20.06 |
| Si | K series | 18.35 | 0.38 | 12.94 |
| Fe | K series | 2.78 | 0.28 | 0.98 |
| Al | K series | 1.19 | 0.17 | 0.87 |
| Cr | K series | 0.58 | 0.16 | 0.22 |
| Total | | 100.00 | | 100.00 |



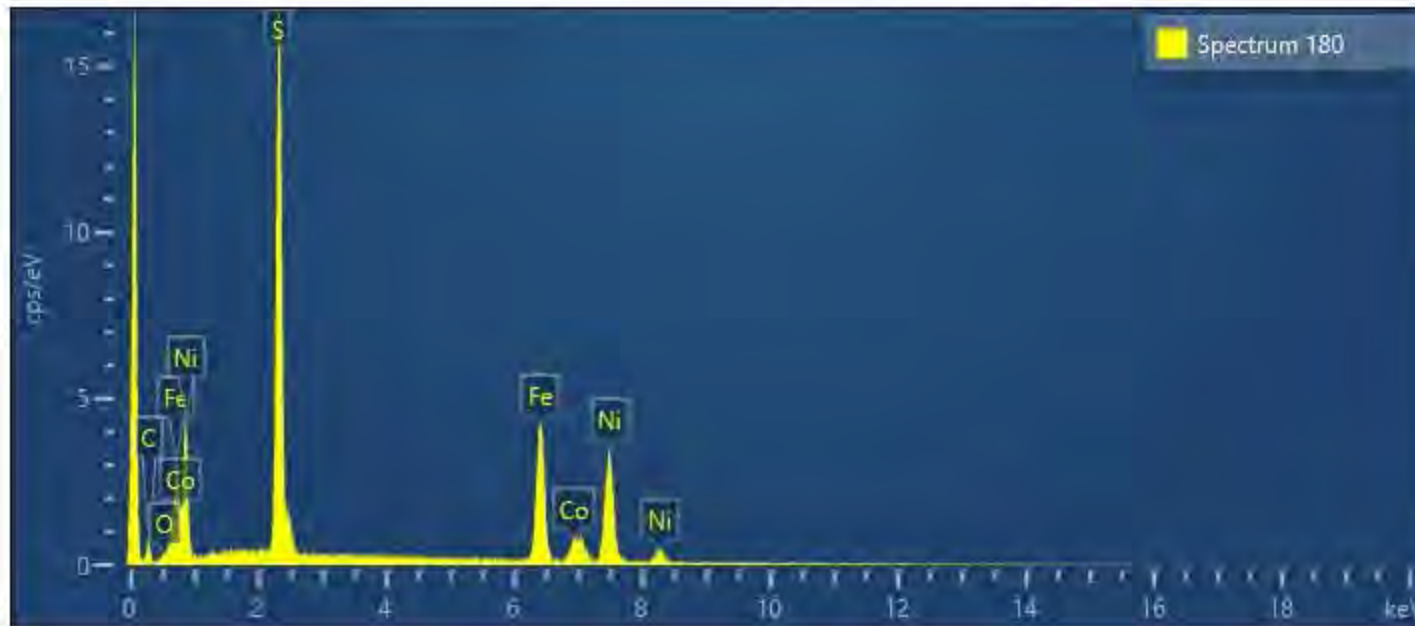
| Spectrum 171 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 51.68 | 0.77 | 66.03 |
| Mg | K series | 23.72 | 0.55 | 19.95 |
| Si | K series | 12.23 | 0.40 | 8.90 |
| Cl | K series | 1.98 | 0.21 | 1.14 |
| Fe | K series | 9.75 | 0.53 | 3.57 |
| S | K series | 0.64 | 0.17 | 0.41 |
| Total | | 100.00 | | 100.00 |

Electron Image 48





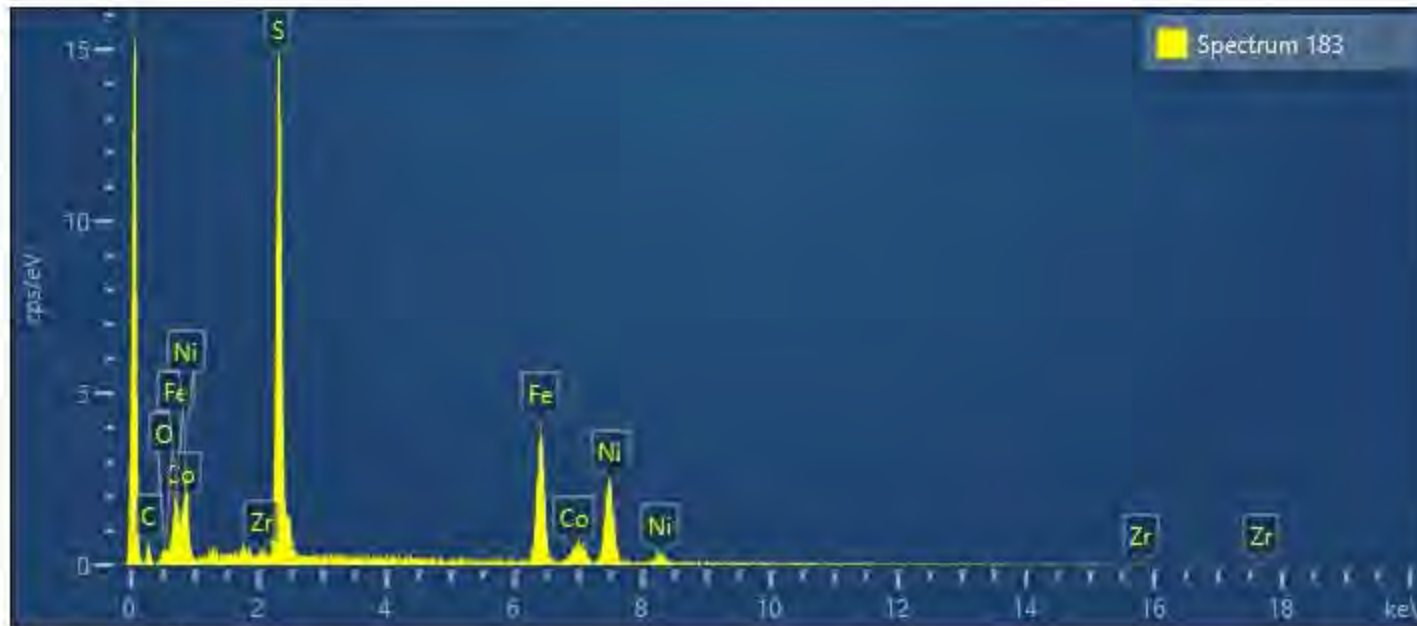
| Spectrum 179 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 54.86 | 0.77 | 67.05 |
| Mg | K series | 23.90 | 0.52 | 19.23 |
| Si | K series | 16.86 | 0.44 | 11.74 |
| Al | K series | 0.92 | 0.20 | 0.67 |
| Fe | K series | 2.38 | 0.31 | 0.83 |
| Cr | K series | 0.65 | 0.17 | 0.24 |
| Cl | K series | 0.43 | 0.14 | 0.24 |
| Total | | 100.00 | | 100.00 |



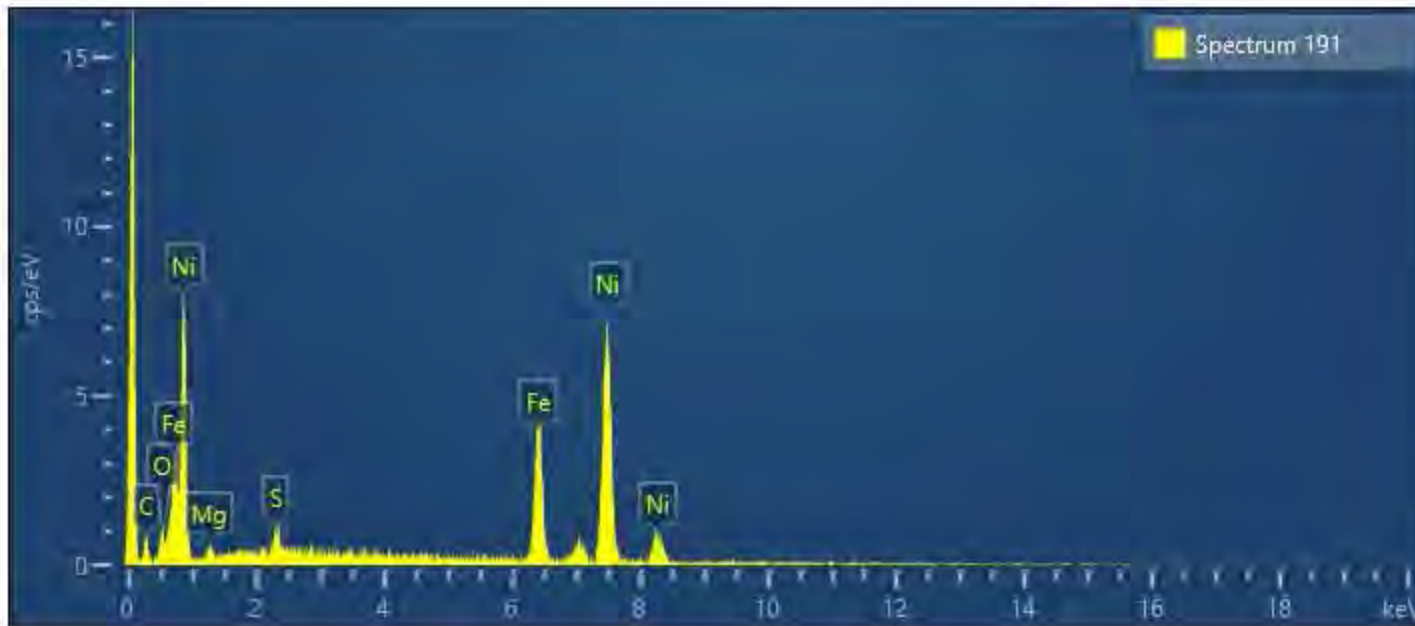
| Spectrum 180 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 31.52 | 0.45 | 43.97 |
| Fe | K series | 27.65 | 0.51 | 22.14 |
| Co | K series | 5.80 | 0.41 | 4.40 |
| Ni | K series | 33.66 | 0.60 | 25.65 |
| O | K series | 1.37 | 0.41 | 3.84 |
| Total | | 100.00 | | 100.00 |

Electron Image 50



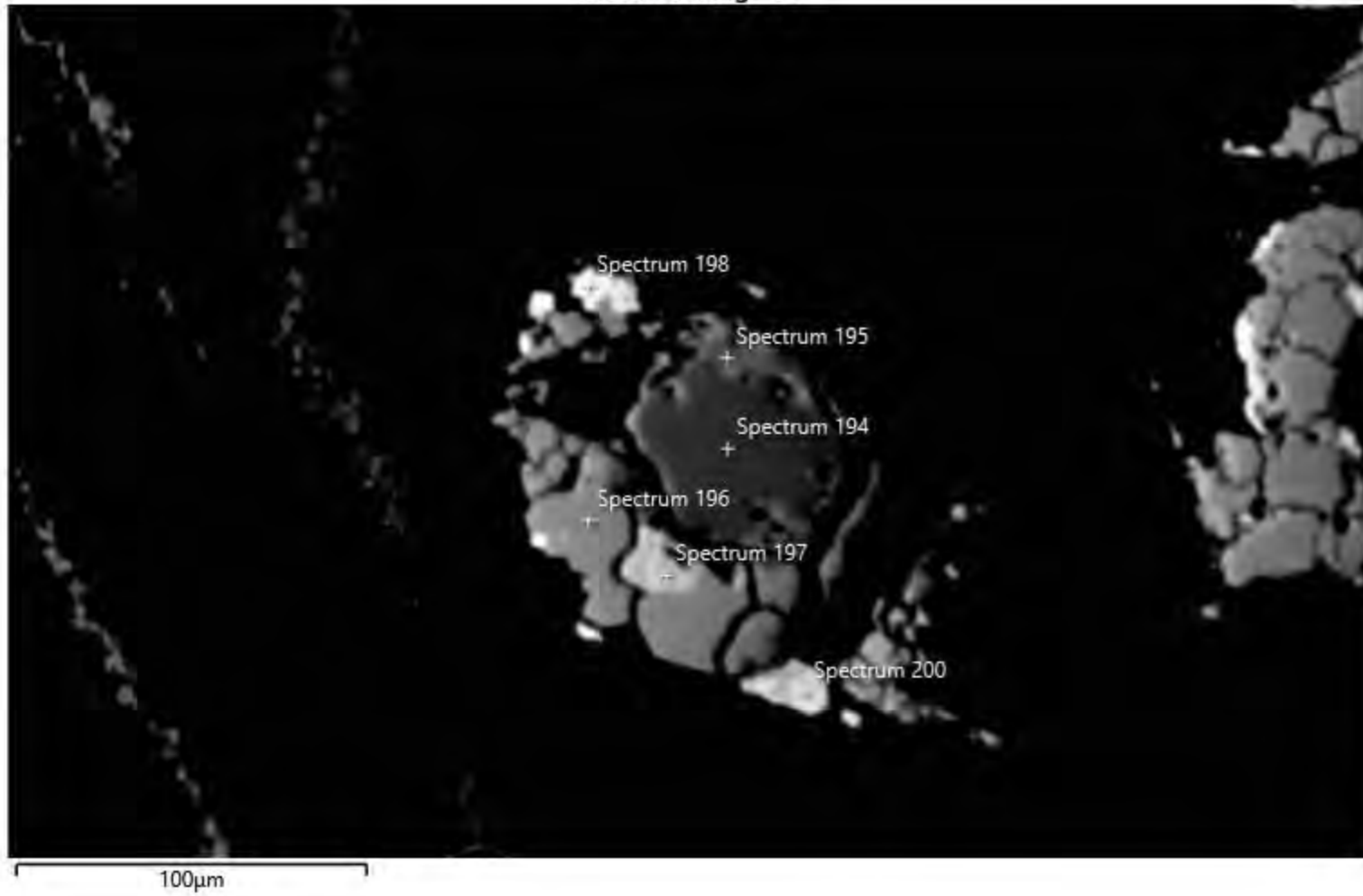


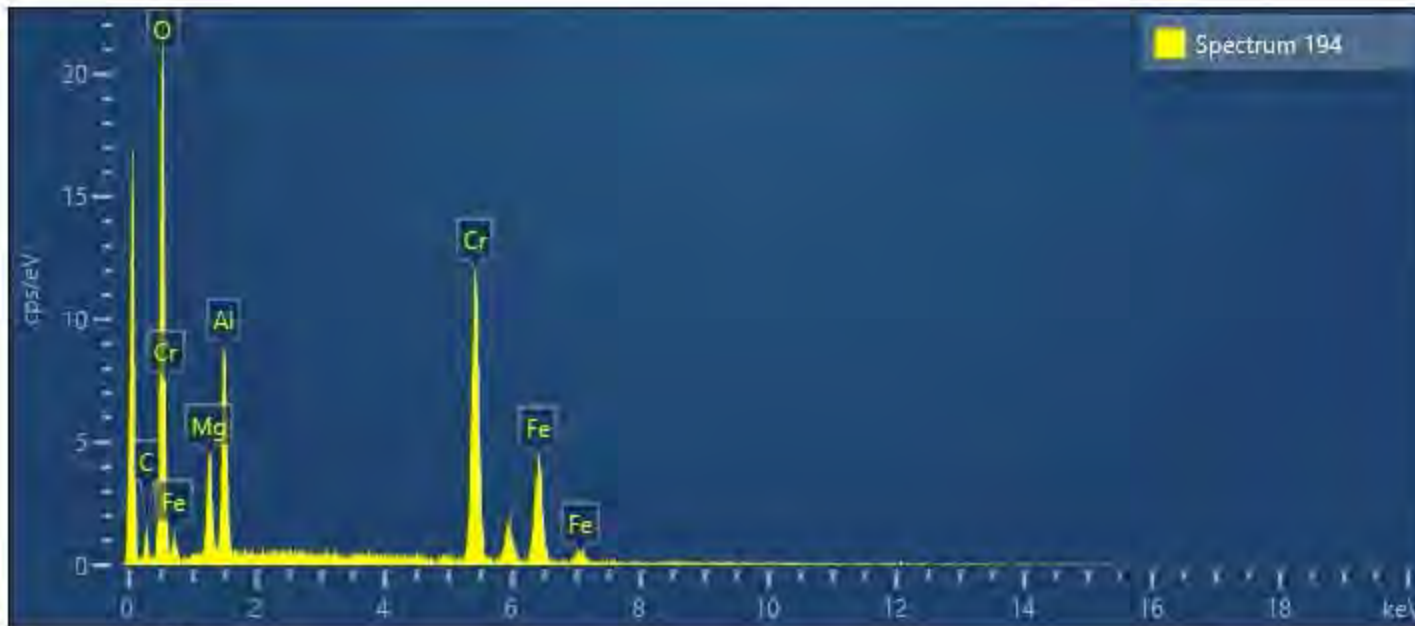
| Spectrum 183 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.01 | 0.71 | 43.90 |
| Fe | K series | 28.95 | 0.77 | 22.11 |
| Ni | K series | 29.14 | 0.88 | 21.17 |
| O | K series | 3.52 | 0.66 | 9.39 |
| Co | K series | 3.56 | 0.57 | 2.58 |
| Zr | L series | 1.82 | 0.47 | 0.85 |
| Total | | 100.00 | | 100.00 |



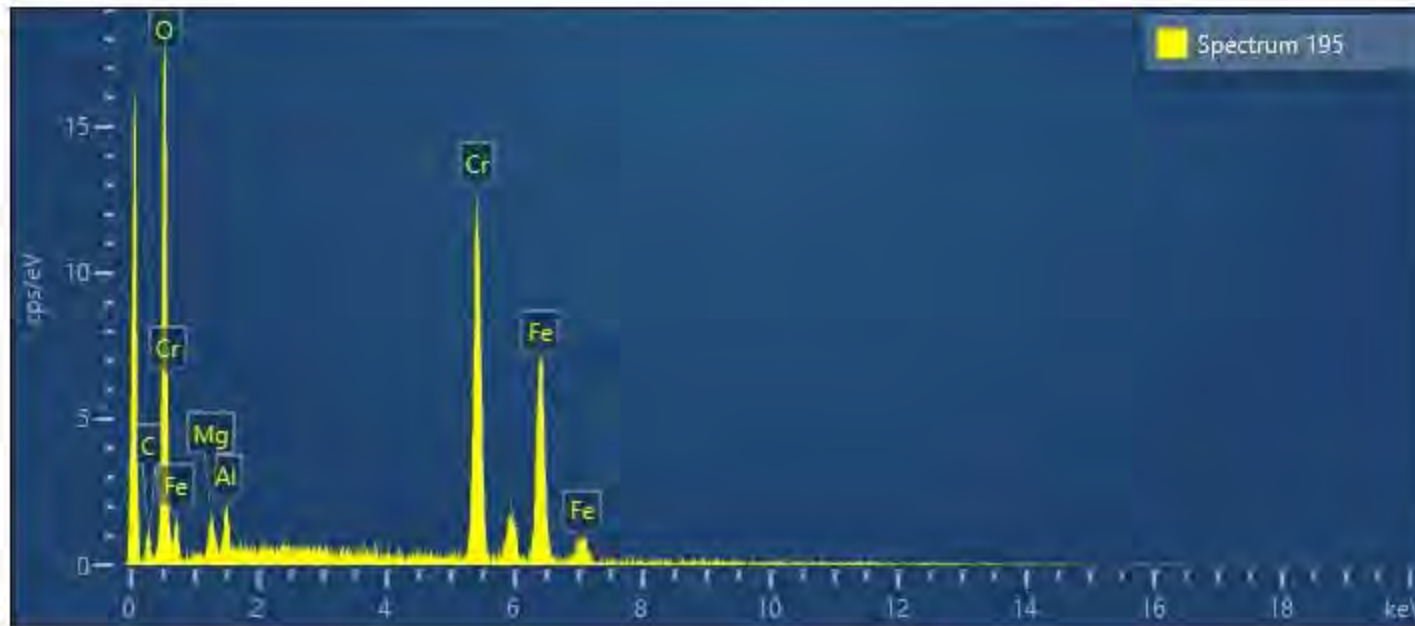
| Spectrum 191 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 3.76 | 0.55 | 12.04 |
| S | K series | 1.67 | 0.24 | 2.66 |
| Fe | K series | 24.26 | 0.72 | 22.24 |
| Ni | K series | 68.87 | 0.88 | 60.03 |
| Mg | K series | 1.44 | 0.36 | 3.03 |
| Total | | 100.00 | | 100.00 |

Electron Image 51

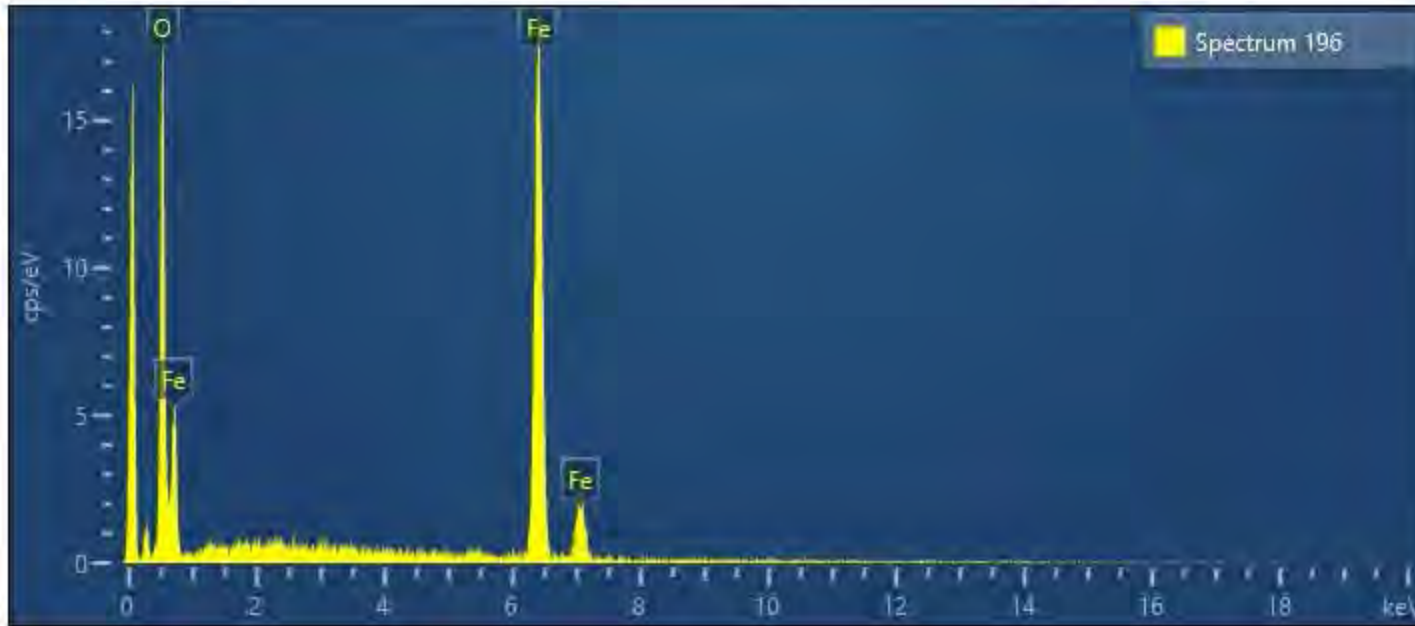




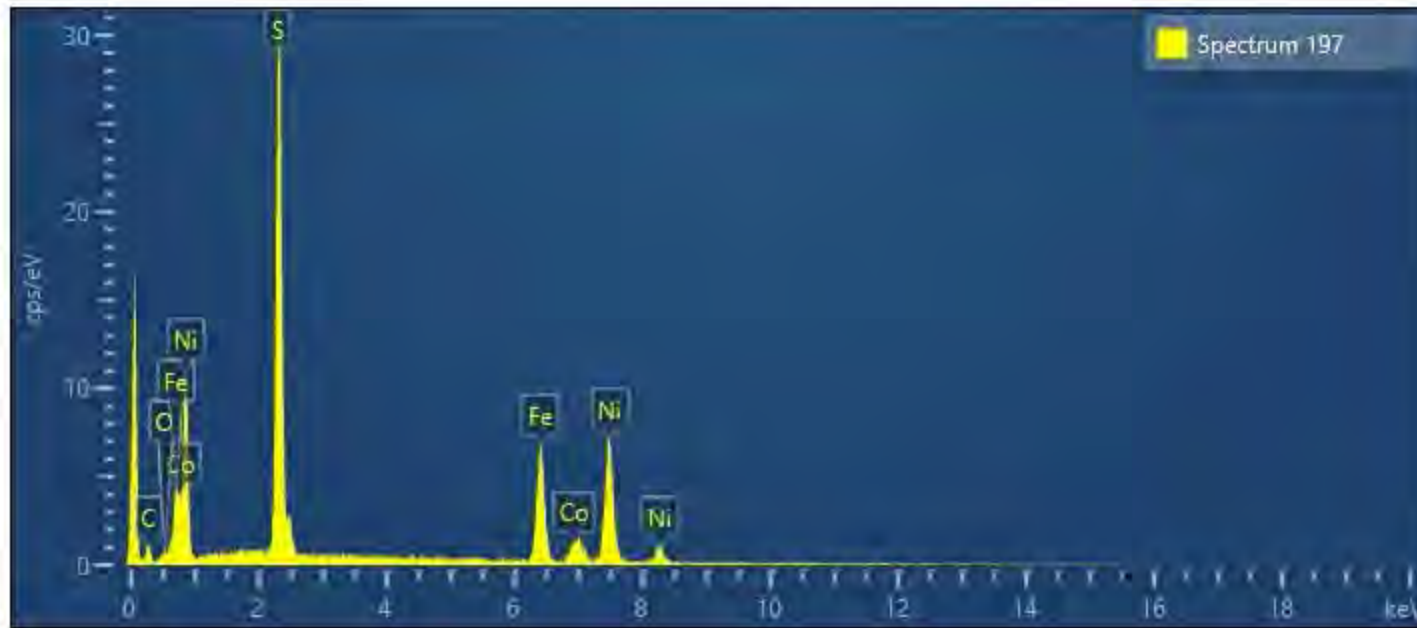
| Spectrum 194 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.94 | 0.76 | 59.71 |
| Mg | K series | 5.84 | 0.34 | 6.39 |
| Al | K series | 10.02 | 0.36 | 9.87 |
| Cr | K series | 31.00 | 0.62 | 15.85 |
| Fe | K series | 17.21 | 0.58 | 8.19 |
| Total | | 100.00 | | 100.00 |



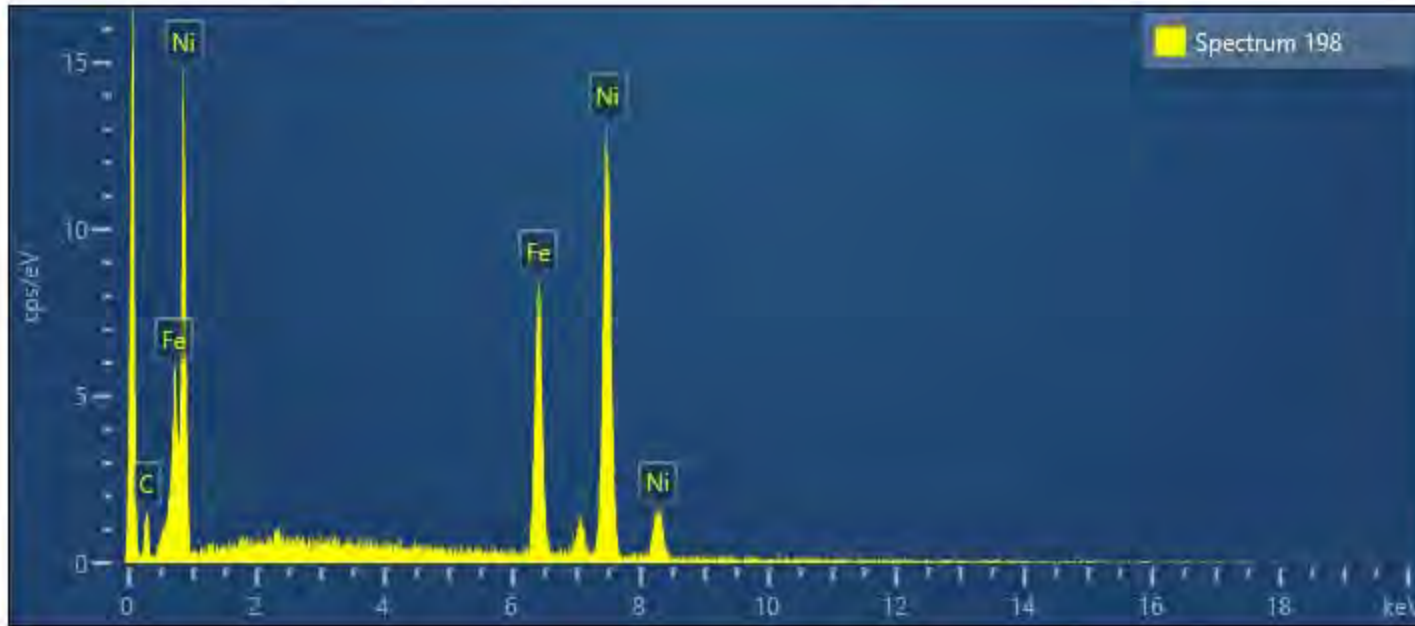
| Spectrum 195 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.16 | 0.85 | 57.48 |
| Al | K series | 2.28 | 0.25 | 2.58 |
| Cr | K series | 33.89 | 0.72 | 19.88 |
| Fe | K series | 31.29 | 0.78 | 17.09 |
| Mg | K series | 2.37 | 0.31 | 2.98 |
| Total | | 100.00 | | 100.00 |



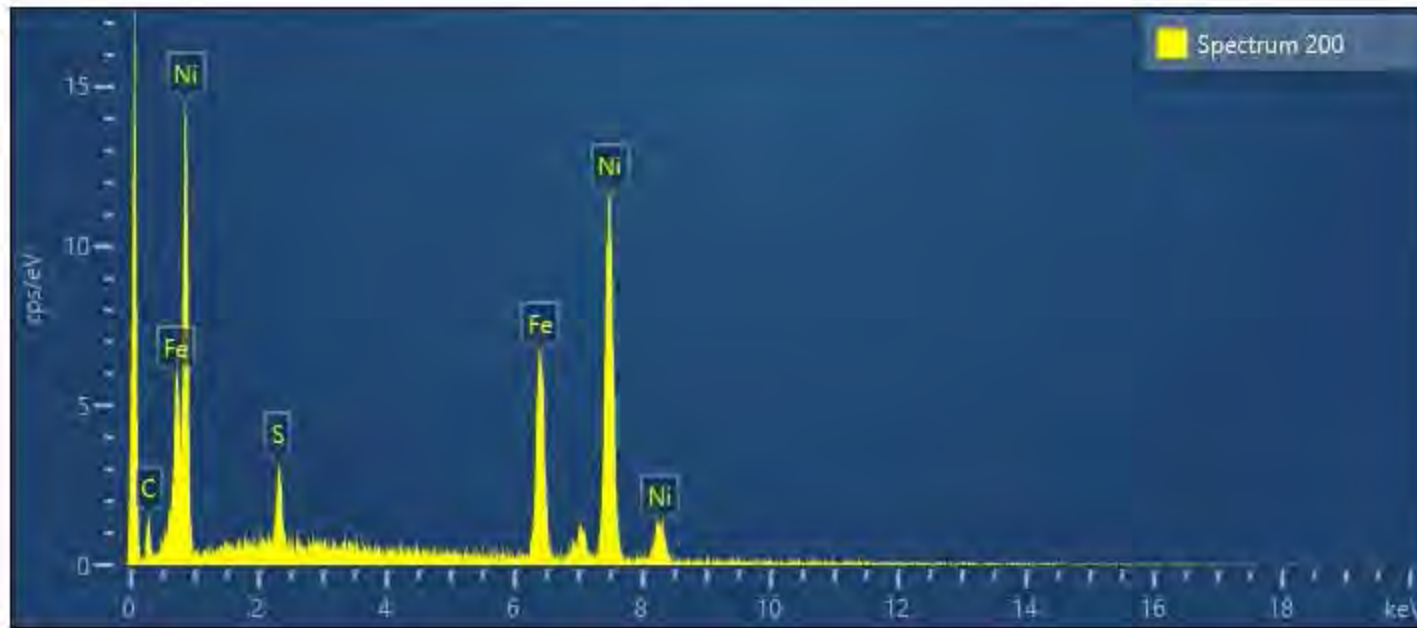
| Spectrum 196 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.39 | 0.66 | 59.23 |
| Fe | K series | 70.61 | 0.66 | 40.77 |
| Total | | 100.00 | | 100.00 |



| Spectrum 197 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 32.12 | 0.50 | 44.14 |
| Fe | K series | 22.86 | 0.51 | 18.03 |
| Ni | K series | 38.30 | 0.66 | 28.74 |
| Co | K series | 4.69 | 0.43 | 3.51 |
| O | K series | 2.02 | 0.44 | 5.57 |
| Total | | 100.00 | | 100.00 |

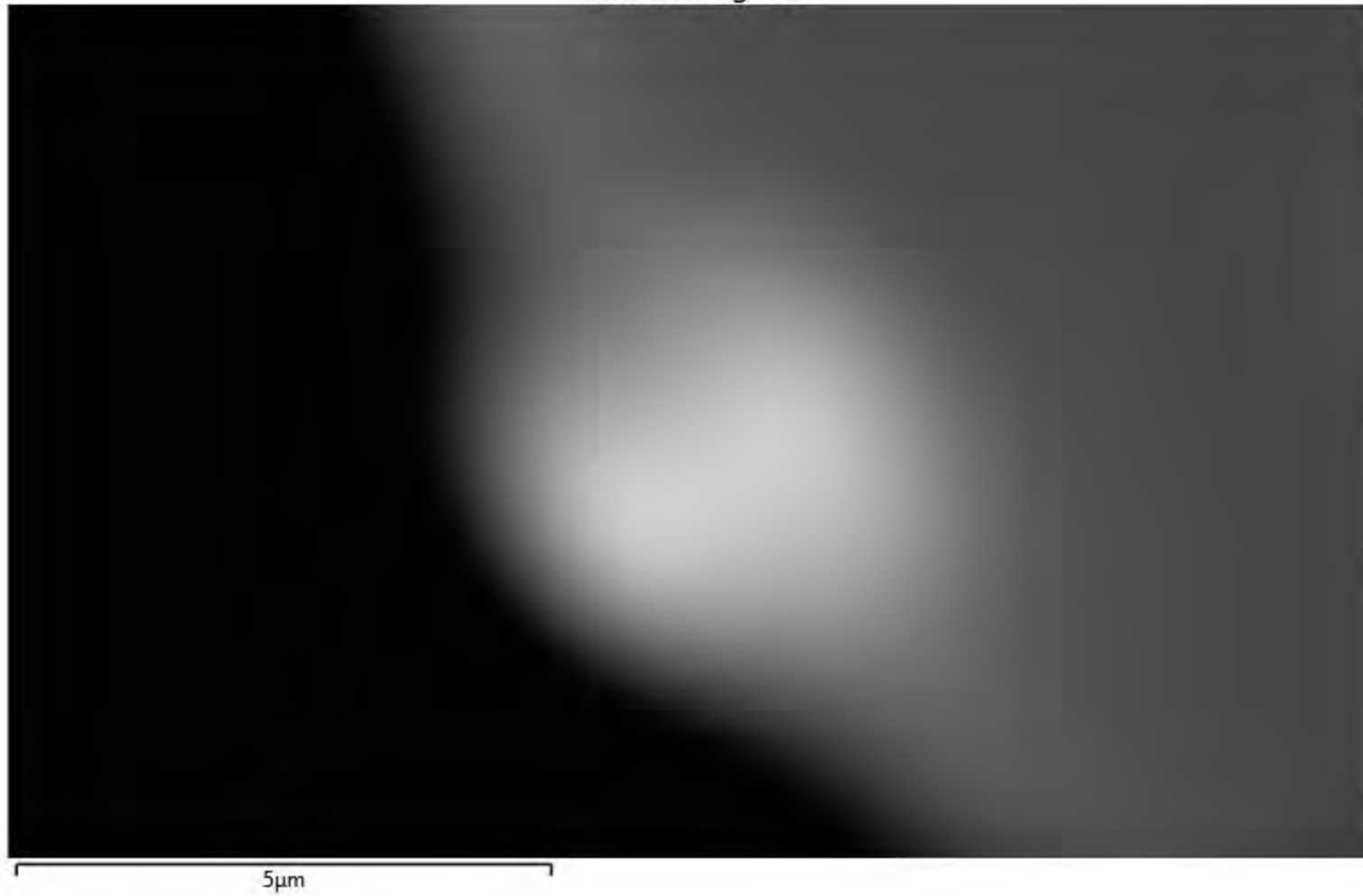


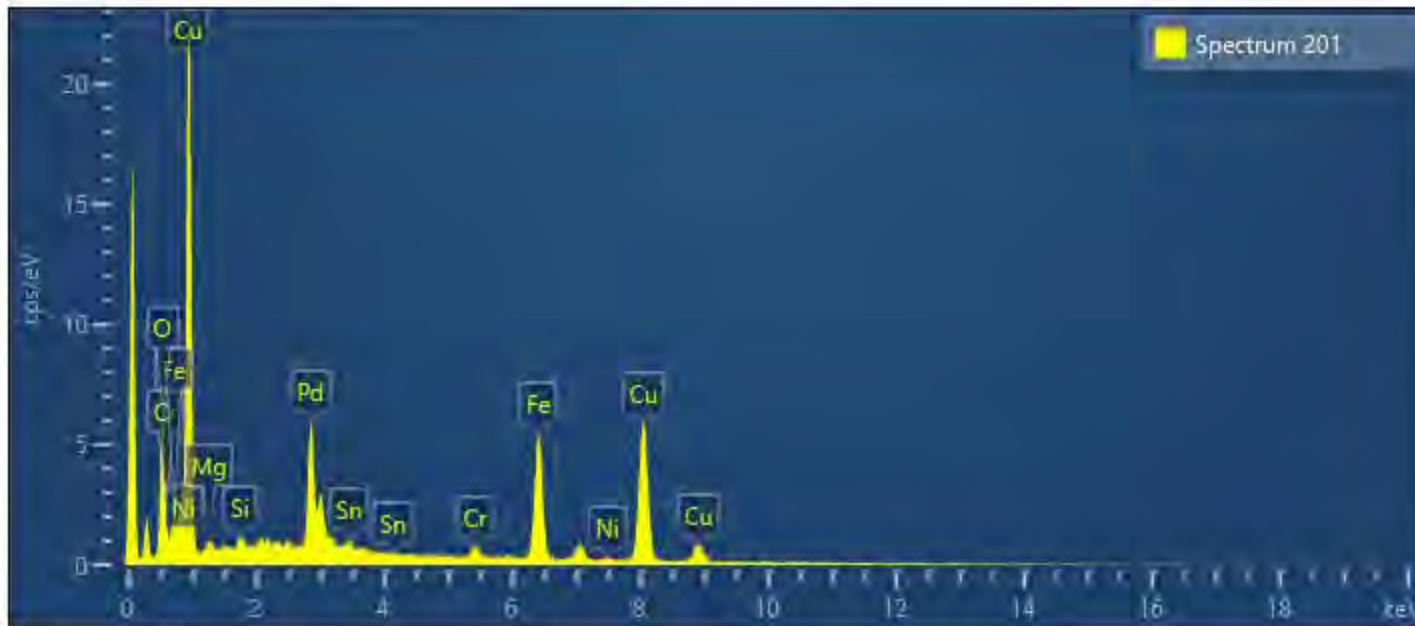
| Spectrum 198 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 26.79 | 0.57 | 27.78 |
| Ni | K series | 73.21 | 0.57 | 72.22 |
| Total | | 100.00 | | 100.00 |



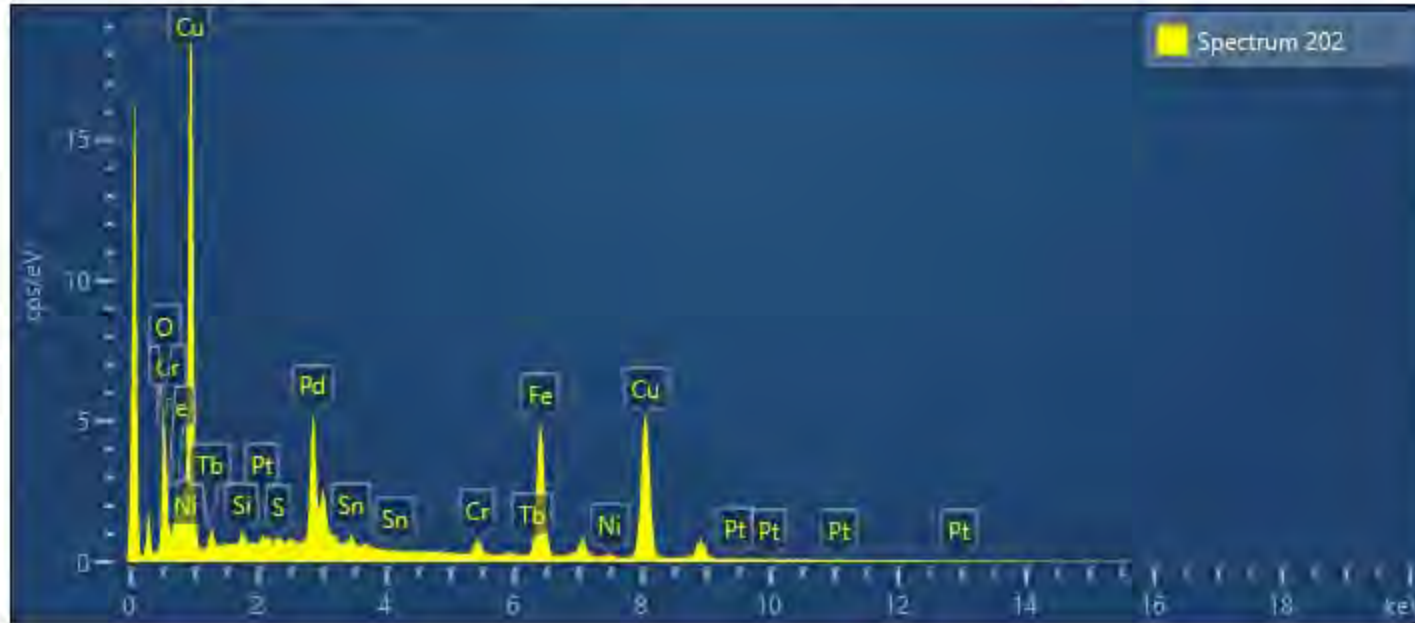
| Spectrum 200 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 3.37 | 0.29 | 5.93 |
| Fe | K series | 24.62 | 0.71 | 24.87 |
| Ni | K series | 72.01 | 0.74 | 69.20 |
| Total | | 100.00 | | 100.00 |

Electron Image 52



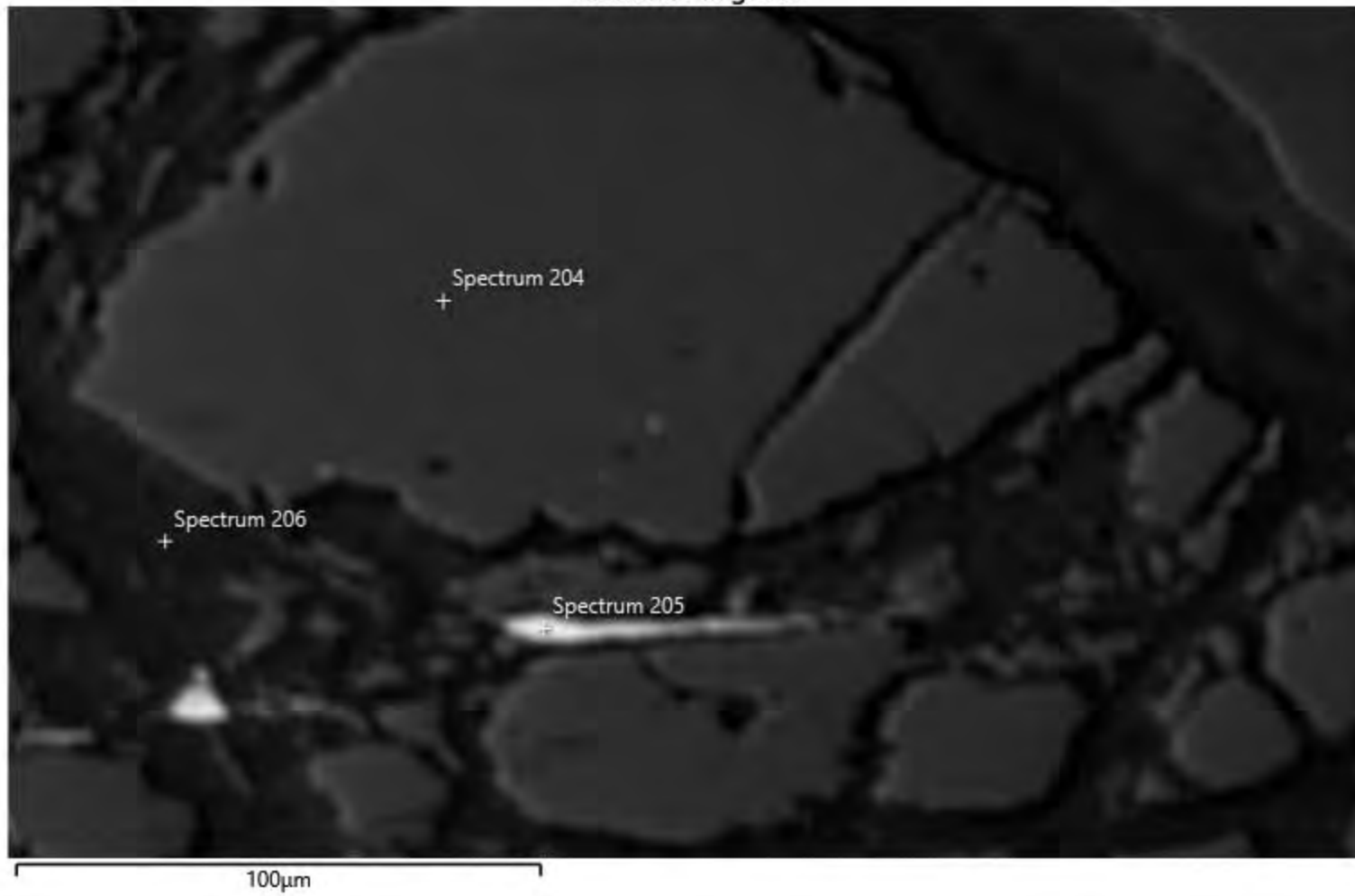


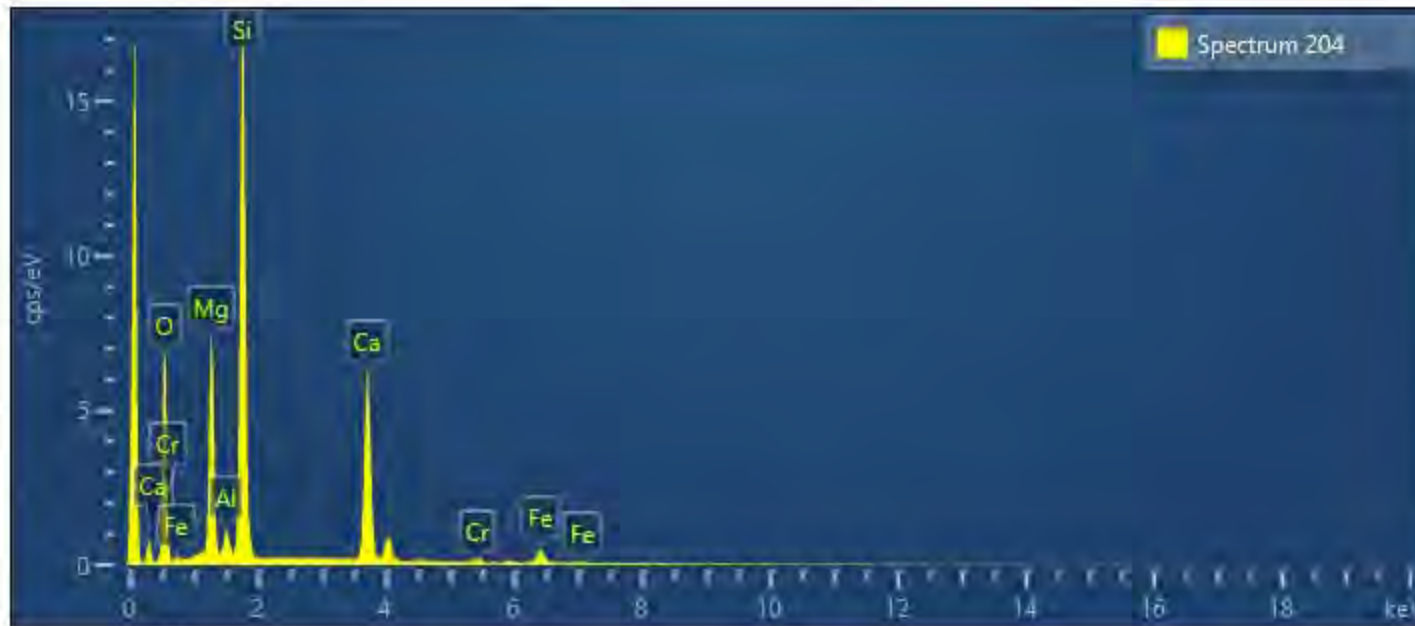
| Spectrum 201 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 19.11 | 0.53 | 48.98 |
| Fe | K series | 18.29 | 0.32 | 13.43 |
| Cu | K series | 42.32 | 0.52 | 27.31 |
| Pd | L series | 15.20 | 0.38 | 5.86 |
| Cr | K series | 1.34 | 0.12 | 1.06 |
| Si | K series | 0.54 | 0.09 | 0.79 |
| Sn | L series | 1.63 | 0.22 | 0.56 |
| Mg | K series | 0.93 | 0.15 | 1.56 |
| Ni | K series | 0.65 | 0.17 | 0.46 |
| Total | | 100.00 | | 100.00 |



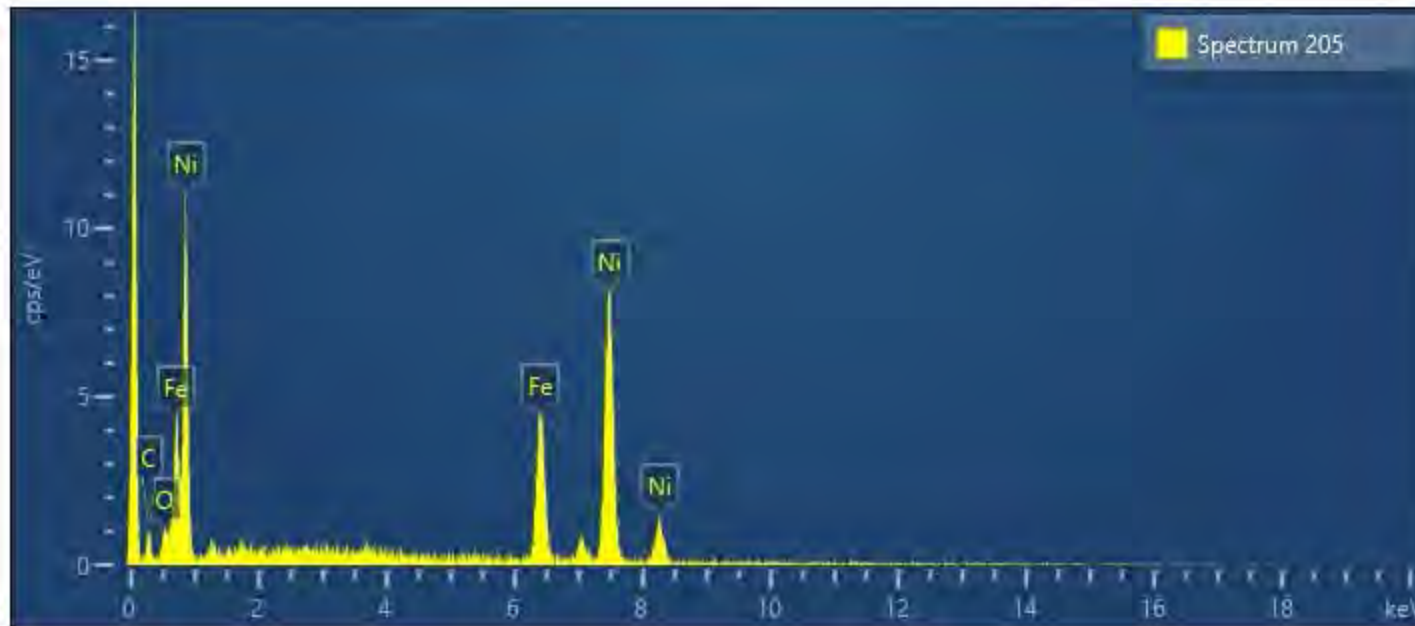
| Spectrum 202 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 20.02 | 0.35 | 50.99 |
| Fe | K series | 18.81 | 0.22 | 13.72 |
| Cu | K series | 40.73 | 0.35 | 26.11 |
| Pd | L series | 15.06 | 0.25 | 5.76 |
| Cr | K series | 1.49 | 0.08 | 1.16 |
| Sn | L series | 1.54 | 0.15 | 0.53 |
| Si | K series | 0.56 | 0.06 | 0.81 |
| Ni | K series | 0.63 | 0.11 | 0.44 |
| Pt | M series | 0.95 | 0.20 | 0.20 |
| S | K series | 0.23 | 0.05 | 0.29 |
| Tb | L series | 0.00 | 0.34 | 0.00 |
| Total | | 100.00 | | 100.00 |

Electron Image 53

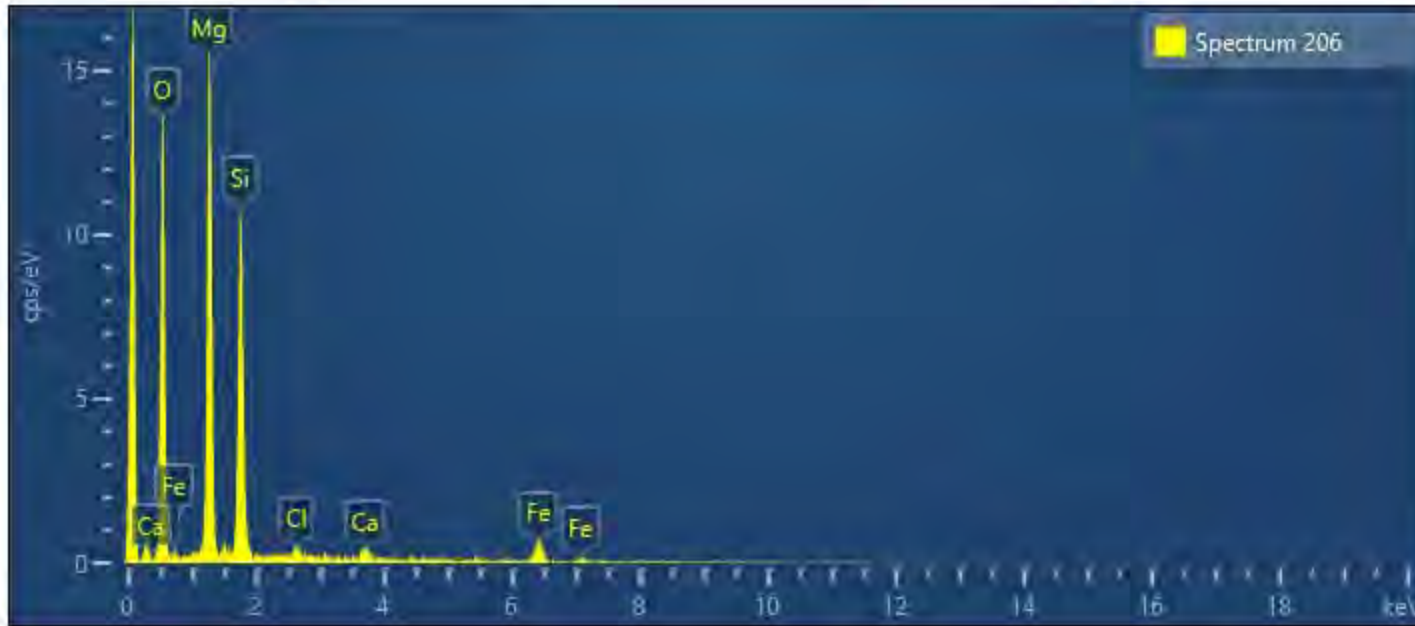




| Spectrum 204 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 45.33 | 0.69 | 61.21 |
| Mg | K series | 11.02 | 0.25 | 9.79 |
| Si | K series | 24.61 | 0.39 | 18.93 |
| Ca | K series | 14.62 | 0.29 | 7.88 |
| Fe | K series | 2.62 | 0.21 | 1.01 |
| Al | K series | 1.14 | 0.13 | 0.91 |
| Cr | K series | 0.66 | 0.13 | 0.27 |
| Total | | 100.00 | | 100.00 |



| Spectrum 205 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 3.53 | 0.62 | 11.71 |
| Fe | K series | 23.28 | 0.82 | 22.12 |
| Ni | K series | 73.19 | 0.94 | 66.17 |
| Total | | 100.00 | | 100.00 |



| Spectrum 206 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 51.75 | 0.75 | 64.78 |
| Mg | K series | 24.75 | 0.53 | 20.39 |
| Si | K series | 17.40 | 0.44 | 12.41 |
| Ca | K series | 0.82 | 0.16 | 0.41 |
| Fe | K series | 4.67 | 0.40 | 1.68 |
| Cl | K series | 0.60 | 0.15 | 0.34 |
| Total | | 100.00 | | 100.00 |

Specimen Notes for '555' - Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite

There are numerous extremely fine grained heazlewoodite and awaruite grains disseminated throughout the section (less than 5 microns)

SITE 1 is a coarse magnetite grain with included grains of Co-pentlandite and heazlewoodite

SITE 3 shows a grain of heazlewoodite in serpentine and a grain of magnetite with awaruite on its margin also in serpentine.

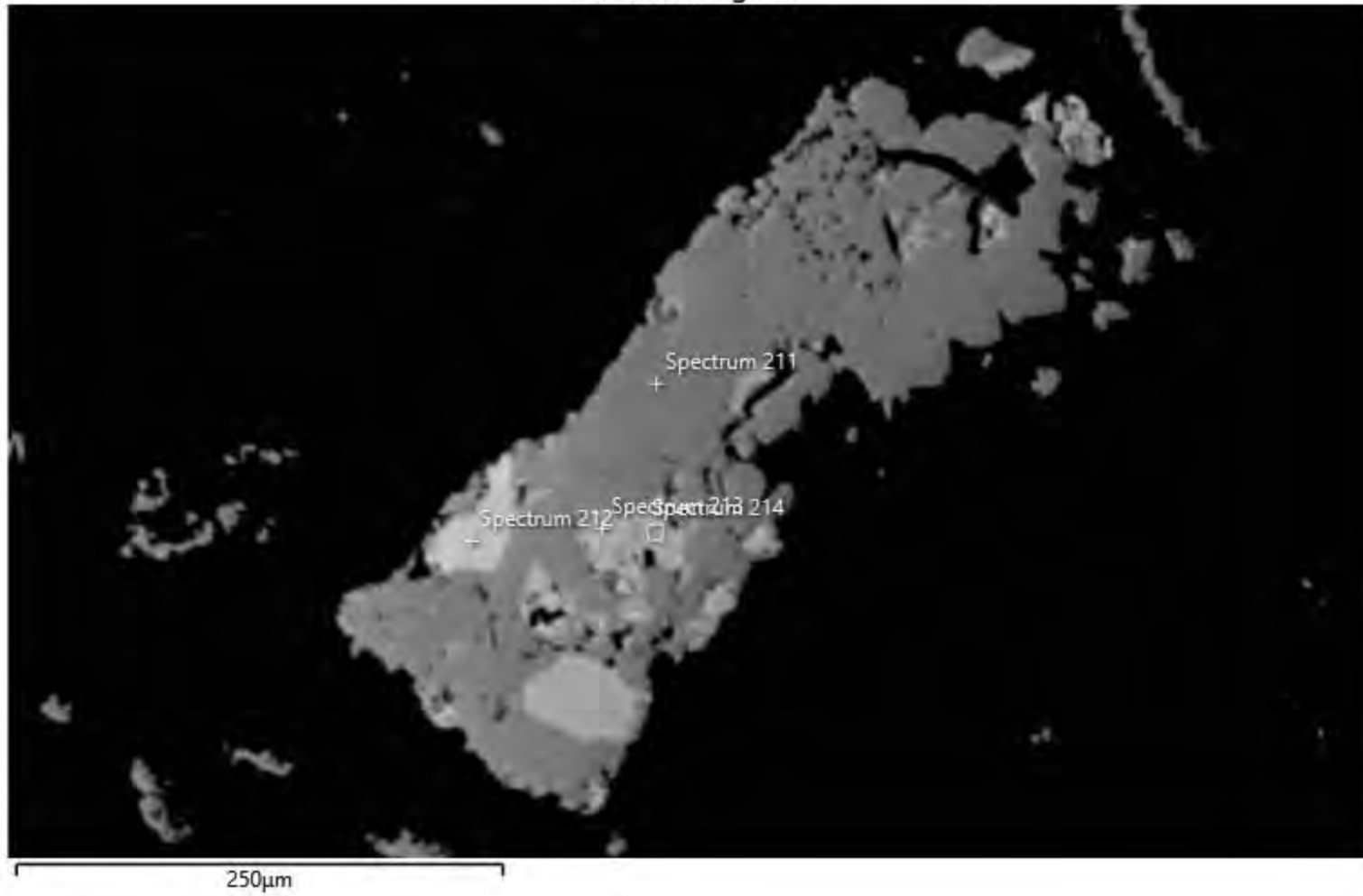
A grain of chalcopyrite included in magnetite X=31 Y=60

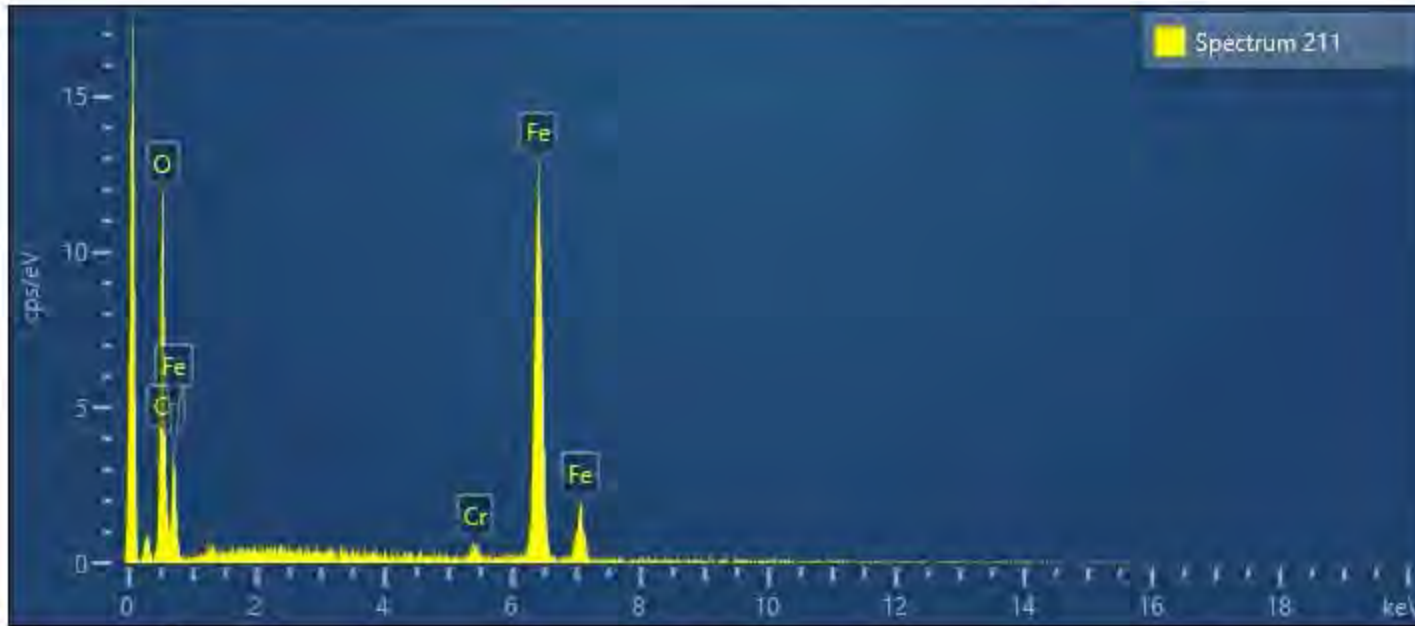
SITE 4 has magnetite grains with marginal grains of heazlewoodite

SITE 5 is a magnetite grain with awaruite within serpentine

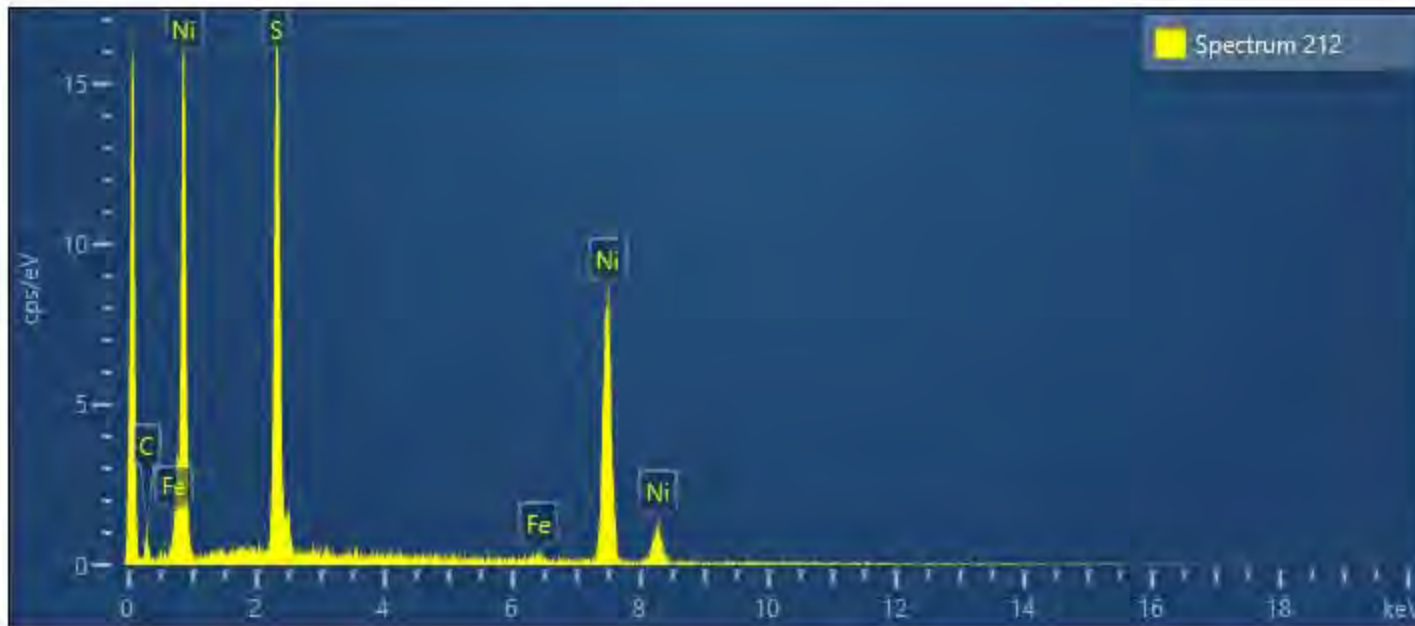
SITE 6 is a chromite grain with a magnetite grain on margin with grains of heazlewoodite

Electron Image 54

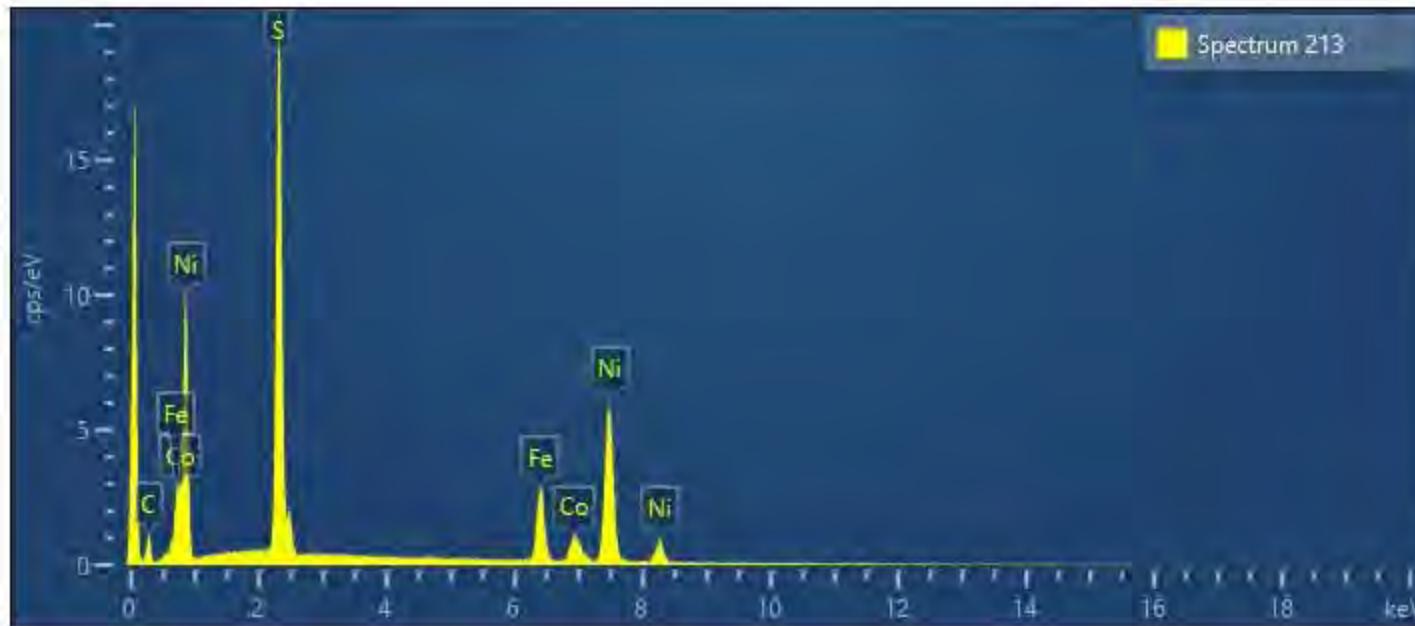




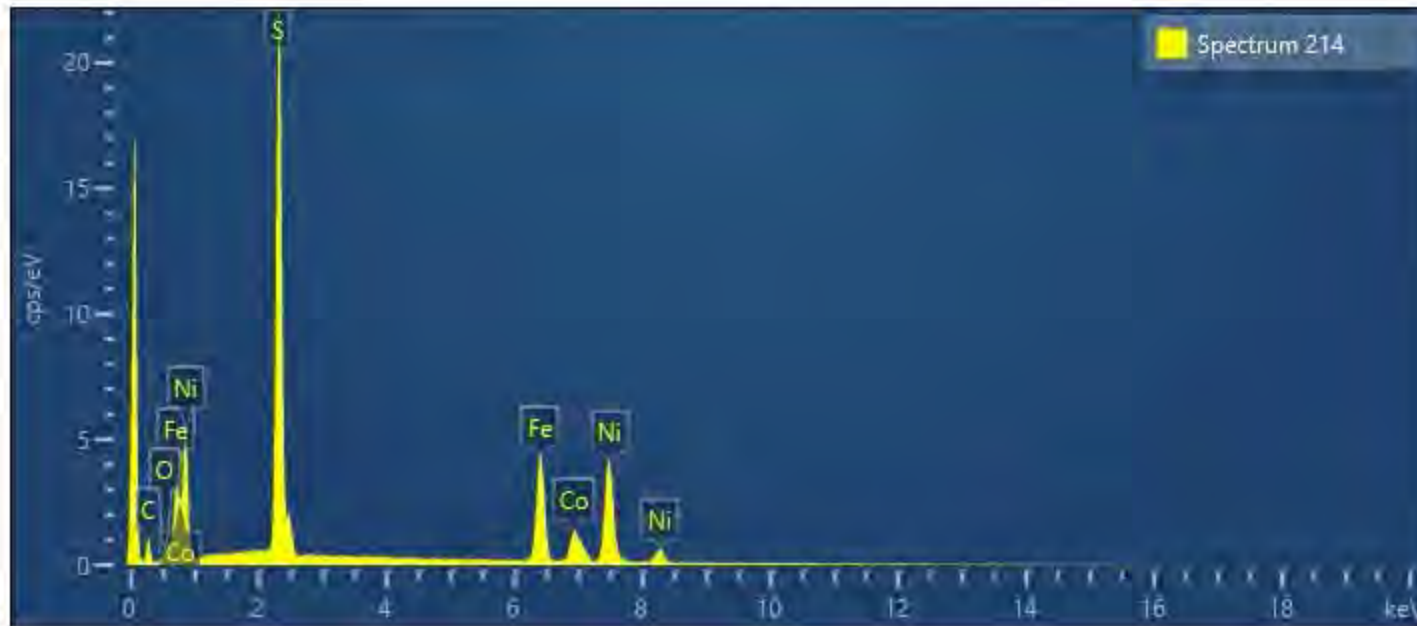
| Spectrum 211 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.74 | 1.03 | 59.61 |
| Fe | K series | 69.10 | 1.04 | 39.67 |
| Cr | K series | 1.16 | 0.28 | 0.72 |
| Total | | 100.00 | | 100.00 |



| Spectrum 212 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.19 | 0.63 | 41.80 |
| Ni | K series | 70.85 | 0.66 | 57.38 |
| Fe | K series | 0.96 | 0.29 | 0.82 |
| Total | | 100.00 | | 100.00 |

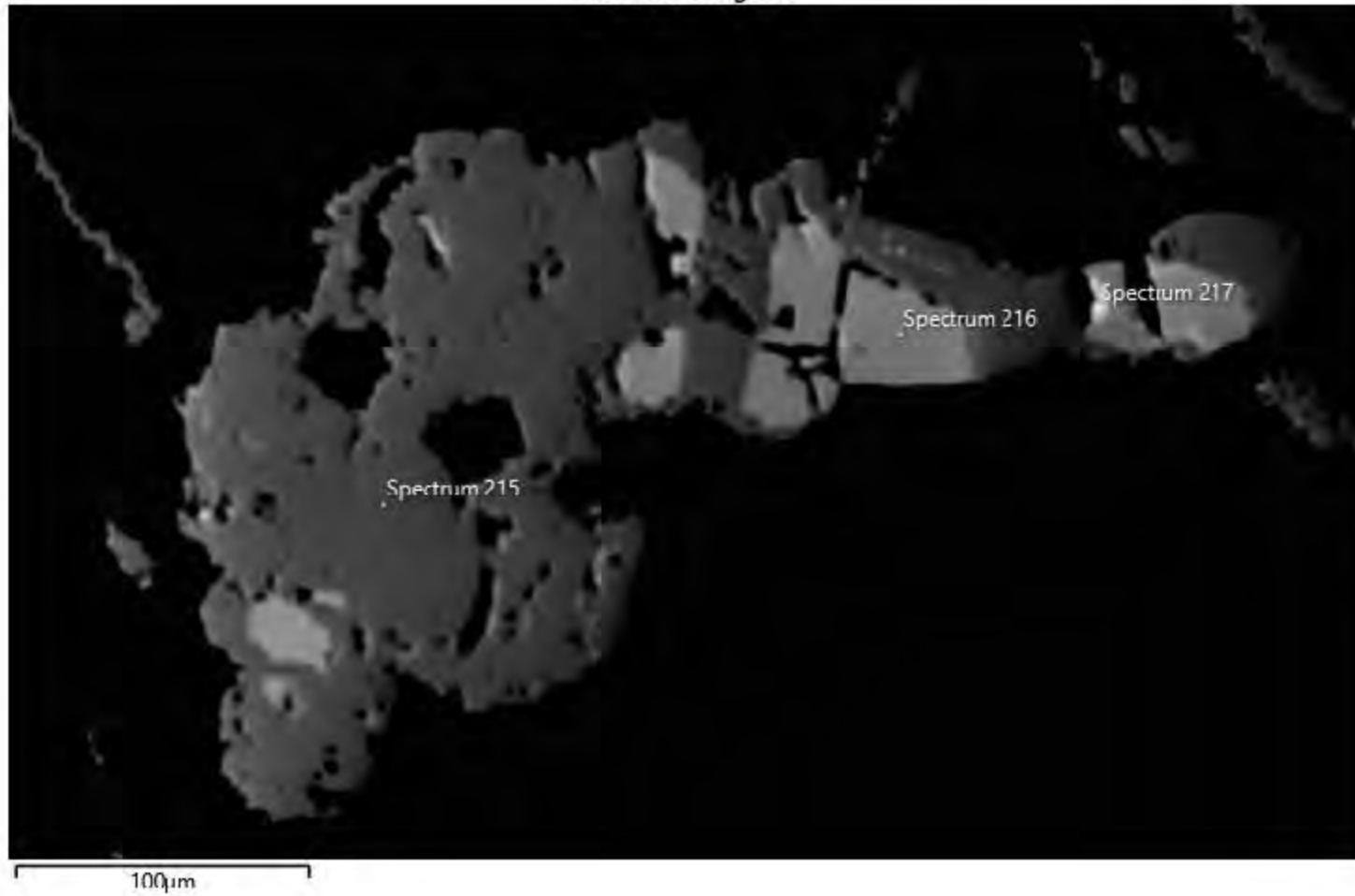


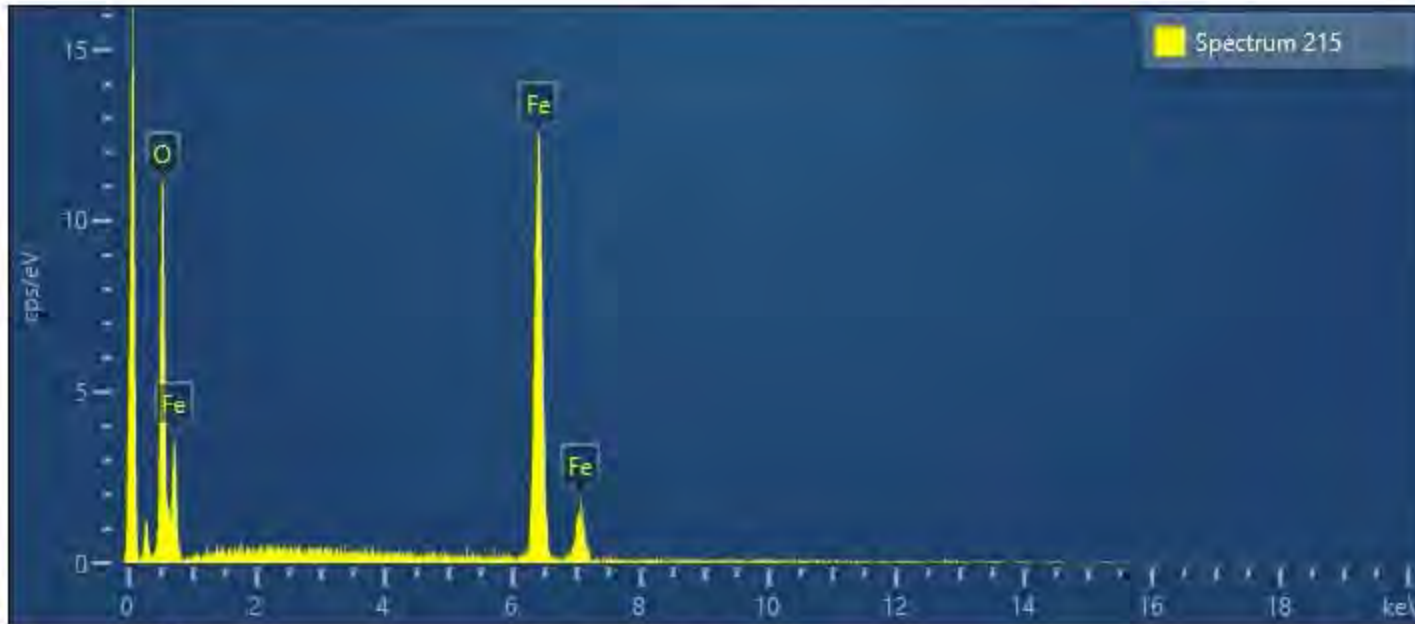
| Spectrum 213 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 31.34 | 0.31 | 45.28 |
| Fe | K series | 13.73 | 0.28 | 11.39 |
| Co | K series | 6.50 | 0.28 | 5.11 |
| Ni | K series | 48.43 | 0.41 | 38.21 |
| Total | | 100.00 | | 100.00 |



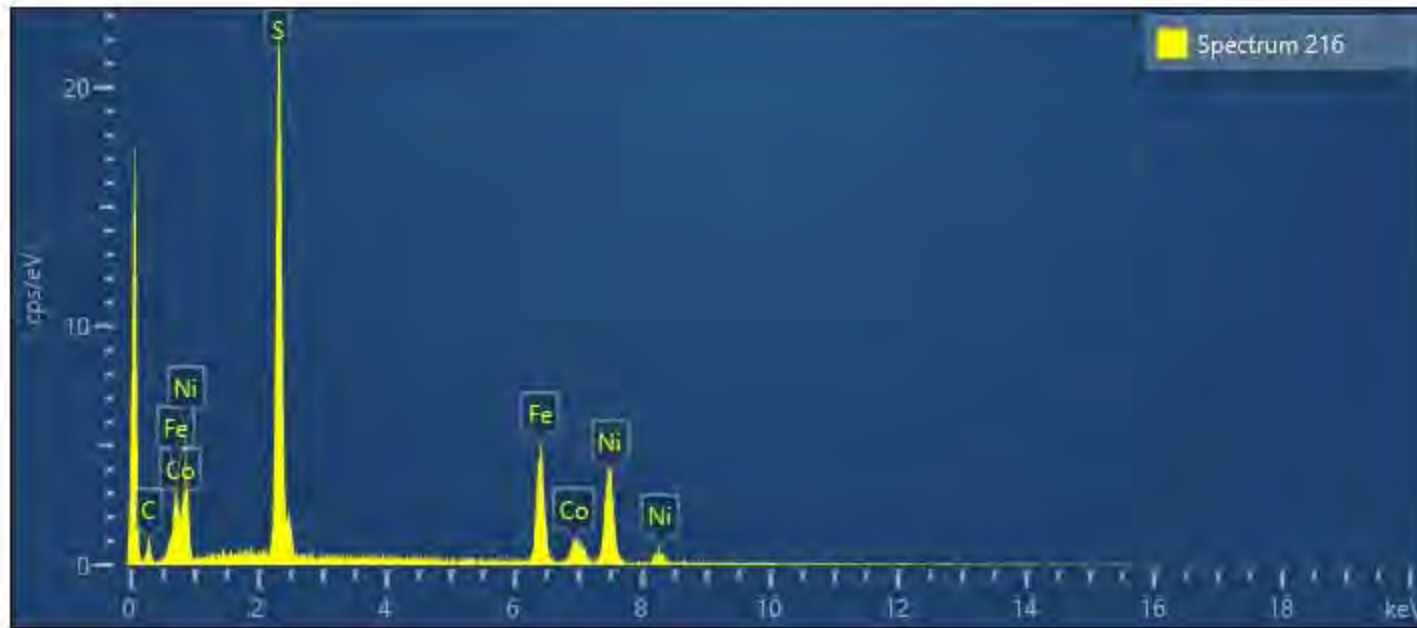
| Spectrum 214 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.42 | 0.31 | 45.93 |
| Fe | K series | 22.79 | 0.31 | 17.98 |
| Co | K series | 7.99 | 0.28 | 5.97 |
| Ni | K series | 34.19 | 0.39 | 25.66 |
| O | K series | 1.62 | 0.26 | 4.46 |
| Total | | 100.00 | | 100.00 |

Electron Image 55

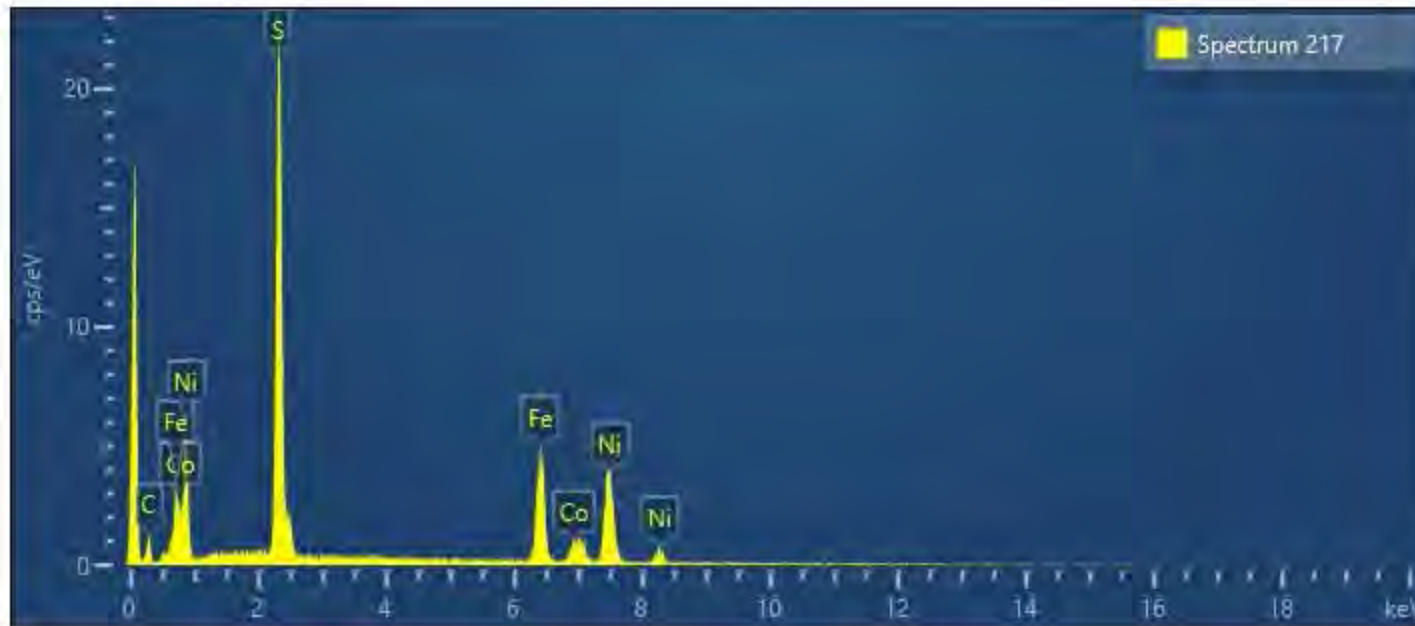




| Spectrum 215 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.17 | 0.75 | 58.97 |
| Fe | K series | 70.83 | 0.75 | 41.03 |
| Total | | 100.00 | | 100.00 |

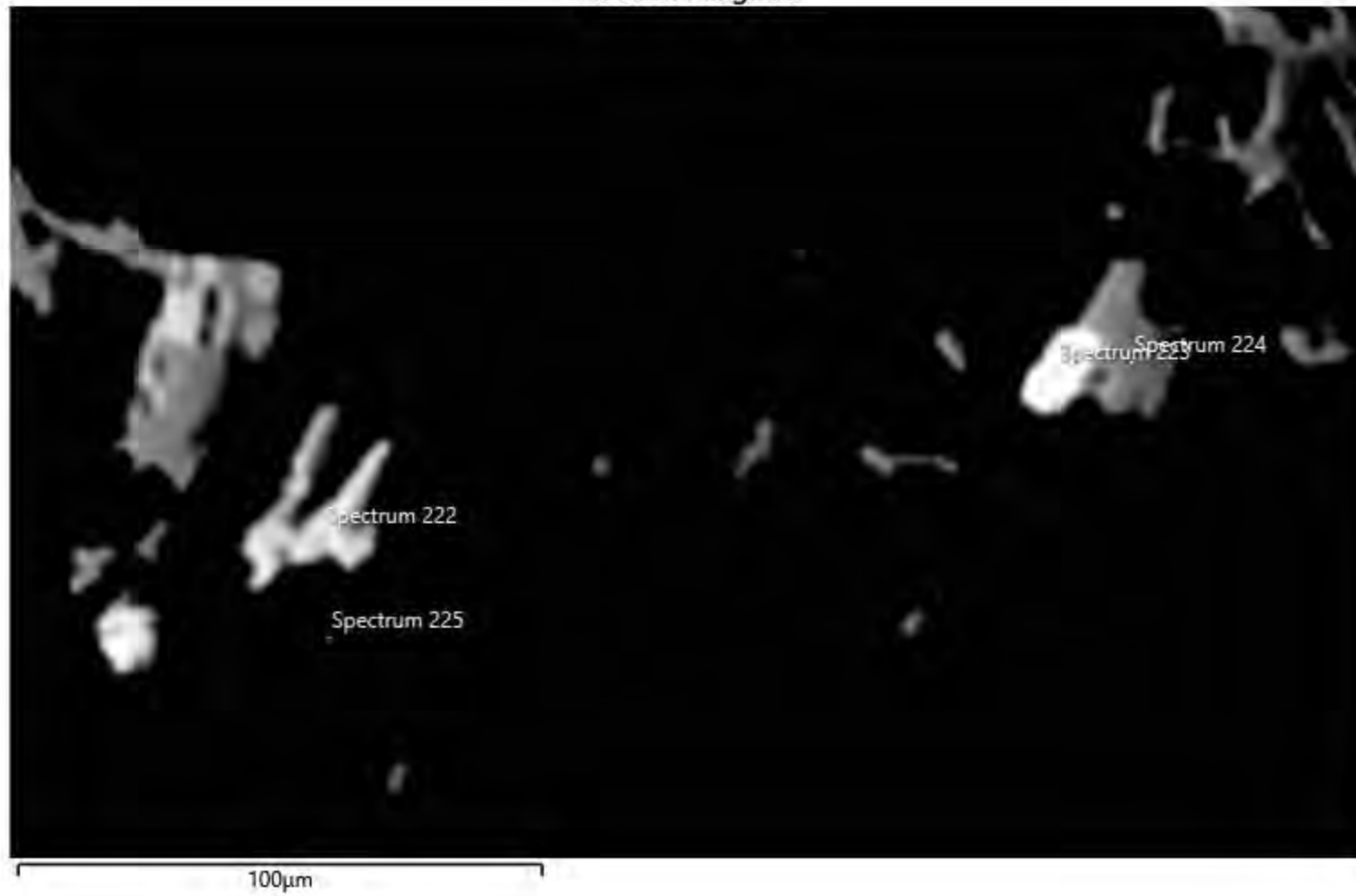


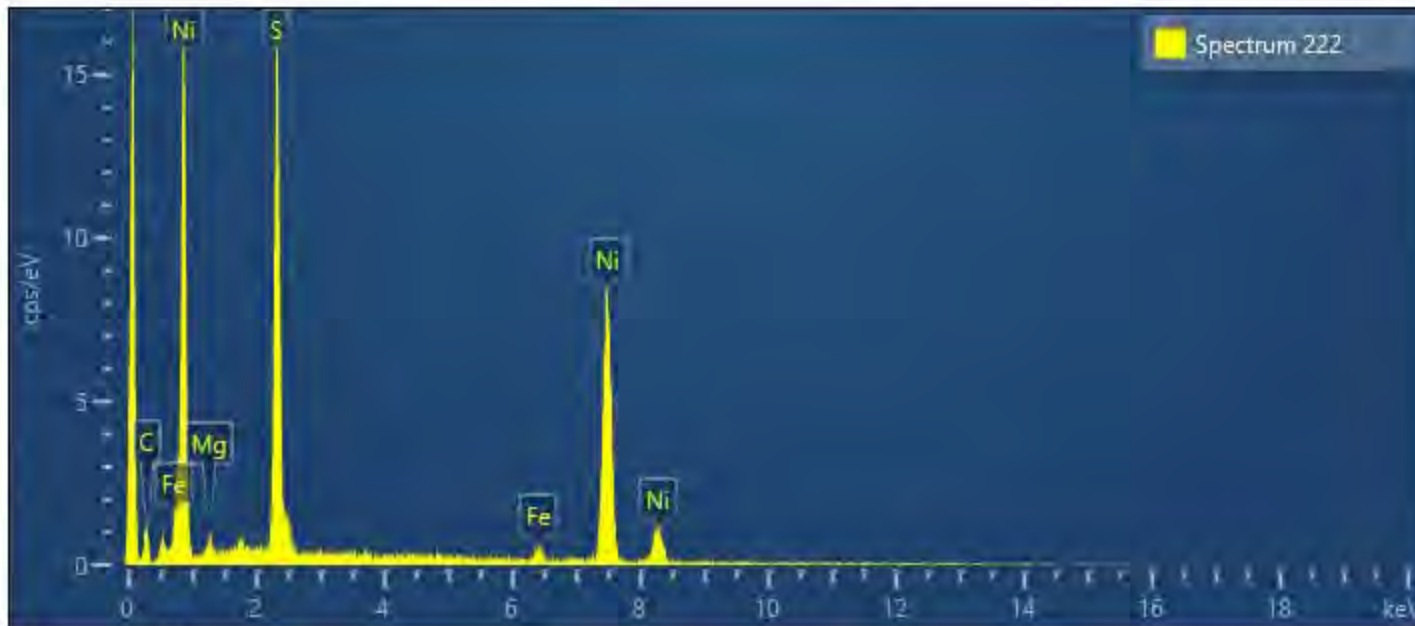
| Spectrum 216 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.62 | 0.62 | 48.75 |
| Fe | K series | 25.39 | 0.65 | 20.53 |
| Co | K series | 5.91 | 0.54 | 4.52 |
| Ni | K series | 34.08 | 0.79 | 26.20 |
| Total | | 100.00 | | 100.00 |



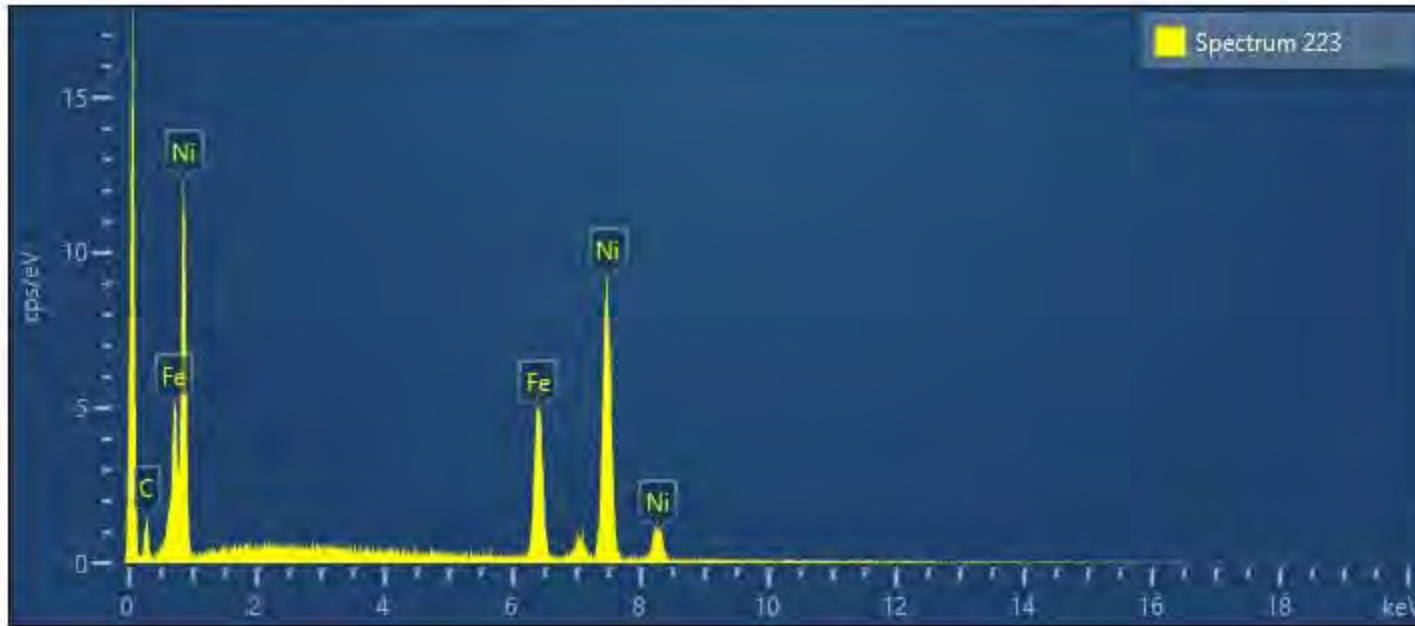
| Spectrum 217 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.54 | 0.57 | 48.65 |
| Fe | K series | 25.49 | 0.60 | 20.62 |
| Ni | K series | 34.55 | 0.73 | 26.58 |
| Co | K series | 5.42 | 0.52 | 4.15 |
| Total | | 100.00 | | 100.00 |

Electron Image 56

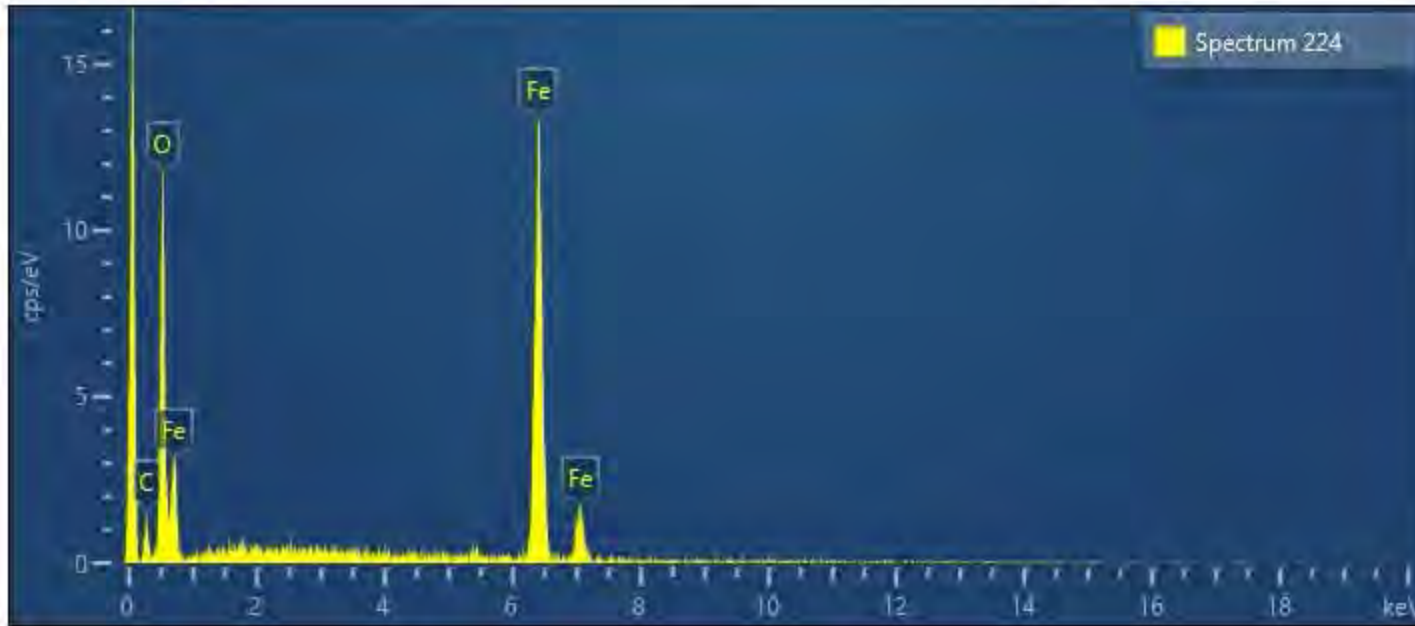




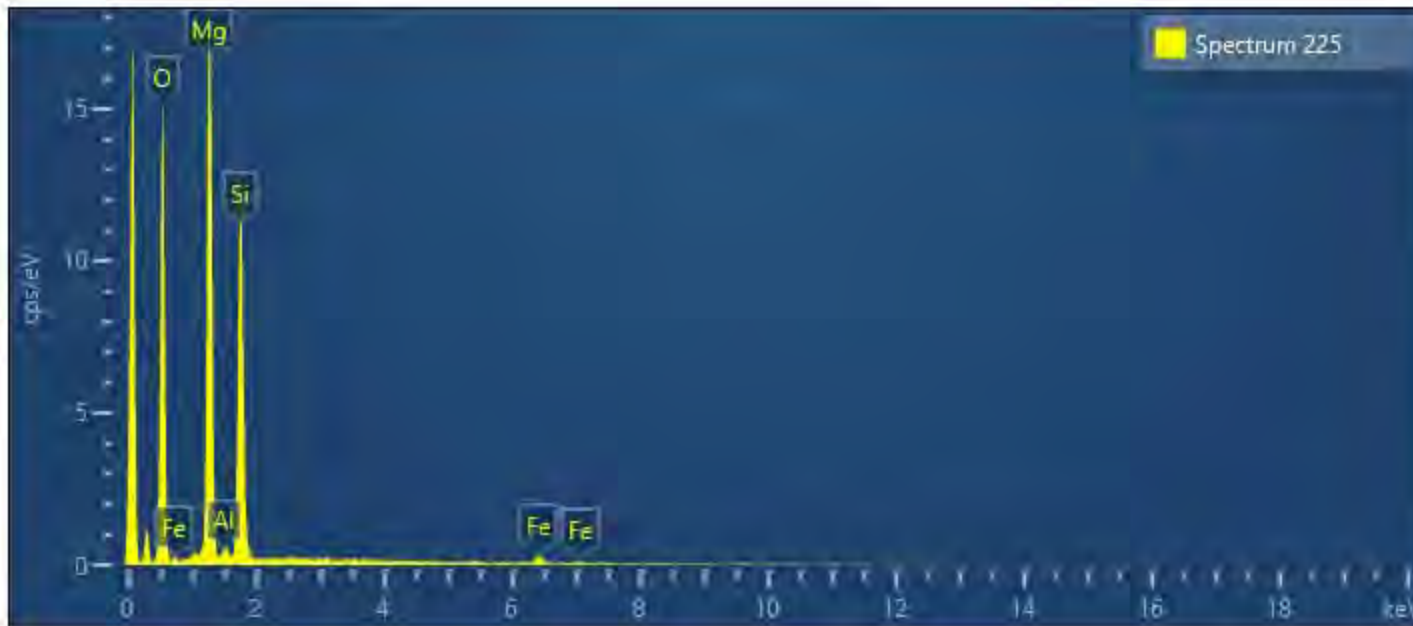
| Spectrum 222 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 26.69 | 0.57 | 39.26 |
| Fe | K series | 2.02 | 0.28 | 1.71 |
| Ni | K series | 69.74 | 0.65 | 56.03 |
| Mg | K series | 1.55 | 0.31 | 3.01 |
| Total | | 100.00 | | 100.00 |



| Spectrum 223 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.18 | 0.59 | 26.13 |
| Ni | K series | 74.82 | 0.59 | 73.87 |
| Total | | 100.00 | | 100.00 |

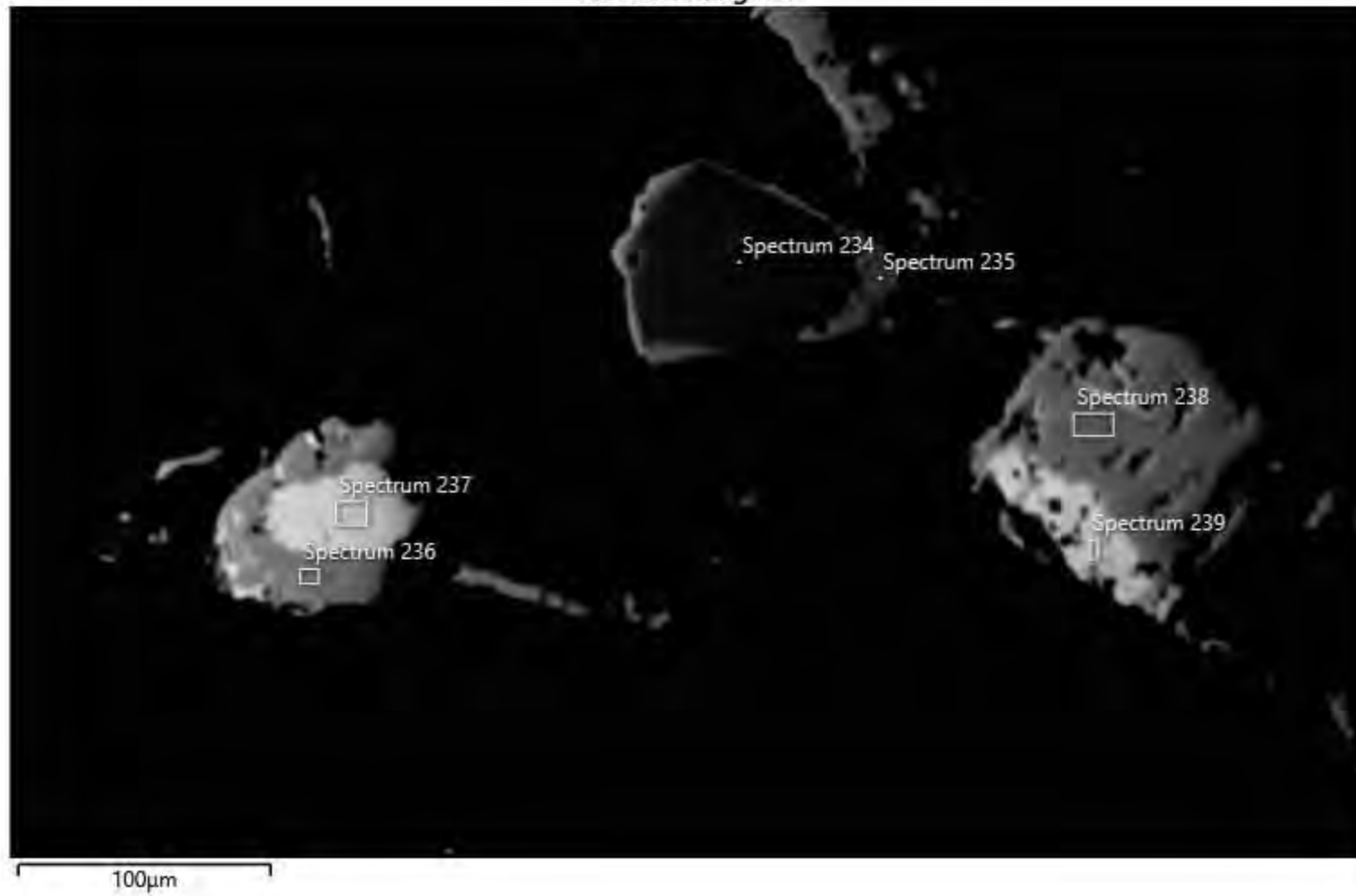


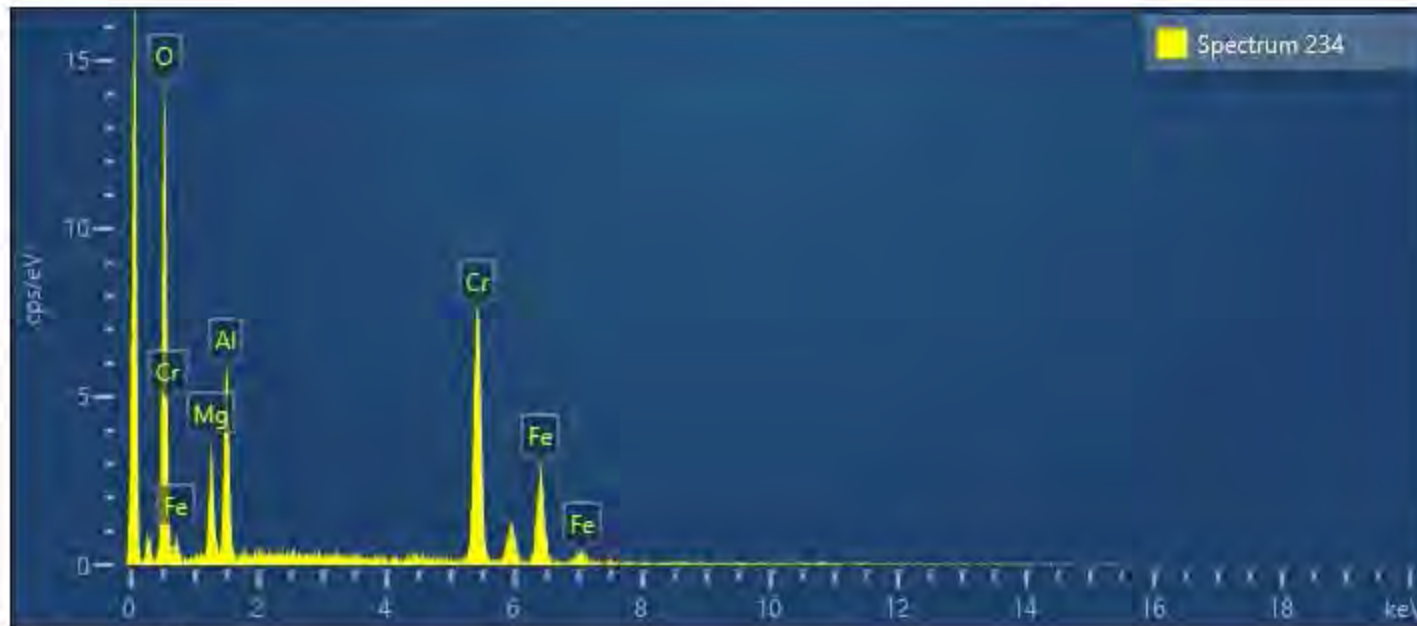
| Spectrum 224 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.33 | 0.86 | 59.17 |
| Fe | K series | 70.67 | 0.86 | 40.83 |
| Total | | 100.00 | | 100.00 |



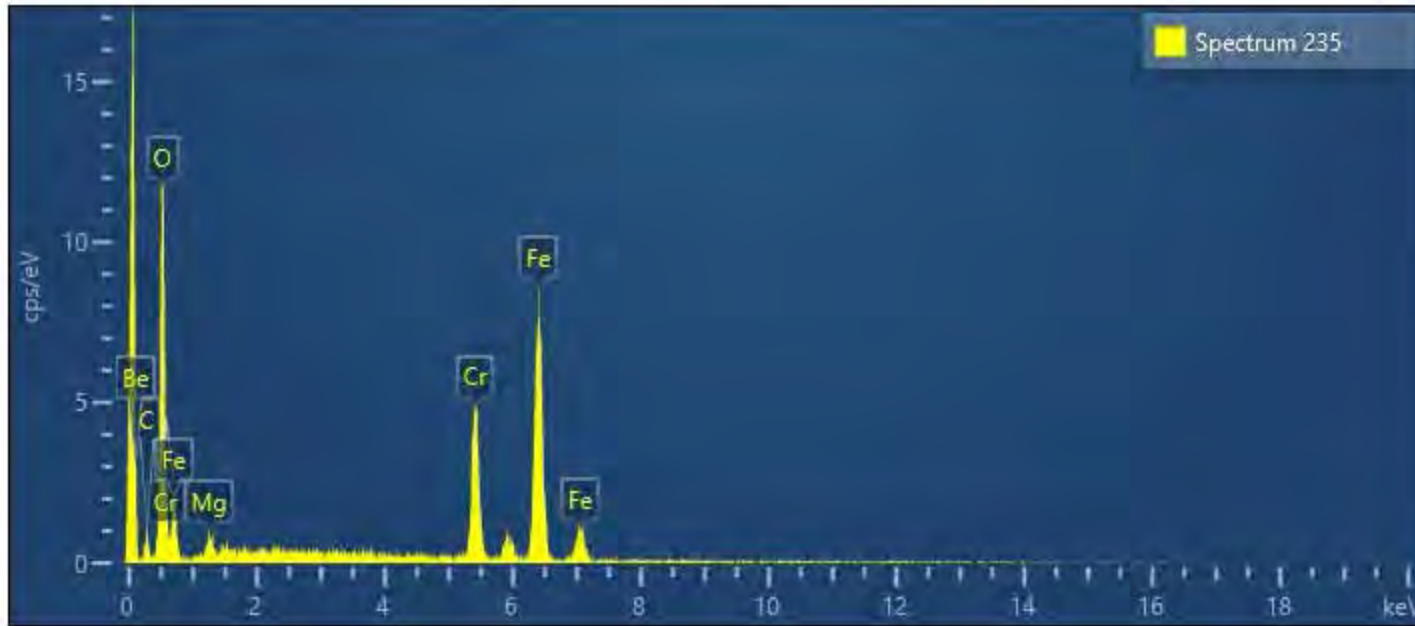
| Spectrum 225 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.00 | 0.58 | 64.05 |
| Mg | K series | 26.69 | 0.43 | 21.64 |
| Si | K series | 18.90 | 0.37 | 13.26 |
| Fe | K series | 1.88 | 0.24 | 0.66 |
| Al | K series | 0.53 | 0.16 | 0.38 |
| Total | | 100.00 | | 100.00 |

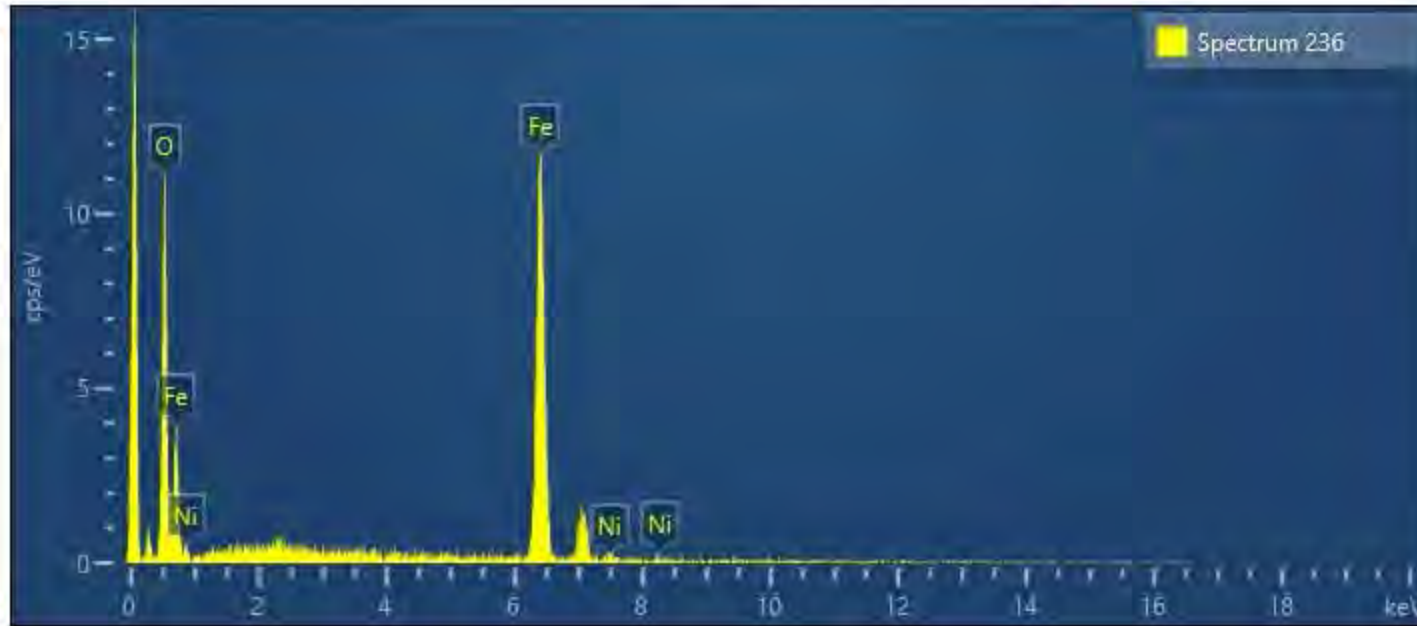
Electron Image 57



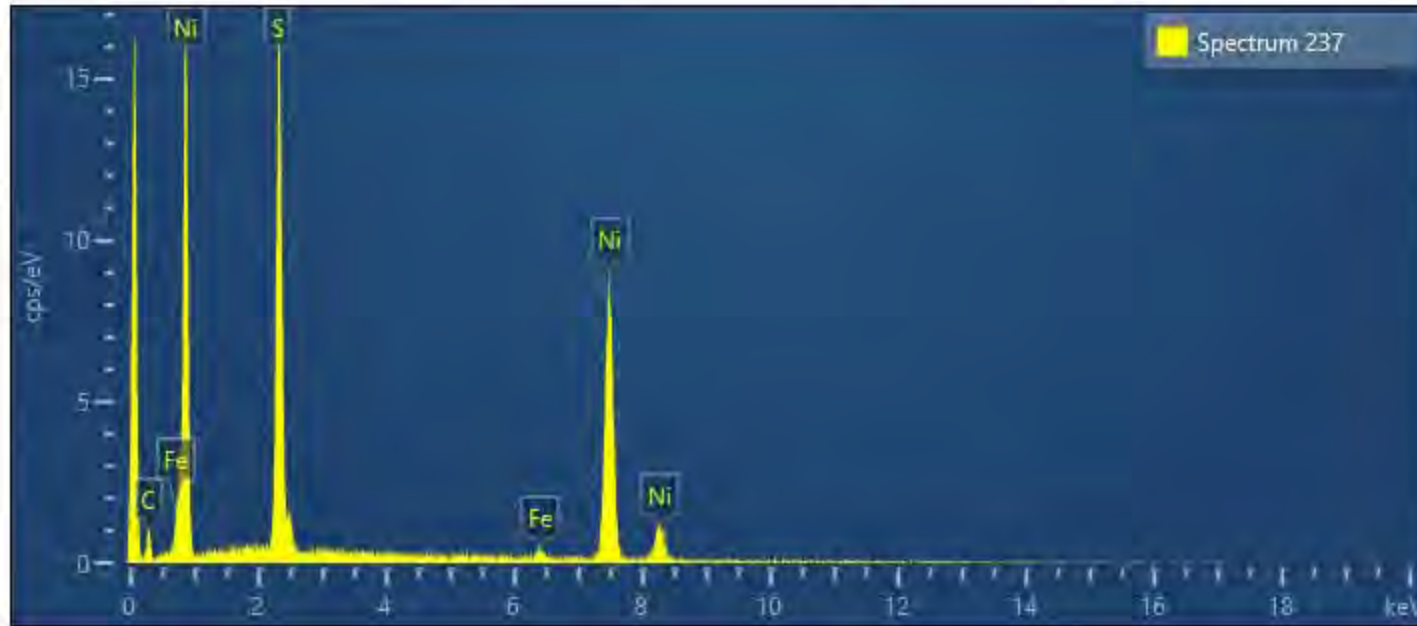


| Spectrum 234 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.04 | 0.89 | 57.63 |
| Mg | K series | 6.26 | 0.39 | 6.98 |
| Al | K series | 10.15 | 0.41 | 10.19 |
| Cr | K series | 32.69 | 0.73 | 17.03 |
| Fe | K series | 16.85 | 0.66 | 8.17 |
| Total | | 100.00 | | 100.00 |

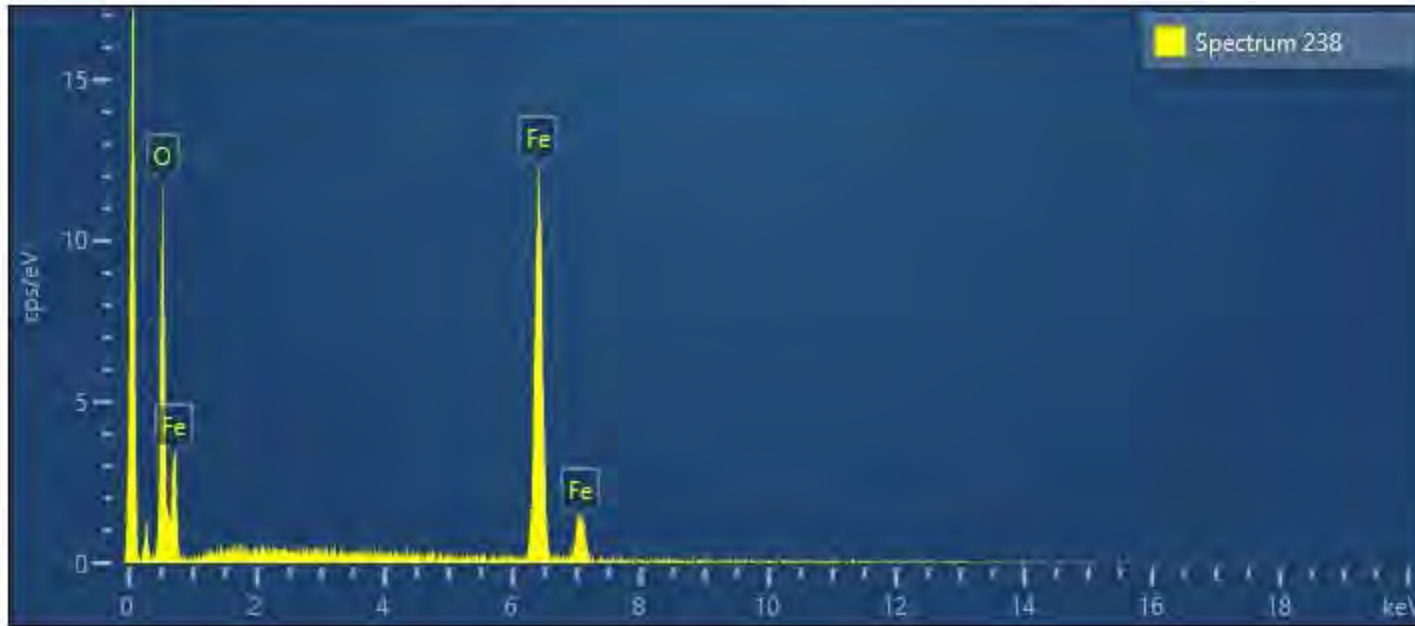




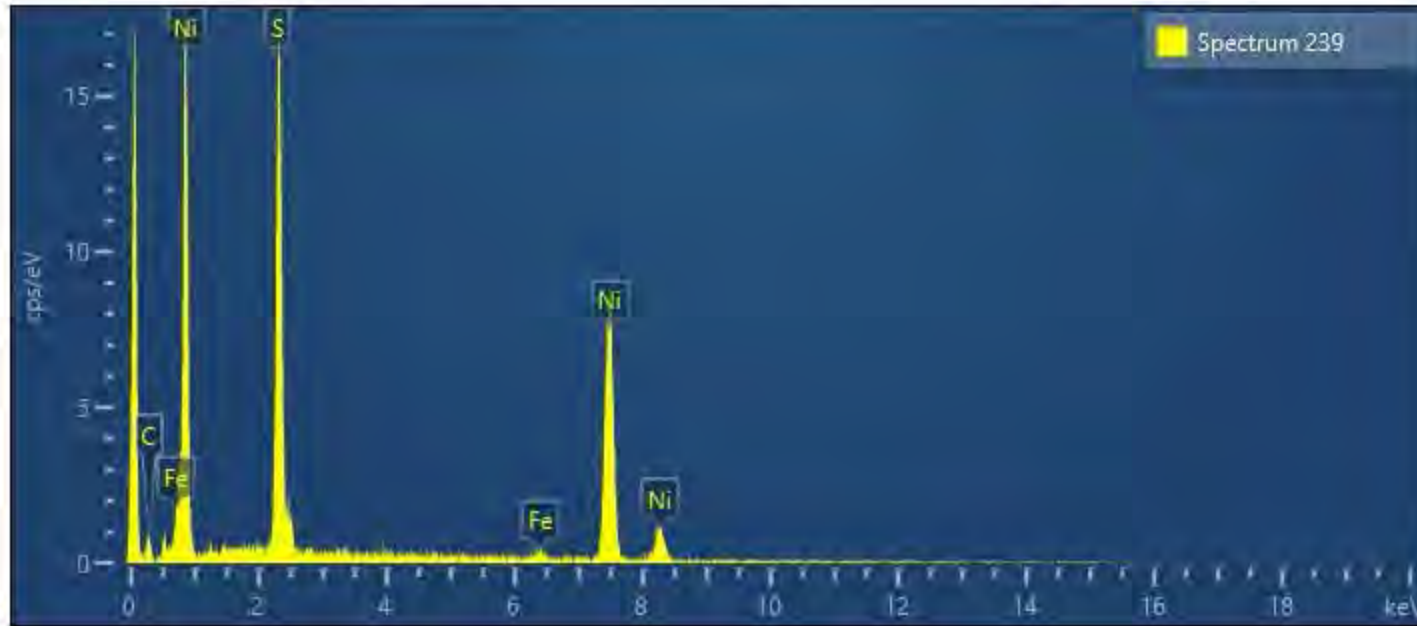
| Spectrum 236 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.36 | 0.90 | 59.24 |
| Fe | K series | 68.49 | 0.95 | 39.58 |
| Ni | K series | 2.14 | 0.52 | 1.18 |
| Total | | 100.00 | | 100.00 |



| Spectrum 237 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.44 | 0.57 | 40.89 |
| Ni | K series | 71.36 | 0.61 | 58.08 |
| Fe | K series | 1.20 | 0.27 | 1.03 |
| Total | | 100.00 | | 100.00 |

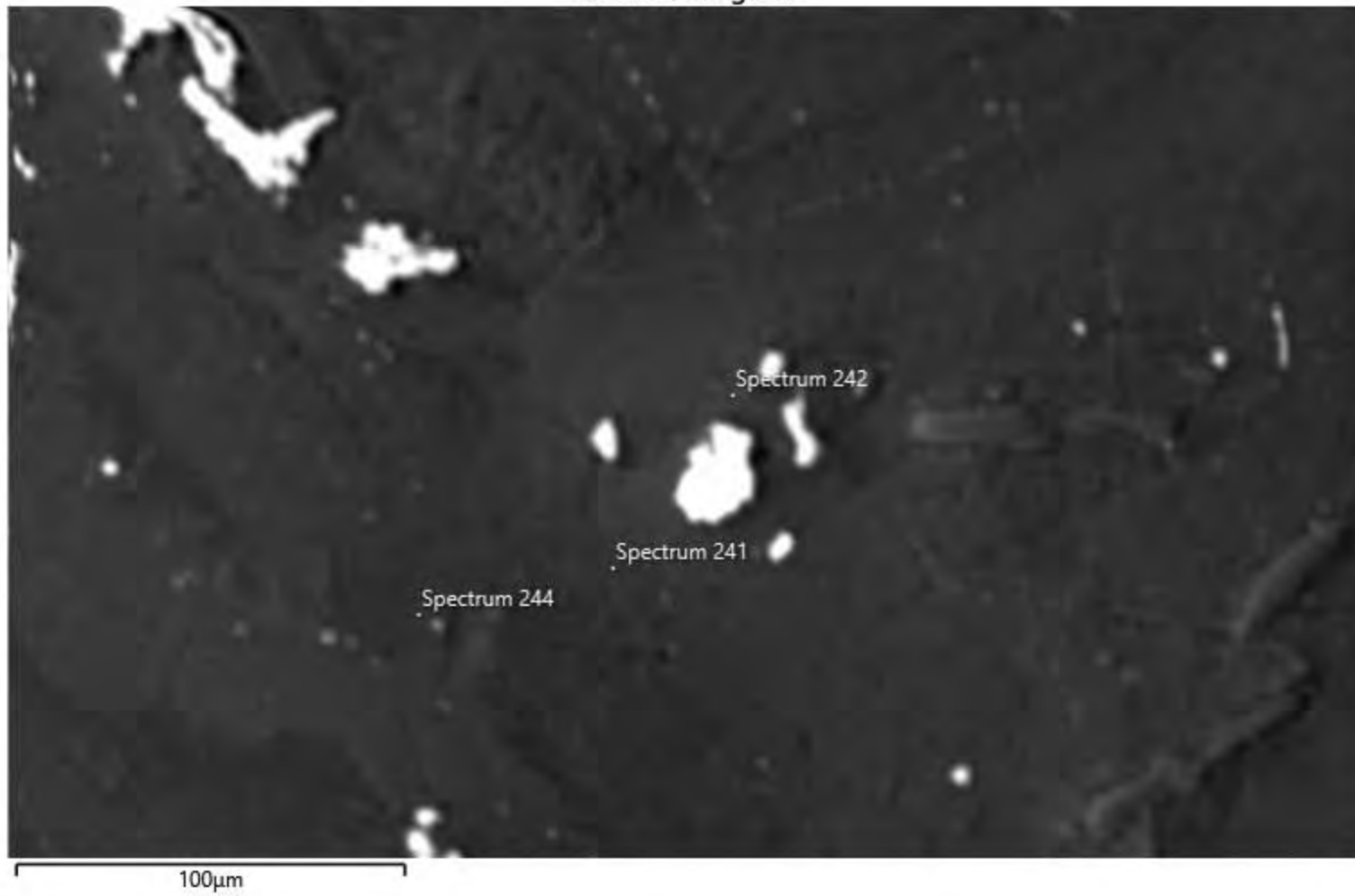


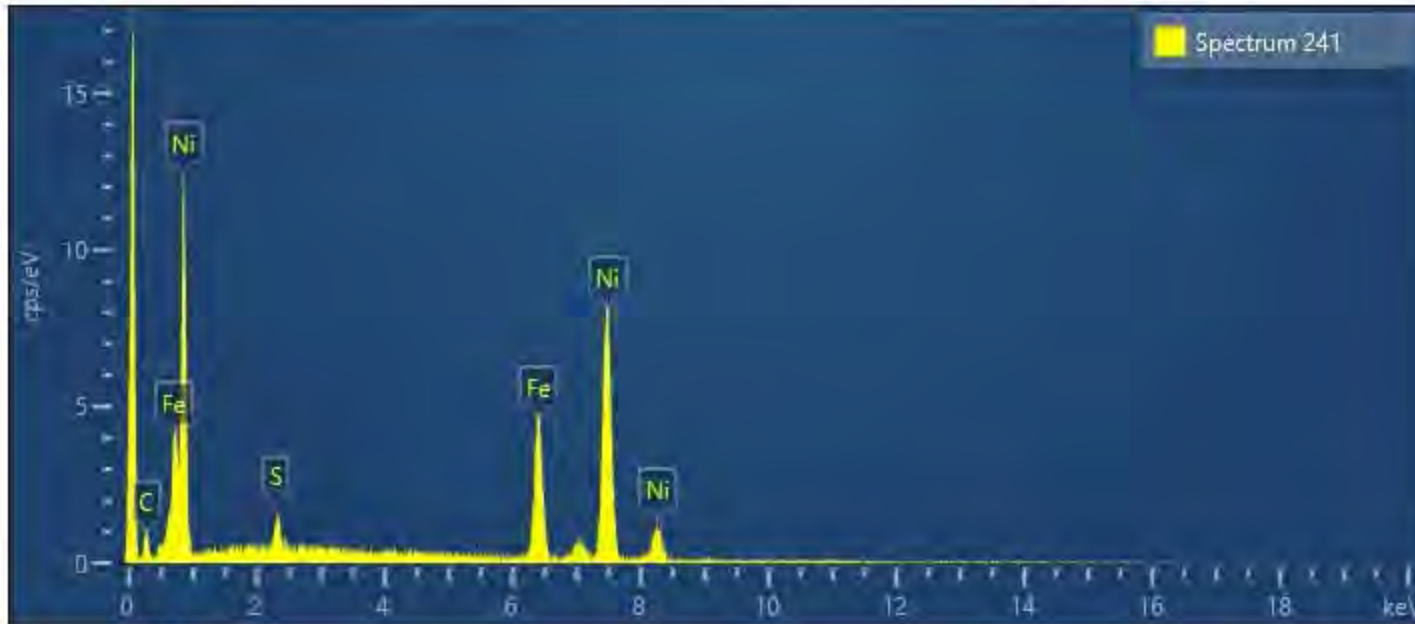
| Spectrum 238 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.82 | 0.86 | 58.56 |
| Fe | K series | 71.18 | 0.86 | 41.44 |
| Total | | 100.00 | | 100.00 |



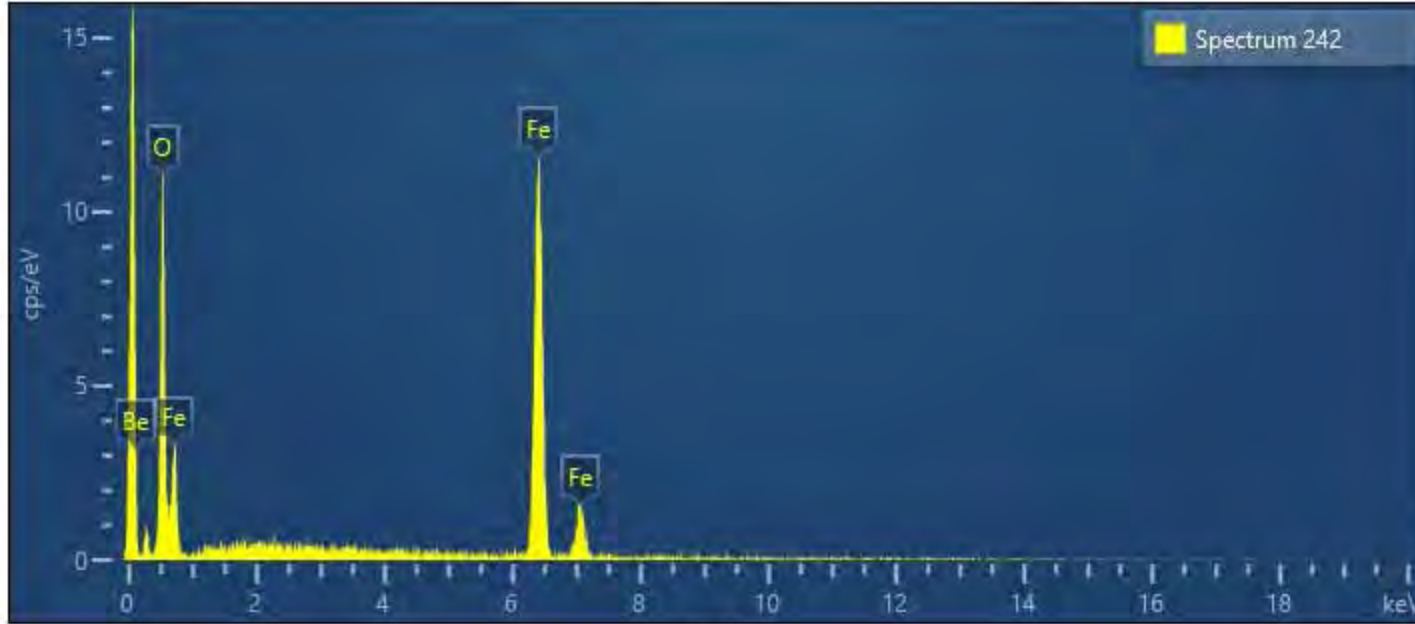
| Spectrum 239 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.96 | 0.64 | 41.53 |
| Ni | K series | 71.09 | 0.67 | 57.66 |
| Fe | K series | 0.95 | 0.30 | 0.81 |
| Total | | 100.00 | | 100.00 |

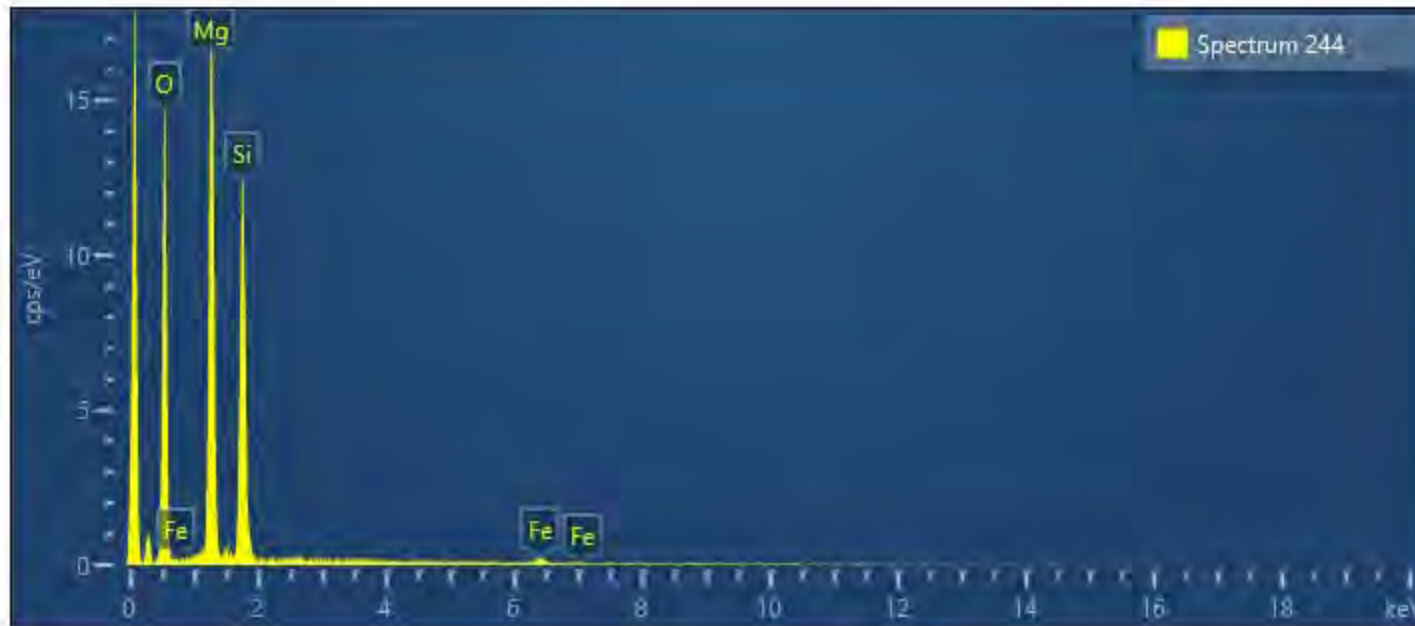
Electron Image 60





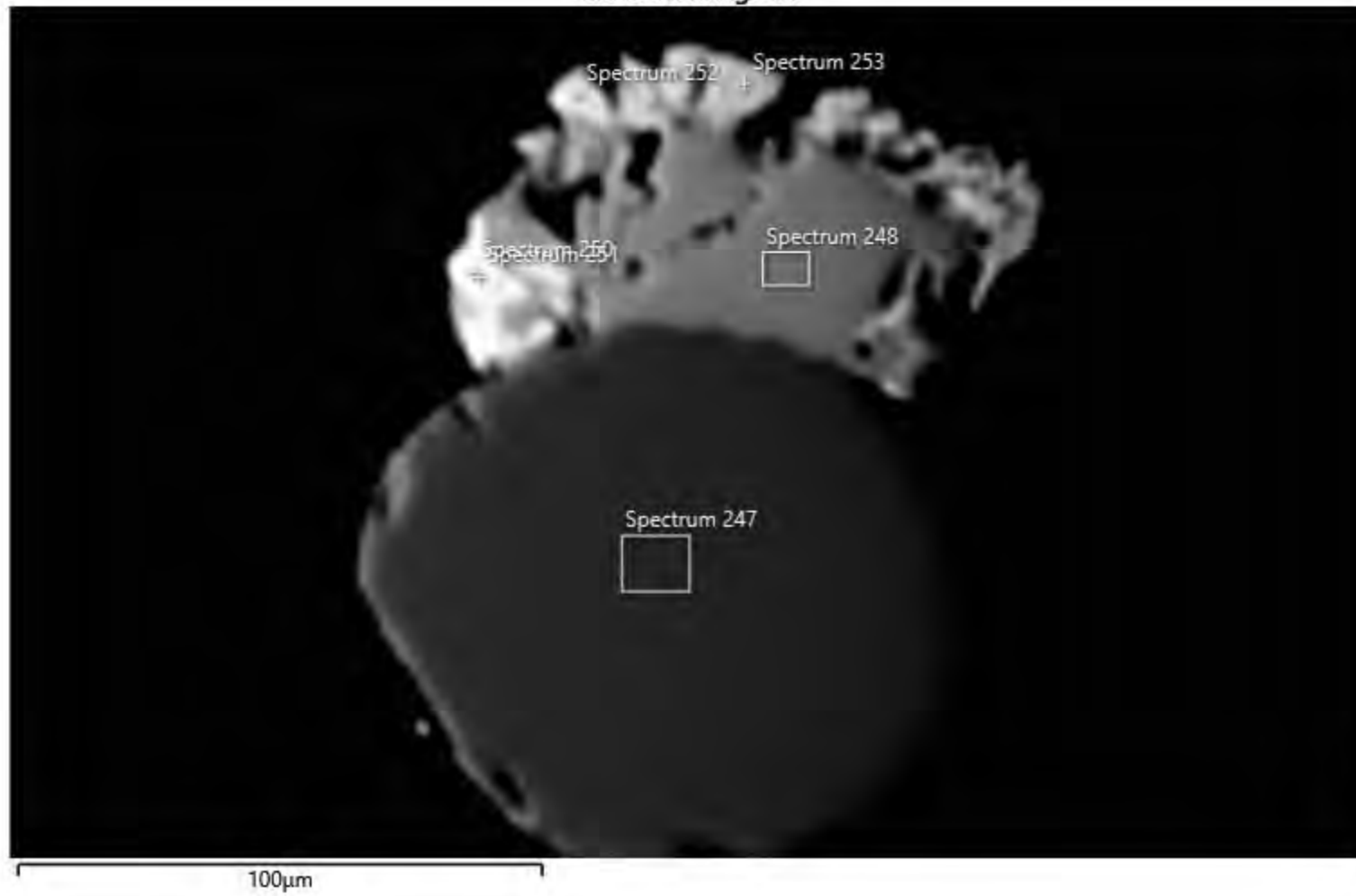
| Spectrum 241 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 2.06 | 0.25 | 3.66 |
| Fe | K series | 23.61 | 0.66 | 24.12 |
| Ni | K series | 74.33 | 0.69 | 72.22 |
| Total | | 100.00 | | 100.00 |

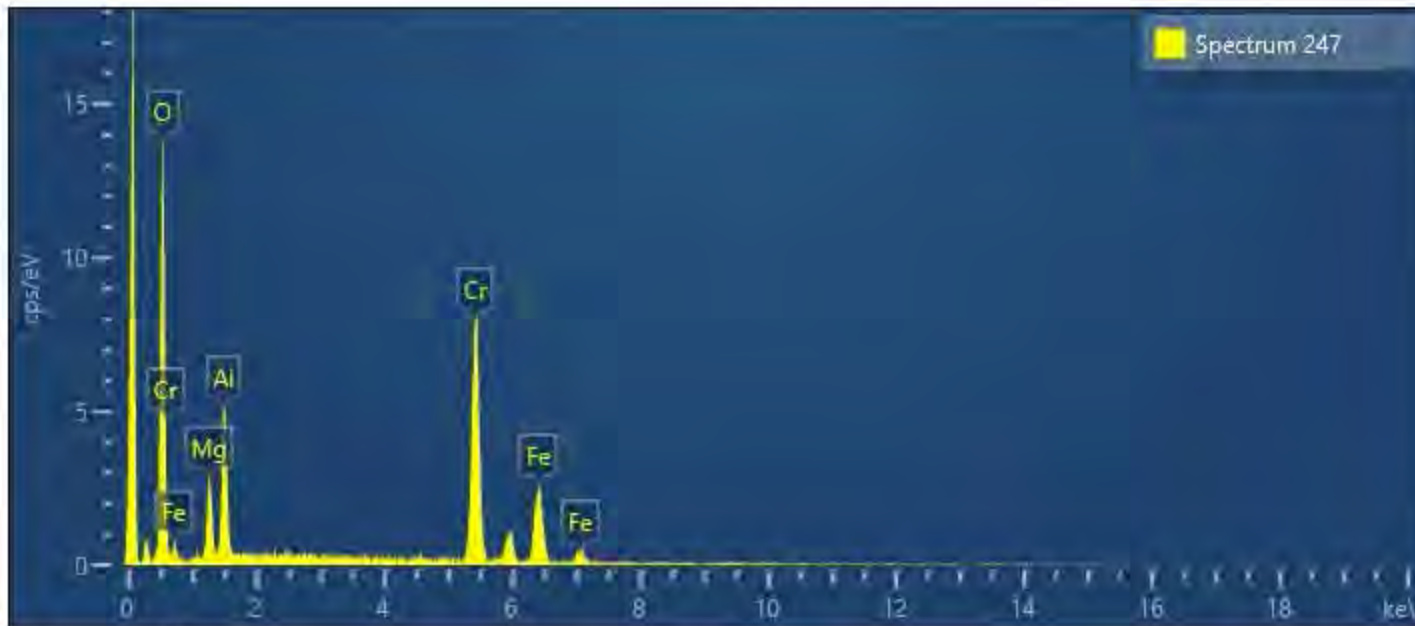




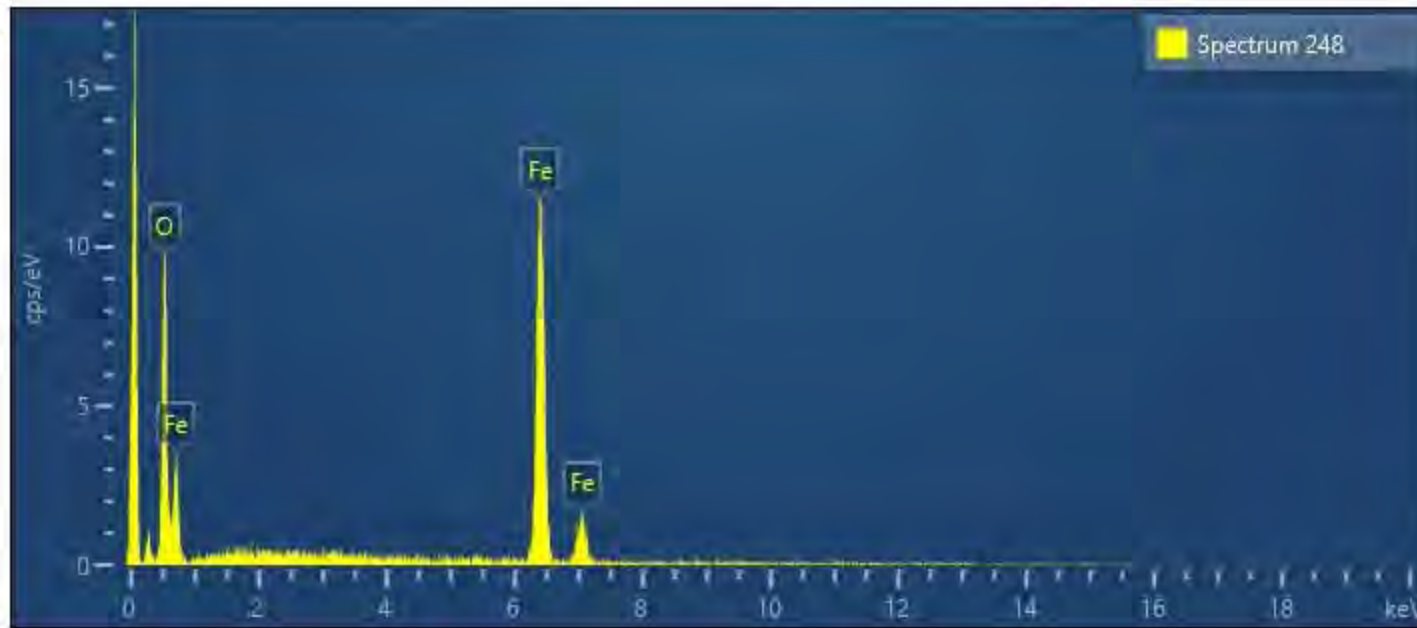
| Spectrum 244 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.58 | 0.68 | 64.42 |
| Mg | K series | 26.24 | 0.51 | 21.16 |
| Si | K series | 20.12 | 0.45 | 14.04 |
| Fe | K series | 1.06 | 0.27 | 0.37 |
| Total | | 100.00 | | 100.00 |

Electron Image 61

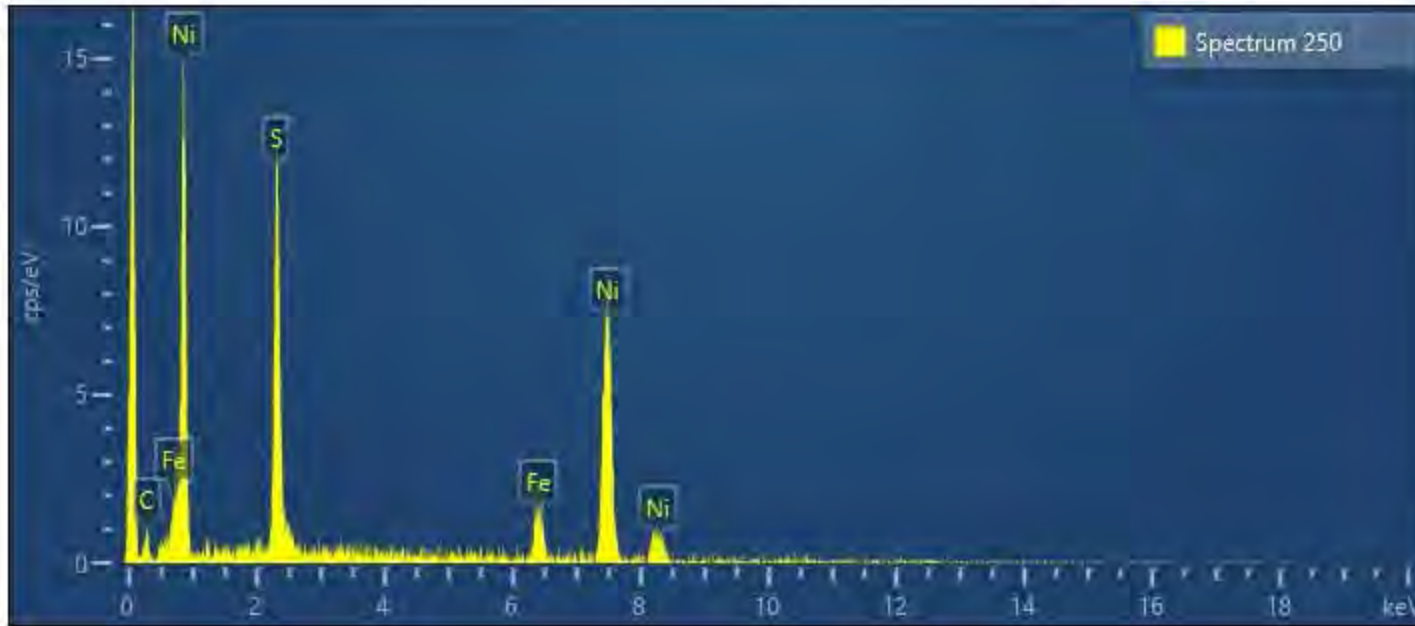




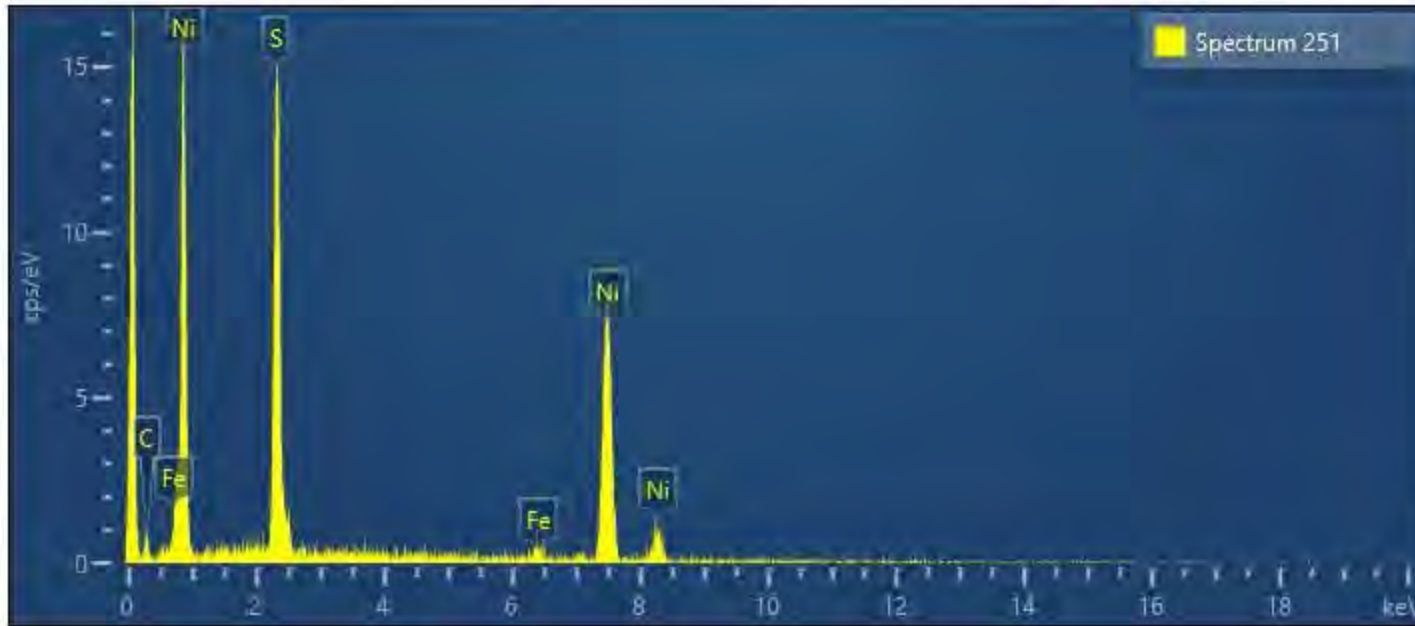
| Spectrum 247 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.43 | 0.78 | 58.49 |
| Mg | K series | 5.80 | 0.35 | 6.48 |
| Al | K series | 9.04 | 0.36 | 9.10 |
| Cr | K series | 34.32 | 0.67 | 17.94 |
| Fe | K series | 16.41 | 0.60 | 7.98 |
| Total | | 100.00 | | 100.00 |



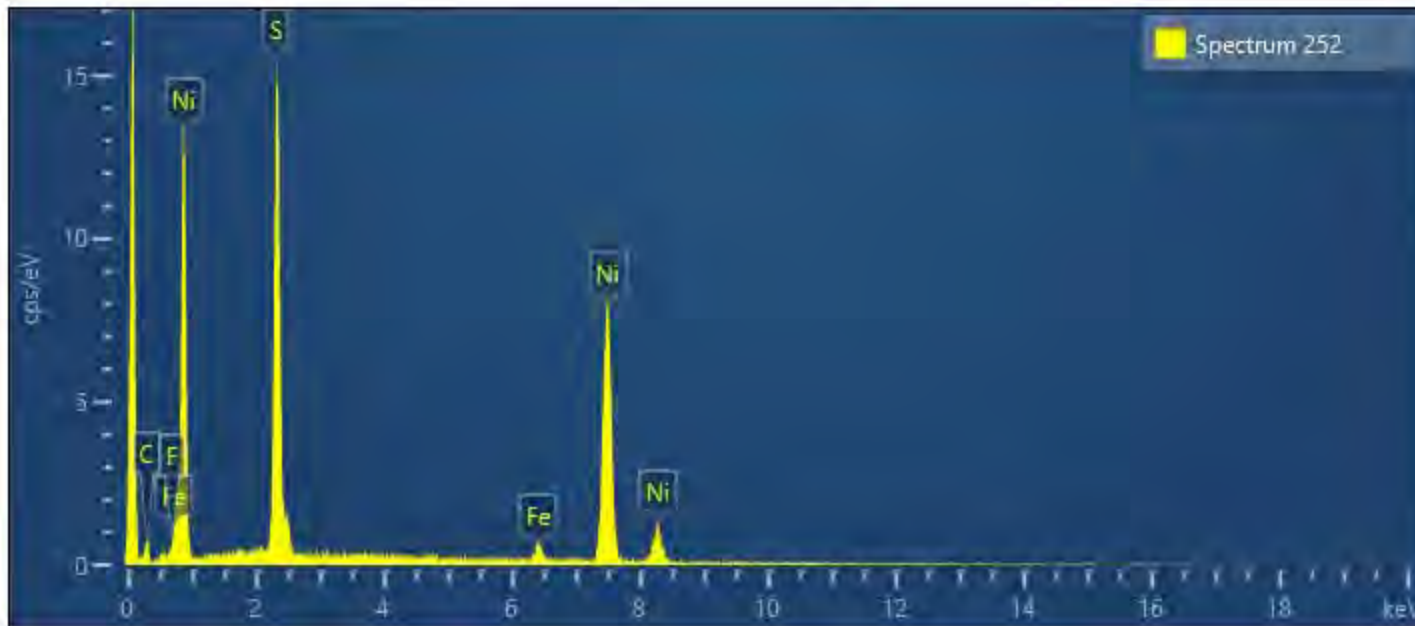
| Spectrum 248 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.98 | 0.87 | 57.55 |
| Fe | K series | 72.02 | 0.87 | 42.45 |
| Total | | 100.00 | | 100.00 |



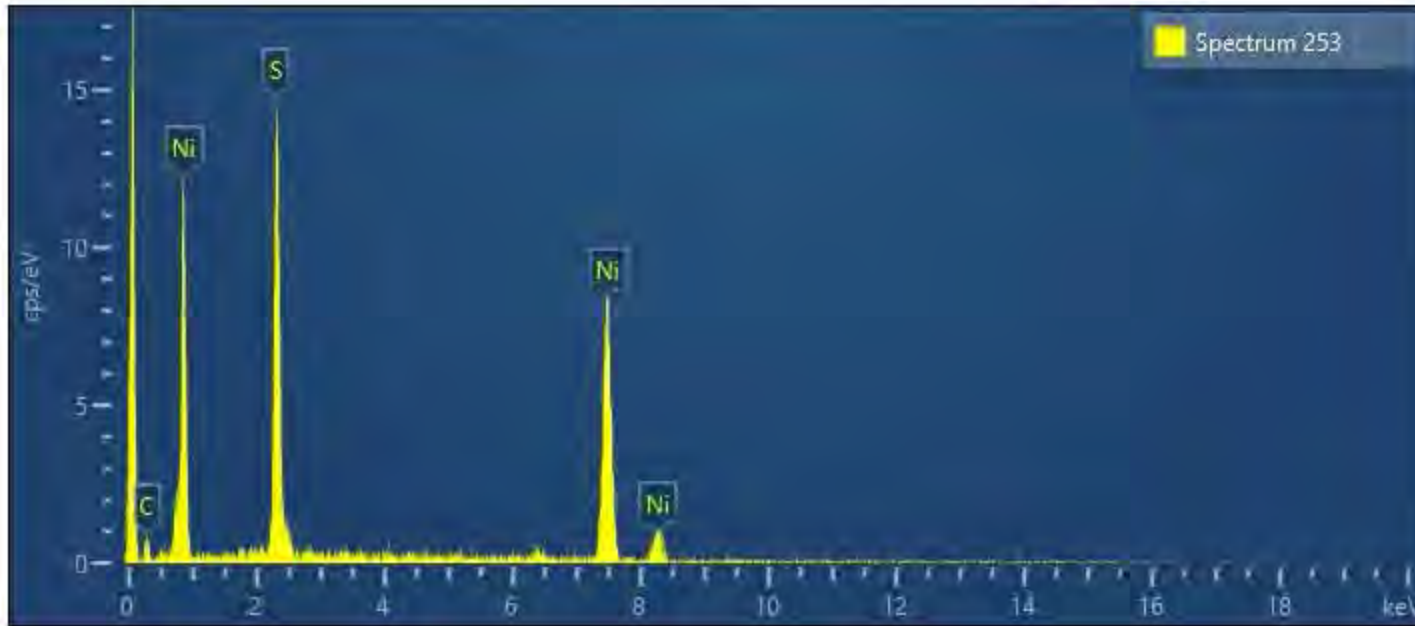
| Spectrum 250 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 20.71 | 0.86 | 32.22 |
| Fe | K series | 8.74 | 0.77 | 7.81 |
| Ni | K series | 70.55 | 1.10 | 59.97 |
| Total | | 100.00 | | 100.00 |



| Spectrum 251 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.24 | 0.88 | 40.63 |
| Ni | K series | 70.31 | 0.96 | 57.27 |
| Fe | K series | 2.45 | 0.49 | 2.10 |
| Total | | 100.00 | | 100.00 |



| Spectrum 252 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 25.99 | 0.50 | 37.32 |
| Fe | K series | 2.49 | 0.27 | 2.05 |
| Ni | K series | 68.75 | 0.64 | 53.92 |
| F | K series | 2.77 | 0.49 | 6.71 |
| Total | | 100.00 | | 100.00 |

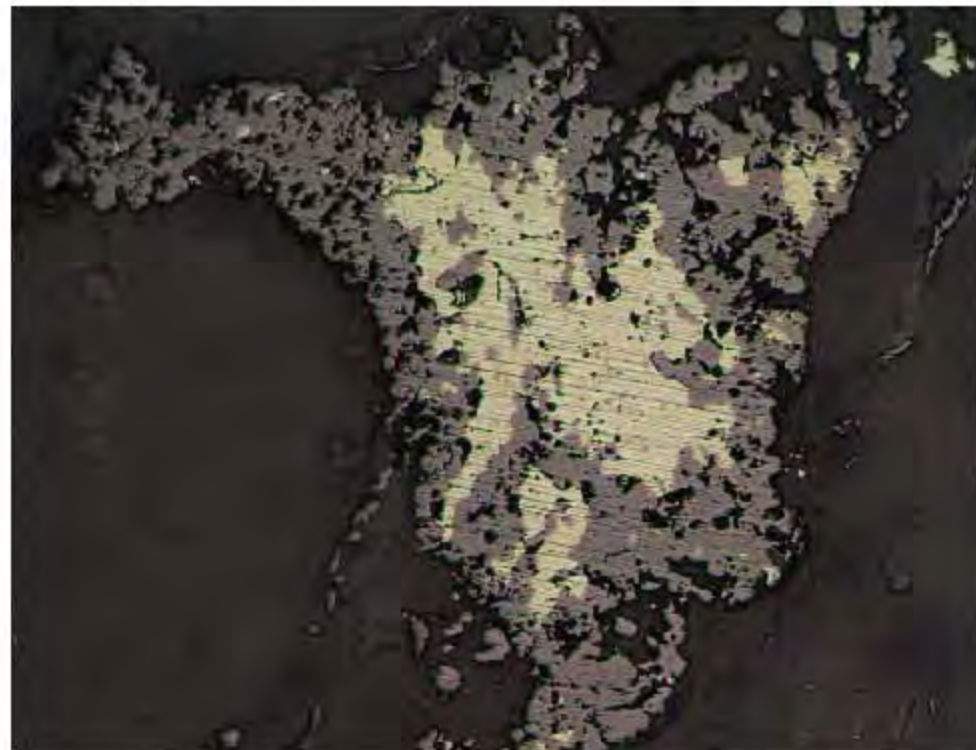
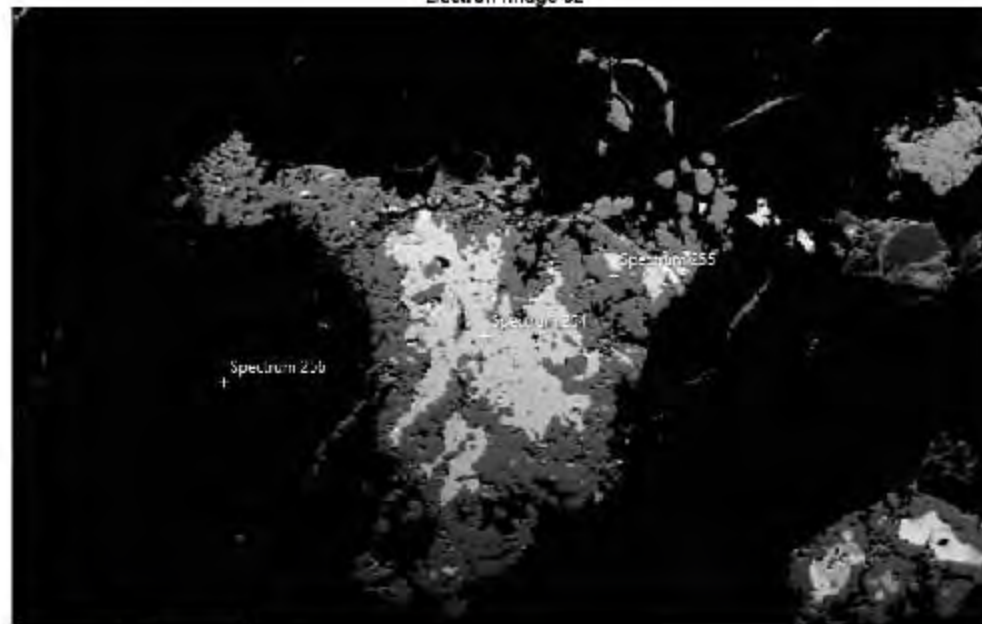


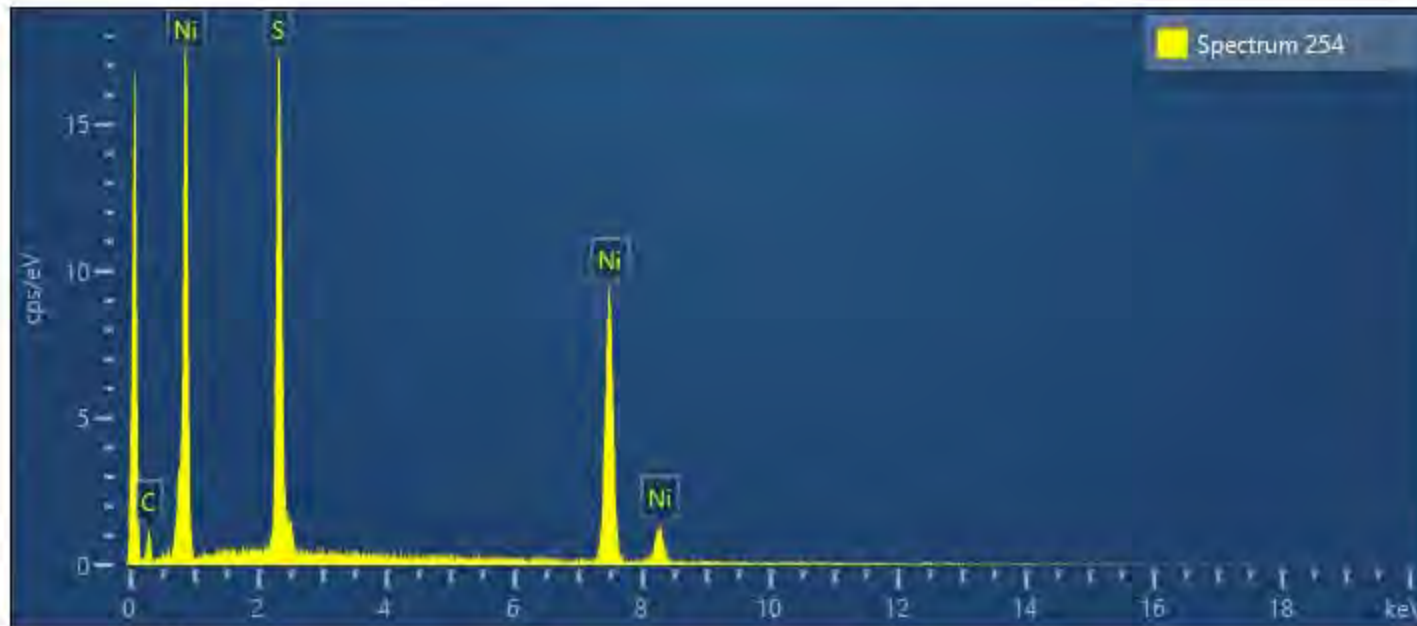
| Spectrum 253 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 26.11 | 0.83 | 39.29 |
| Ni | K series | 73.89 | 0.83 | 60.71 |
| Total | | 100.00 | | 100.00 |

Specimen Notes for '553' - Sulphide Mineral Inventory –Awaruite, Heazlewoodite

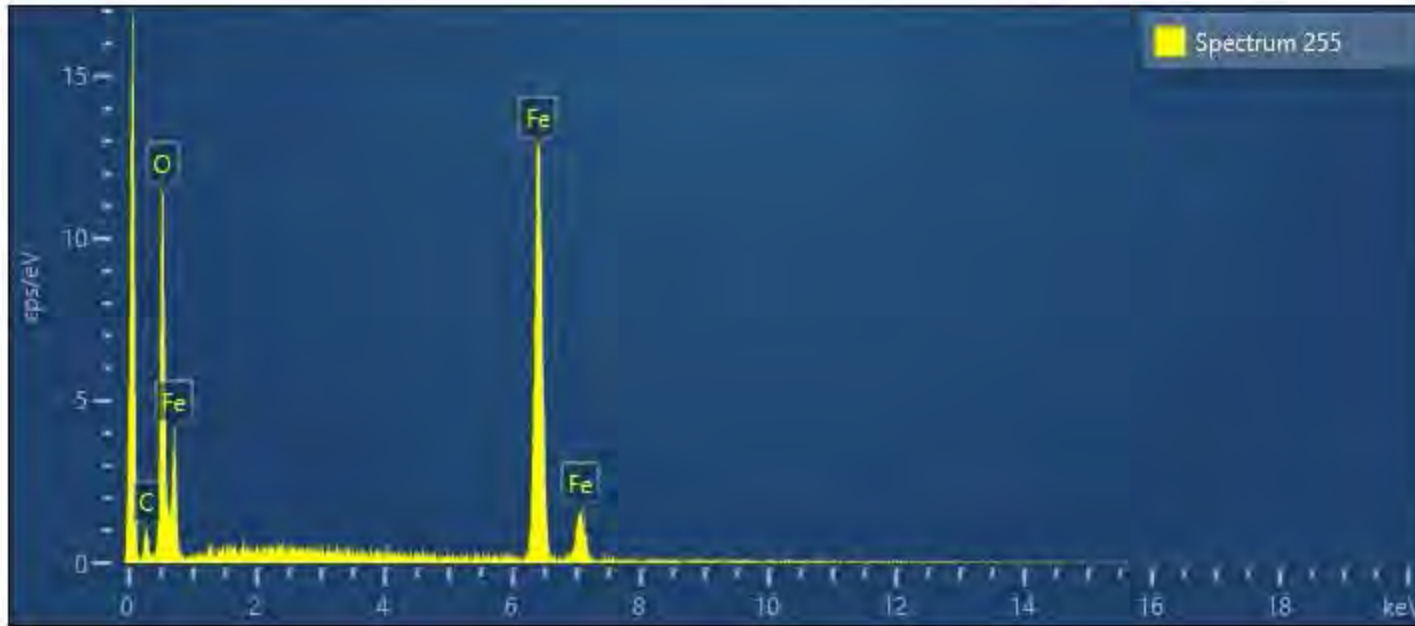
The opaques in this sample are dominantly magnetite with some chromite. The dominant sulphide is Heazlewoodite which occurs as coarse grains and usually encased in magnetite.

SITE 1 CIRCLE 1 is a coarse grain (1000 micron) of heazlewoodite surrounded by magnetite all within serpentine.

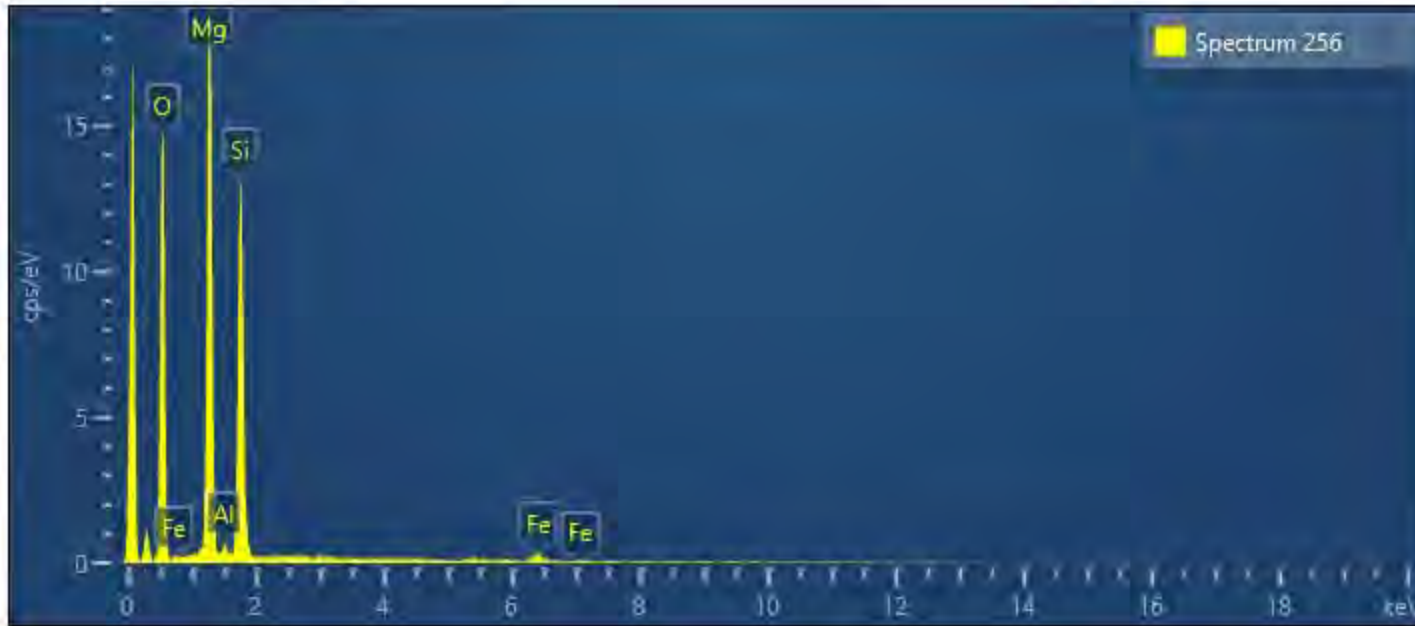




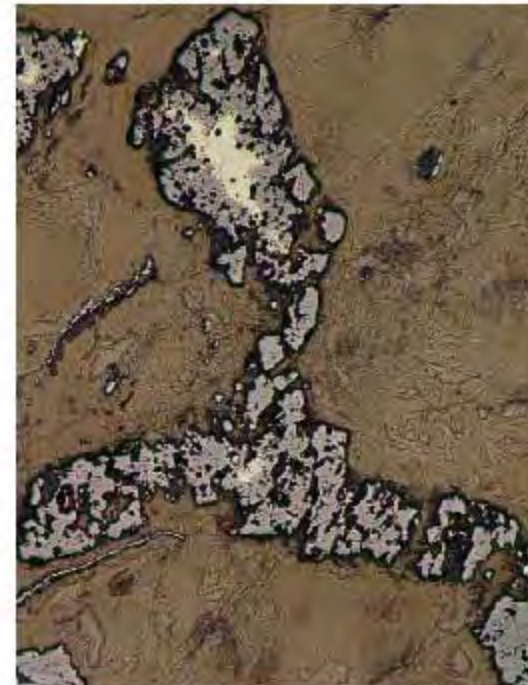
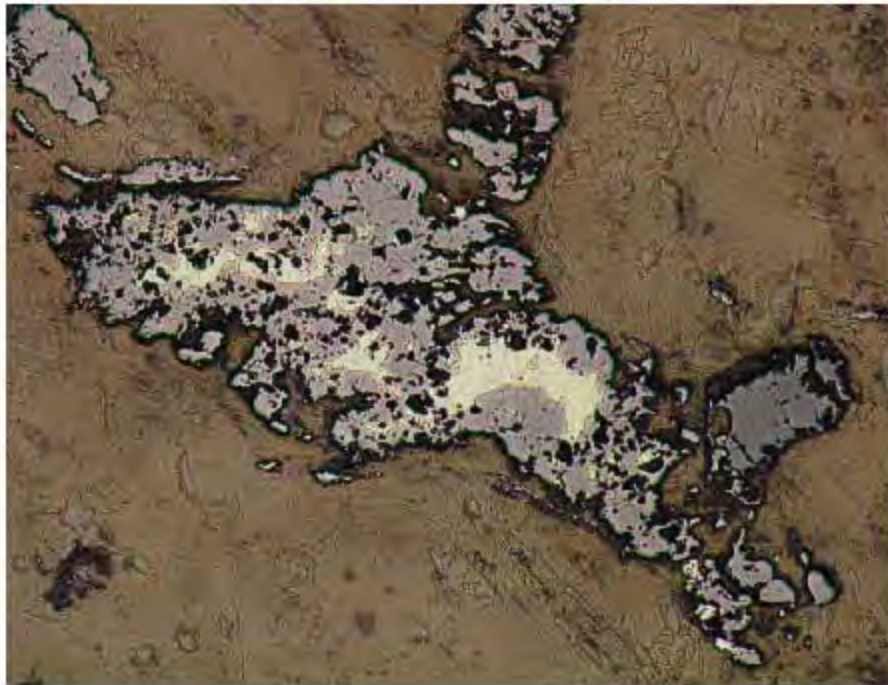
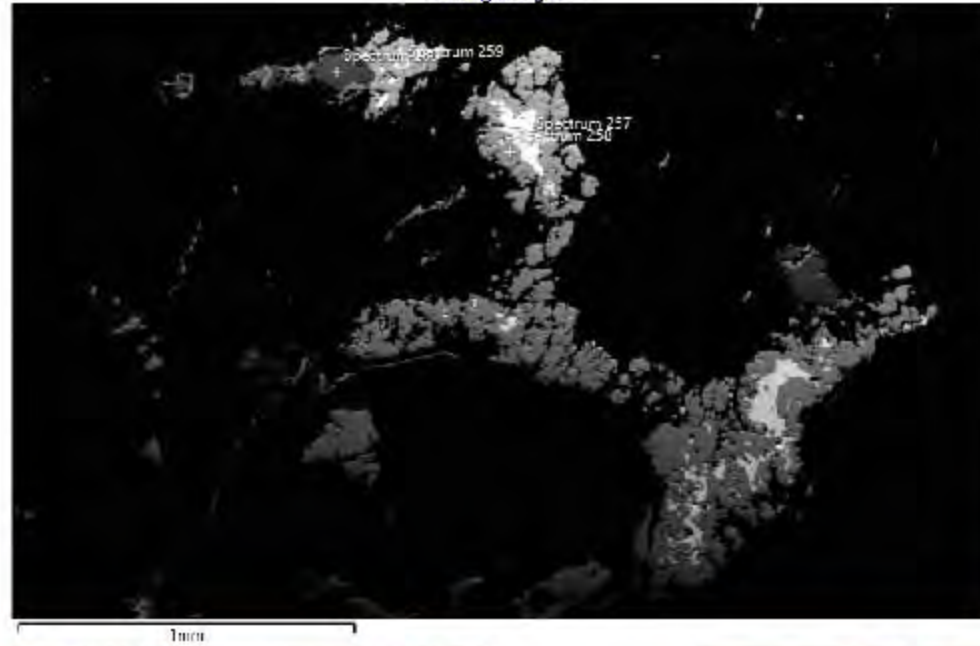
| Spectrum 254 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.86 | 0.53 | 41.42 |
| Ni | K series | 72.14 | 0.53 | 58.58 |
| Total | | 100.00 | | 100.00 |

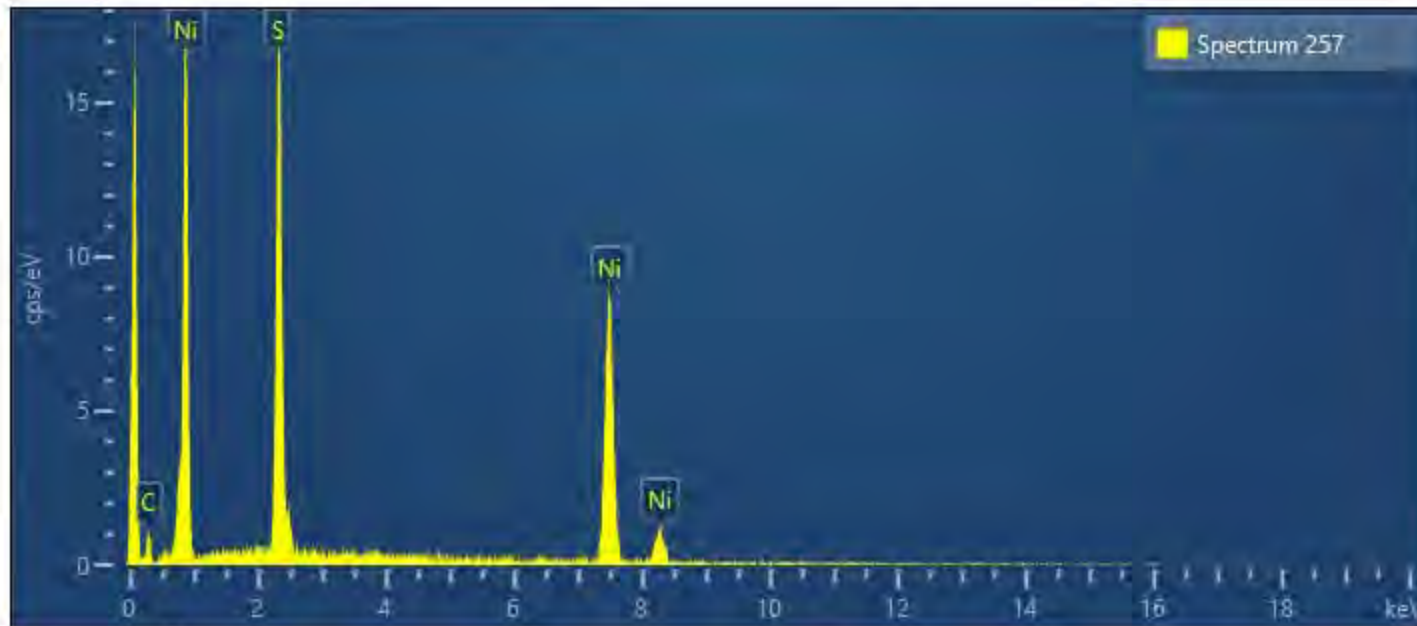


| Spectrum 255 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.49 | 0.72 | 58.17 |
| Fe | K series | 71.51 | 0.72 | 41.83 |
| Total | | 100.00 | | 100.00 |

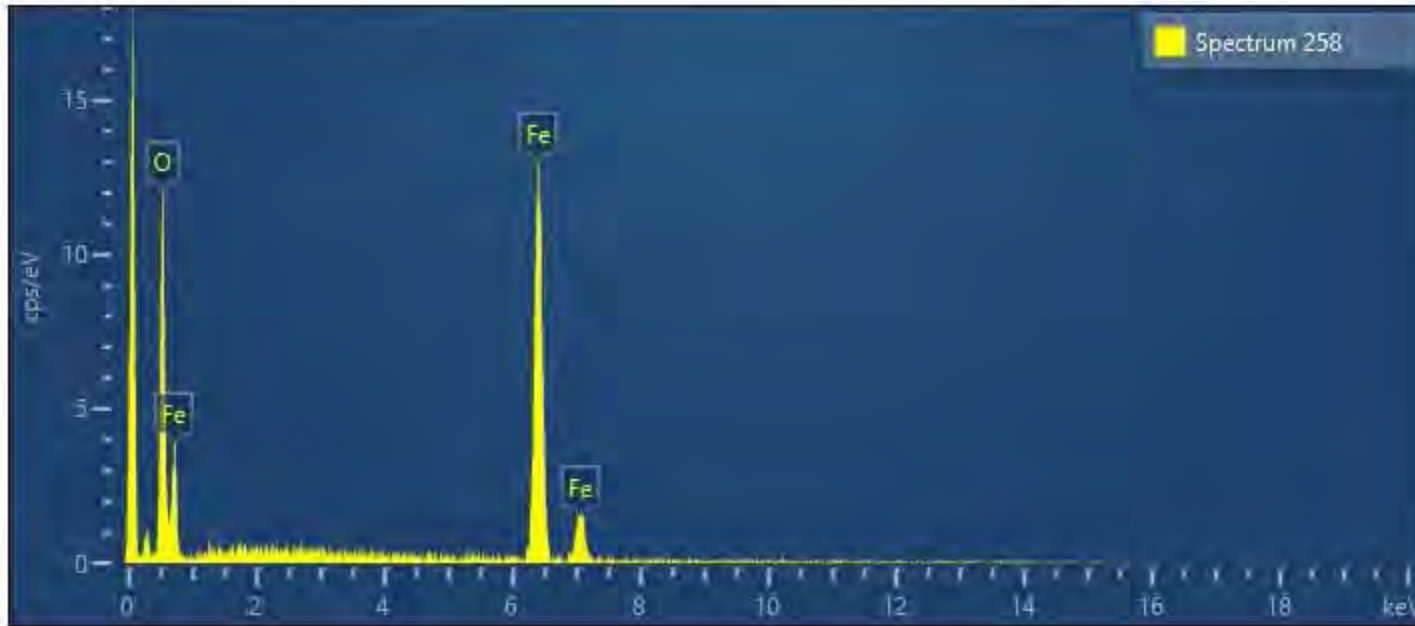


| Spectrum 256 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.07 | 0.61 | 64.10 |
| Mg | K series | 26.17 | 0.45 | 21.20 |
| Si | K series | 19.56 | 0.40 | 13.71 |
| Fe | K series | 1.61 | 0.26 | 0.57 |
| Al | K series | 0.58 | 0.16 | 0.42 |
| Total | | 100.00 | | 100.00 |

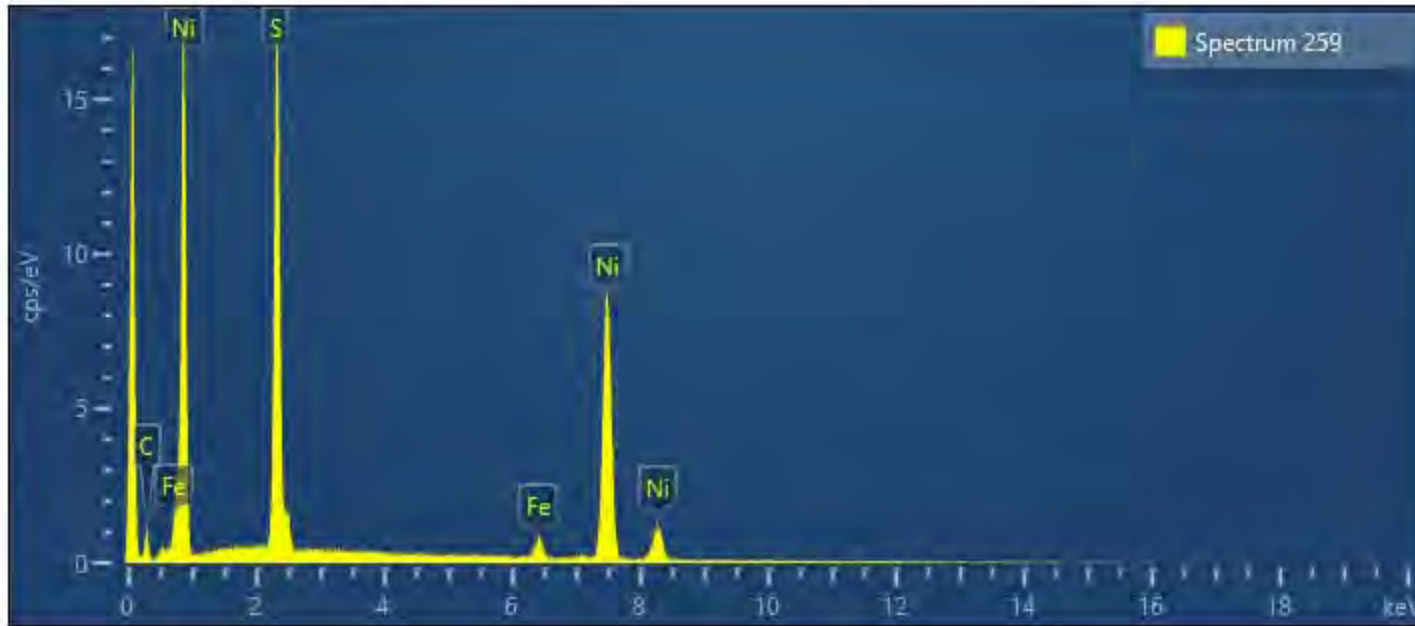




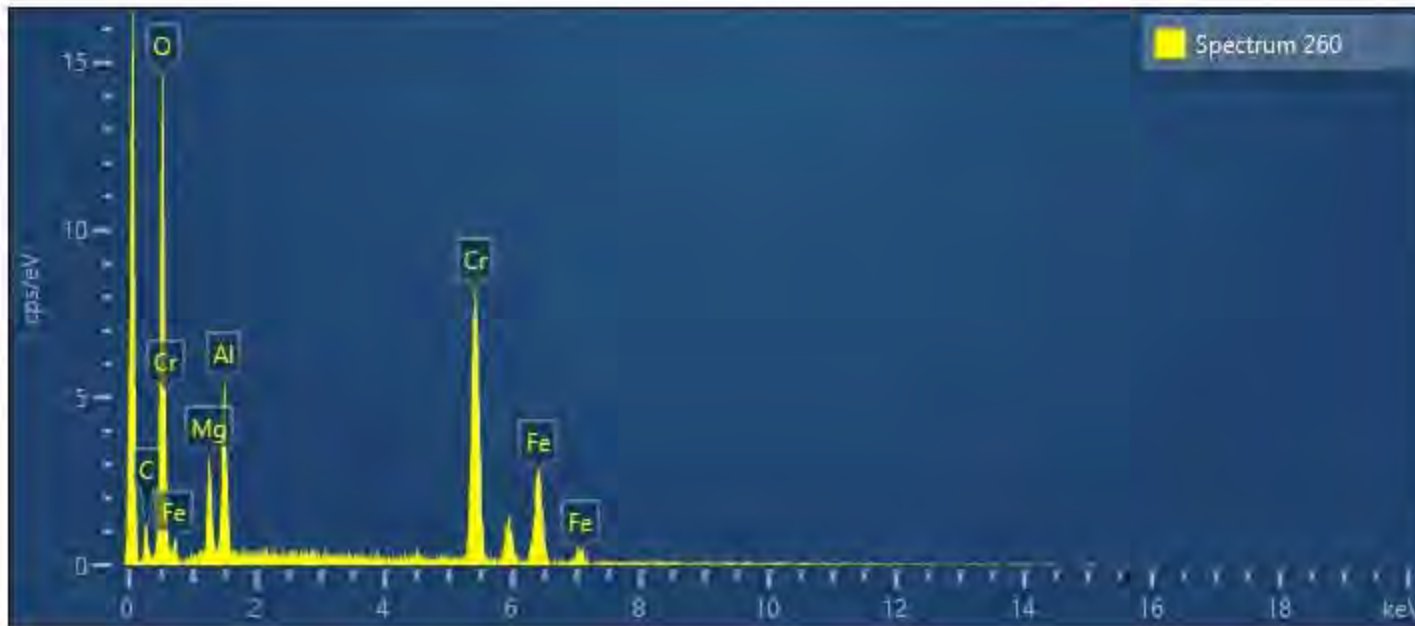
| Spectrum 257 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.24 | 0.64 | 41.88 |
| Ni | K series | 71.76 | 0.64 | 58.12 |
| Total | | 100.00 | | 100.00 |



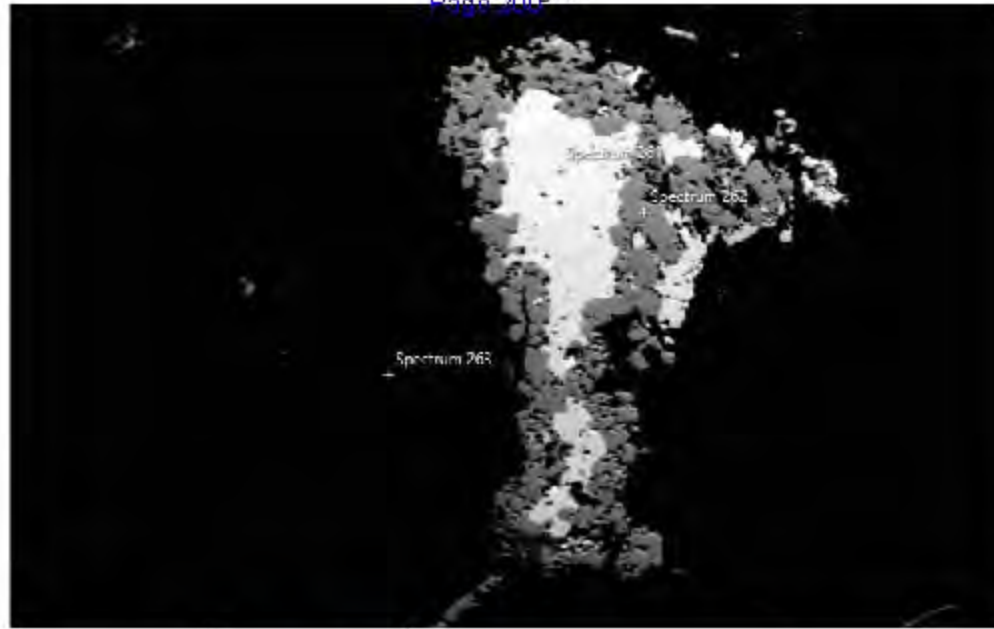
| Spectrum 258 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.26 | 0.91 | 59.08 |
| Fe | K series | 70.74 | 0.91 | 40.92 |
| Total | | 100.00 | | 100.00 |

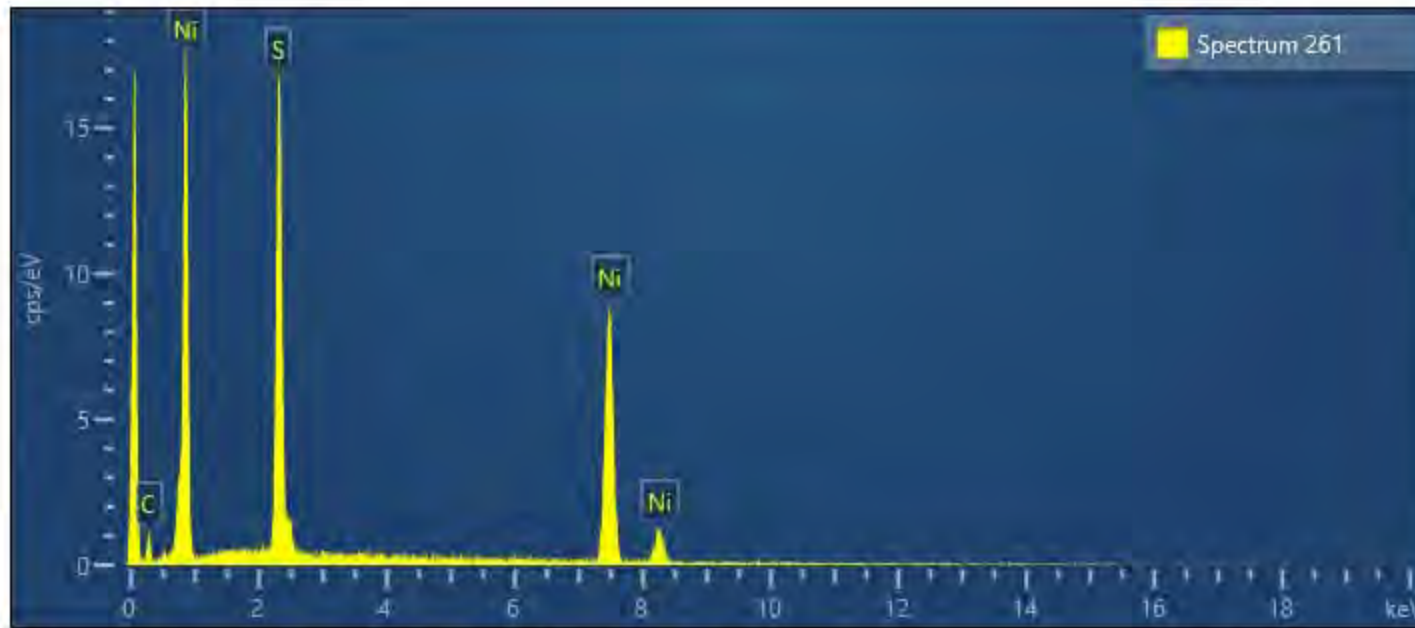


| Spectrum 259 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.48 | 0.32 | 40.91 |
| Fe | K series | 3.08 | 0.18 | 2.63 |
| Ni | K series | 69.44 | 0.35 | 56.46 |
| Total | | 100.00 | | 100.00 |

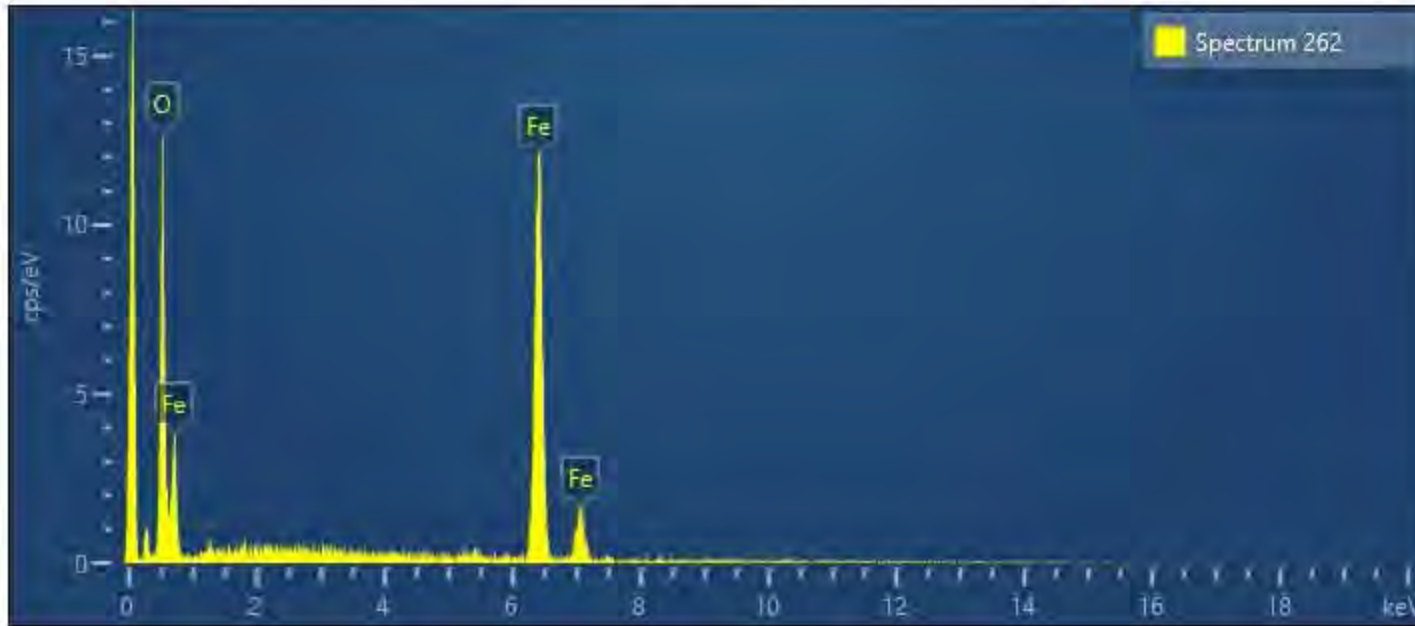


| Spectrum 260 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 33.53 | 0.92 | 57.63 |
| Mg | K series | 5.89 | 0.39 | 6.66 |
| Al | K series | 8.78 | 0.41 | 8.94 |
| Cr | K series | 34.29 | 0.77 | 18.14 |
| Fe | K series | 17.52 | 0.69 | 8.63 |
| Total | | 100.00 | | 100.00 |





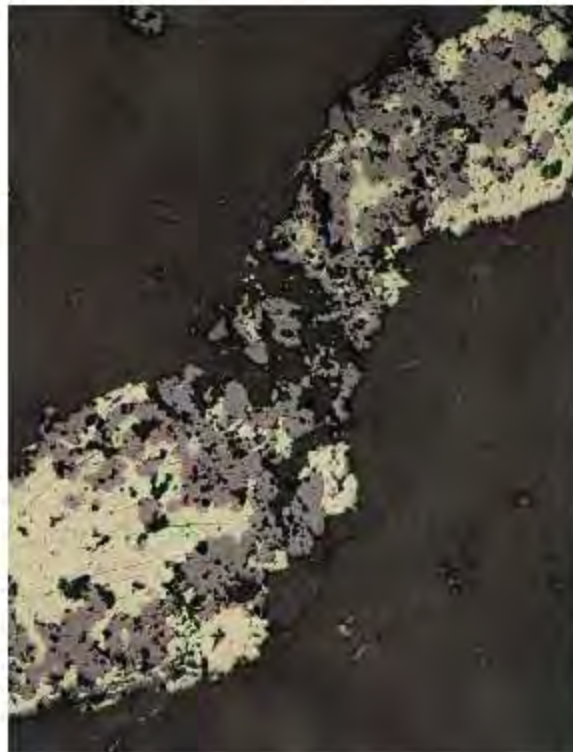
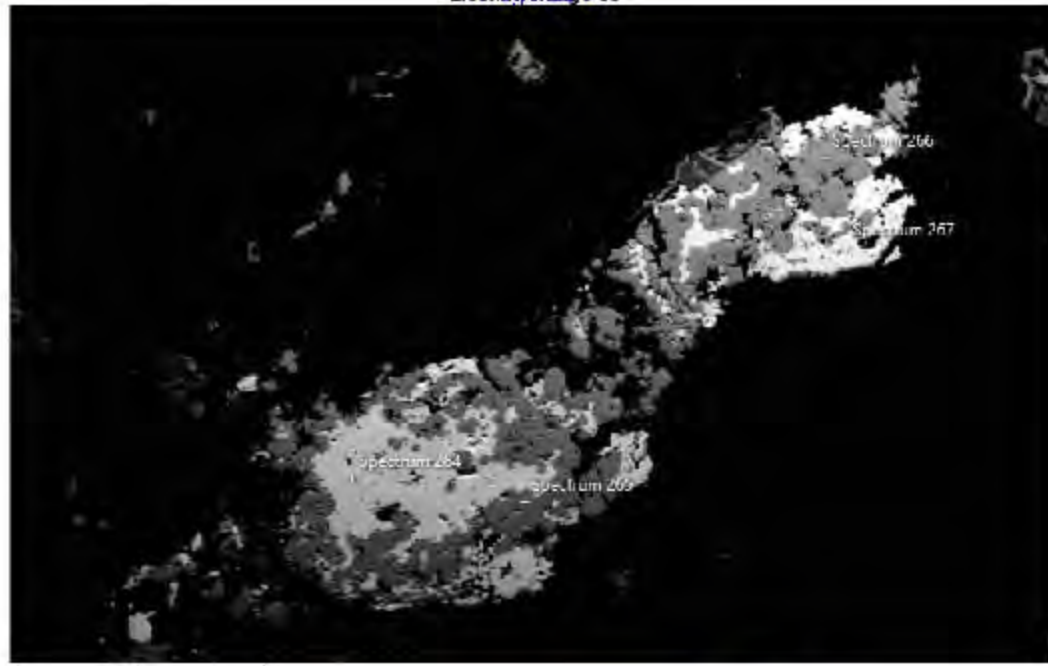
| Spectrum 261 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.16 | 0.52 | 41.78 |
| Ni | K series | 71.84 | 0.52 | 58.22 |
| Total | | 100.00 | | 100.00 |

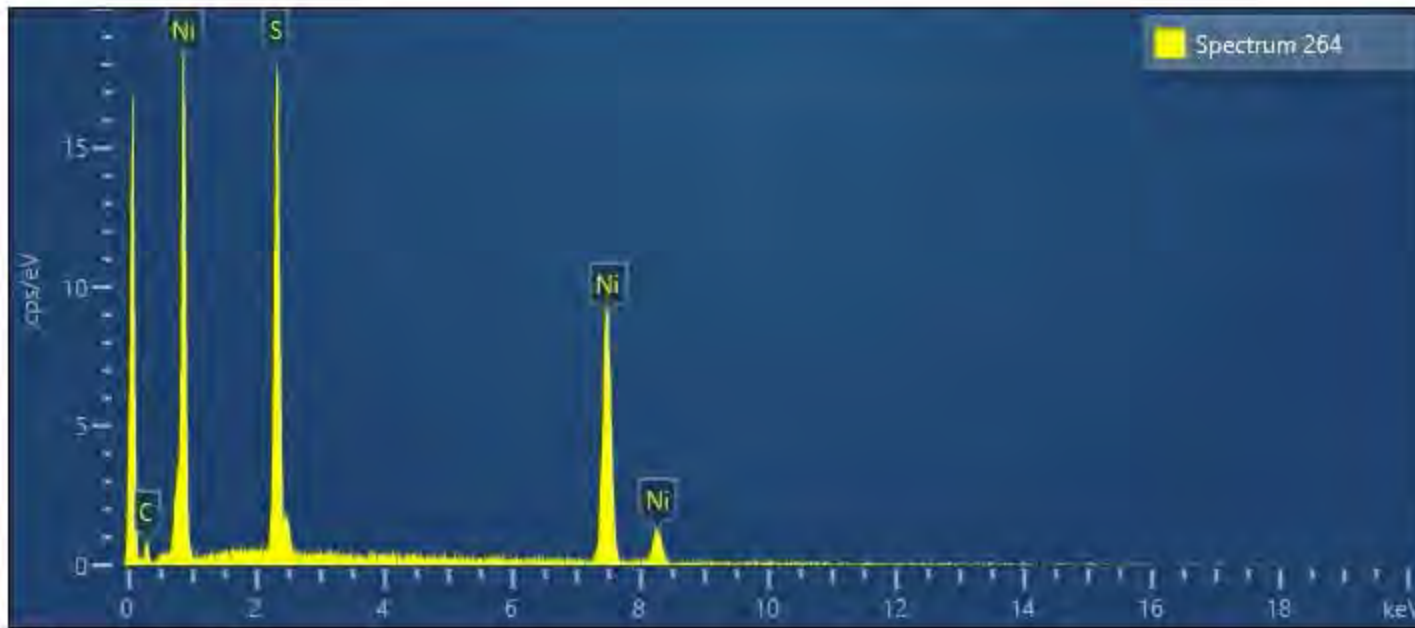


| Spectrum 262 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.60 | 0.84 | 59.47 |
| Fe | K series | 70.40 | 0.84 | 40.53 |
| Total | | 100.00 | | 100.00 |

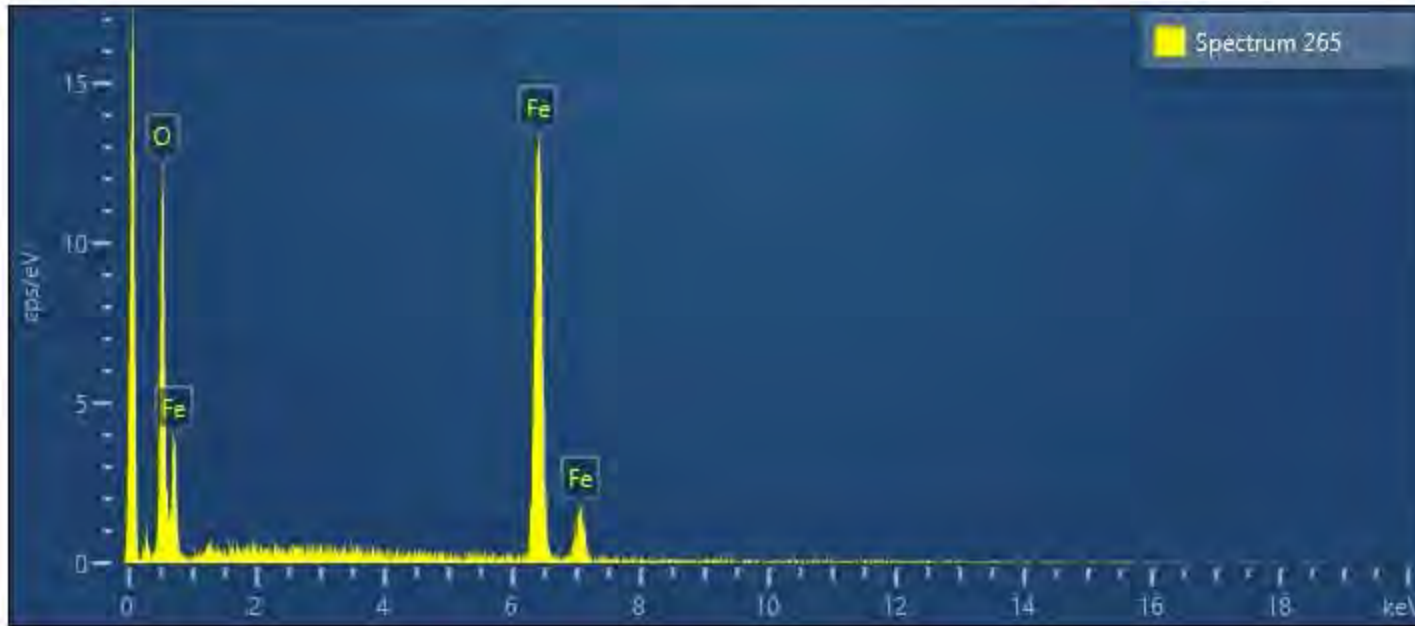


| Spectrum 263 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 53.72 | 0.65 | 65.22 |
| Mg | K series | 25.81 | 0.49 | 20.62 |
| Si | K series | 20.46 | 0.44 | 14.15 |
| Total | | 100.00 | | 100.00 |

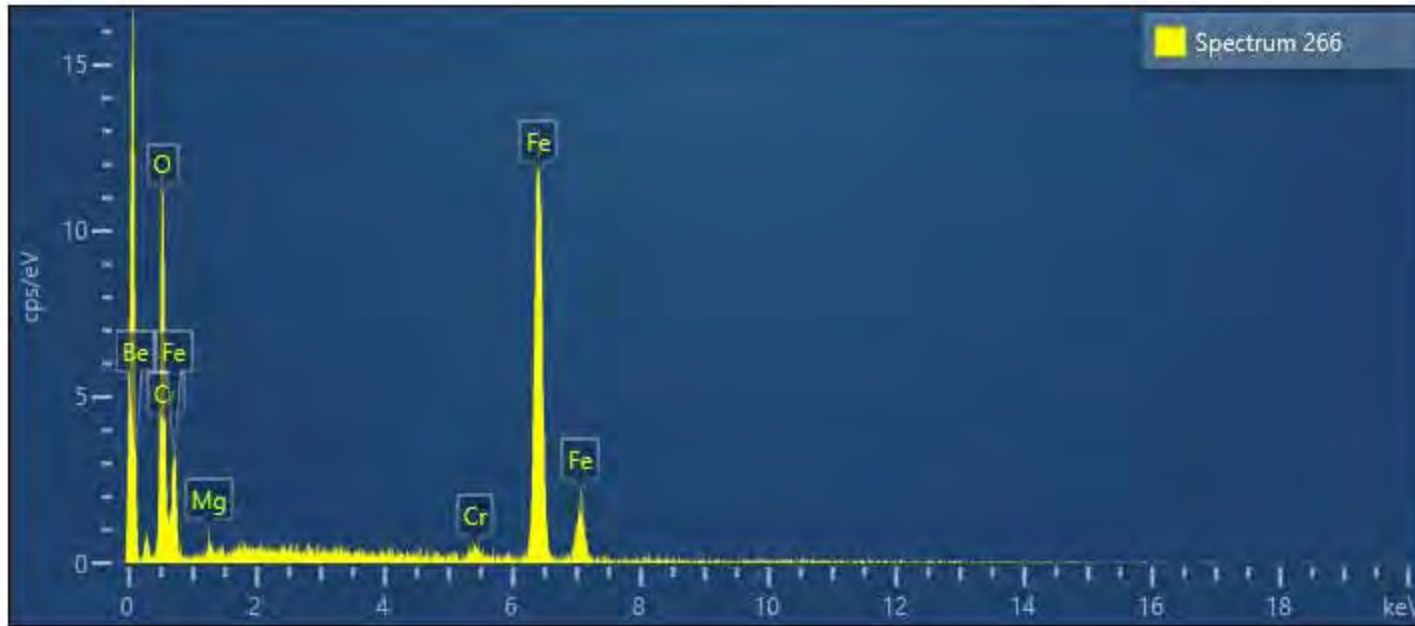


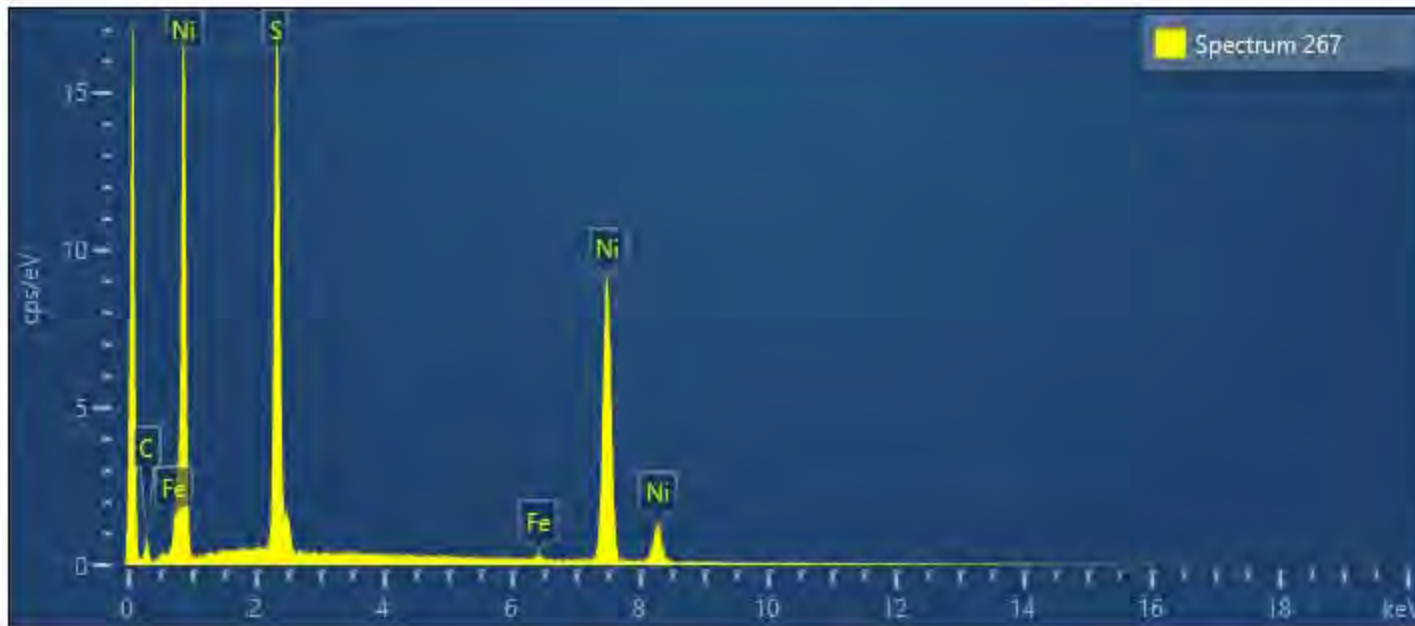


| Spectrum 264 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.55 | 0.59 | 41.05 |
| Ni | K series | 72.45 | 0.59 | 58.95 |
| Total | | 100.00 | | 100.00 |



| Spectrum 265 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.06 | 0.89 | 57.65 |
| Fe | K series | 71.94 | 0.89 | 42.35 |
| Total | | 100.00 | | 100.00 |





| Spectrum 267 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.52 | 0.27 | 41.00 |
| Ni | K series | 71.75 | 0.28 | 58.38 |
| Fe | K series | 0.73 | 0.11 | 0.62 |
| Total | | 100.00 | | 100.00 |

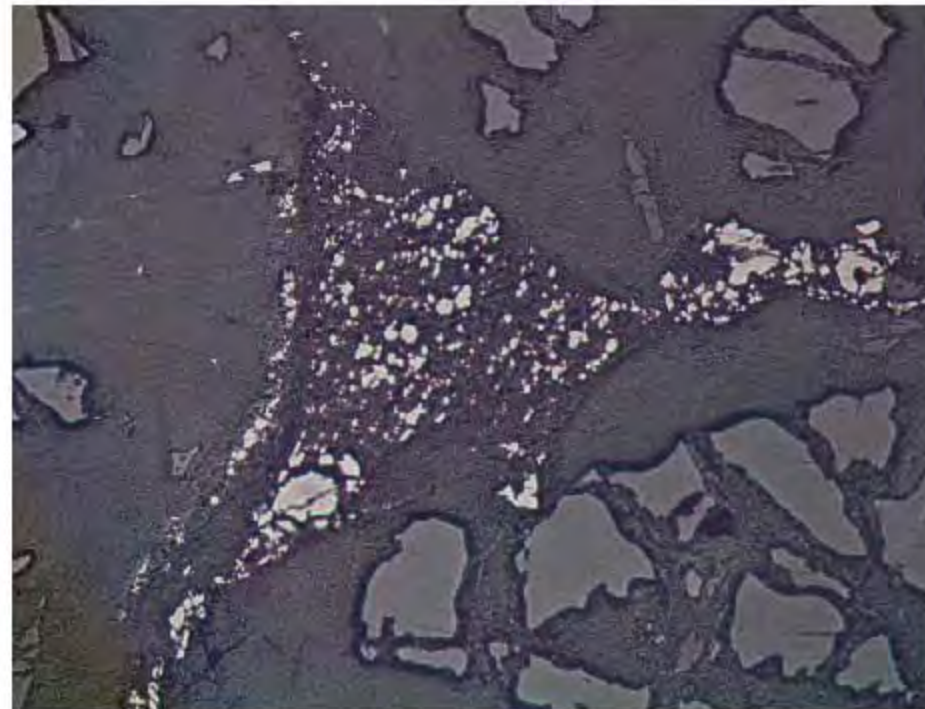
Specimen Notes for '561' - Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite

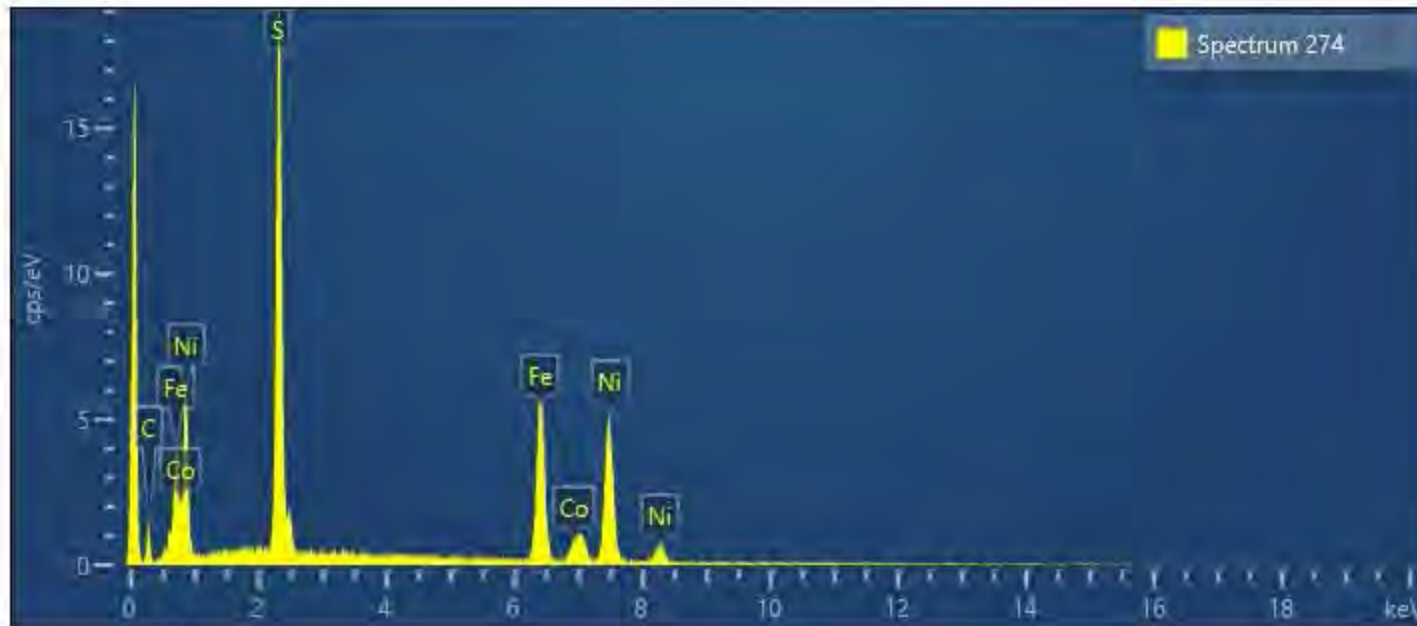
There are minute grains (5-10 microns) of awaruite randomly disseminated throughout the serpentine areas between olivine grains. In addition there are coarse complex intergrowths of Co-pentlandite-awaruite-heazlewoodite.

SITE 1 CIRCLE 2 is in areas between olivine grains. These areas consist of fine grained chromite with coarse included grains of Co-pentlandite intergrown with awaruite.

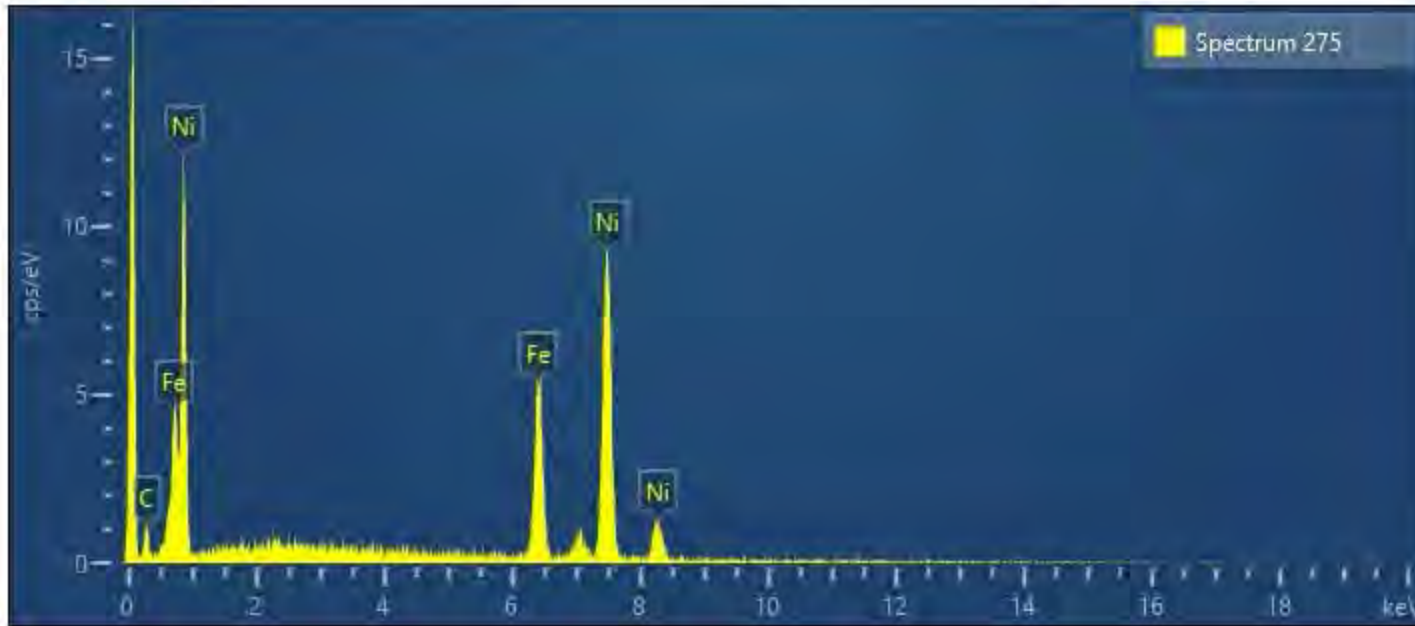
SITE 3 CIRCLE 4 is a complex intergrowth of Co-pentlandite-awaruite-heazlewoodite in a 100 micron grain.

SITE 4 is a zoned chromite grain with marginal grains of awaruite.

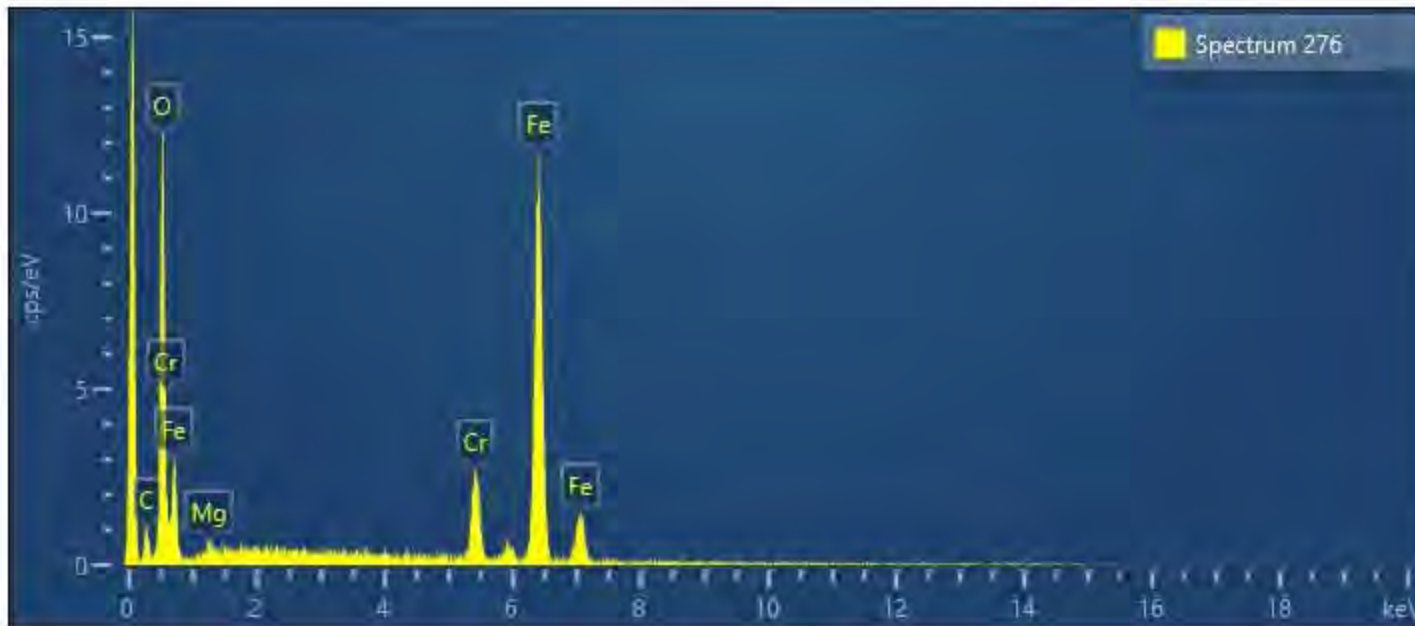




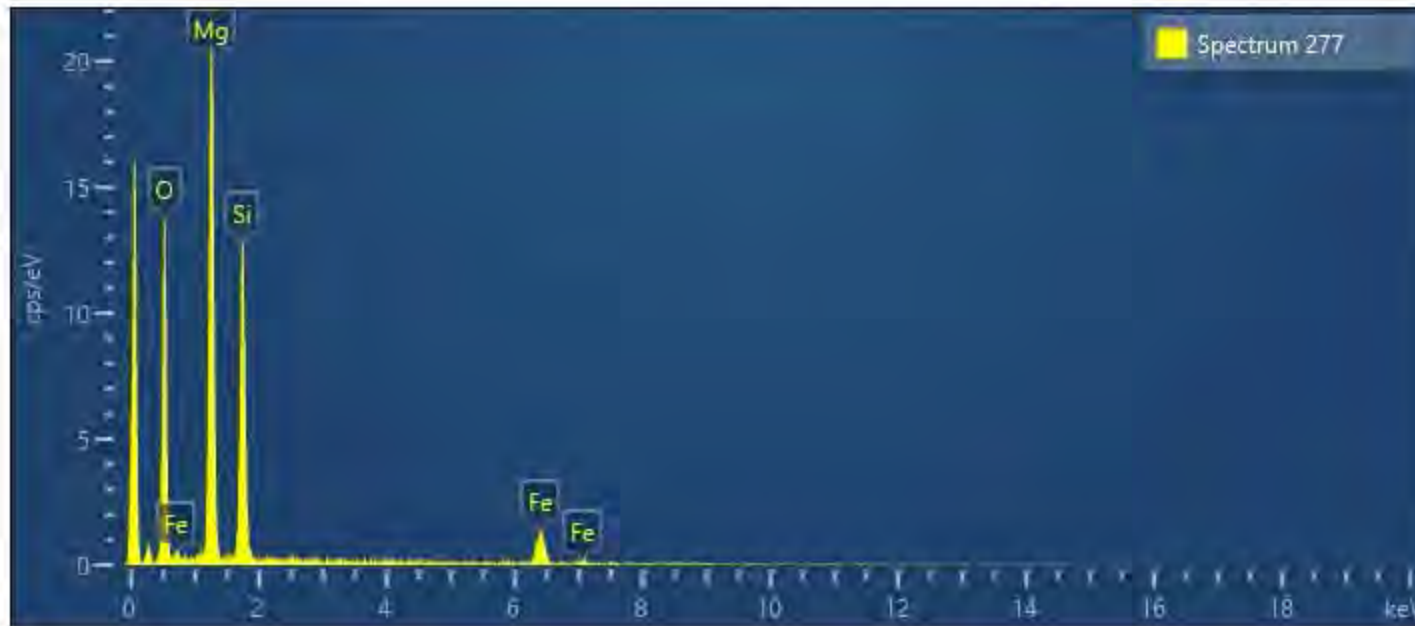
| Spectrum 274 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.33 | 0.52 | 41.51 |
| Fe | K series | 28.11 | 0.62 | 23.64 |
| Ni | K series | 39.34 | 0.74 | 31.48 |
| Co | K series | 4.22 | 0.49 | 3.36 |
| Total | | 100.00 | | 100.00 |



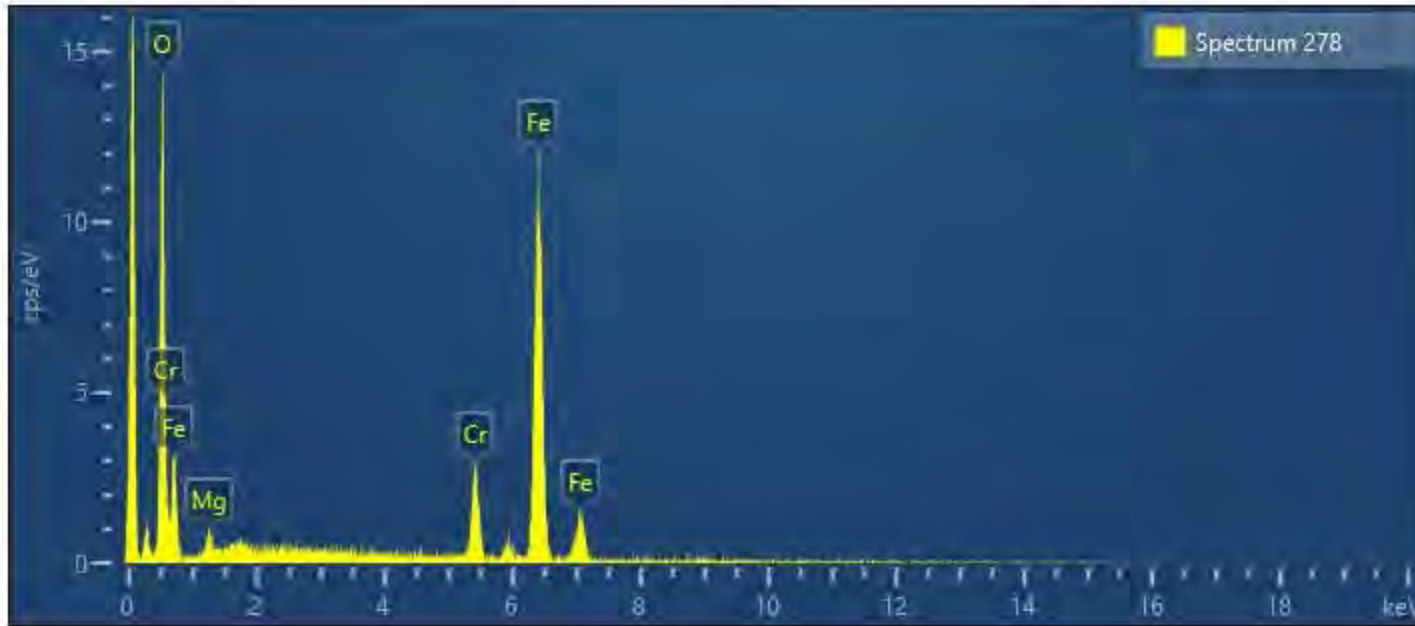
| Spectrum 275 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.14 | 0.73 | 26.09 |
| Ni | K series | 74.86 | 0.73 | 73.91 |
| Total | | 100.00 | | 100.00 |



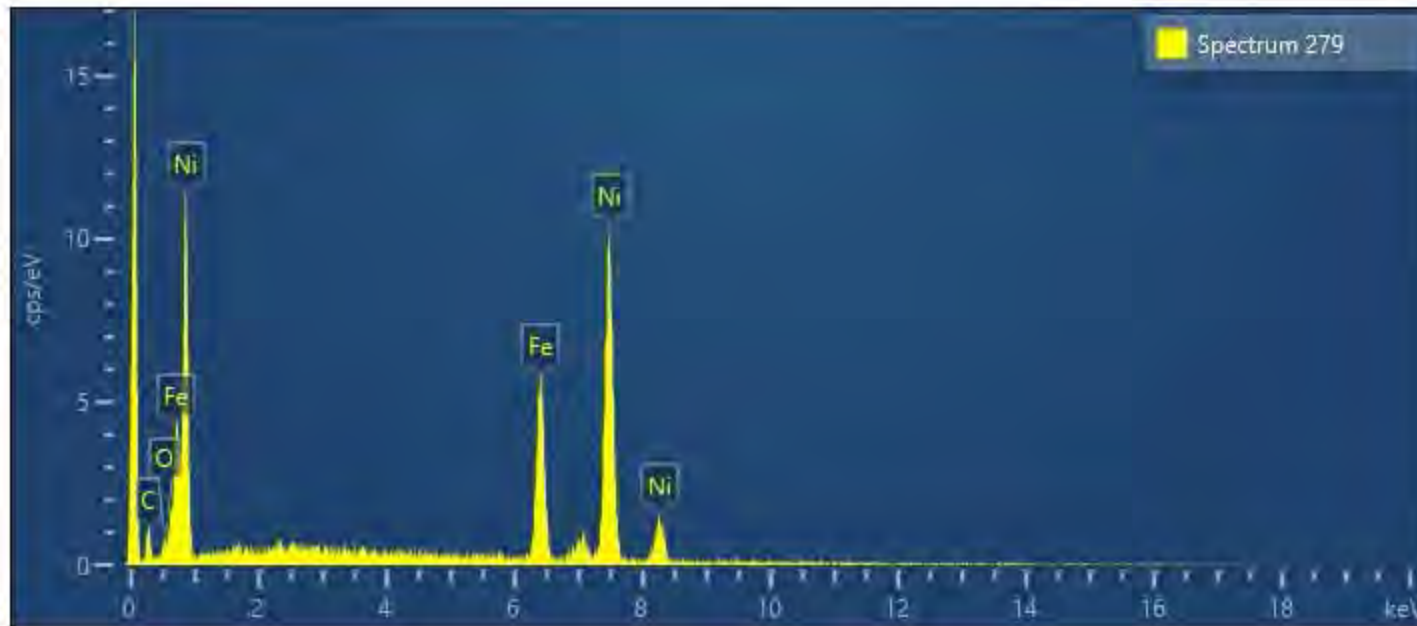
| Spectrum 276 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.93 | 0.85 | 58.12 |
| Cr | K series | 8.66 | 0.40 | 5.35 |
| Fe | K series | 61.59 | 0.86 | 35.45 |
| Mg | K series | 0.82 | 0.27 | 1.08 |
| Total | | 100.00 | | 100.00 |



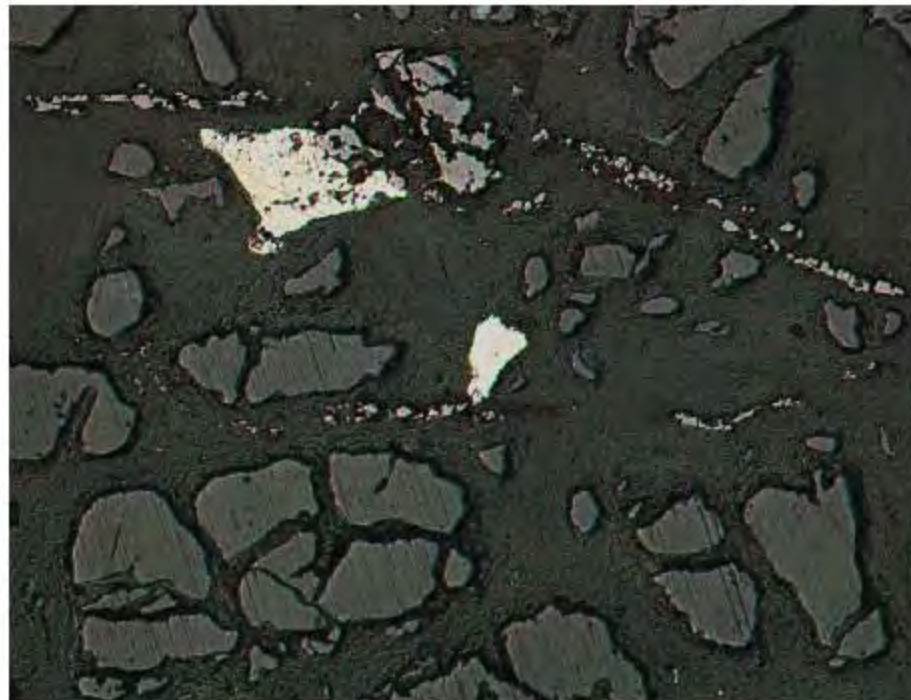
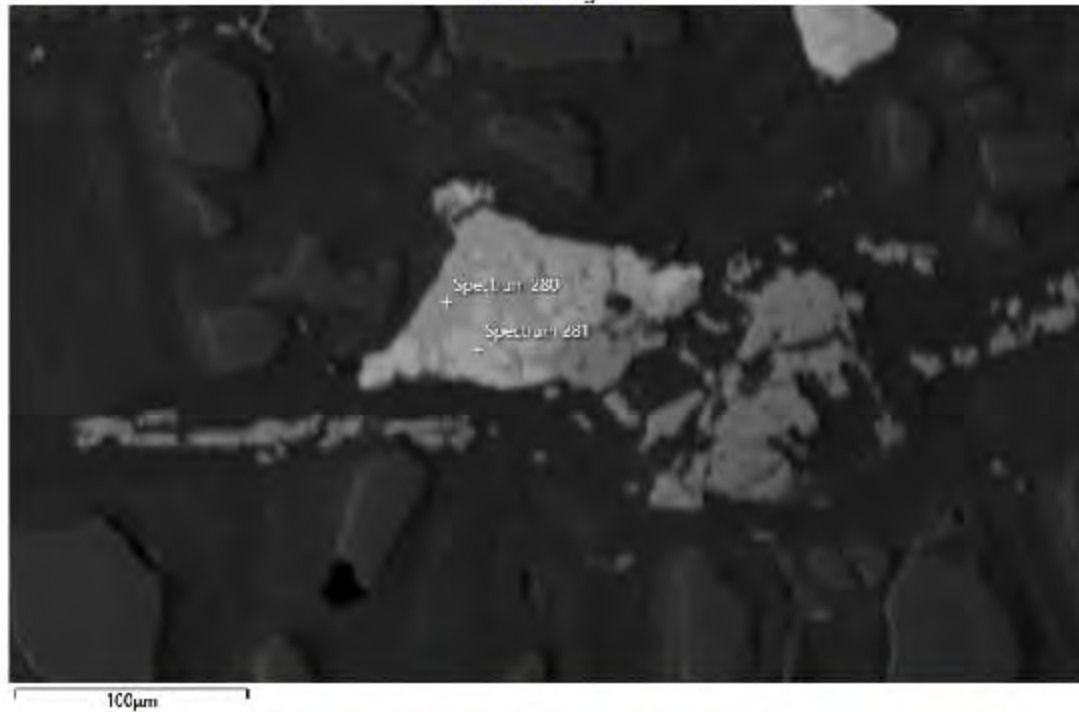
| Spectrum 277 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 44.55 | 0.82 | 58.31 |
| Mg | K series | 28.64 | 0.61 | 24.66 |
| Si | K series | 18.82 | 0.50 | 14.03 |
| Fe | K series | 7.99 | 0.53 | 3.00 |
| Total | | 100.00 | | 100.00 |

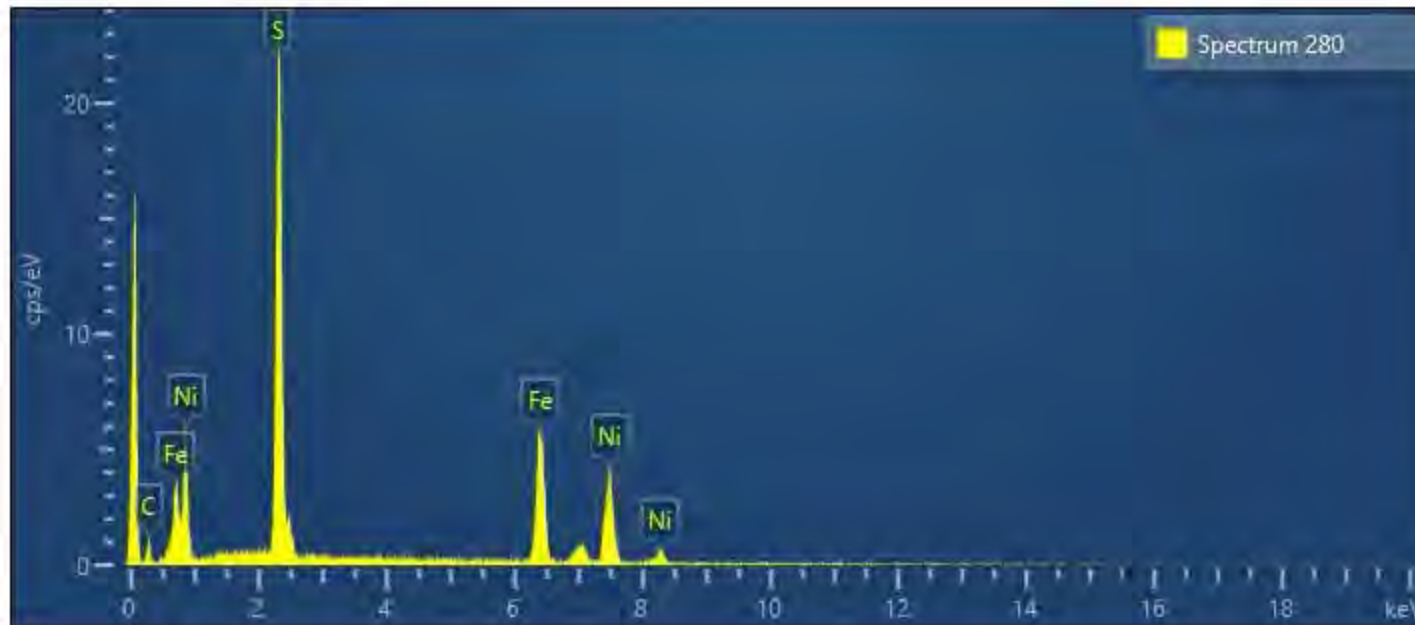


| Spectrum 278 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.29 | 0.95 | 60.50 |
| Cr | K series | 8.57 | 0.44 | 5.10 |
| Fe | K series | 58.62 | 0.96 | 32.46 |
| Mg | K series | 1.52 | 0.32 | 1.94 |
| Total | | 100.00 | | 100.00 |

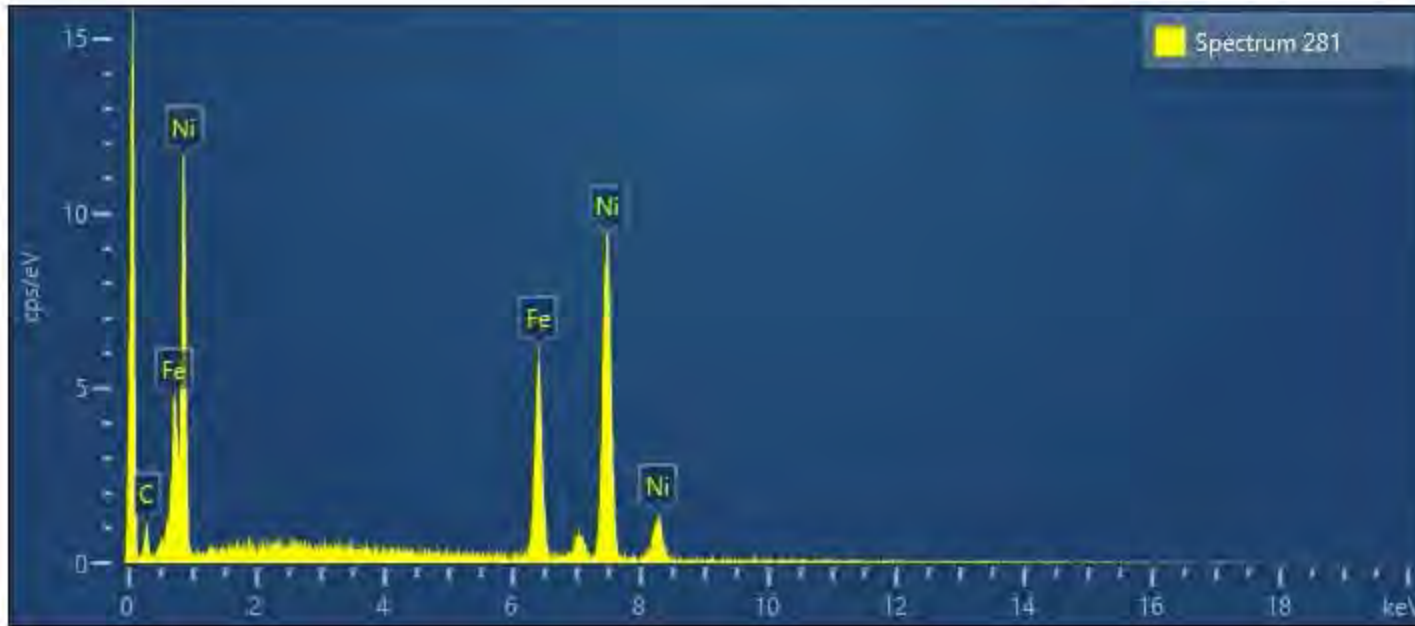


| Spectrum 279 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.27 | 0.69 | 24.28 |
| Ni | K series | 74.29 | 0.77 | 70.70 |
| O | K series | 1.44 | 0.45 | 5.02 |
| Total | | 100.00 | | 100.00 |



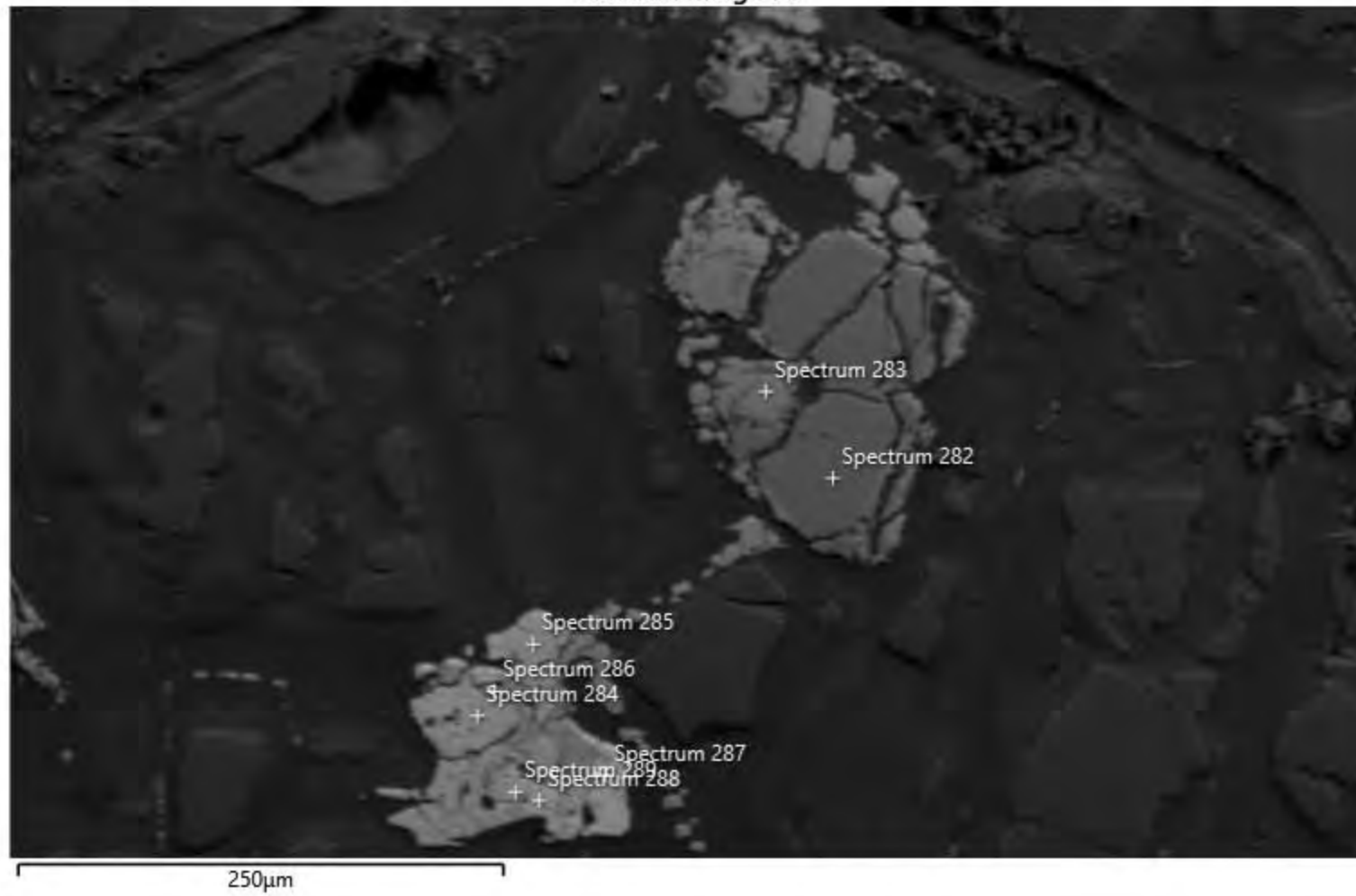


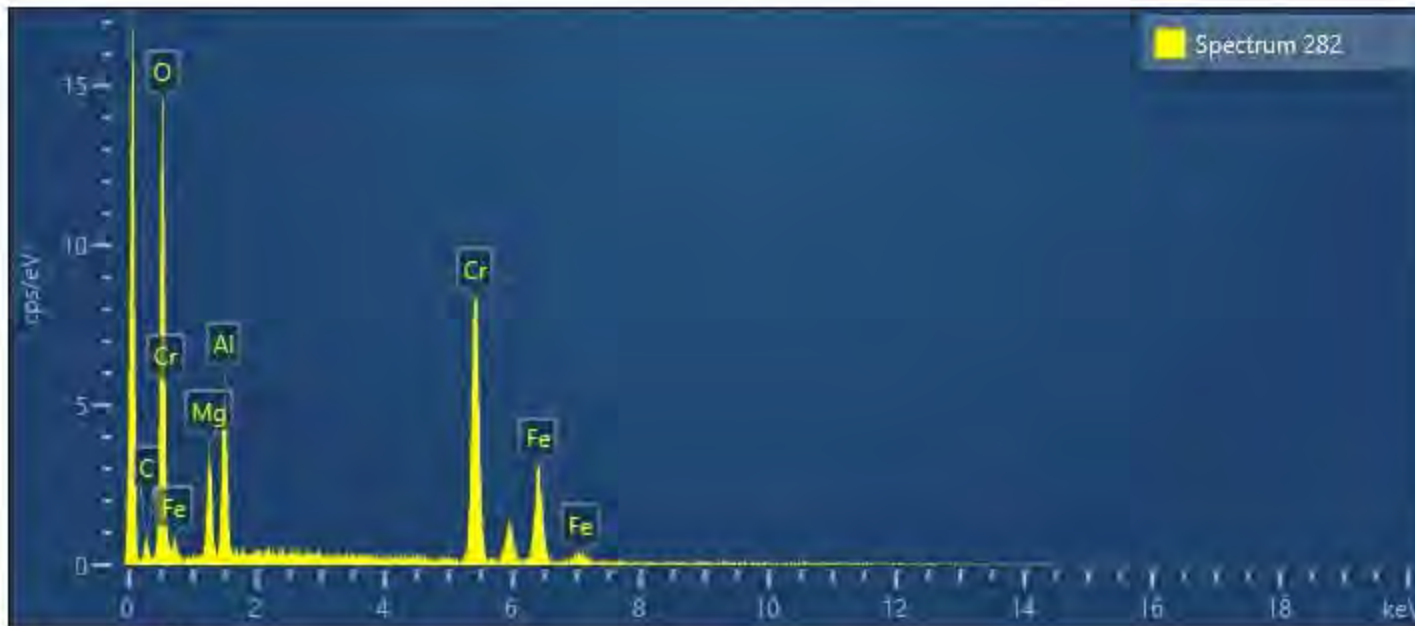
| Spectrum 280 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.53 | 0.63 | 49.61 |
| Fe | K series | 31.29 | 0.71 | 25.08 |
| Ni | K series | 33.18 | 0.81 | 25.30 |
| Total | | 100.00 | | 100.00 |



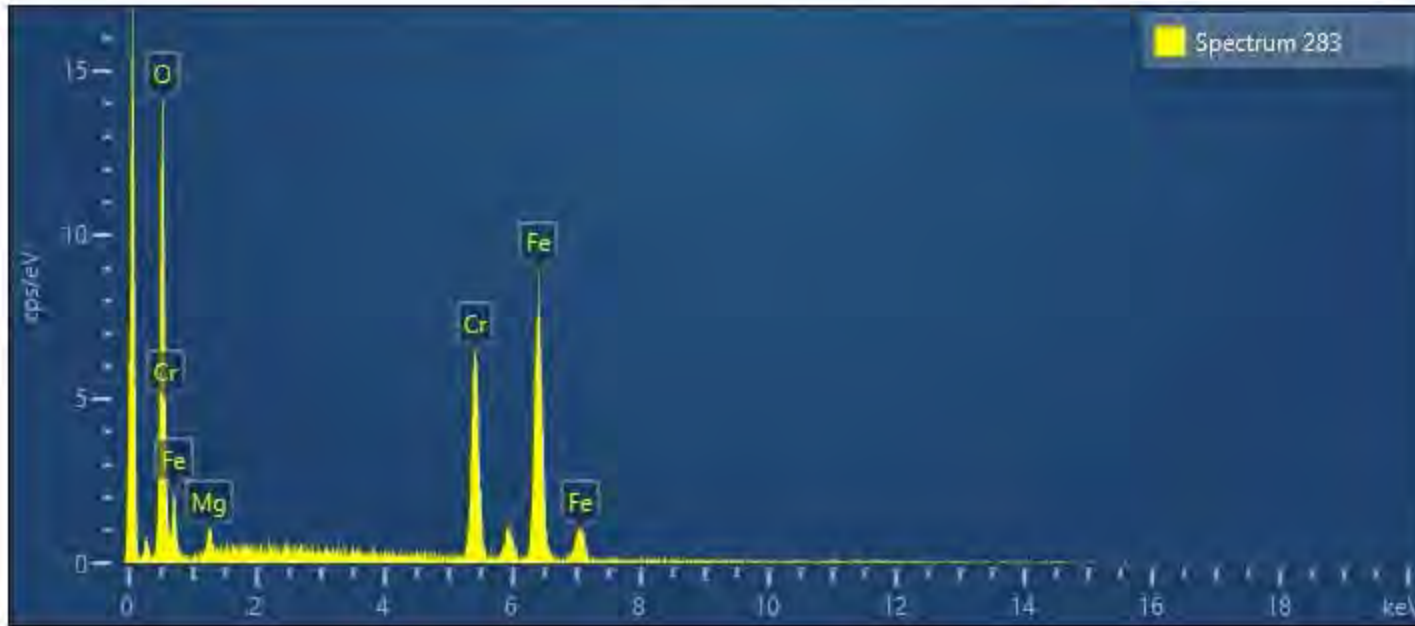
| Spectrum 281 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.13 | 0.62 | 26.08 |
| Ni | K series | 74.87 | 0.62 | 73.92 |
| Total | | 100.00 | | 100.00 |

Electron Image 70

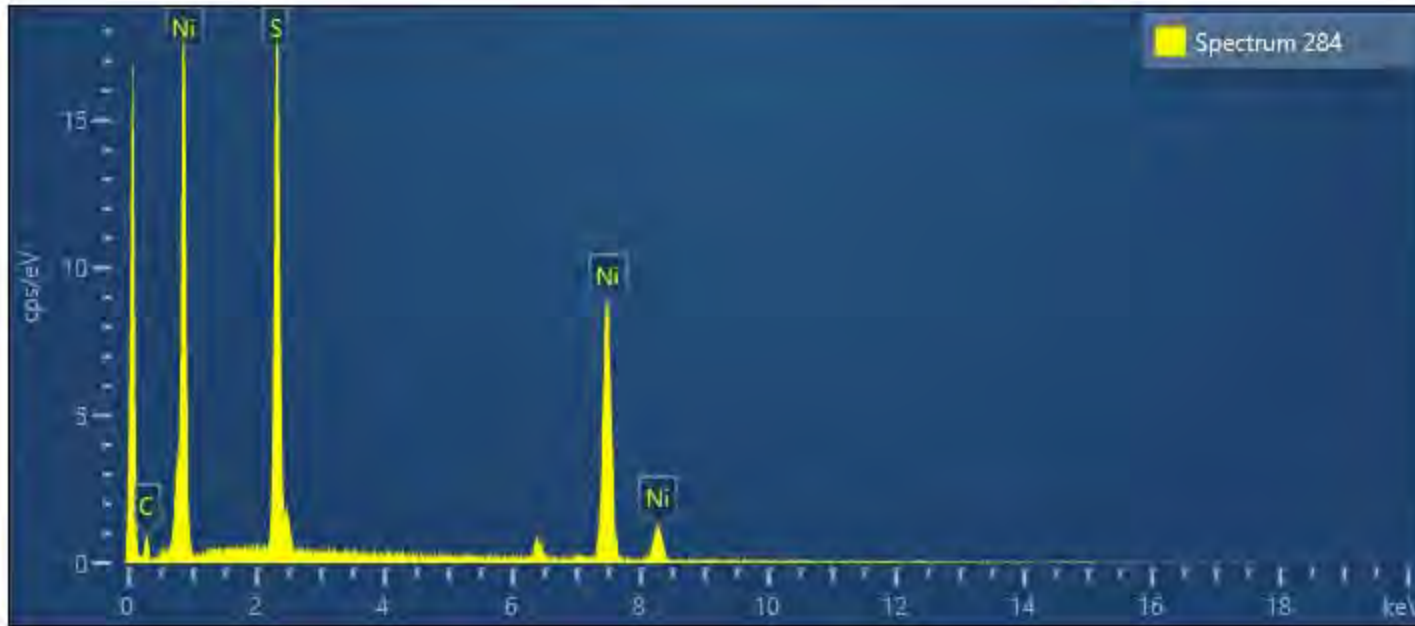




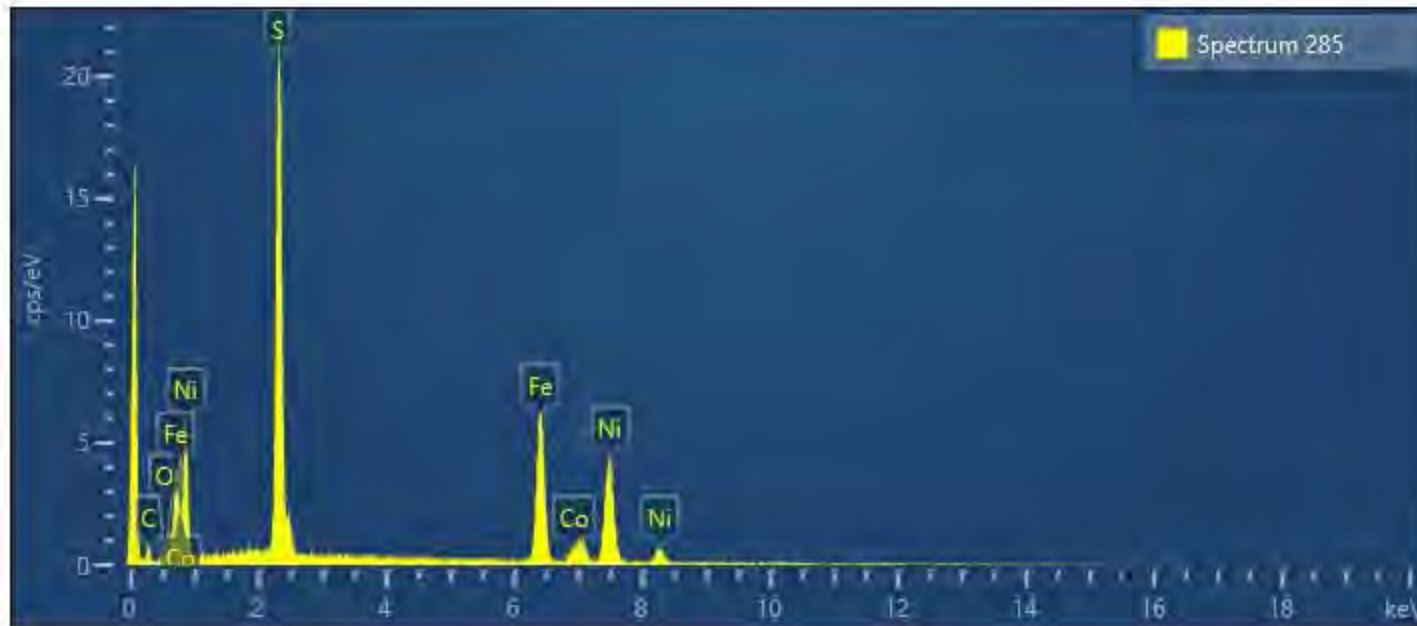
| Spectrum 282 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.02 | 0.80 | 57.90 |
| Mg | K series | 6.34 | 0.35 | 7.10 |
| Cr | K series | 33.45 | 0.66 | 17.52 |
| Fe | K series | 17.17 | 0.61 | 8.37 |
| Al | K series | 9.03 | 0.36 | 9.11 |
| Total | | 100.00 | | 100.00 |



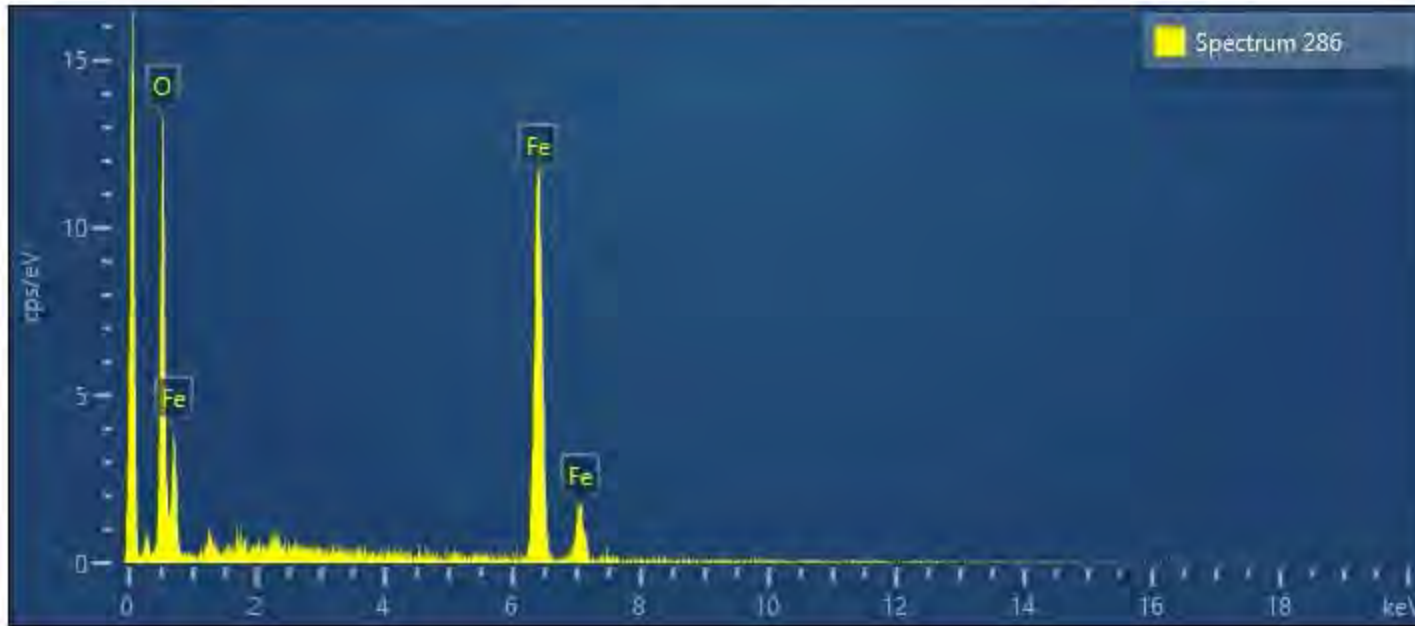
| Spectrum 283 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.09 | 0.98 | 58.62 |
| Mg | K series | 1.97 | 0.33 | 2.53 |
| Cr | K series | 22.76 | 0.69 | 13.64 |
| Fe | K series | 45.18 | 0.95 | 25.21 |
| Total | | 100.00 | | 100.00 |



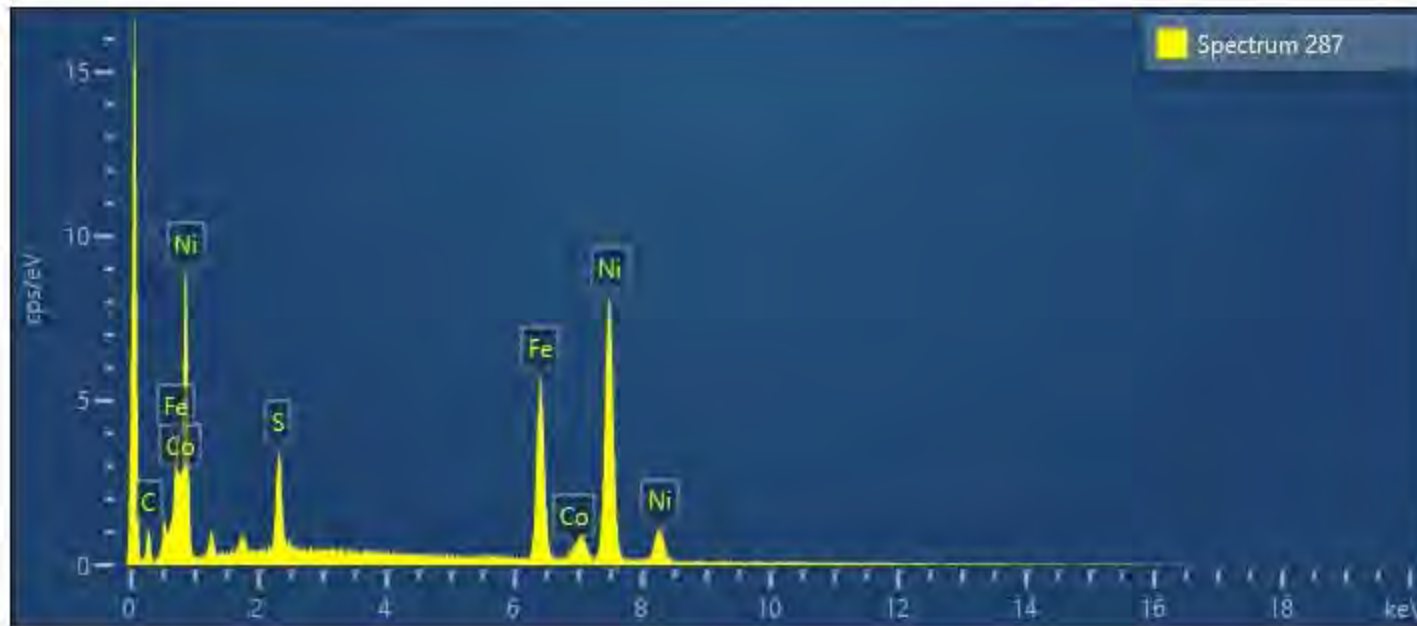
| Spectrum 284 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.89 | 0.53 | 42.65 |
| Ni | K series | 71.11 | 0.53 | 57.35 |
| Total | | 100.00 | | 100.00 |



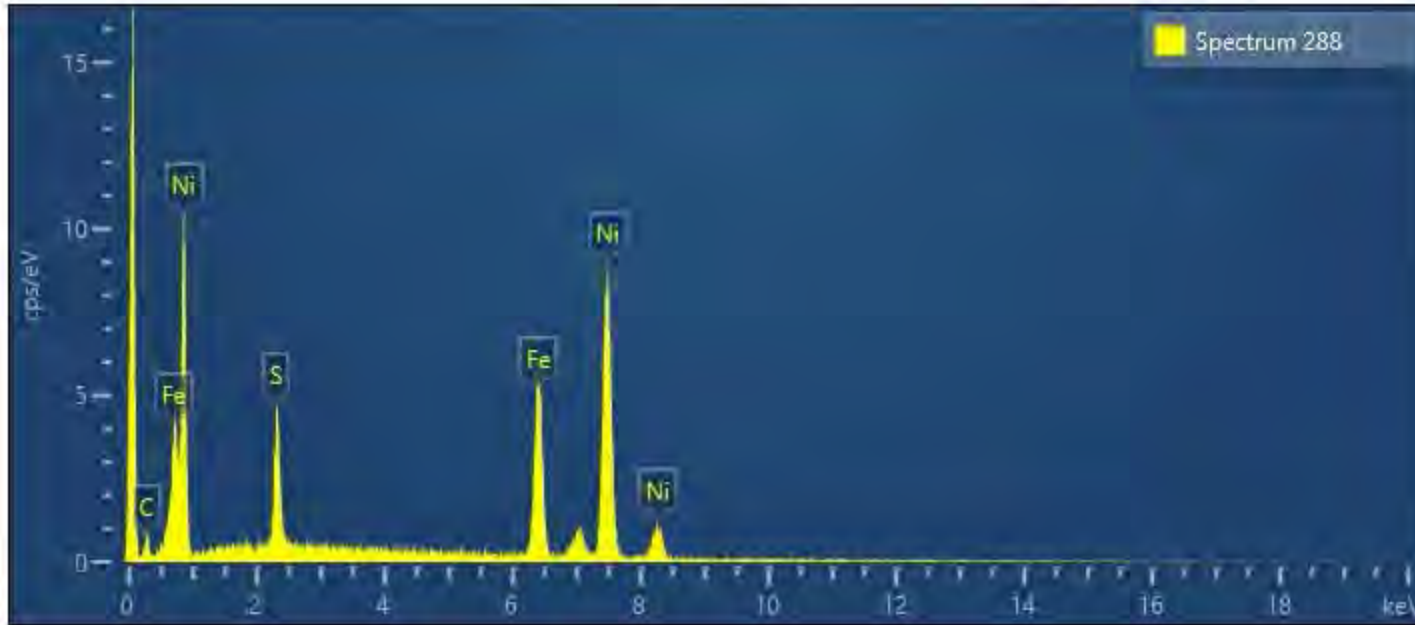
| Spectrum 285 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 31.04 | 0.56 | 43.20 |
| Fe | K series | 30.05 | 0.65 | 24.02 |
| Co | K series | 3.88 | 0.48 | 2.94 |
| Ni | K series | 33.45 | 0.74 | 25.43 |
| O | K series | 1.58 | 0.49 | 4.42 |
| Total | | 100.00 | | 100.00 |



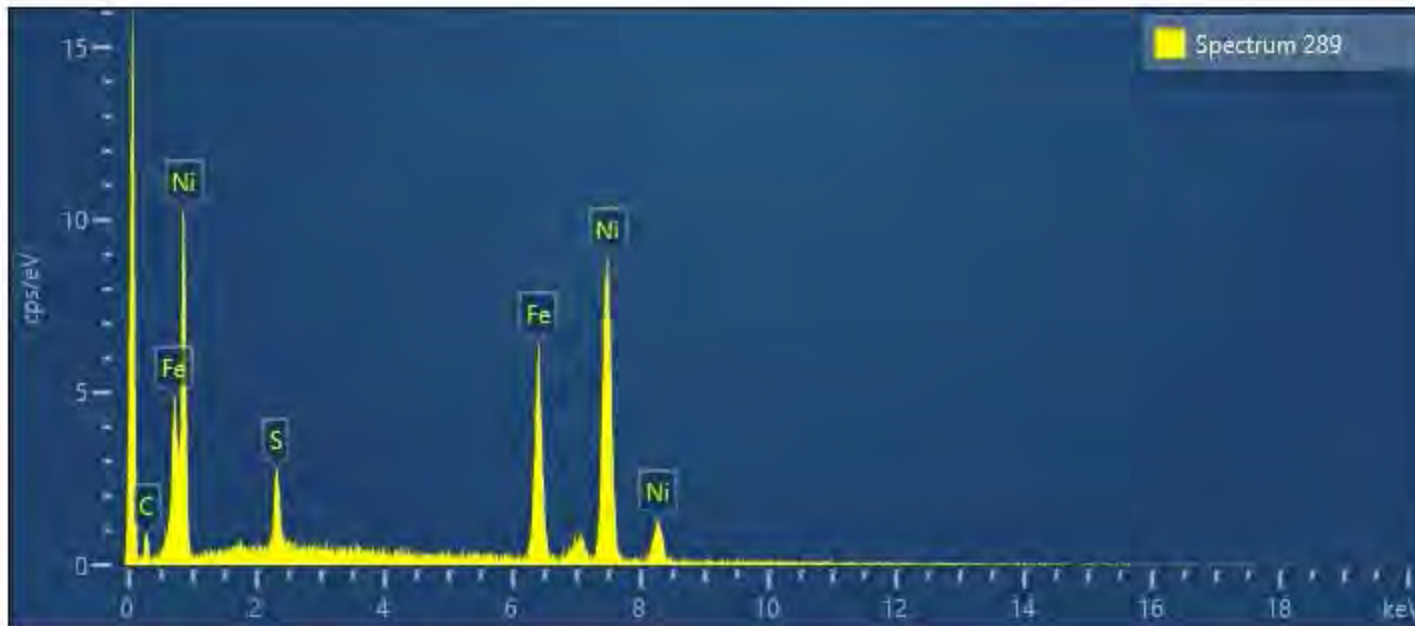
| Spectrum 286 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.00 | 0.95 | 61.06 |
| Fe | K series | 69.00 | 0.95 | 38.94 |
| Total | | 100.00 | | 100.00 |



| Spectrum 287 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 5.34 | 0.20 | 9.23 |
| Fe | K series | 26.62 | 0.44 | 26.45 |
| Ni | K series | 65.68 | 0.51 | 62.08 |
| Co | K series | 2.37 | 0.33 | 2.23 |
| Total | | 100.00 | | 100.00 |

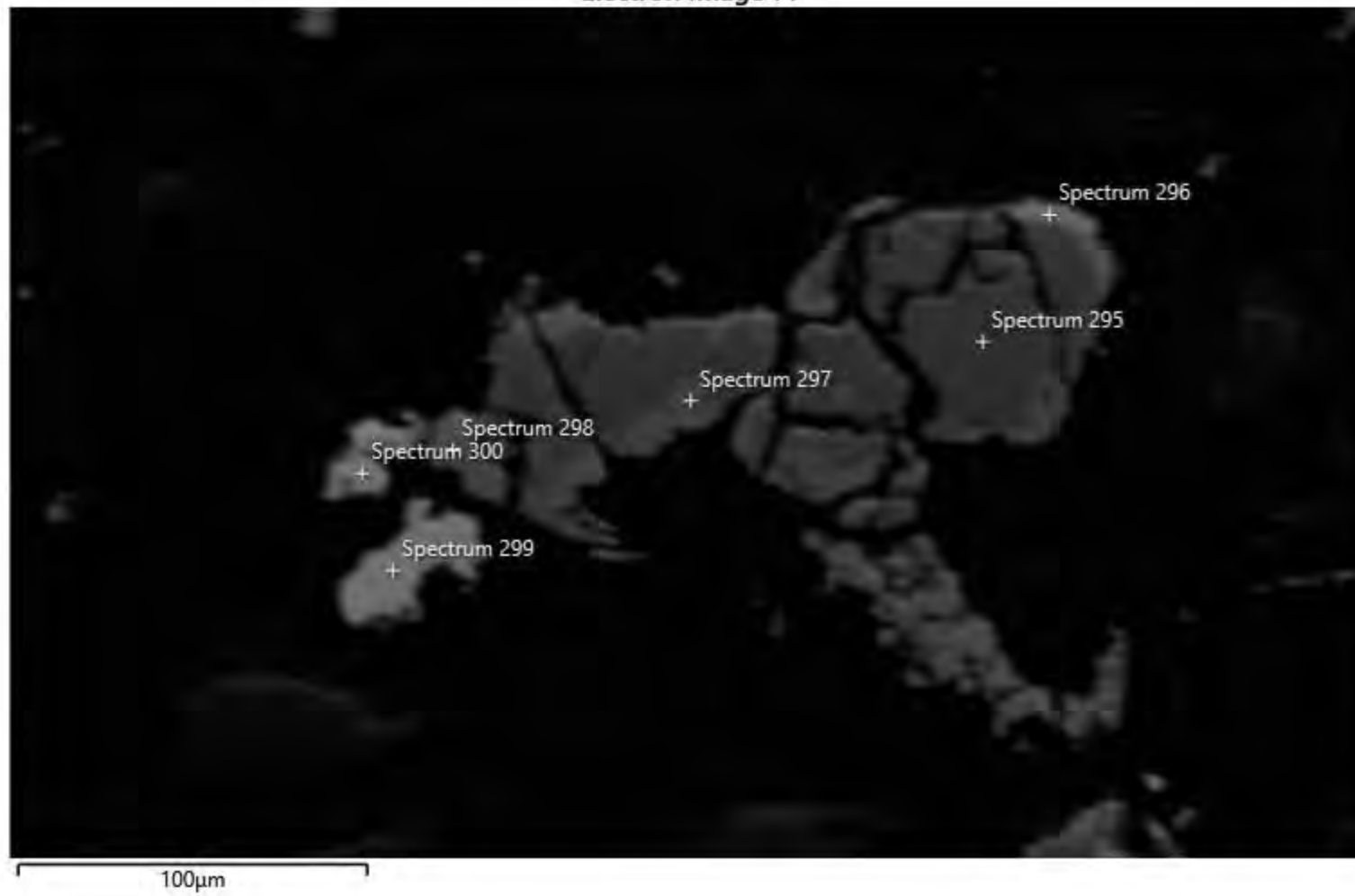


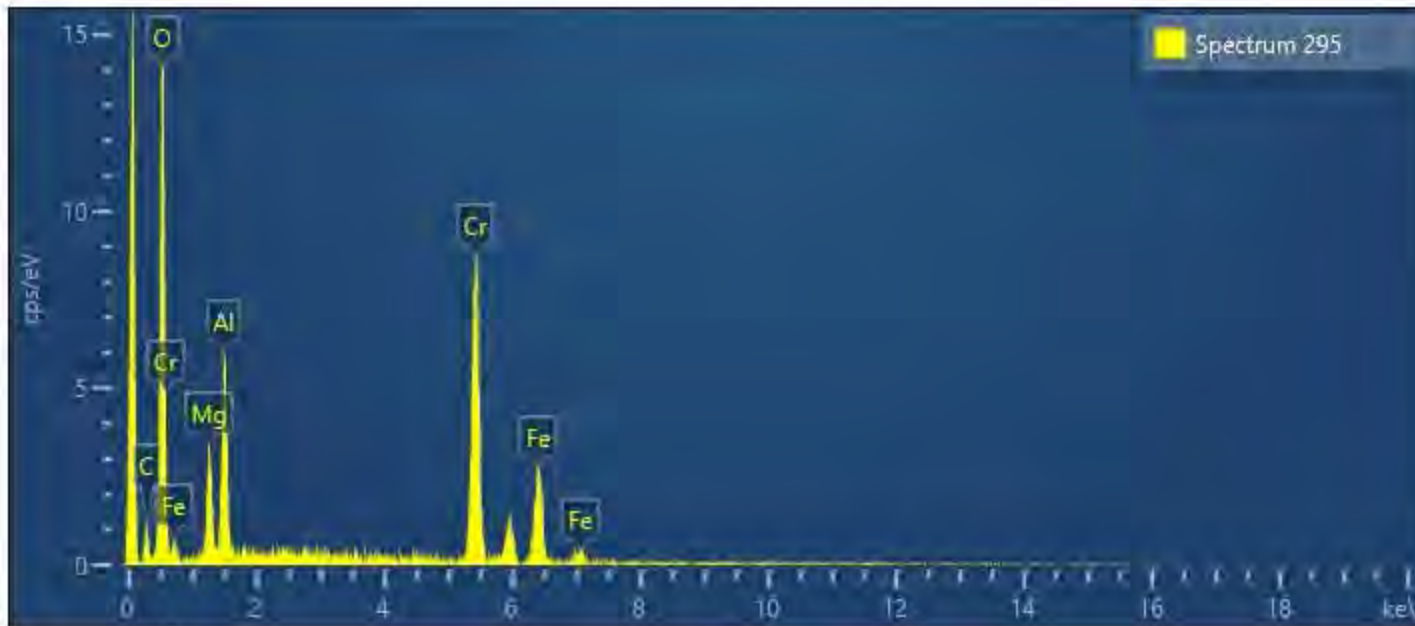
| Spectrum 288 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 6.81 | 0.29 | 11.65 |
| Fe | K series | 25.67 | 0.58 | 25.23 |
| Ni | K series | 67.52 | 0.63 | 63.12 |
| Total | | 100.00 | | 100.00 |



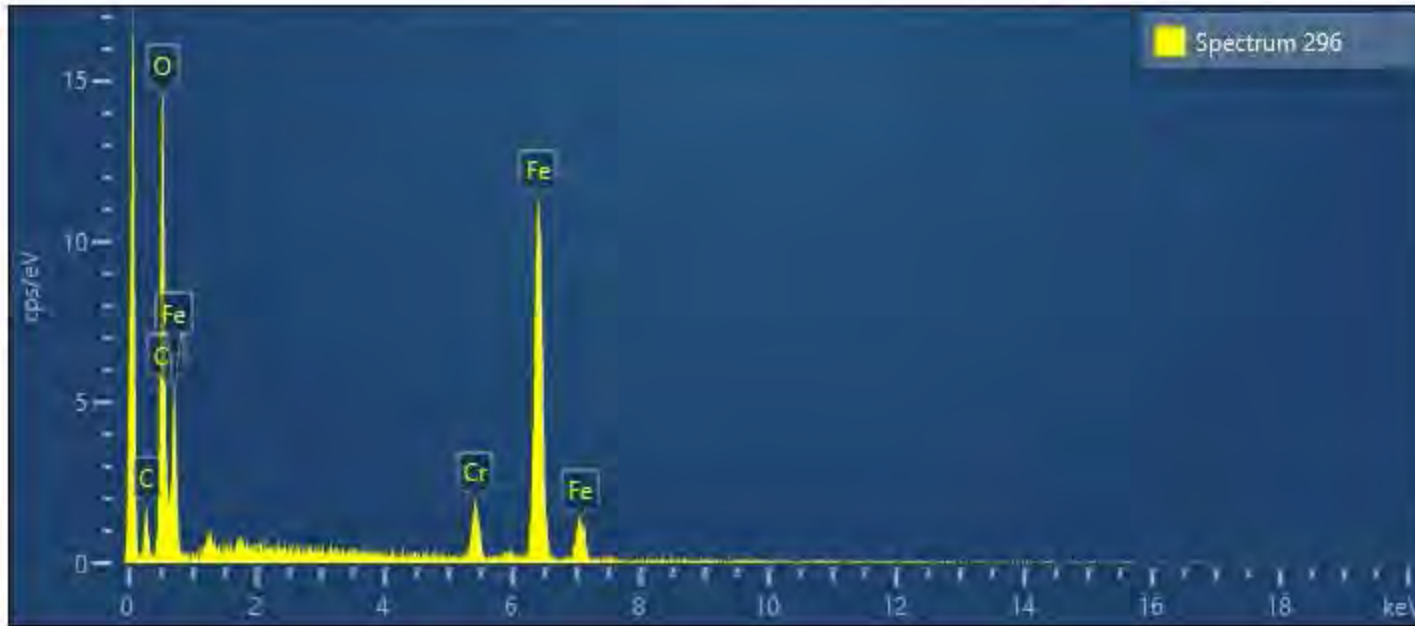
| Spectrum 289 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 3.85 | 0.25 | 6.74 |
| Fe | K series | 25.49 | 0.61 | 25.64 |
| Ni | K series | 70.67 | 0.64 | 67.62 |
| Total | | 100.00 | | 100.00 |

Electron Image 71

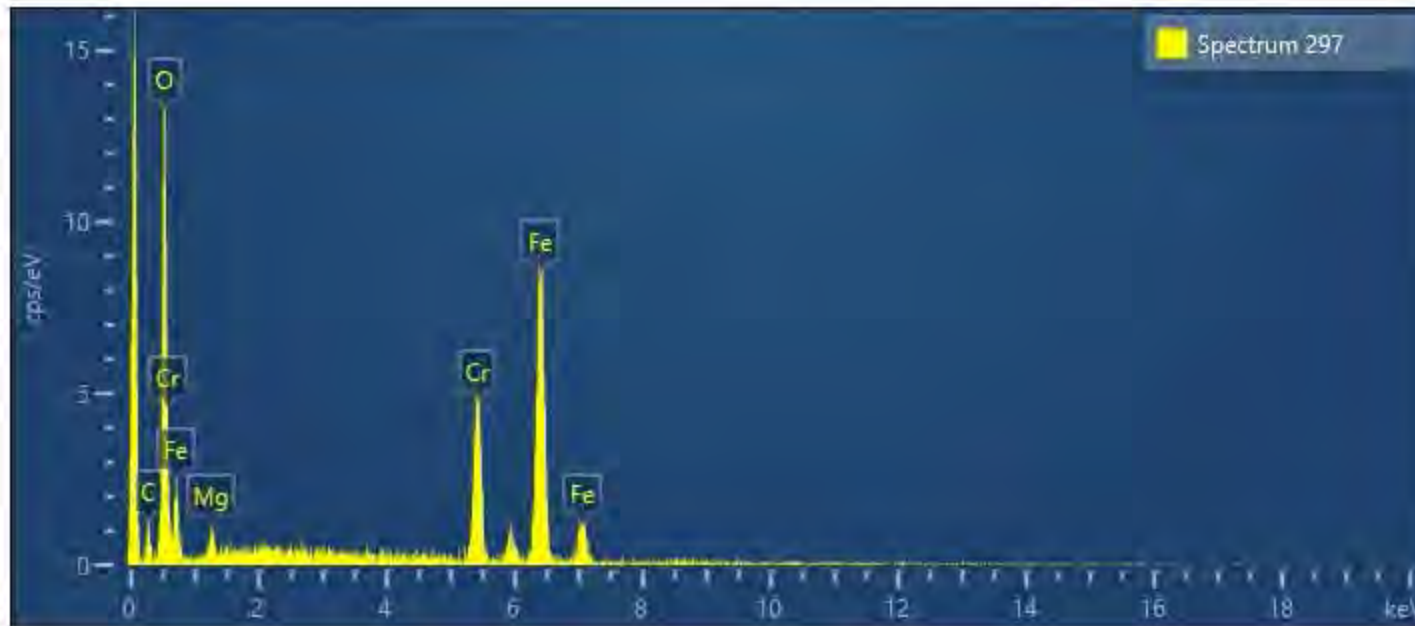




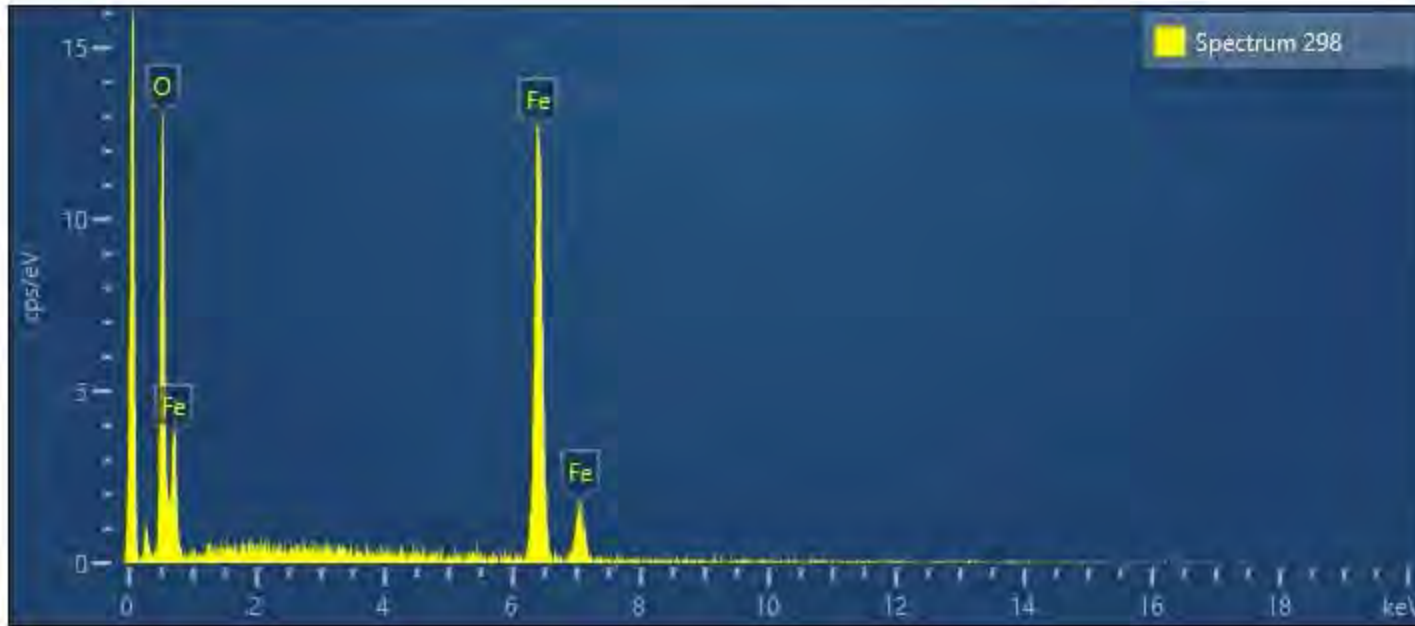
| Spectrum 295 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.51 | 1.03 | 58.36 |
| Mg | K series | 6.10 | 0.45 | 6.79 |
| Al | K series | 9.41 | 0.47 | 9.44 |
| Cr | K series | 33.95 | 0.86 | 17.66 |
| Fe | K series | 16.03 | 0.75 | 7.76 |
| Total | | 100.00 | | 100.00 |



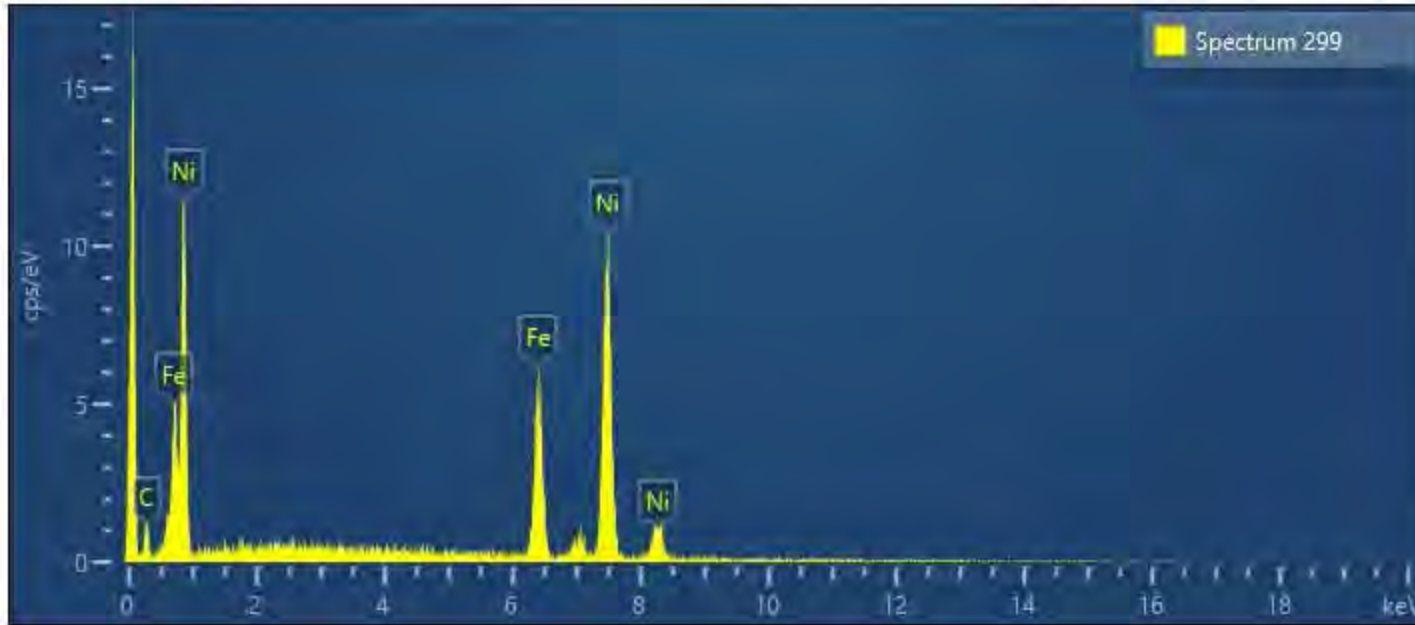
| Spectrum 296 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 32.33 | 1.05 | 62.37 |
| Cr | K series | 5.56 | 0.39 | 3.30 |
| Fe | K series | 62.11 | 1.04 | 34.33 |
| Total | | 100.00 | | 100.00 |



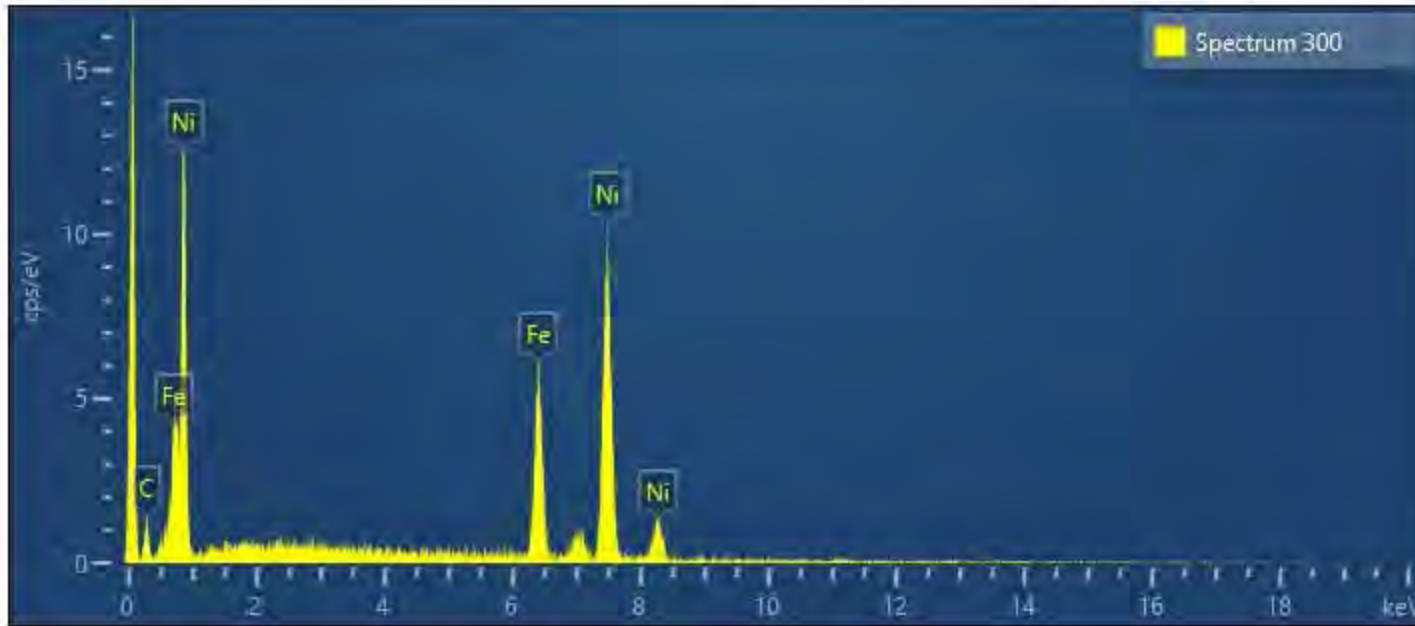
| Spectrum 297 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.74 | 1.08 | 58.40 |
| Cr | K series | 18.10 | 0.69 | 10.93 |
| Fe | K series | 50.34 | 1.07 | 28.31 |
| Mg | K series | 1.82 | 0.37 | 2.35 |
| Total | | 100.00 | | 100.00 |



| Spectrum 298 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.76 | 0.90 | 60.80 |
| Fe | K series | 69.24 | 0.90 | 39.20 |
| Total | | 100.00 | | 100.00 |



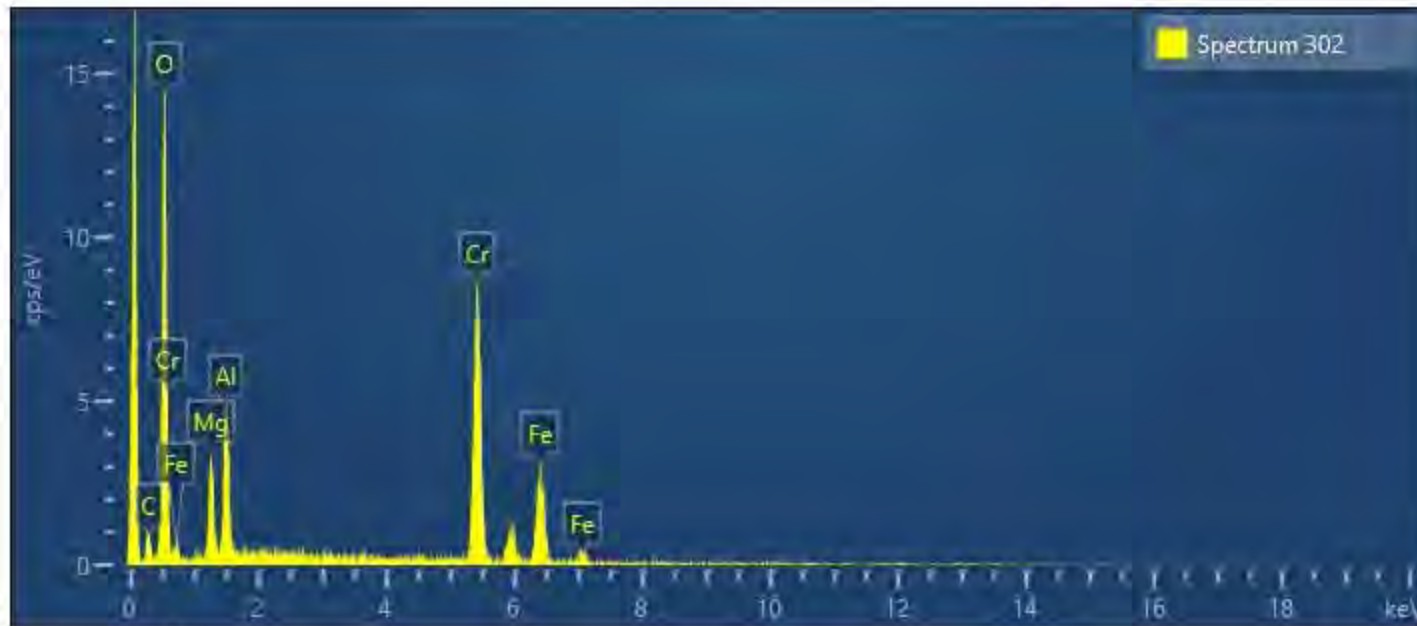
| Spectrum 299 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.20 | 0.72 | 25.13 |
| Ni | K series | 75.80 | 0.72 | 74.87 |
| Total | | 100.00 | | 100.00 |



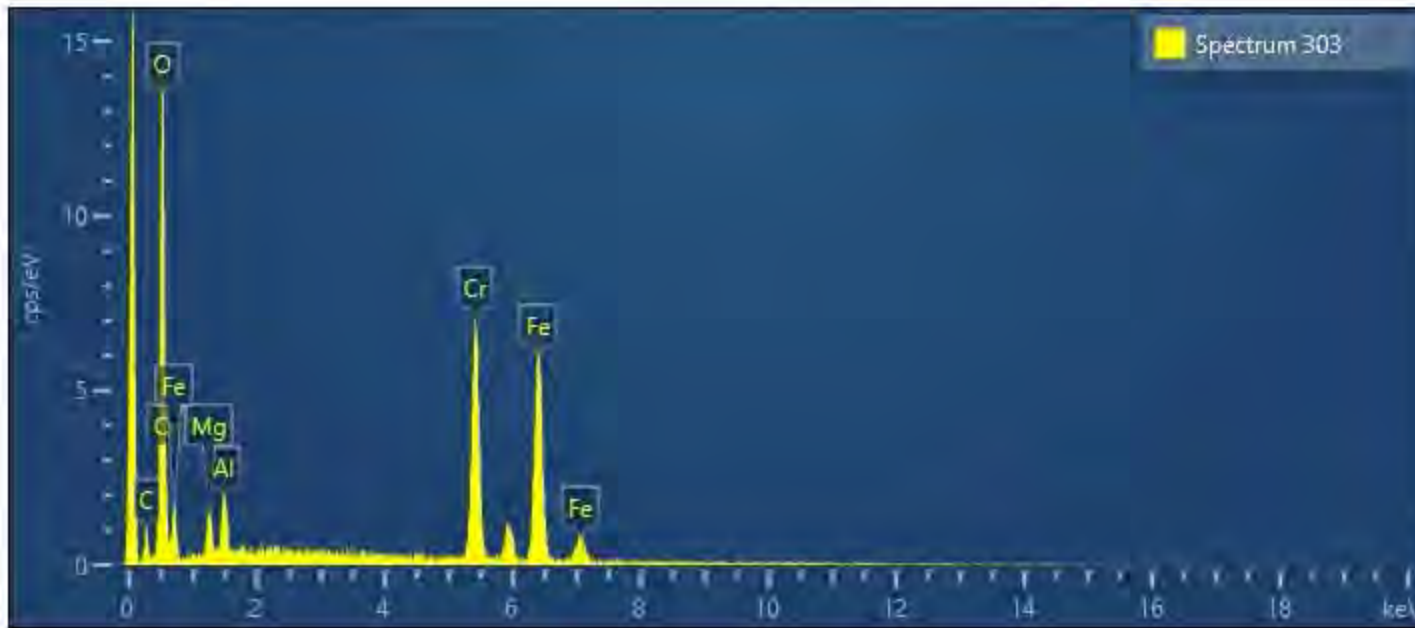
| Spectrum 300 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.40 | 0.77 | 26.36 |
| Ni | K series | 74.60 | 0.77 | 73.64 |
| Total | | 100.00 | | 100.00 |

Electron Image 72

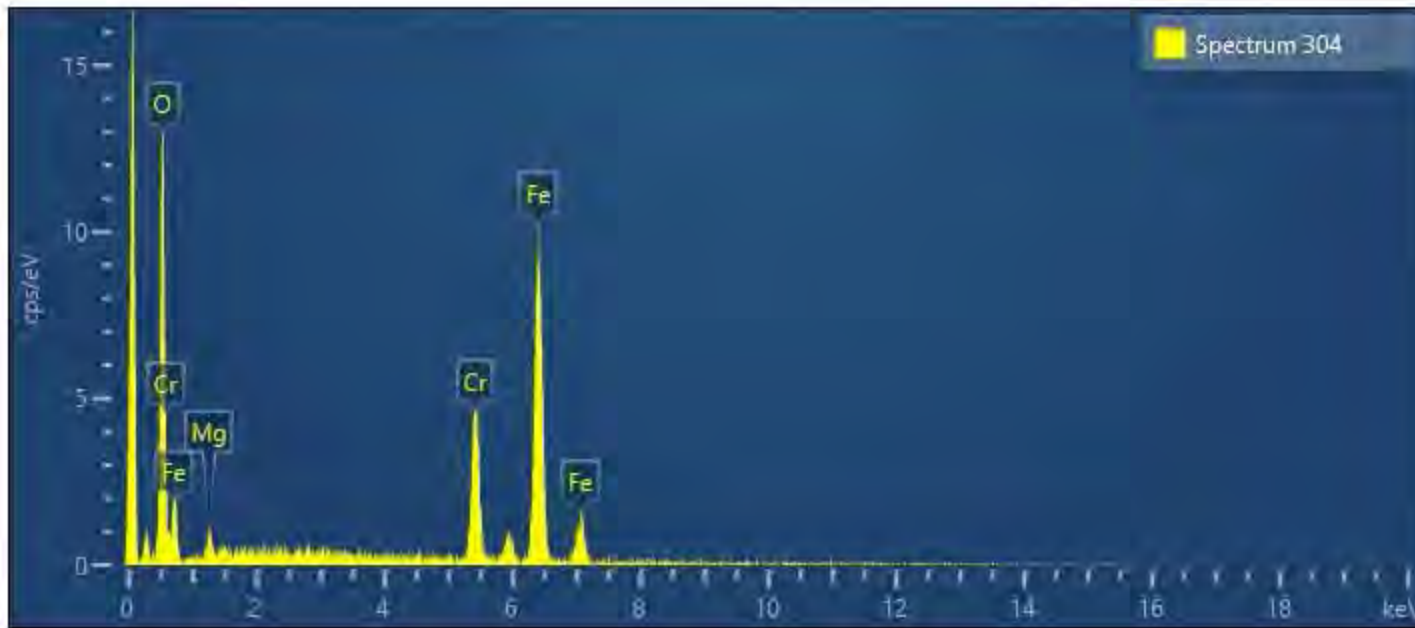




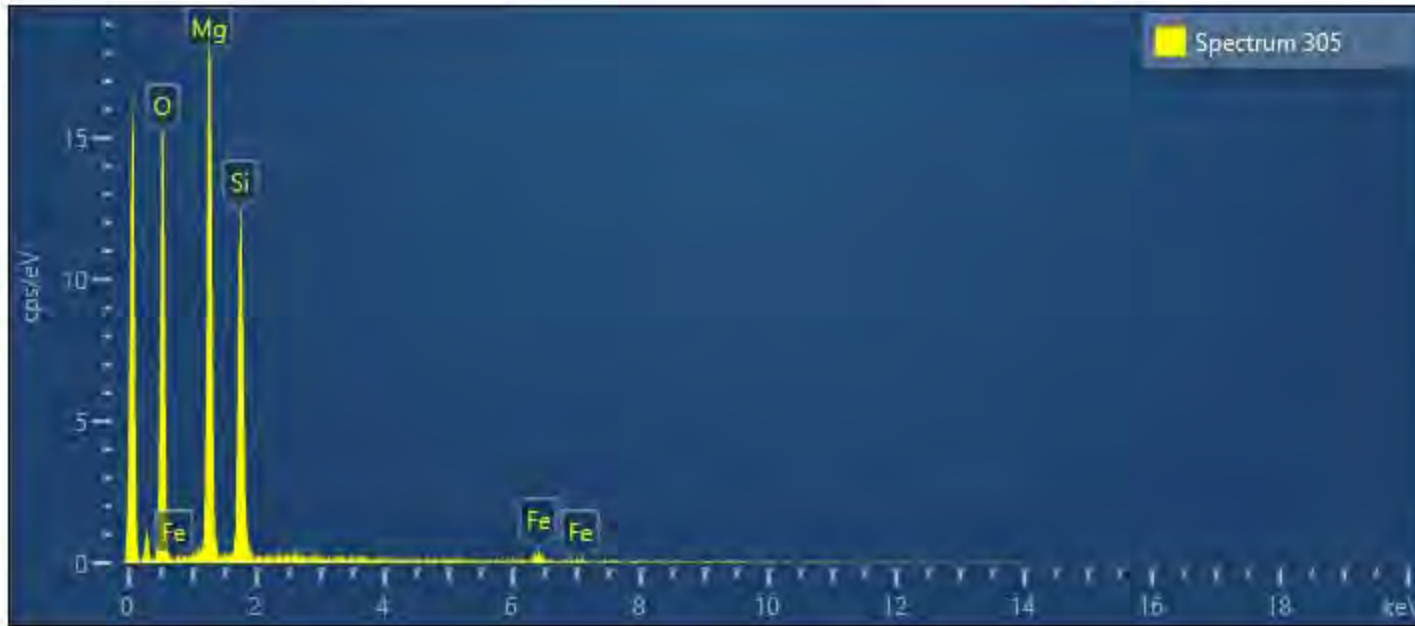
| Spectrum 302 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 34.12 | 0.93 | 57.99 |
| Mg | K series | 6.55 | 0.42 | 7.33 |
| Al | K series | 8.84 | 0.42 | 8.91 |
| Cr | K series | 33.01 | 0.78 | 17.26 |
| Fe | K series | 17.47 | 0.71 | 8.51 |
| Total | | 100.00 | | 100.00 |



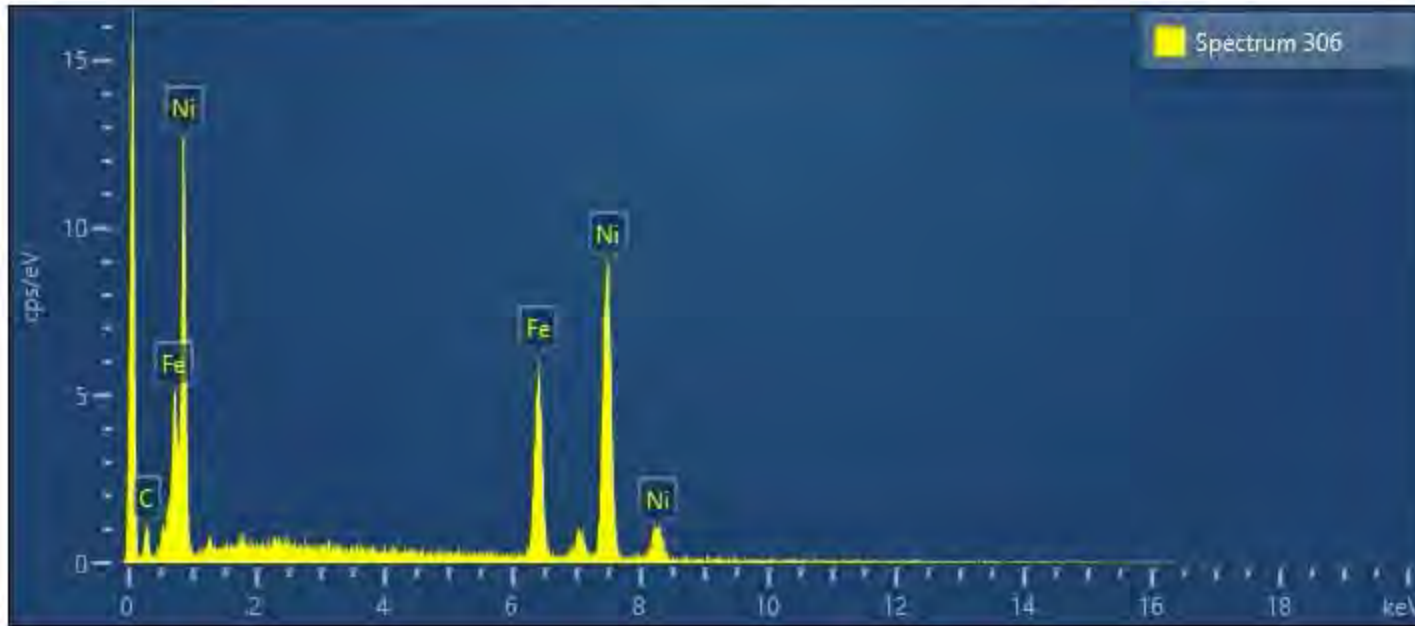
| Spectrum 303 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 32.37 | 0.78 | 59.45 |
| Mg | K series | 3.10 | 0.30 | 3.75 |
| Al | K series | 3.29 | 0.26 | 3.58 |
| Cr | K series | 25.78 | 0.59 | 14.57 |
| Fe | K series | 35.46 | 0.73 | 18.65 |
| Total | | 100.00 | | 100.00 |



| Spectrum 304 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.82 | 0.96 | 58.53 |
| Cr | K series | 15.85 | 0.60 | 9.57 |
| Fe | K series | 52.46 | 0.97 | 29.49 |
| Mg | K series | 1.87 | 0.33 | 2.41 |
| Total | | 100.00 | | 100.00 |

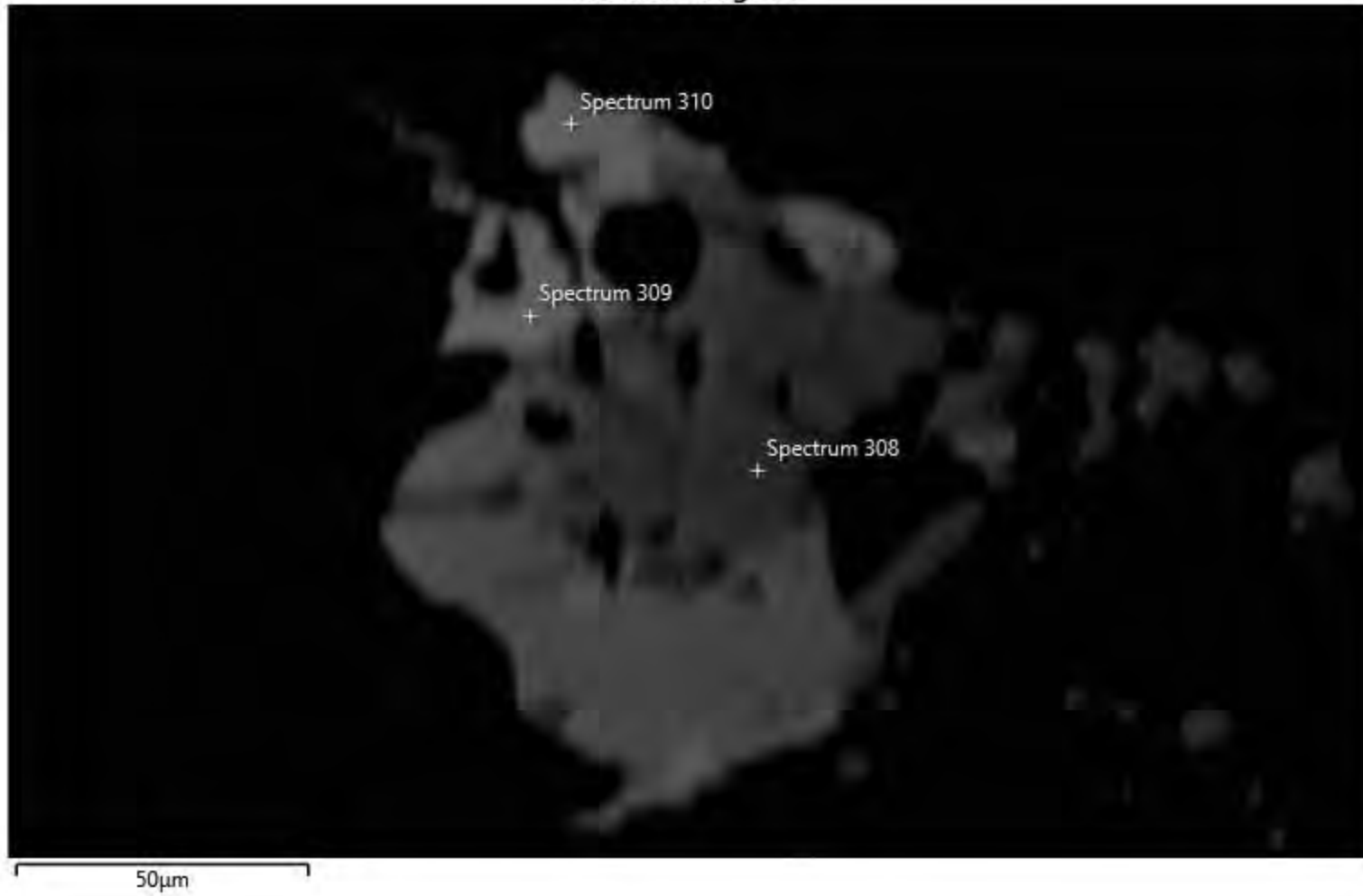


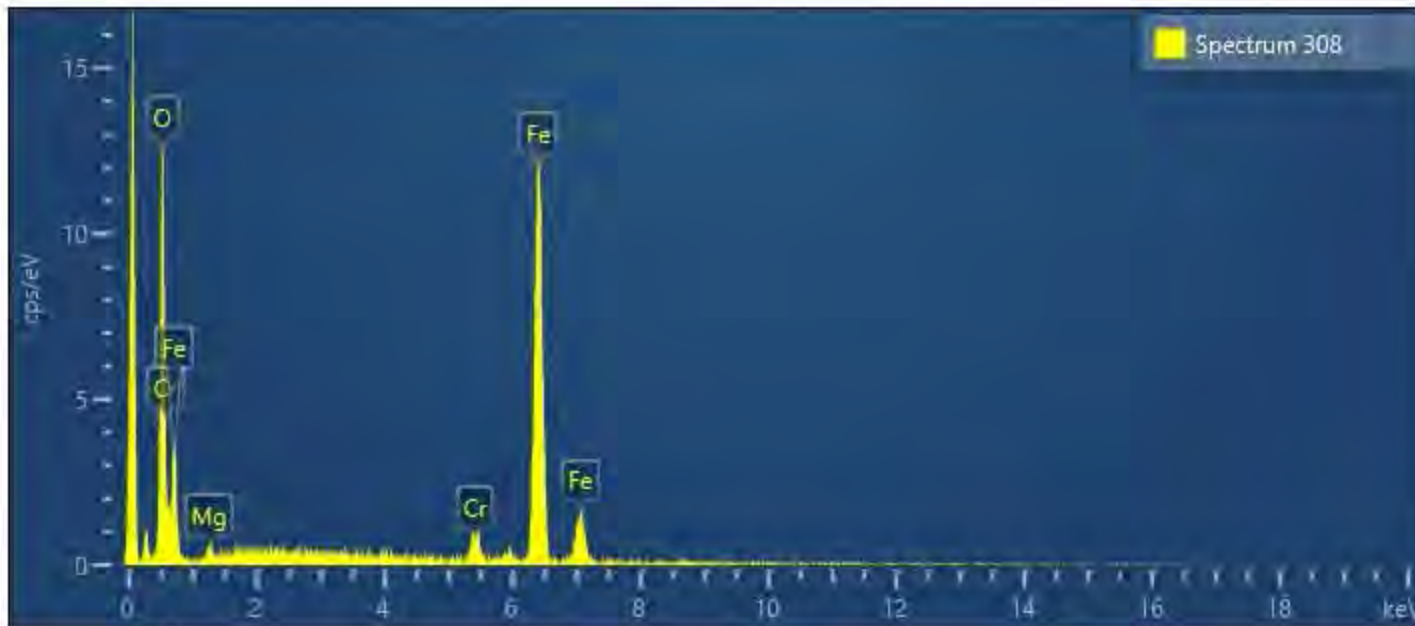
| Spectrum 305 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.48 | 0.80 | 64.51 |
| Mg | K series | 26.57 | 0.60 | 21.50 |
| Si | K series | 18.99 | 0.52 | 13.30 |
| Fe | K series | 1.96 | 0.35 | 0.69 |
| Total | | 100.00 | | 100.00 |



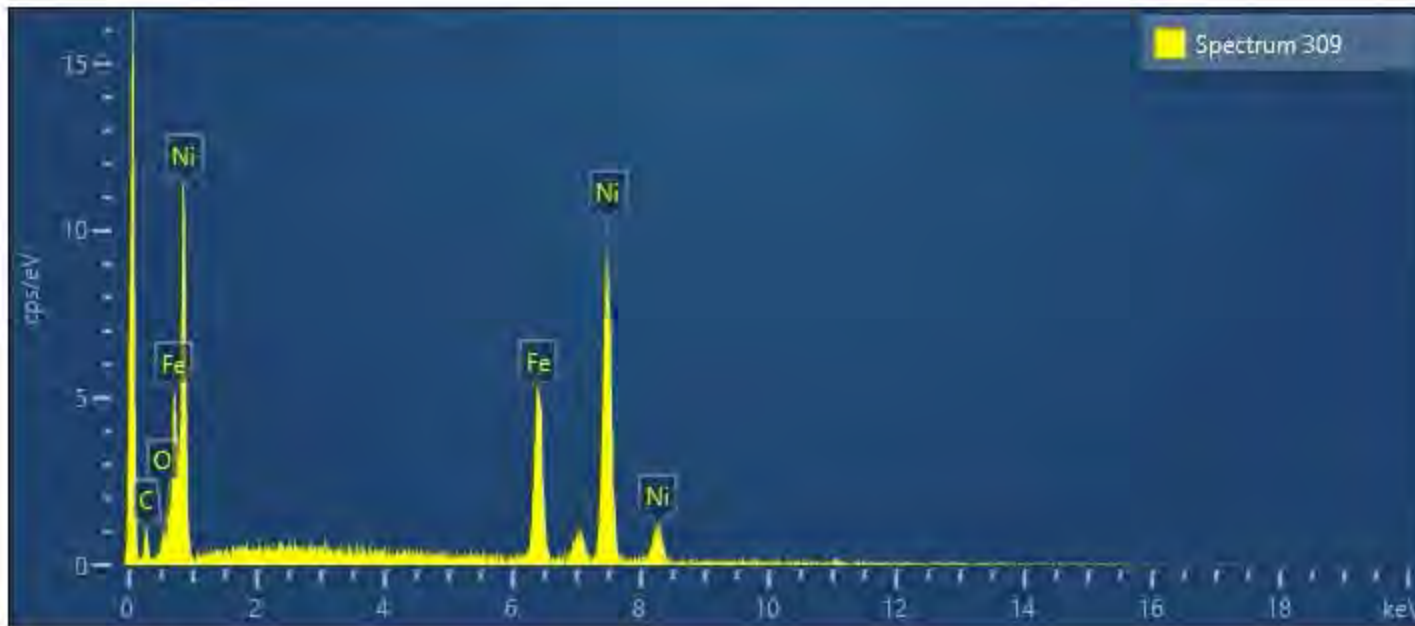
| Spectrum 306 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 26.07 | 0.62 | 27.04 |
| Ni | K series | 73.93 | 0.62 | 72.96 |
| Total | | 100.00 | | 100.00 |

Electron Image 73

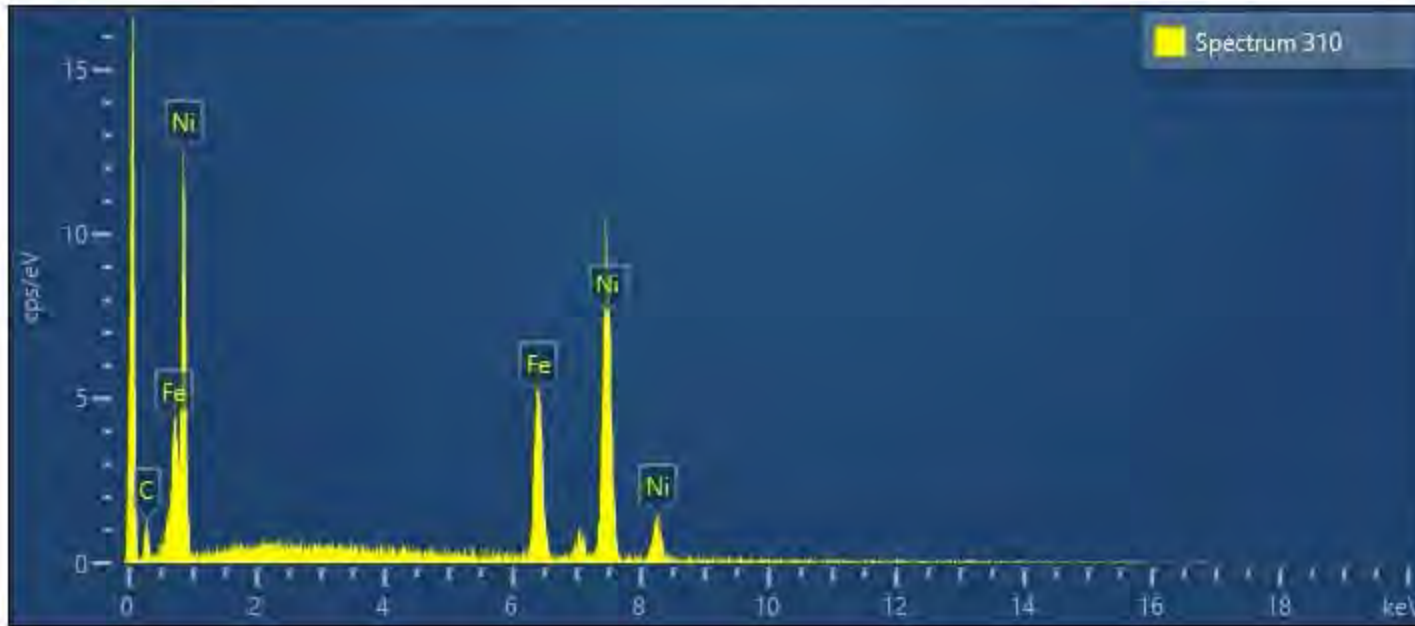




| Spectrum 308 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.30 | 1.00 | 58.50 |
| Cr | K series | 3.19 | 0.33 | 1.96 |
| Fe | K series | 66.26 | 1.01 | 37.90 |
| Mg | K series | 1.25 | 0.28 | 1.64 |
| Total | | 100.00 | | 100.00 |

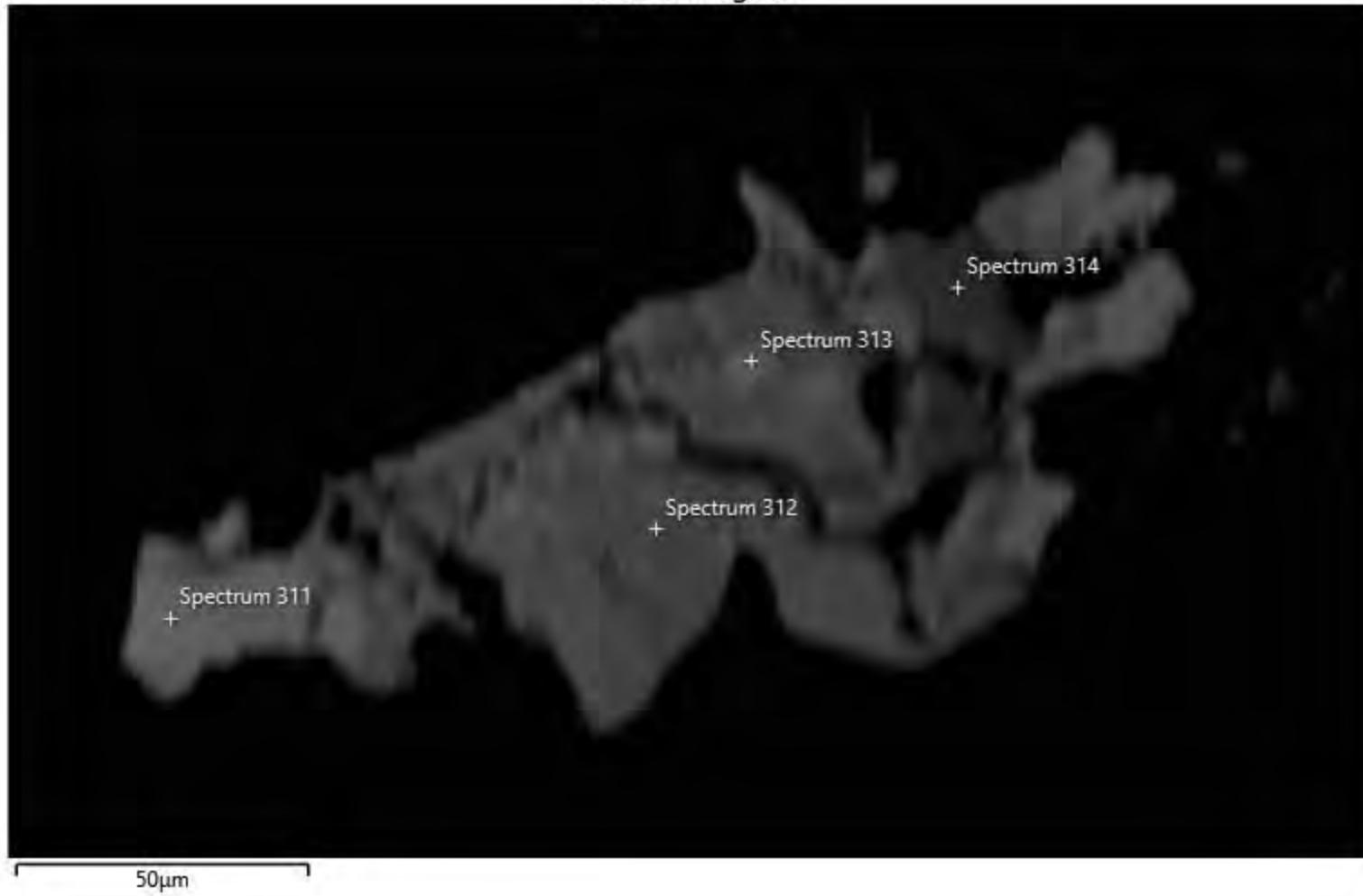


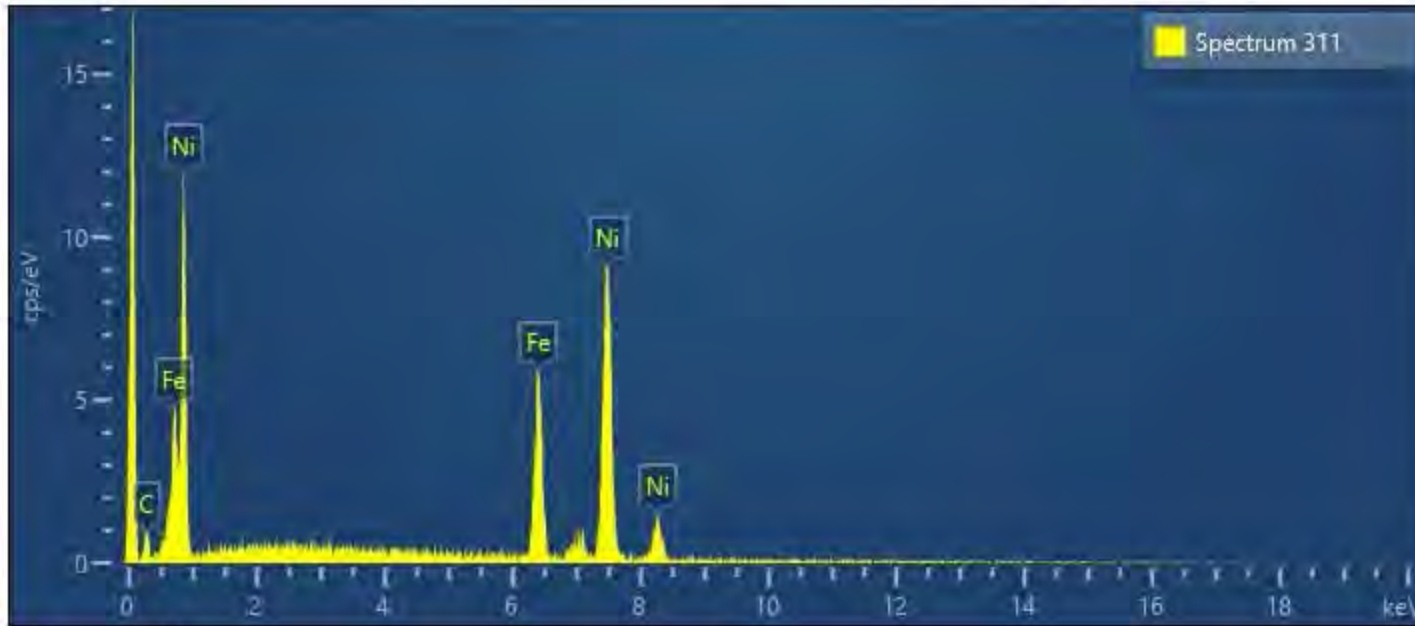
| Spectrum 309 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.26 | 0.74 | 25.05 |
| Ni | K series | 72.98 | 0.81 | 68.86 |
| O | K series | 1.76 | 0.48 | 6.08 |
| Total | | 100.00 | | 100.00 |



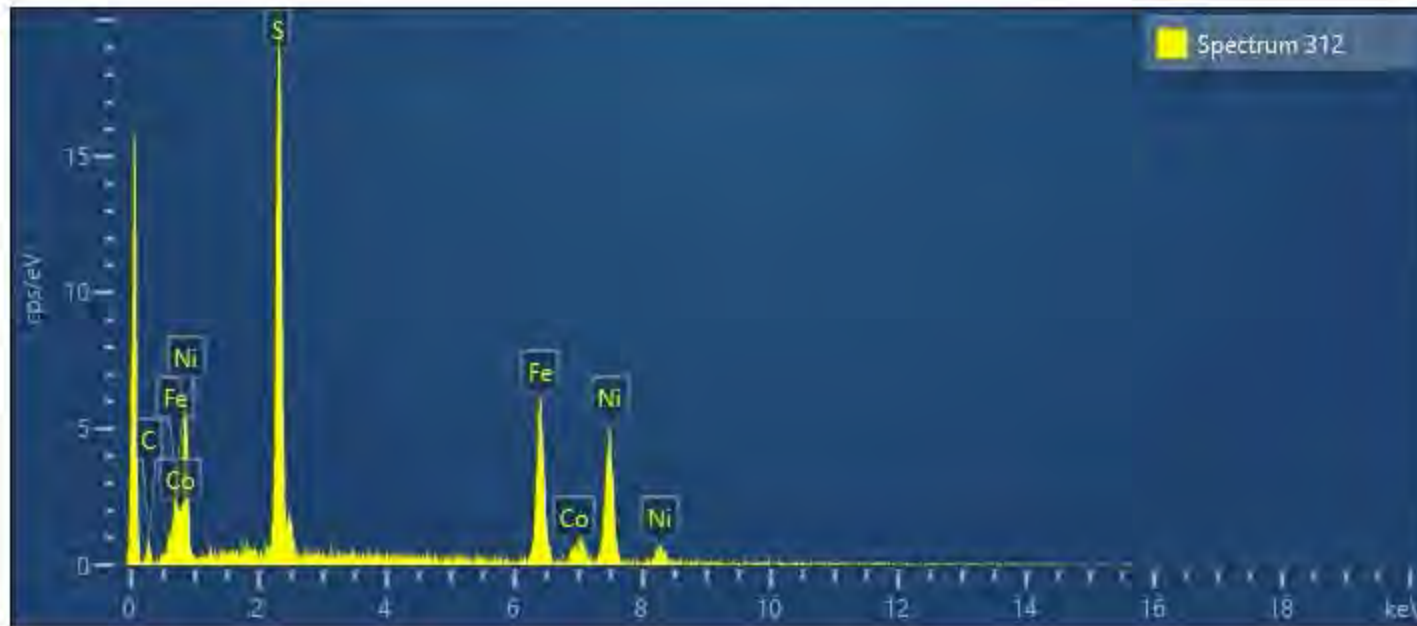
| Spectrum 310 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.75 | 0.81 | 26.72 |
| Ni | K series | 74.25 | 0.81 | 73.28 |
| Total | | 100.00 | | 100.00 |

Electron Image 74

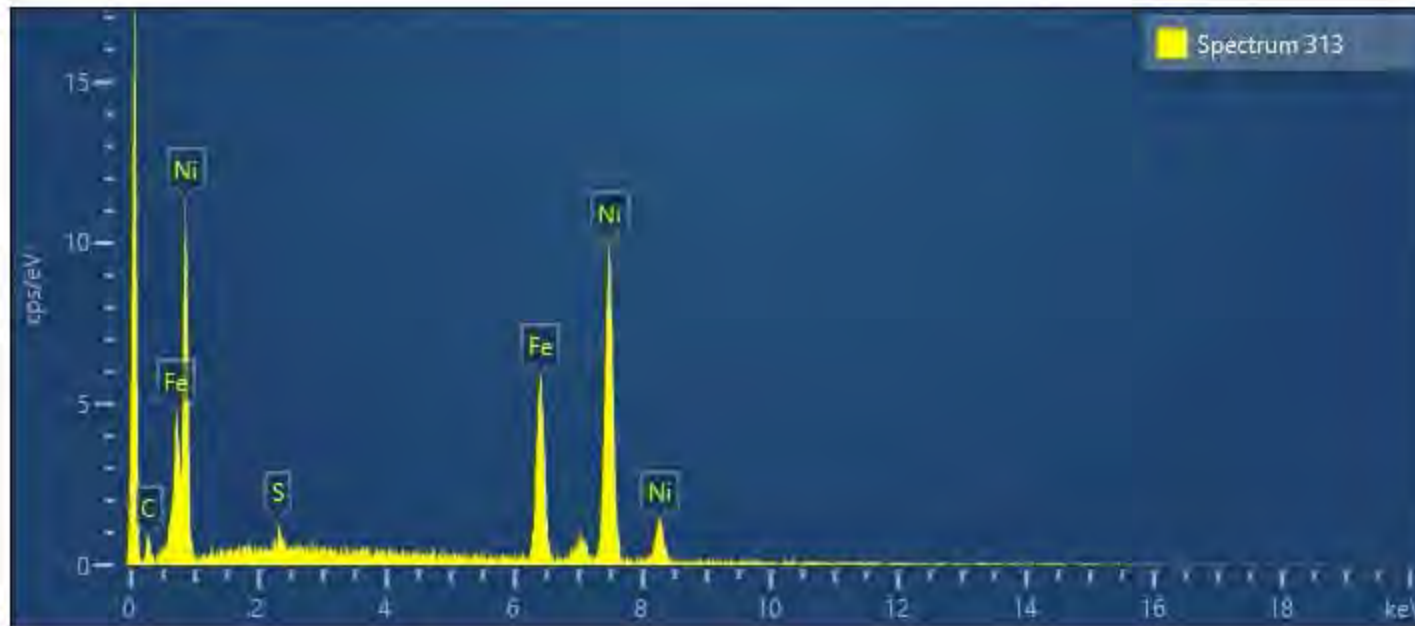




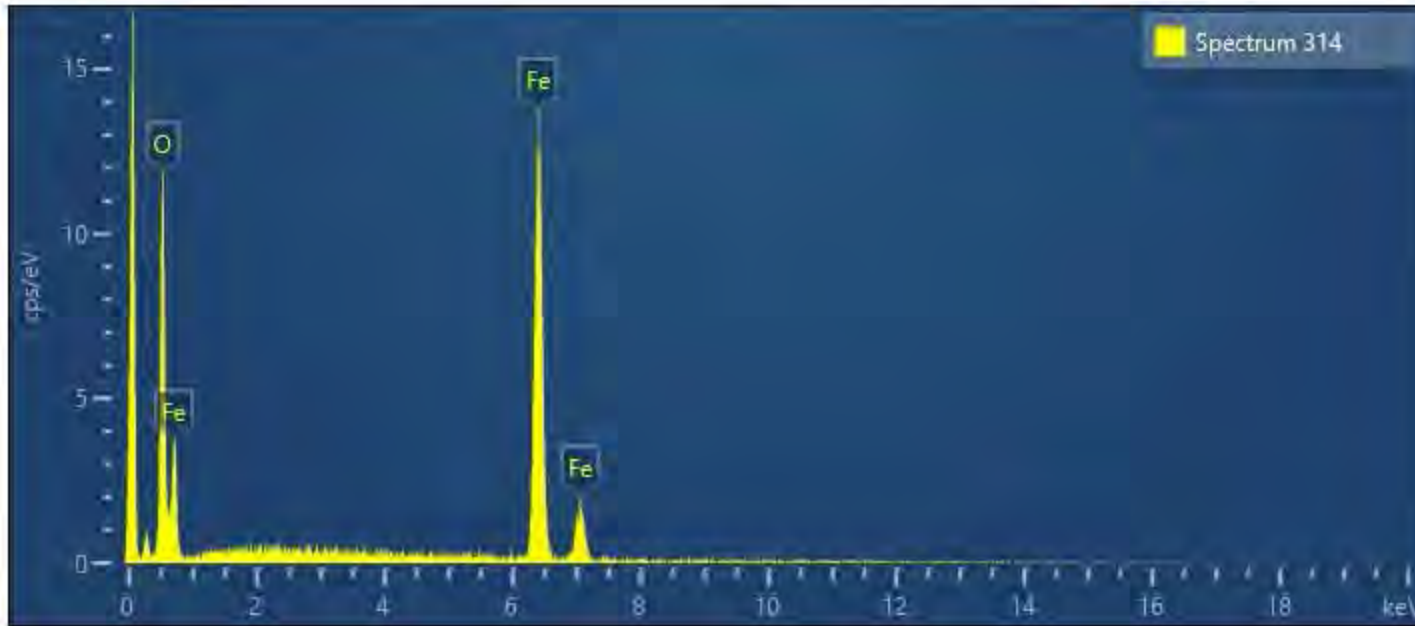
| Spectrum 311 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.80 | 0.76 | 26.77 |
| Ni | K series | 74.20 | 0.76 | 73.23 |
| Total | | 100.00 | | 100.00 |



| Spectrum 312 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 30.47 | 0.79 | 44.00 |
| Fe | K series | 28.92 | 0.92 | 23.98 |
| Ni | K series | 37.74 | 1.07 | 29.76 |
| Co | K series | 2.87 | 0.68 | 2.25 |
| Total | | 100.00 | | 100.00 |



| Spectrum 313 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.19 | 0.69 | 25.96 |
| Ni | K series | 73.98 | 0.71 | 72.54 |
| S | K series | 0.83 | 0.21 | 1.50 |
| Total | | 100.00 | | 100.00 |



| Spectrum 314 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.00 | 0.78 | 58.77 |
| Fe | K series | 71.00 | 0.78 | 41.23 |
| Total | | 100.00 | | 100.00 |

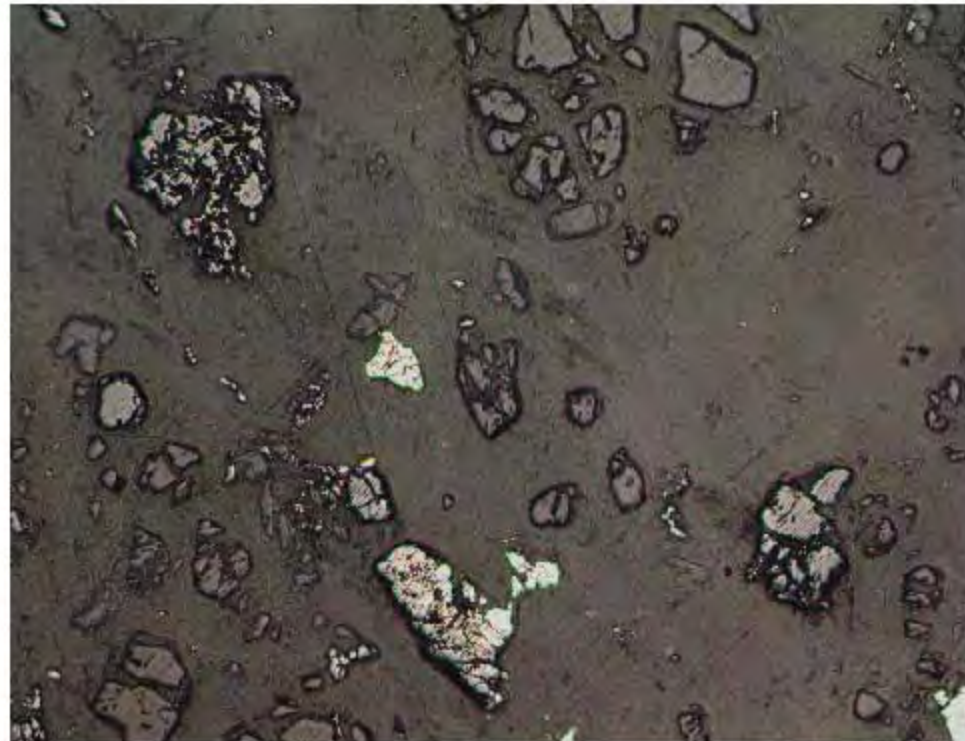
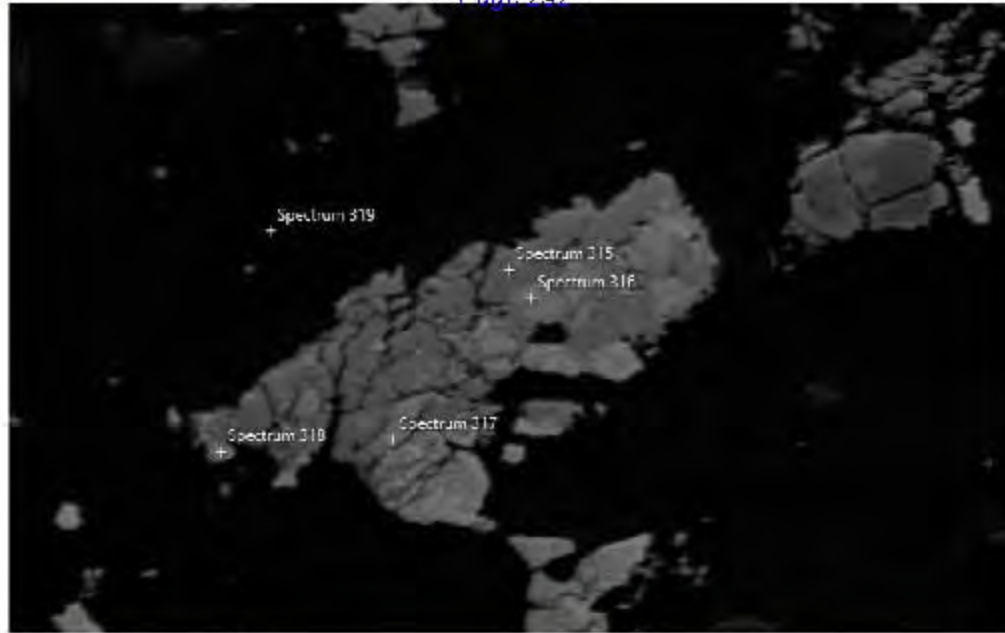
Specimen Notes for '560' - Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite

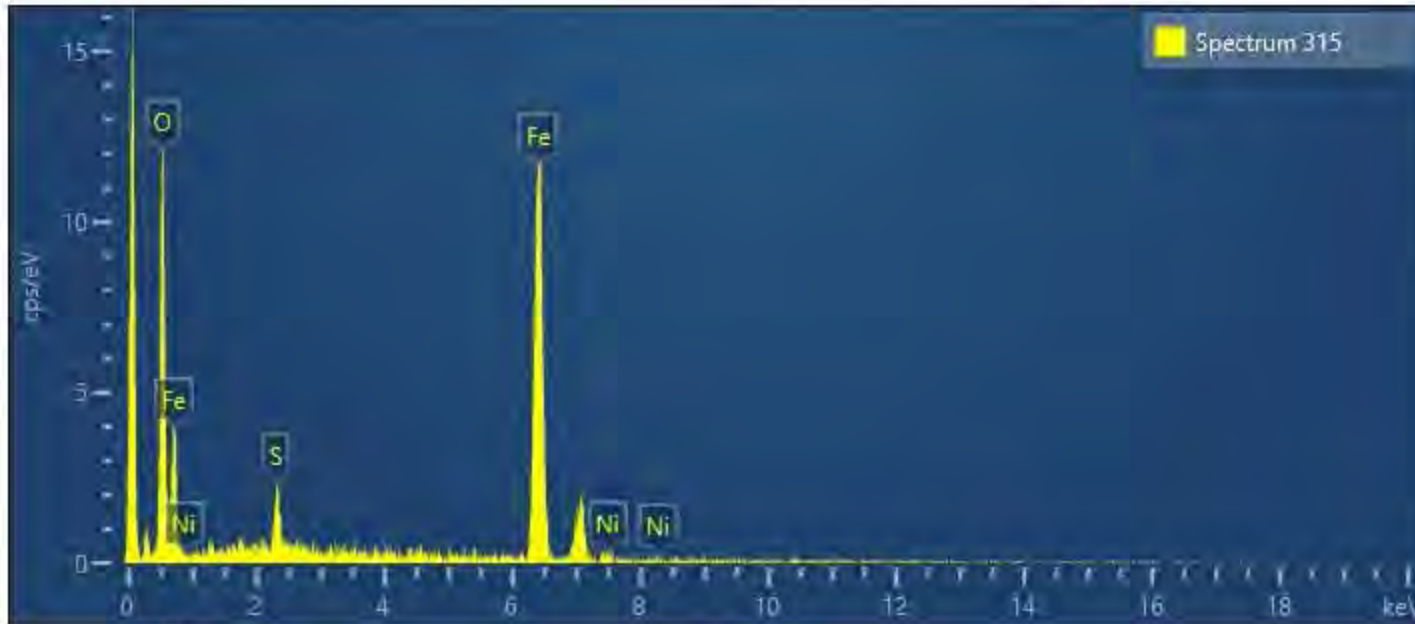
SITE 1 CIRCLE 1 is a complex intergrowth of magnetite-Co-pentlandite-awaruite within serpentine

SITE 2 CIRCLE 3 is also an intergrowth of magnetite-Co-pentlandite-awaruite

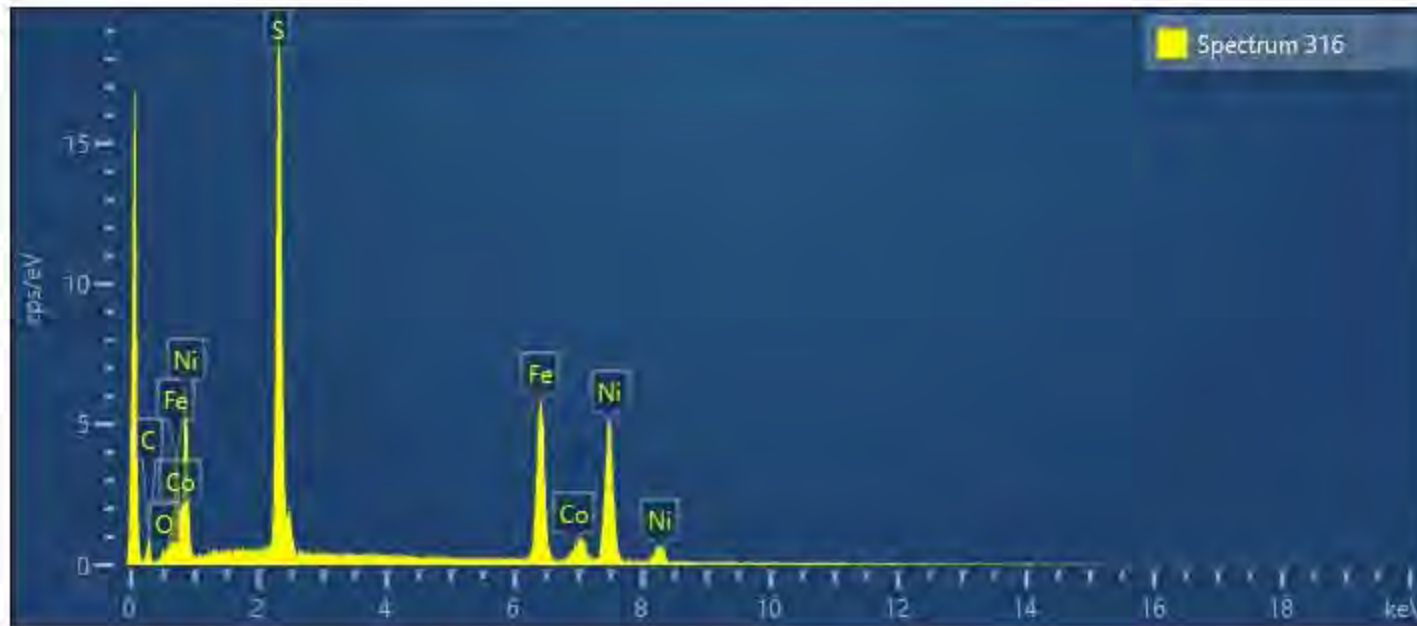
SITE 4 is a small veinlet consisting of an intergrowth of Co-pentlandite and awaruite (100 microns)

SITE 5 is an intergrowth of heazlewoodite and awaruite

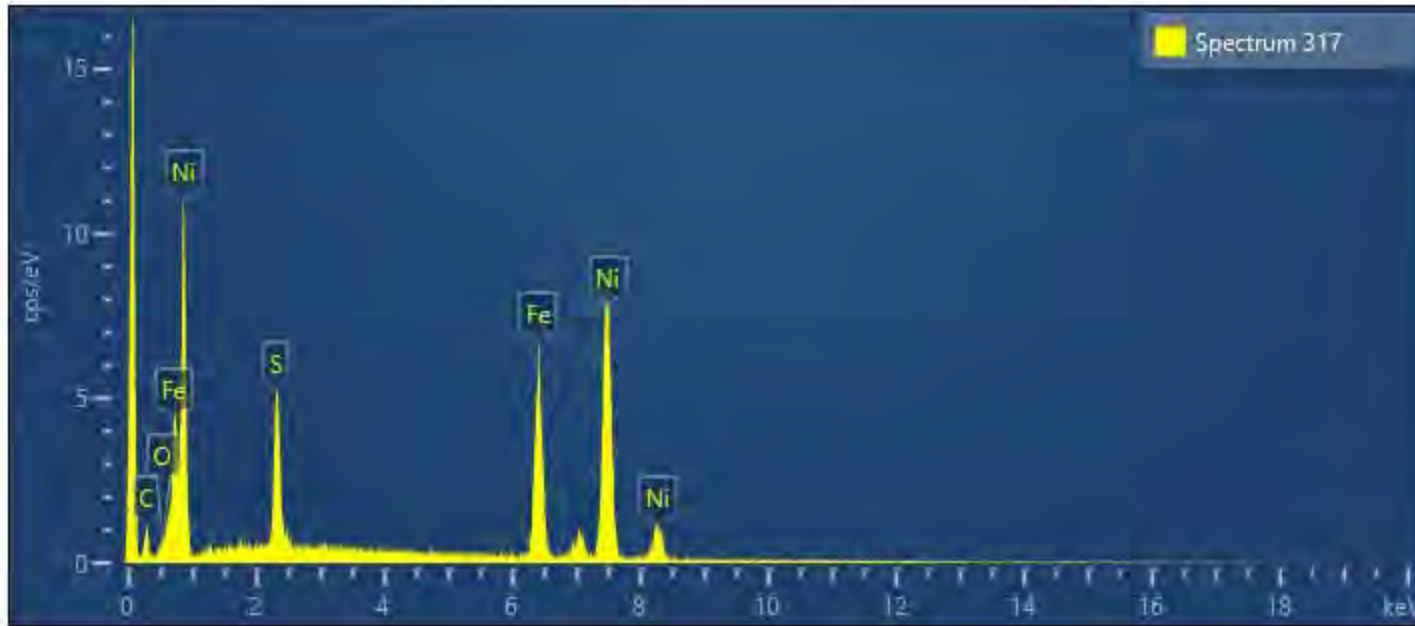




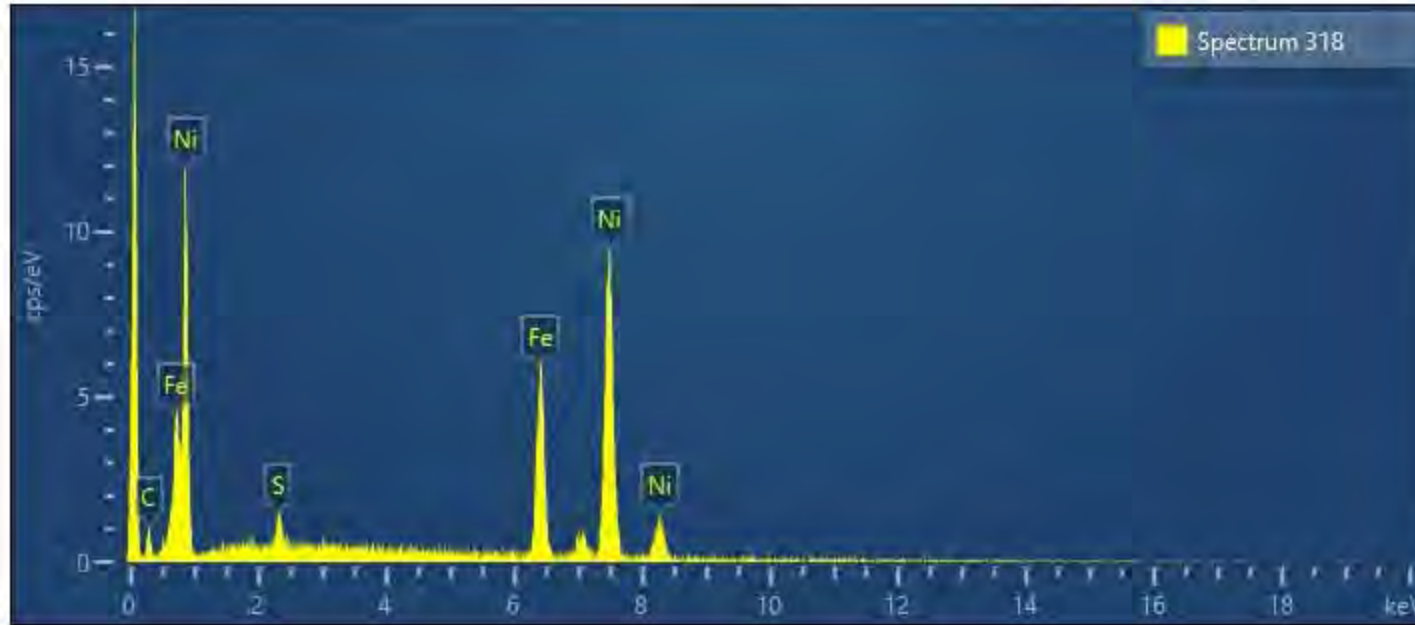
| Spectrum 315 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.53 | 0.99 | 59.87 |
| S | K series | 2.82 | 0.30 | 2.76 |
| Fe | K series | 64.54 | 1.05 | 36.25 |
| Ni | K series | 2.11 | 0.56 | 1.13 |
| Total | | 100.00 | | 100.00 |



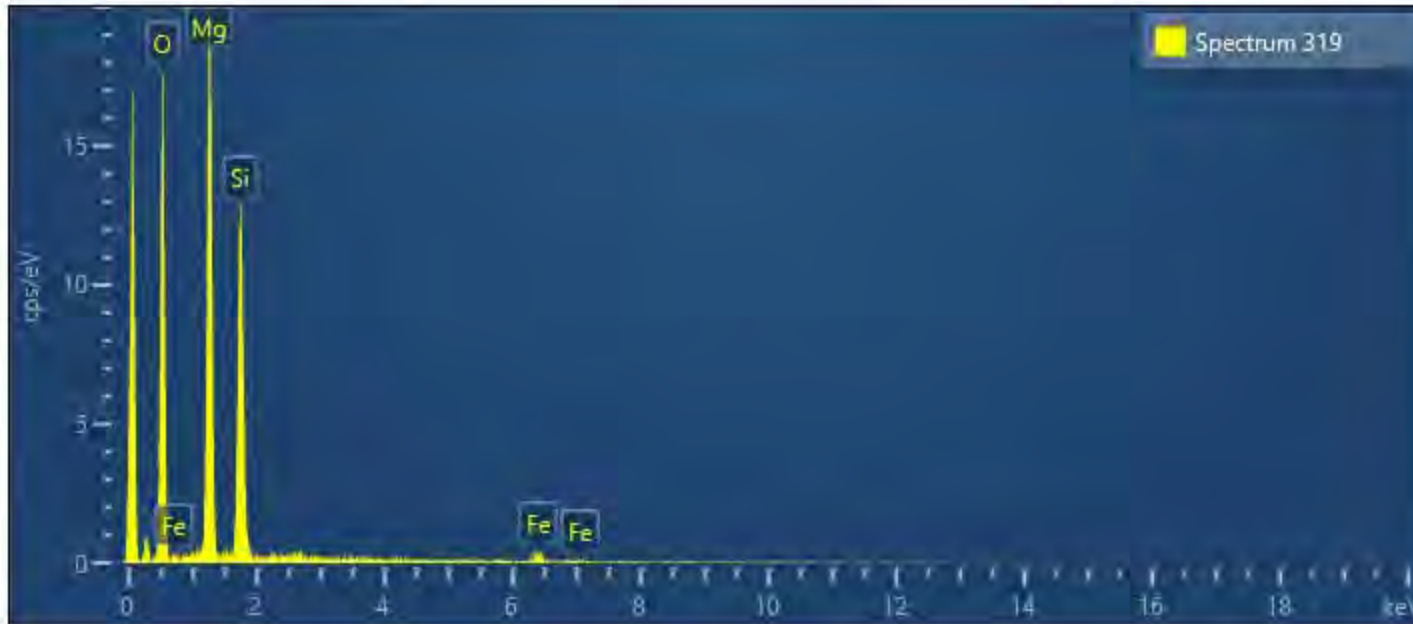
| Spectrum 316 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.11 | 0.40 | 39.76 |
| Fe | K series | 28.83 | 0.48 | 23.42 |
| Ni | K series | 38.98 | 0.57 | 30.12 |
| Co | K series | 2.36 | 0.34 | 1.82 |
| O | K series | 1.72 | 0.38 | 4.89 |
| Total | | 100.00 | | 100.00 |



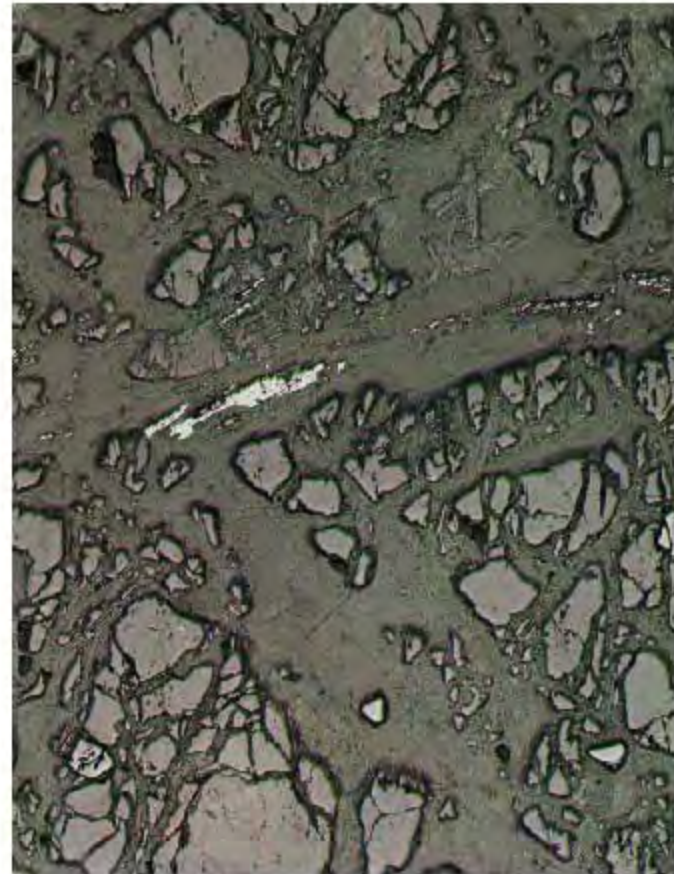
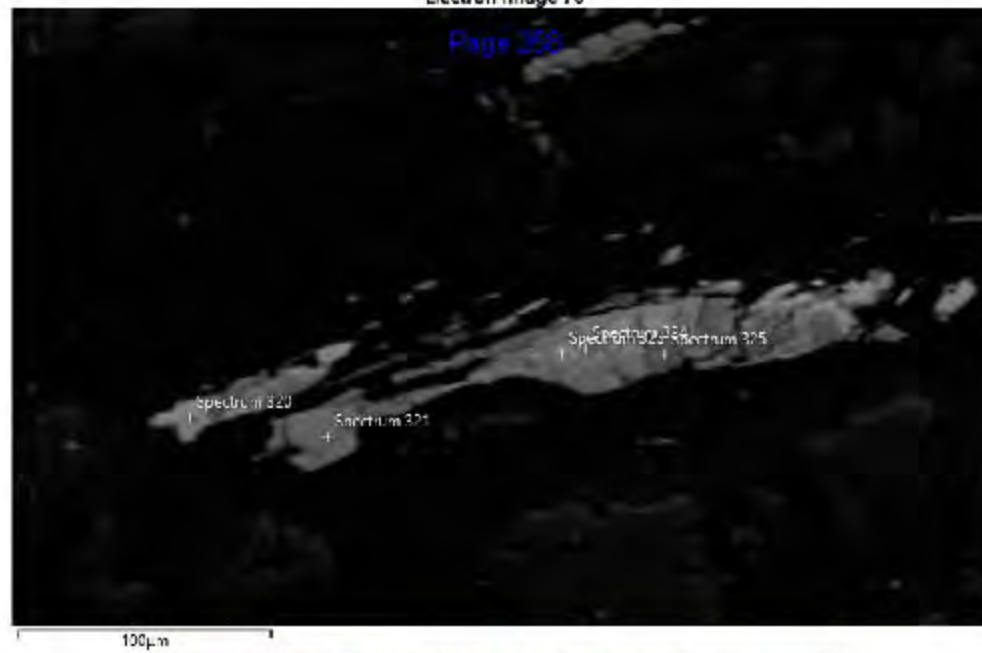
| Spectrum 317 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 8.00 | 0.28 | 13.15 |
| Fe | K series | 26.13 | 0.54 | 24.65 |
| Ni | K series | 64.59 | 0.64 | 57.97 |
| O | K series | 1.28 | 0.39 | 4.23 |
| Total | | 100.00 | | 100.00 |

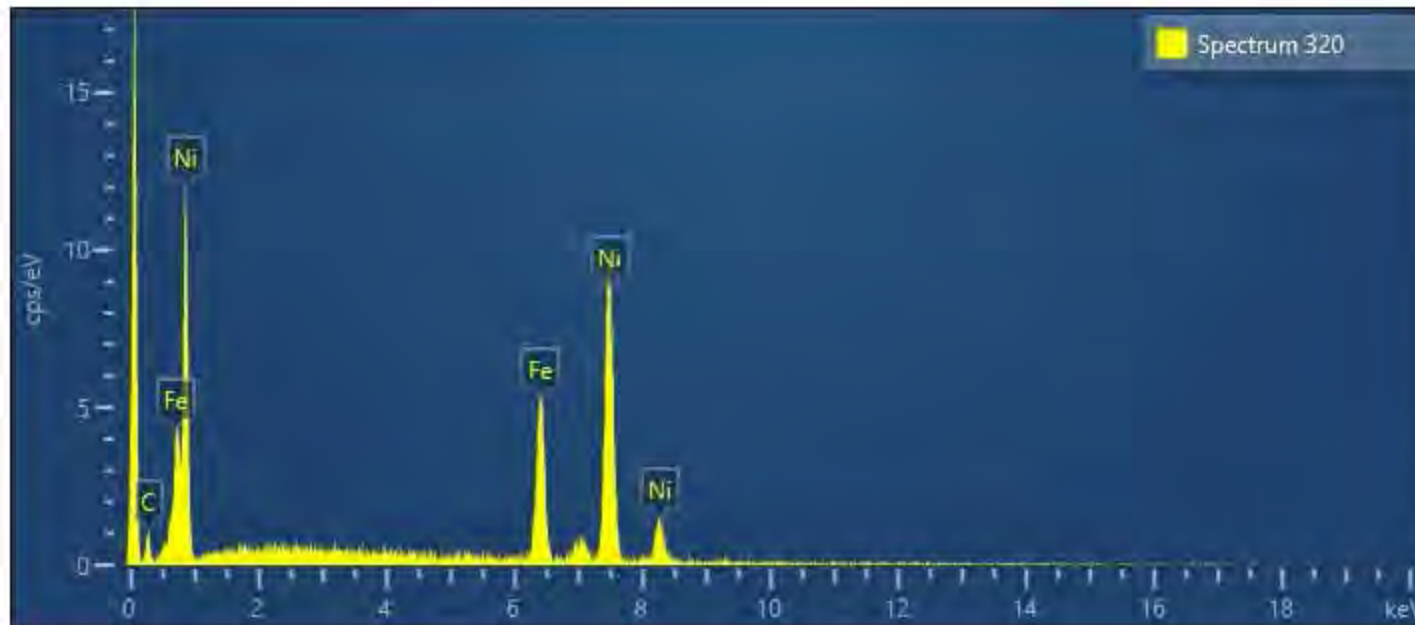


| Spectrum 318 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 1.67 | 0.25 | 2.98 |
| Fe | K series | 26.43 | 0.73 | 27.05 |
| Ni | K series | 71.89 | 0.75 | 69.97 |
| Total | | 100.00 | | 100.00 |

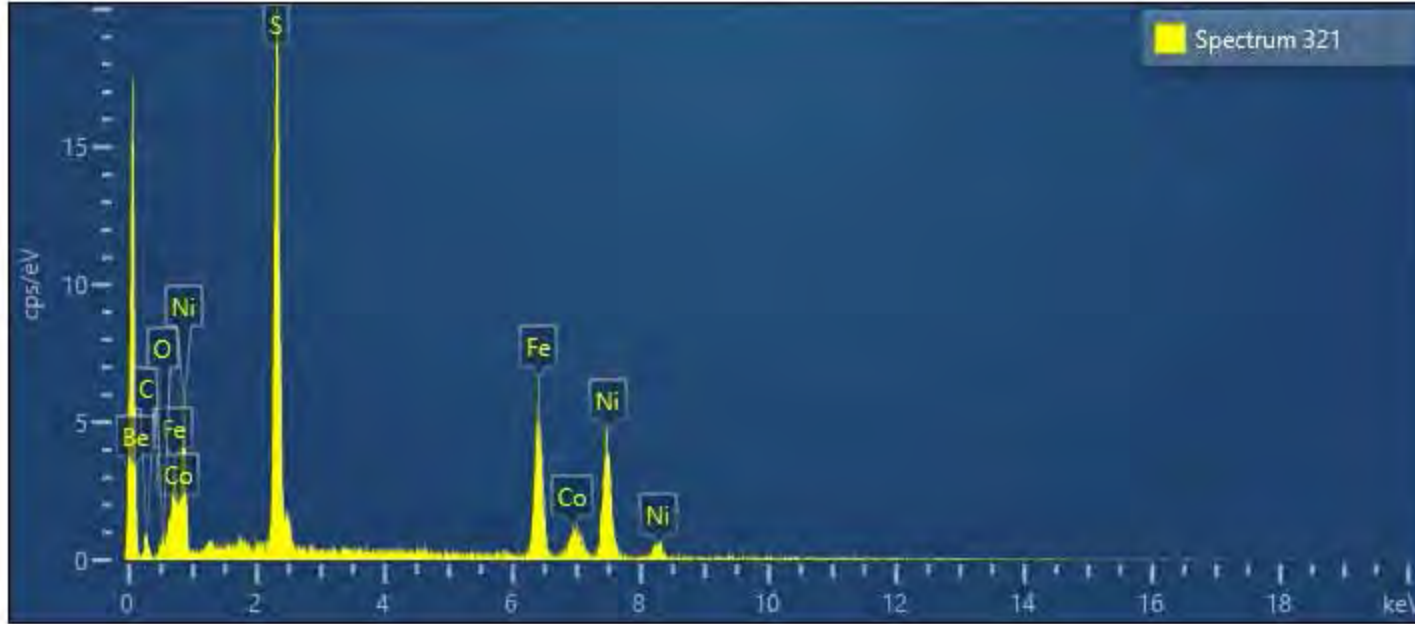


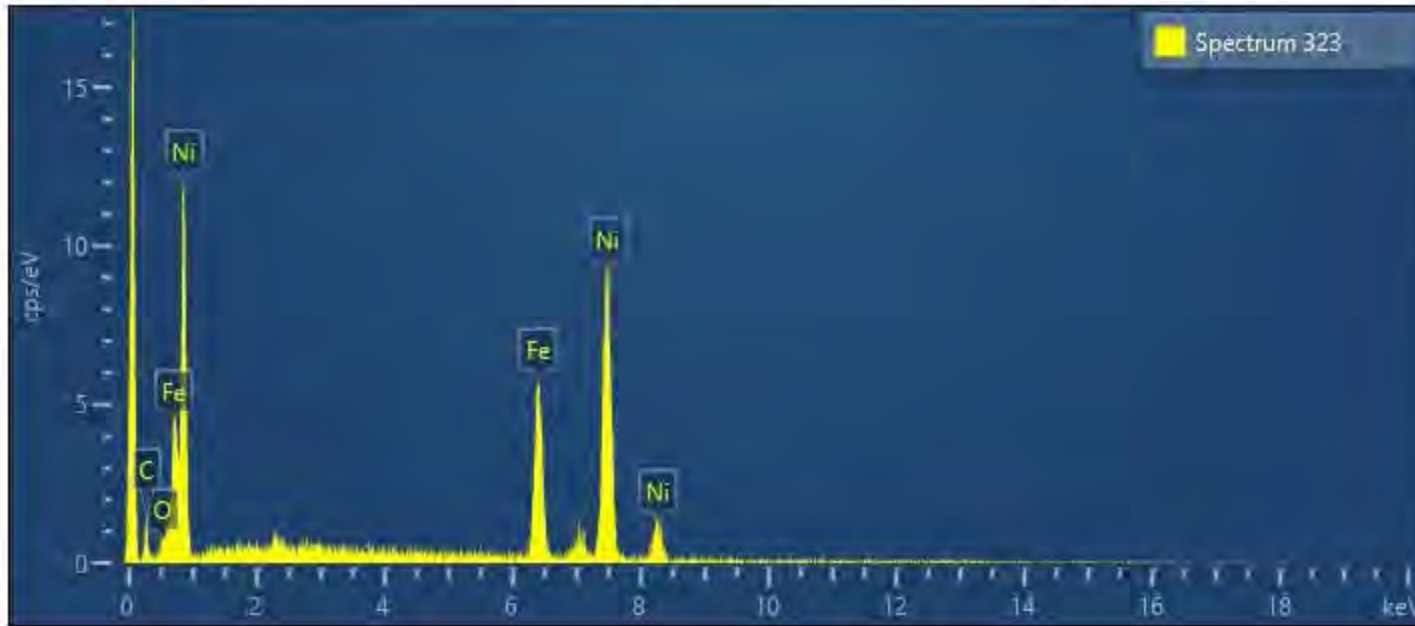
| Spectrum 319 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 53.37 | 0.67 | 65.35 |
| Mg | K series | 25.96 | 0.50 | 20.92 |
| Si | K series | 18.69 | 0.44 | 13.04 |
| Fe | K series | 1.98 | 0.29 | 0.69 |
| Total | | 100.00 | | 100.00 |



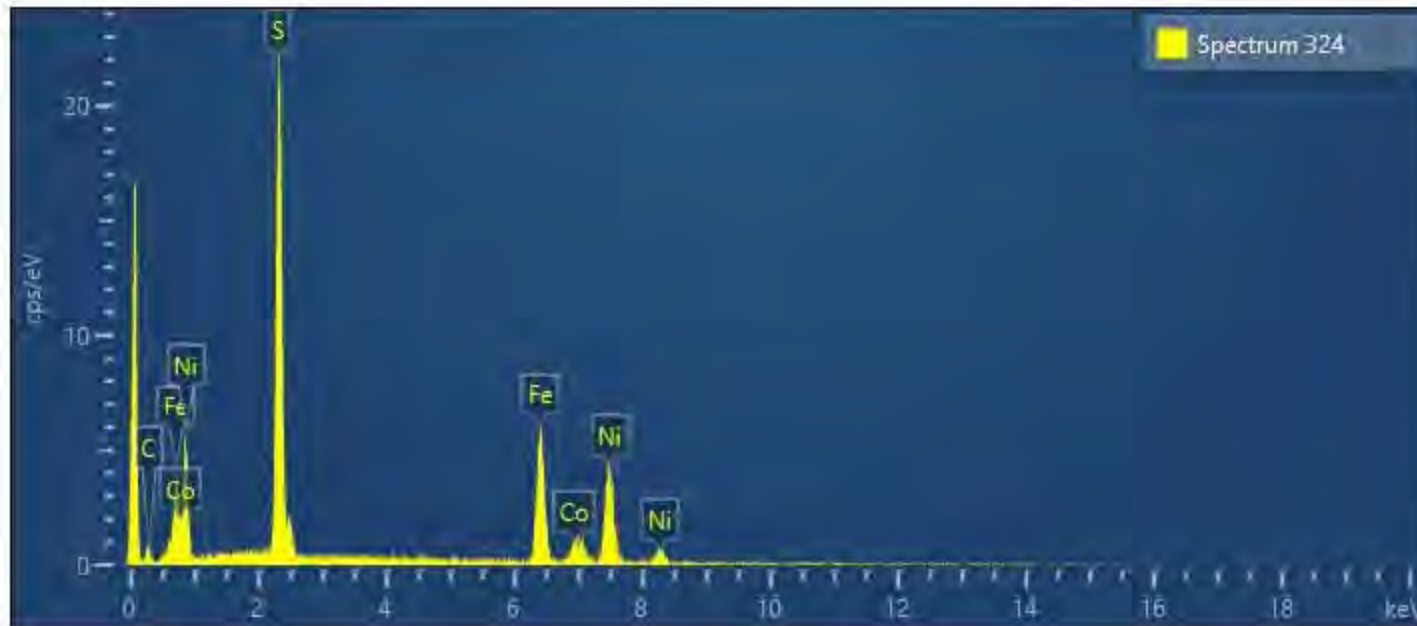


| Spectrum 320 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.12 | 0.73 | 25.05 |
| Ni | K series | 75.88 | 0.73 | 74.95 |
| Total | | 100.00 | | 100.00 |

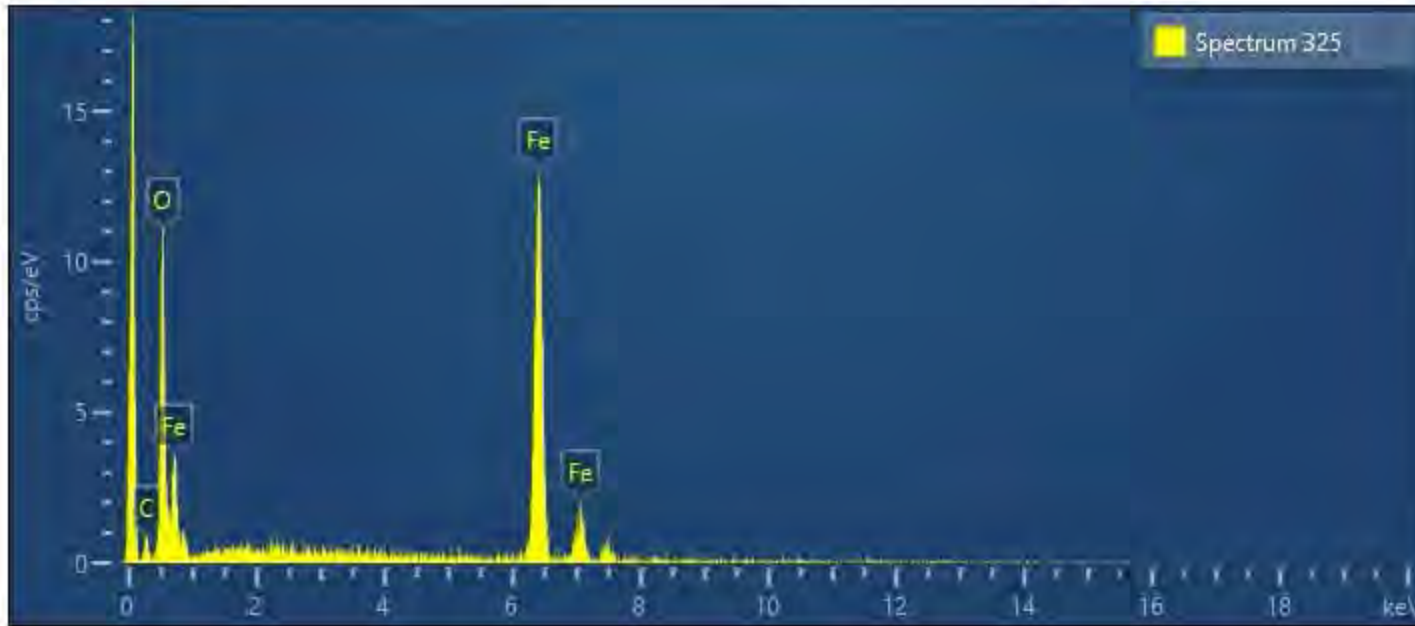




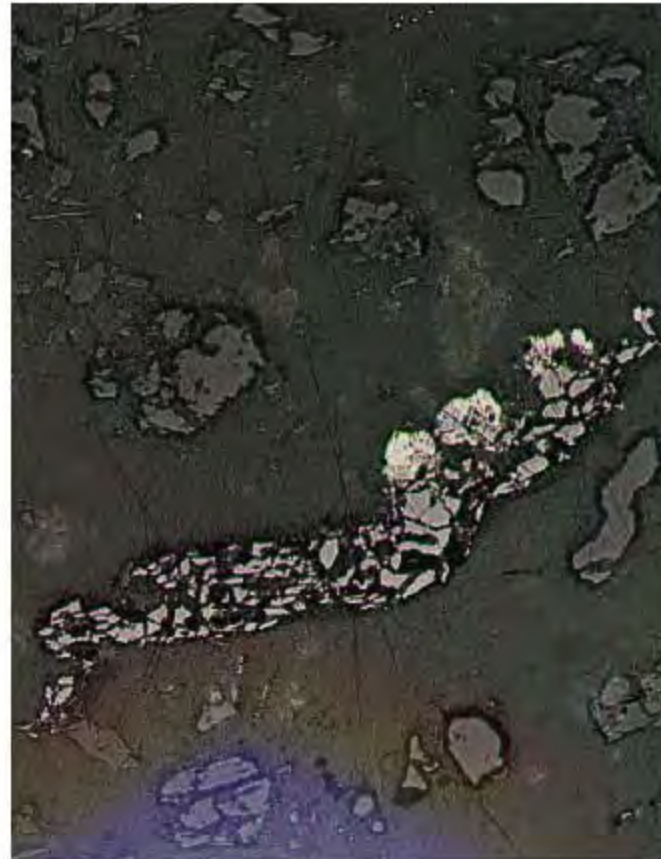
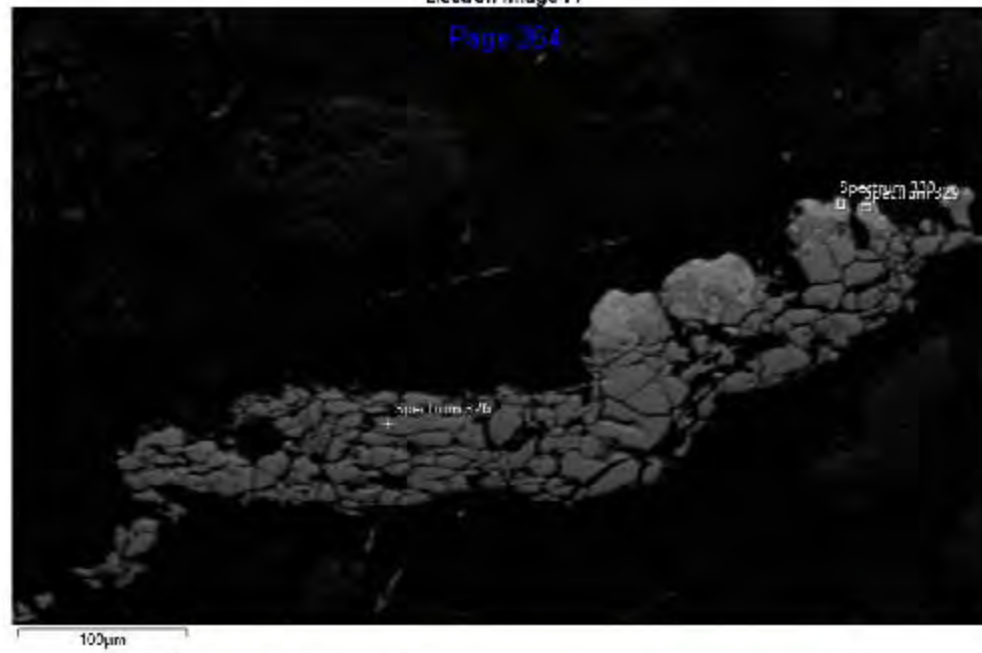
| Spectrum 323 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.82 | 0.84 | 24.64 |
| Ni | K series | 73.44 | 0.94 | 69.34 |
| O | K series | 1.74 | 0.57 | 6.02 |
| Total | | 100.00 | | 100.00 |

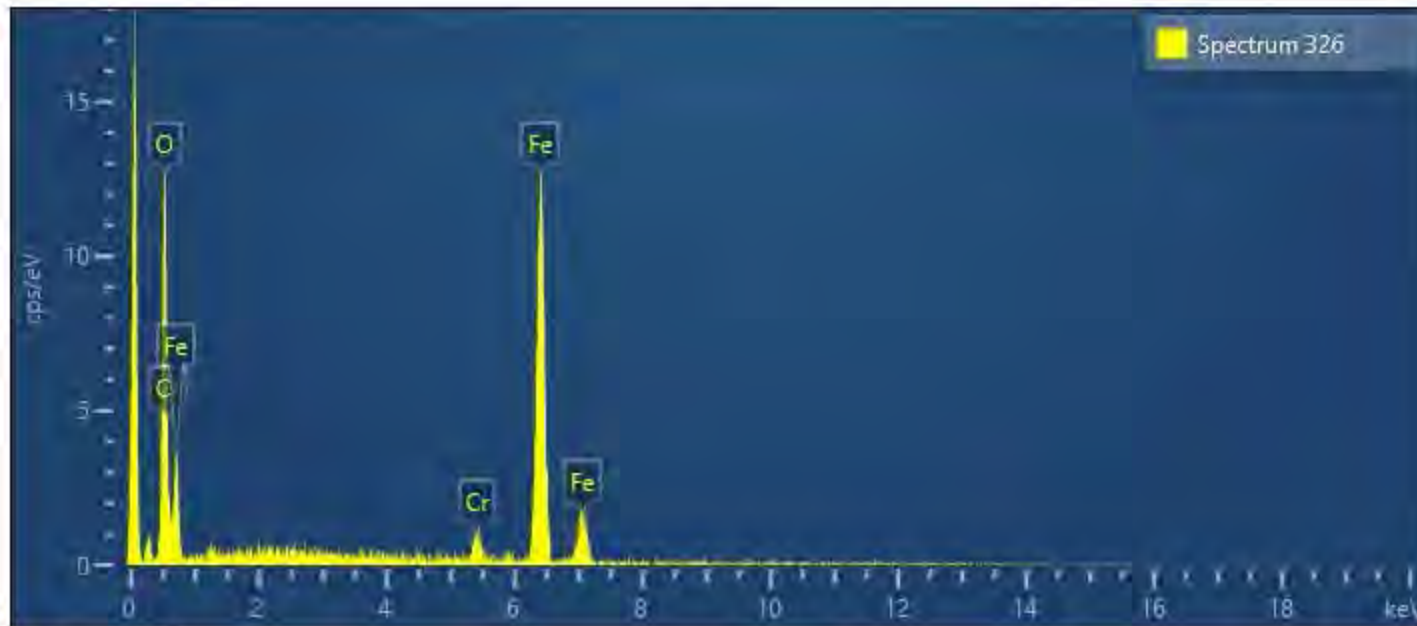


| Spectrum 324 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 32.77 | 0.71 | 46.64 |
| Fe | K series | 28.52 | 0.79 | 23.30 |
| Ni | K series | 33.76 | 0.93 | 26.23 |
| Co | K series | 4.95 | 0.64 | 3.83 |
| Total | | 100.00 | | 100.00 |

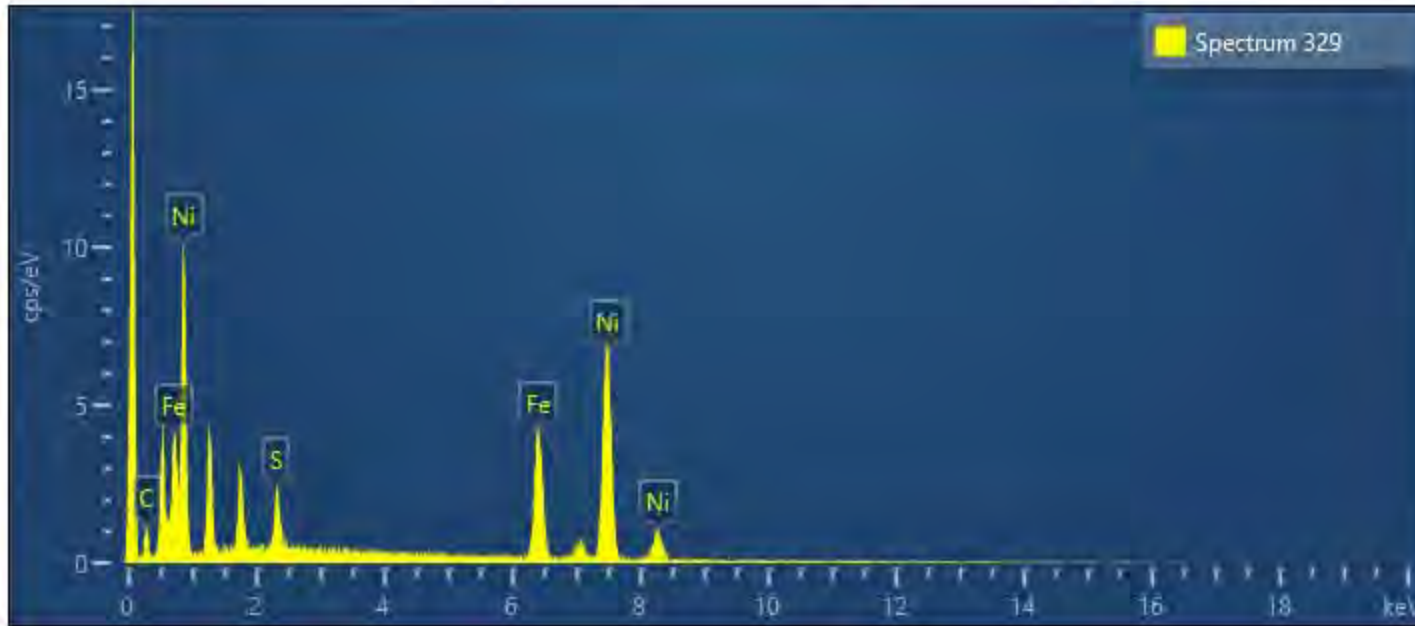


| Spectrum 325 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.31 | 1.07 | 57.96 |
| Fe | K series | 71.69 | 1.07 | 42.04 |
| Total | | 100.00 | | 100.00 |

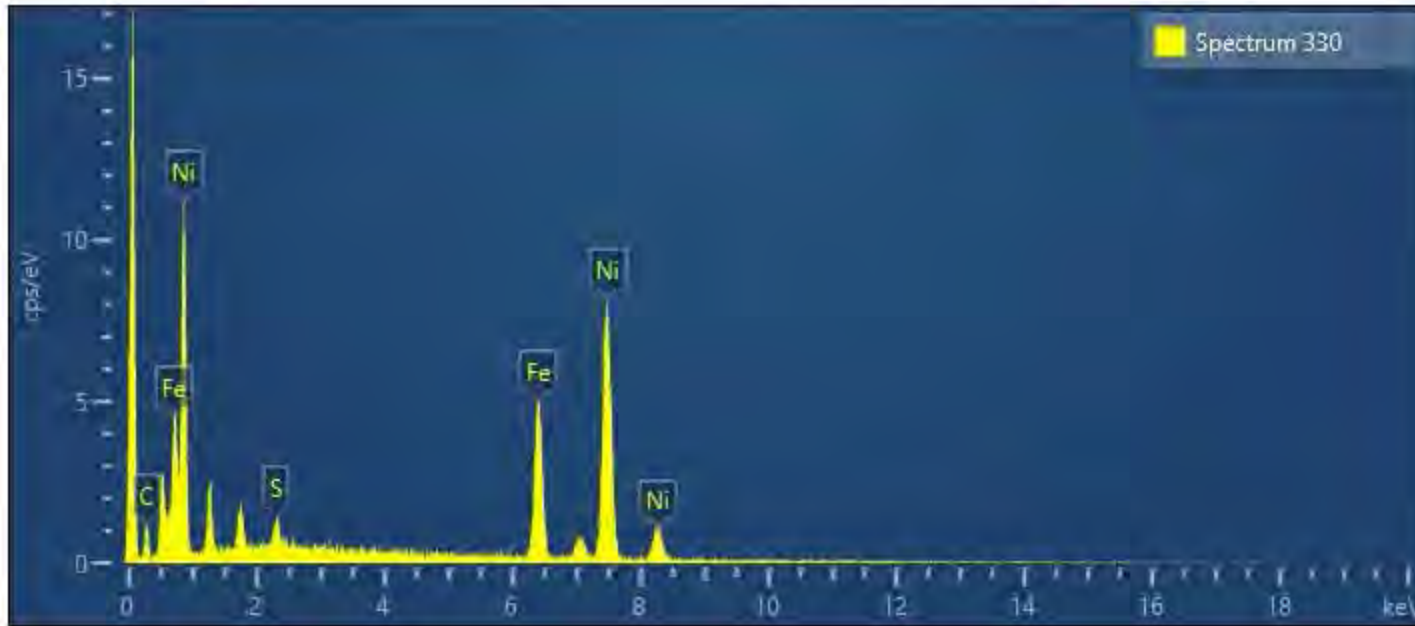




| Spectrum 326 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.34 | 1.08 | 59.10 |
| Cr | K series | 2.75 | 0.35 | 1.71 |
| Fe | K series | 67.91 | 1.09 | 39.19 |
| Total | | 100.00 | | 100.00 |



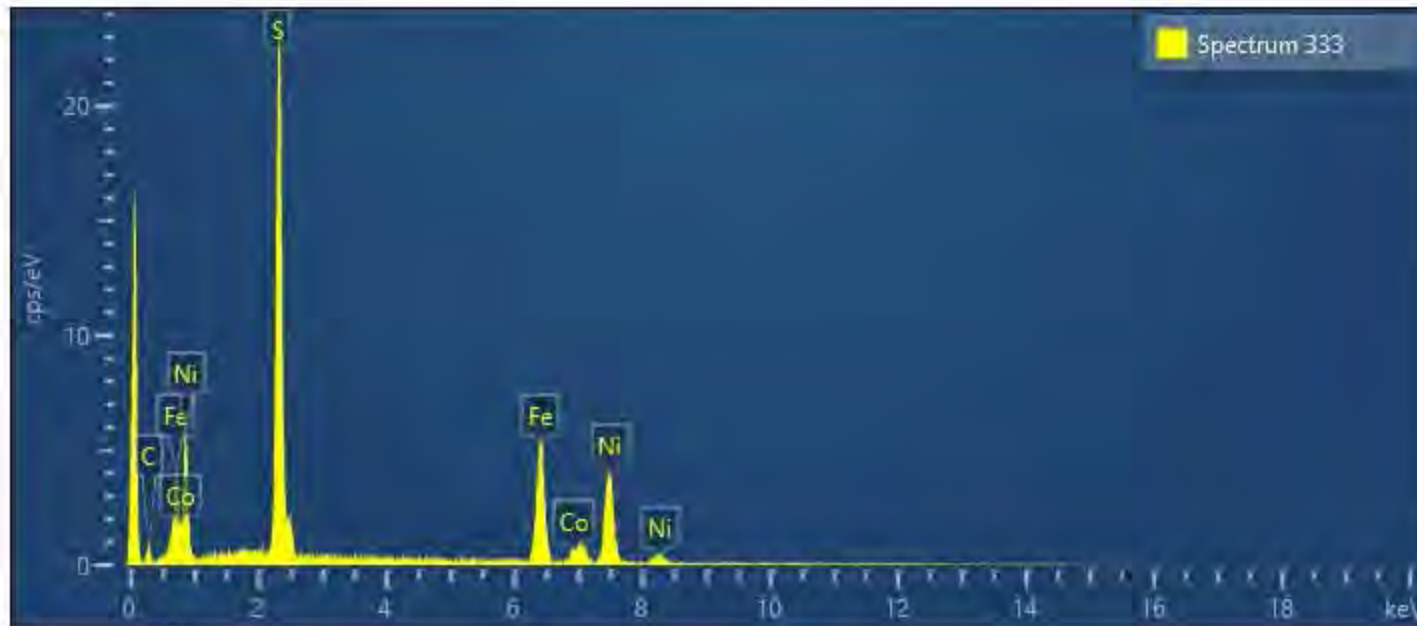
| Spectrum 329 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 4.07 | 0.25 | 7.12 |
| Fe | K series | 24.81 | 0.57 | 24.92 |
| Ni | K series | 71.12 | 0.60 | 67.96 |
| Total | | 100.00 | | 100.00 |



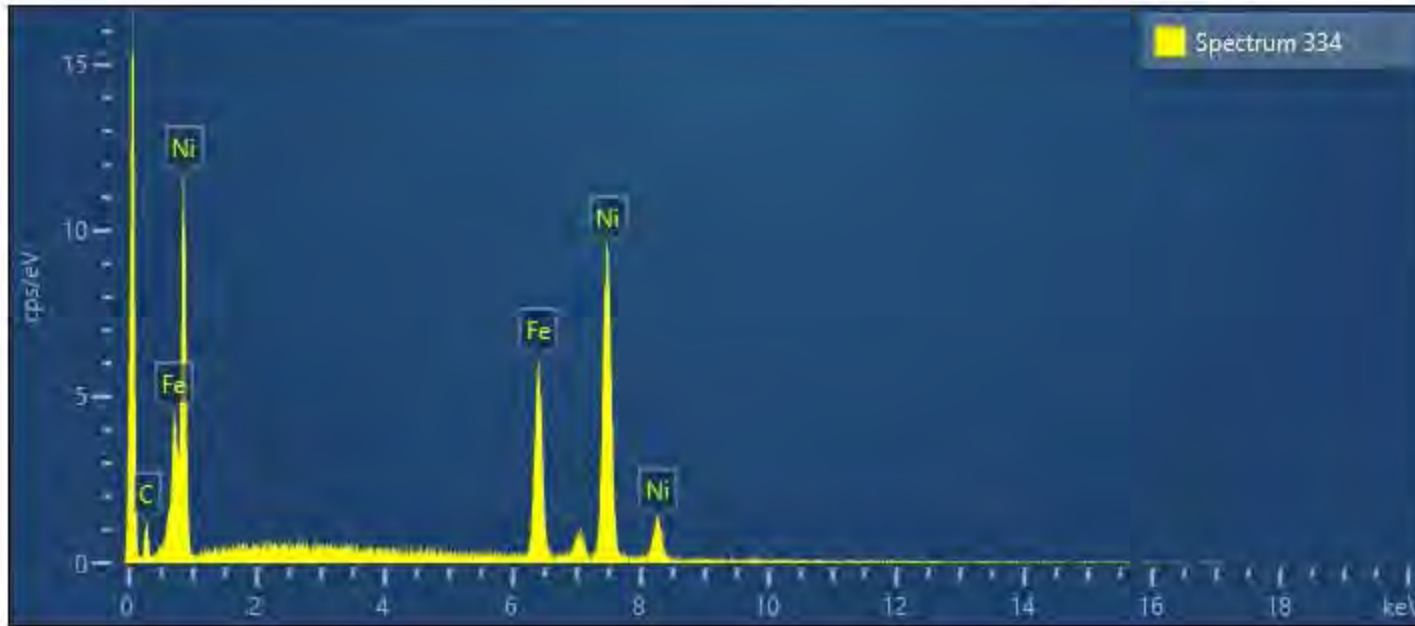
| Spectrum 330 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.96 | 0.62 | 26.60 |
| Ni | K series | 72.53 | 0.64 | 70.70 |
| S | K series | 1.51 | 0.22 | 2.70 |
| Total | | 100.00 | | 100.00 |

Electron Image 78

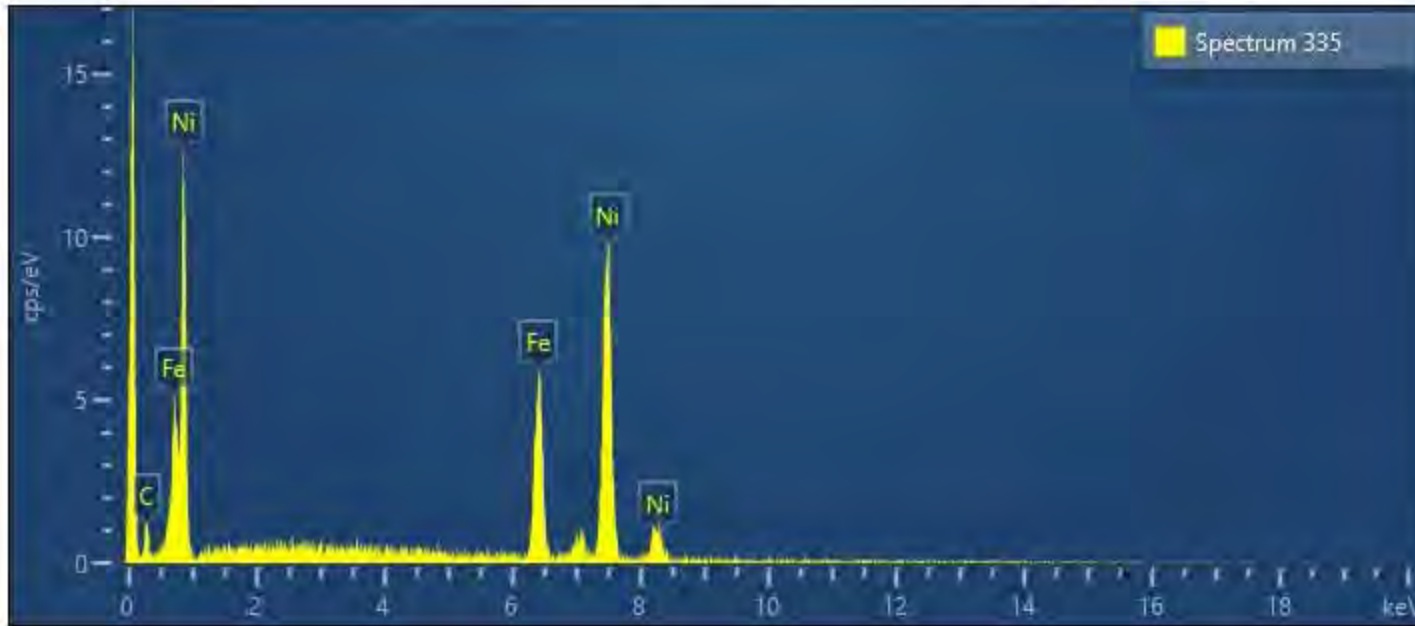




| Spectrum 333 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.43 | 0.62 | 49.57 |
| Fe | K series | 28.04 | 0.66 | 22.53 |
| Ni | K series | 33.41 | 0.77 | 25.53 |
| Co | K series | 3.12 | 0.51 | 2.37 |
| Total | | 100.00 | | 100.00 |

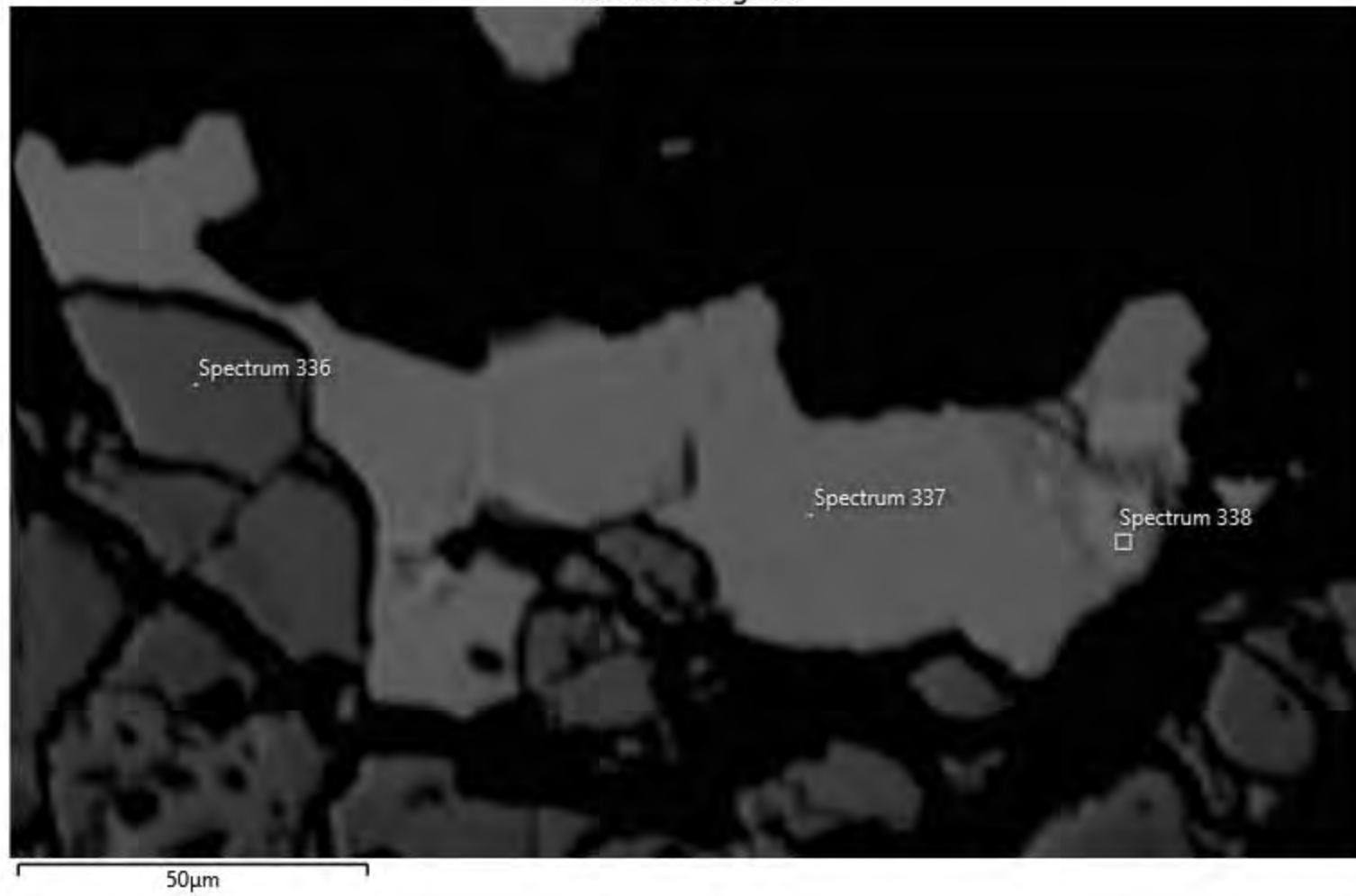


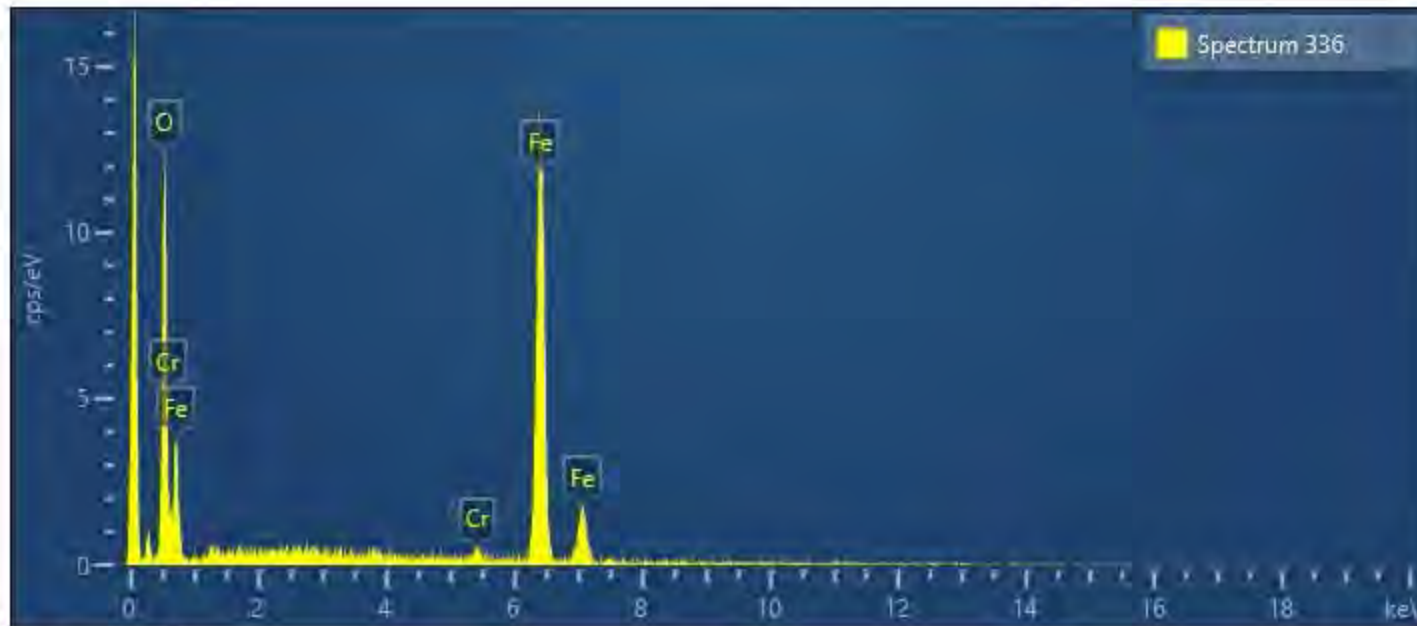
| Spectrum 334 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.68 | 0.57 | 26.65 |
| Ni | K series | 74.32 | 0.57 | 73.35 |
| Total | | 100.00 | | 100.00 |



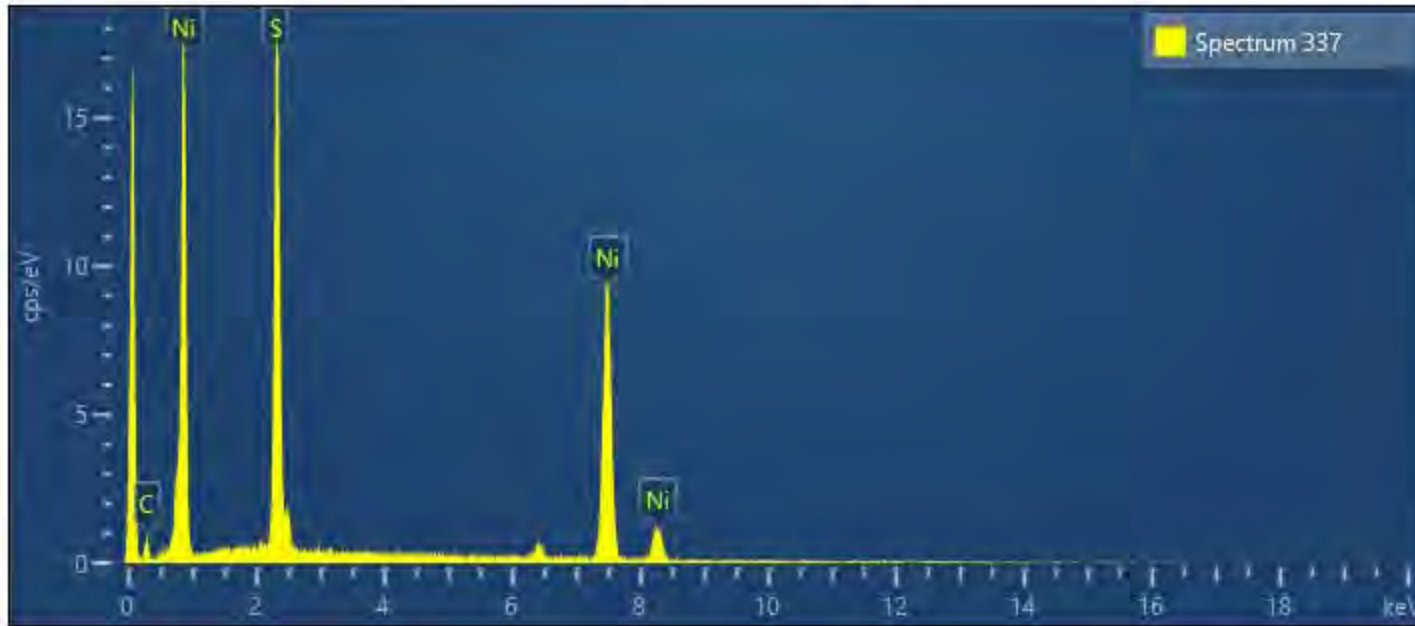
| Spectrum 335 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.09 | 0.80 | 26.04 |
| Ni | K series | 74.91 | 0.80 | 73.96 |
| Total | | 100.00 | | 100.00 |

Electron Image 79

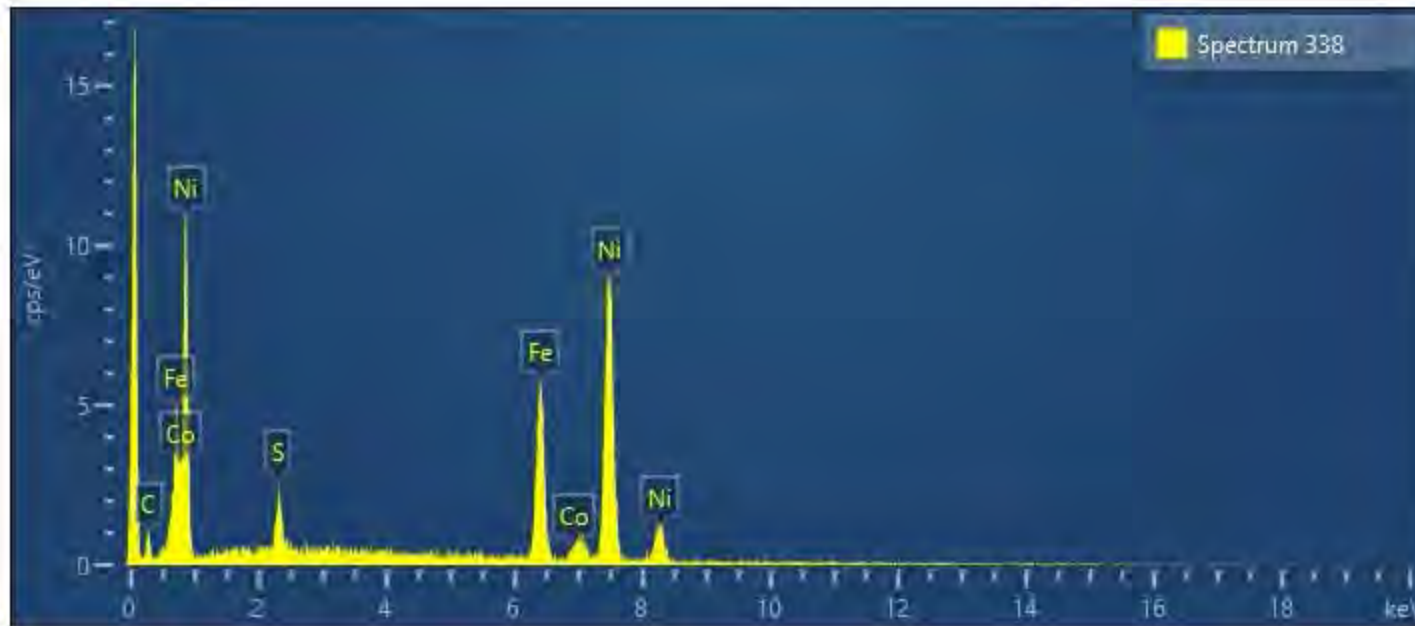




| Spectrum 336 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.06 | 1.02 | 57.63 |
| Fe | K series | 70.95 | 1.03 | 41.75 |
| Cr | K series | 0.99 | 0.25 | 0.63 |
| Total | | 100.00 | | 100.00 |

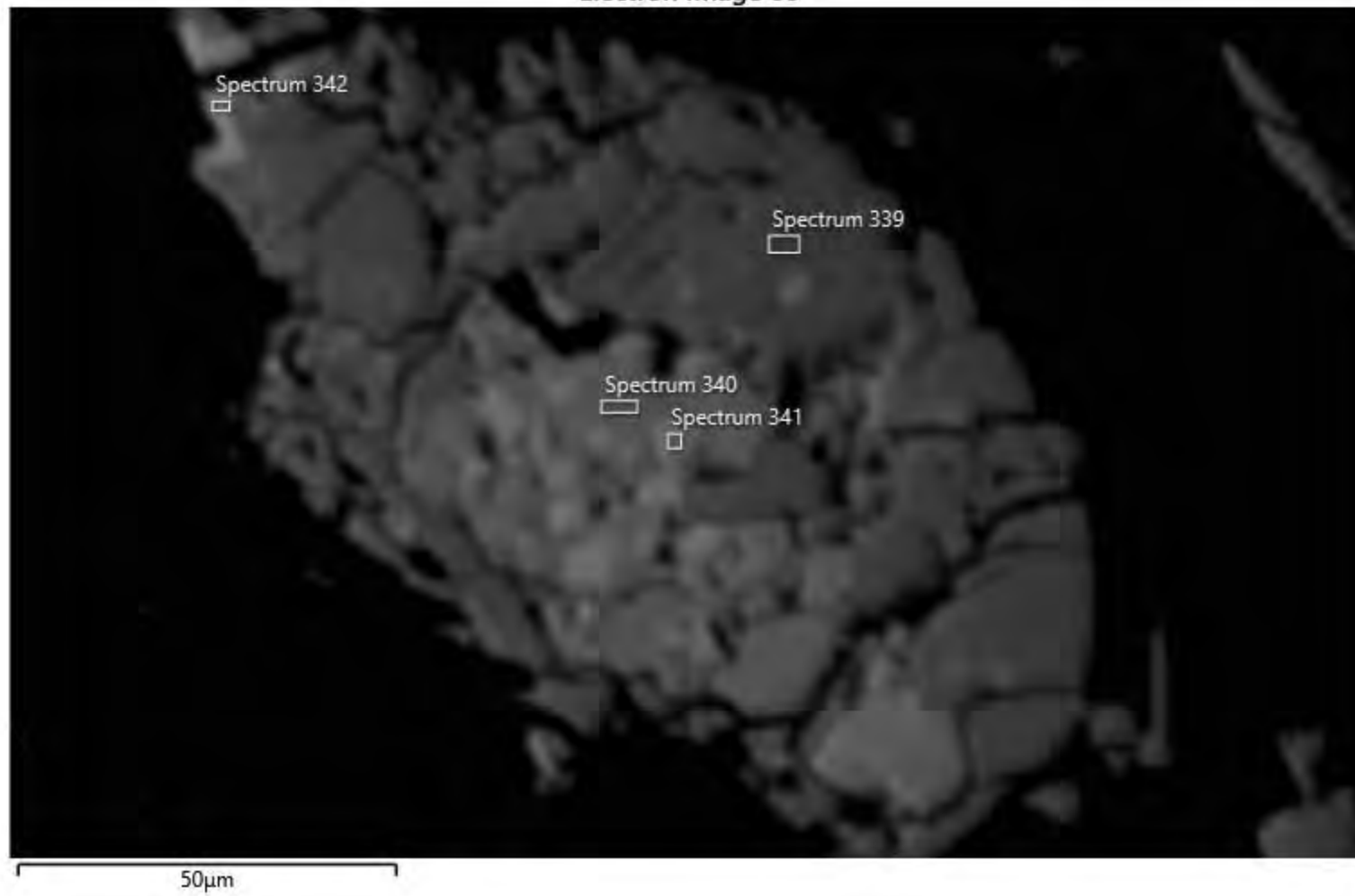


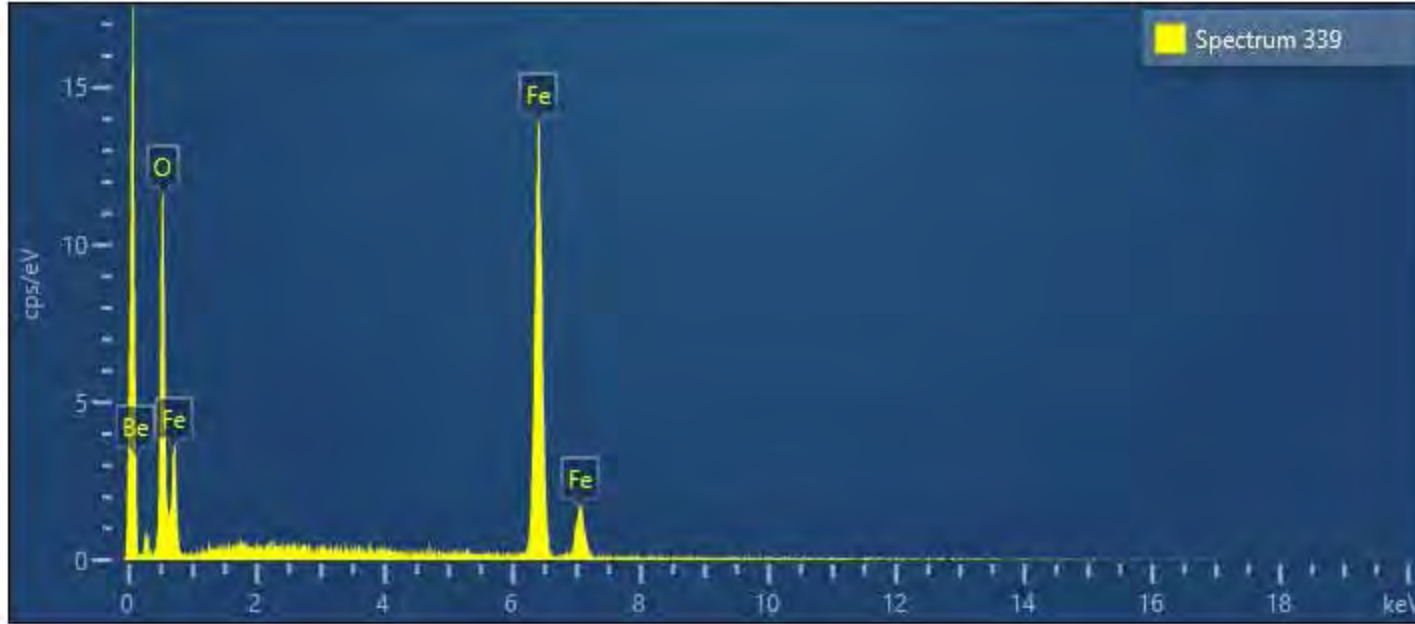
| Spectrum 337 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.38 | 0.43 | 42.04 |
| Ni | K series | 71.62 | 0.43 | 57.96 |
| Total | | 100.00 | | 100.00 |

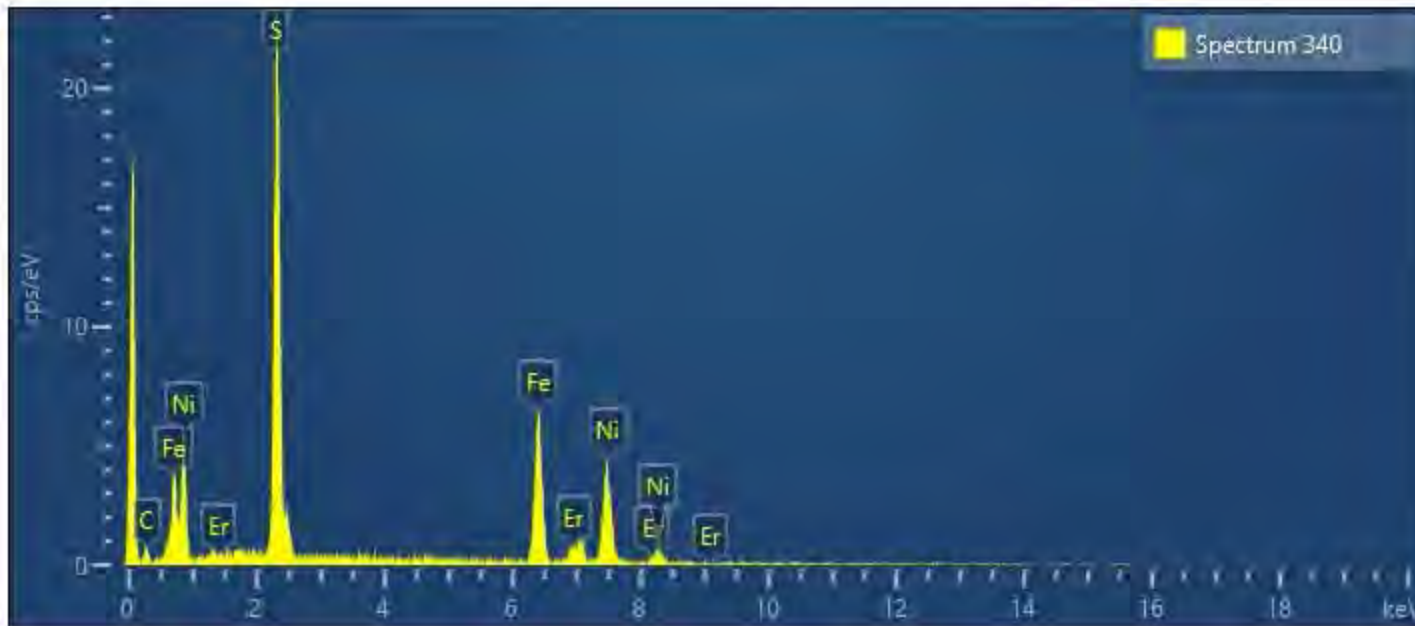


| Spectrum 338 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.56 | 0.63 | 24.90 |
| Ni | K series | 69.95 | 0.73 | 67.47 |
| S | K series | 2.93 | 0.24 | 5.18 |
| Co | K series | 2.55 | 0.47 | 2.45 |
| Total | | 100.00 | | 100.00 |

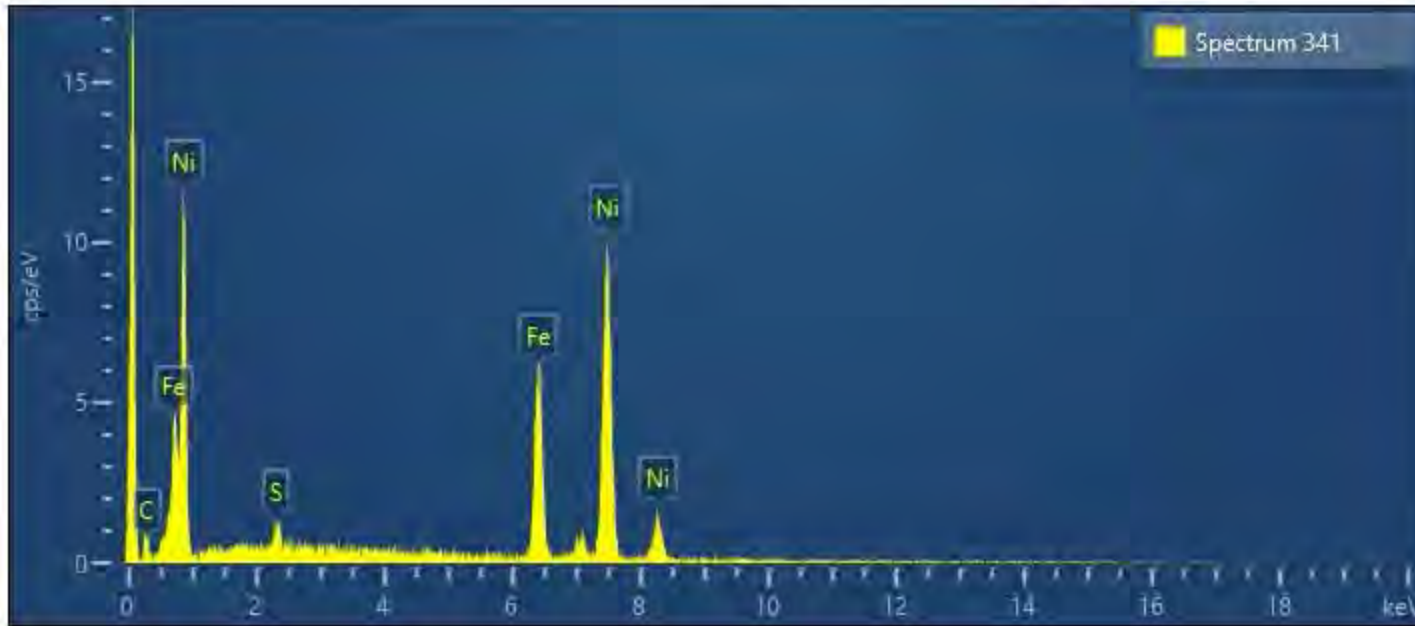
Electron Image 80



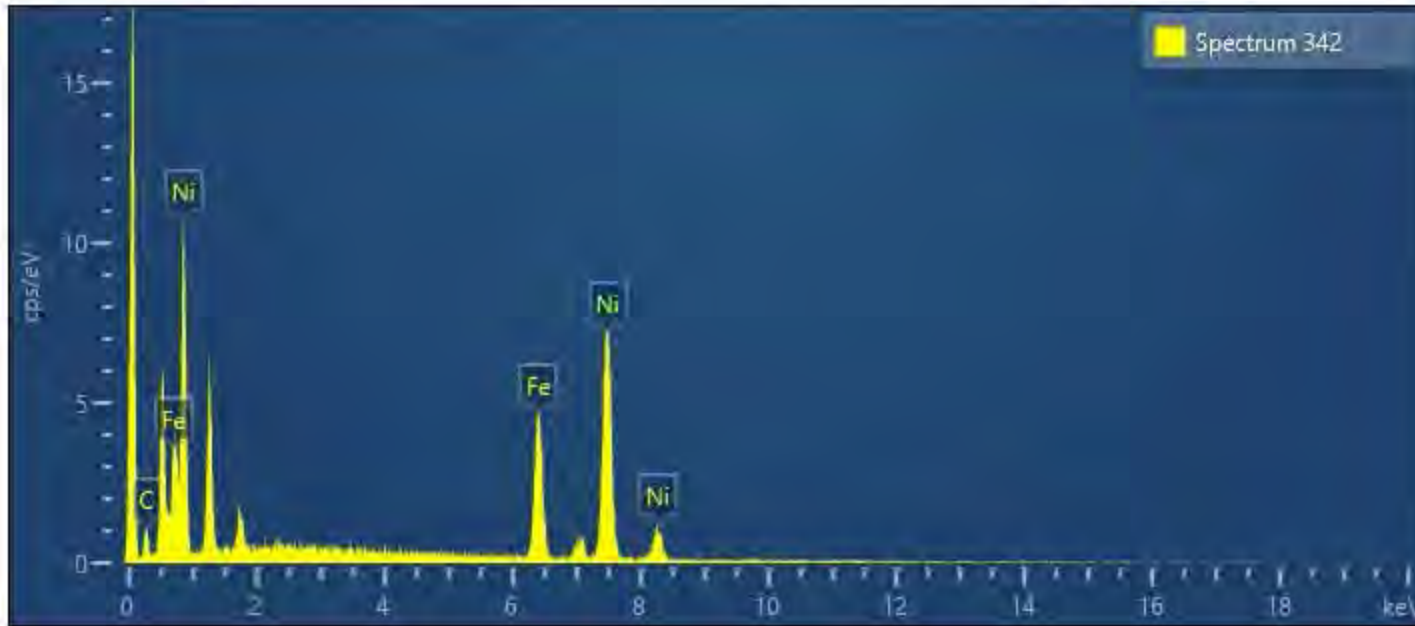




| Spectrum 340 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.76 | 0.88 | 48.95 |
| Fe | K series | 30.53 | 0.93 | 25.42 |
| Ni | K series | 30.57 | 1.06 | 24.21 |
| Er | L series | 5.14 | 1.35 | 1.43 |
| Total | | 100.00 | | 100.00 |



| Spectrum 341 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 26.58 | 0.70 | 27.28 |
| Ni | K series | 72.14 | 0.72 | 70.43 |
| S | K series | 1.28 | 0.22 | 2.29 |
| Total | | 100.00 | | 100.00 |

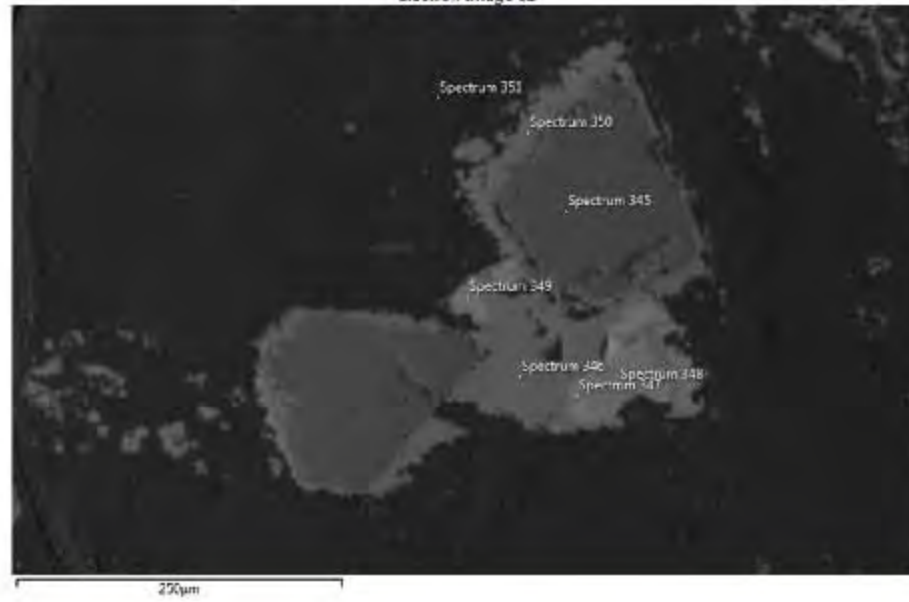


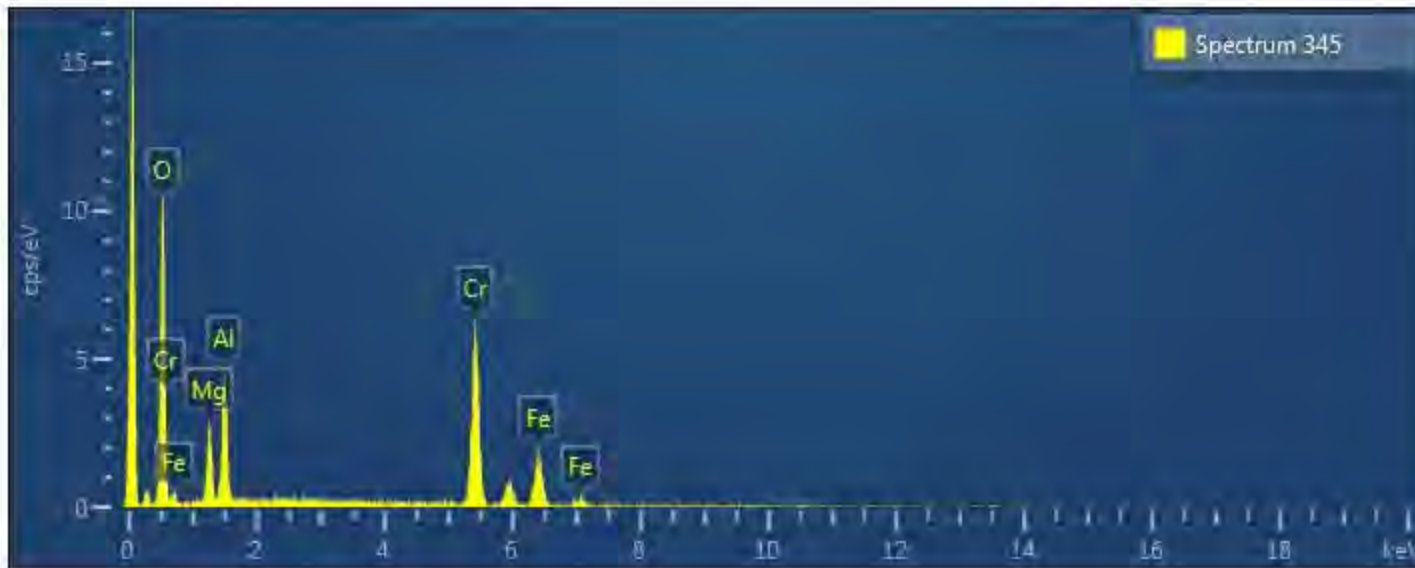
| Spectrum 342 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 27.10 | 0.66 | 28.10 |
| Ni | K series | 72.90 | 0.66 | 71.90 |
| Total | | 100.00 | | 100.00 |

Specimen Notes for '564' - Sulphide Mineral Inventory – Co-pentlandite, Heazlewoodite

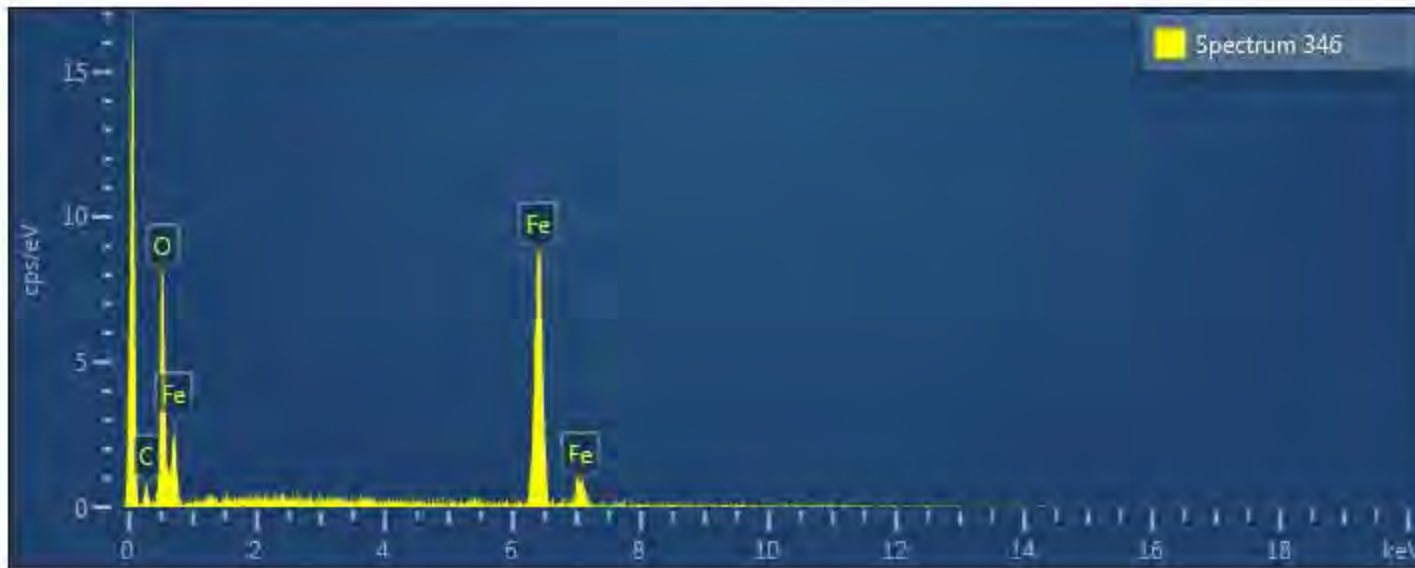
SITE 1 CIRCLE 1 is a coarse grain of chromite and magnetite with marginal grains of Co-pentlandite intergrown with heazlewoodite.

SITE 2 CIRCLE 2 is representative of the areas between serpentinized olivine grains. These groundmass areas are dominantly magnetite-chromite with coarser grains of Co-pentlandite-heazlewoodite.

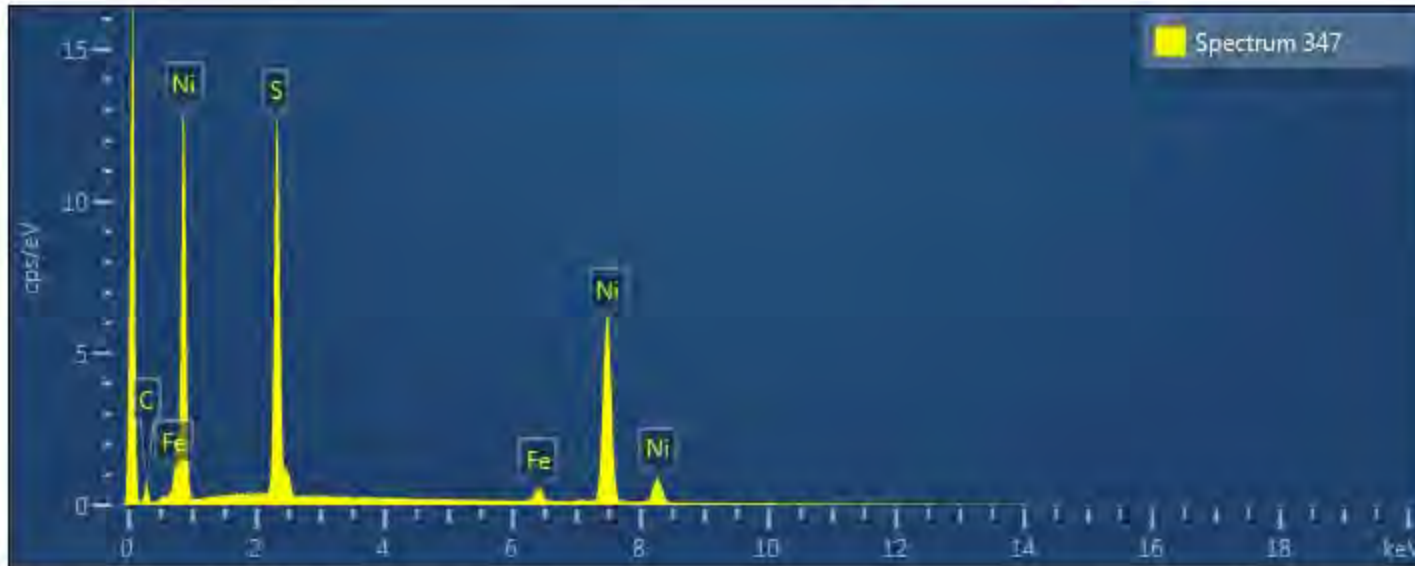




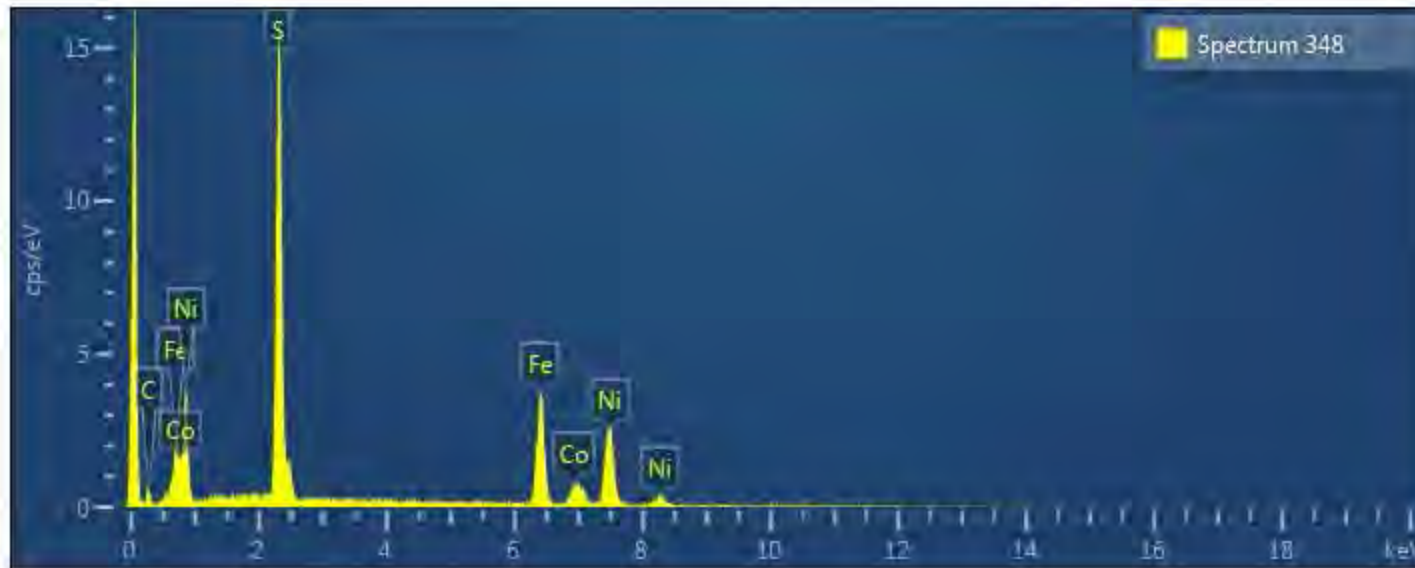
| Spectrum 345 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.50 | 1.02 | 58.63 |
| Mg | K series | 6.93 | 0.45 | 7.54 |
| Al | K series | 10.75 | 0.48 | 10.53 |
| Cr | K series | 32.65 | 0.83 | 16.60 |
| Fe | K series | 14.17 | 0.72 | 6.71 |
| Total | | 100.00 | | 100.00 |



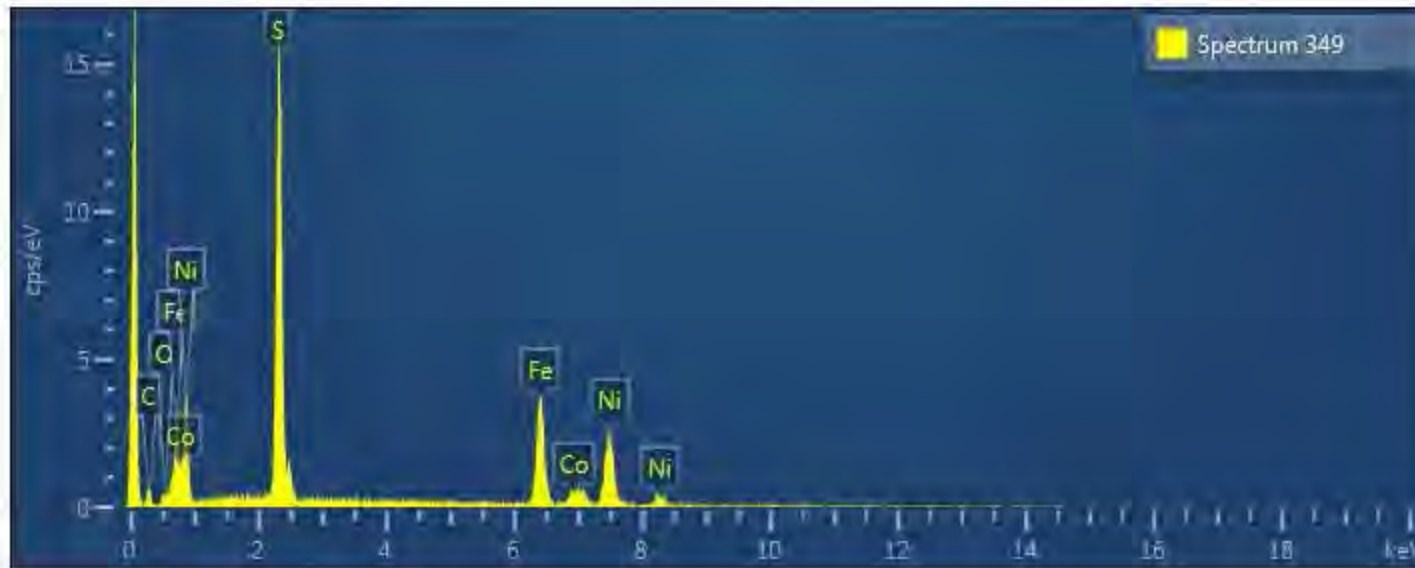
| Spectrum 346 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.14 | 1.02 | 58.94 |
| Fe | K series | 70.86 | 1.02 | 41.06 |
| Total | | 100.00 | | 100.00 |



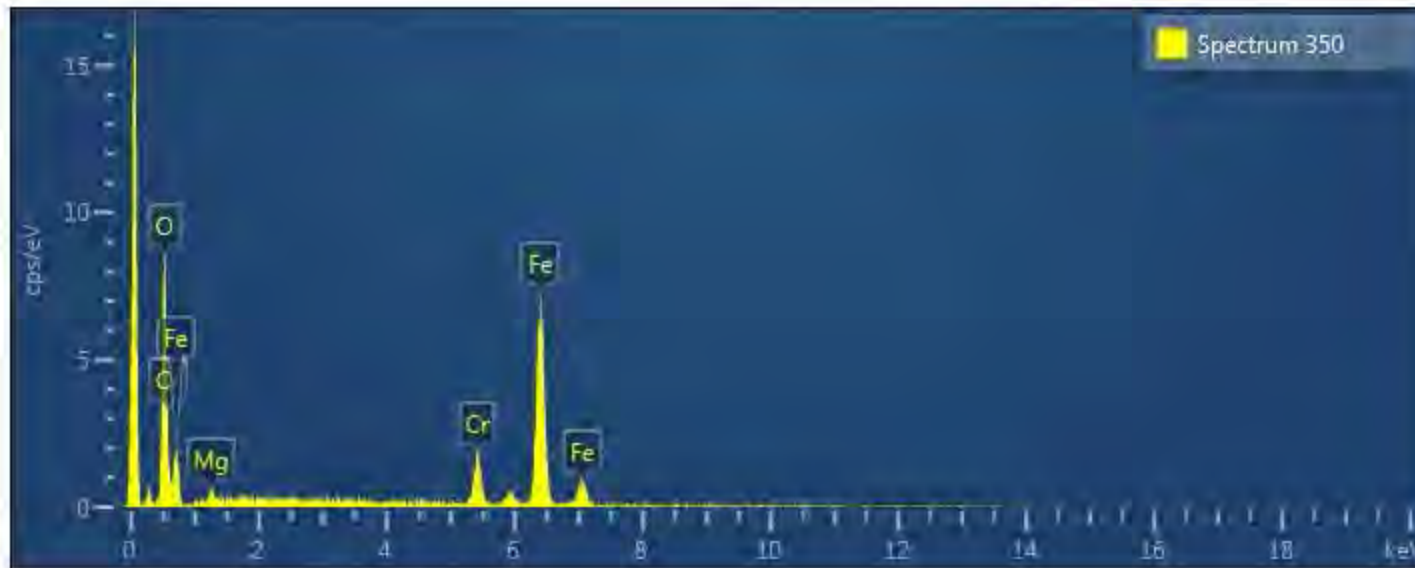
| Spectrum 347 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.94 | 0.22 | 41.47 |
| Ni | K series | 69.26 | 0.24 | 56.15 |
| Fe | K series | 2.80 | 0.12 | 2.38 |
| Total | | 100.00 | | 100.00 |



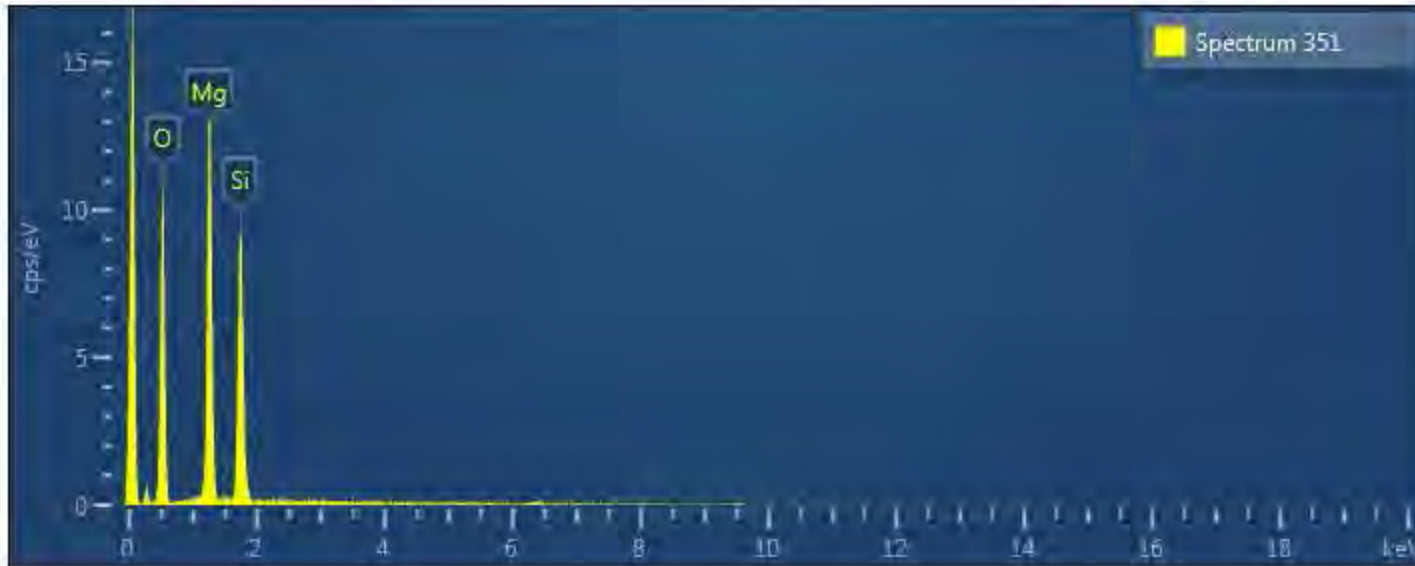
| Spectrum 348 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.86 | 0.55 | 48.96 |
| Fe | K series | 27.66 | 0.59 | 22.30 |
| Co | K series | 5.64 | 0.50 | 4.31 |
| Ni | K series | 31.85 | 0.70 | 24.43 |
| Total | | 100.00 | | 100.00 |



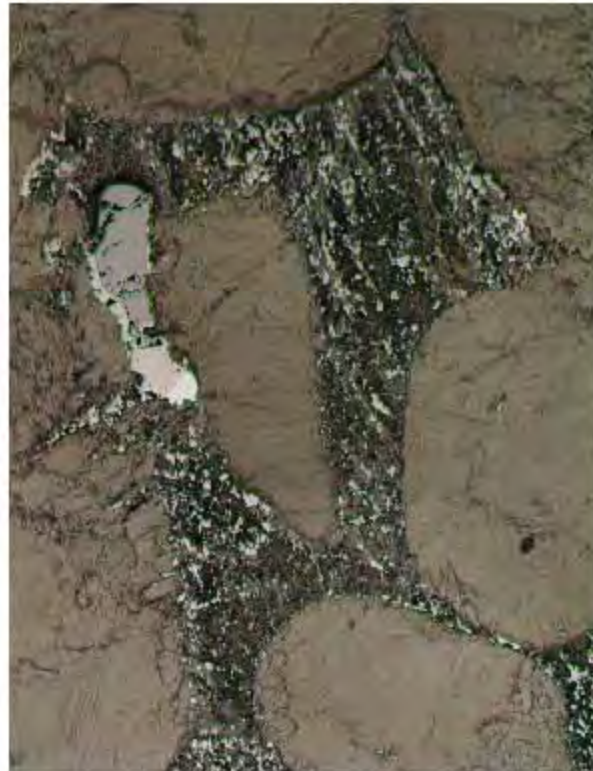
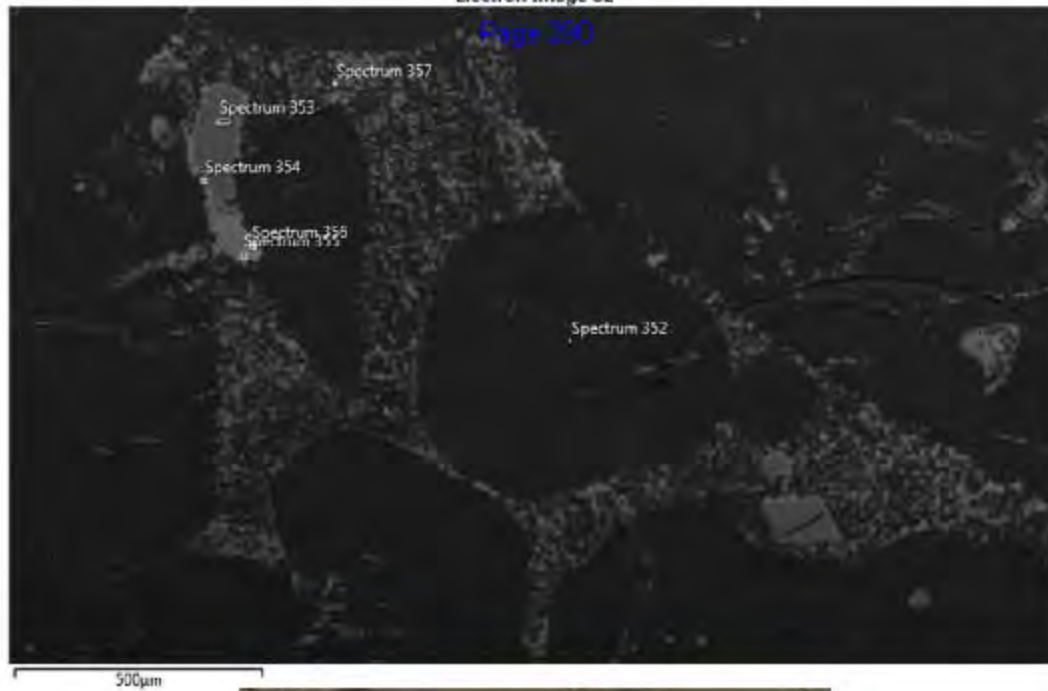
| Spectrum 349 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.83 | 0.76 | 44.95 |
| Fe | K series | 28.13 | 0.82 | 21.46 |
| Ni | K series | 29.68 | 0.96 | 21.53 |
| O | K series | 3.11 | 0.70 | 8.27 |
| Co | K series | 5.24 | 0.66 | 3.79 |
| Total | | 100.00 | | 100.00 |

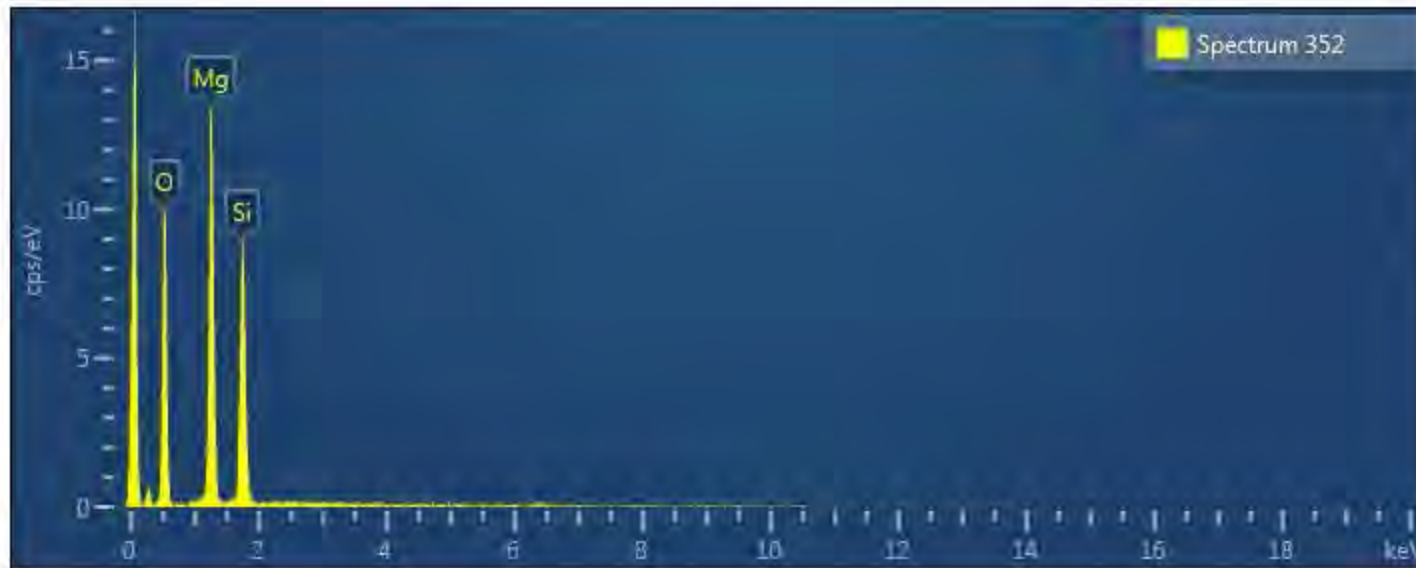


| Spectrum 350 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.23 | 1.06 | 59.24 |
| Cr | K series | 9.16 | 0.51 | 5.52 |
| Fe | K series | 58.95 | 1.07 | 33.09 |
| Mg | K series | 1.66 | 0.37 | 2.14 |
| Total | | 100.00 | | 100.00 |

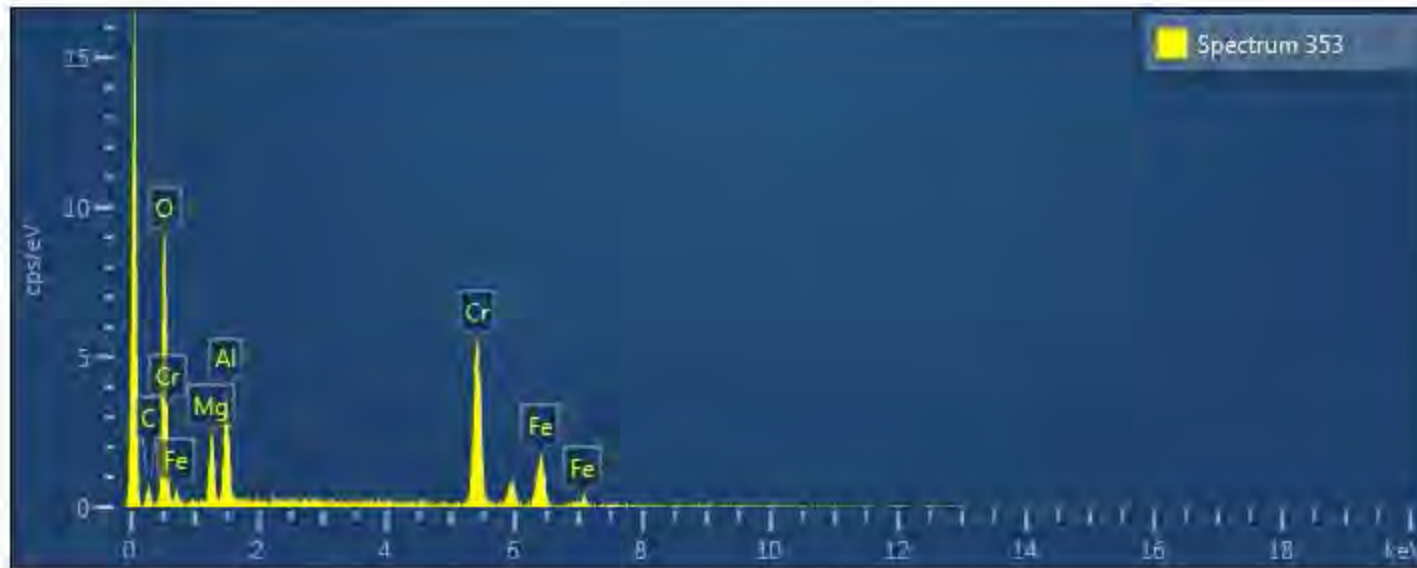


| Spectrum 351 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.93 | 0.77 | 64.50 |
| Mg | K series | 26.23 | 0.57 | 21.03 |
| Si | K series | 20.84 | 0.52 | 14.47 |
| Total | | 100.00 | | 100.00 |

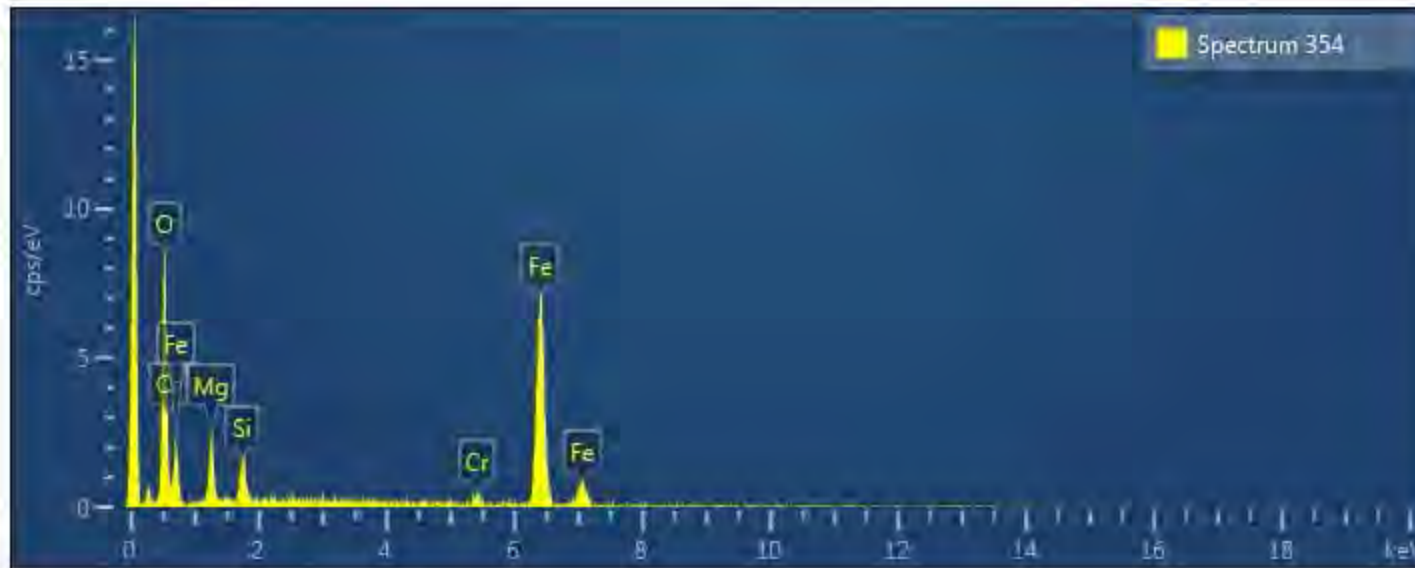




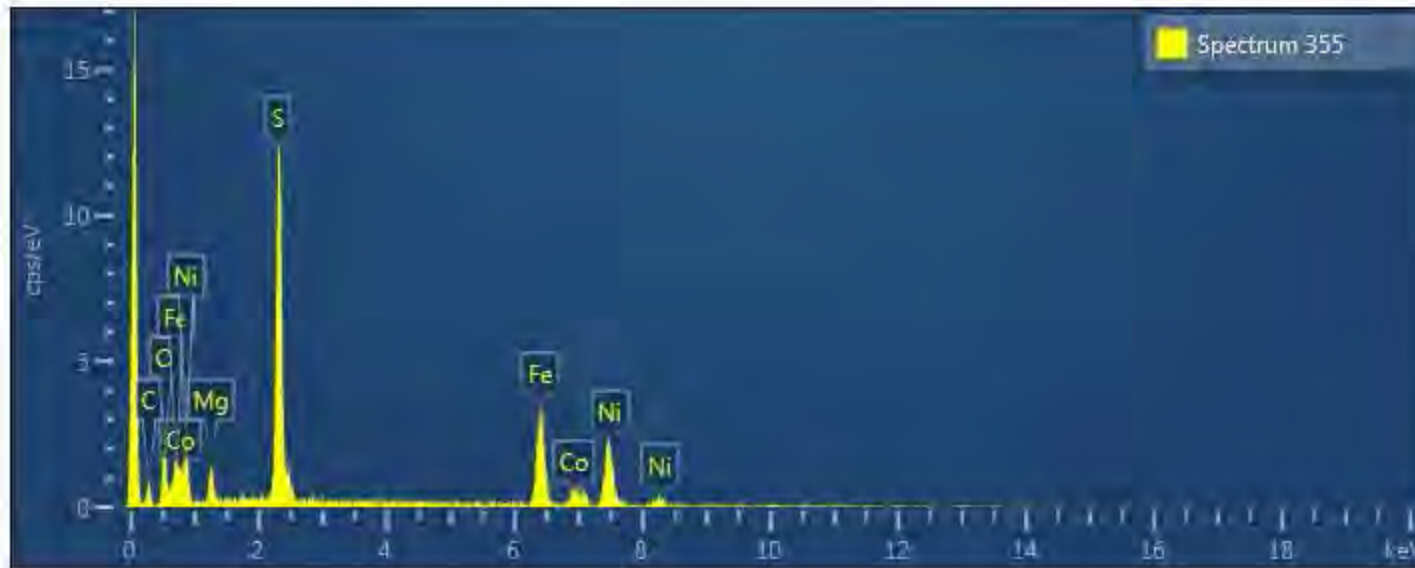
| Spectrum 352 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 53.60 | 0.84 | 65.05 |
| Mg | K series | 26.66 | 0.64 | 21.29 |
| Si | K series | 19.75 | 0.57 | 13.65 |
| Total | | 100.00 | | 100.00 |



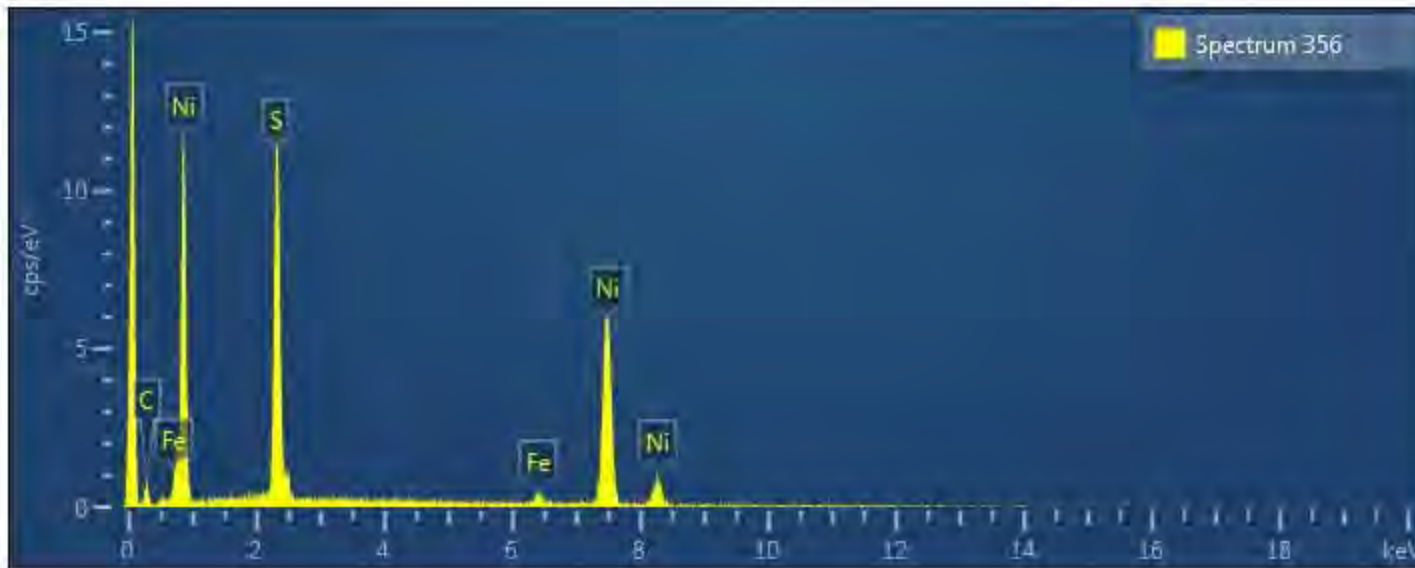
| Spectrum 353 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.20 | 1.20 | 58.49 |
| Mg | K series | 7.49 | 0.54 | 8.19 |
| Al | K series | 9.59 | 0.56 | 9.45 |
| Cr | K series | 32.82 | 1.00 | 16.78 |
| Fe | K series | 14.90 | 0.87 | 7.09 |
| Total | | 100.00 | | 100.00 |



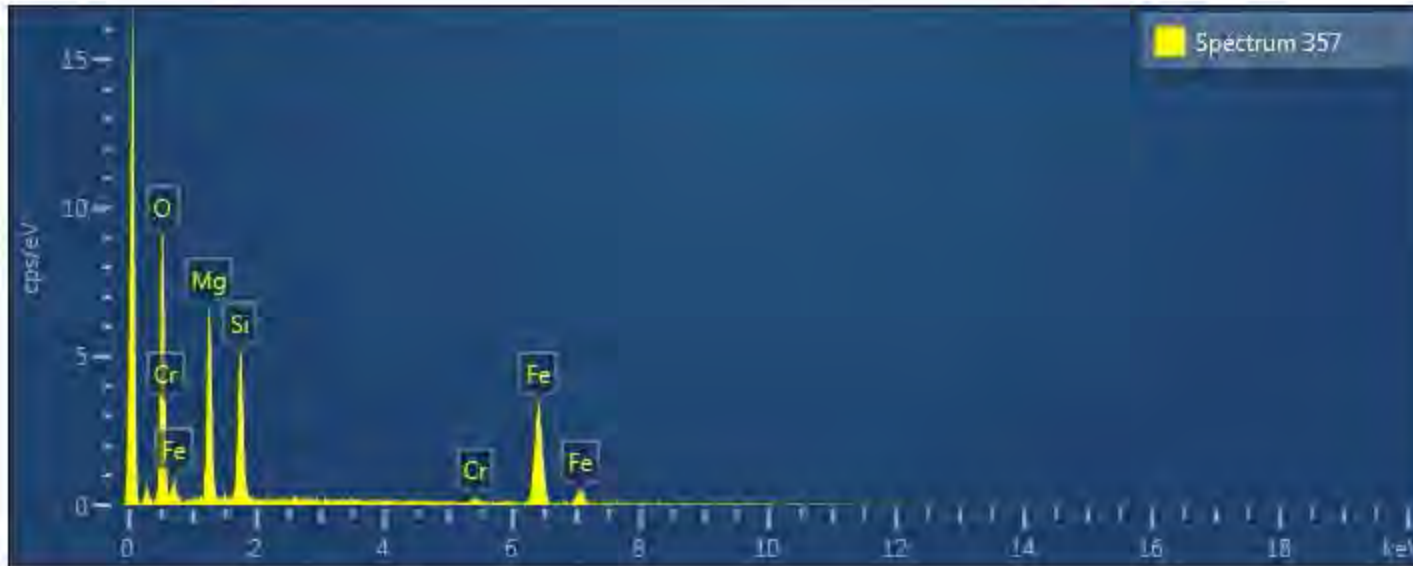
| Spectrum 354 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.25 | 1.19 | 57.14 |
| Mg | K series | 7.56 | 0.56 | 9.09 |
| Si | K series | 3.20 | 0.35 | 3.34 |
| Fe | K series | 56.45 | 1.19 | 29.56 |
| Cr | K series | 1.54 | 0.32 | 0.87 |
| Total | | 100.00 | | 100.00 |



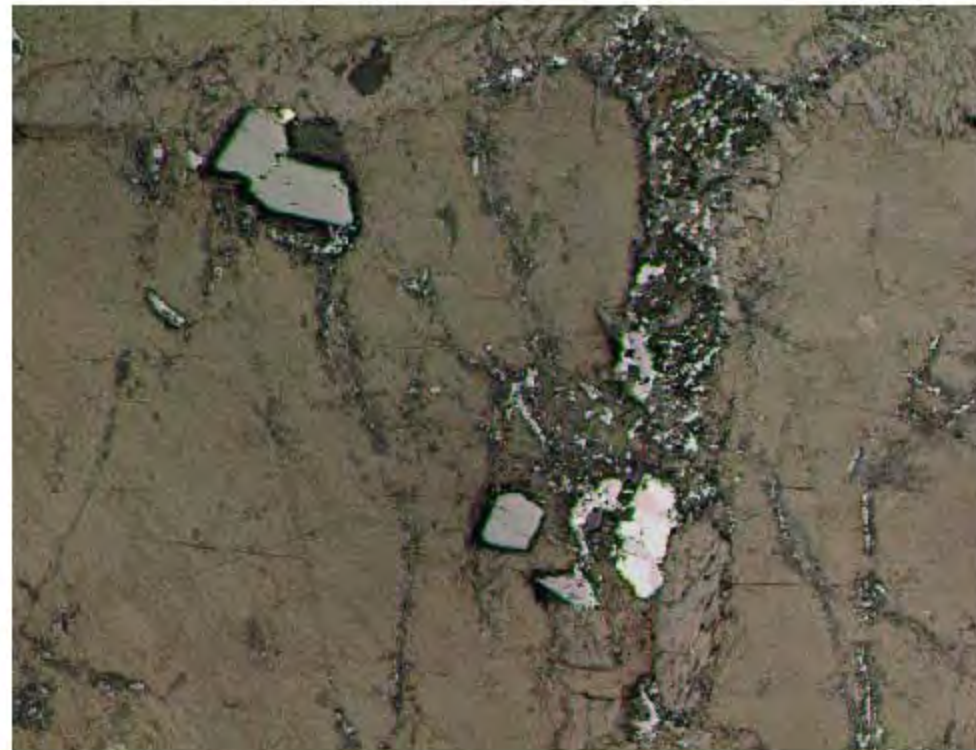
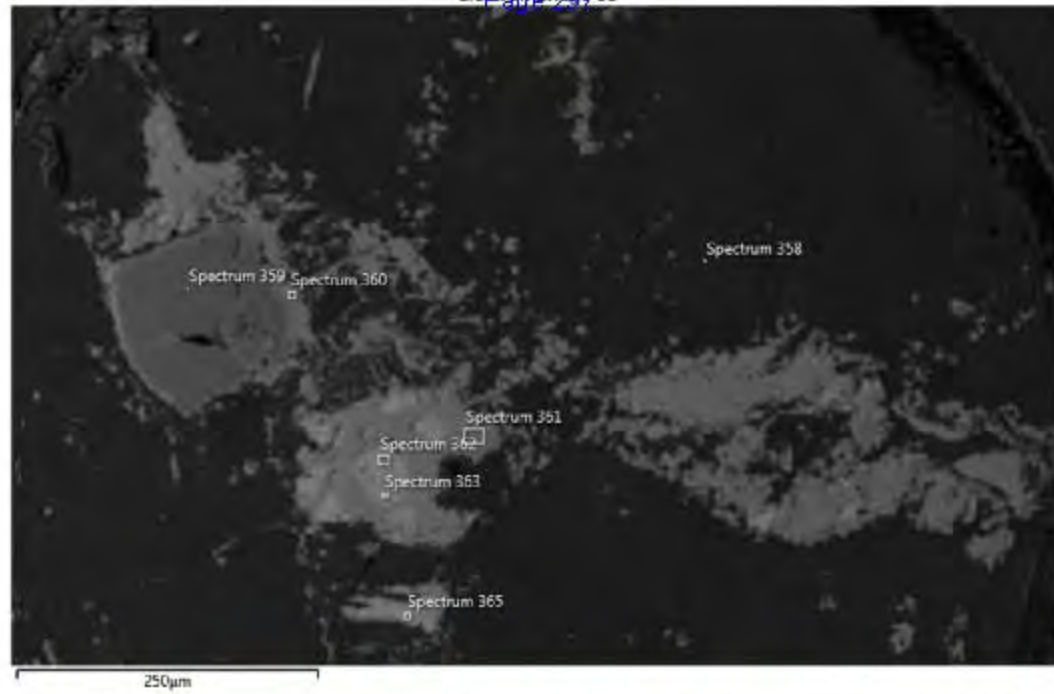
| Spectrum 355 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 13.89 | 0.97 | 30.77 |
| Mg | K series | 3.86 | 0.39 | 5.63 |
| S | K series | 26.28 | 0.72 | 29.05 |
| Fe | K series | 24.47 | 0.86 | 15.53 |
| Co | K series | 5.28 | 0.67 | 3.18 |
| Ni | K series | 26.22 | 0.99 | 15.83 |
| Total | | 100.00 | | 100.00 |

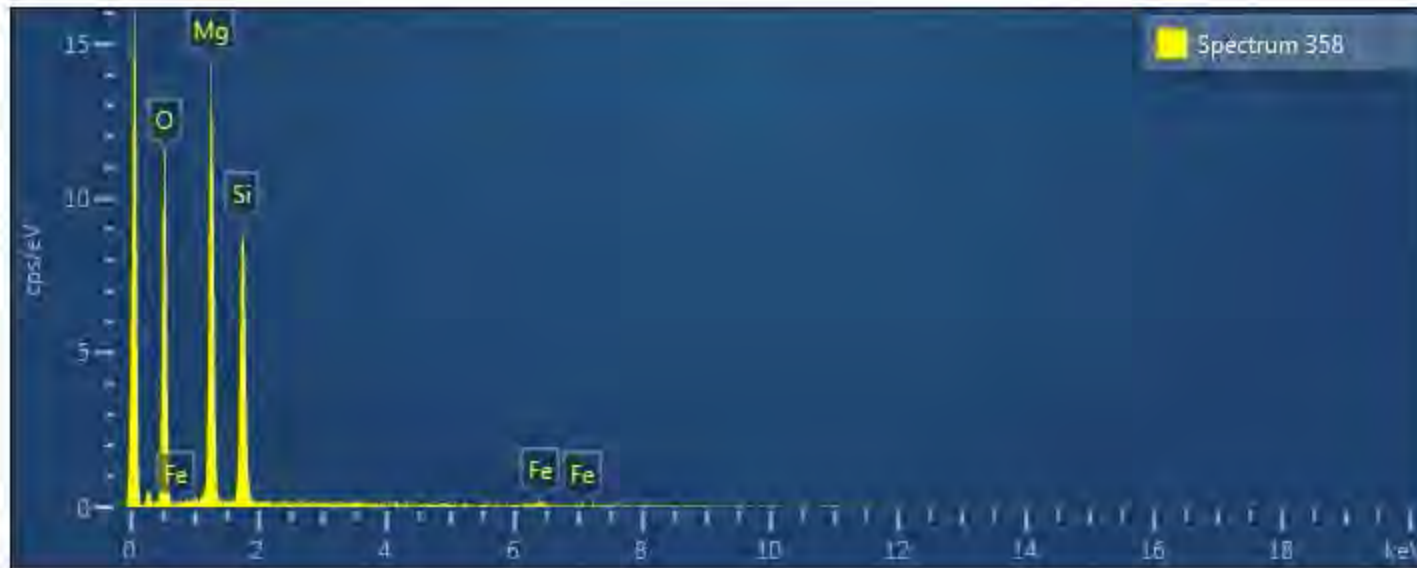


| Spectrum 356 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.29 | 0.65 | 40.70 |
| Ni | K series | 70.60 | 0.70 | 57.50 |
| Fe | K series | 2.11 | 0.34 | 1.81 |
| Total | | 100.00 | | 100.00 |

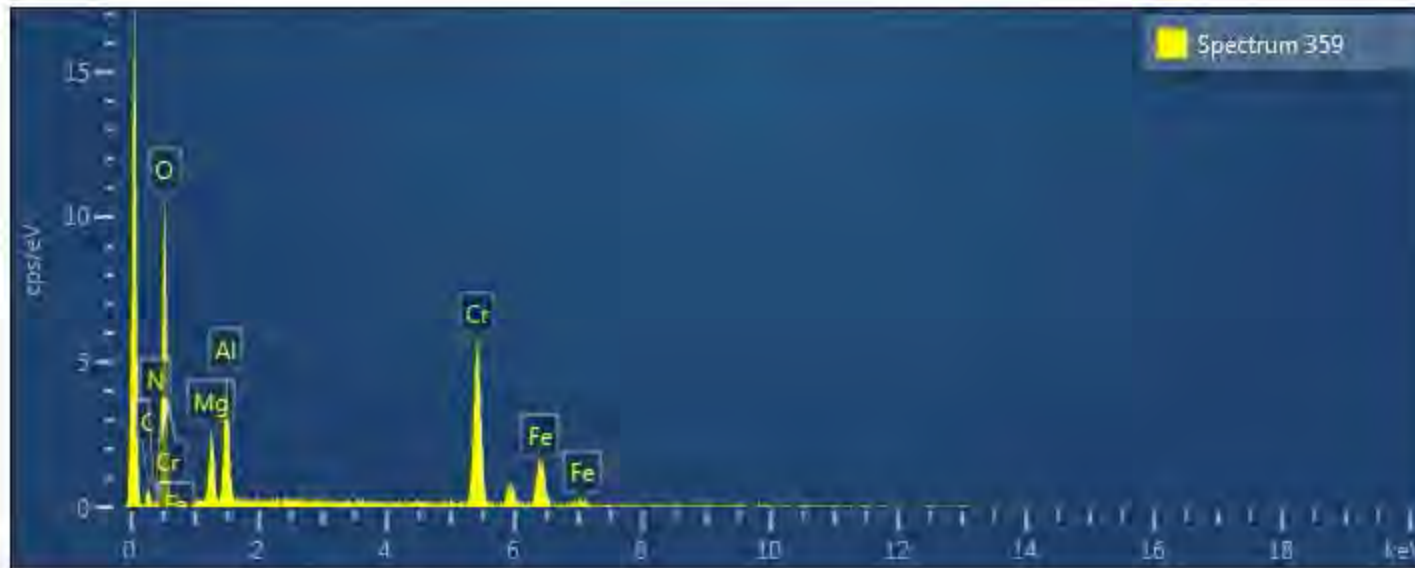


| Spectrum 357 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 40.90 | 0.97 | 60.51 |
| Mg | K series | 17.37 | 0.56 | 16.91 |
| Si | K series | 11.59 | 0.43 | 9.77 |
| Fe | K series | 29.27 | 0.81 | 12.41 |
| Cr | K series | 0.87 | 0.23 | 0.39 |
| Total | | 100.00 | | 100.00 |

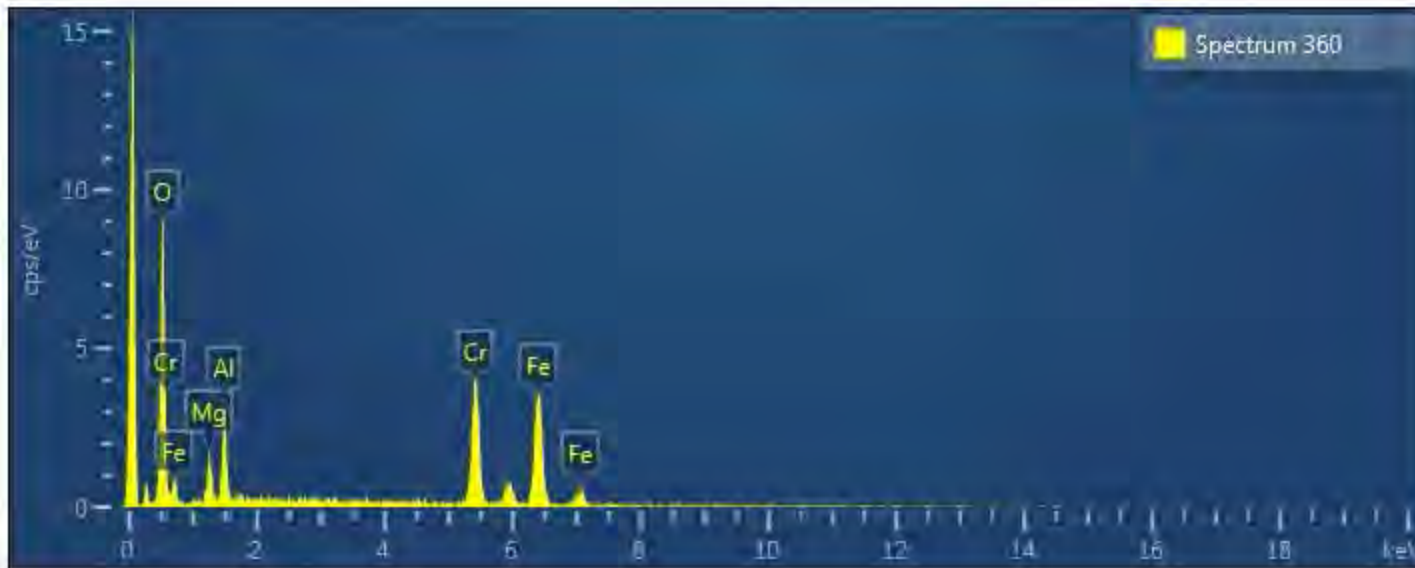




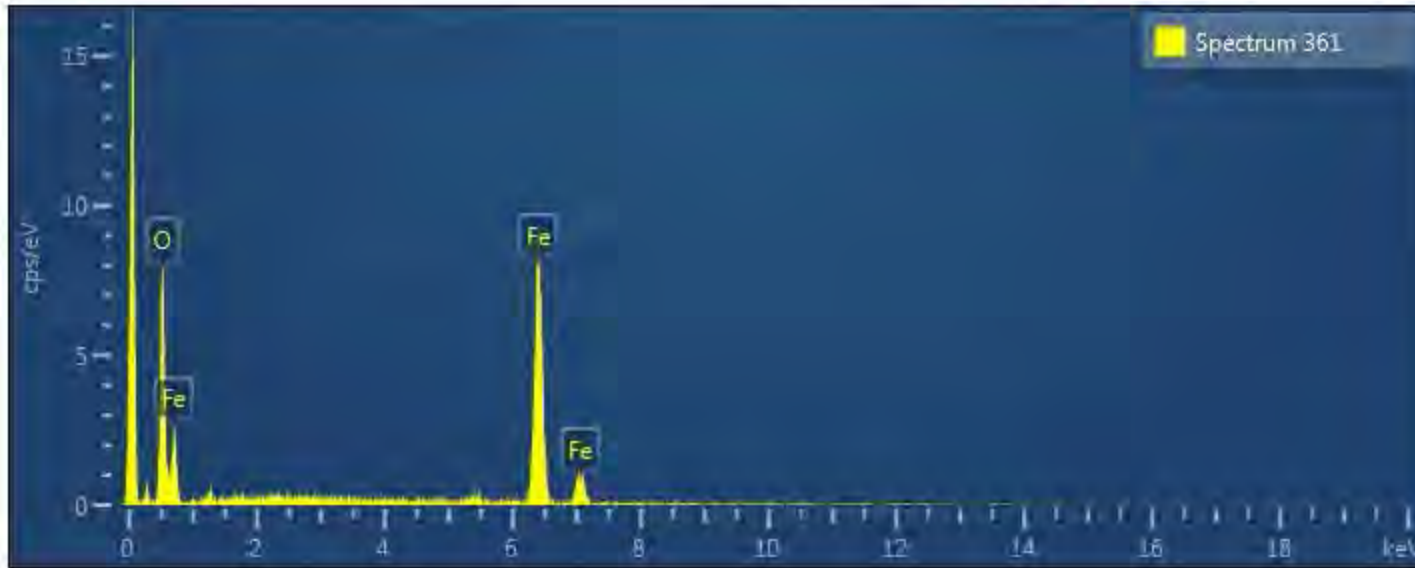
| Spectrum 358 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 53.31 | 0.85 | 65.04 |
| Mg | K series | 26.61 | 0.63 | 21.36 |
| Si | K series | 19.05 | 0.55 | 13.24 |
| Fe | K series | 1.03 | 0.34 | 0.36 |
| Total | | 100.00 | | 100.00 |



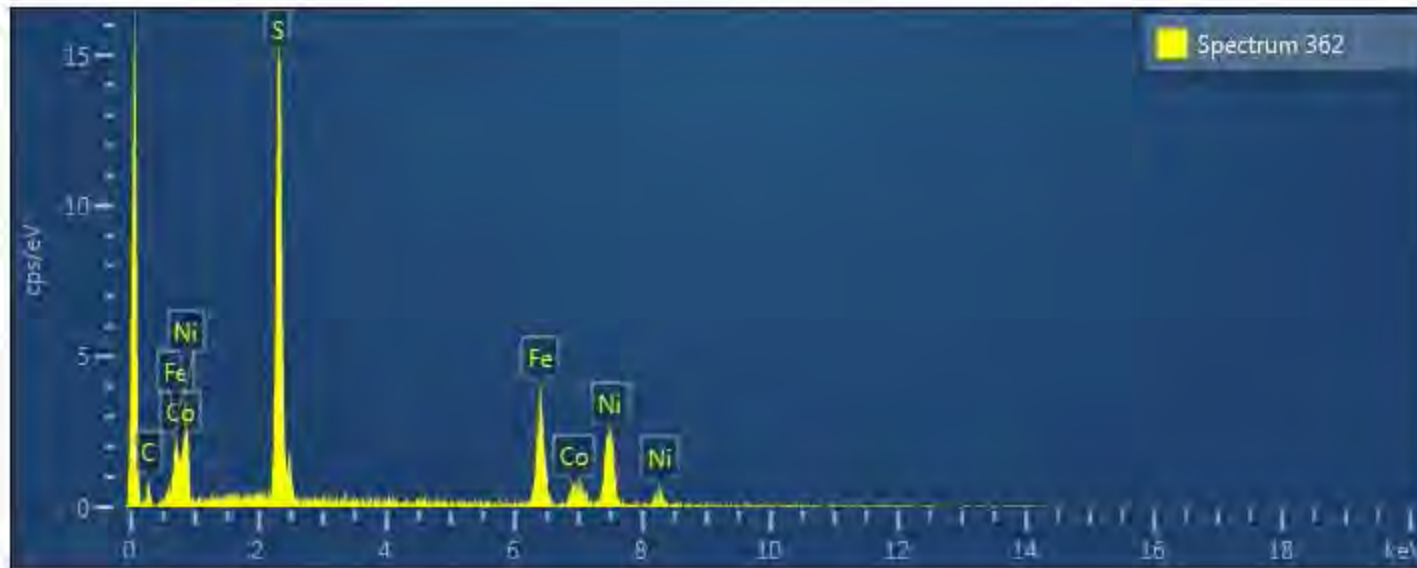
| Spectrum 359 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 36.92 | 1.12 | 56.68 |
| Mg | K series | 5.64 | 0.41 | 5.70 |
| Al | K series | 9.40 | 0.45 | 8.56 |
| Cr | K series | 28.76 | 0.84 | 13.59 |
| Fe | K series | 13.95 | 0.70 | 6.13 |
| N | K series | 5.33 | 1.09 | 9.34 |
| Total | | 100.00 | | 100.00 |



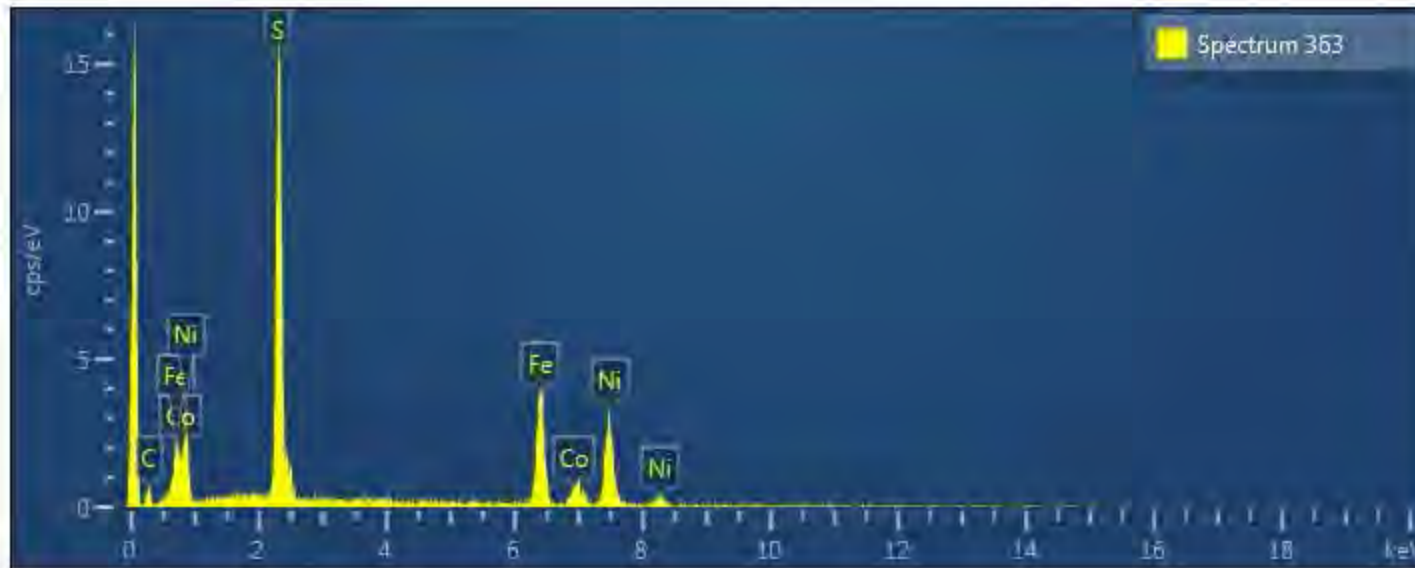
| Spectrum 360 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.69 | 1.05 | 56.77 |
| Mg | K series | 4.83 | 0.43 | 5.70 |
| Al | K series | 7.41 | 0.43 | 7.87 |
| Cr | K series | 23.25 | 0.76 | 12.82 |
| Fe | K series | 32.83 | 0.94 | 16.85 |
| Total | | 100.00 | | 100.00 |



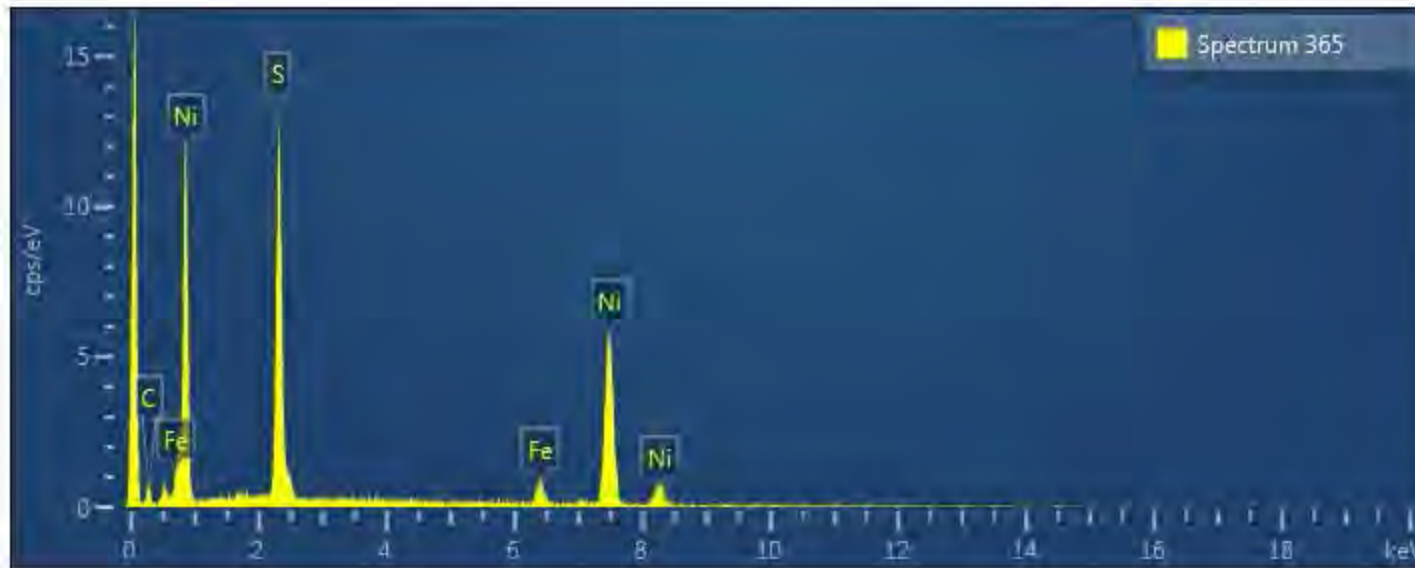
| Spectrum 361 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.61 | 1.02 | 59.49 |
| Fe | K series | 70.39 | 1.02 | 40.51 |
| Total | | 100.00 | | 100.00 |



| Spectrum 362 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.01 | 0.96 | 49.16 |
| Fe | K series | 26.14 | 1.02 | 21.07 |
| Co | K series | 5.80 | 0.86 | 4.43 |
| Ni | K series | 33.05 | 1.21 | 25.34 |
| Total | | 100.00 | | 100.00 |

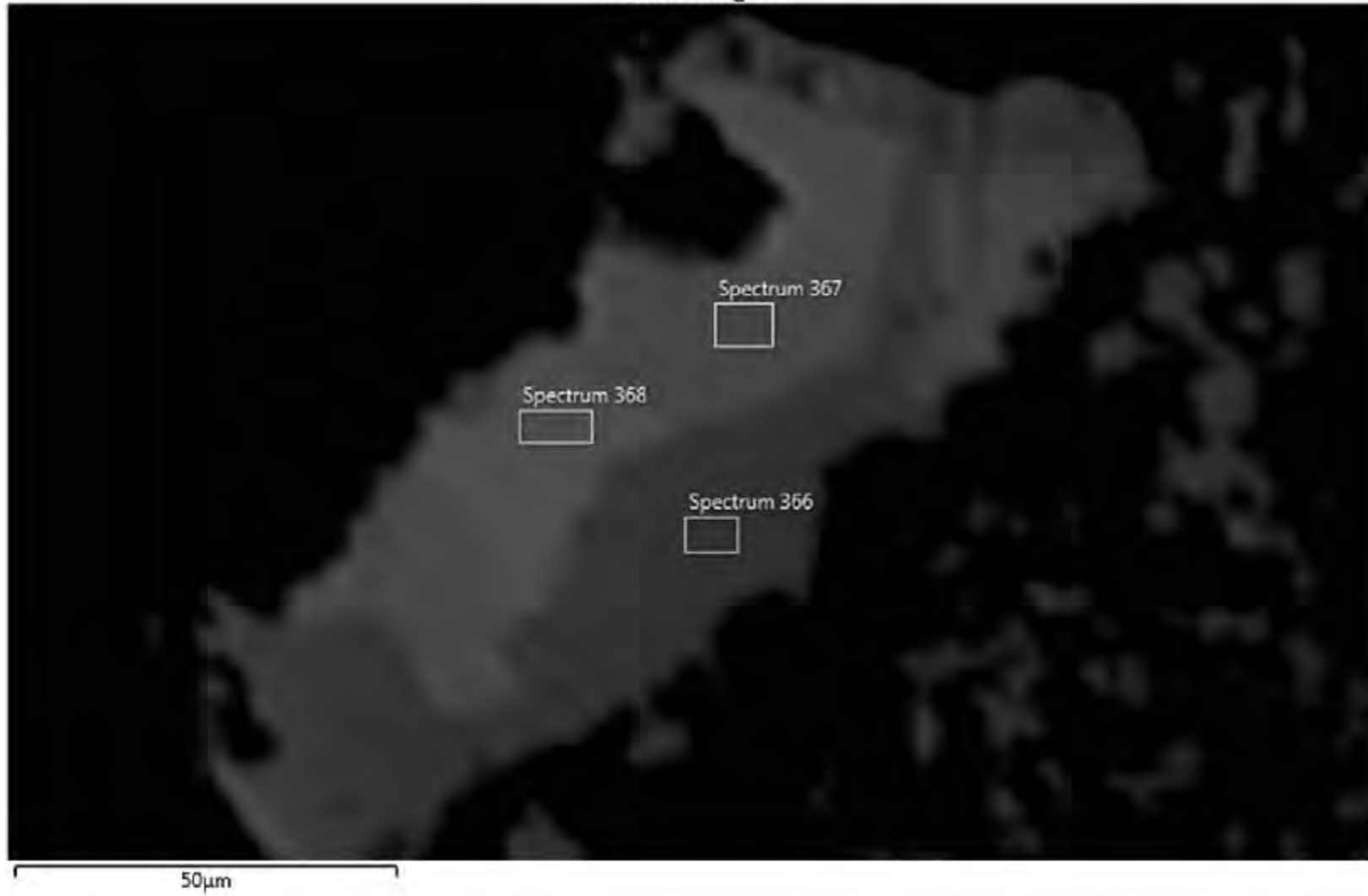


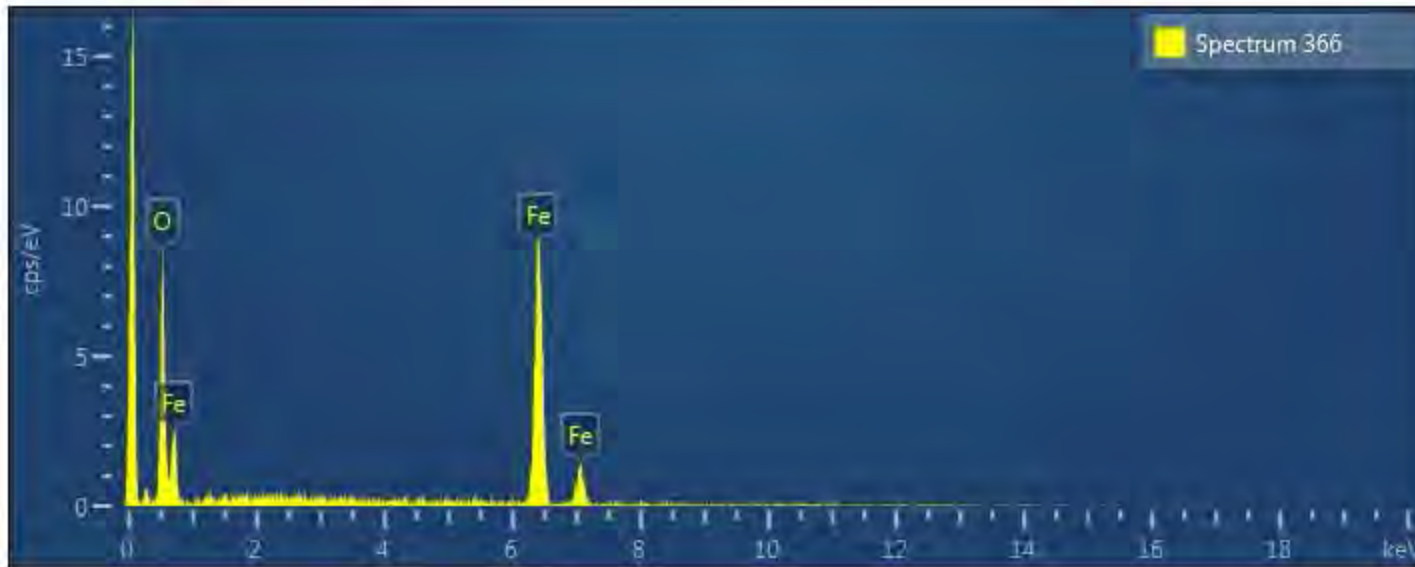
| Spectrum 363 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.30 | 0.78 | 47.23 |
| Fe | K series | 28.32 | 0.86 | 23.06 |
| Ni | K series | 32.71 | 1.00 | 25.34 |
| Co | K series | 5.66 | 0.69 | 4.37 |
| Total | | 100.00 | | 100.00 |



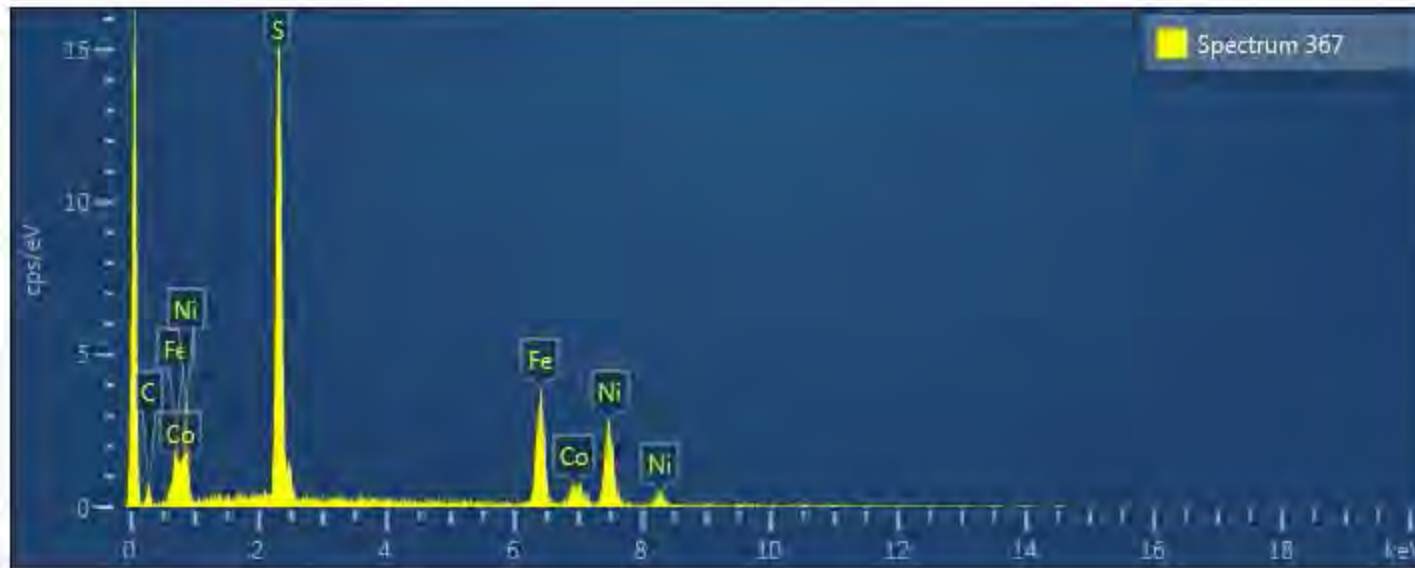
| Spectrum 365 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.09 | 0.61 | 41.61 |
| Fe | K series | 5.07 | 0.40 | 4.32 |
| Ni | K series | 66.84 | 0.69 | 54.07 |
| Total | | 100.00 | | 100.00 |

Electron Image 84

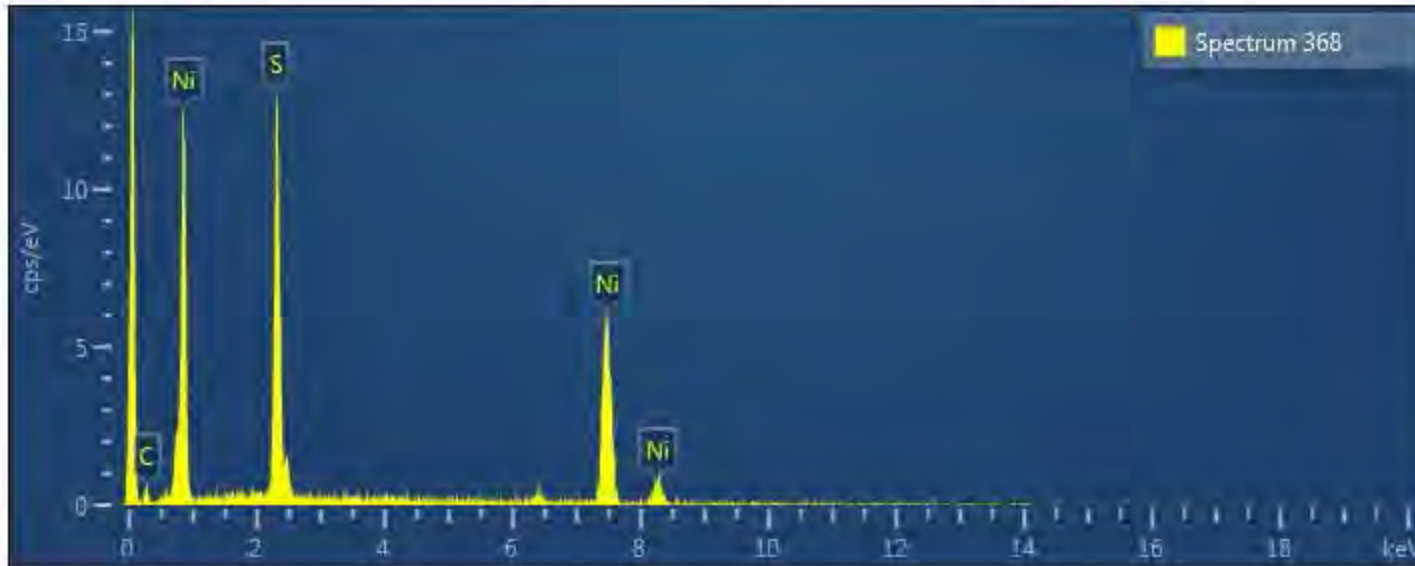




| Spectrum 366 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.11 | 0.99 | 57.71 |
| Fe | K series | 71.89 | 0.99 | 42.29 |
| Total | | 100.00 | | 100.00 |

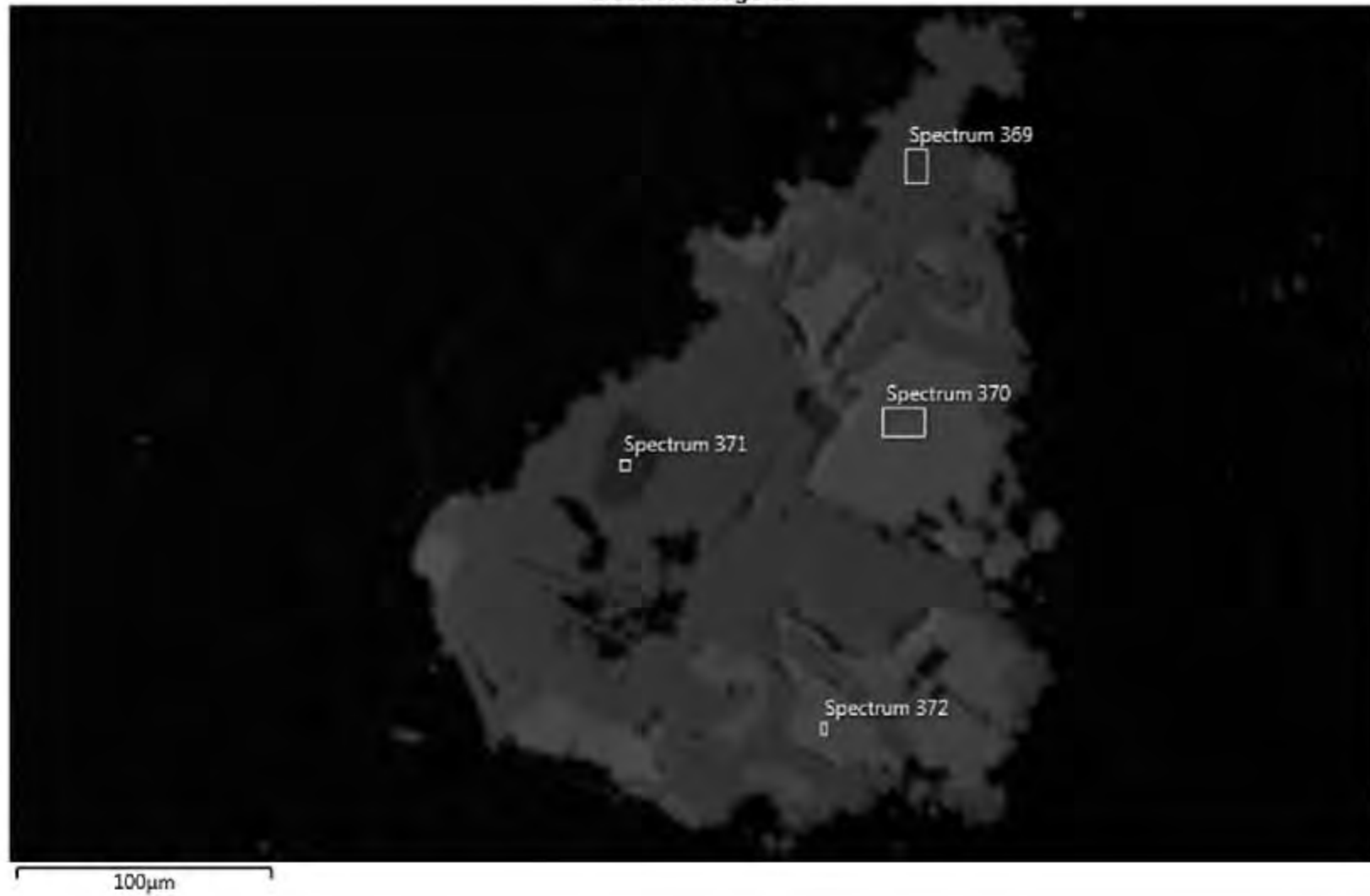


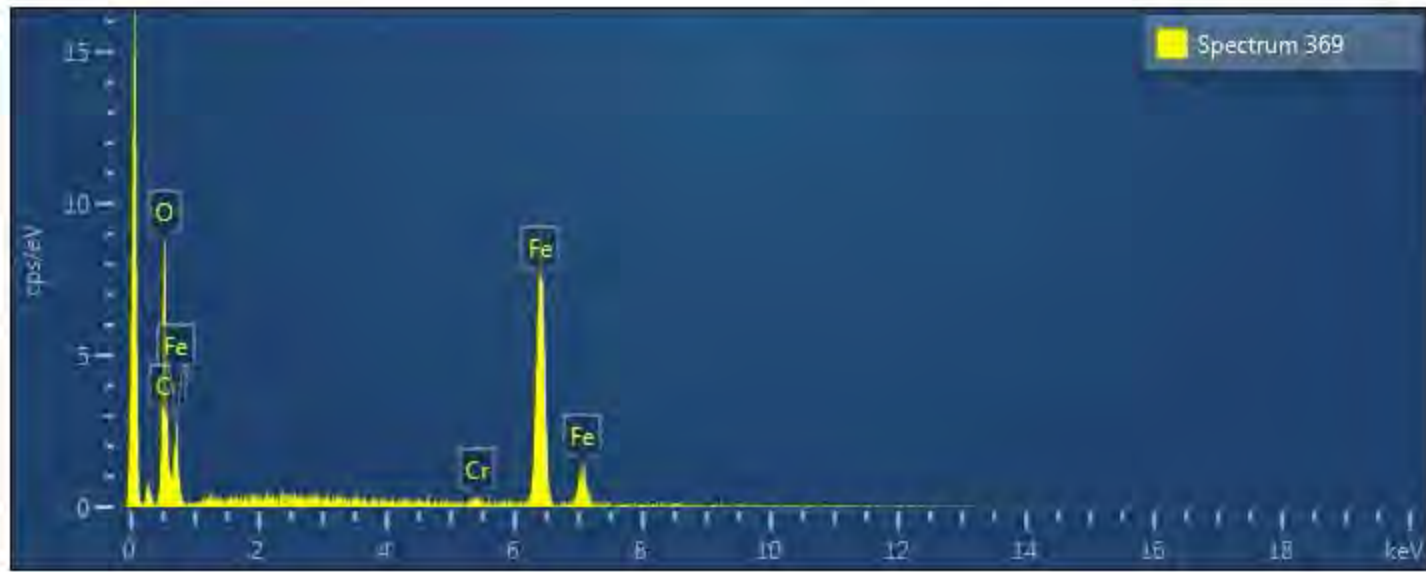
| Spectrum 367 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.36 | 0.82 | 48.43 |
| Fe | K series | 26.88 | 0.89 | 21.75 |
| Co | K series | 6.07 | 0.73 | 4.65 |
| Ni | K series | 32.69 | 1.04 | 25.16 |
| Total | | 100.00 | | 100.00 |



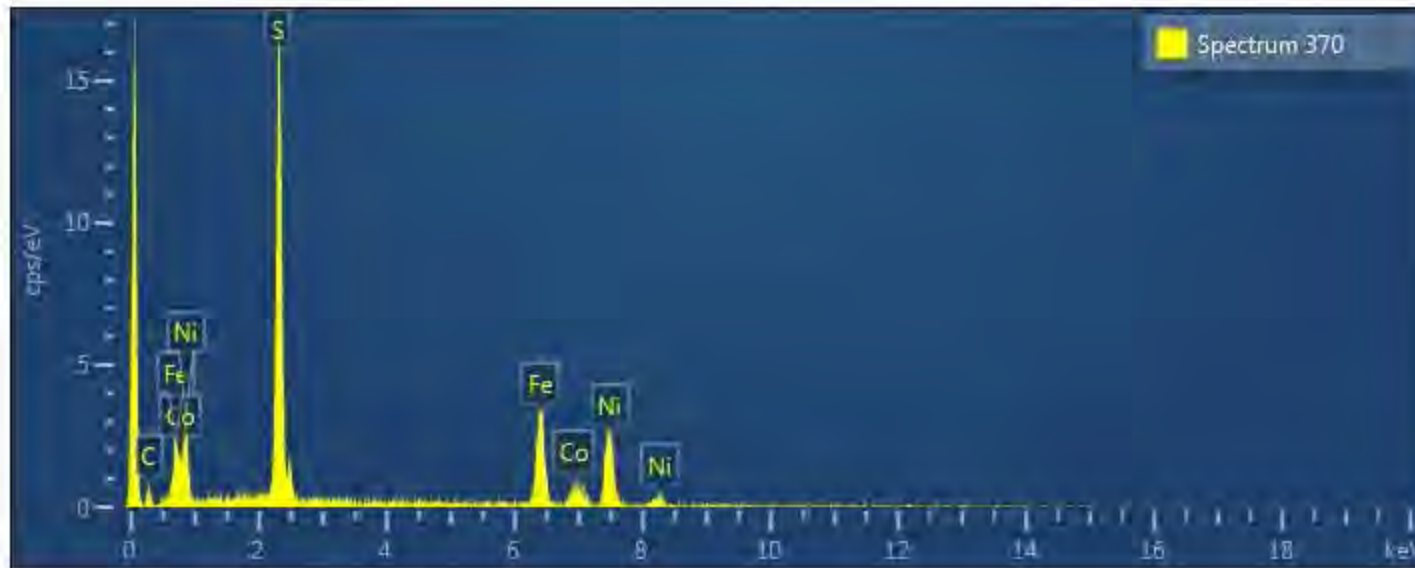
| Spectrum 368 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.30 | 0.88 | 43.15 |
| Ni | K series | 70.70 | 0.88 | 56.85 |
| Total | | 100.00 | | 100.00 |

Electron Image 85

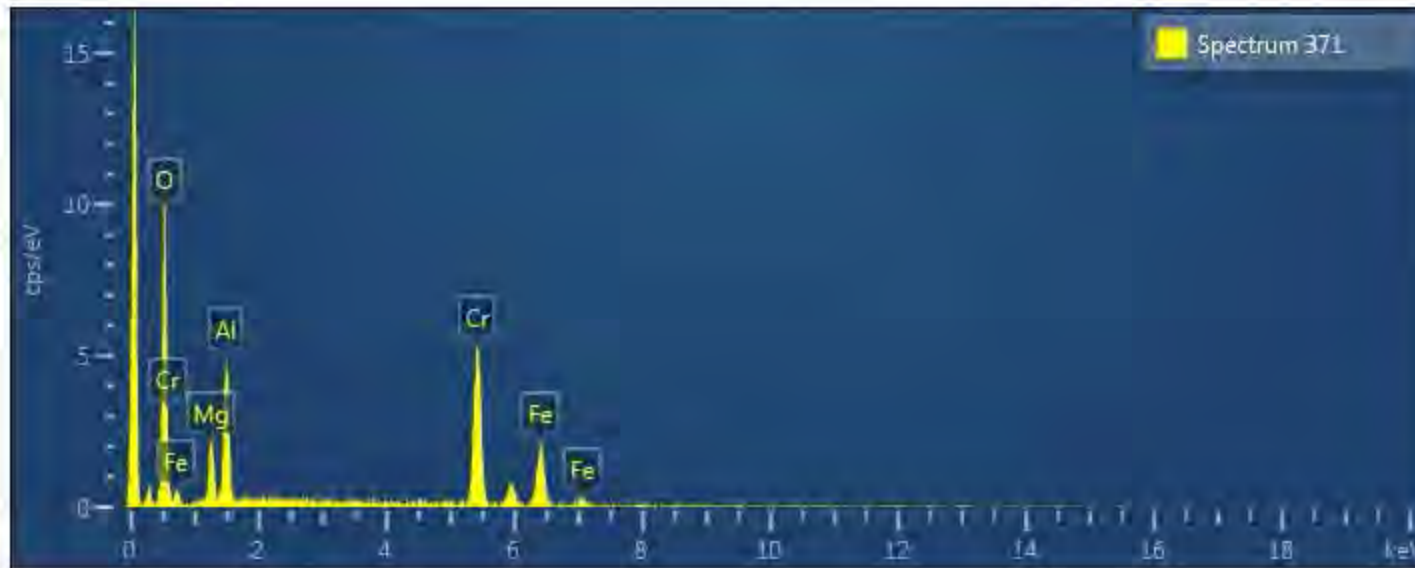




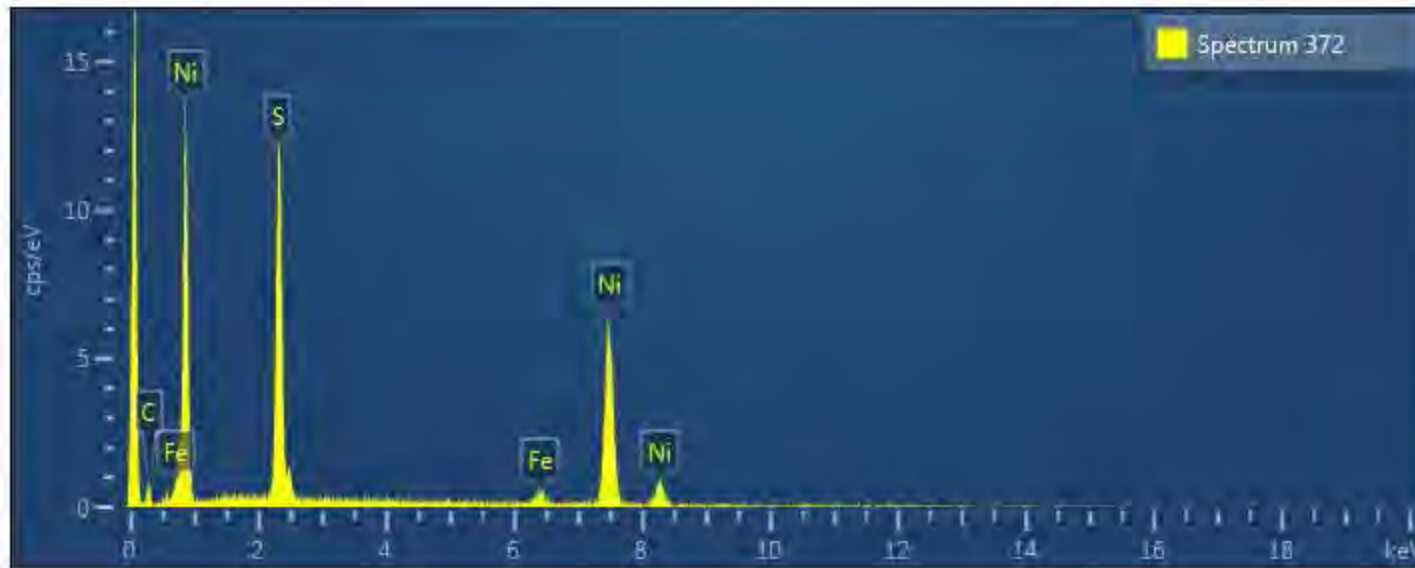
| Spectrum 369 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.19 | 1.17 | 60.13 |
| Fe | K series | 68.88 | 1.18 | 39.30 |
| Cr | K series | 0.92 | 0.29 | 0.57 |
| Total | | 100.00 | | 100.00 |



| Spectrum 370 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.91 | 0.92 | 49.05 |
| Fe | K series | 25.86 | 0.98 | 20.86 |
| Ni | K series | 34.00 | 1.15 | 26.09 |
| Co | K series | 5.22 | 0.82 | 3.99 |
| Total | | 100.00 | | 100.00 |



| Spectrum 371 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.03 | 1.18 | 58.31 |
| Mg | K series | 6.44 | 0.52 | 7.06 |
| Al | K series | 11.09 | 0.58 | 10.95 |
| Cr | K series | 30.27 | 0.94 | 15.50 |
| Fe | K series | 17.17 | 0.88 | 8.19 |
| Total | | 100.00 | | 100.00 |



| Spectrum 372 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.11 | 0.75 | 41.69 |
| Fe | K series | 2.44 | 0.43 | 2.07 |
| Ni | K series | 69.45 | 0.82 | 56.24 |
| Total | | 100.00 | | 100.00 |

**Specimen Notes for '562' - Sulphide Mineral Inventory – Co-pentlandite
Unknown Sulphide Mineral – Cu-Fe-Ni-S (potentially Samaniite)**

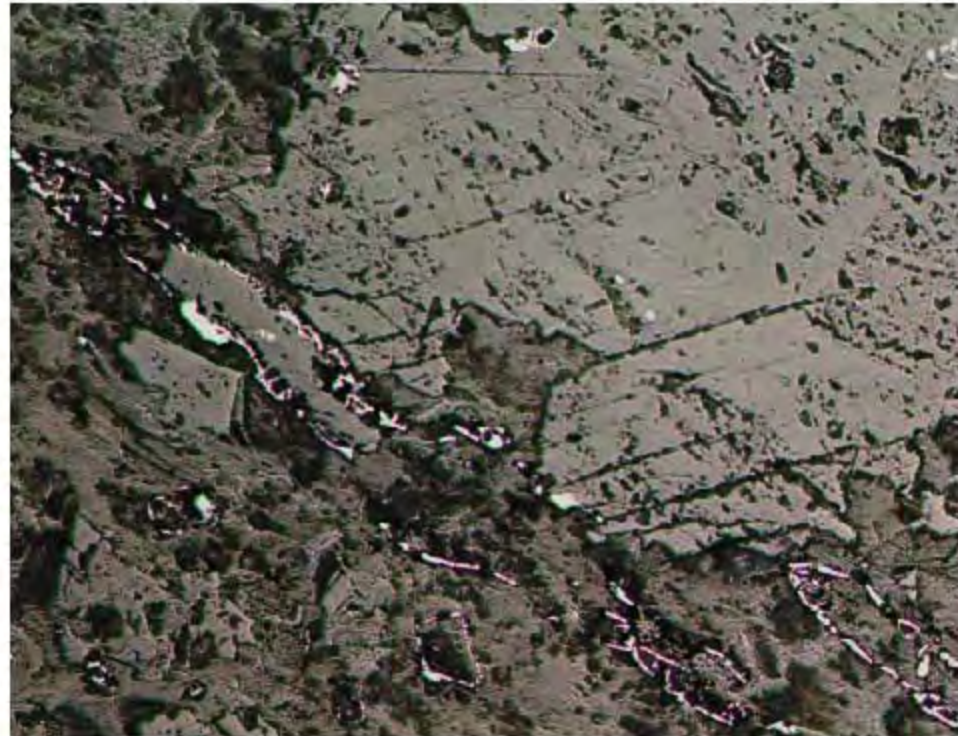
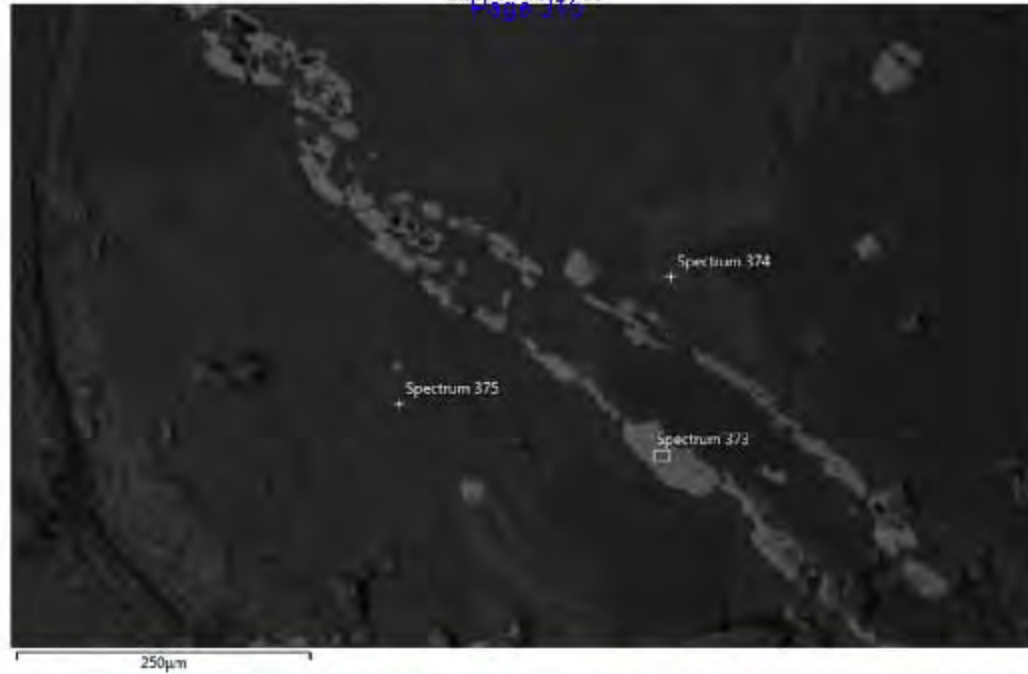
This section contains only minor extremely fine grained Co-pentlandite and an unusual Cu-Fe-Ni-S mineral. The majority of the opaques are chromite-magnetite.

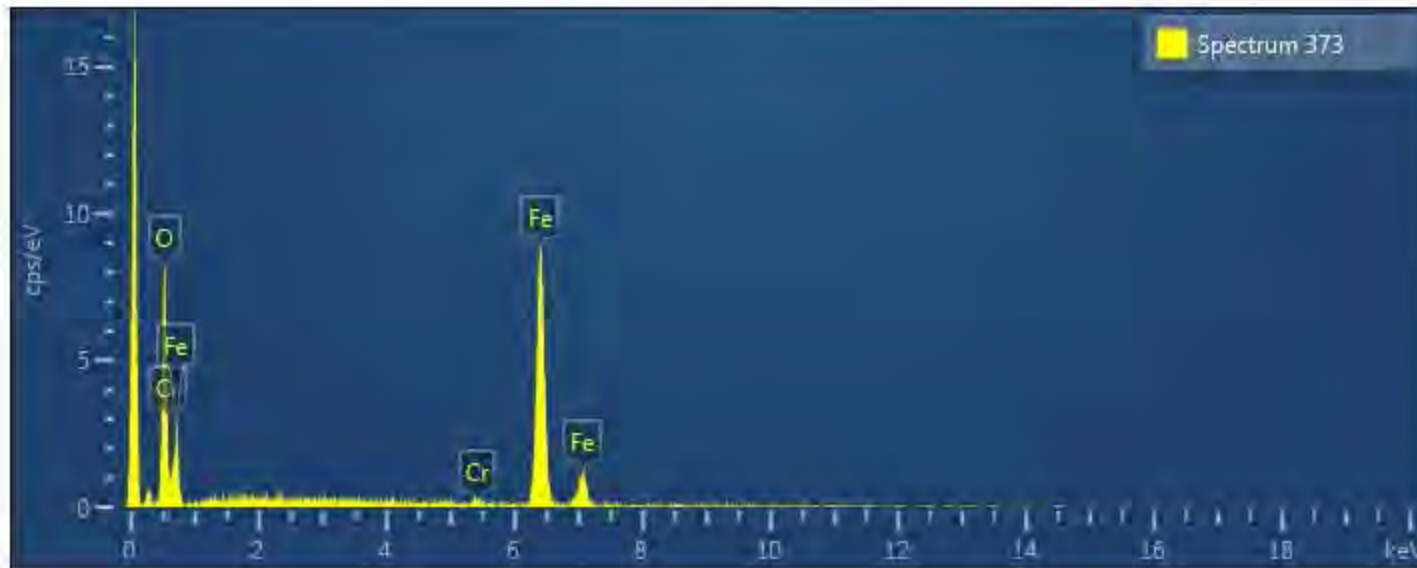
SITE 1 CIRCLE 1 is a magnetite veinlet with adjacent serpentinized olivine and white mica.

SITE 7 is a minute grain containing Cu-Fe-Ni-S (potentially Samaniite)

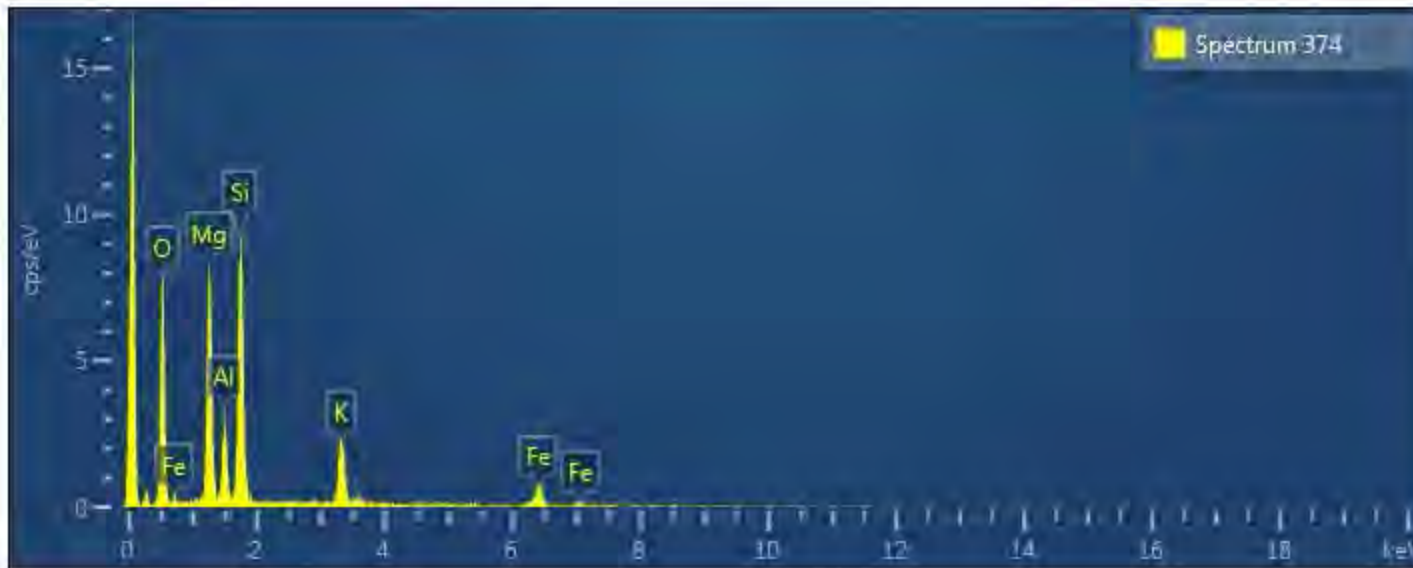
Spectrum 400

| Element | Weight % | σ |
|---------|----------|----------|
| S | 36.1 | 0.6 |
| Fe | 26.5 | 0.6 |
| Cu | 21.1 | 0.7 |
| Ni | 16.3 | 0.6 |

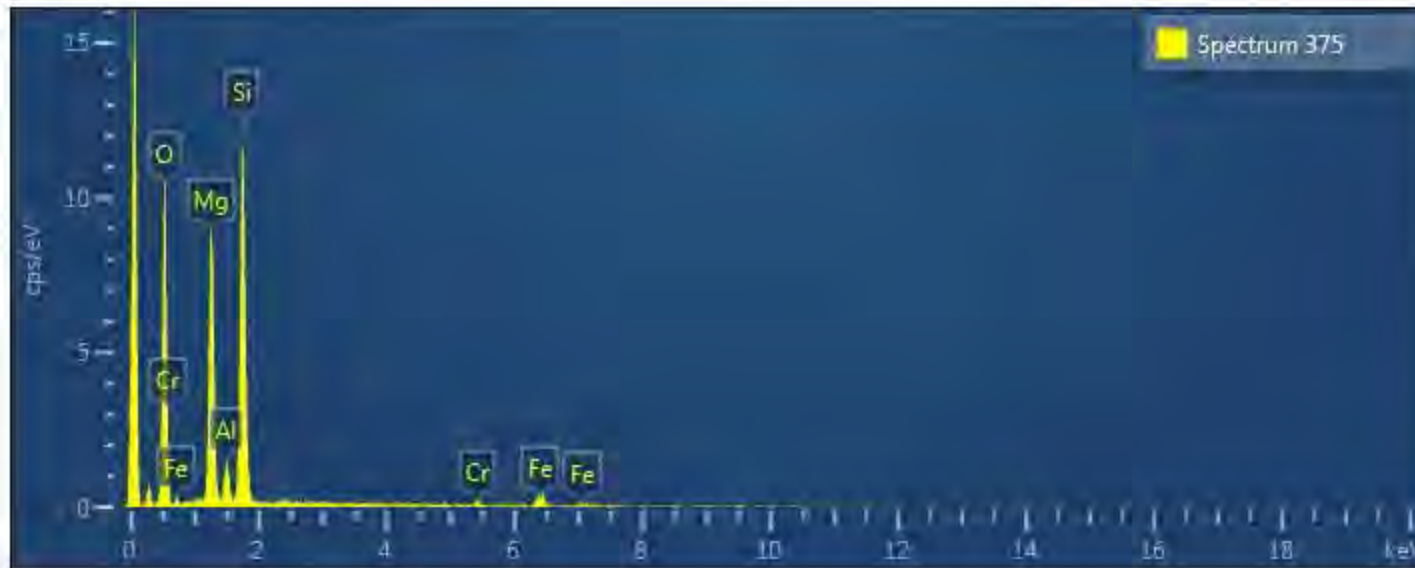




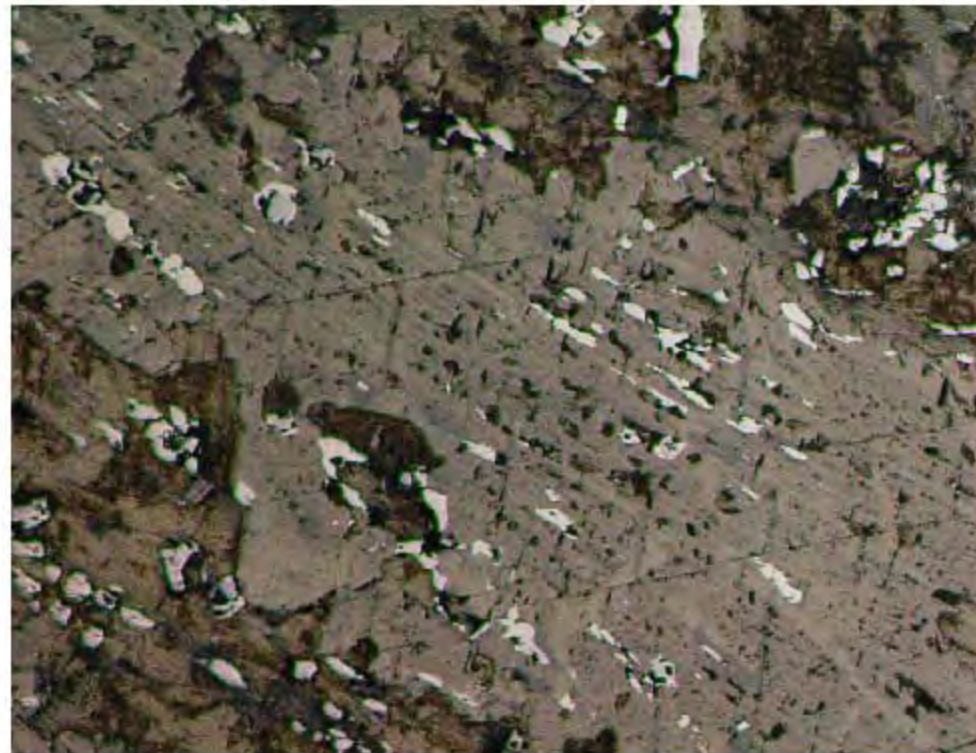
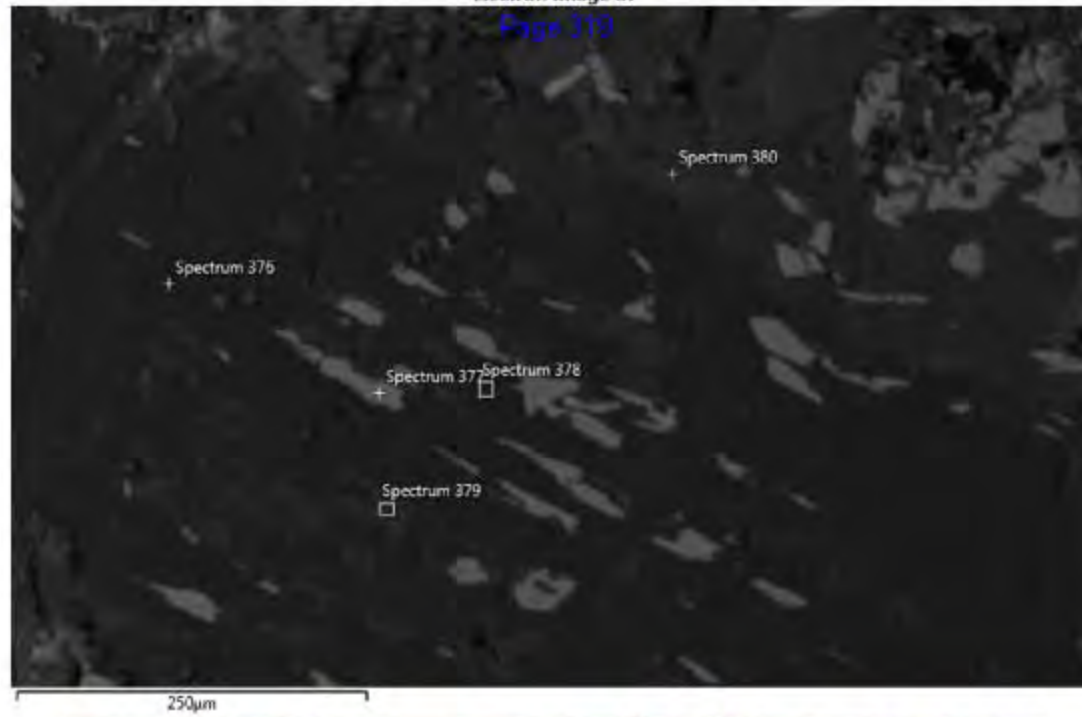
| Spectrum 373 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.57 | 1.15 | 59.42 |
| Fe | K series | 69.39 | 1.16 | 39.94 |
| Cr | K series | 1.04 | 0.29 | 0.64 |
| Total | | 100.00 | | 100.00 |

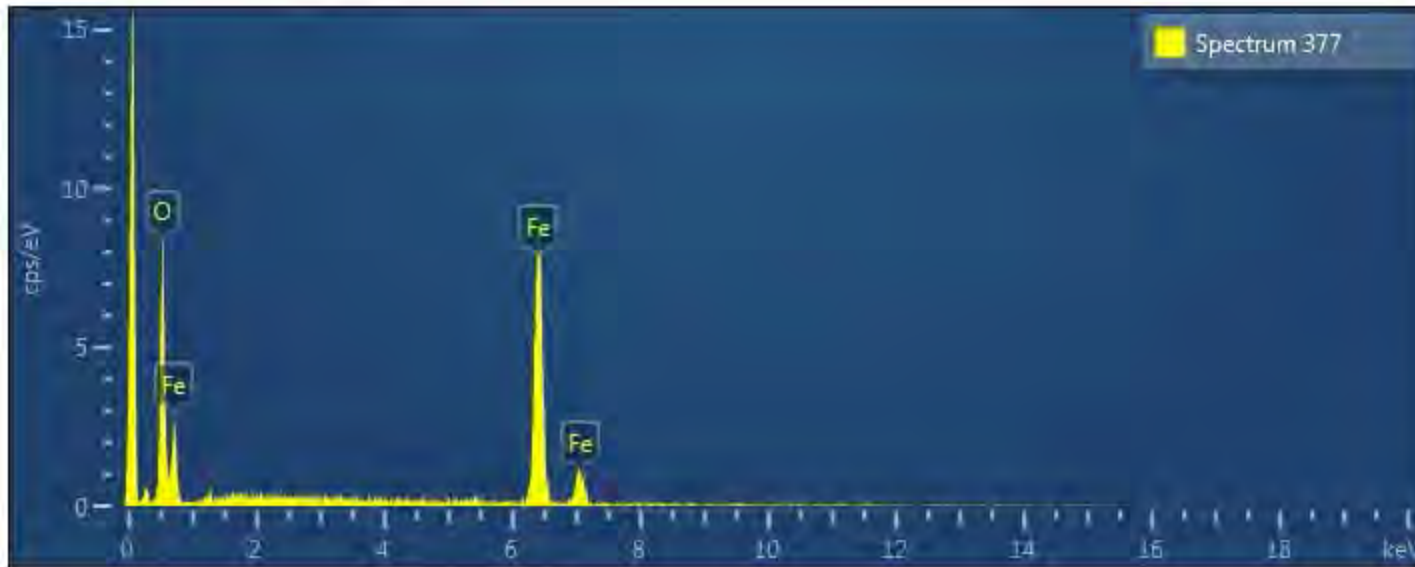


| Spectrum 374 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 47.50 | 0.97 | 62.26 |
| Mg | K series | 15.75 | 0.53 | 13.59 |
| Si | K series | 18.42 | 0.55 | 13.76 |
| K | K series | 6.54 | 0.35 | 3.51 |
| Fe | K series | 5.67 | 0.52 | 2.13 |
| Al | K series | 6.12 | 0.39 | 4.75 |
| Total | | 100.00 | | 100.00 |

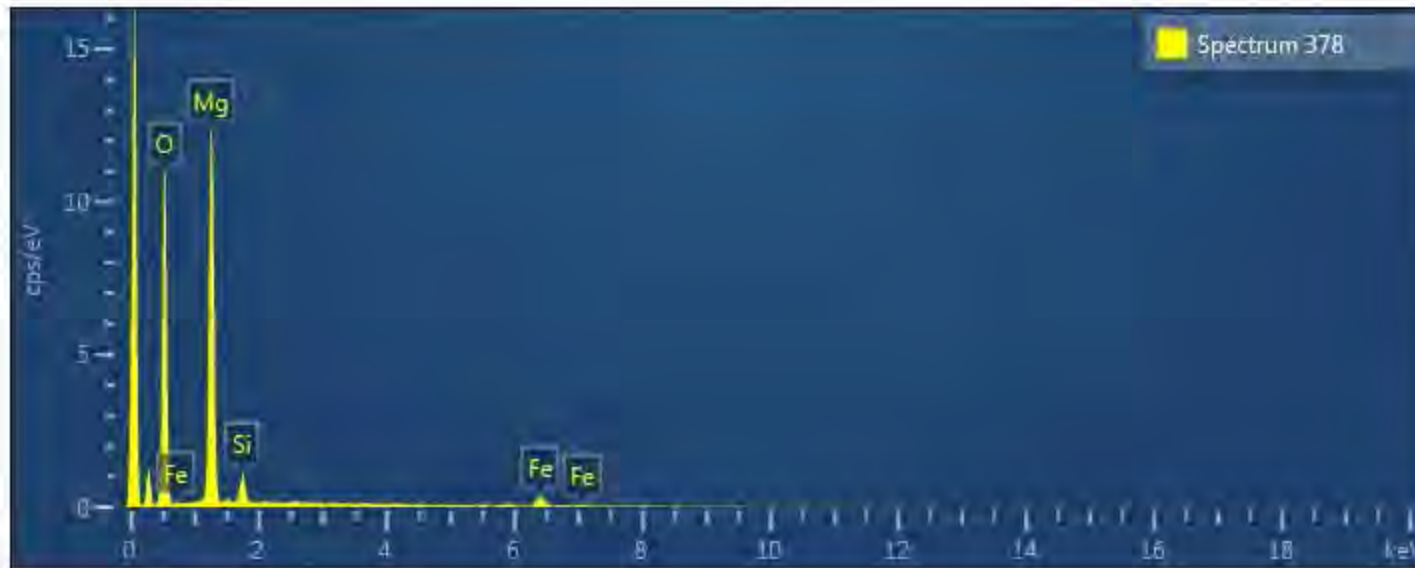


| Spectrum 375 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 50.37 | 0.94 | 63.82 |
| Mg | K series | 18.38 | 0.53 | 15.32 |
| Si | K series | 23.50 | 0.60 | 16.96 |
| Fe | K series | 3.97 | 0.39 | 1.44 |
| Al | K series | 2.74 | 0.29 | 2.06 |
| Cr | K series | 1.04 | 0.22 | 0.41 |
| Total | | 100.00 | | 100.00 |

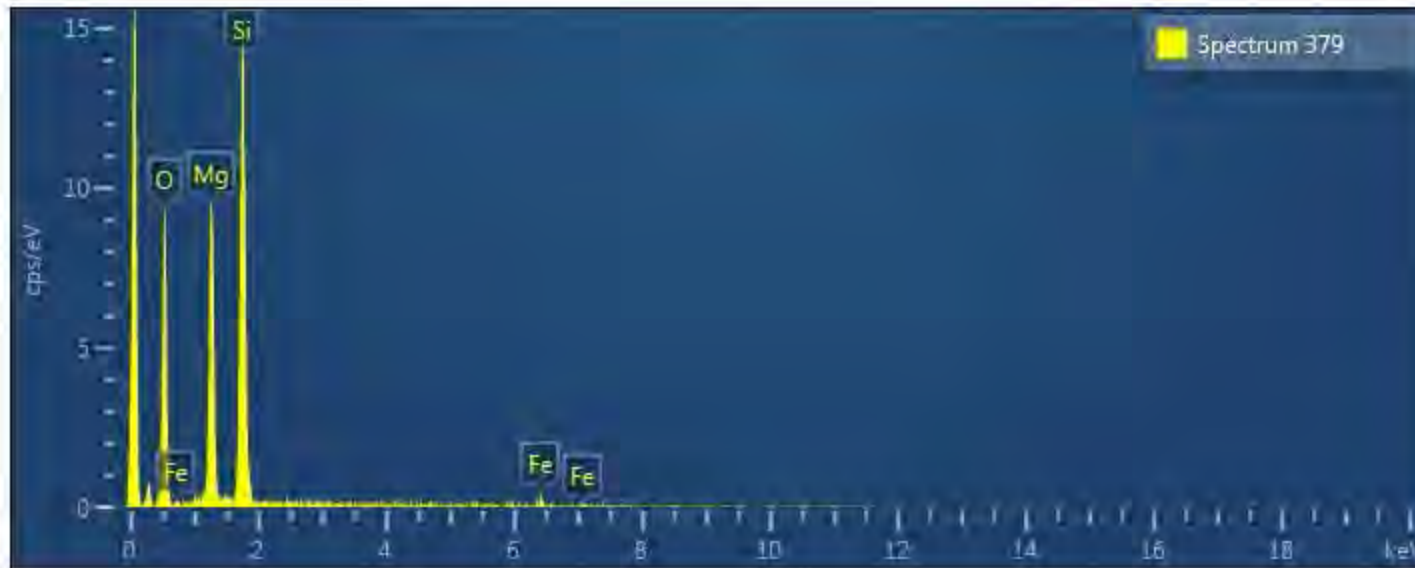




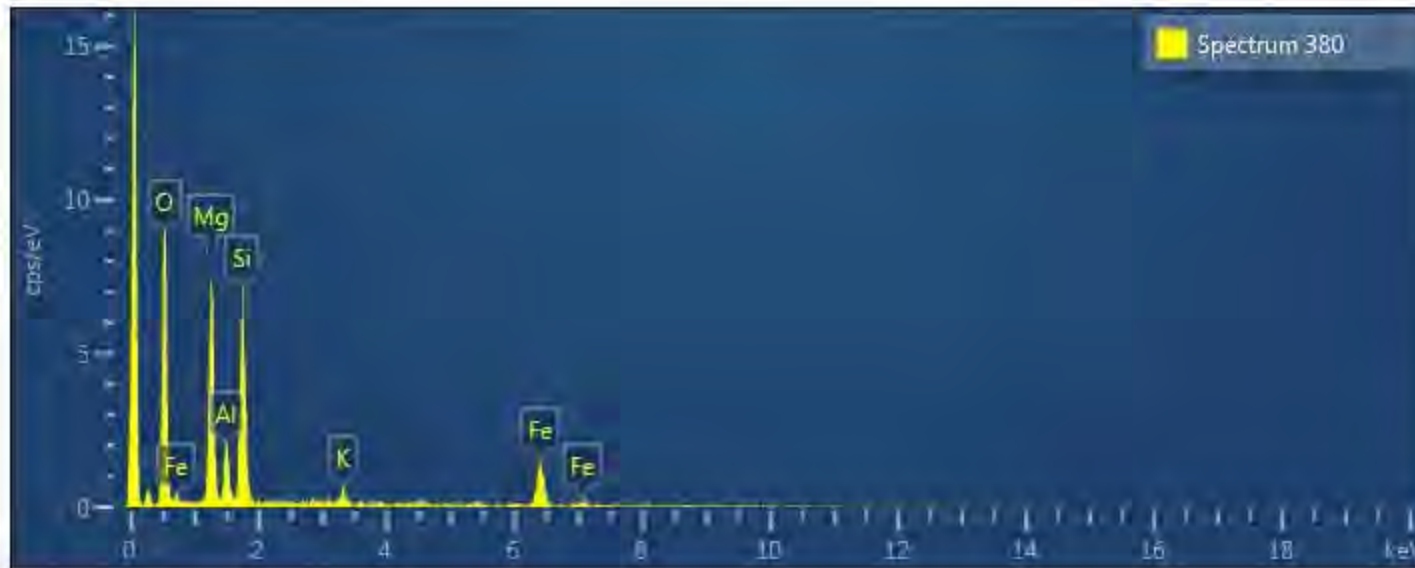
| Spectrum 377 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.31 | 0.89 | 59.14 |
| Fe | K series | 70.69 | 0.89 | 40.86 |
| Total | | 100.00 | | 100.00 |



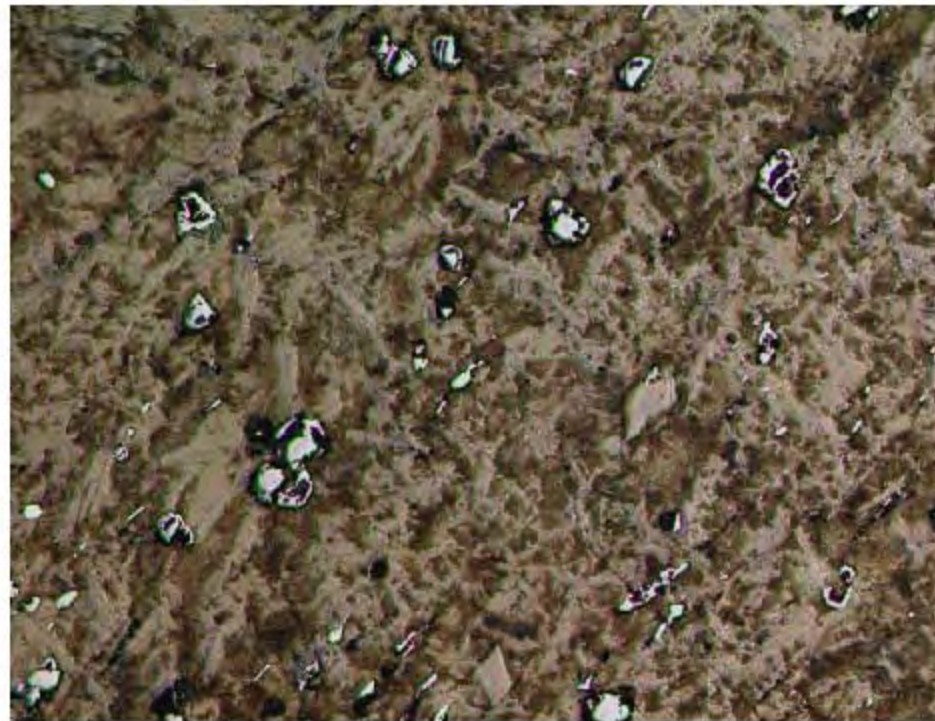
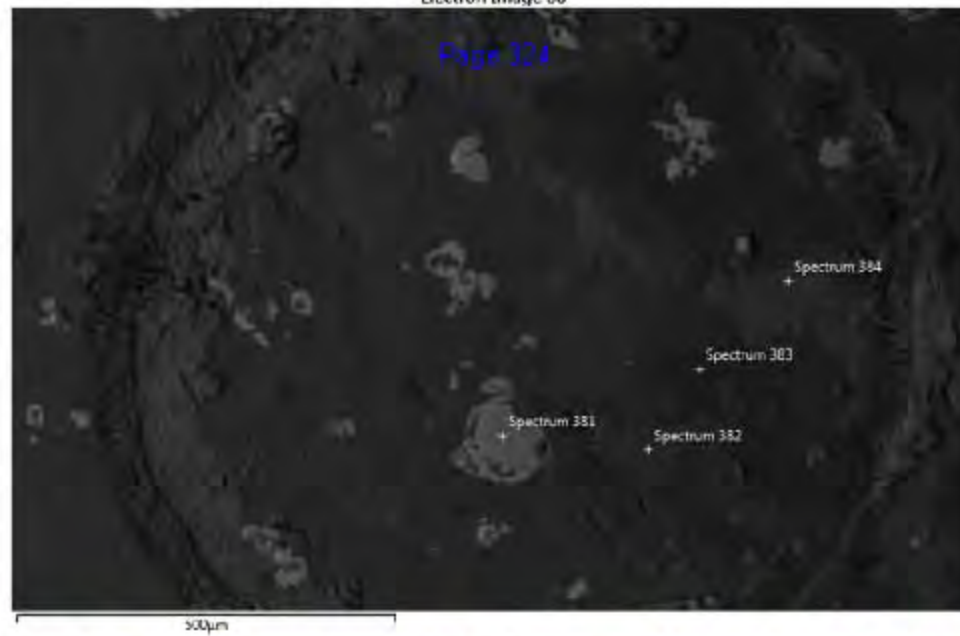
| Spectrum 378 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 56.91 | 0.55 | 68.15 |
| Mg | K series | 36.04 | 0.49 | 28.40 |
| Si | K series | 3.04 | 0.20 | 2.07 |
| Fe | K series | 4.01 | 0.32 | 1.38 |
| Total | | 100.00 | | 100.00 |

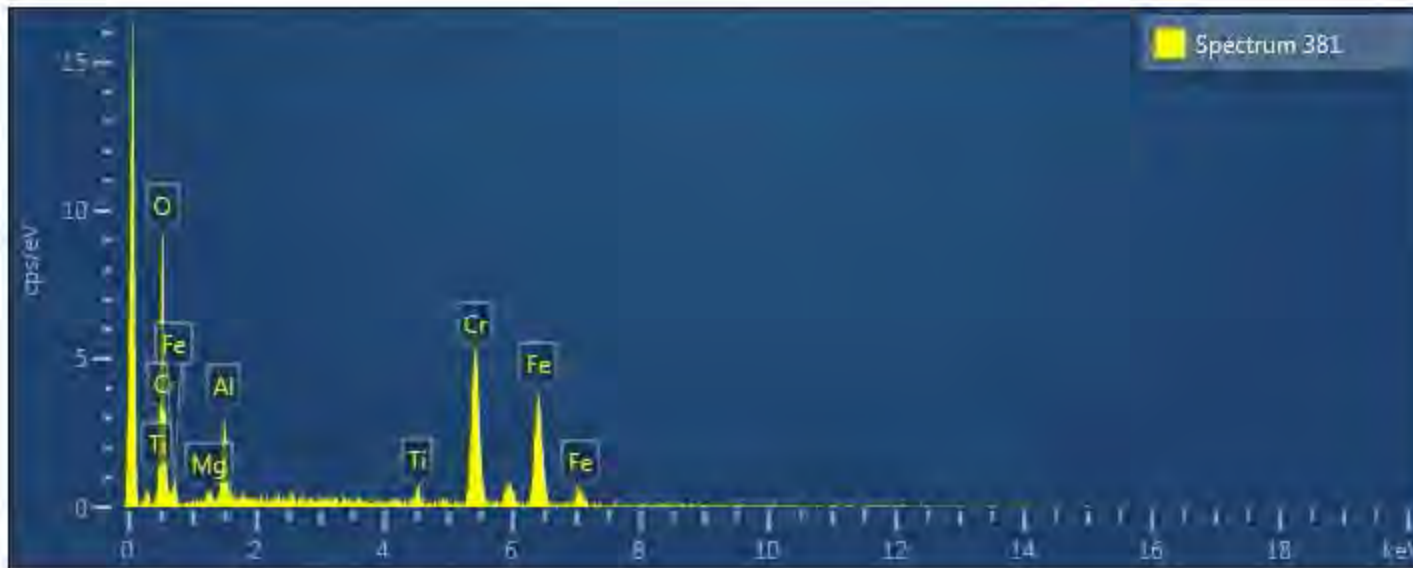


| Spectrum 379 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 49.98 | 1.03 | 62.79 |
| Mg | K series | 19.15 | 0.64 | 15.83 |
| Si | K series | 28.88 | 0.77 | 20.67 |
| Fe | K series | 1.98 | 0.40 | 0.71 |
| Total | | 100.00 | | 100.00 |

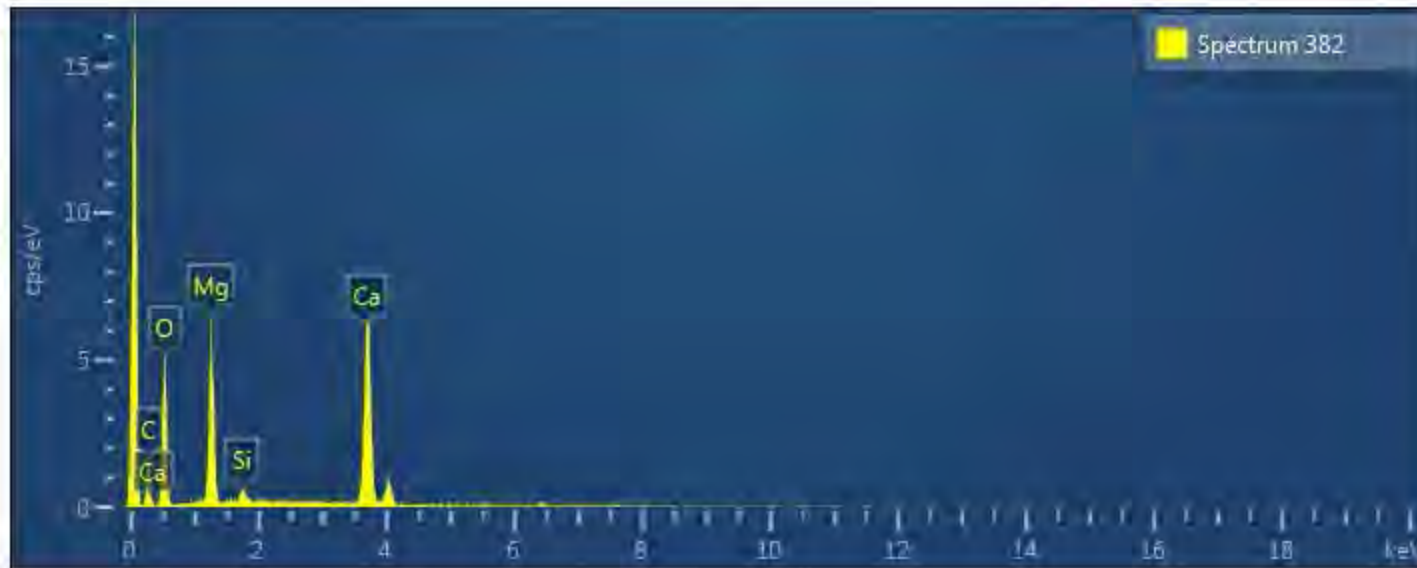


| Spectrum 380 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 48.53 | 1.08 | 64.20 |
| Mg | K series | 17.10 | 0.66 | 14.89 |
| Al | K series | 4.97 | 0.44 | 3.90 |
| Si | K series | 15.03 | 0.60 | 11.33 |
| Fe | K series | 12.95 | 0.78 | 4.91 |
| K | K series | 1.43 | 0.24 | 0.77 |
| Total | | 100.00 | | 100.00 |

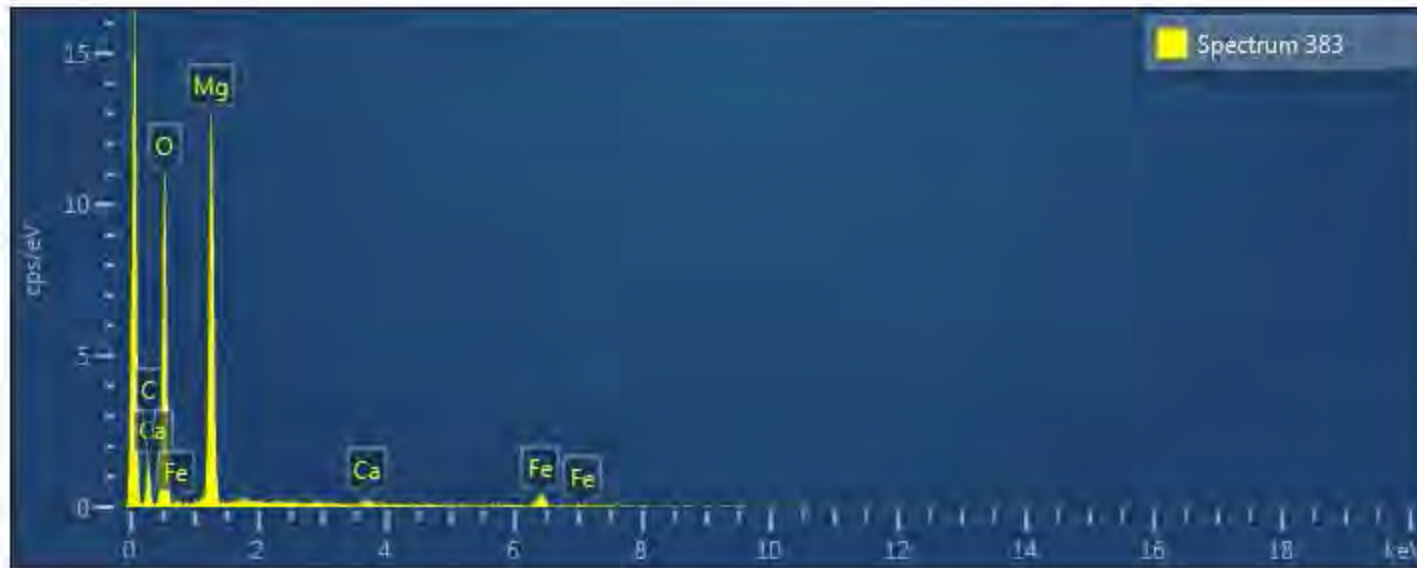




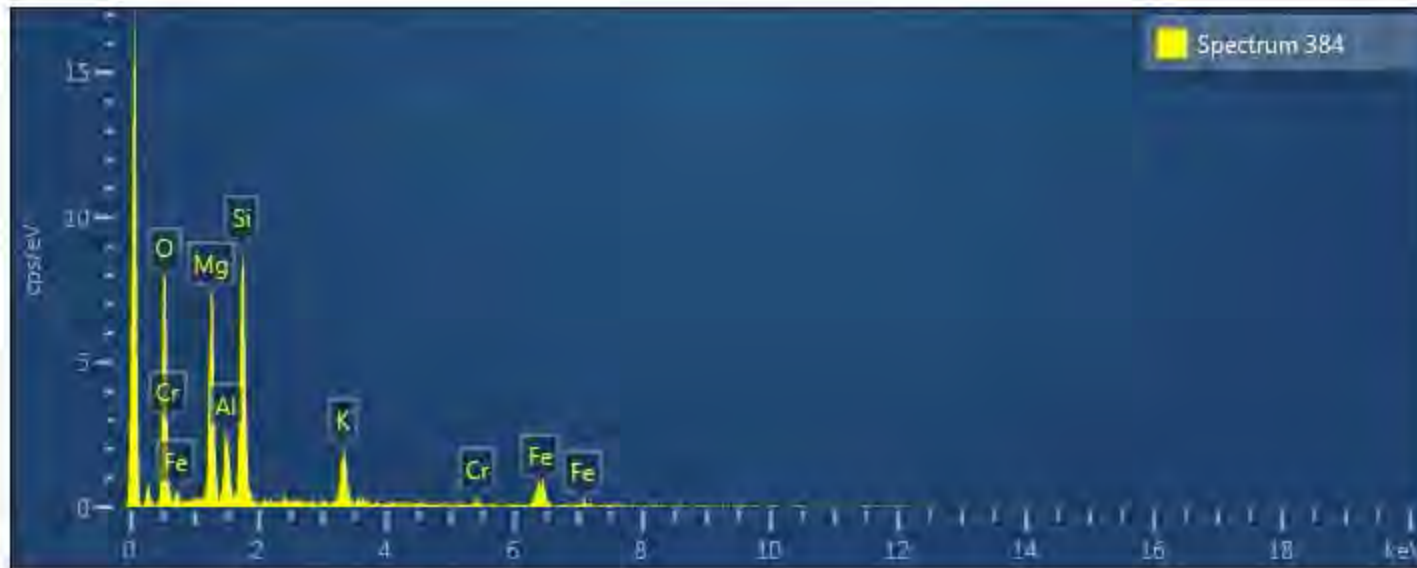
| Spectrum 381 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 31.57 | 1.25 | 58.27 |
| Al | K series | 6.22 | 0.47 | 6.81 |
| Ti | K series | 1.69 | 0.29 | 1.04 |
| Cr | K series | 29.29 | 0.96 | 16.64 |
| Fe | K series | 30.17 | 1.07 | 15.96 |
| Mg | K series | 1.06 | 0.34 | 1.29 |
| Total | | 100.00 | | 100.00 |



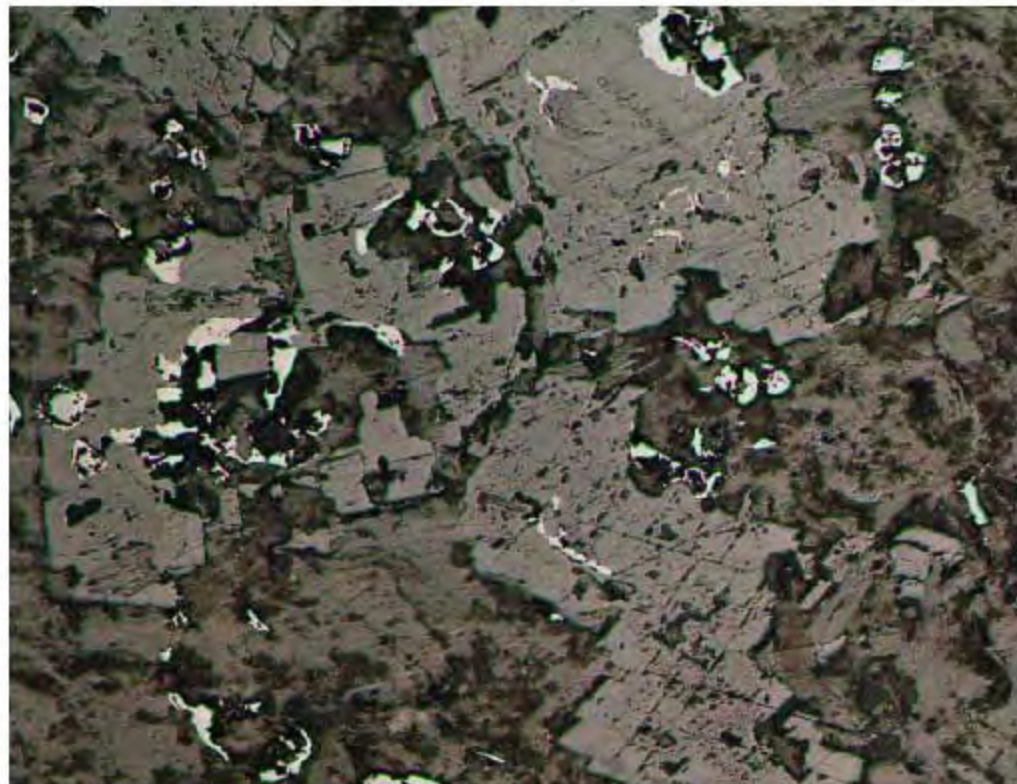
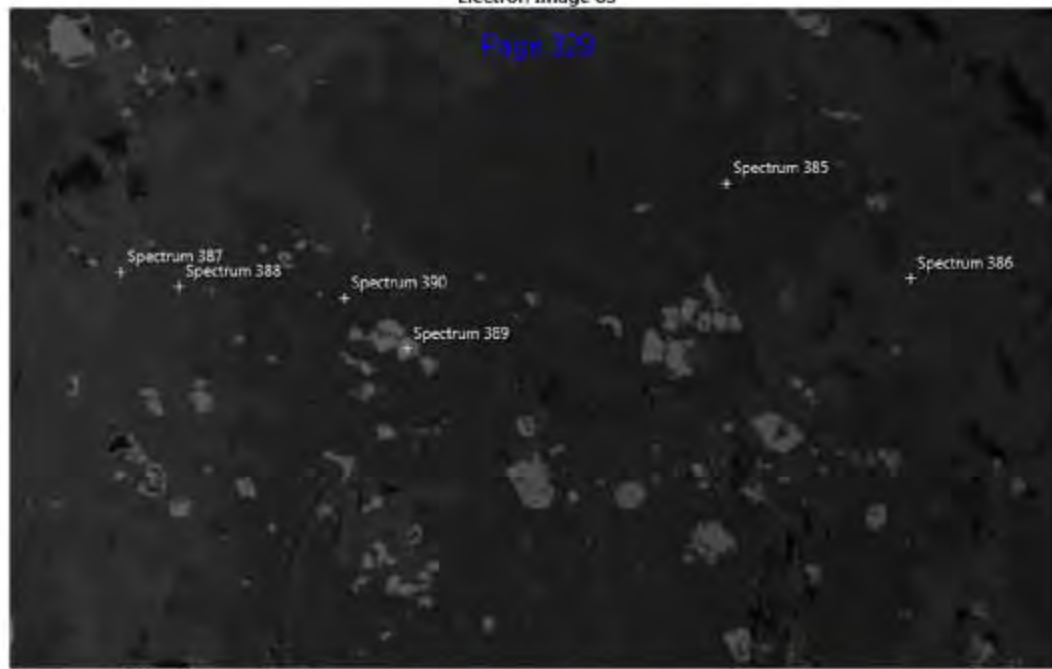
| Spectrum 382 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 58.44 | 1.05 | 73.68 |
| Mg | K series | 16.00 | 0.59 | 13.28 |
| Ca | K series | 24.69 | 0.73 | 12.43 |
| Si | K series | 0.86 | 0.20 | 0.62 |
| Total | | 100.00 | | 100.00 |

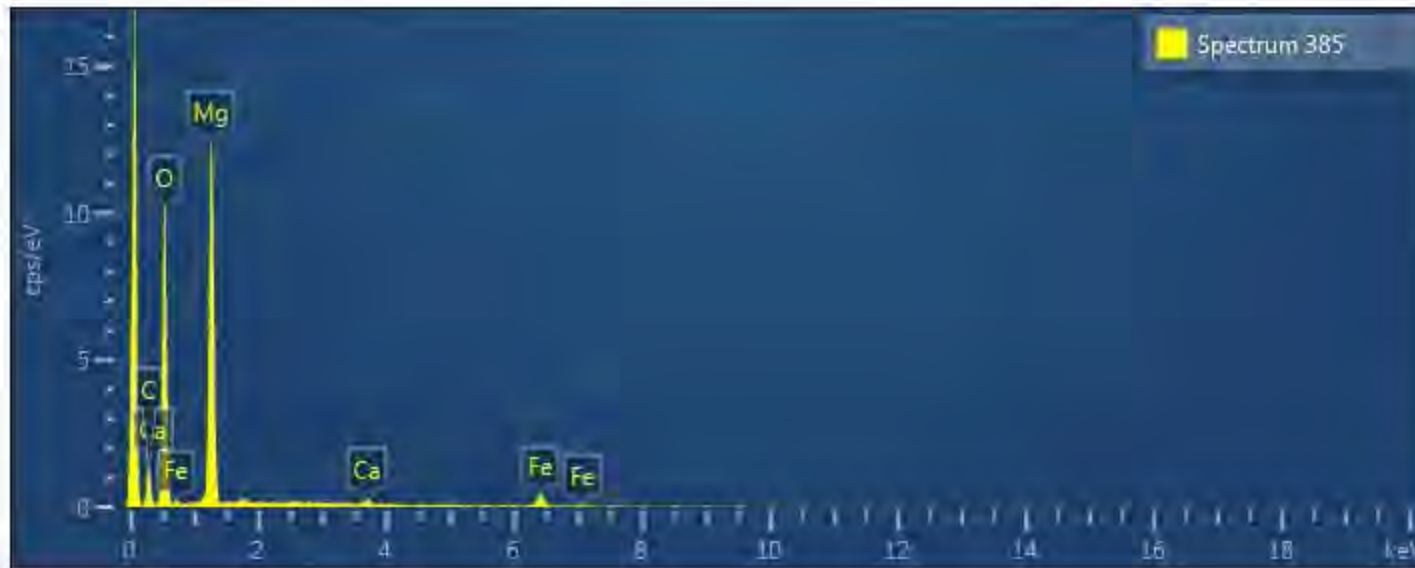


| Spectrum 383 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 56.31 | 0.70 | 67.91 |
| Mg | K series | 37.74 | 0.64 | 29.95 |
| Fe | K series | 5.42 | 0.44 | 1.87 |
| Ca | K series | 0.54 | 0.17 | 0.26 |
| Total | | 100.00 | | 100.00 |

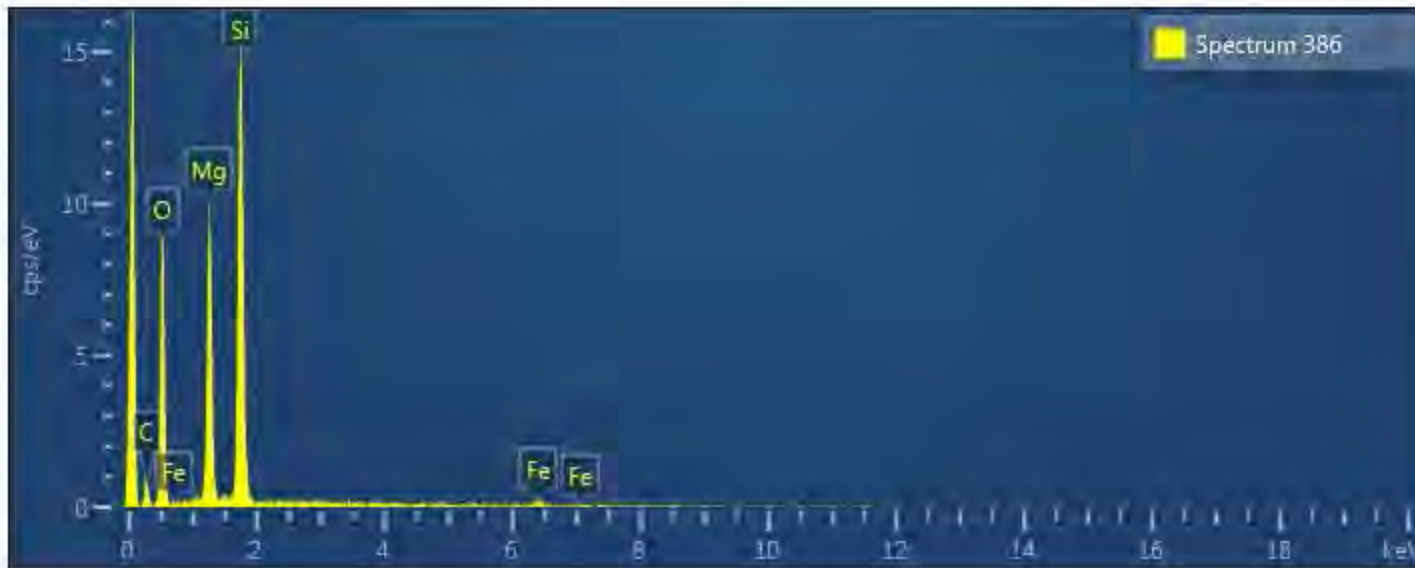


| Spectrum 384 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 47.85 | 1.31 | 63.22 |
| Mg | K series | 15.12 | 0.65 | 13.15 |
| Si | K series | 17.55 | 0.68 | 13.21 |
| K | K series | 5.13 | 0.38 | 2.77 |
| Fe | K series | 7.93 | 0.70 | 3.00 |
| Al | K series | 5.40 | 0.46 | 4.23 |
| Cr | K series | 1.02 | 0.30 | 0.41 |
| Total | | 100.00 | | 100.00 |

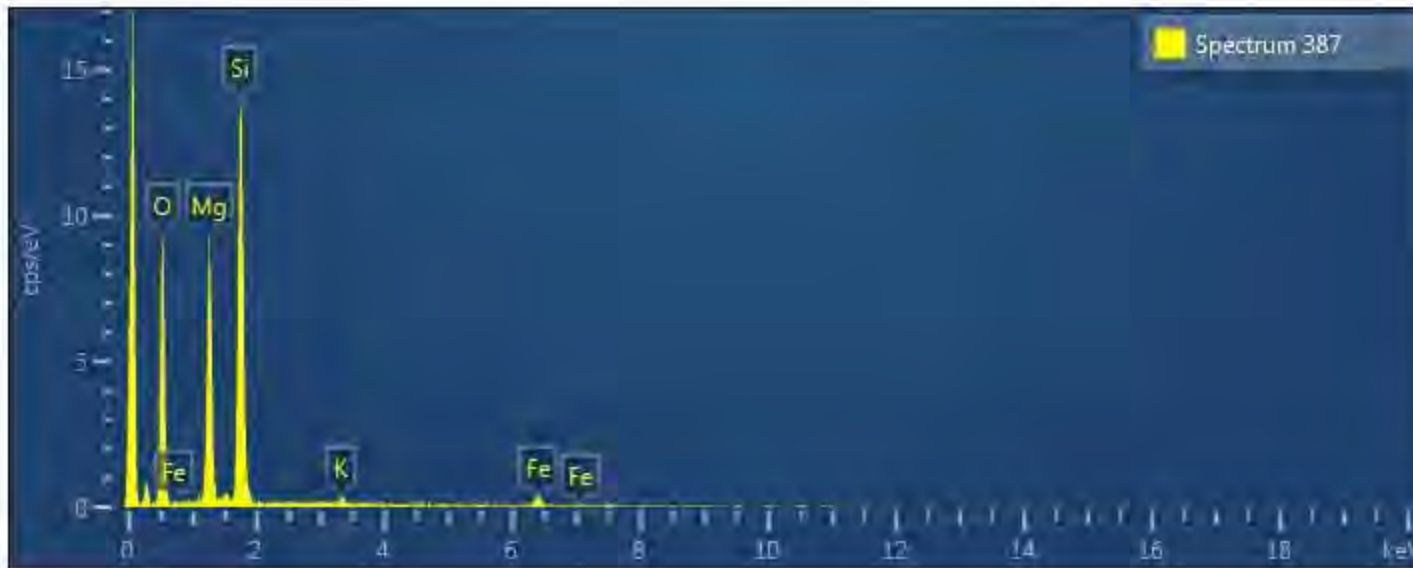




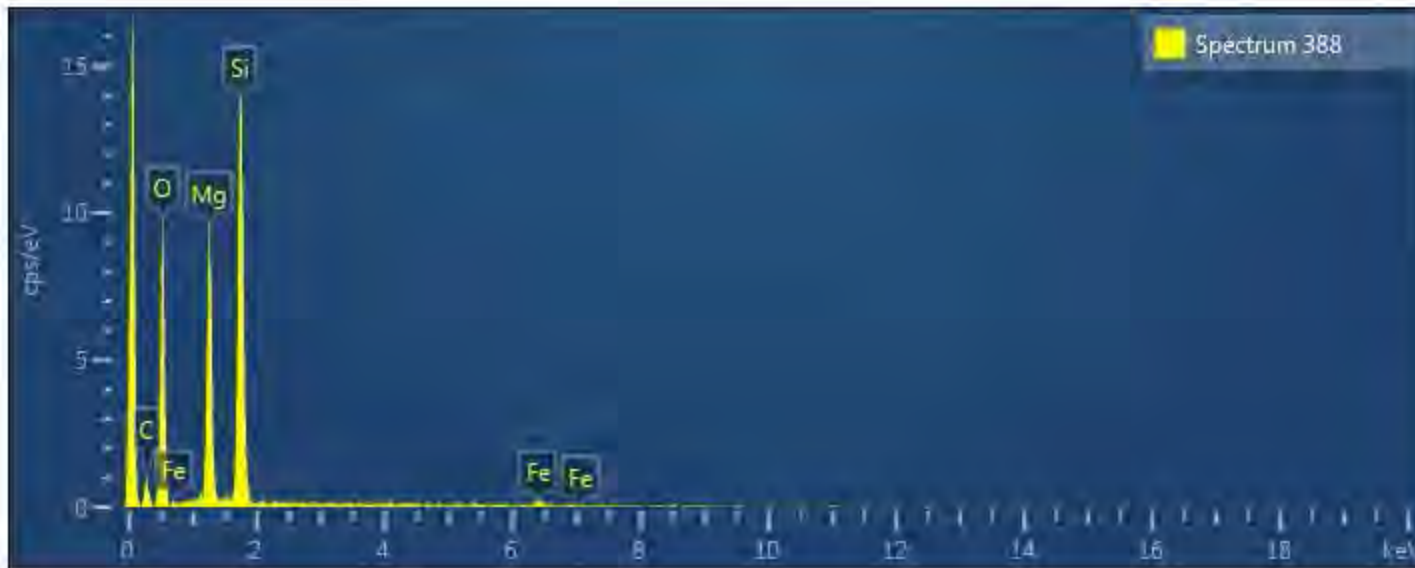
| Spectrum 385 | | | | | | | |
|--------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 37.74 | 0.66 | 50.00 | | | |
| Mg | K series | 53.12 | 0.70 | 46.31 | MgO | 88.08 | 1.16 |
| Fe | K series | 7.68 | 0.61 | 2.92 | FeO | 9.88 | 0.78 |
| Ca | K series | 1.46 | 0.25 | 0.77 | CaO | 2.04 | 0.35 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



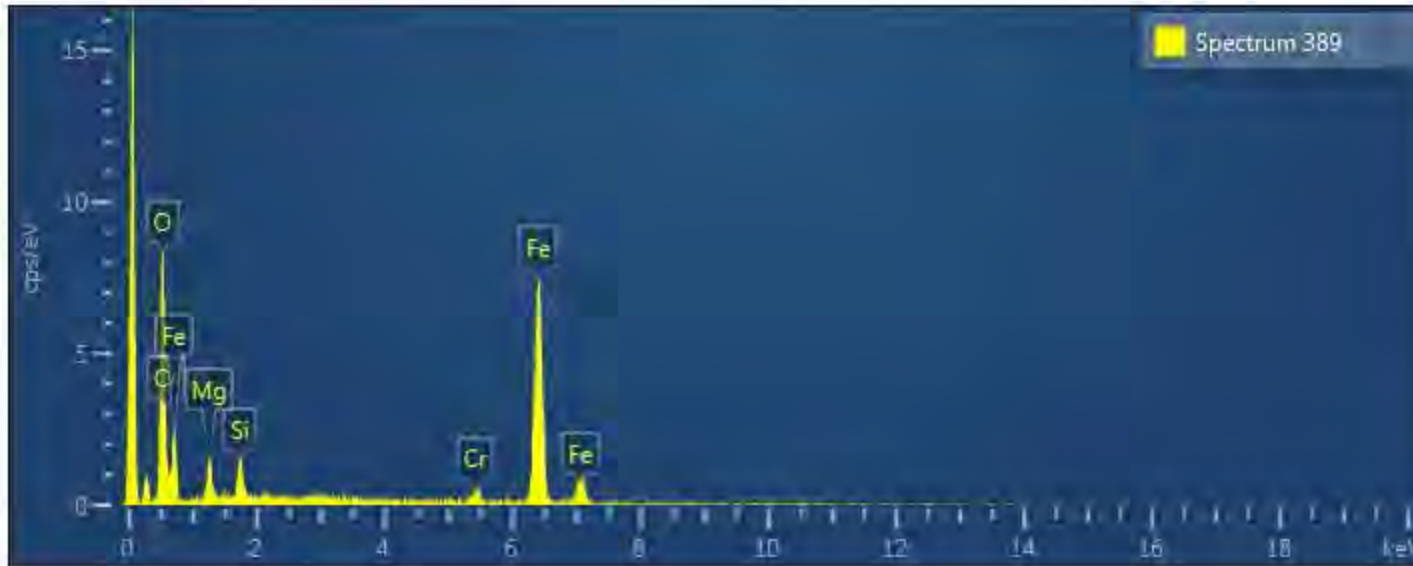
| Spectrum 386 | | | | | | | |
|--------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 48.37 | 0.63 | 61.22 | | | |
| Mg | K series | 18.92 | 0.48 | 15.76 | MgO | 31.37 | 0.80 |
| Si | K series | 31.13 | 0.56 | 22.45 | SiO2 | 66.60 | 1.20 |
| Fe | K series | 1.57 | 0.37 | 0.57 | FeO | 2.03 | 0.48 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



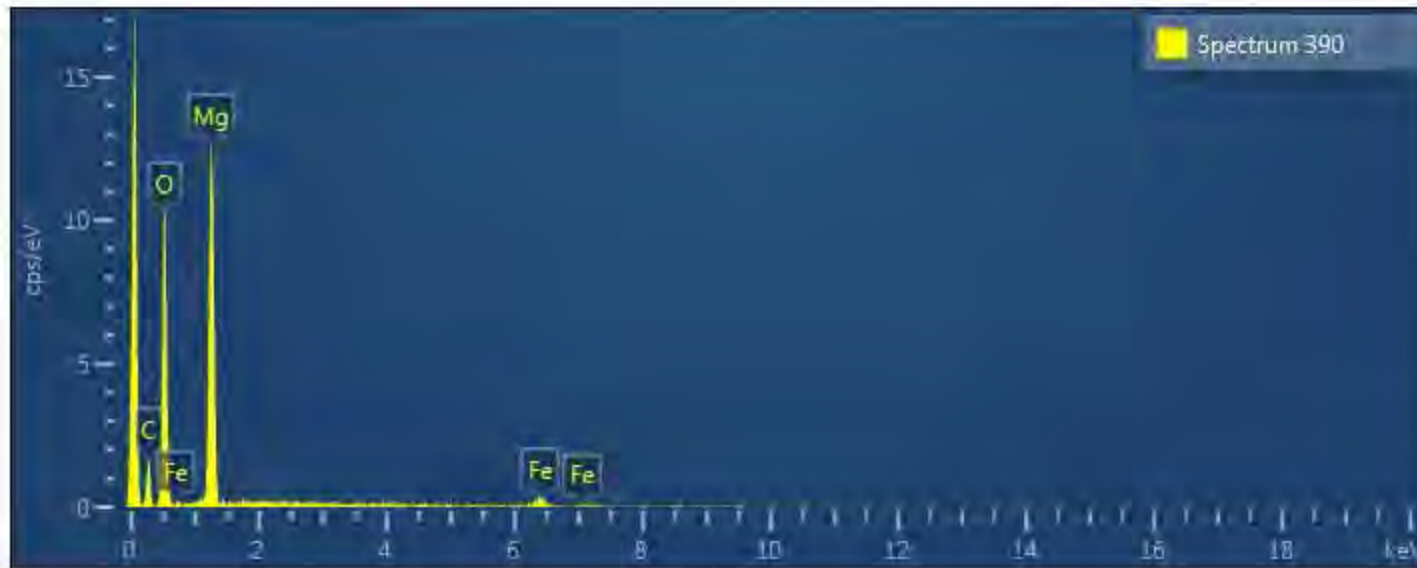
| Spectrum 387 | | | | | | | |
|--------------|-----------|----------|----------------|----------|------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 47.49 | 0.64 | 60.87 | | | |
| Mg | K series | 18.62 | 0.49 | 15.70 | MgO | 30.87 | 0.81 |
| Si | K series | 30.00 | 0.56 | 21.90 | SiO ₂ | 64.17 | 1.20 |
| Fe | K series | 3.27 | 0.42 | 1.20 | FeO | 4.21 | 0.54 |
| K | K series | 0.62 | 0.18 | 0.33 | K ₂ O | 0.75 | 0.22 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



| Spectrum 388 | | | | | | | |
|--------------|-----------|----------|----------------|----------|-------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 48.19 | 0.68 | 61.08 | | | |
| Mg | K series | 19.32 | 0.53 | 16.11 | MgO | 32.03 | 0.88 |
| Si | K series | 30.69 | 0.61 | 22.16 | SiO2 | 65.65 | 1.31 |
| Fe | K series | 1.80 | 0.41 | 0.65 | FeO | 2.32 | 0.52 |
| Total | | 100.00 | | 100.00 | | 100.00 | |

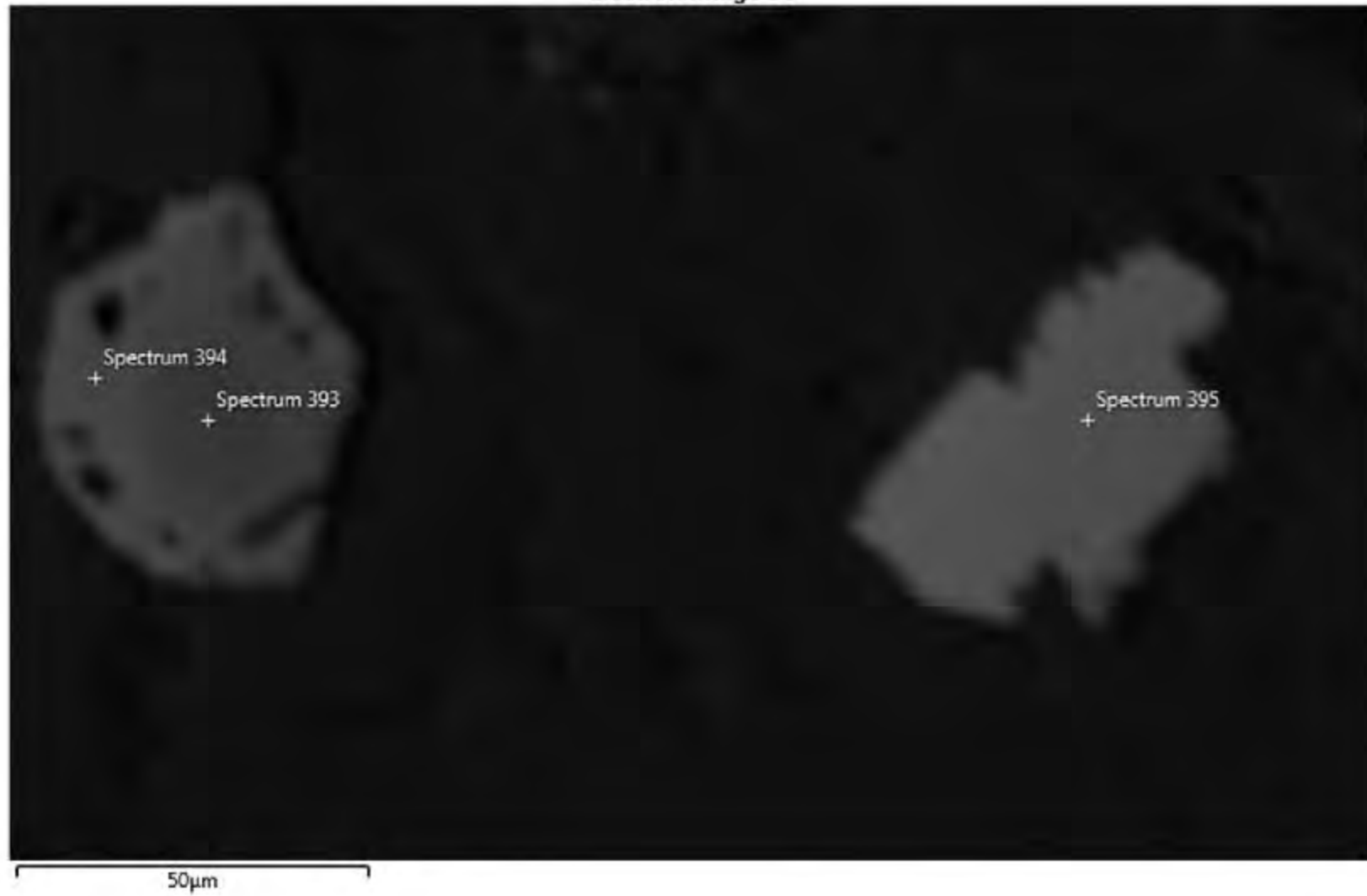


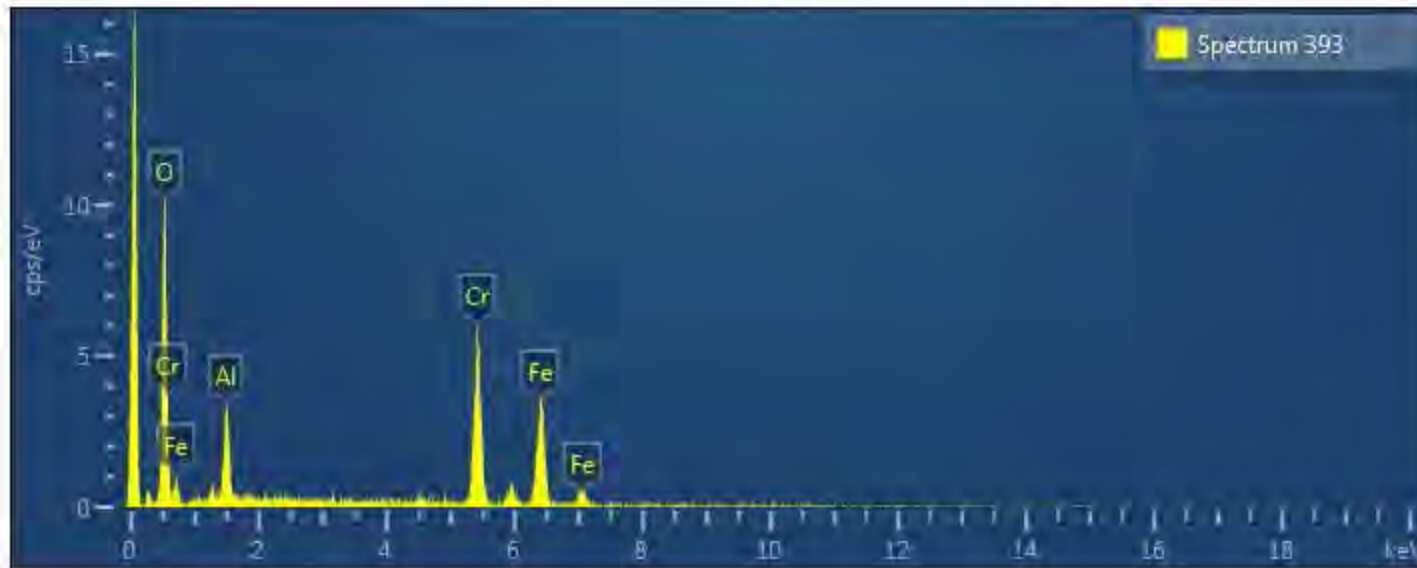
| Spectrum 389 | | | | | | | |
|--------------|-----------|----------|----------------|----------|--------------------------------|---------|---------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % | Oxide | Oxide % | Oxide % Sigma |
| O | K series | 26.14 | 0.93 | 52.15 | | | |
| Mg | K series | 5.02 | 0.52 | 6.59 | MgO | 8.32 | 0.87 |
| Si | K series | 3.23 | 0.35 | 3.67 | SiO ₂ | 6.92 | 0.74 |
| Cr | K series | 2.04 | 0.35 | 1.25 | Cr ₂ O ₃ | 2.98 | 0.51 |
| Fe | K series | 63.57 | 1.03 | 36.34 | FeO | 81.79 | 1.32 |
| Total | | 100.00 | | 100.00 | | 100.00 | |



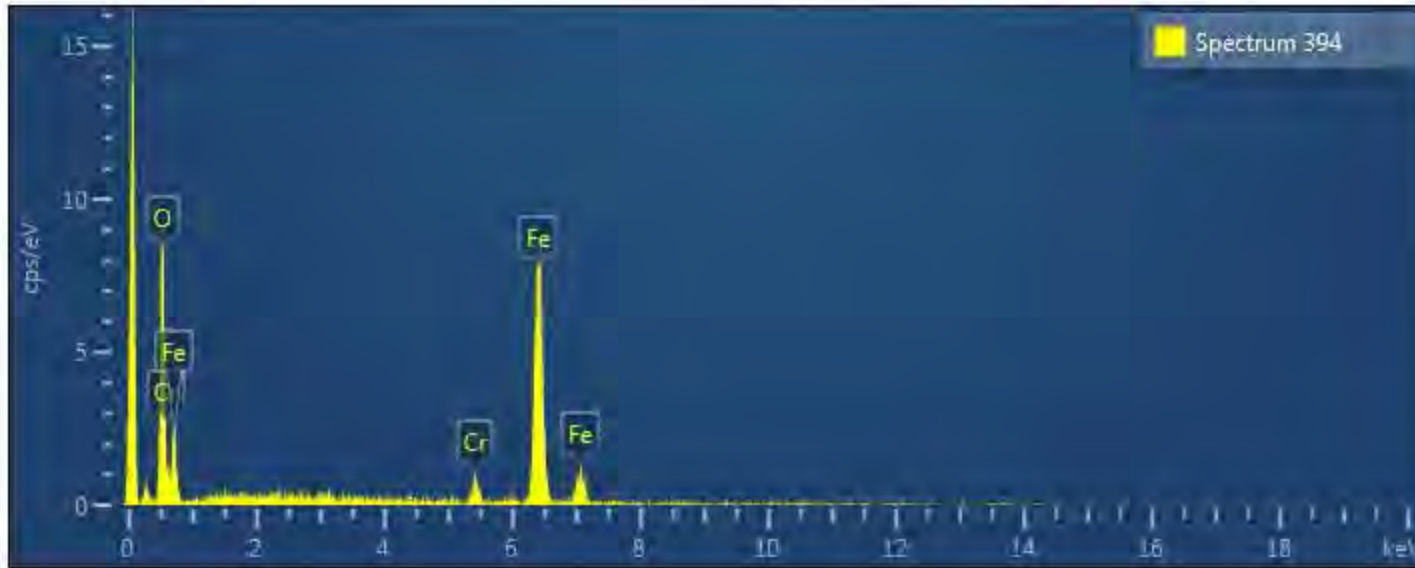
| Spectrum 390 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 57.10 | 0.98 | 68.02 |
| Mg | K series | 39.19 | 0.92 | 30.72 |
| Fe | K series | 3.71 | 0.63 | 1.27 |
| Total | | 100.00 | | 100.00 |

Electron Image 90

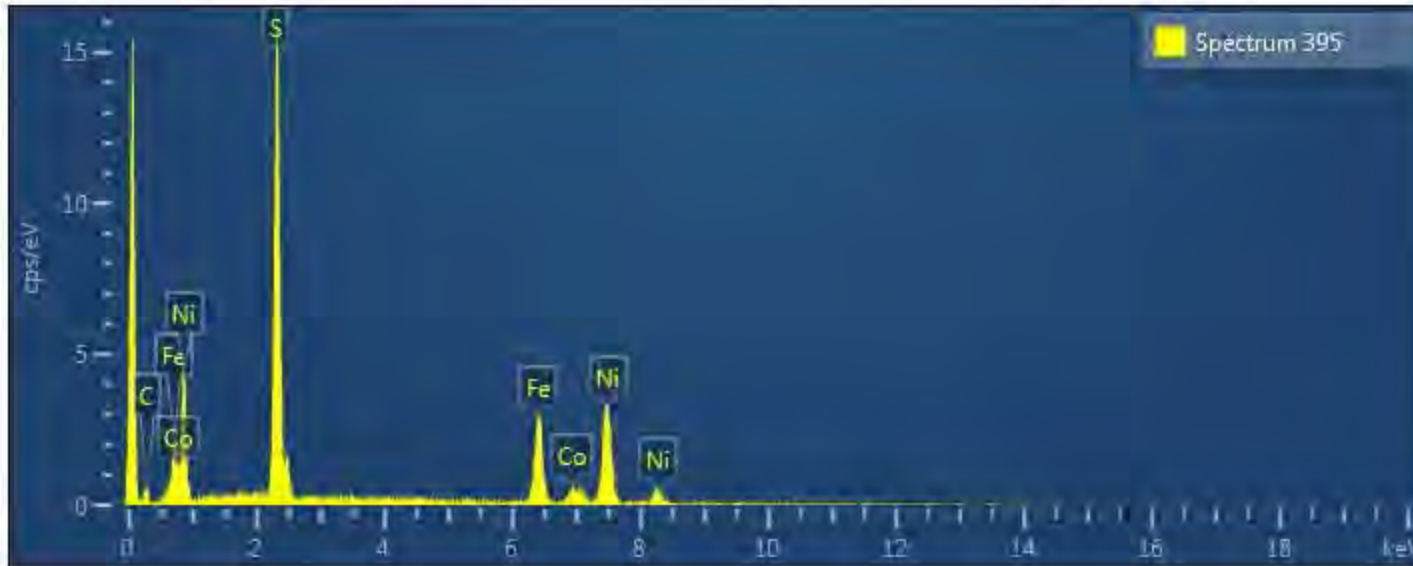




| Spectrum 393 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 33.69 | 1.20 | 60.55 |
| Cr | K series | 28.94 | 0.95 | 16.00 |
| Fe | K series | 29.72 | 1.07 | 15.30 |
| Al | K series | 7.65 | 0.52 | 8.15 |
| Total | | 100.00 | | 100.00 |



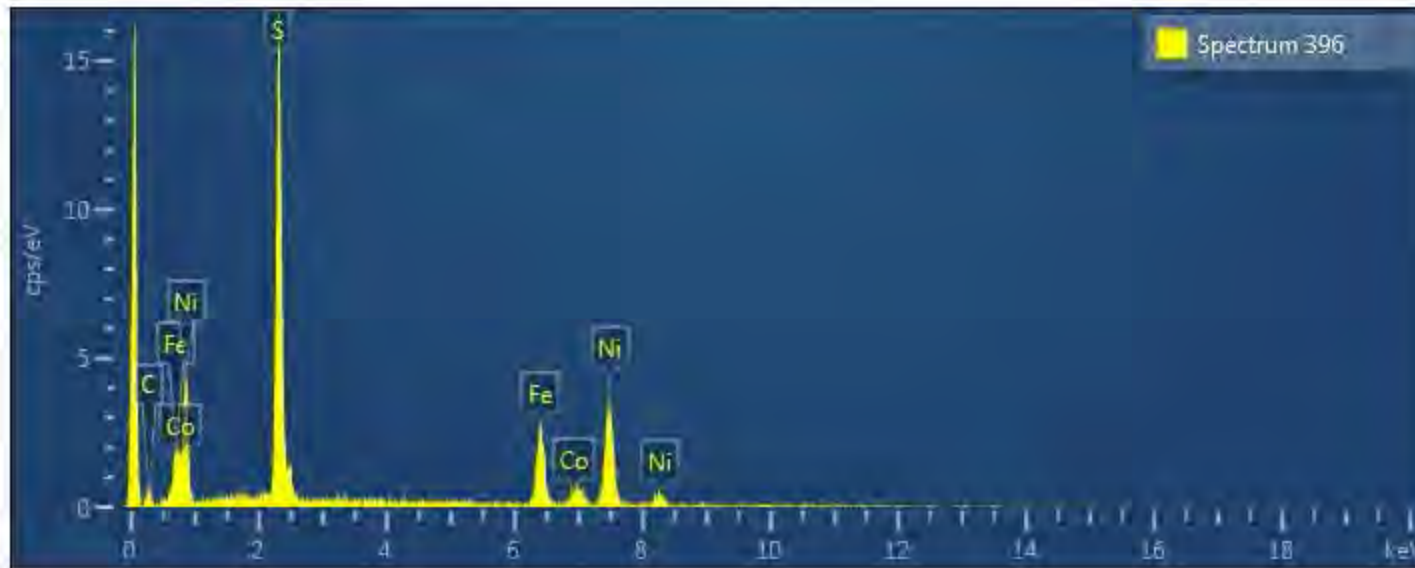
| Spectrum 394 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.87 | 1.25 | 60.83 |
| Cr | K series | 3.58 | 0.41 | 2.17 |
| Fe | K series | 65.55 | 1.25 | 37.00 |
| Total | | 100.00 | | 100.00 |



| Spectrum 395 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.06 | 0.80 | 48.19 |
| Fe | K series | 22.00 | 0.80 | 17.87 |
| Co | K series | 3.84 | 0.65 | 2.96 |
| Ni | K series | 40.10 | 1.02 | 30.98 |
| Total | | 100.00 | | 100.00 |

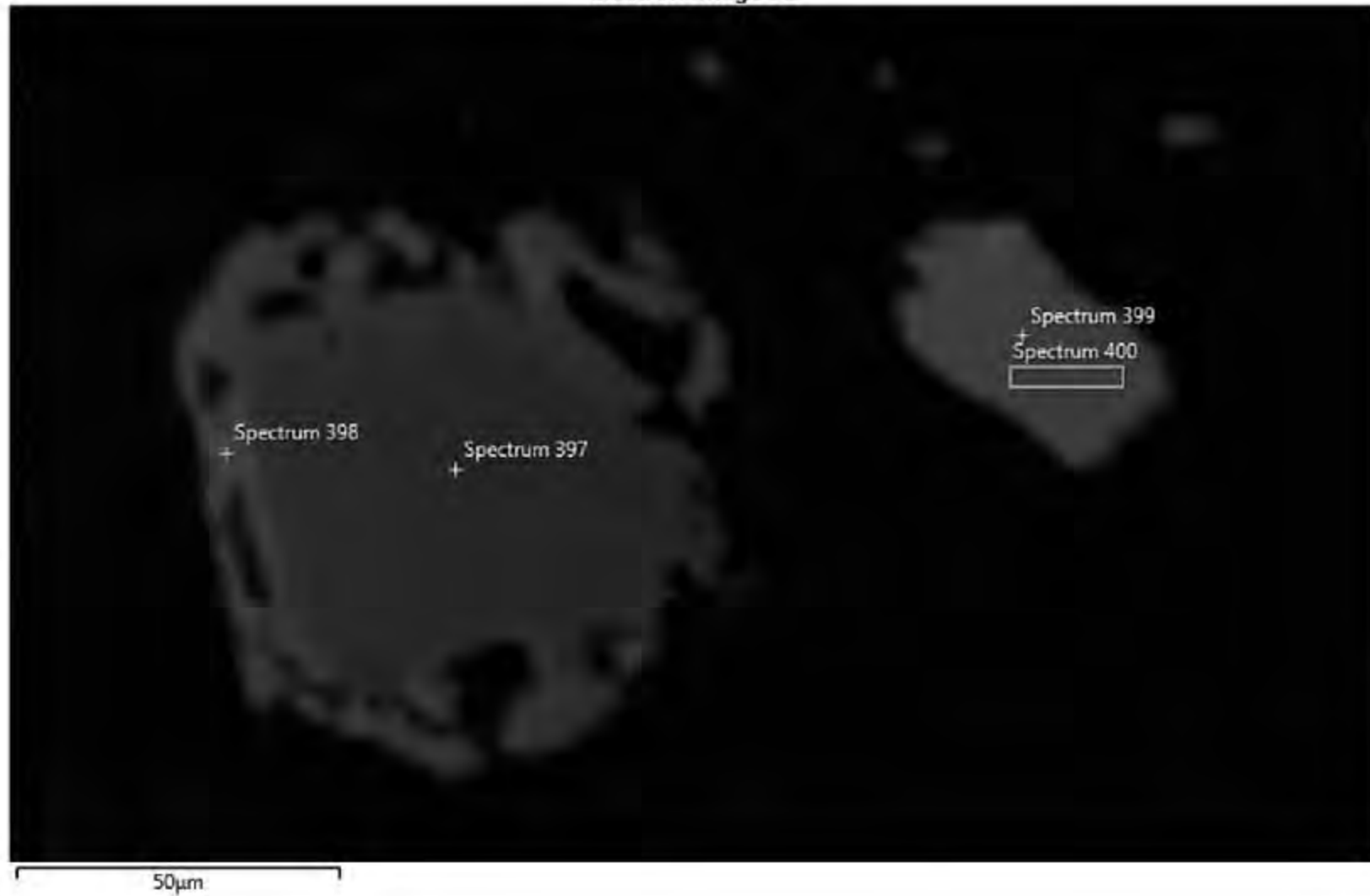
Electron Image 91

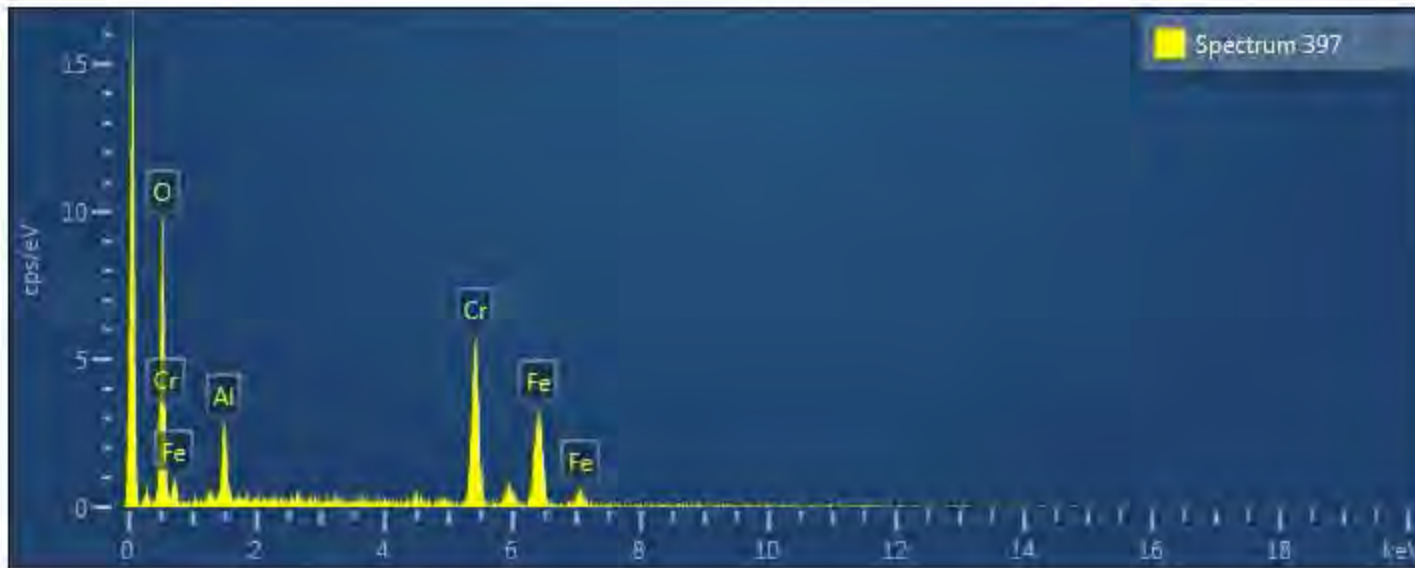




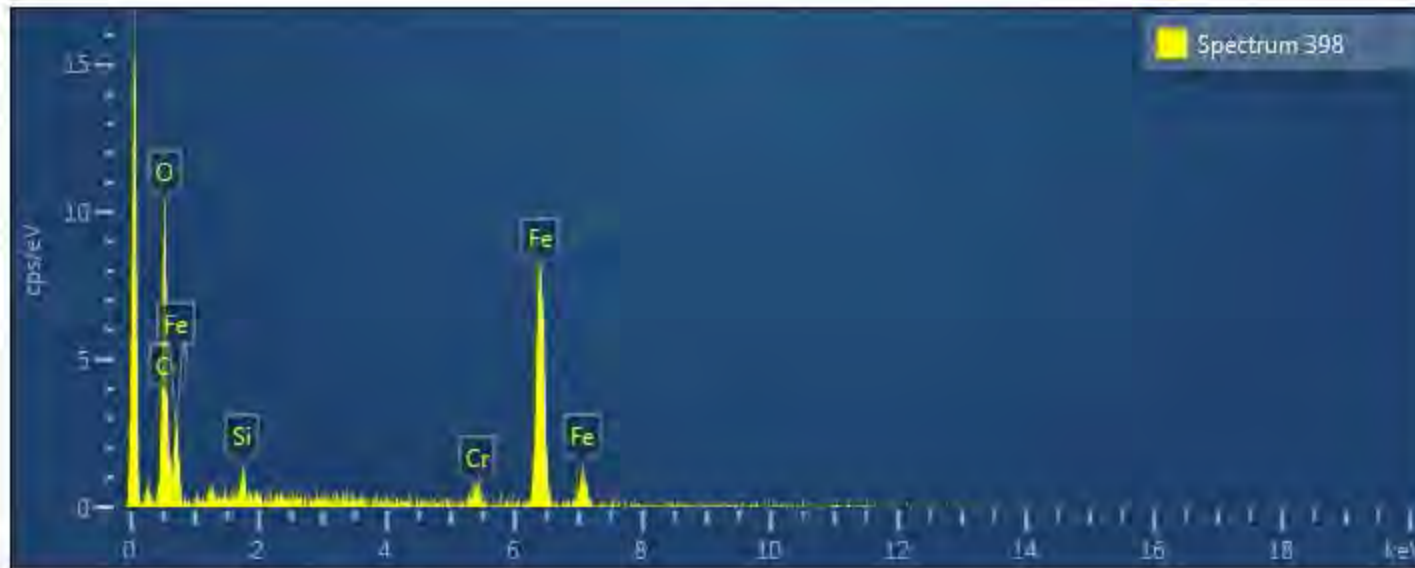
| Spectrum 396 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.67 | 0.81 | 48.91 |
| Fe | K series | 19.51 | 0.77 | 15.80 |
| Ni | K series | 40.83 | 1.02 | 31.46 |
| Co | K series | 4.99 | 0.68 | 3.83 |
| Total | | 100.00 | | 100.00 |

Electron Image 92

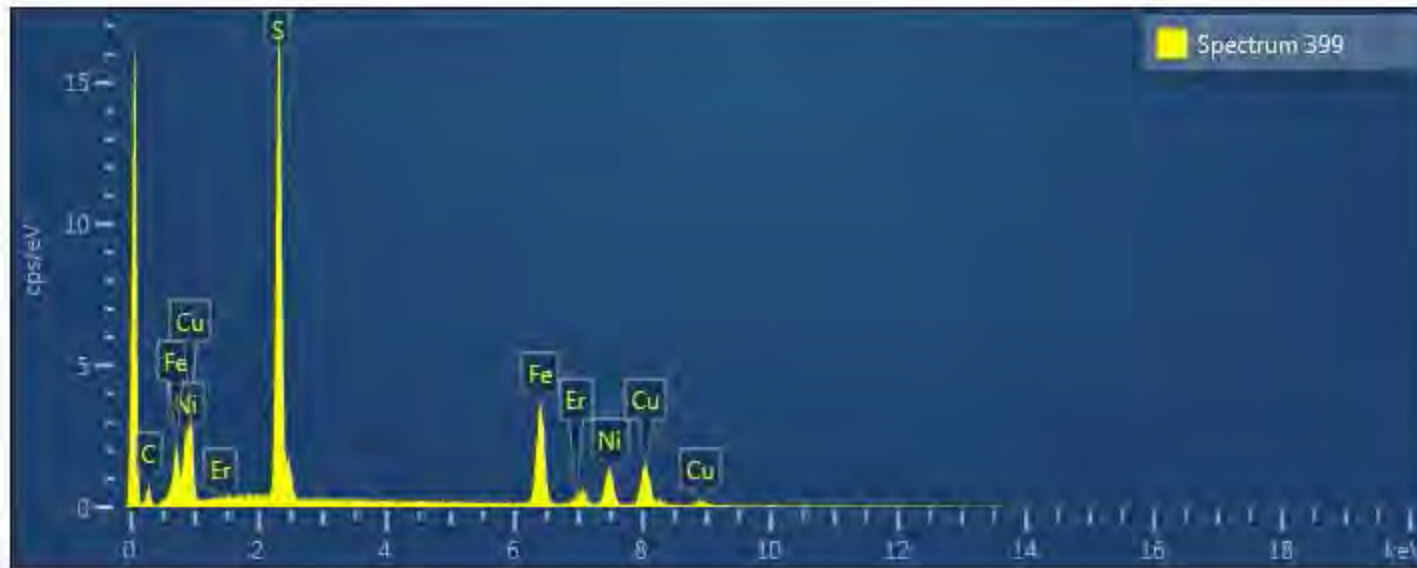




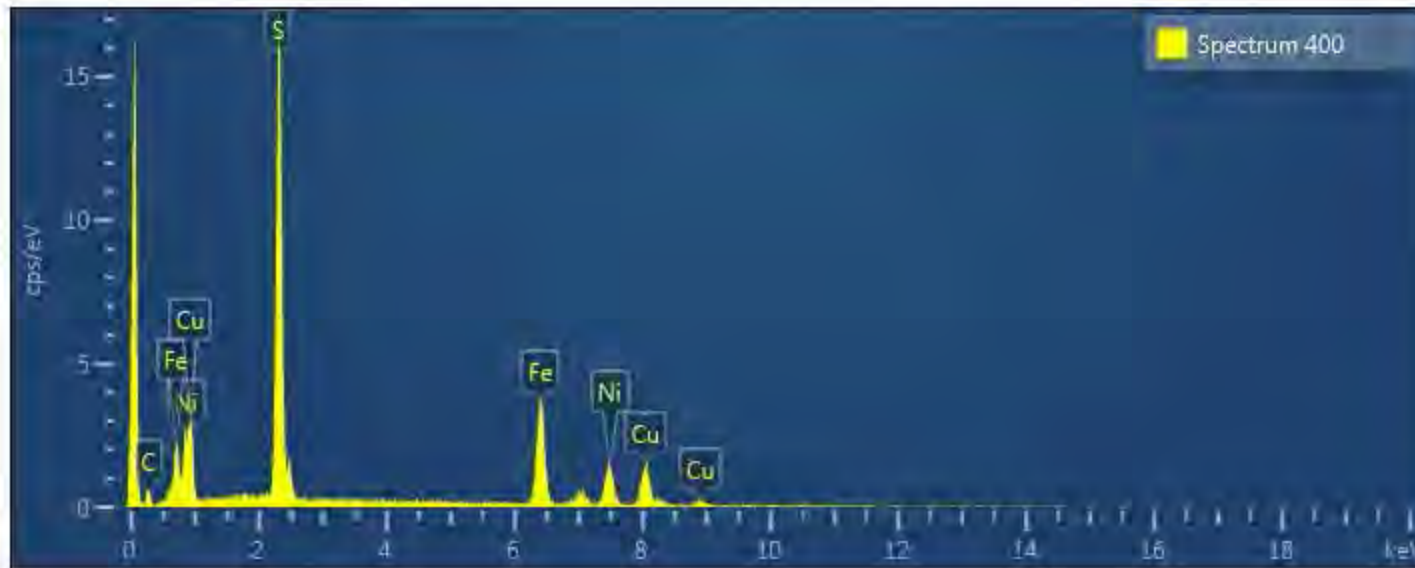
| Spectrum 397 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 33.12 | 1.31 | 60.10 |
| Al | K series | 7.09 | 0.54 | 7.63 |
| Cr | K series | 31.02 | 1.07 | 17.32 |
| Fe | K series | 28.77 | 1.19 | 14.96 |
| Total | | 100.00 | | 100.00 |



| Spectrum 398 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.48 | 1.88 | 59.78 |
| Si | K series | 1.86 | 0.45 | 2.08 |
| Cr | K series | 3.30 | 0.59 | 1.99 |
| Fe | K series | 64.36 | 1.87 | 36.15 |
| Total | | 100.00 | | 100.00 |

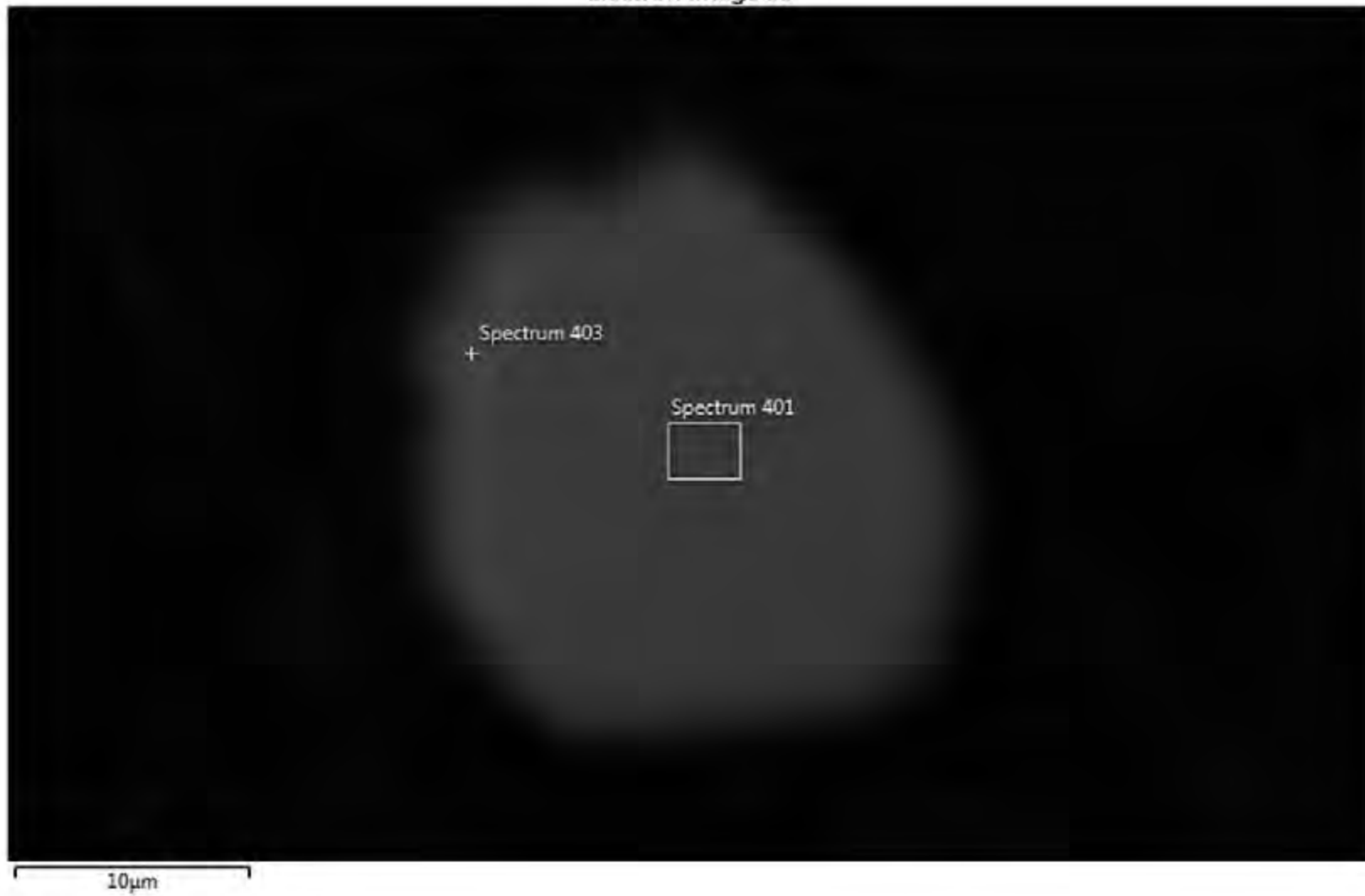


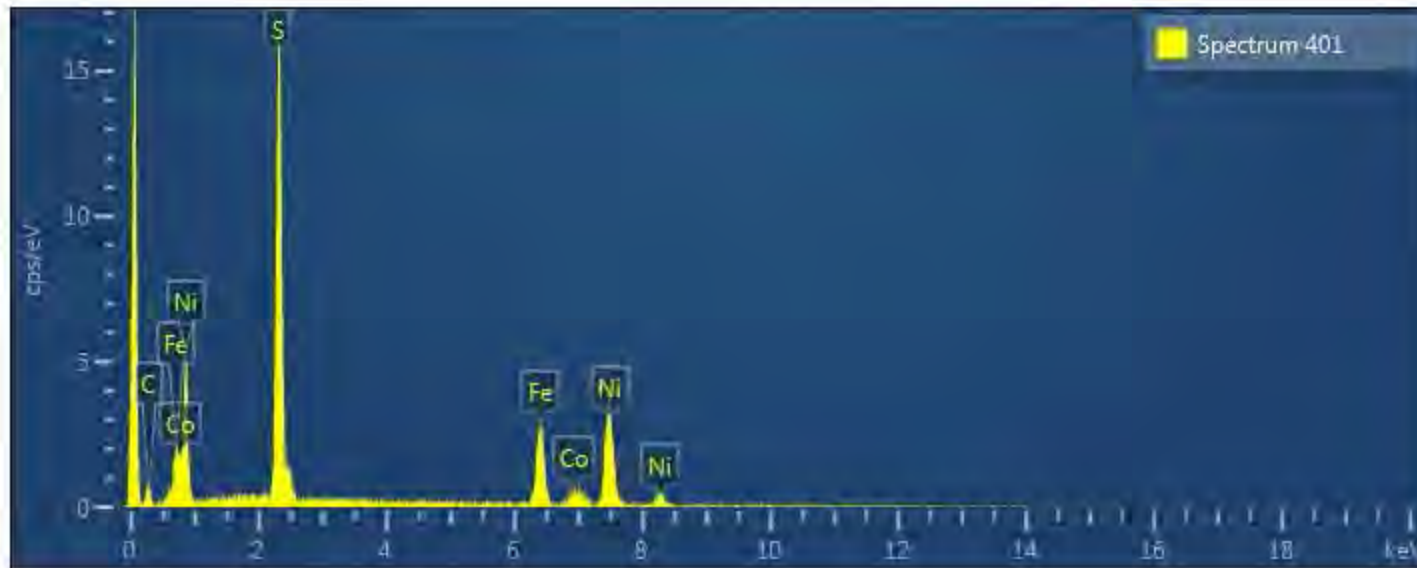
| Spectrum 399 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.64 | 0.51 | 51.15 |
| Fe | K series | 25.79 | 0.48 | 21.25 |
| Ni | K series | 14.37 | 0.45 | 11.27 |
| Cu | K series | 21.55 | 0.57 | 15.61 |
| Er | L series | 2.65 | 0.72 | 0.73 |
| Total | | 100.00 | | 100.00 |



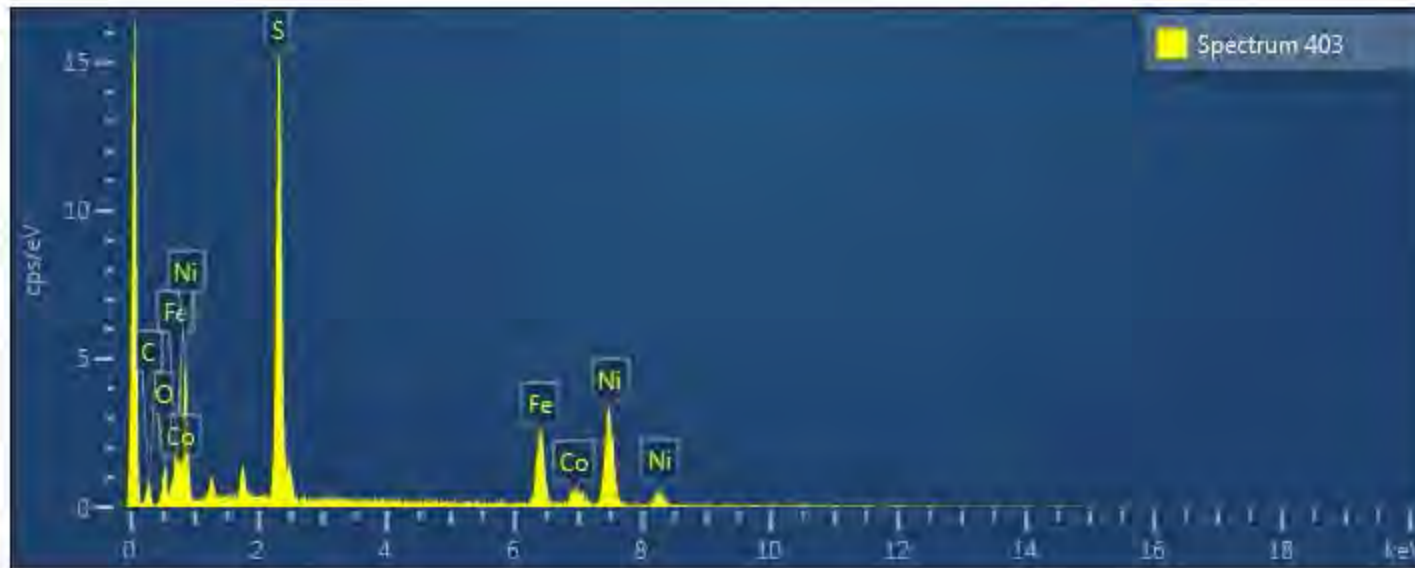
| Spectrum 400 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 36.05 | 0.60 | 50.89 |
| Fe | K series | 26.54 | 0.62 | 21.51 |
| Ni | K series | 16.31 | 0.64 | 12.57 |
| Cu | K series | 21.10 | 0.75 | 15.03 |
| Total | | 100.00 | | 100.00 |

Electron Image 93





| Spectrum 401 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.00 | 0.73 | 49.26 |
| Fe | K series | 20.22 | 0.70 | 16.34 |
| Ni | K series | 40.54 | 0.91 | 31.16 |
| Co | K series | 4.24 | 0.61 | 3.25 |
| Total | | 100.00 | | 100.00 |



| Spectrum 403 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 9.07 | 0.78 | 22.01 |
| S | K series | 31.33 | 0.68 | 37.95 |
| Fe | K series | 18.59 | 0.65 | 12.92 |
| Ni | K series | 36.54 | 0.90 | 24.17 |
| Co | K series | 4.47 | 0.56 | 2.95 |
| Total | | 100.00 | | 100.00 |

**Specimen Notes for '558' - Sulphide Mineral Inventory – Co-pentlandite, Awaruite, Heazlewoodite
Unknown Oxide Mineral – Co-S-Ni Mineral**

SITE 2 CIRCLE 6 is an intergrowth of magnetite with heazlewoodite and brighter zones of awaruite

SITE 4 CIRCLE 1 is an intergrowth of magnetite and heazlewoodite

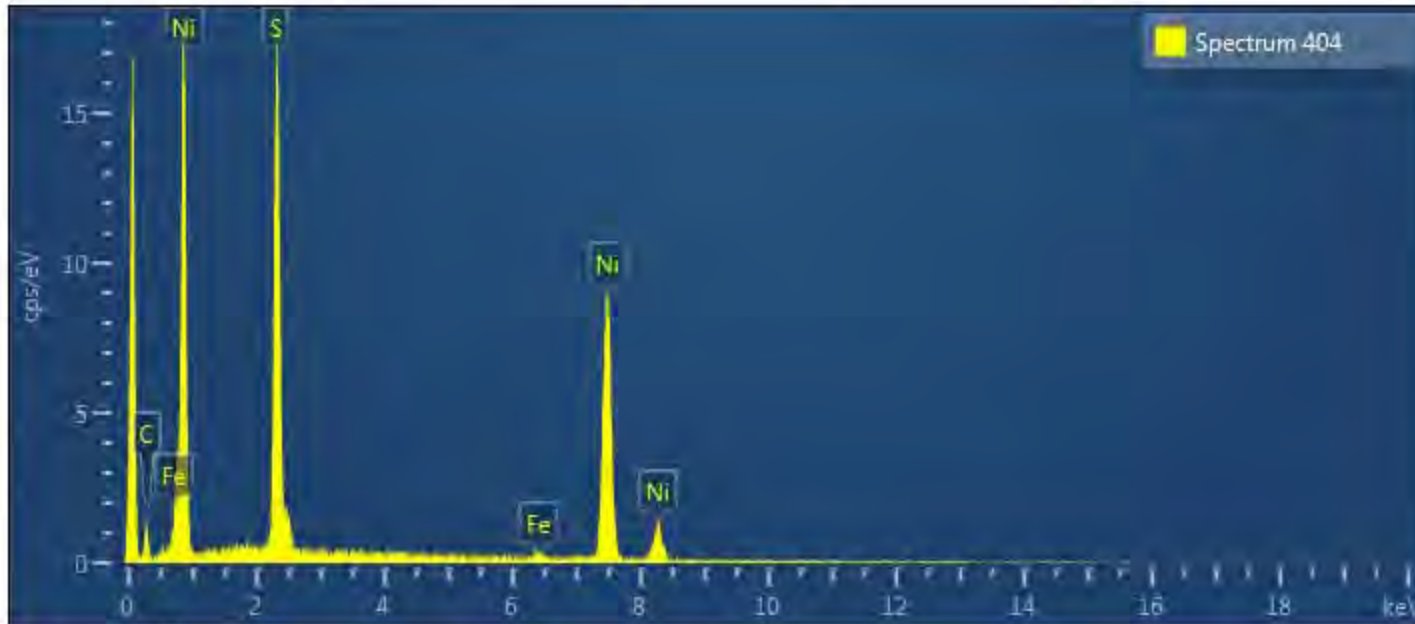
SITE 5 CIRCLE 7 is a heazlewoodite and awaruite with a peculiar Co-S-Ni mineral

Spectrum 419

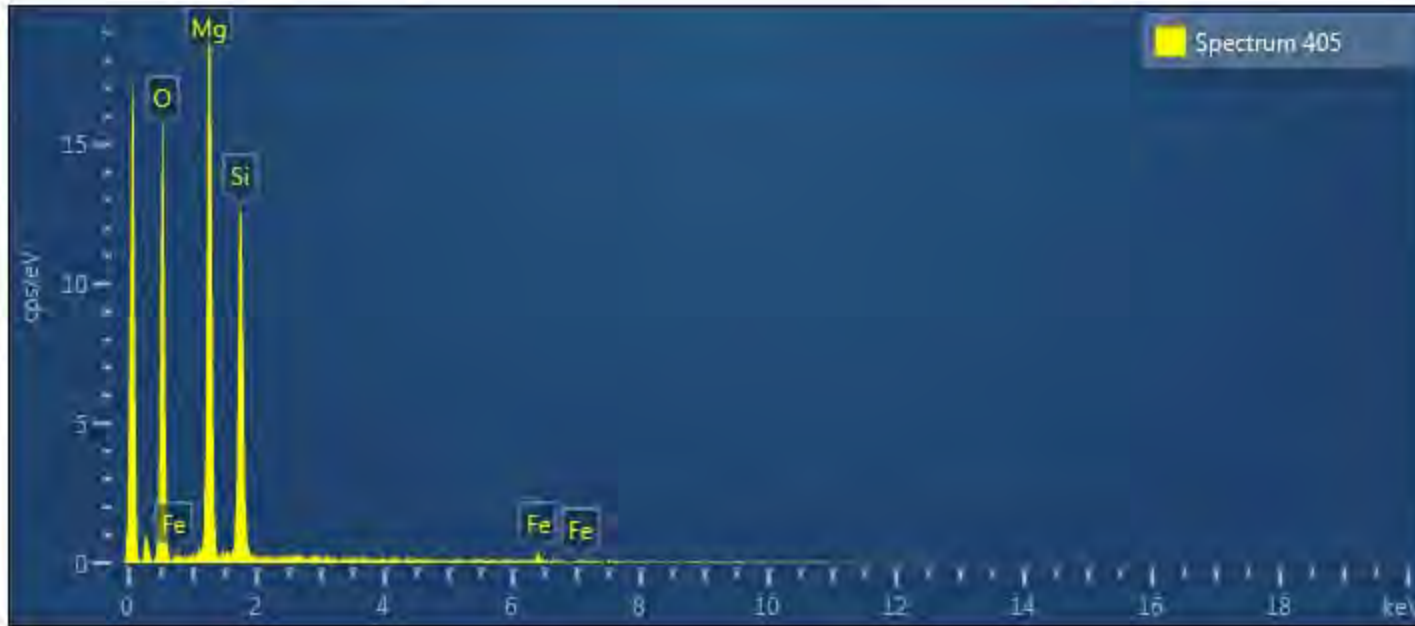
| Element | Weight % | σ |
|---------|----------|----------|
| Co | 57.5 | 0.4 |
| S | 34.7 | 0.4 |
| Ni | 7.8 | 0.4 |

Electron Image 94



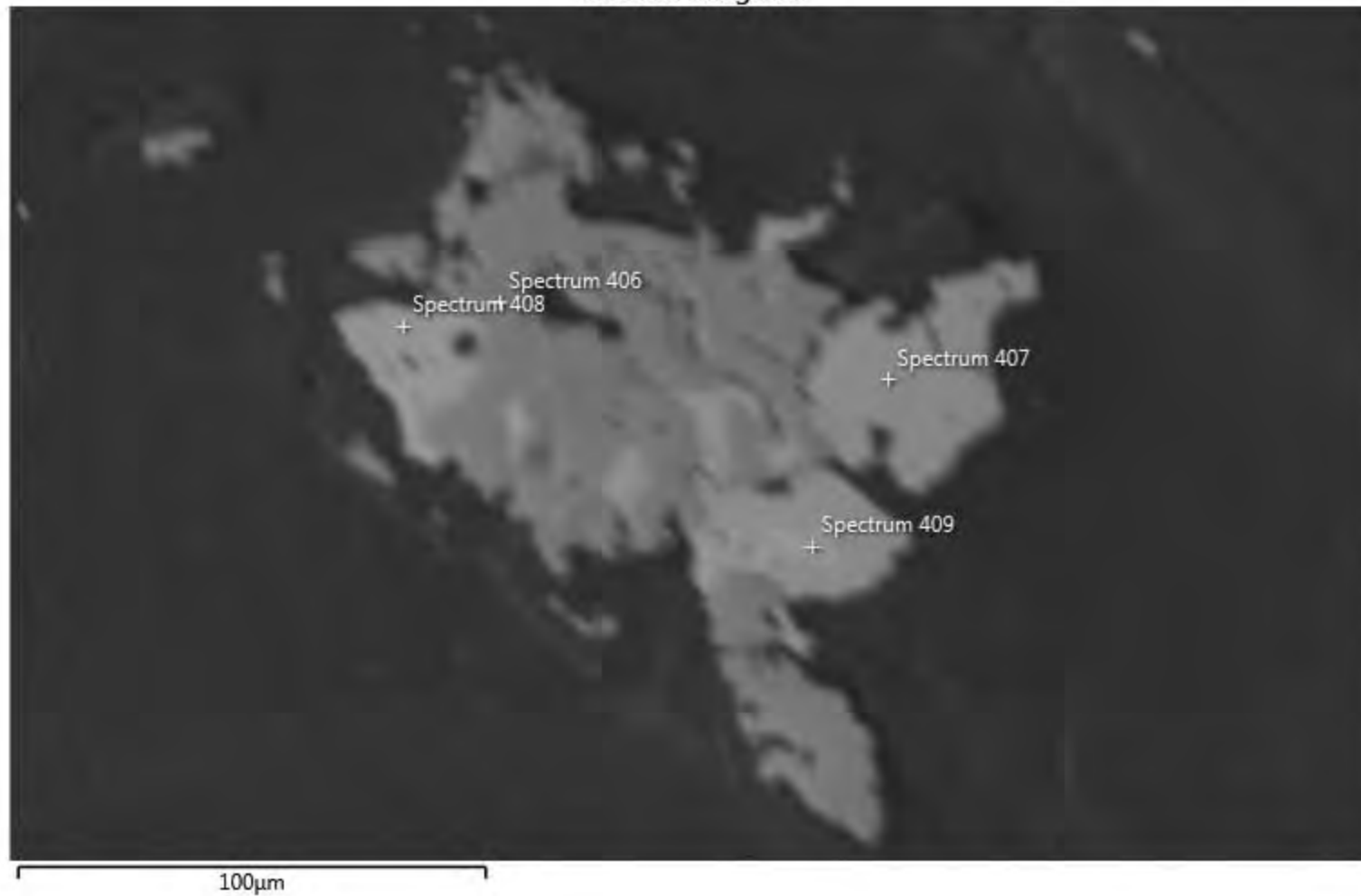


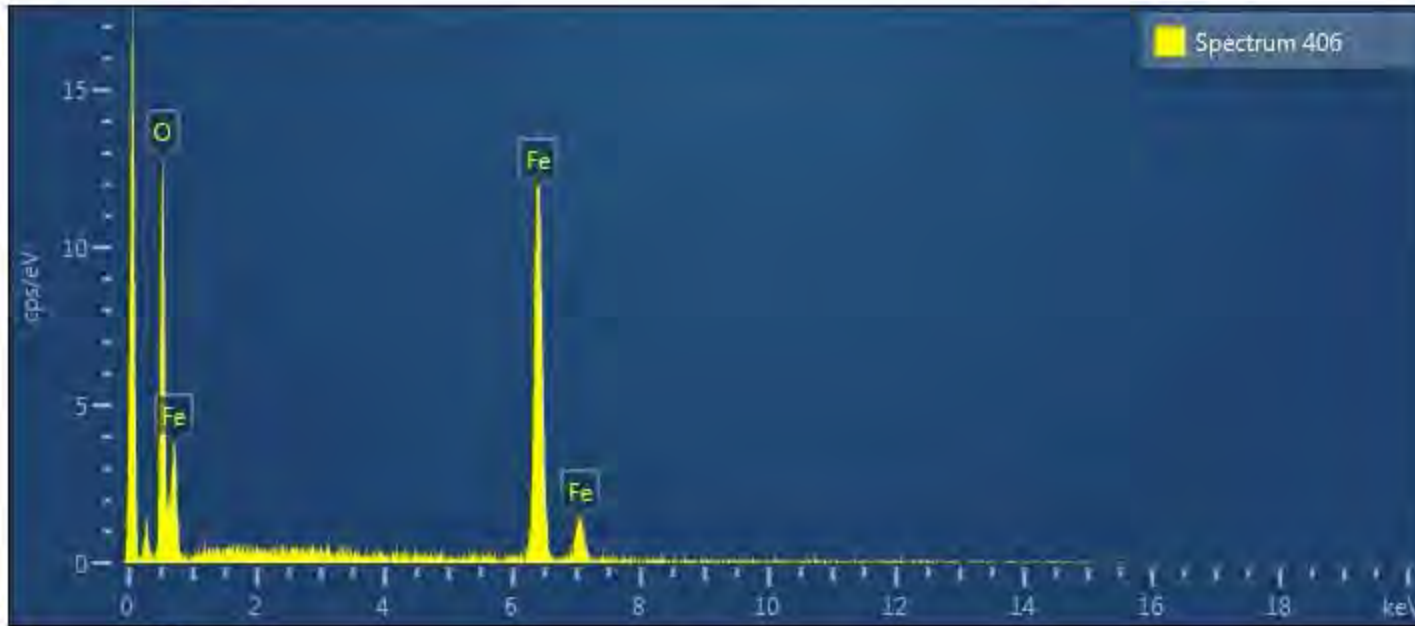
| Spectrum 404 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.80 | 0.55 | 41.33 |
| Ni | K series | 71.20 | 0.58 | 57.81 |
| Fe | K series | 1.00 | 0.25 | 0.86 |
| Total | | 100.00 | | 100.00 |



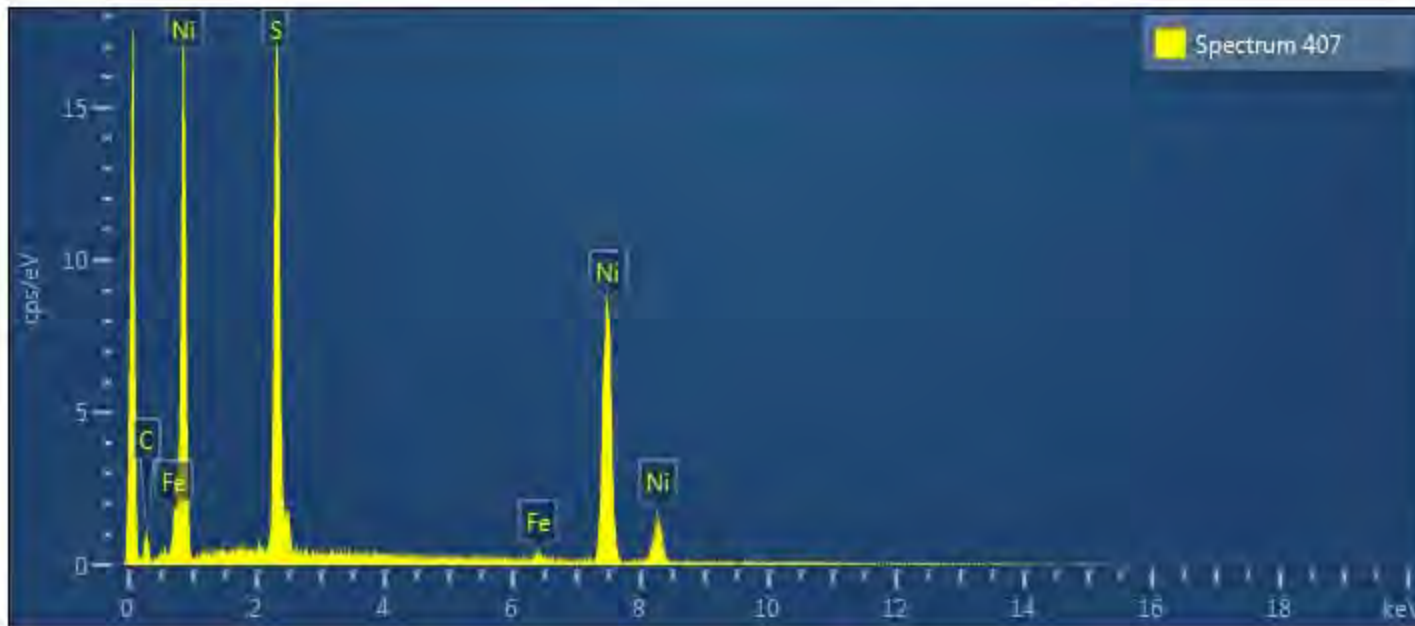
| Spectrum 405 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.04 | 0.71 | 63.95 |
| Mg | K series | 27.11 | 0.53 | 21.93 |
| Si | K series | 19.48 | 0.46 | 13.64 |
| Fe | K series | 1.37 | 0.27 | 0.48 |
| Total | | 100.00 | | 100.00 |

Electron Image 95

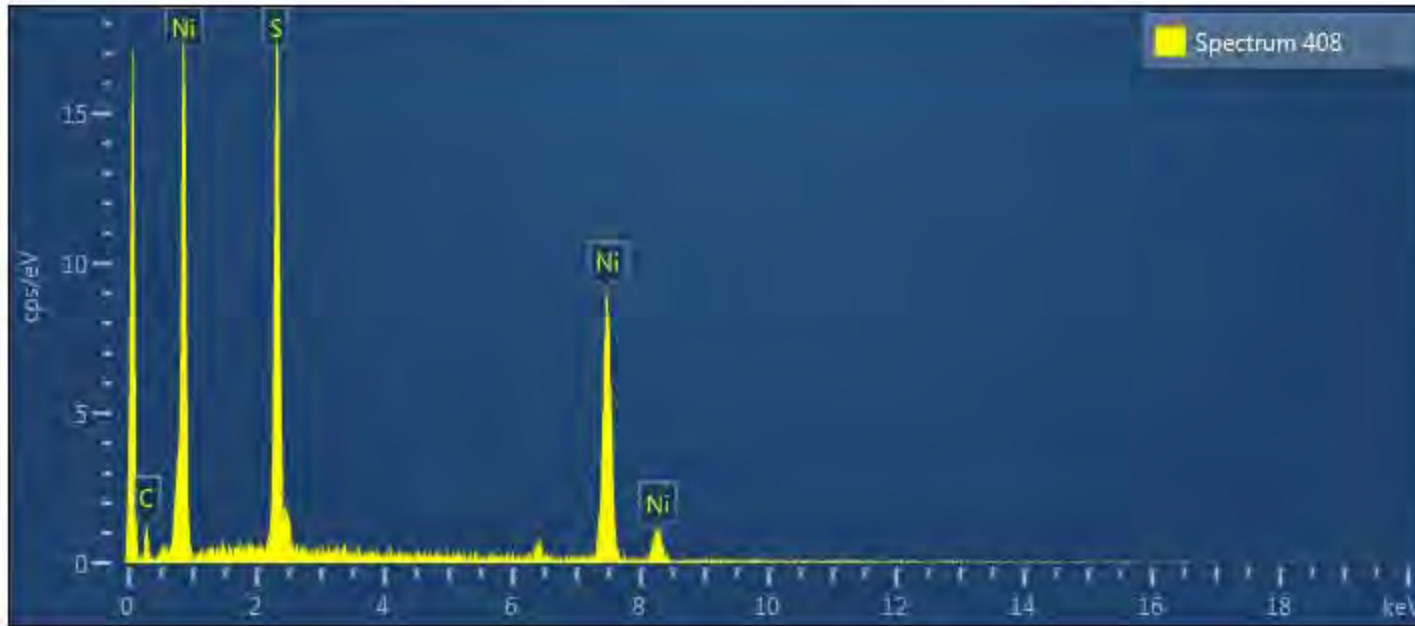




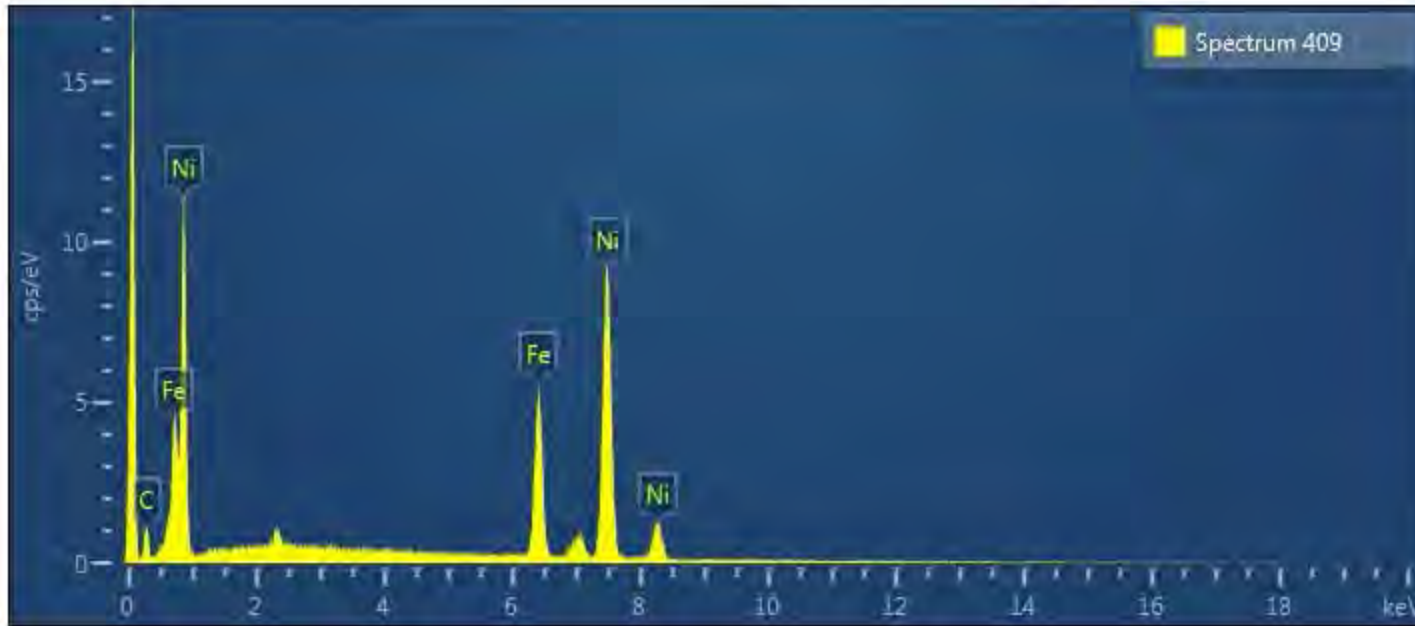
| Spectrum 406 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.56 | 0.93 | 60.57 |
| Fe | K series | 69.44 | 0.93 | 39.43 |
| Total | | 100.00 | | 100.00 |



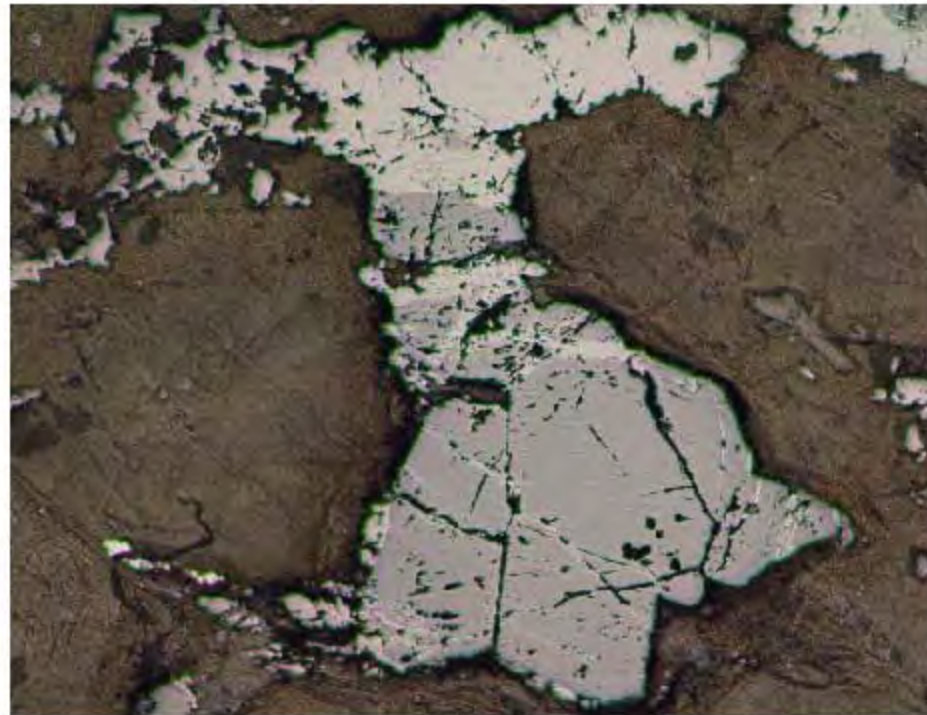
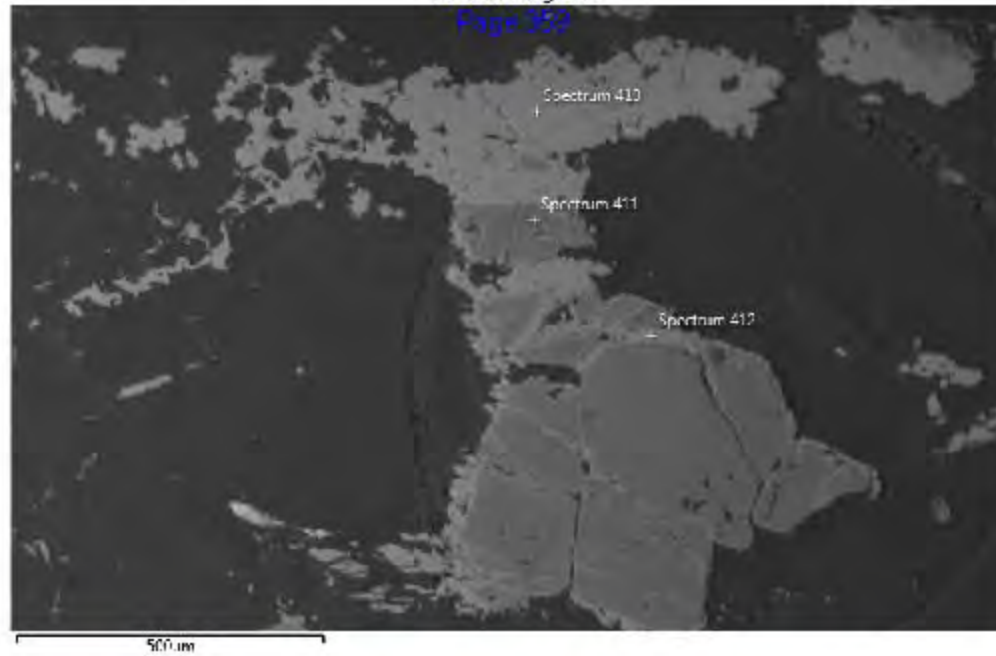
| Spectrum 407 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.59 | 0.58 | 41.08 |
| Ni | K series | 71.31 | 0.61 | 57.99 |
| Fe | K series | 1.10 | 0.26 | 0.94 |
| Total | | 100.00 | | 100.00 |

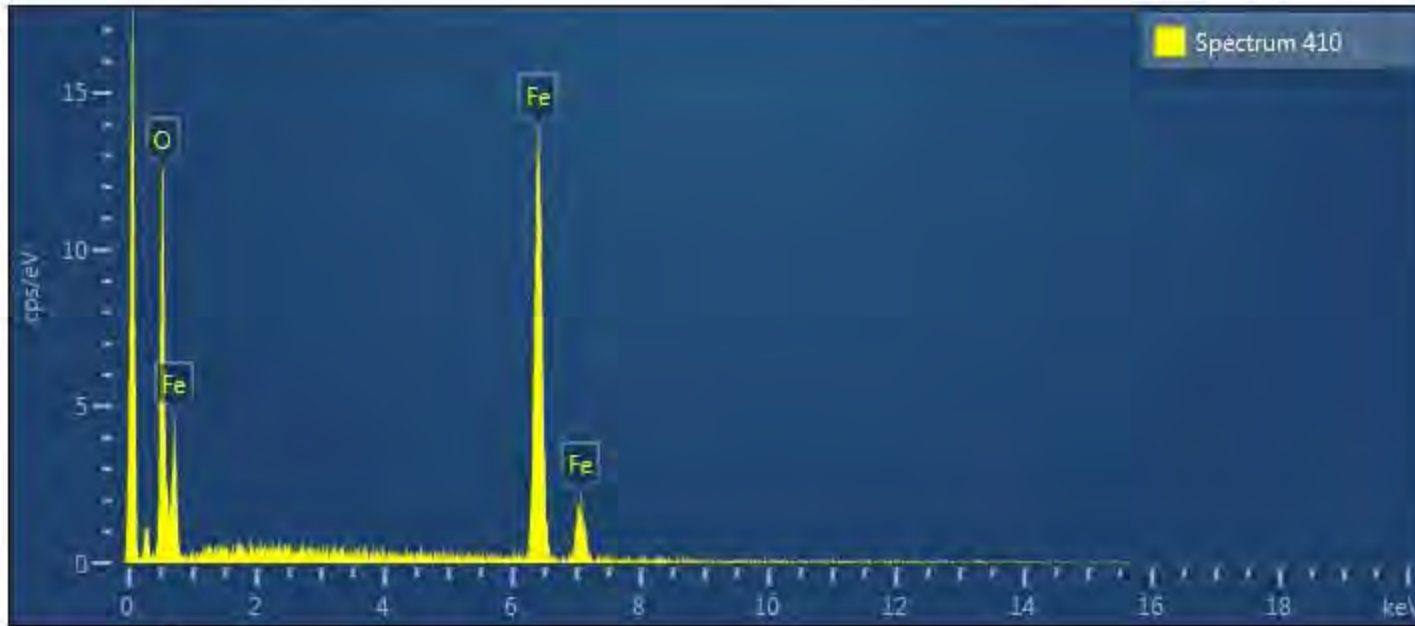


| Spectrum 408 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.85 | 0.69 | 42.61 |
| Ni | K series | 71.15 | 0.69 | 57.39 |
| Total | | 100.00 | | 100.00 |

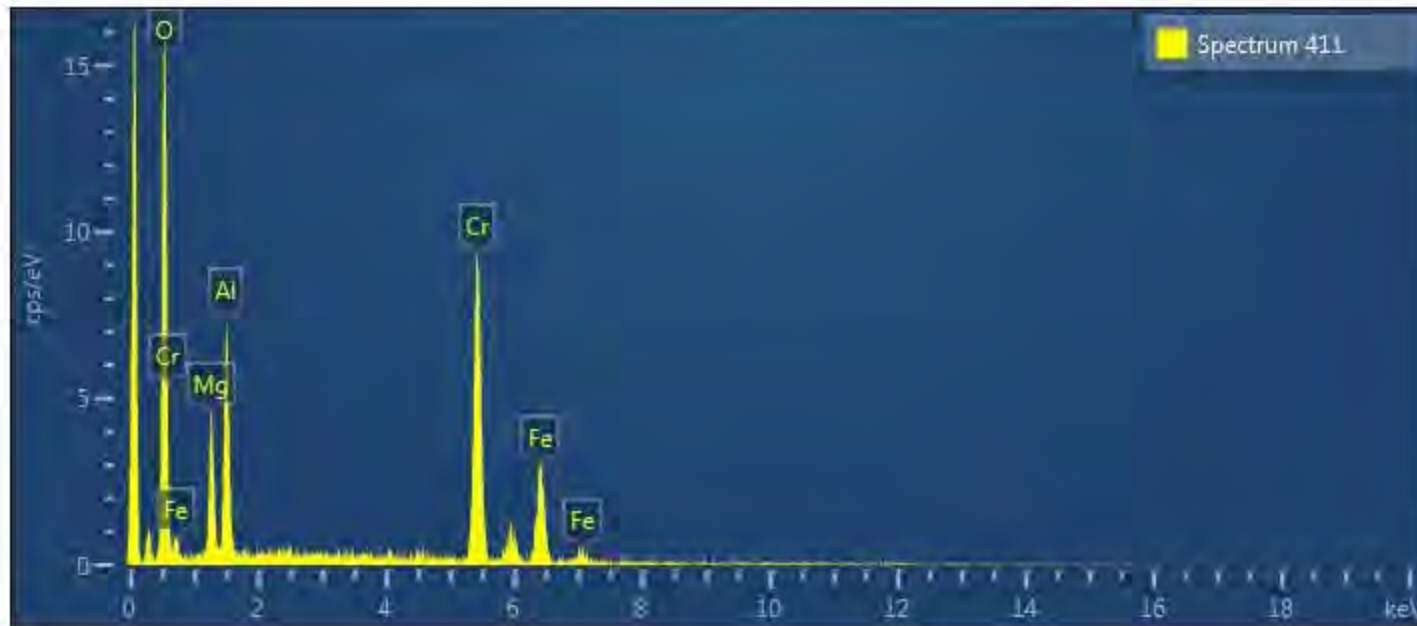


| Spectrum 409 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 24.25 | 0.41 | 25.18 |
| Ni | K series | 75.75 | 0.41 | 74.82 |
| Total | | 100.00 | | 100.00 |

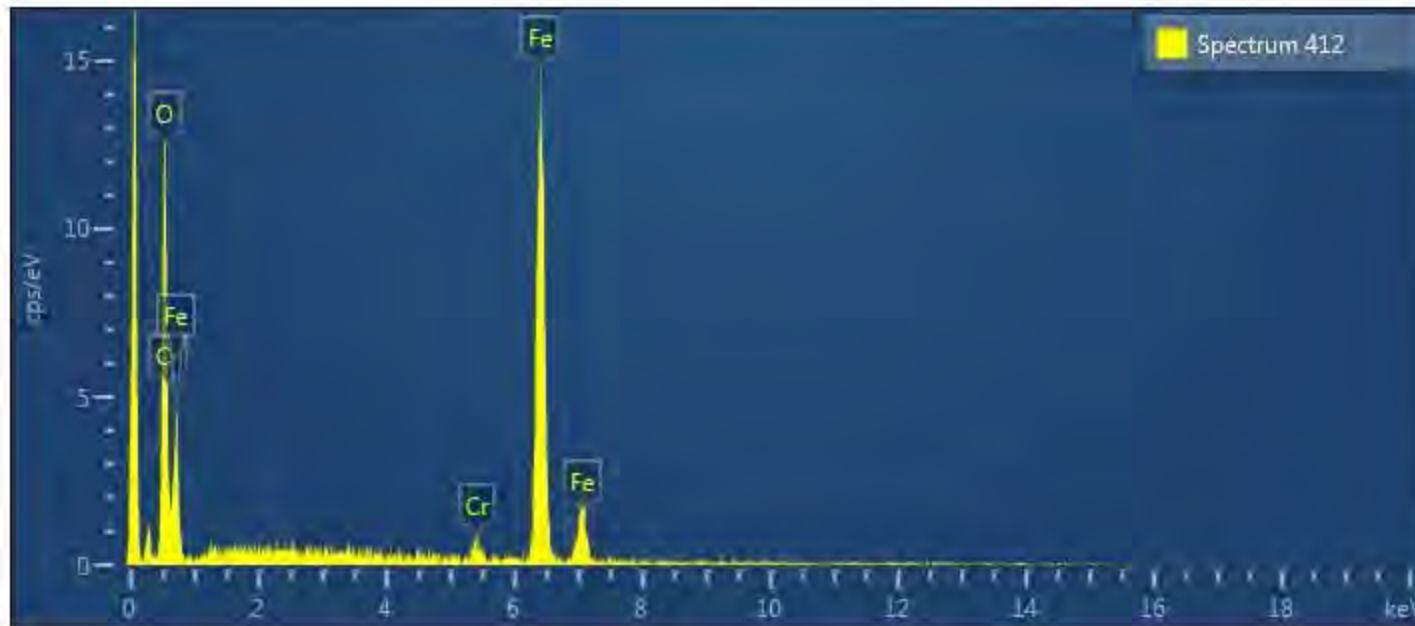




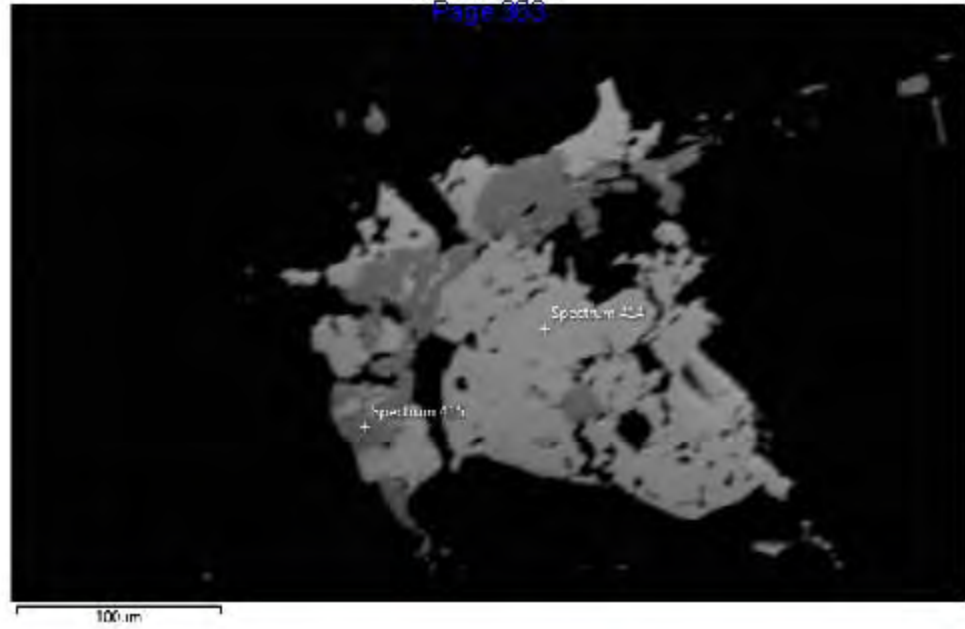
| Spectrum 410 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.76 | 0.86 | 58.49 |
| Fe | K series | 71.24 | 0.86 | 41.51 |
| Total | | 100.00 | | 100.00 |

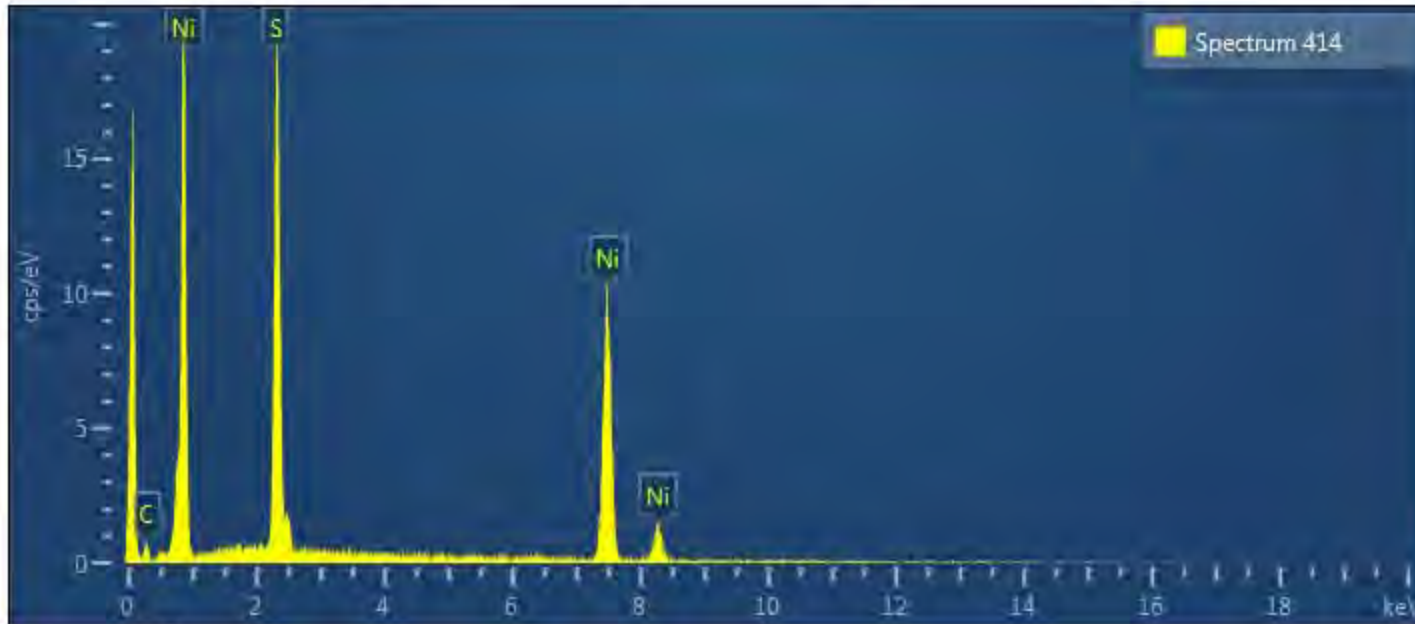


| Spectrum 411 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 35.52 | 0.94 | 58.65 |
| Mg | K series | 7.23 | 0.43 | 7.86 |
| Al | K series | 10.52 | 0.45 | 10.30 |
| Cr | K series | 31.10 | 0.76 | 15.80 |
| Fe | K series | 15.63 | 0.69 | 7.39 |
| Total | | 100.00 | | 100.00 |

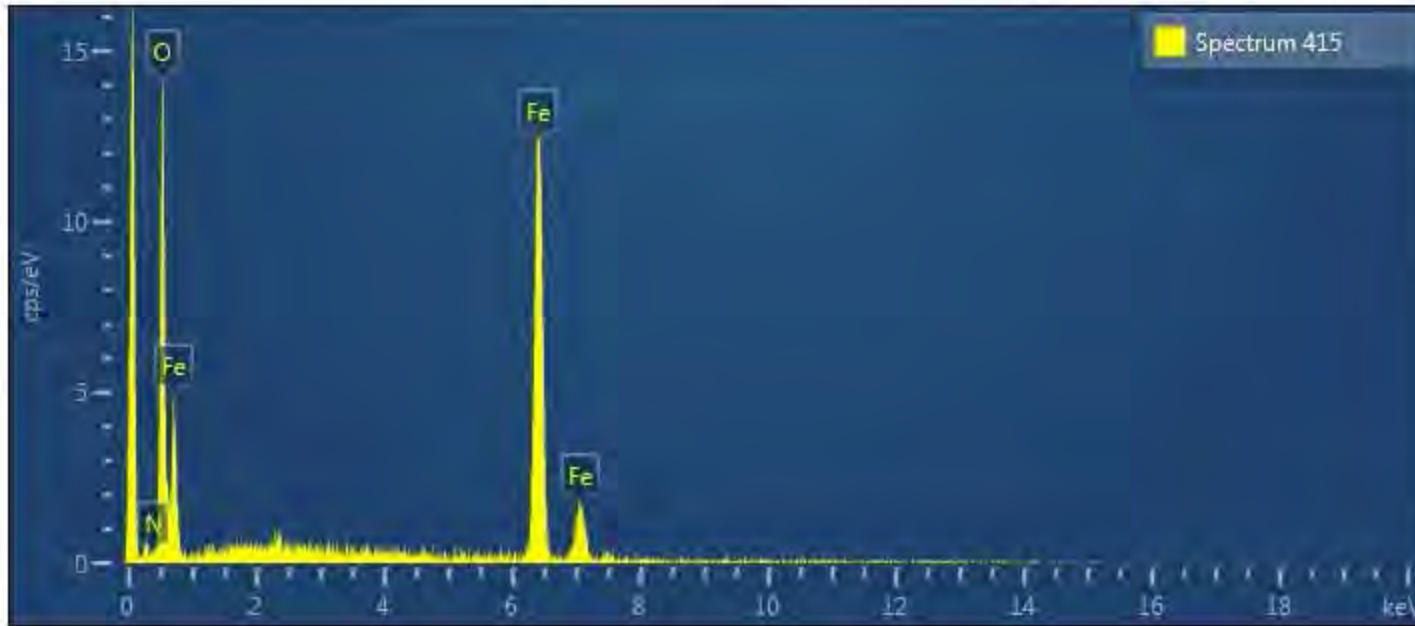


| Spectrum 412 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.56 | 1.01 | 57.00 |
| Cr | K series | 1.59 | 0.26 | 1.01 |
| Fe | K series | 70.85 | 1.01 | 41.98 |
| Total | | 100.00 | | 100.00 |



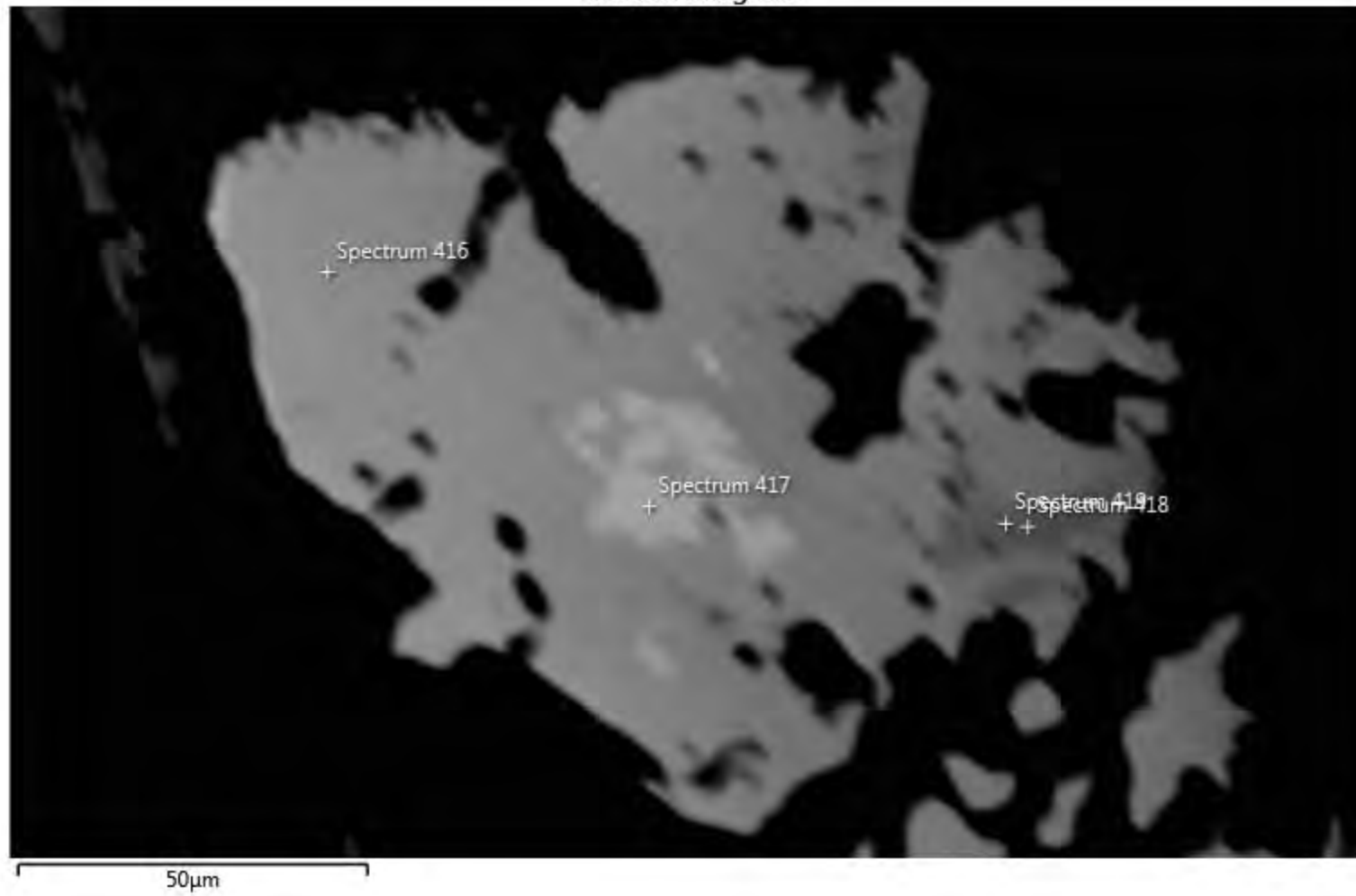


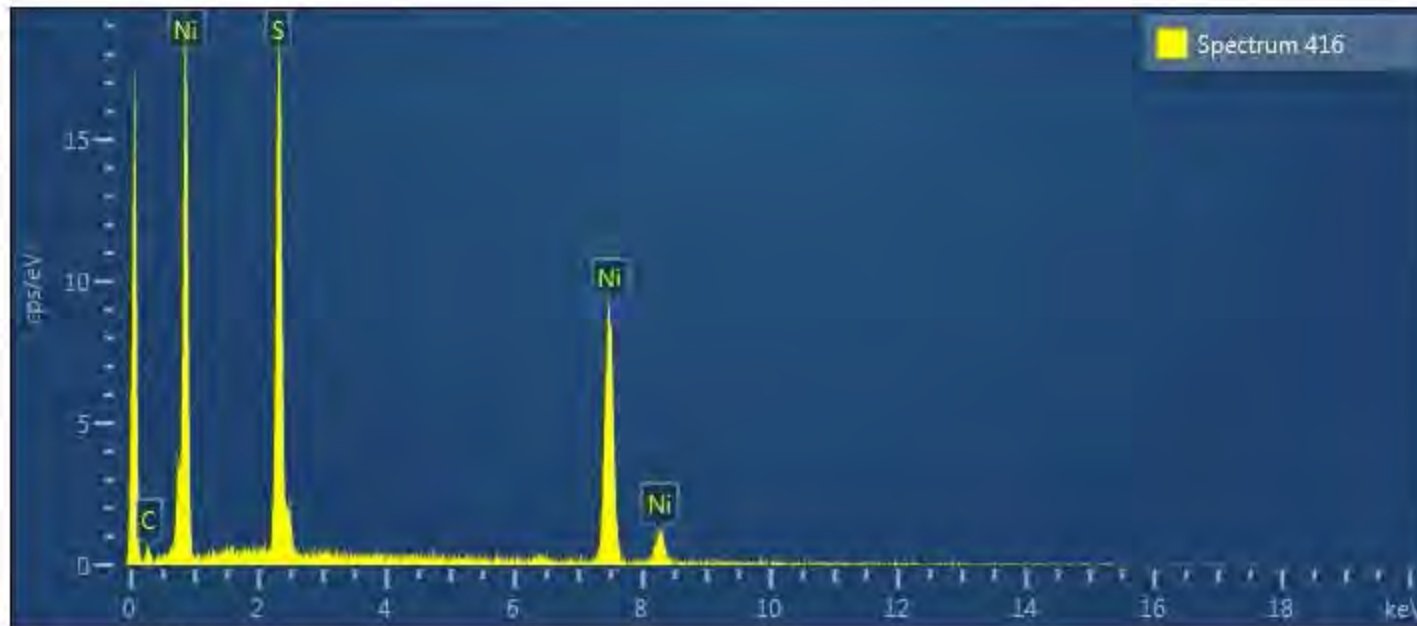
| Spectrum 414 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.33 | 0.60 | 41.99 |
| Ni | K series | 71.67 | 0.60 | 58.01 |
| Total | | 100.00 | | 100.00 |



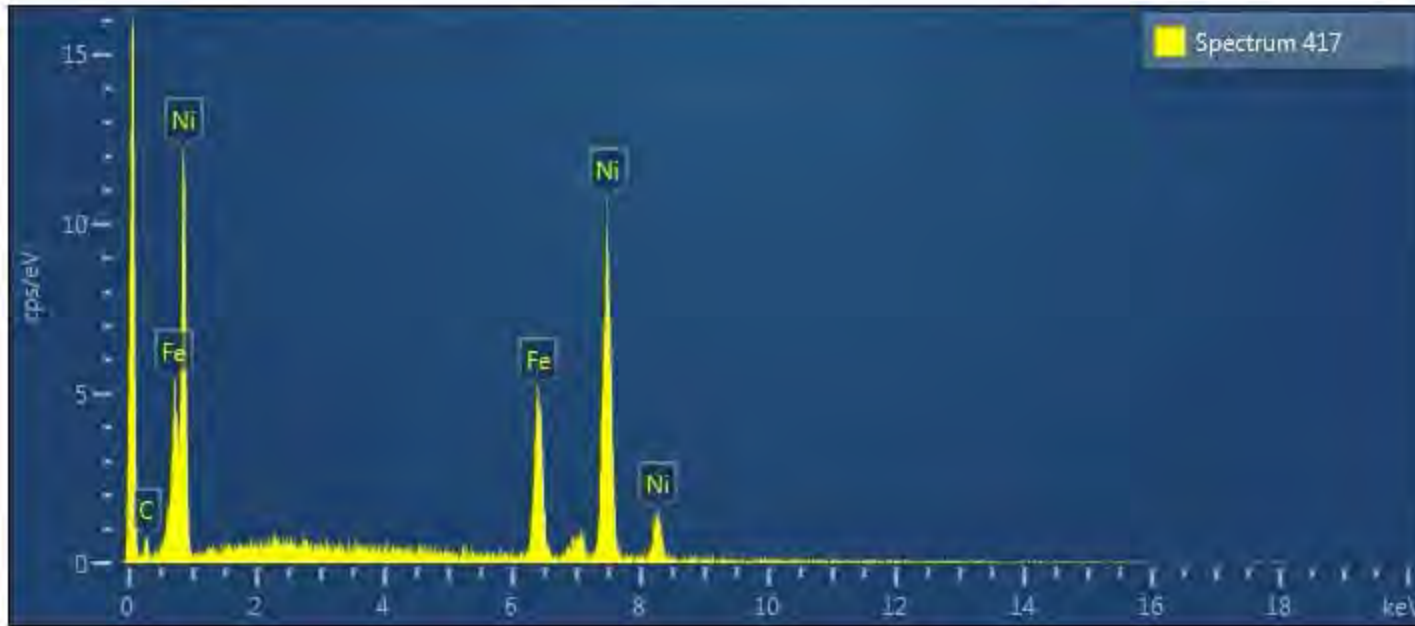
| Spectrum 415 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 33.78 | 0.96 | 57.75 |
| Fe | K series | 59.50 | 1.08 | 29.14 |
| N | K series | 6.71 | 0.97 | 13.10 |
| Total | | 100.00 | | 100.00 |

Electron Image 98

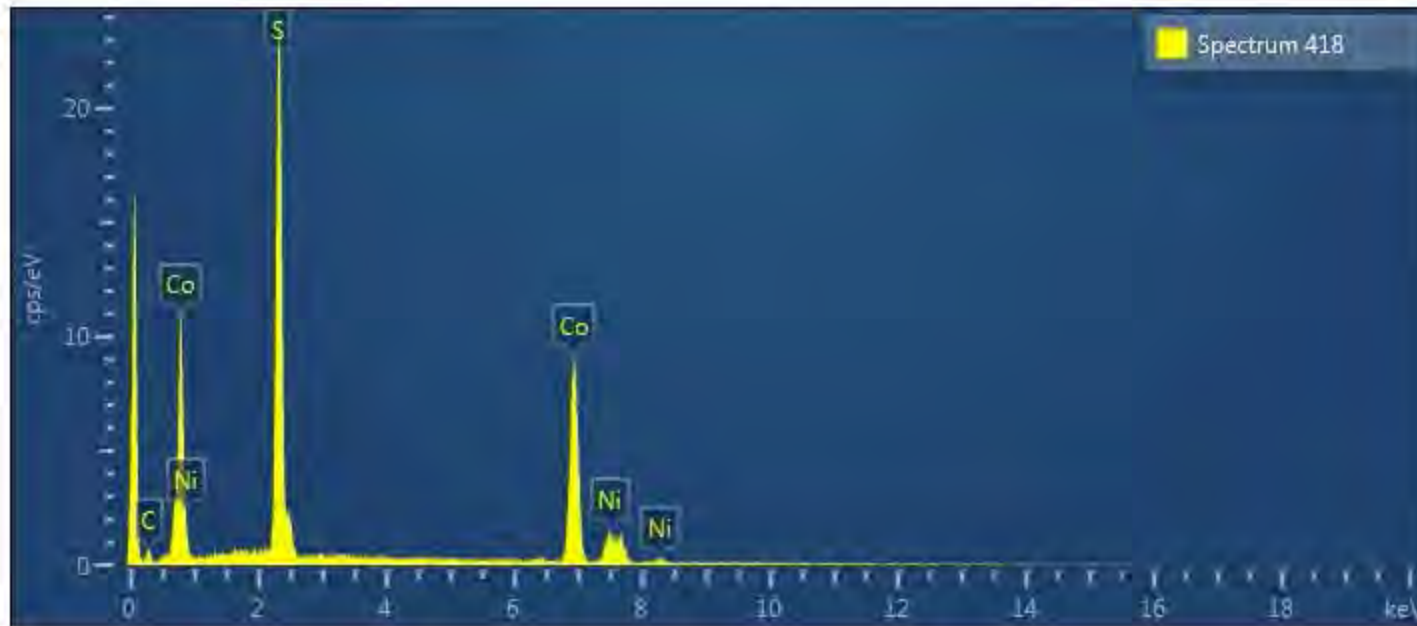




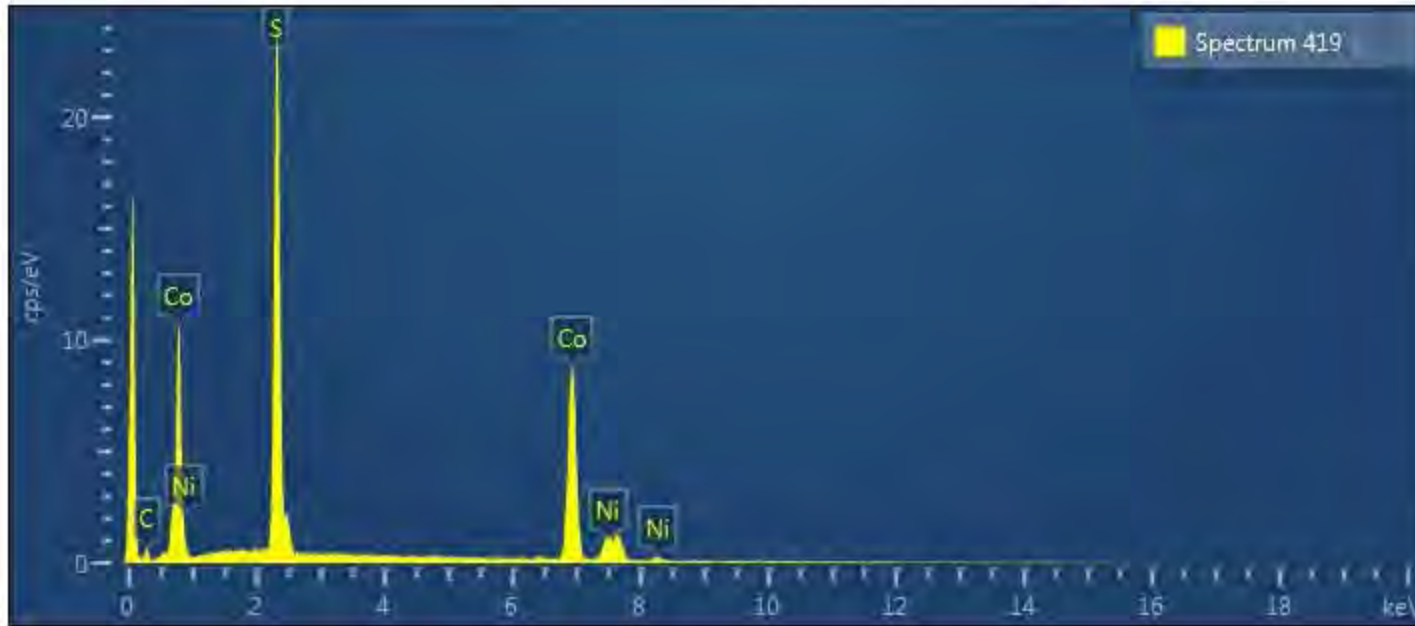
| Spectrum 416 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.89 | 0.70 | 42.66 |
| Ni | K series | 71.11 | 0.70 | 57.34 |
| Total | | 100.00 | | 100.00 |



| Spectrum 417 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 22.67 | 0.77 | 23.56 |
| Ni | K series | 77.33 | 0.77 | 76.44 |
| Total | | 100.00 | | 100.00 |

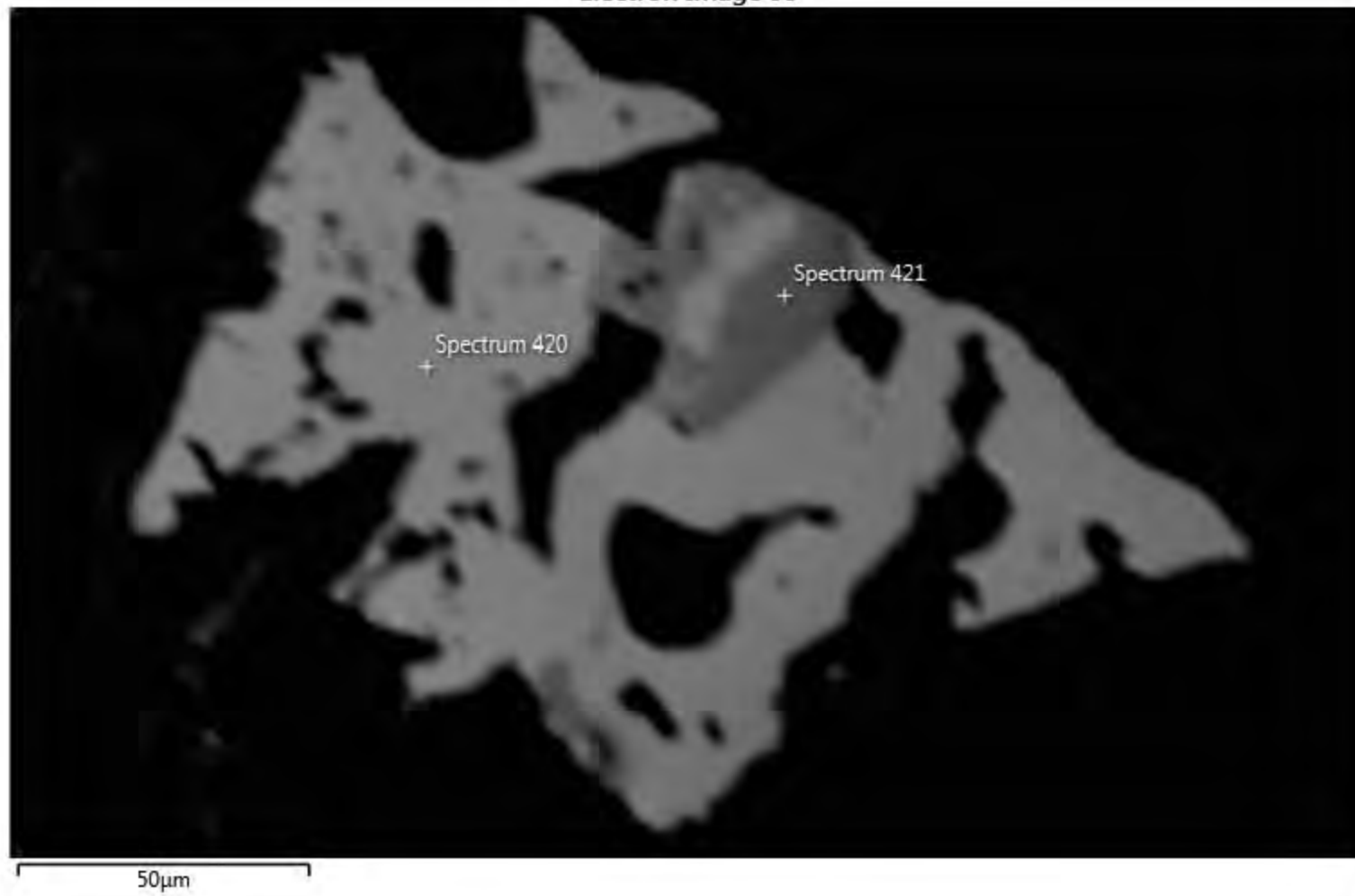


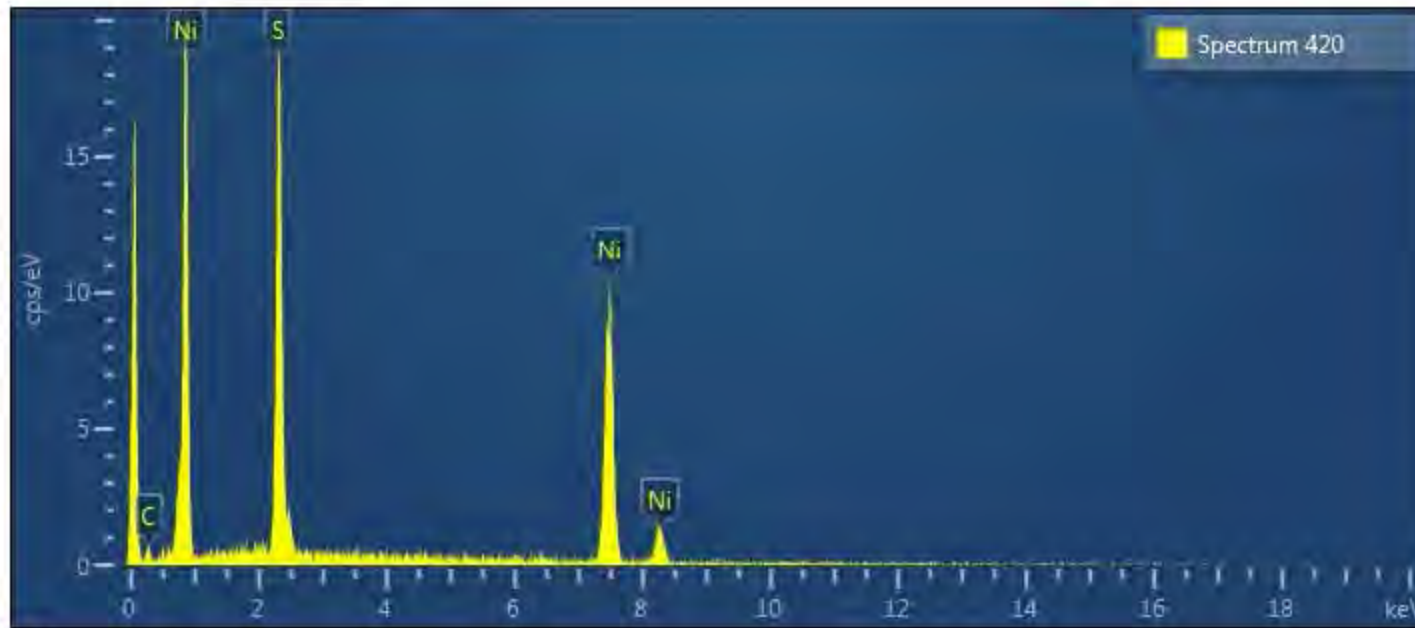
| Spectrum 418 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.94 | 0.55 | 48.56 |
| Co | K series | 57.27 | 0.66 | 44.58 |
| Ni | K series | 8.79 | 0.58 | 6.87 |
| Total | | 100.00 | | 100.00 |



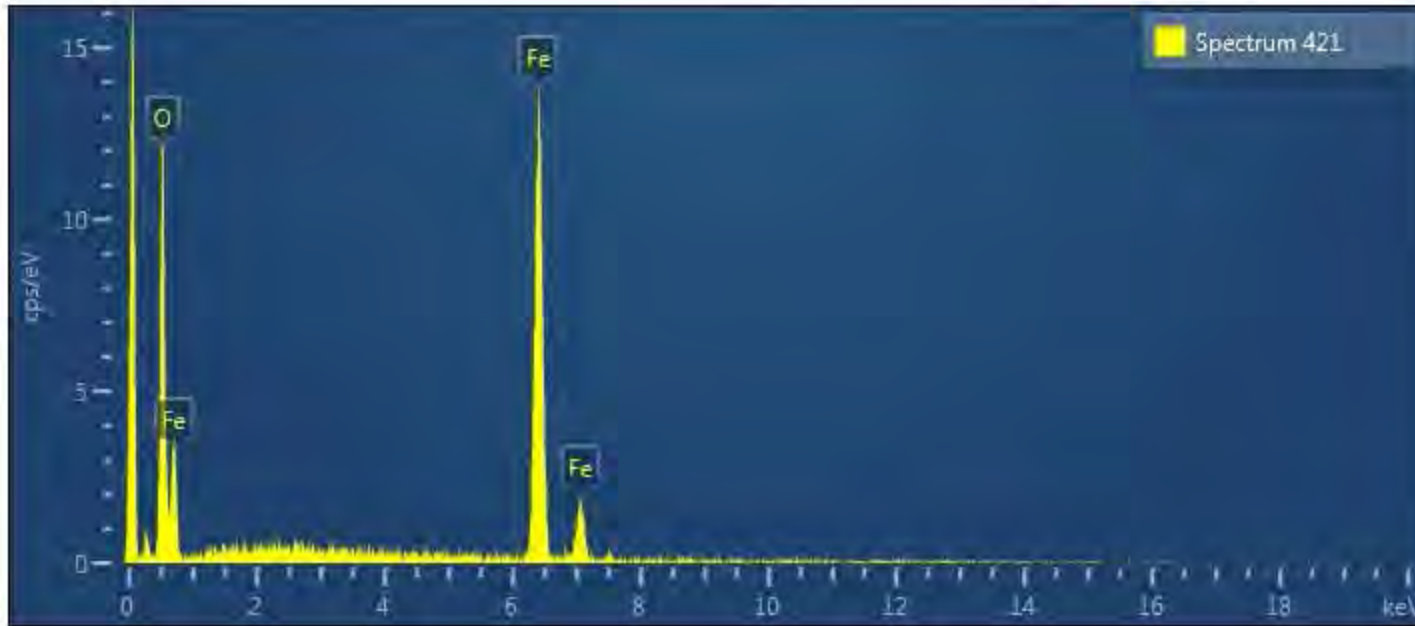
| Spectrum 419 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.72 | 0.36 | 49.42 |
| Co | K series | 57.50 | 0.42 | 44.53 |
| Ni | K series | 7.78 | 0.37 | 6.05 |
| Total | | 100.00 | | 100.00 |

Electron Image 99





| Spectrum 420 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.63 | 0.72 | 41.15 |
| Ni | K series | 72.37 | 0.72 | 58.85 |
| Total | | 100.00 | | 100.00 |



| Spectrum 421 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.45 | 0.91 | 59.30 |
| Fe | K series | 70.55 | 0.91 | 40.70 |
| Total | | 100.00 | | 100.00 |

**Specimen Notes for '554' - Sulphide Mineral Inventory –Awaruite, Heazlewoodite
Unknown Sulphide Mineral – Co-S-Ni-Fe Mineral**

SITE 1 CIRCLE 1 is an intergrowth of Co-S-Ni-Fe mineral-heazlewoodite-awaruite-magnetite in serpentine

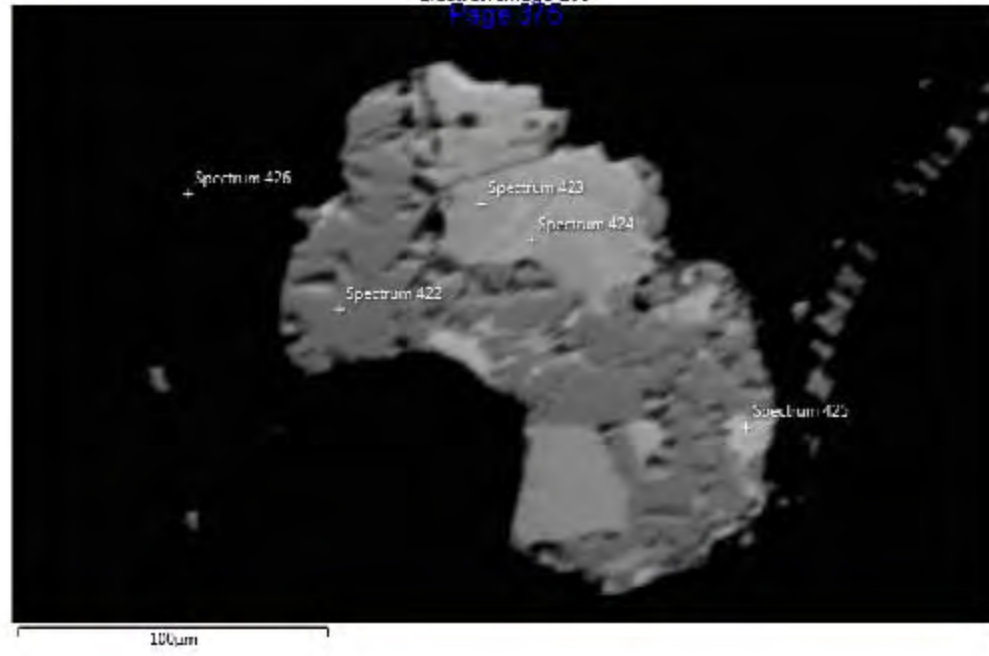
SITE 2 AND SITE 3 CIRCLE 3 is an intergrowth of magnetite-Co-S-Ni-Fe mineral-heazlewoodite-awaruite

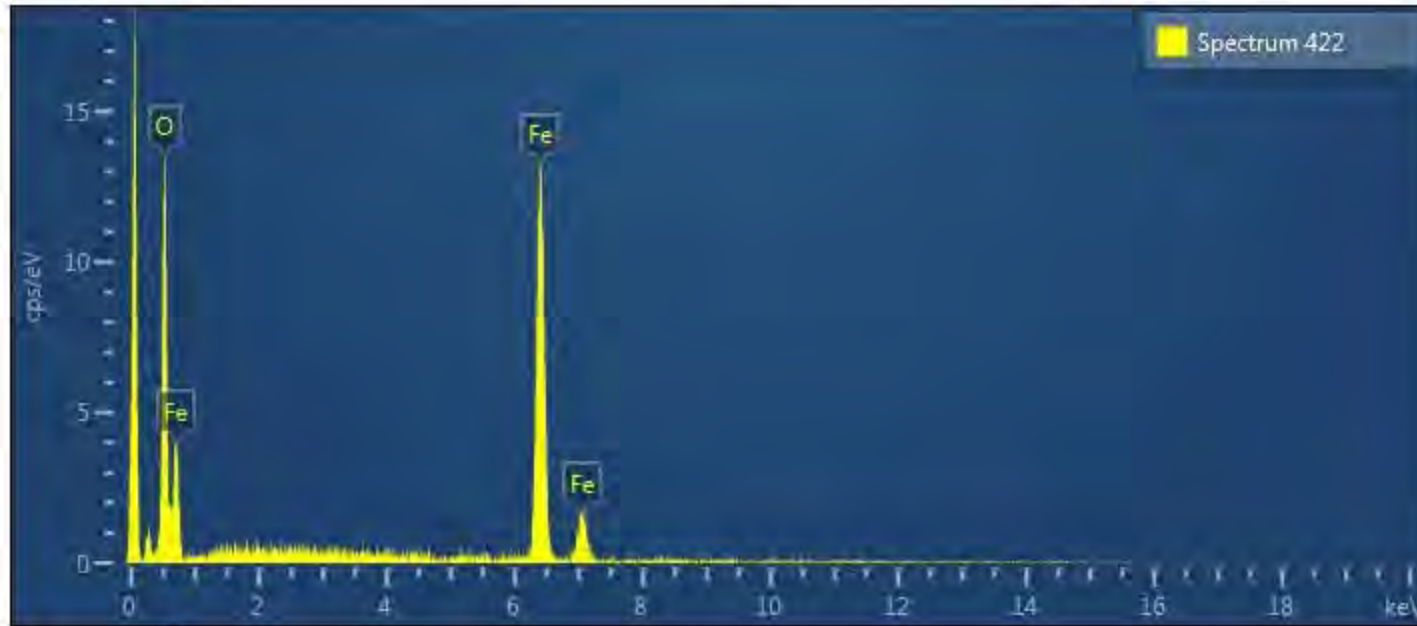
SITE 4 CIRCLE 4 is an intergrowth of magnetite-Co-S-Ni-Fe mineral-heazlewoodite-awaruite

The Co-S-Ni-Fe mineral has this composition:

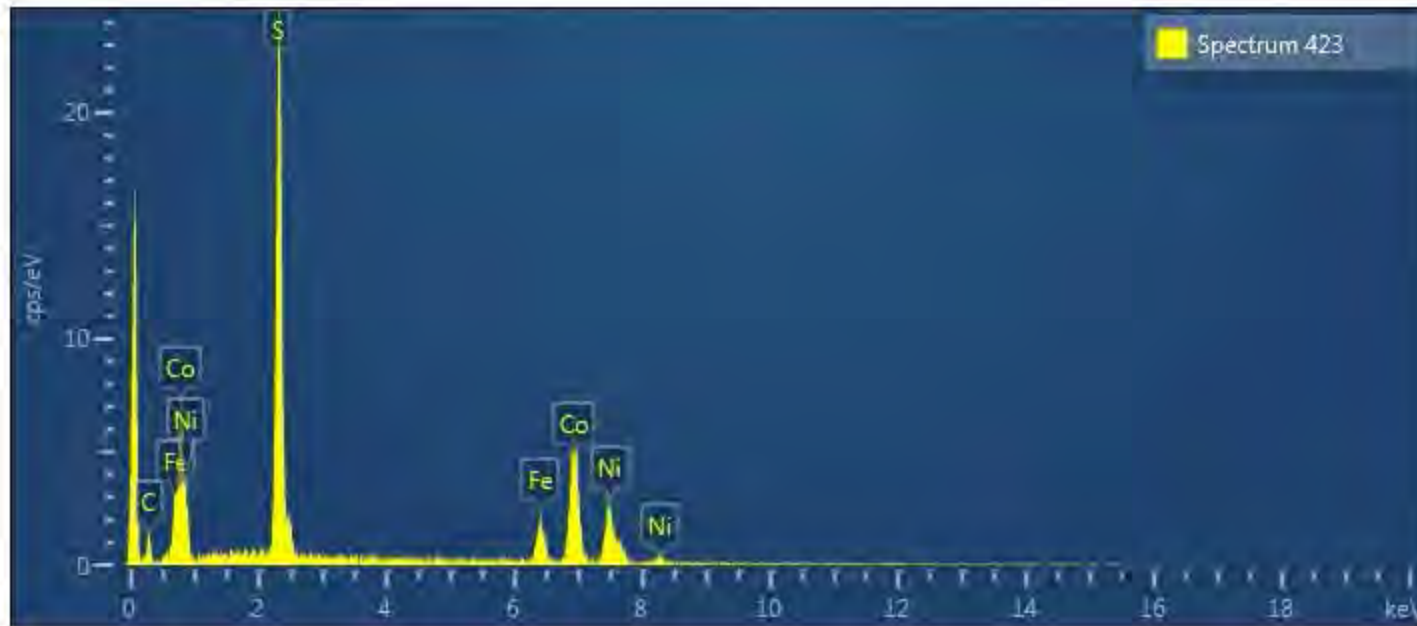
Spectrum 450

| Element | Weight % | σ |
|---------|----------|----------|
| Co | 35.4 | 0.8 |
| S | 33.2 | 0.6 |
| Ni | 21.3 | 0.7 |
| Fe | 10.1 | 0.5 |

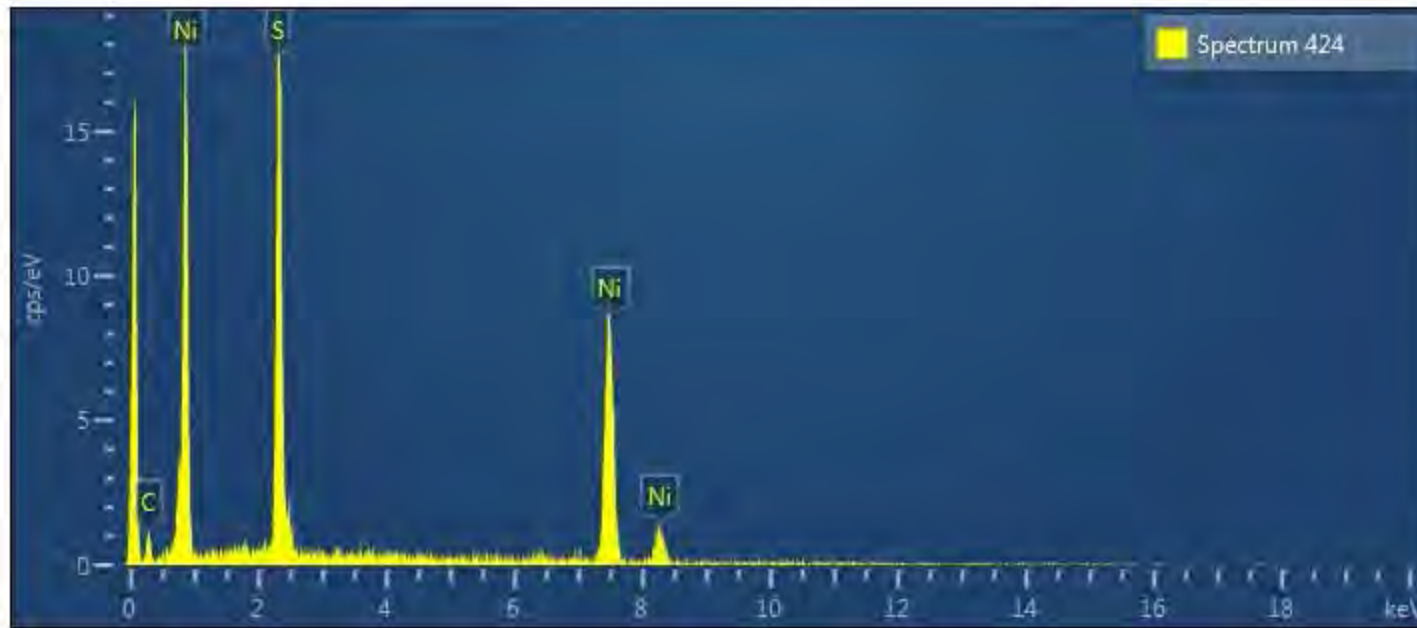




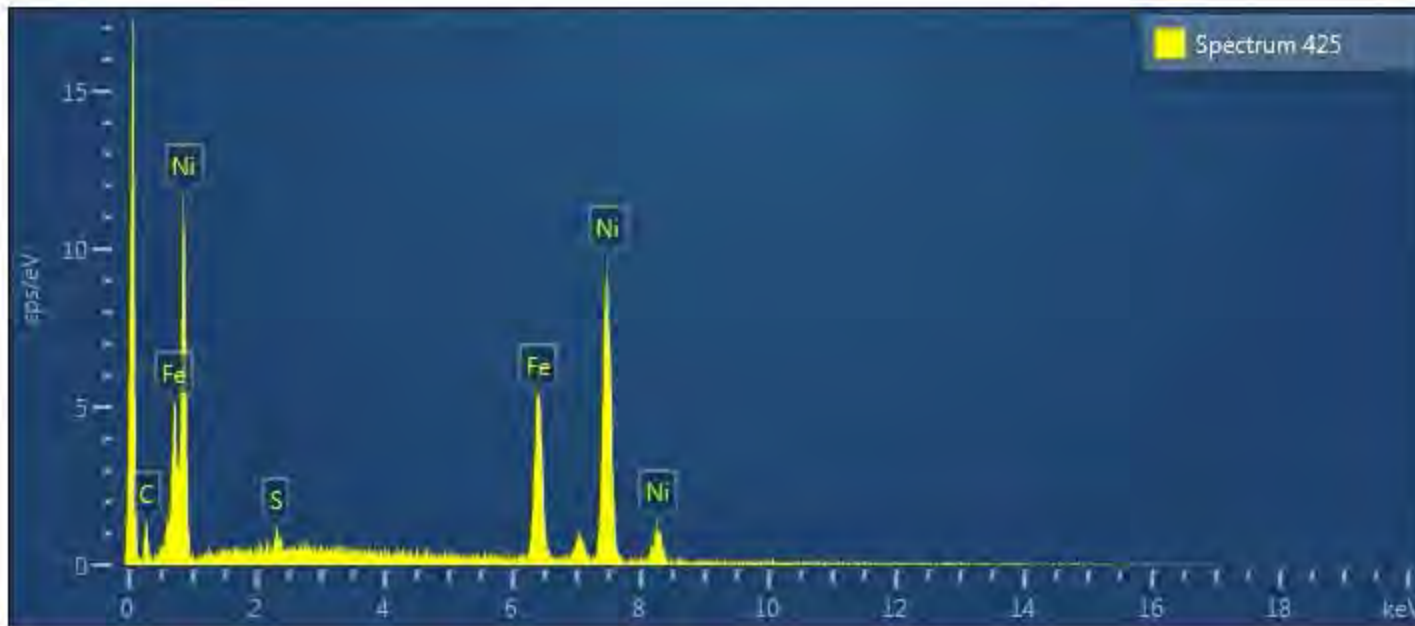
| Spectrum 422 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.53 | 0.92 | 60.53 |
| Fe | K series | 69.47 | 0.92 | 39.47 |
| Total | | 100.00 | | 100.00 |



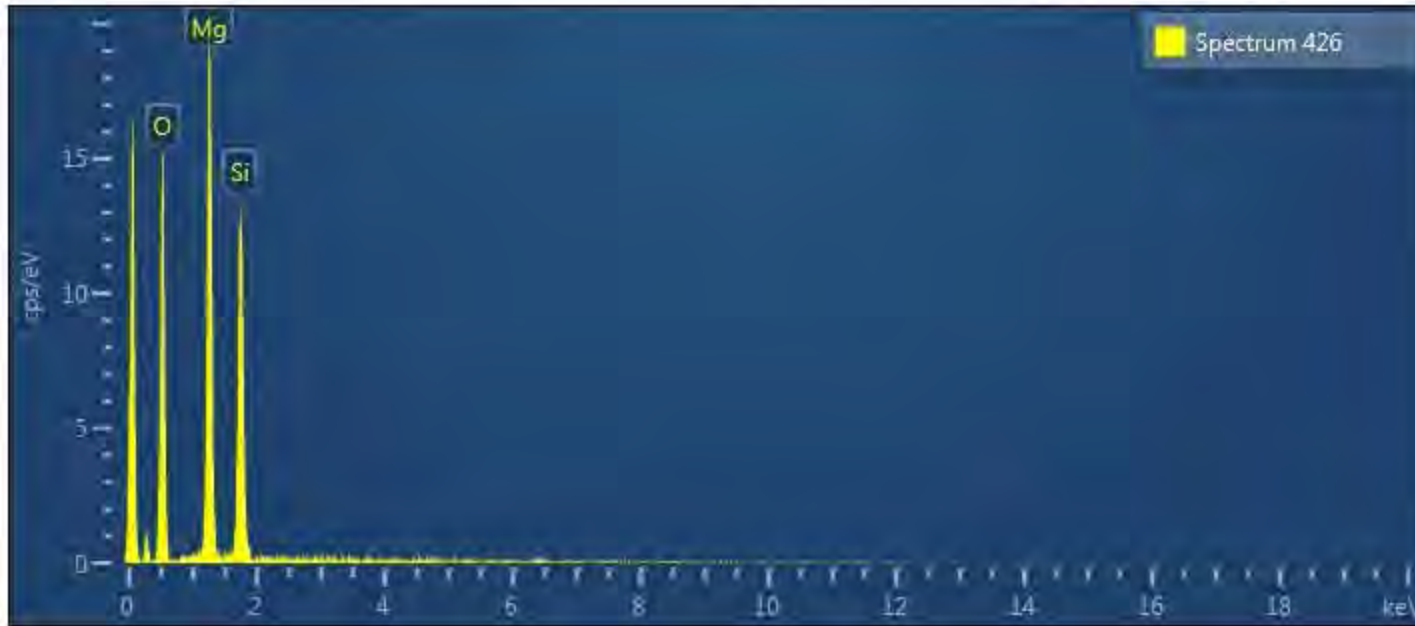
| Spectrum 423 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.74 | 0.80 | 49.23 |
| Fe | K series | 8.98 | 0.62 | 7.30 |
| Co | K series | 37.04 | 0.98 | 28.57 |
| Ni | K series | 19.25 | 0.94 | 14.90 |
| Total | | 100.00 | | 100.00 |



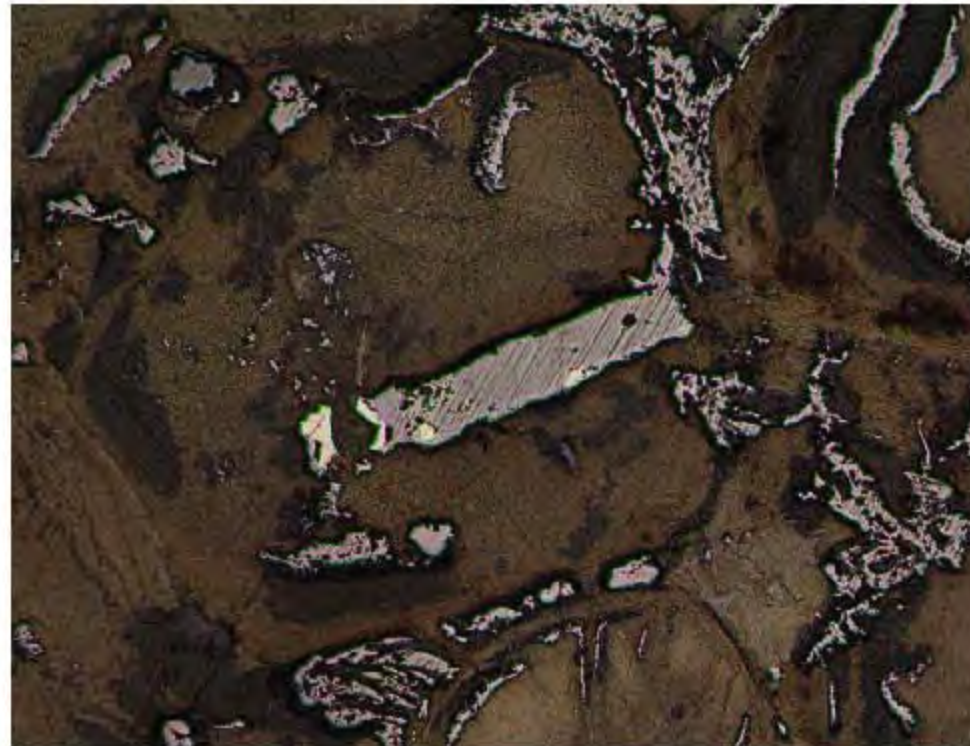
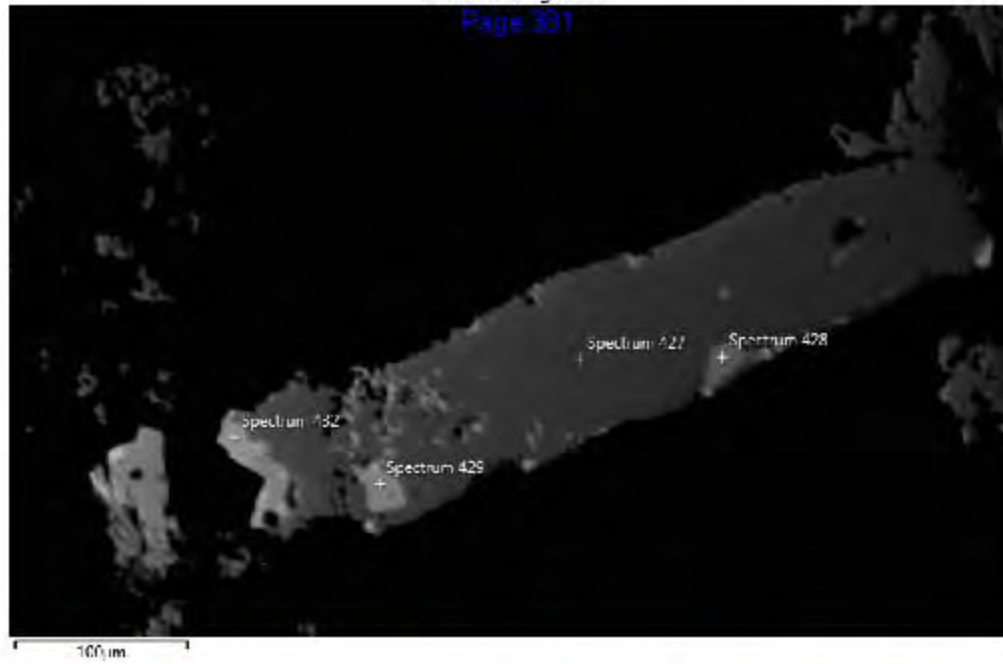
| Spectrum 424 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.54 | 0.80 | 43.43 |
| Ni | K series | 70.46 | 0.80 | 56.57 |
| Total | | 100.00 | | 100.00 |

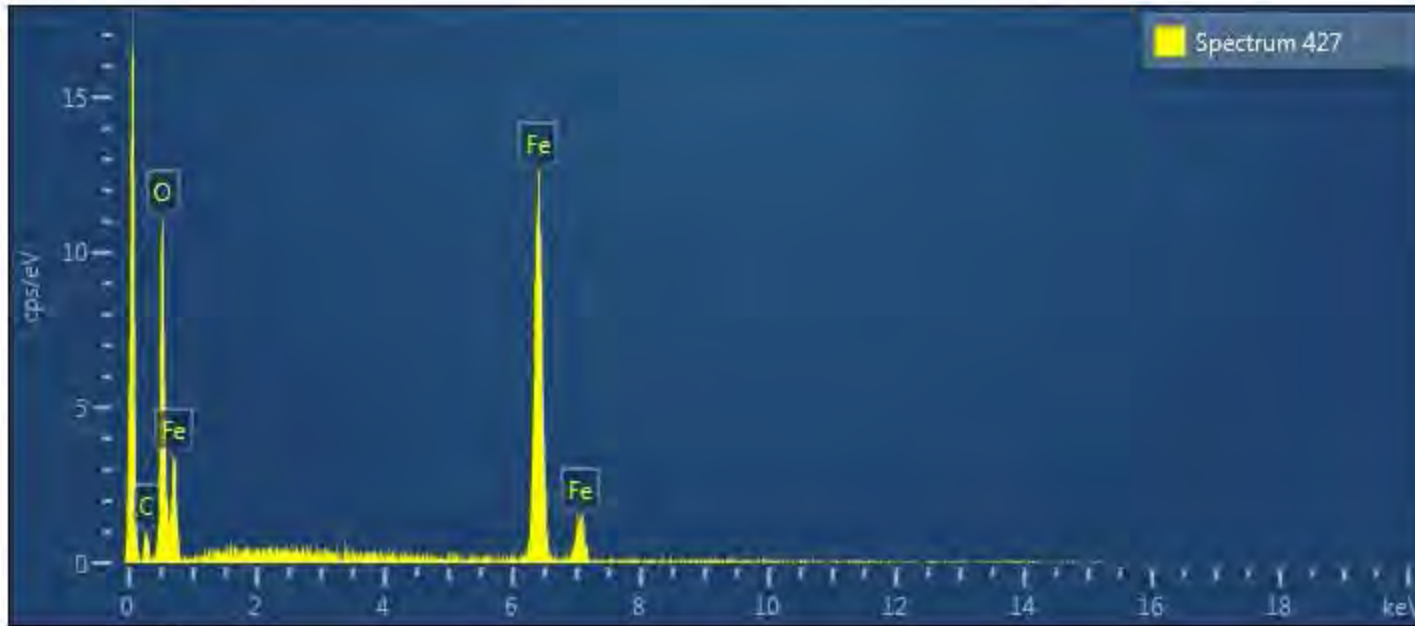


| Spectrum 425 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.98 | 0.71 | 26.74 |
| Ni | K series | 73.04 | 0.73 | 71.50 |
| S | K series | 0.98 | 0.22 | 1.76 |
| Total | | 100.00 | | 100.00 |

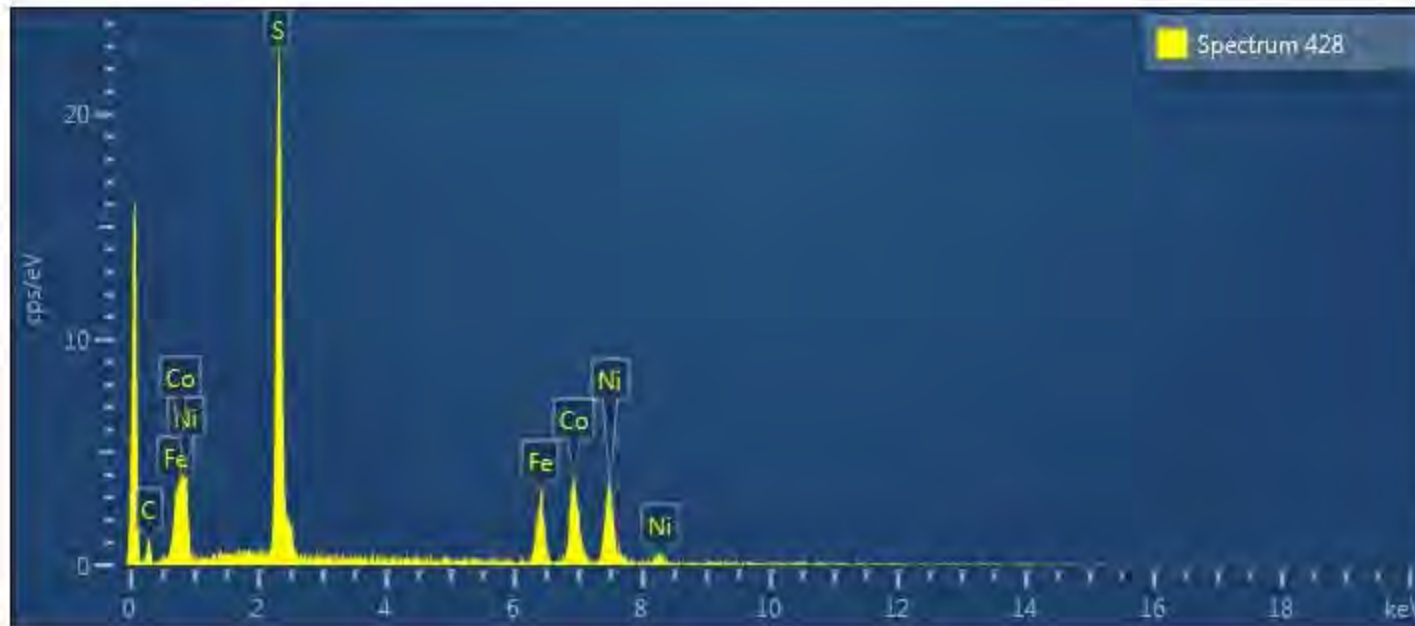


| Spectrum 426 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 52.38 | 0.93 | 63.95 |
| Mg | K series | 27.23 | 0.70 | 21.88 |
| Si | K series | 20.39 | 0.63 | 14.18 |
| Total | | 100.00 | | 100.00 |

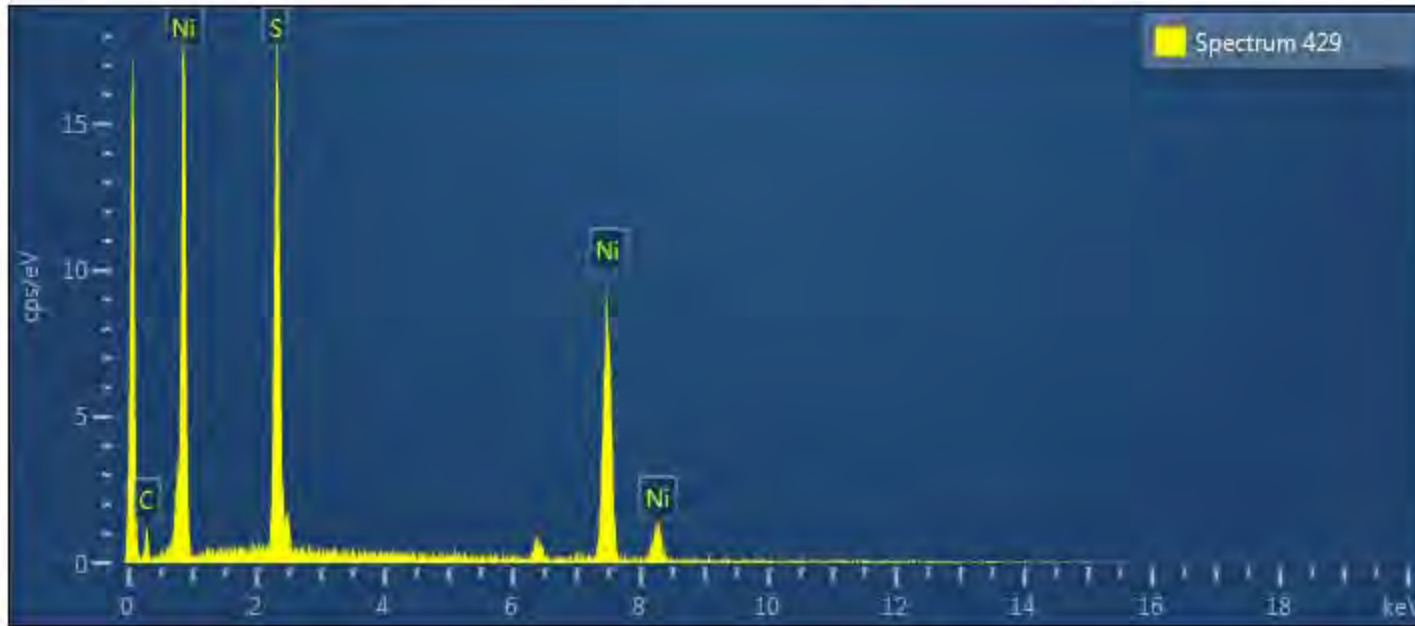




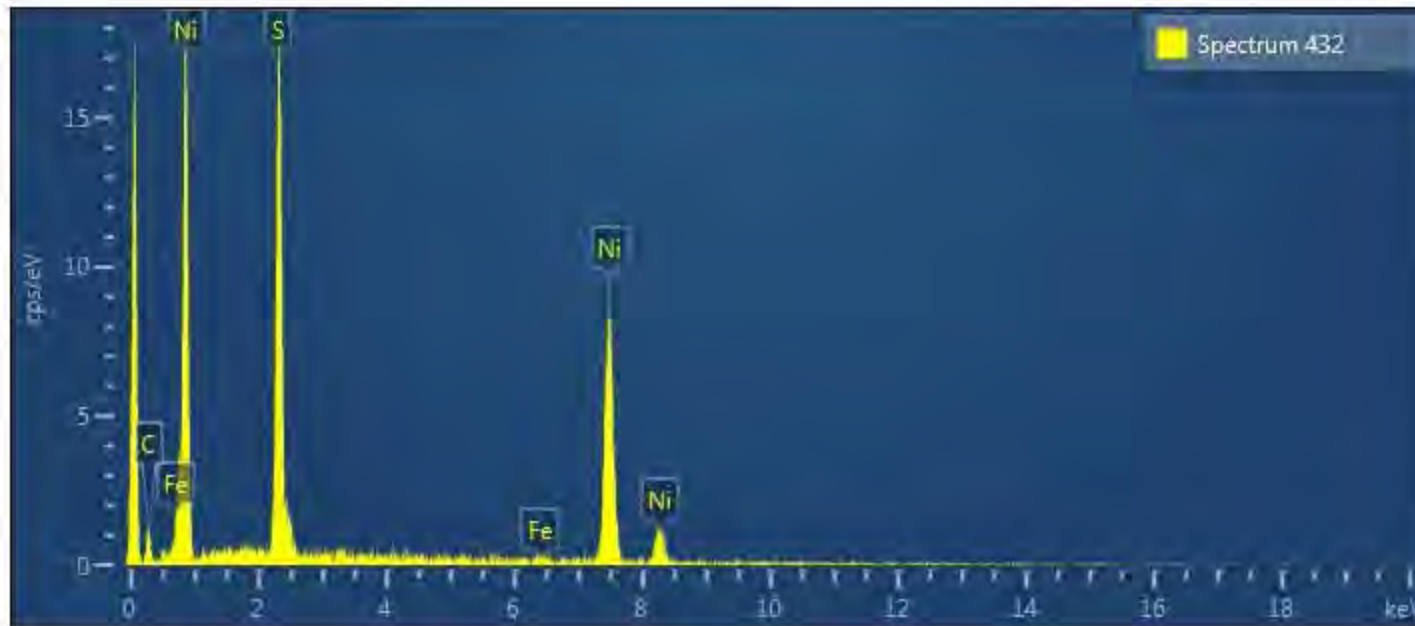
| Spectrum 427 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.86 | 0.97 | 58.61 |
| Fe | K series | 71.14 | 0.97 | 41.39 |
| Total | | 100.00 | | 100.00 |



| Spectrum 428 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.73 | 0.87 | 47.99 |
| Fe | K series | 15.04 | 0.78 | 12.28 |
| Co | K series | 23.52 | 1.03 | 18.20 |
| Ni | K series | 27.72 | 1.08 | 21.53 |
| Total | | 100.00 | | 100.00 |

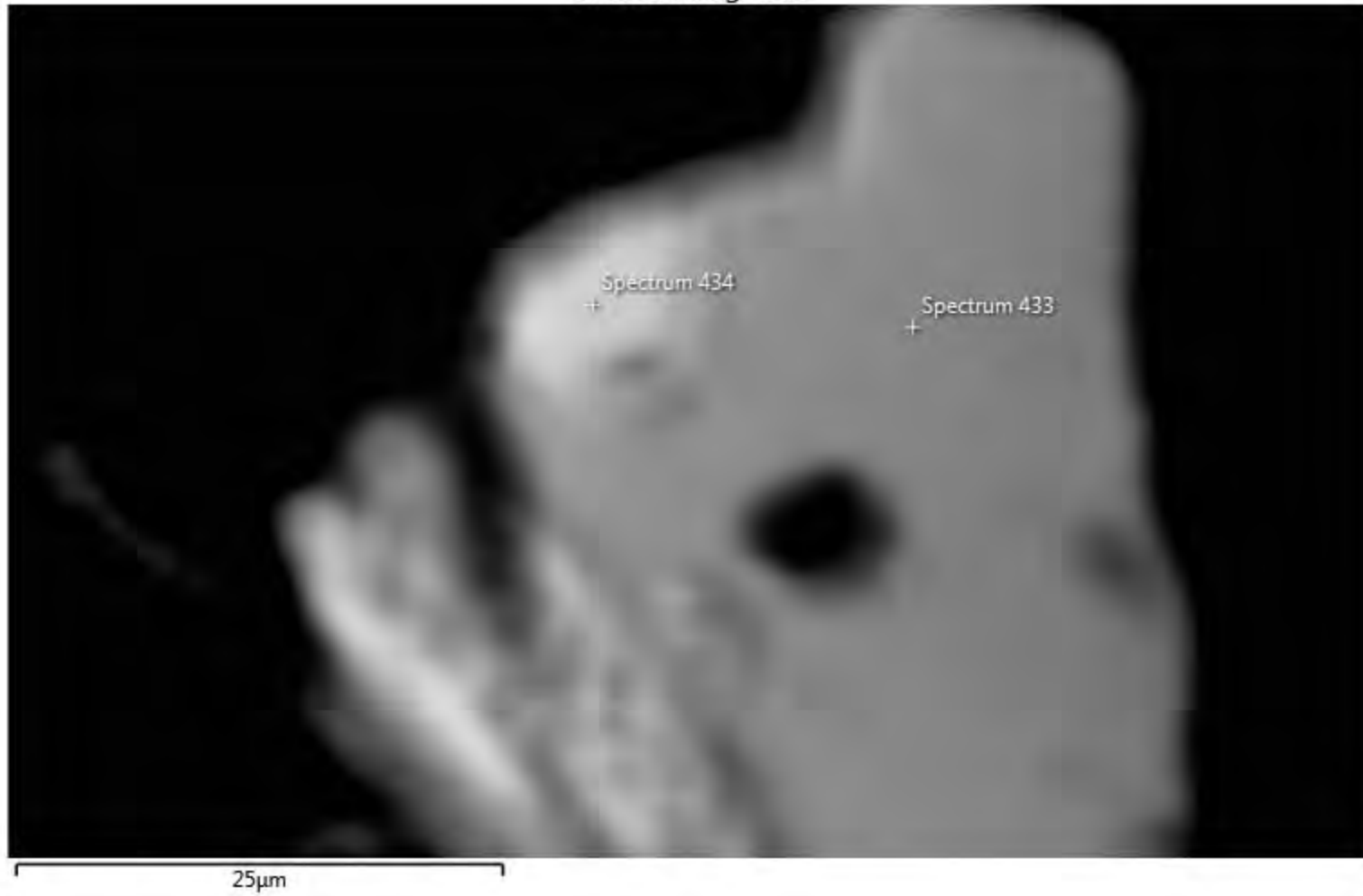


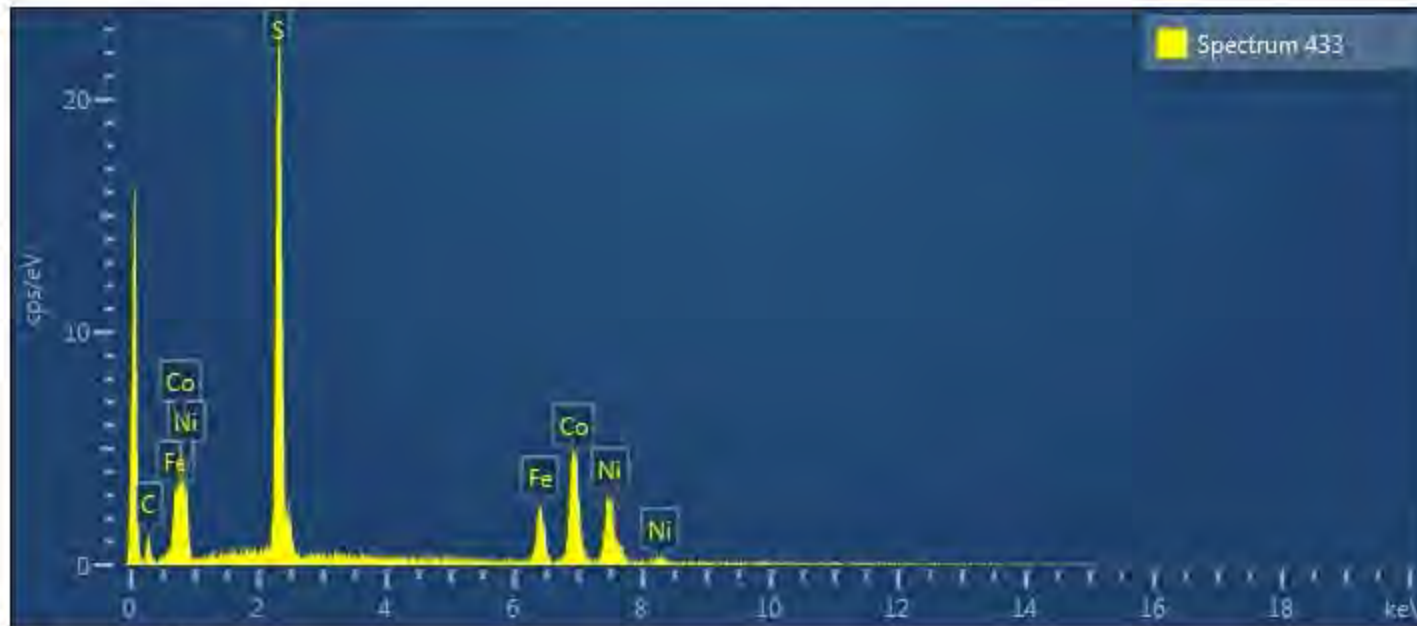
| Spectrum 429 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.51 | 0.70 | 42.20 |
| Ni | K series | 71.49 | 0.70 | 57.80 |
| Total | | 100.00 | | 100.00 |



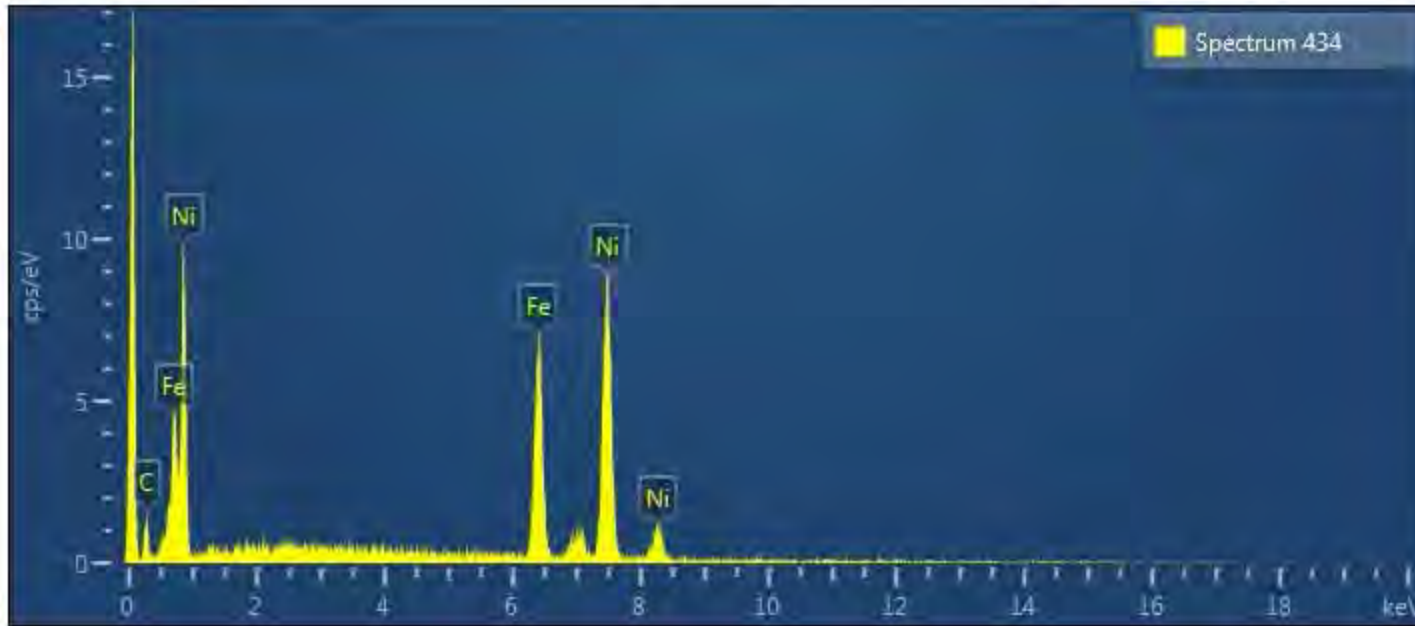
| Spectrum 432 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.44 | 0.75 | 42.10 |
| Ni | K series | 70.43 | 0.79 | 56.94 |
| Fe | K series | 1.13 | 0.34 | 0.96 |
| Total | | 100.00 | | 100.00 |

Electron Image 102

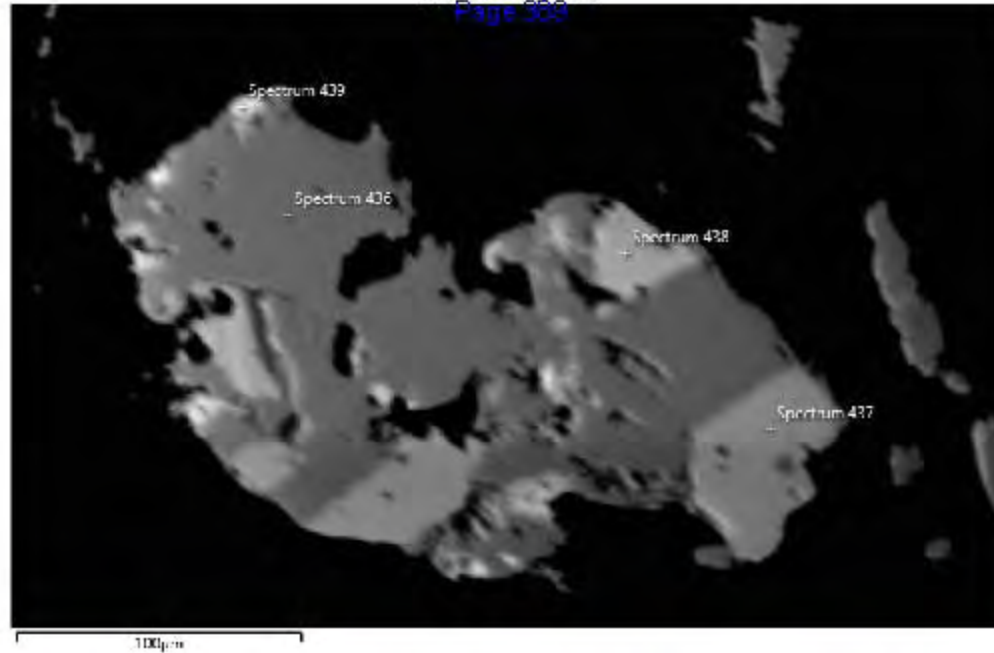


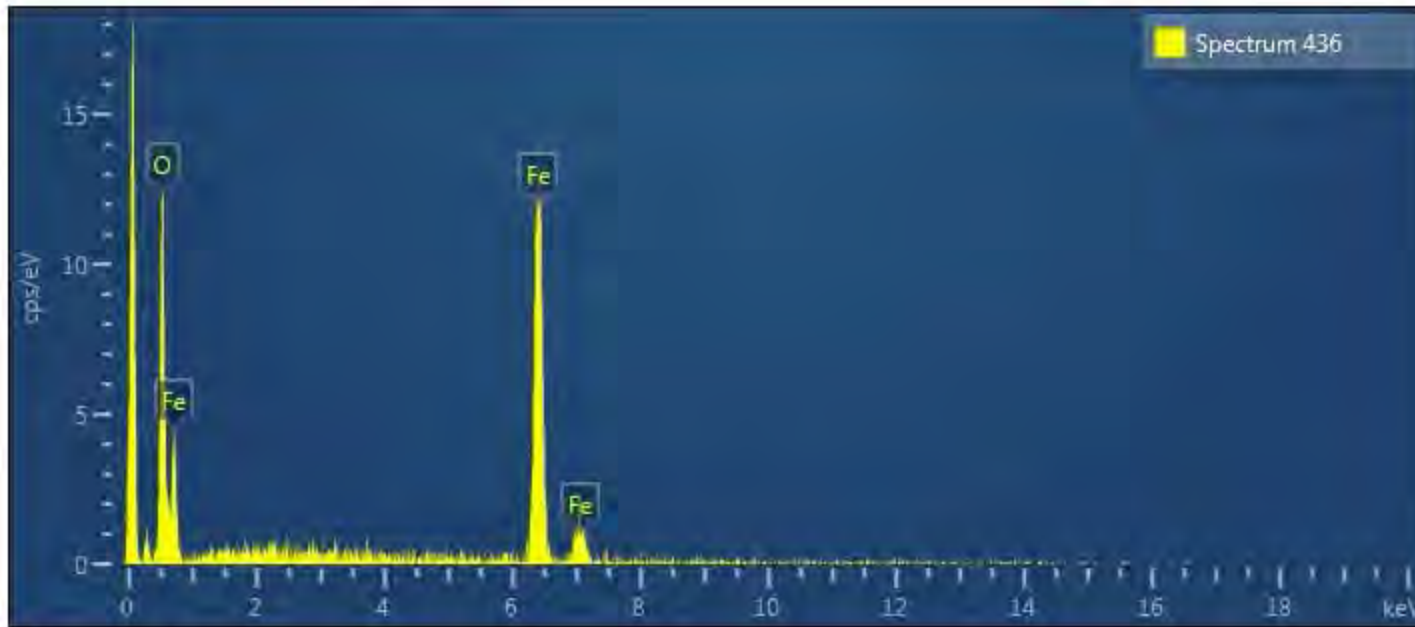


| Spectrum 433 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.70 | 0.82 | 48.02 |
| Fe | K series | 11.95 | 0.68 | 9.77 |
| Co | K series | 32.86 | 1.01 | 25.48 |
| Ni | K series | 21.50 | 0.99 | 16.73 |
| Total | | 100.00 | | 100.00 |

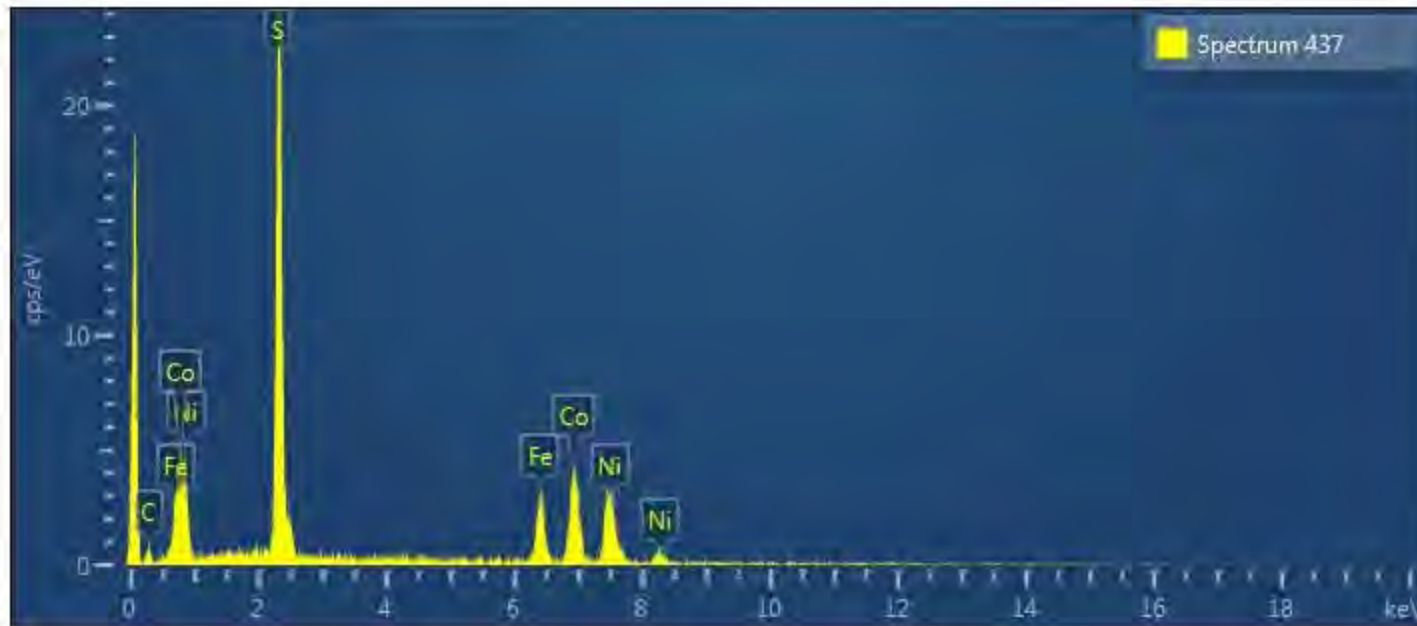


| Spectrum 434 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 30.52 | 0.78 | 31.59 |
| Ni | K series | 69.48 | 0.78 | 68.41 |
| Total | | 100.00 | | 100.00 |

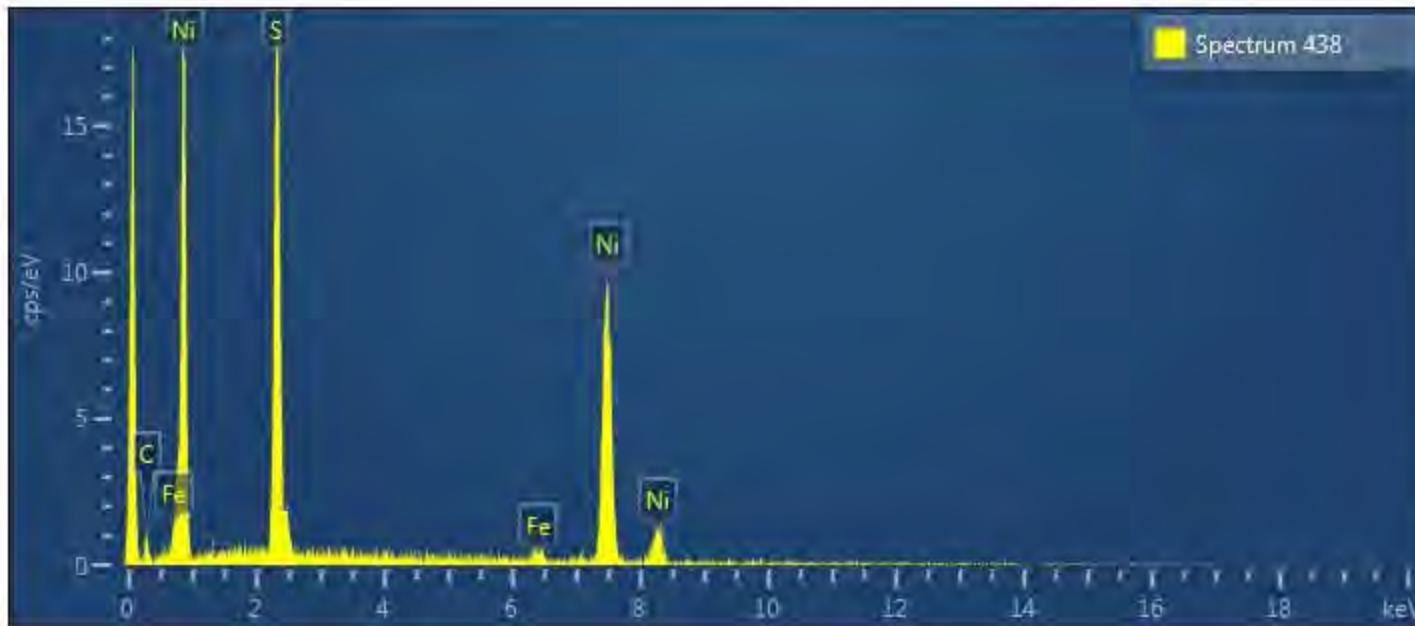




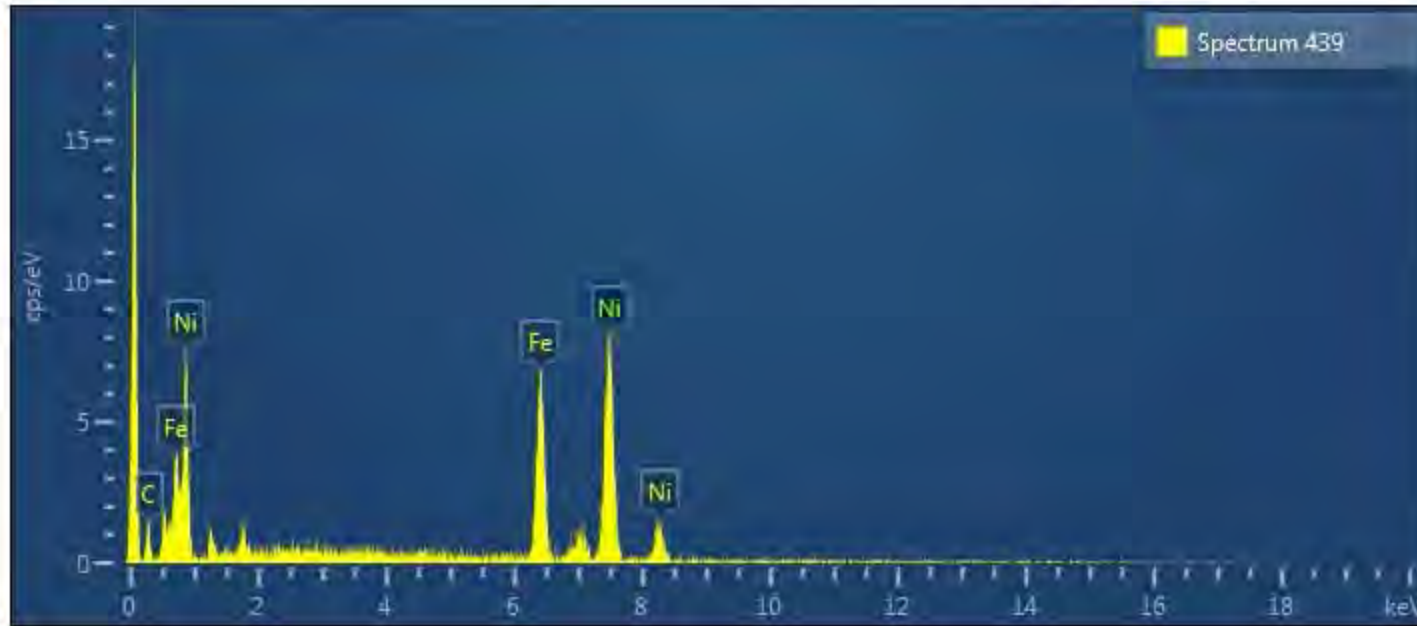
| Spectrum 436 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.91 | 1.23 | 58.66 |
| Fe | K series | 71.09 | 1.23 | 41.34 |
| Total | | 100.00 | | 100.00 |



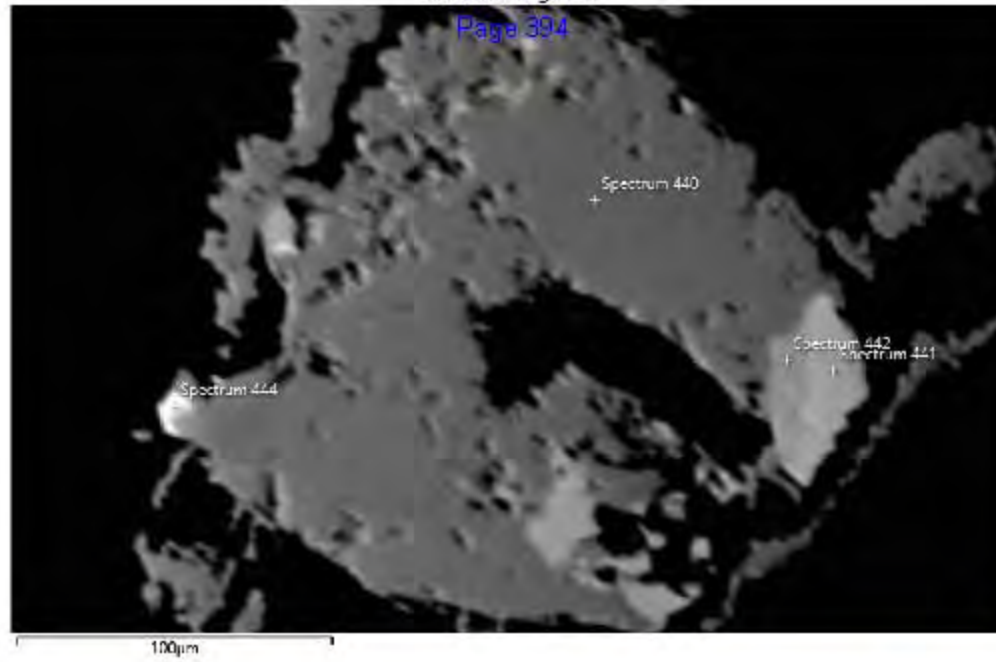
| Spectrum 437 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.73 | 0.91 | 49.12 |
| Fe | K series | 13.70 | 0.79 | 11.12 |
| Co | K series | 26.03 | 1.07 | 20.03 |
| Ni | K series | 25.54 | 1.12 | 19.73 |
| Total | | 100.00 | | 100.00 |

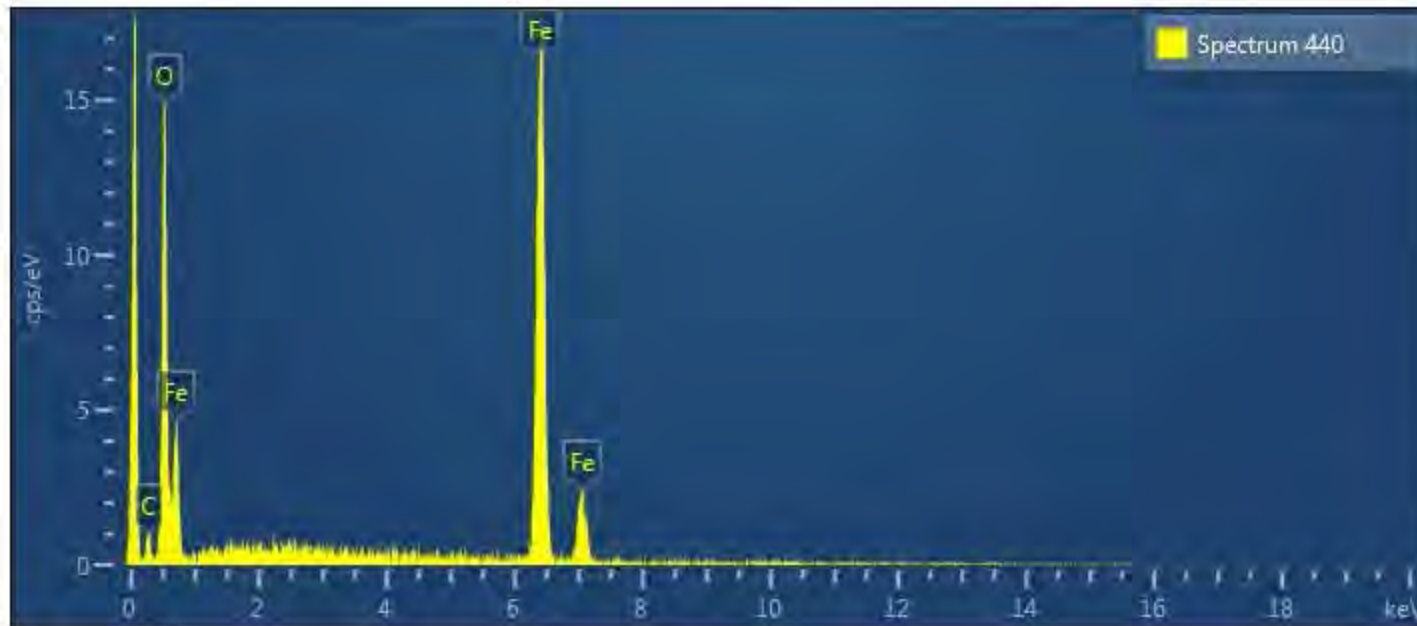


| Spectrum 438 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.23 | 0.73 | 40.63 |
| Fe | K series | 2.18 | 0.39 | 1.86 |
| Ni | K series | 70.59 | 0.79 | 57.51 |
| Total | | 100.00 | | 100.00 |

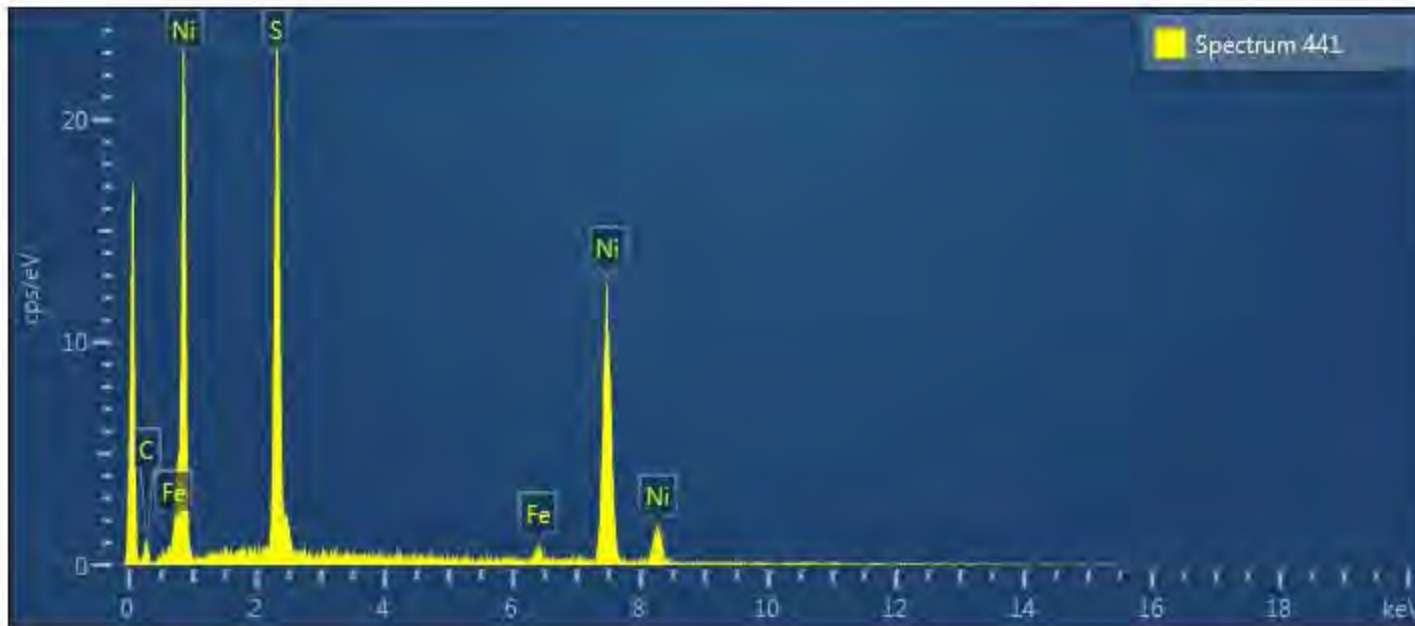


| Spectrum 439 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 32.03 | 1.11 | 33.13 |
| Ni | K series | 67.97 | 1.11 | 66.87 |
| Total | | 100.00 | | 100.00 |

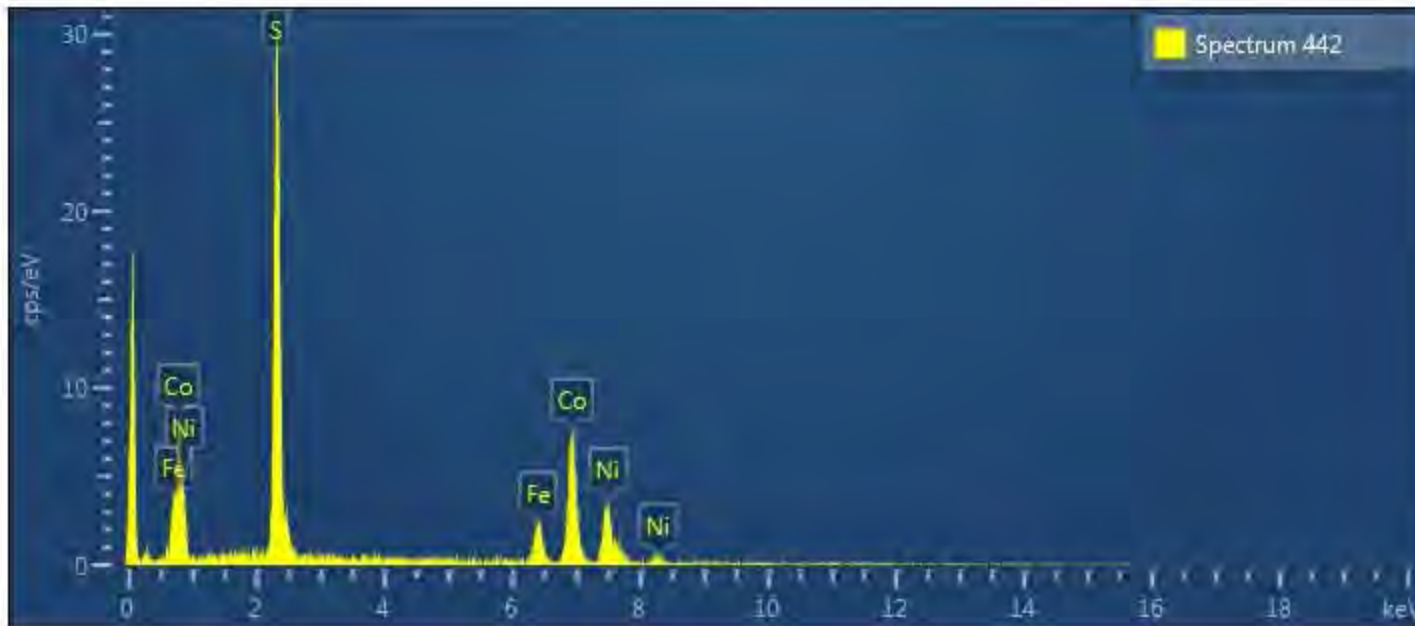




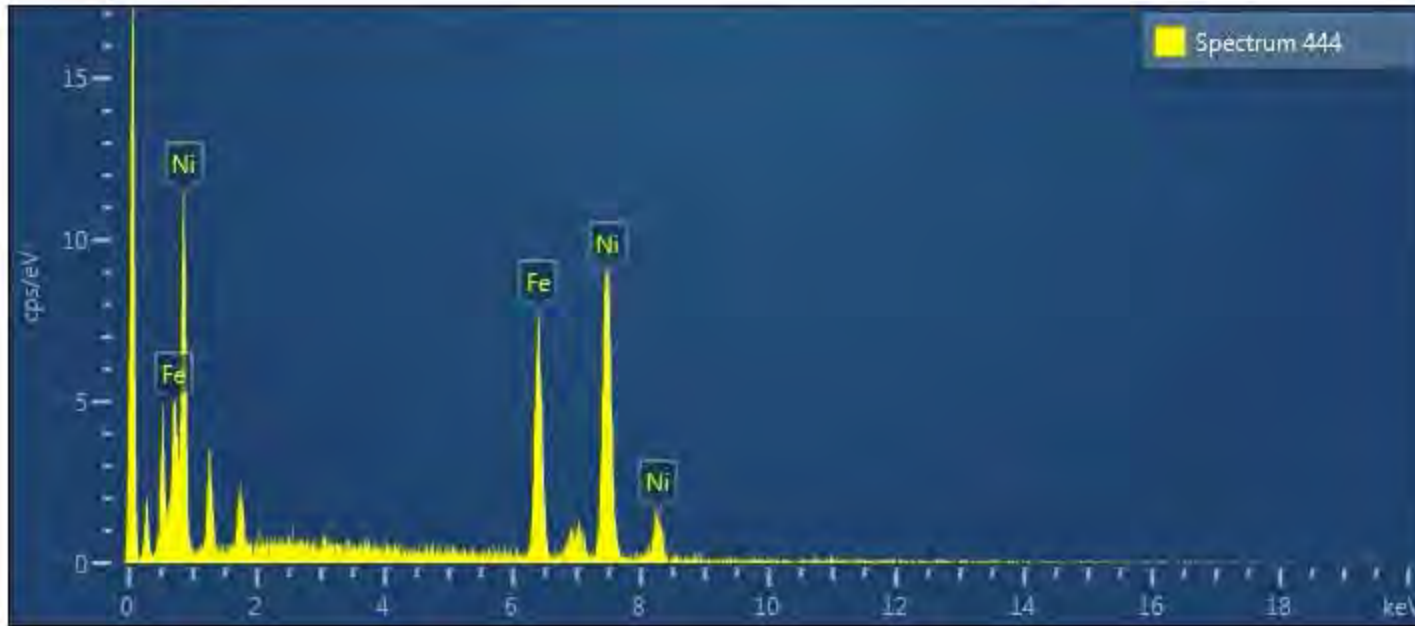
| Spectrum 440 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.74 | 0.82 | 57.26 |
| Fe | K series | 72.26 | 0.82 | 42.74 |
| Total | | 100.00 | | 100.00 |



| Spectrum 441 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.70 | 0.58 | 41.20 |
| Fe | K series | 2.08 | 0.30 | 1.78 |
| Ni | K series | 70.22 | 0.63 | 57.03 |
| Total | | 100.00 | | 100.00 |

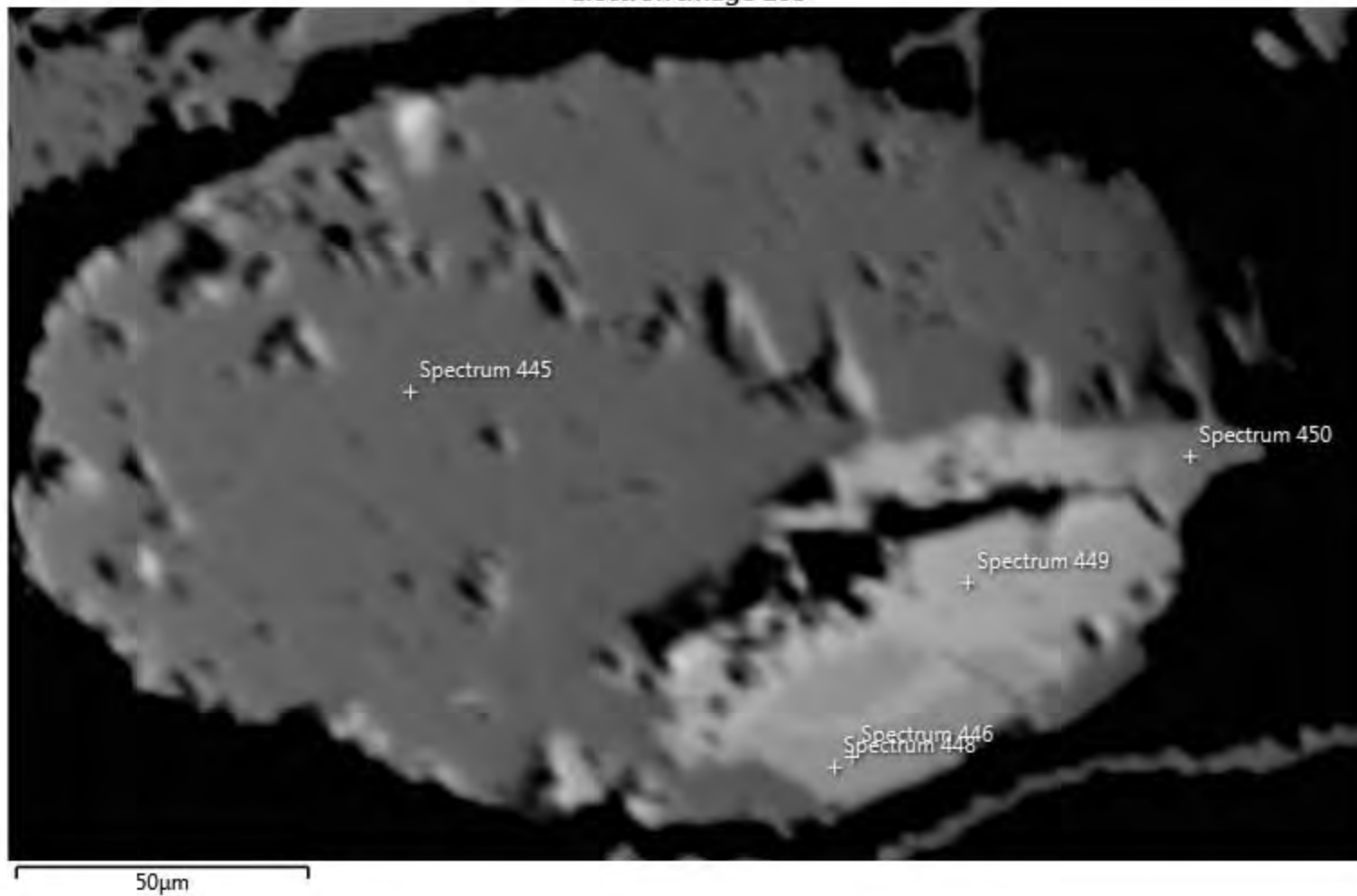


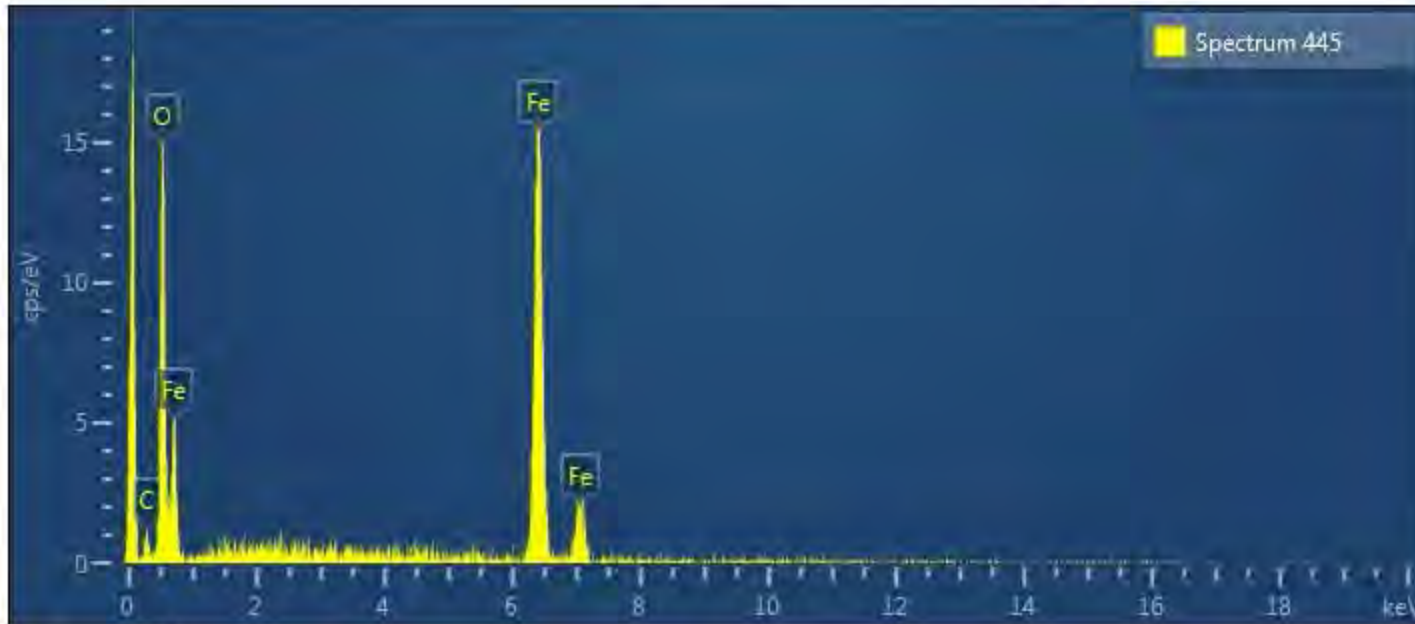
| Spectrum 442 | | | | |
|---------------------|------------------|-----------------|-----------------------|-----------------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.89 | 0.88 | 48.29 |
| Fe | K series | 9.29 | 0.68 | 7.60 |
| Co | K series | 36.69 | 1.09 | 28.45 |
| Ni | K series | 20.12 | 1.04 | 15.66 |
| Total | | 100.00 | | 100.00 |



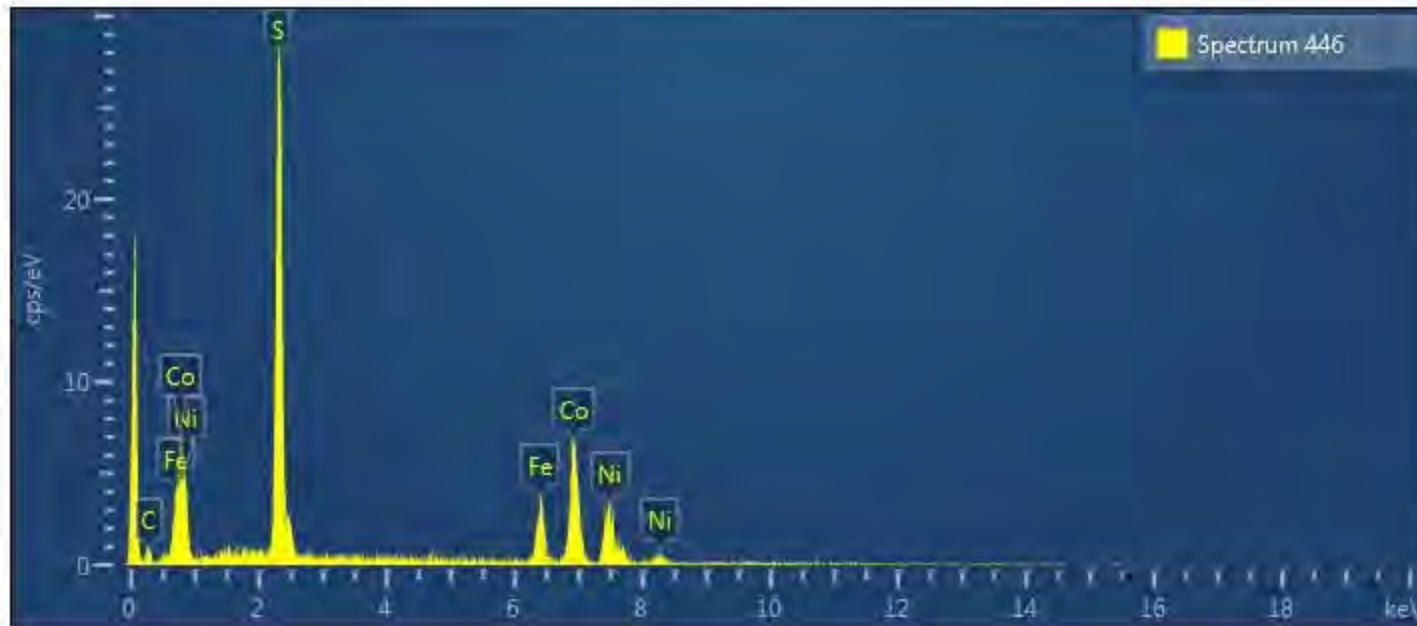
| Spectrum 444 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 29.73 | 0.88 | 30.78 |
| Ni | K series | 70.27 | 0.88 | 69.22 |
| Total | | 100.00 | | 100.00 |

Electron Image 105

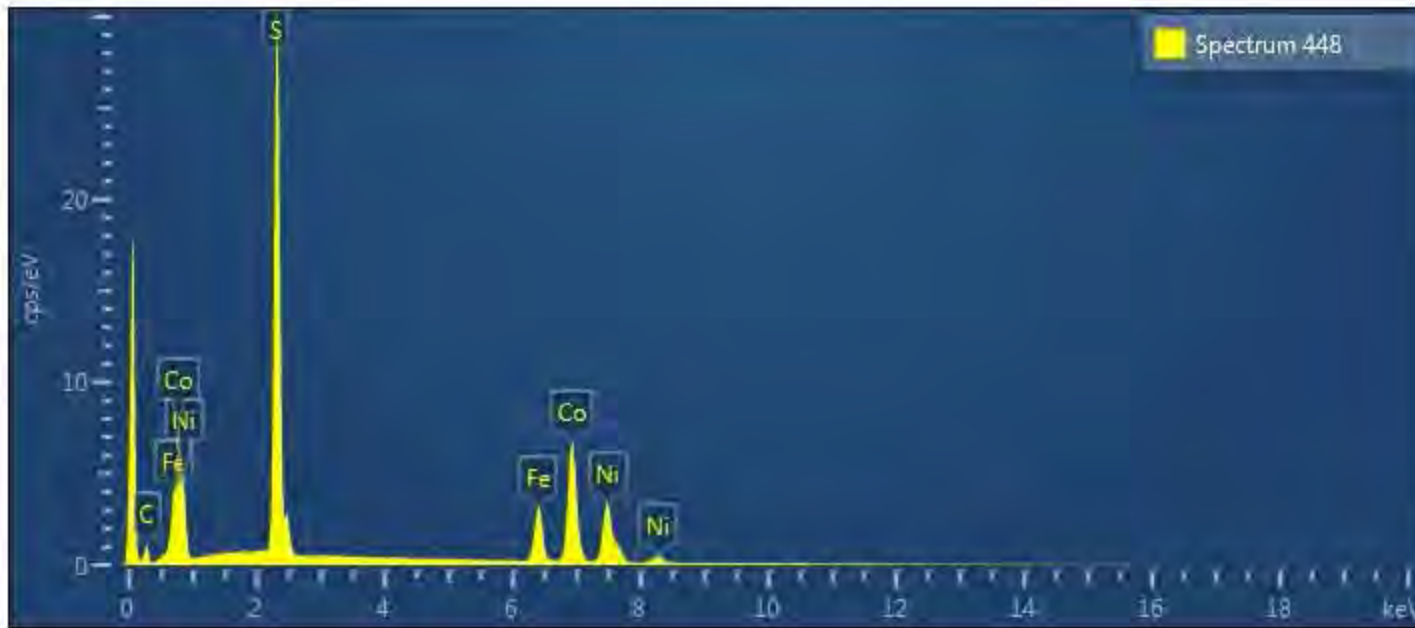




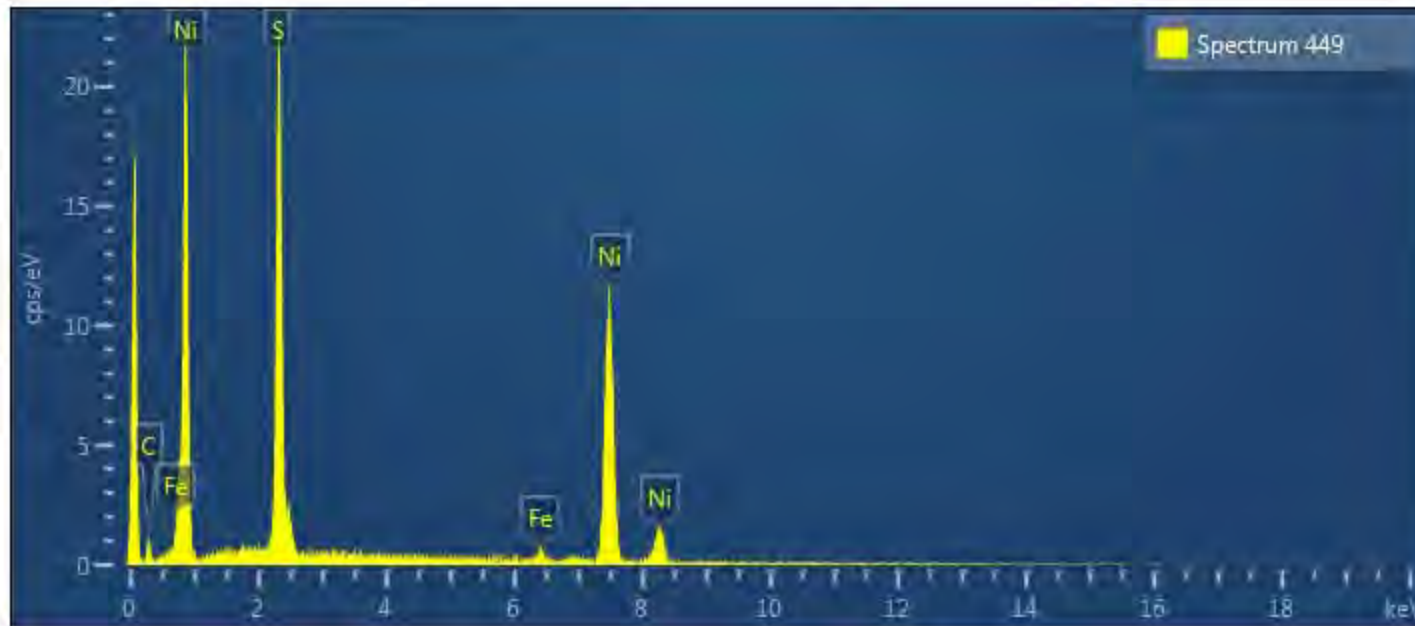
| Spectrum 445 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.99 | 1.14 | 59.92 |
| Fe | K series | 70.01 | 1.14 | 40.08 |
| Total | | 100.00 | | 100.00 |



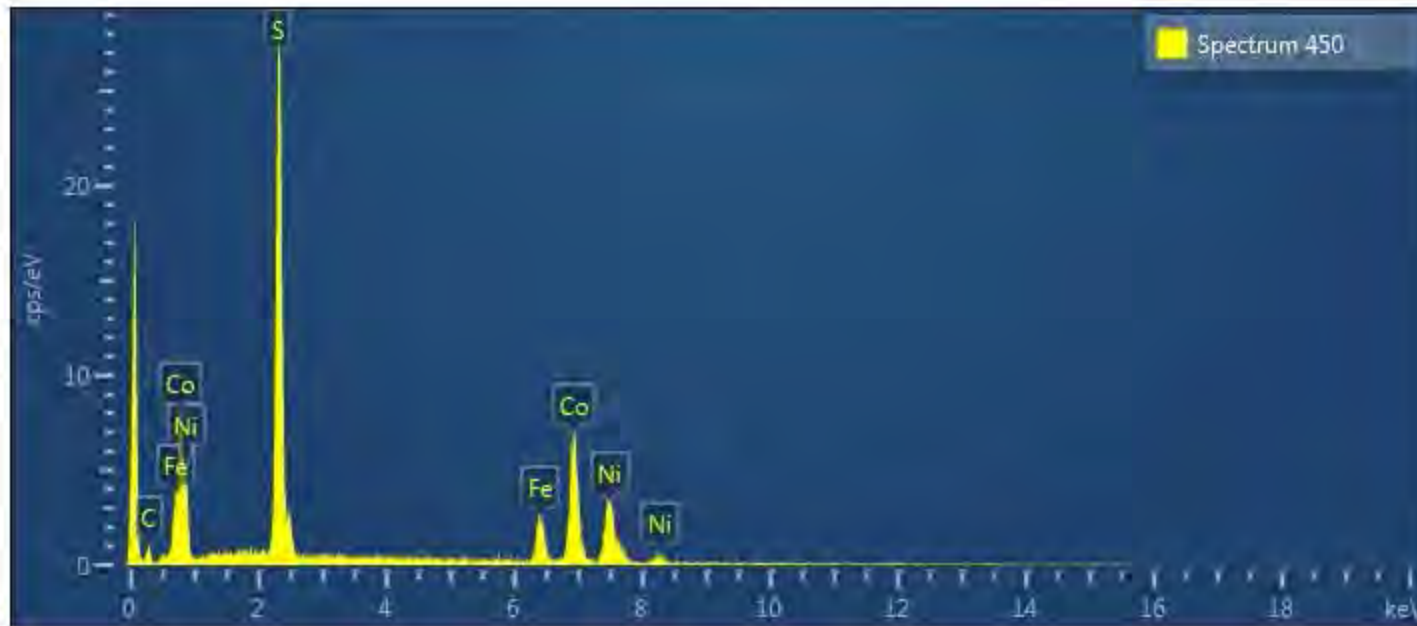
| Spectrum 446 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.74 | 0.83 | 48.05 |
| Fe | K series | 12.91 | 0.71 | 10.56 |
| Co | K series | 33.76 | 1.03 | 26.16 |
| Ni | K series | 19.58 | 1.01 | 15.23 |
| Total | | 100.00 | | 100.00 |



| Spectrum 448 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.00 | 0.23 | 48.36 |
| Fe | K series | 12.07 | 0.20 | 9.86 |
| Co | K series | 34.24 | 0.29 | 26.50 |
| Ni | K series | 19.68 | 0.28 | 15.29 |
| Total | | 100.00 | | 100.00 |



| Spectrum 449 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.93 | 0.57 | 41.48 |
| Fe | K series | 1.68 | 0.27 | 1.43 |
| Ni | K series | 70.39 | 0.60 | 57.09 |
| Total | | 100.00 | | 100.00 |



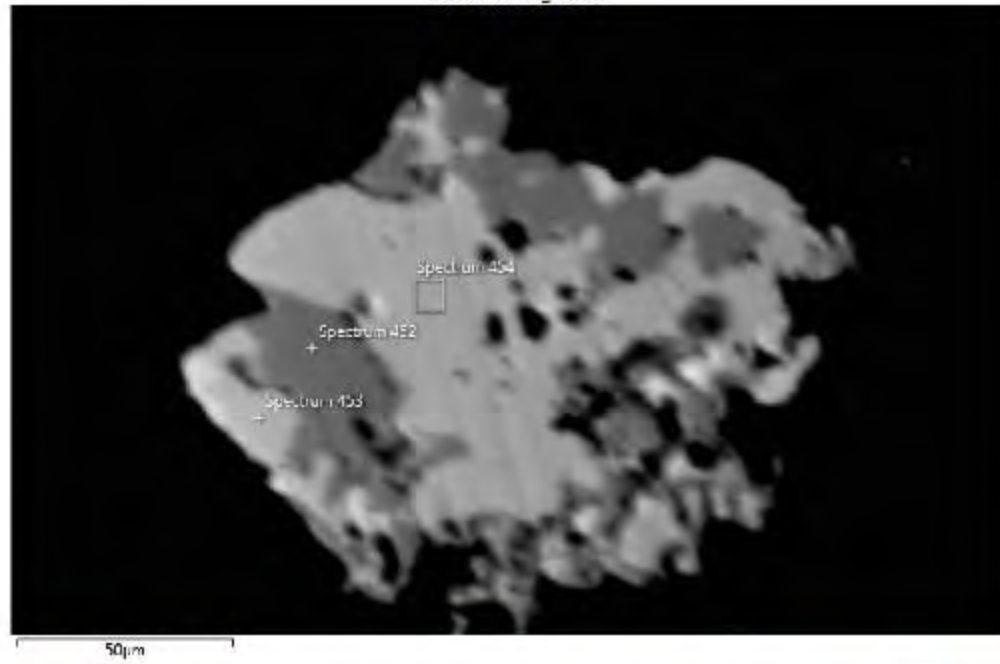
| Spectrum 450 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.19 | 0.61 | 47.49 |
| Fe | K series | 10.12 | 0.49 | 8.31 |
| Co | K series | 35.44 | 0.76 | 27.59 |
| Ni | K series | 21.25 | 0.75 | 16.61 |
| Total | | 100.00 | | 100.00 |

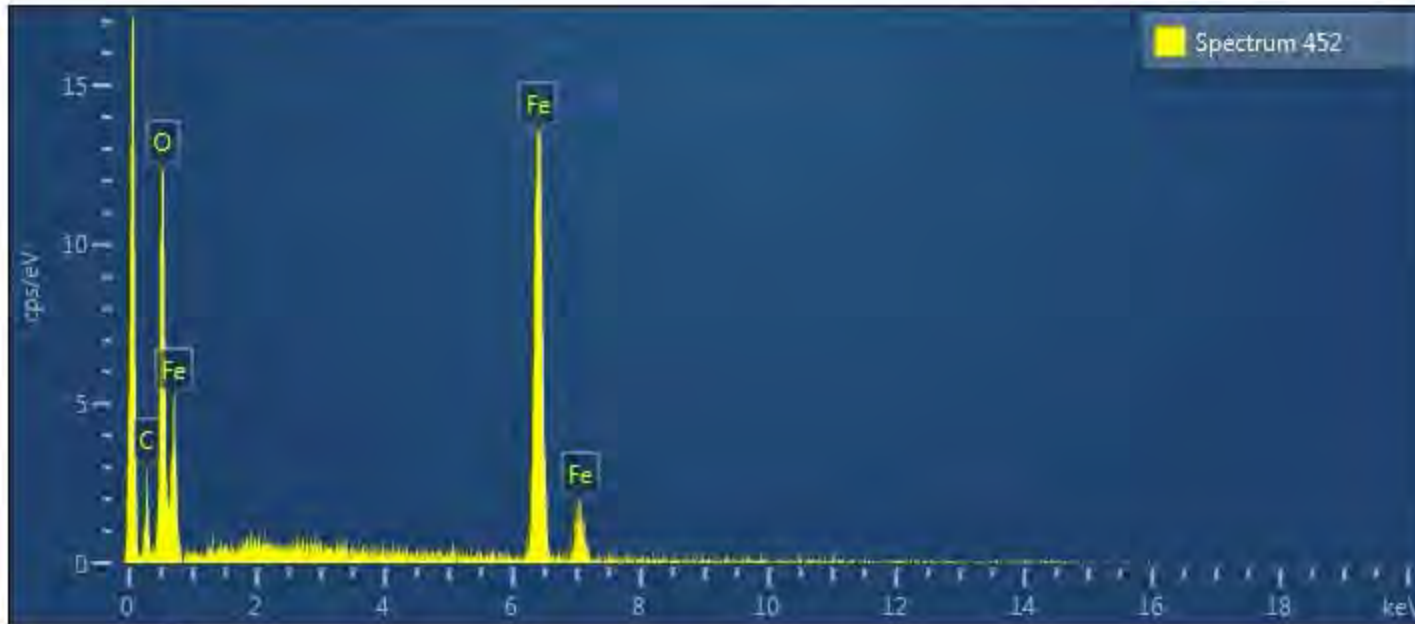
Specimen Notes for '557' - Sulphide Mineral Inventory – Awaruite, Heazlewoodite

SITE 1 CIRCLE 3 is magnetite and heazlewoodite

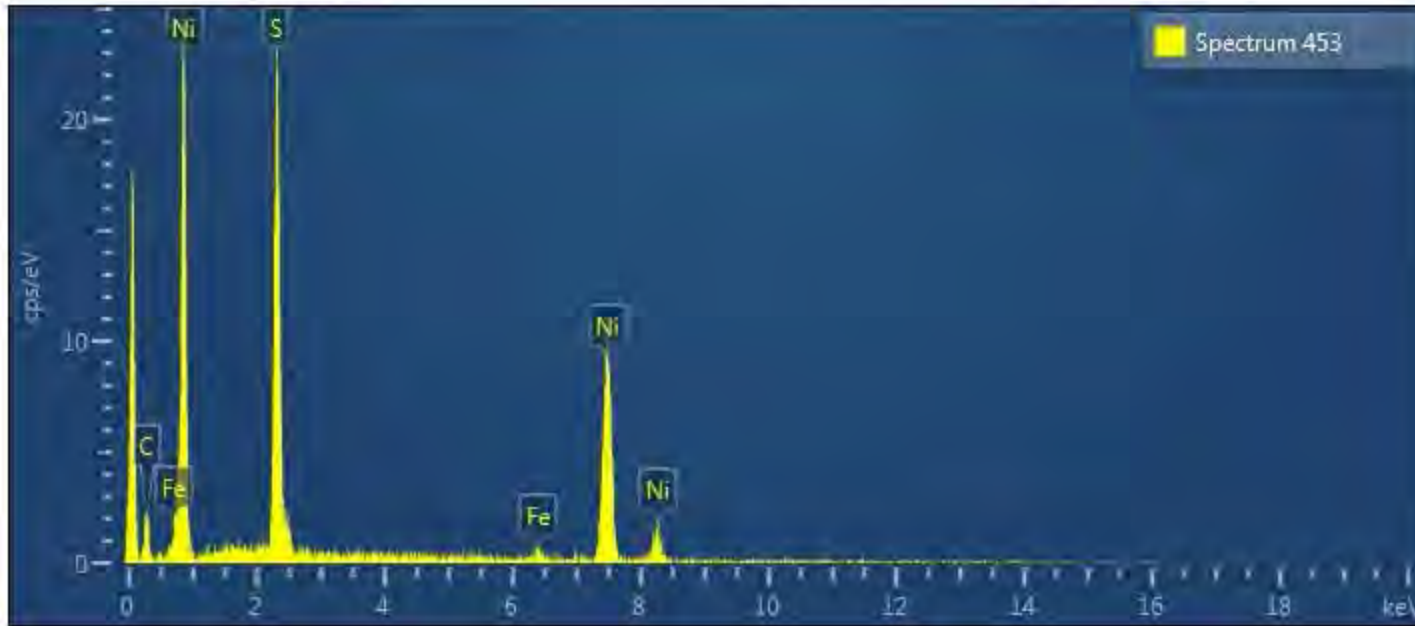
SITE 2 CIRCLE 4 is magnetite intergrown with heazlewoodite and awaruite

SITE 3 CIRCLE 2 is an intergrowth of magnetite-heazlewoodite-awaruite

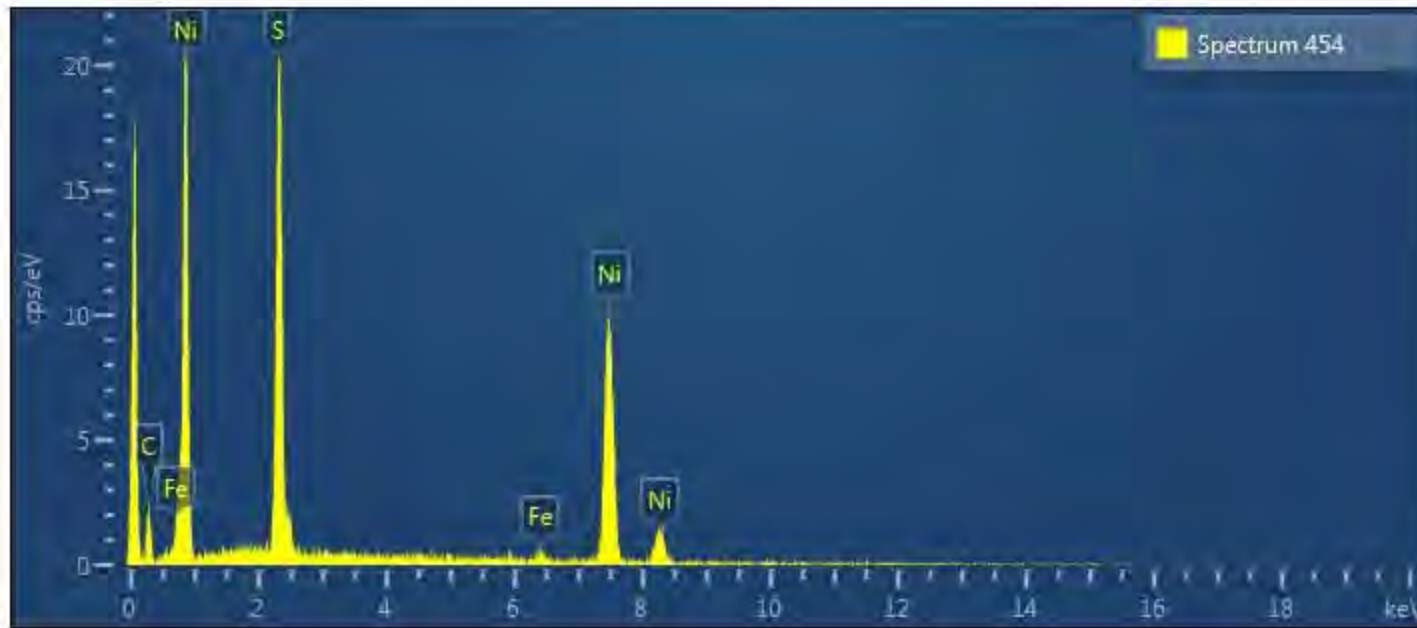




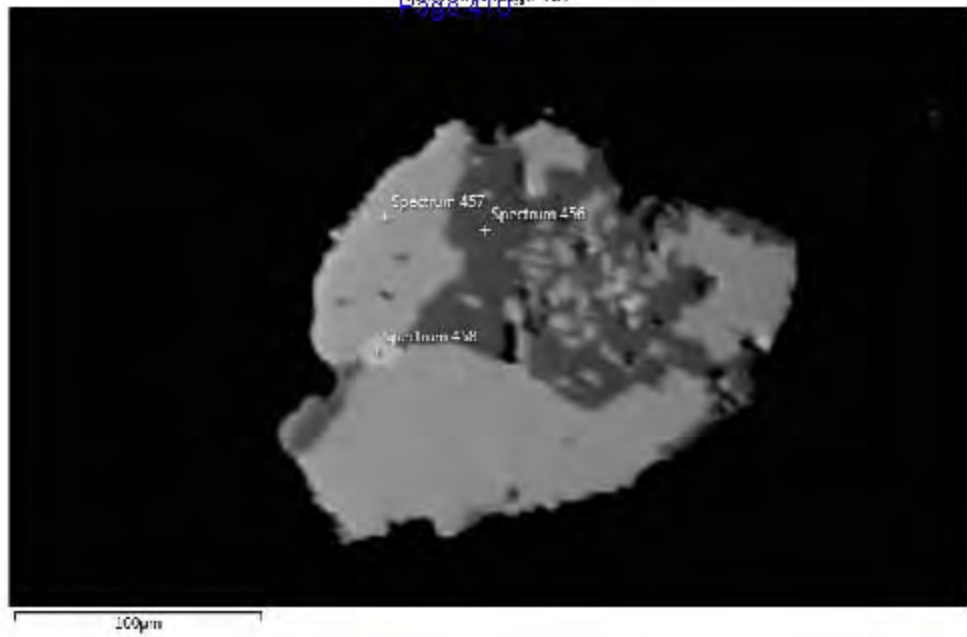
| Spectrum 452 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.06 | 1.10 | 58.84 |
| Fe | K series | 70.94 | 1.10 | 41.16 |
| Total | | 100.00 | | 100.00 |

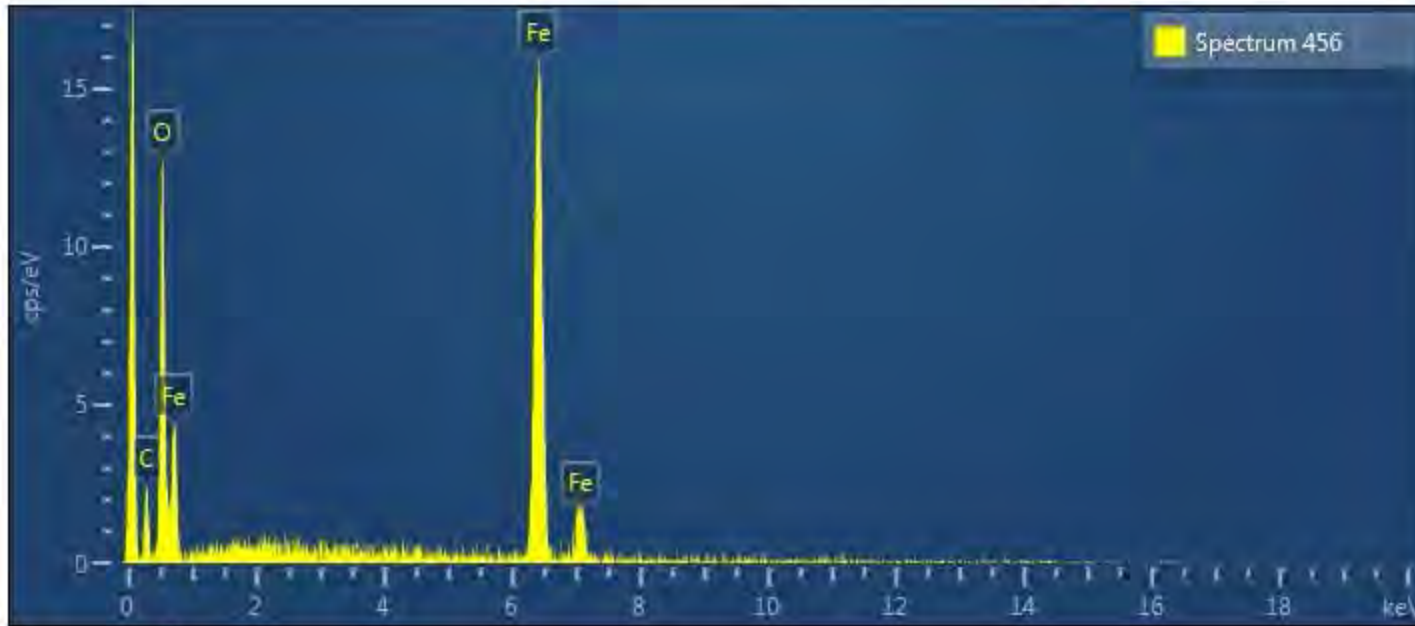


| Spectrum 453 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 30.60 | 0.89 | 44.64 |
| Ni | K series | 67.84 | 0.94 | 54.06 |
| Fe | K series | 1.56 | 0.44 | 1.31 |
| Total | | 100.00 | | 100.00 |

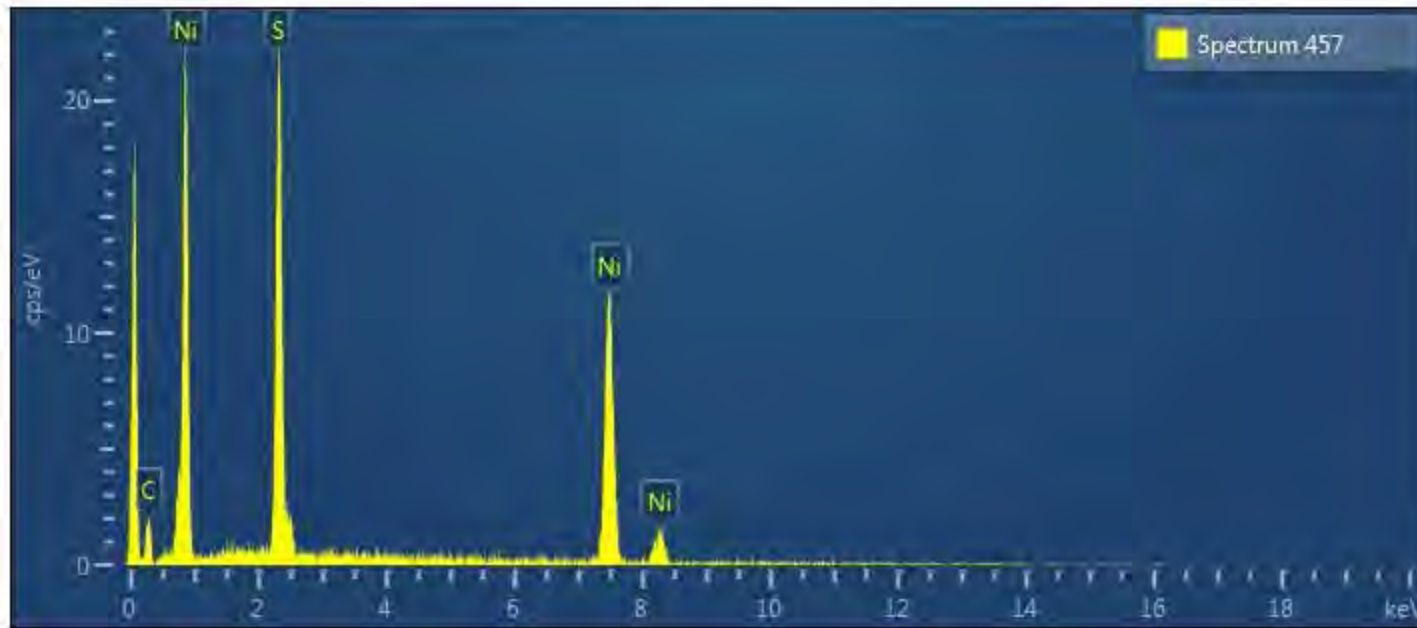


| Spectrum 454 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.62 | 0.70 | 42.31 |
| Ni | K series | 70.12 | 0.74 | 56.62 |
| Fe | K series | 1.26 | 0.33 | 1.07 |
| Total | | 100.00 | | 100.00 |

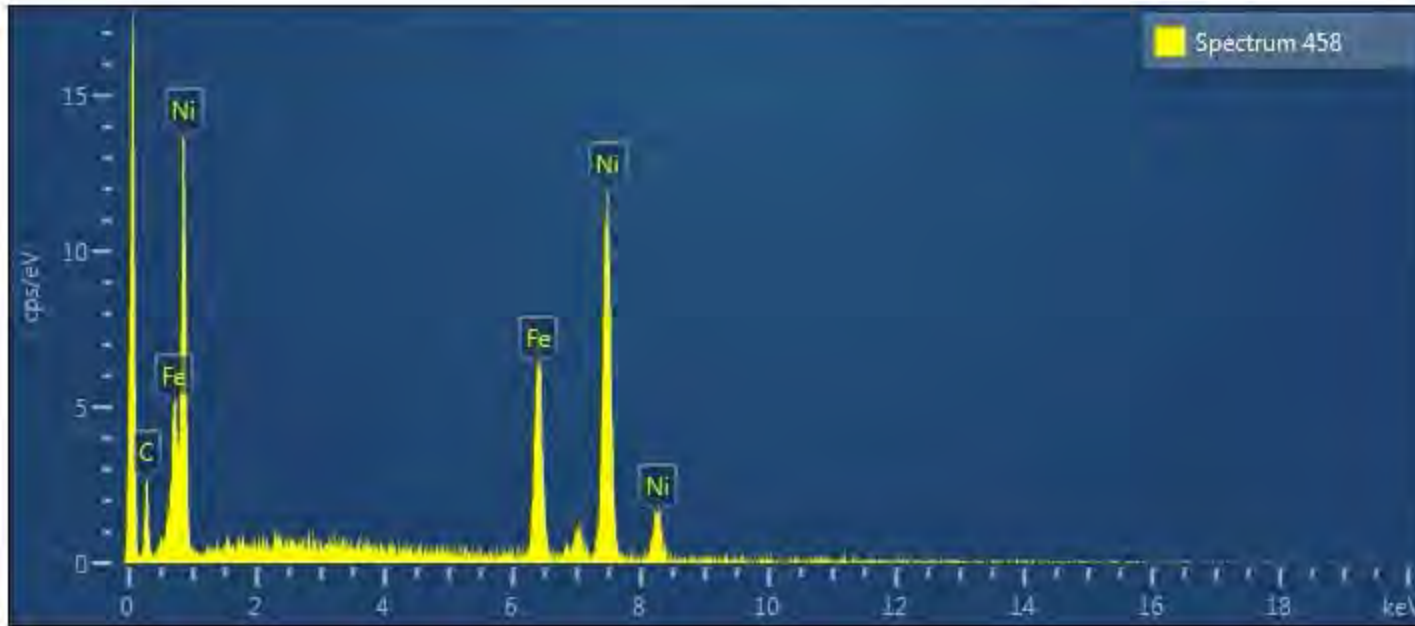




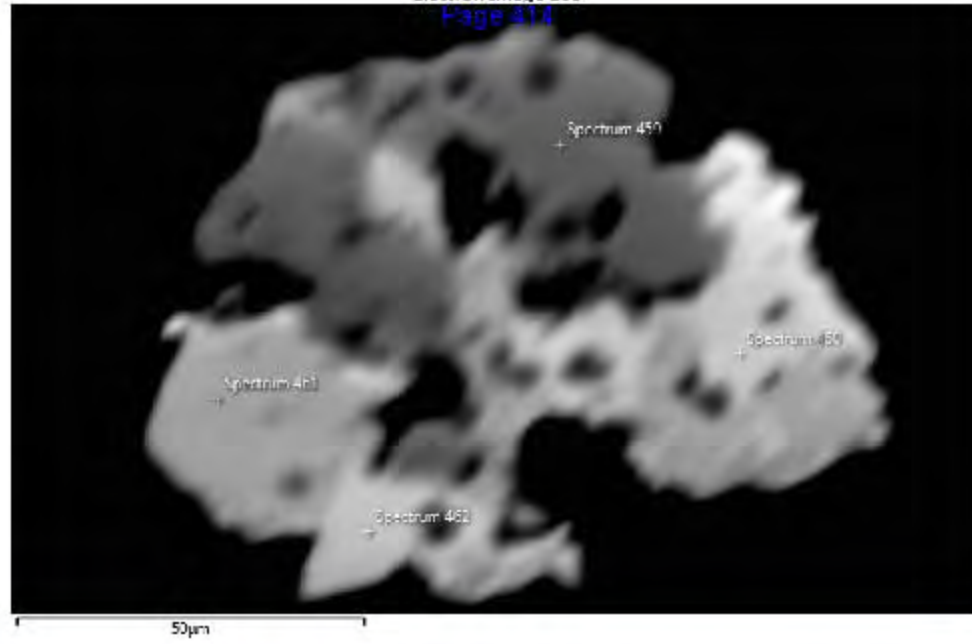
| Spectrum 456 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.44 | 1.06 | 56.90 |
| Fe | K series | 72.56 | 1.06 | 43.10 |
| Total | | 100.00 | | 100.00 |

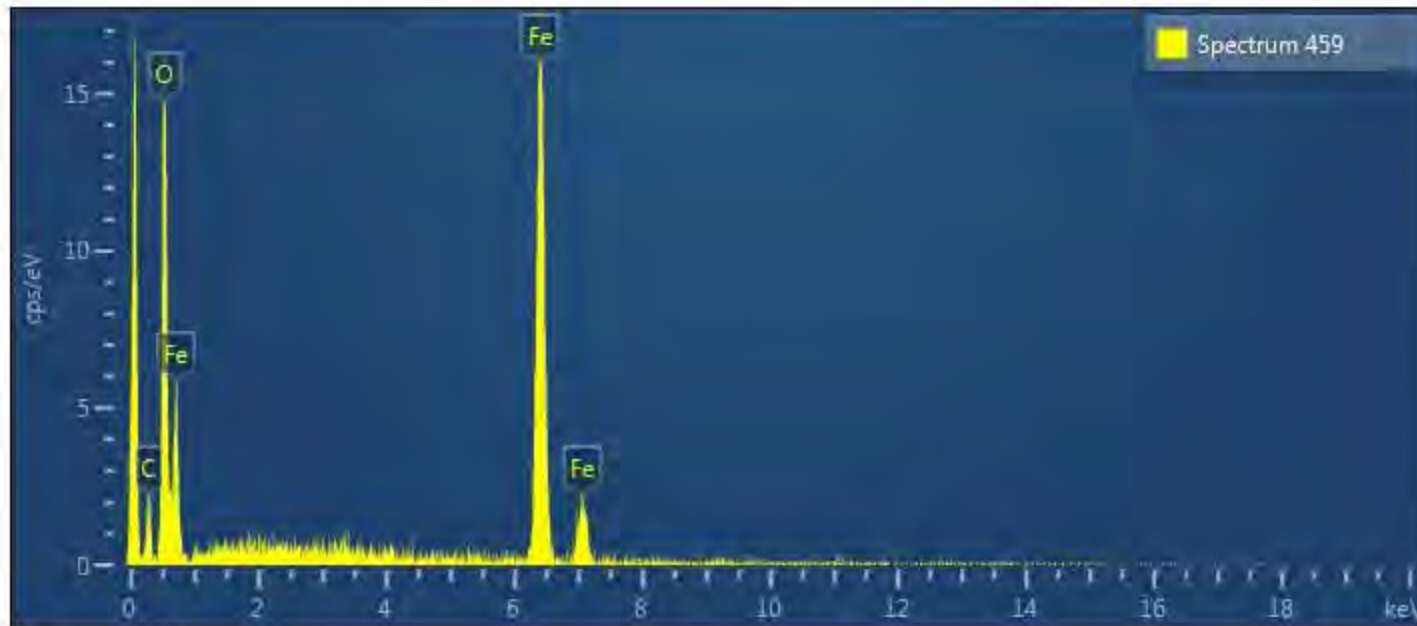


| Spectrum 457 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.03 | 0.74 | 41.63 |
| Ni | K series | 71.97 | 0.74 | 58.37 |
| Total | | 100.00 | | 100.00 |

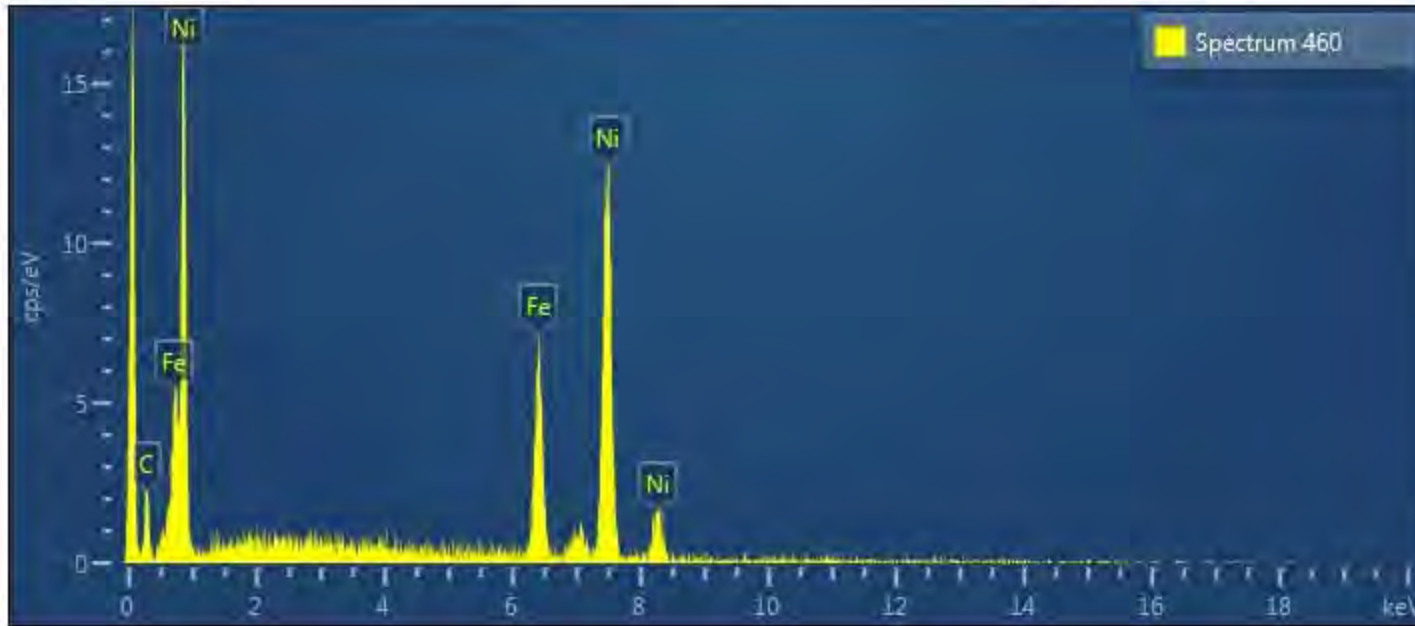


| Spectrum 458 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 25.10 | 0.86 | 26.05 |
| Ni | K series | 74.90 | 0.86 | 73.95 |
| Total | | 100.00 | | 100.00 |

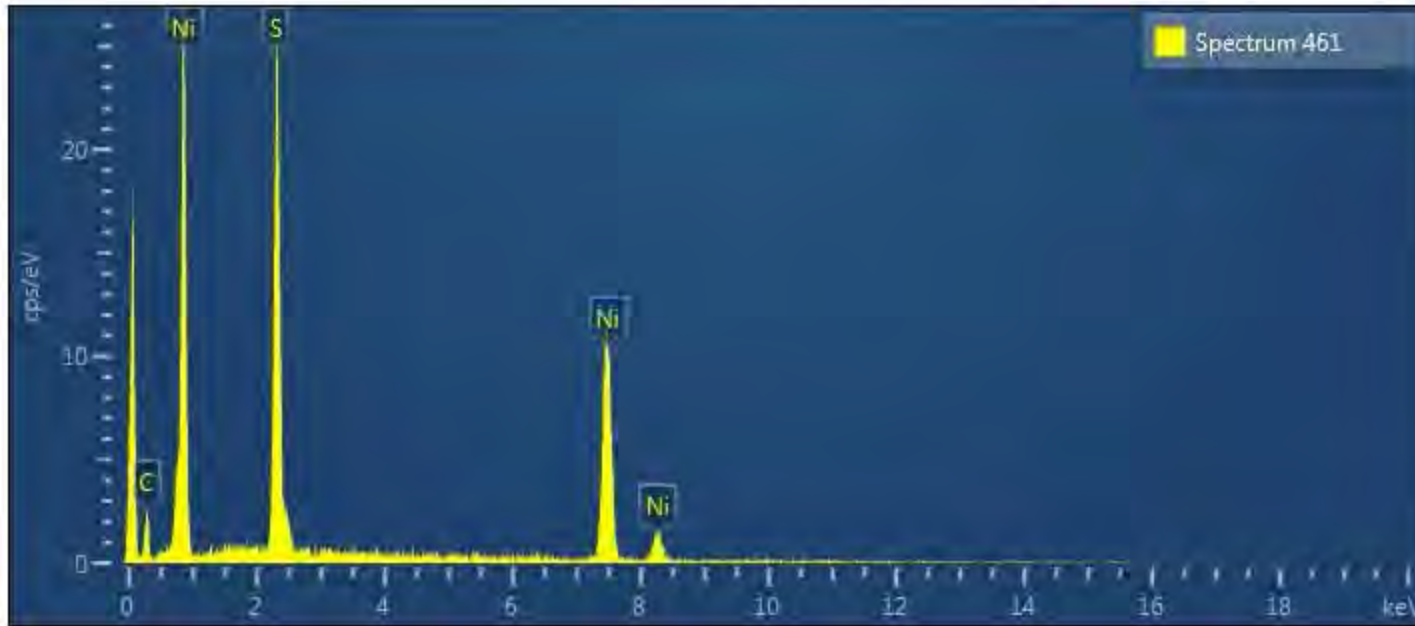




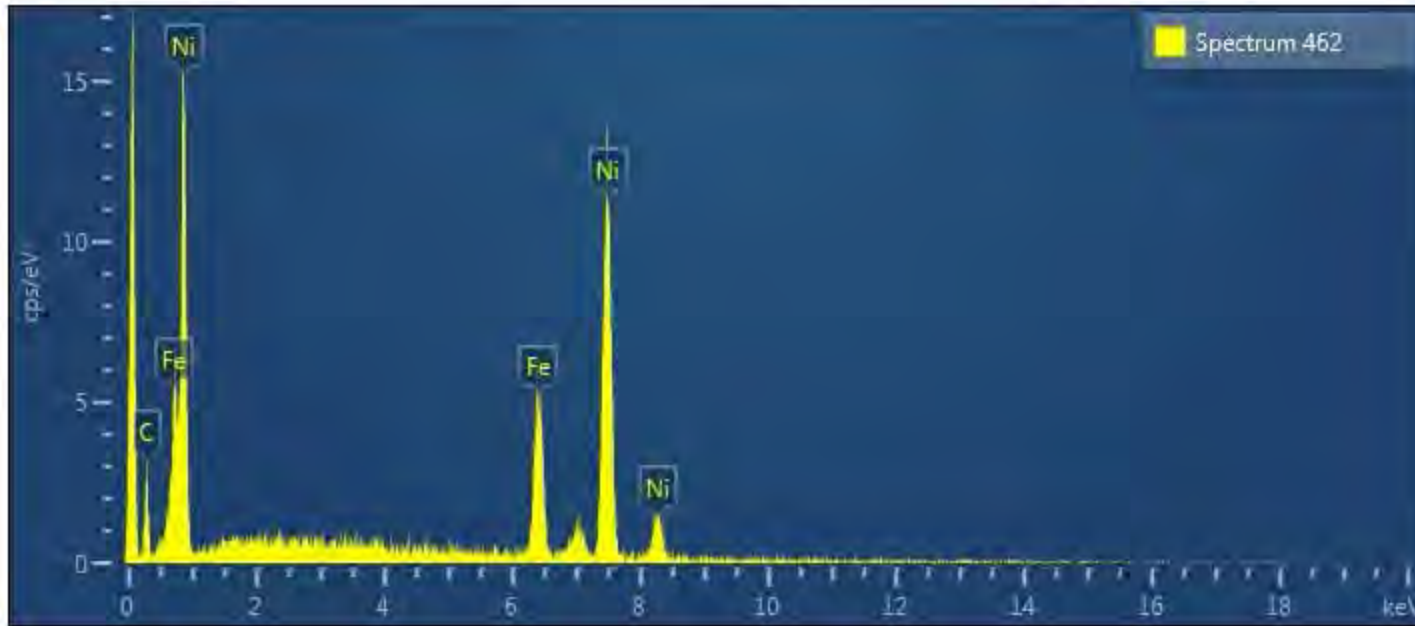
| Spectrum 459 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.92 | 1.05 | 59.85 |
| Fe | K series | 70.08 | 1.05 | 40.15 |
| Total | | 100.00 | | 100.00 |



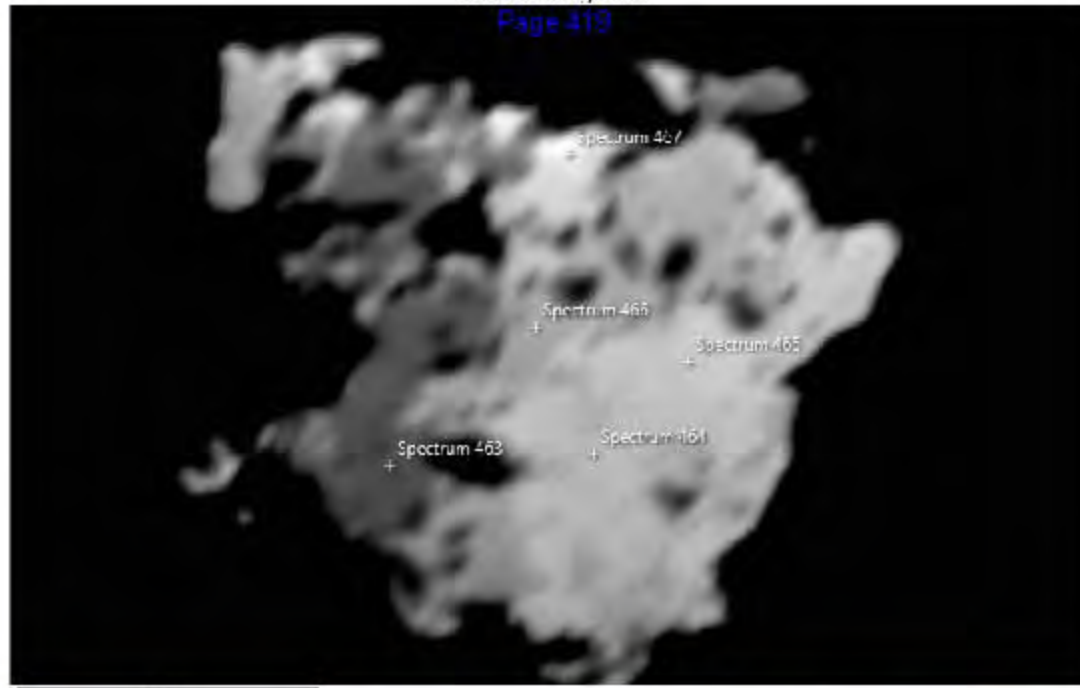
| Spectrum 460 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 22.45 | 0.92 | 23.33 |
| Ni | K series | 77.55 | 0.92 | 76.67 |
| Total | | 100.00 | | 100.00 |

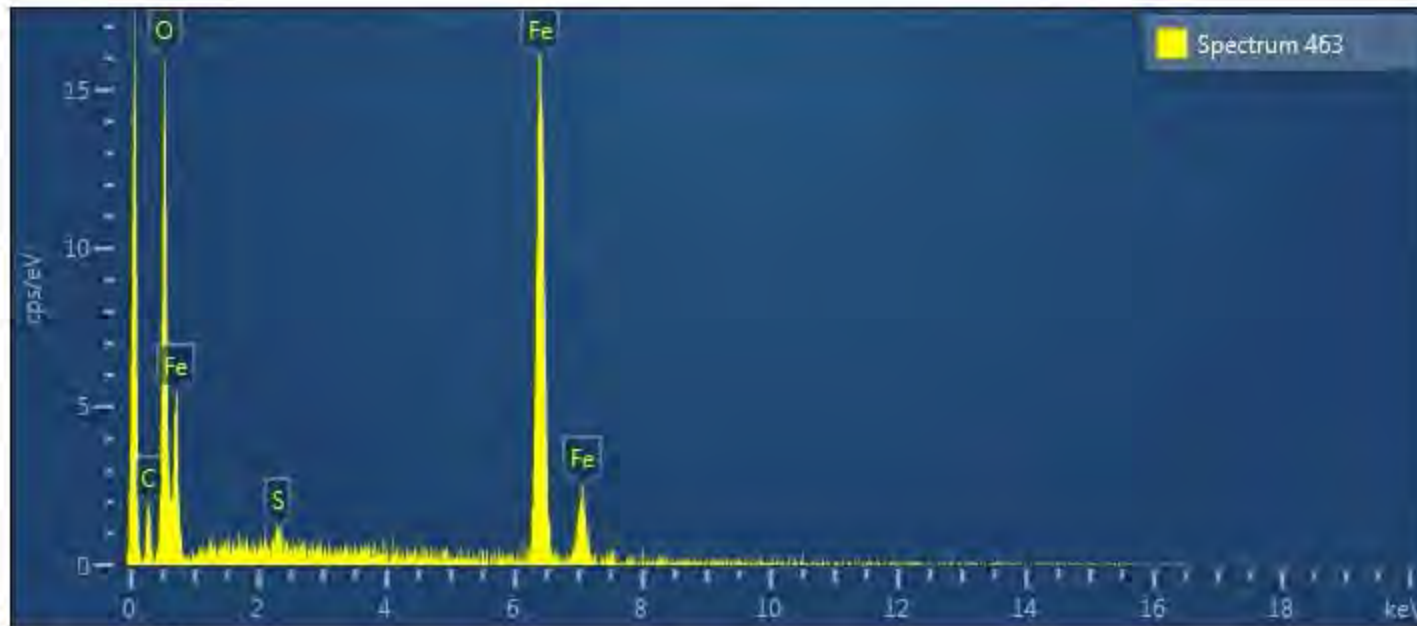


| Spectrum 461 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.99 | 0.66 | 43.95 |
| Ni | K series | 70.01 | 0.66 | 56.05 |
| Total | | 100.00 | | 100.00 |

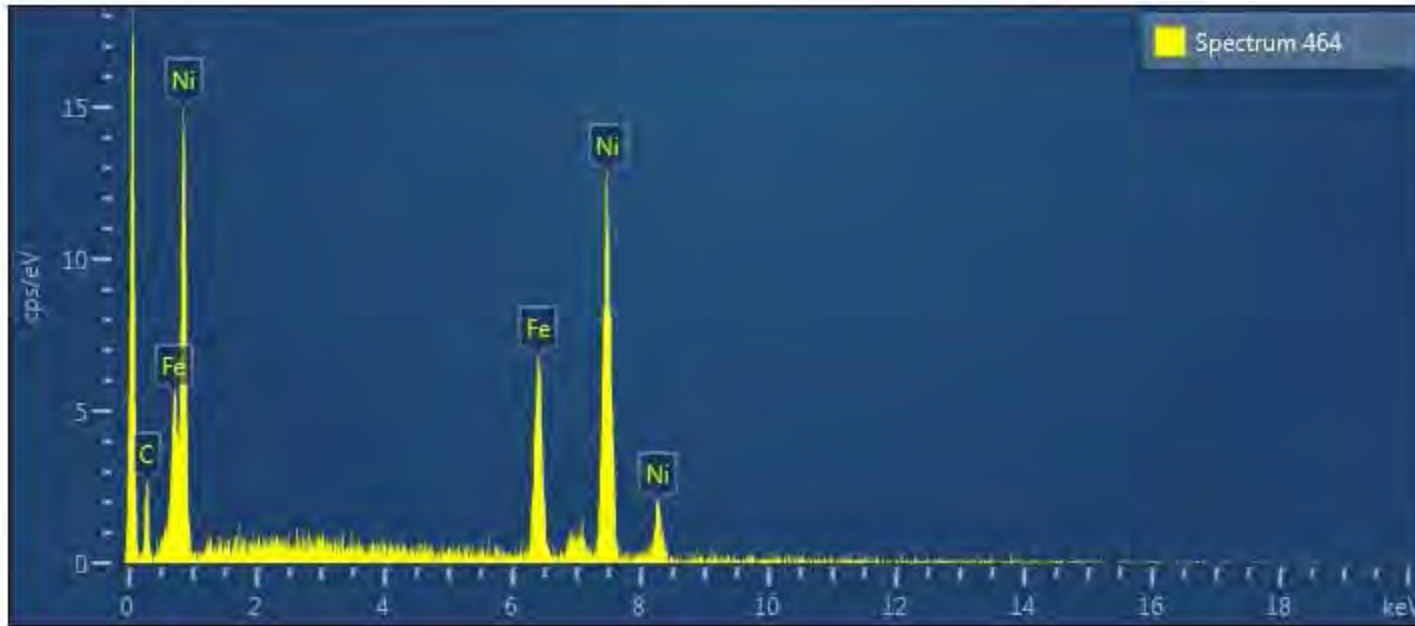


| Spectrum 462 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 20.56 | 0.79 | 21.39 |
| Ni | K series | 79.44 | 0.79 | 78.61 |
| Total | | 100.00 | | 100.00 |

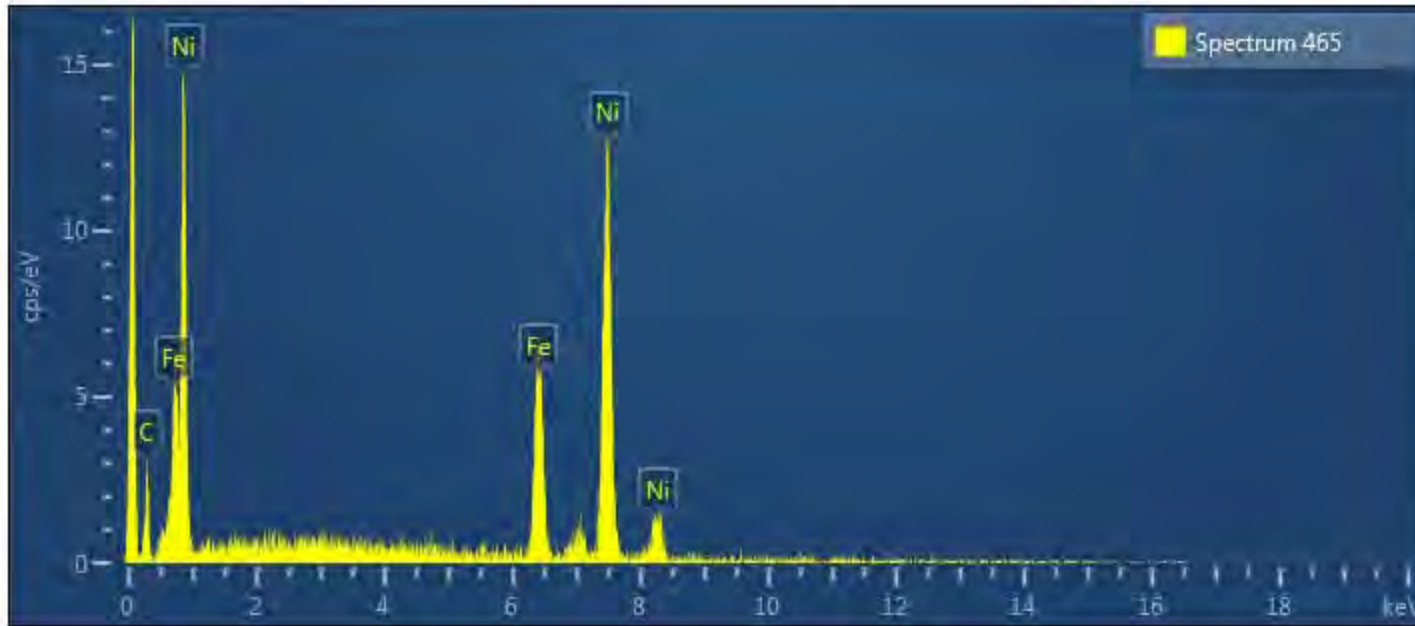




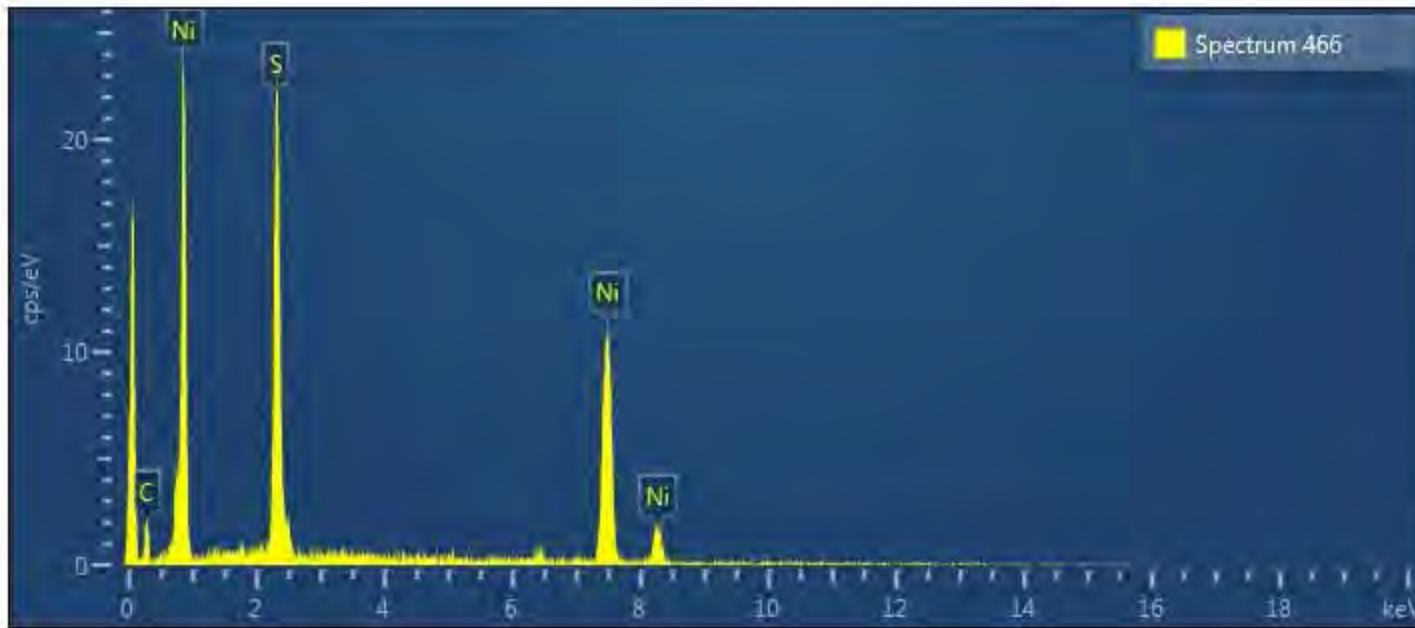
| Spectrum 463 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.97 | 1.08 | 58.54 |
| S | K series | 0.81 | 0.27 | 0.82 |
| Fe | K series | 70.21 | 1.09 | 40.64 |
| Total | | 100.00 | | 100.00 |



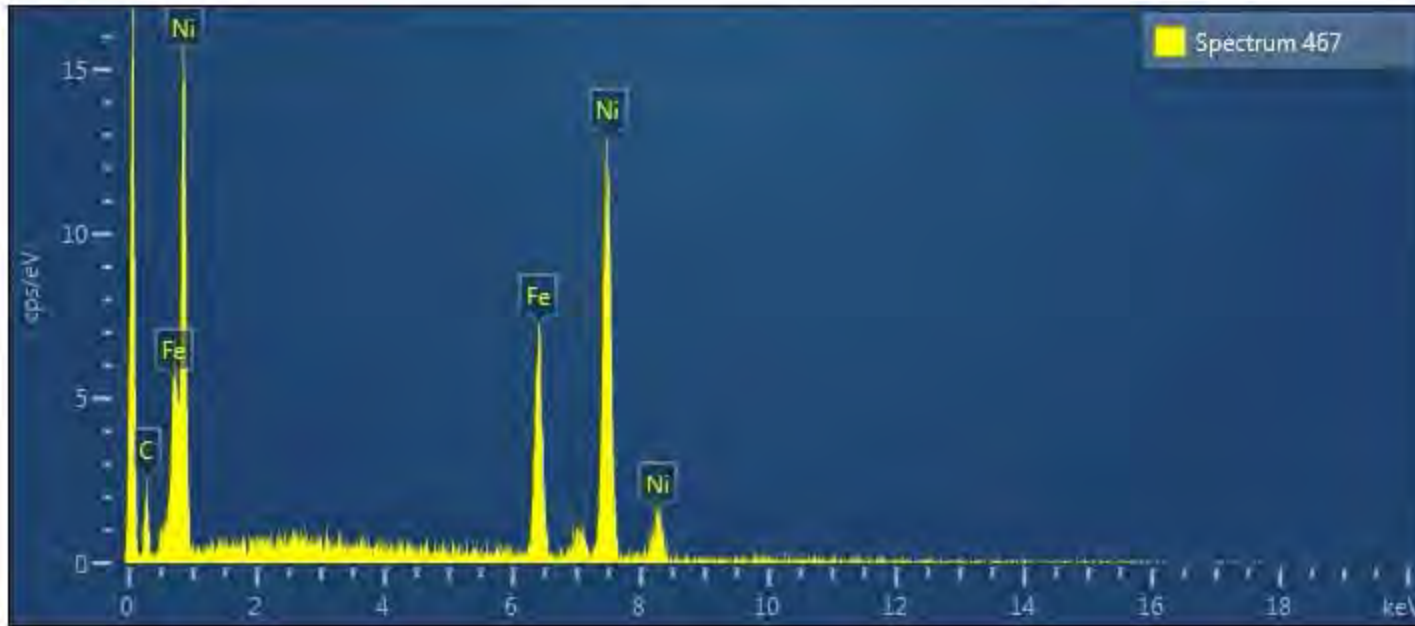
| Spectrum 464 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 23.71 | 0.95 | 24.62 |
| Ni | K series | 76.29 | 0.95 | 75.38 |
| Total | | 100.00 | | 100.00 |



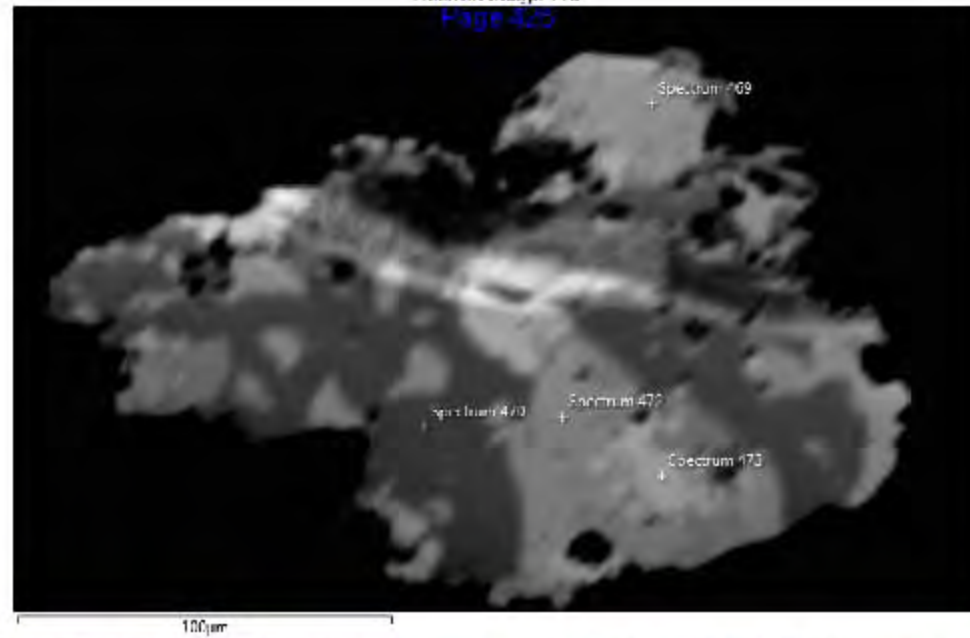
| Spectrum 465 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 23.10 | 0.90 | 24.00 |
| Ni | K series | 76.90 | 0.90 | 76.00 |
| Total | | 100.00 | | 100.00 |

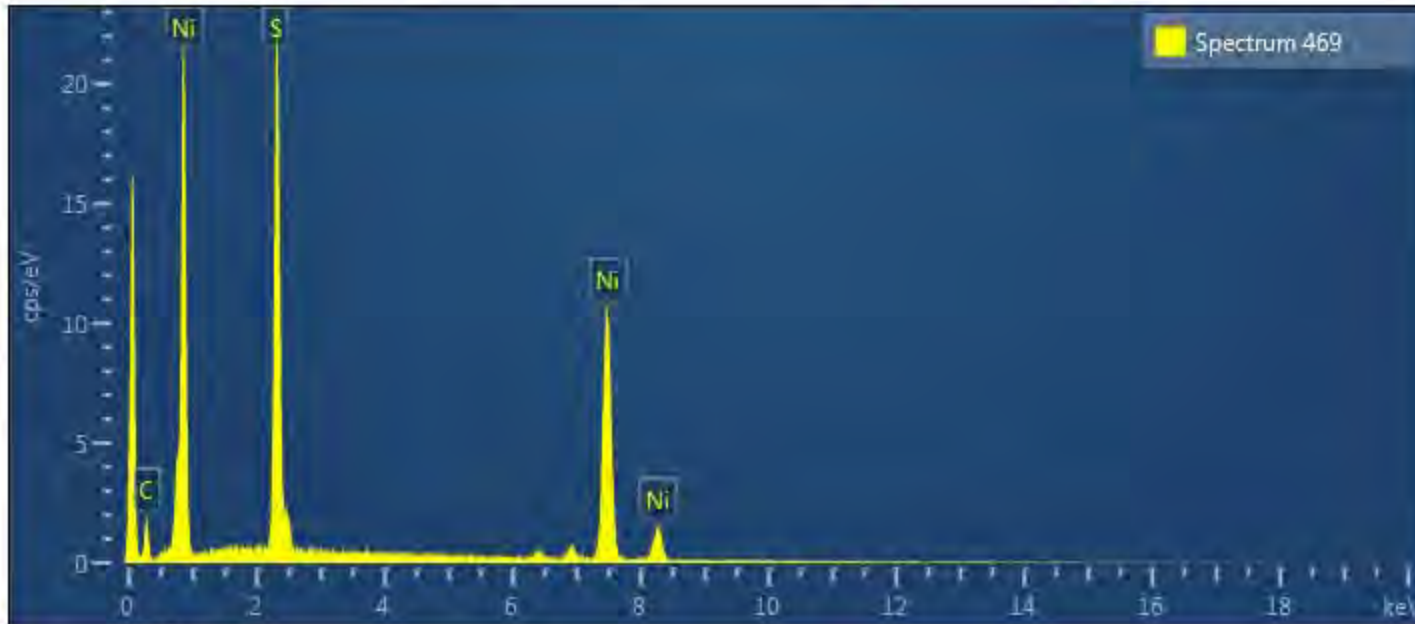


| Spectrum 466 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 28.40 | 0.79 | 42.07 |
| Ni | K series | 71.60 | 0.79 | 57.93 |
| Total | | 100.00 | | 100.00 |

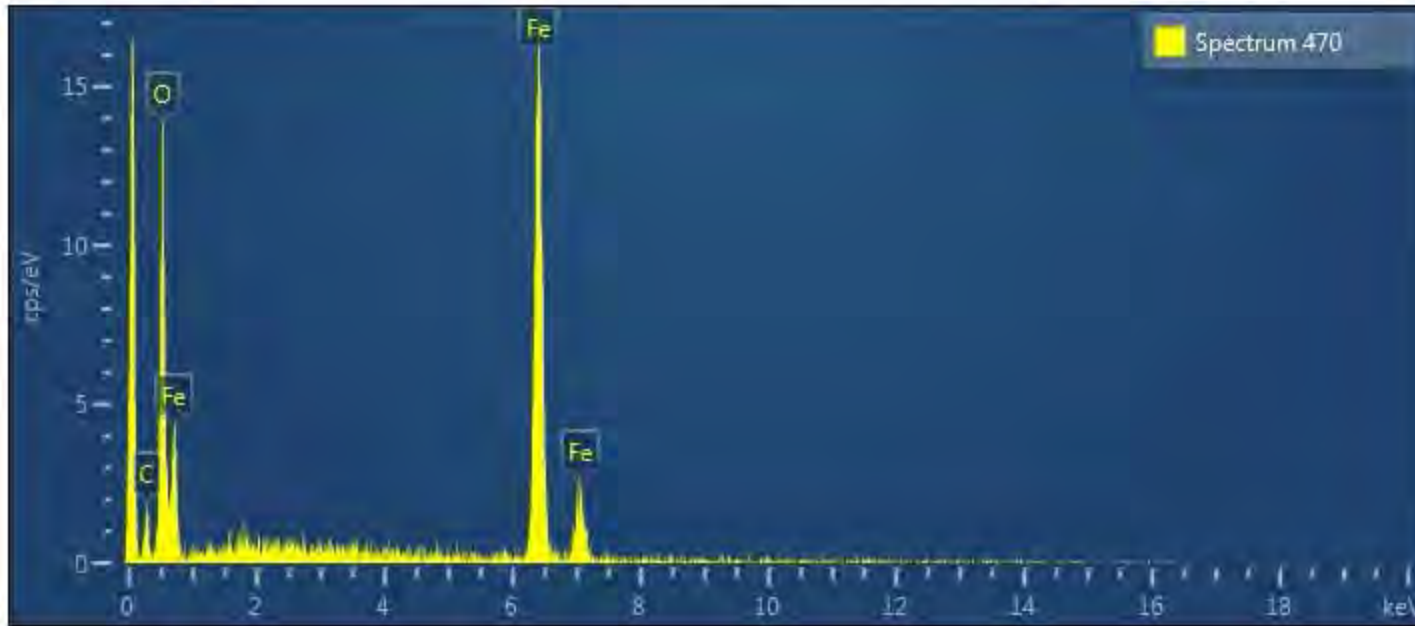


| Spectrum 467 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 23.21 | 0.84 | 24.11 |
| Ni | K series | 76.79 | 0.84 | 75.89 |
| Total | | 100.00 | | 100.00 |

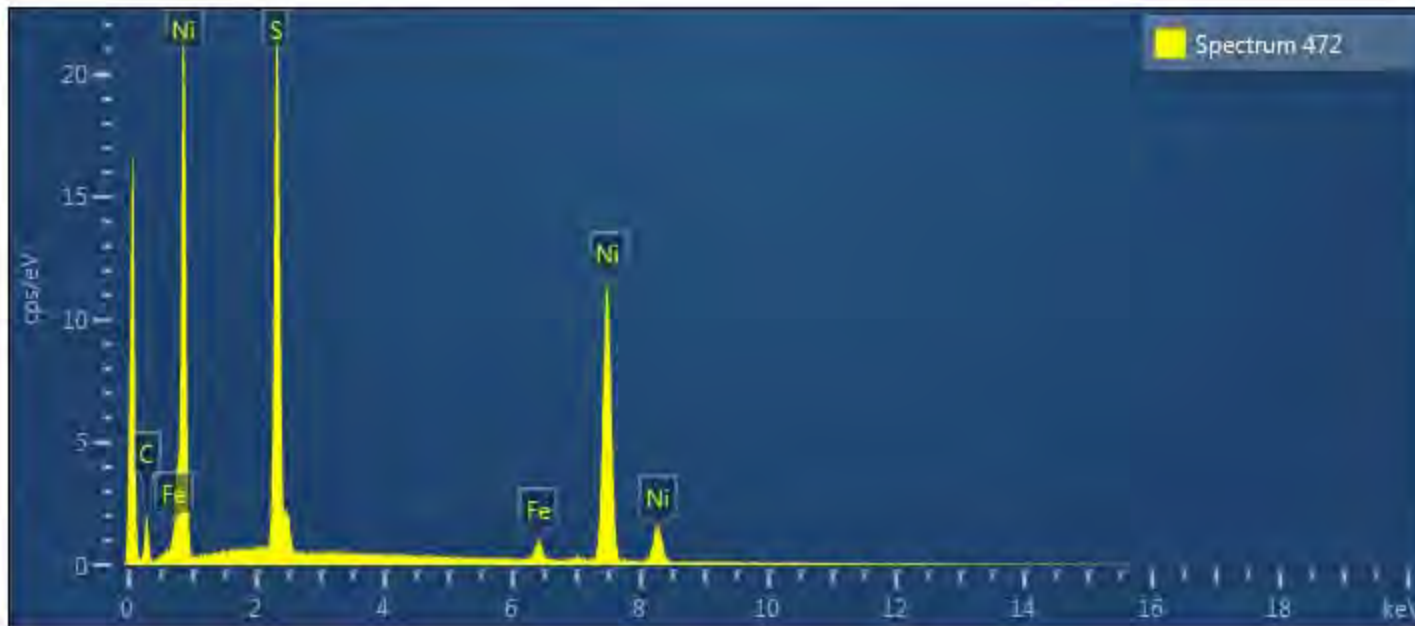




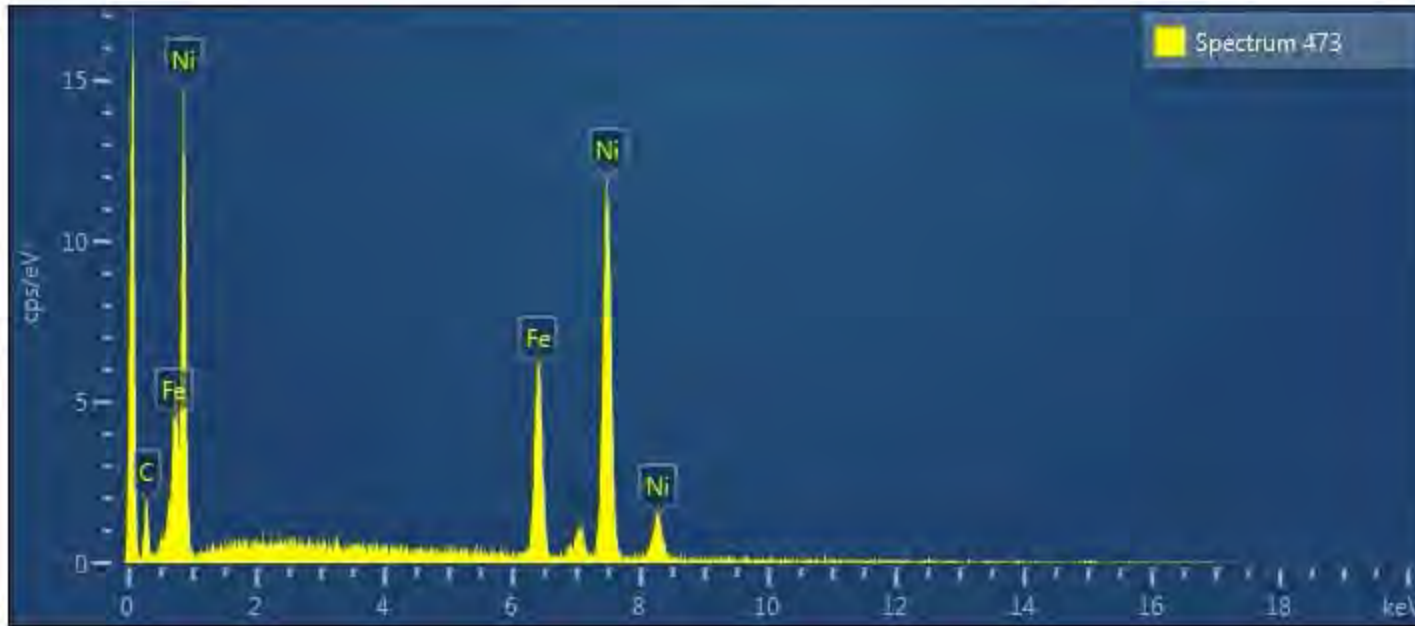
| Spectrum 469 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 29.50 | 0.42 | 43.38 |
| Ni | K series | 70.50 | 0.42 | 56.62 |
| Total | | 100.00 | | 100.00 |



| Spectrum 470 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 27.14 | 1.10 | 56.53 |
| Fe | K series | 72.86 | 1.10 | 43.47 |
| Total | | 100.00 | | 100.00 |



| Spectrum 472 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.27 | 0.29 | 40.66 |
| Fe | K series | 2.63 | 0.16 | 2.25 |
| Ni | K series | 70.10 | 0.32 | 57.09 |
| Total | | 100.00 | | 100.00 |

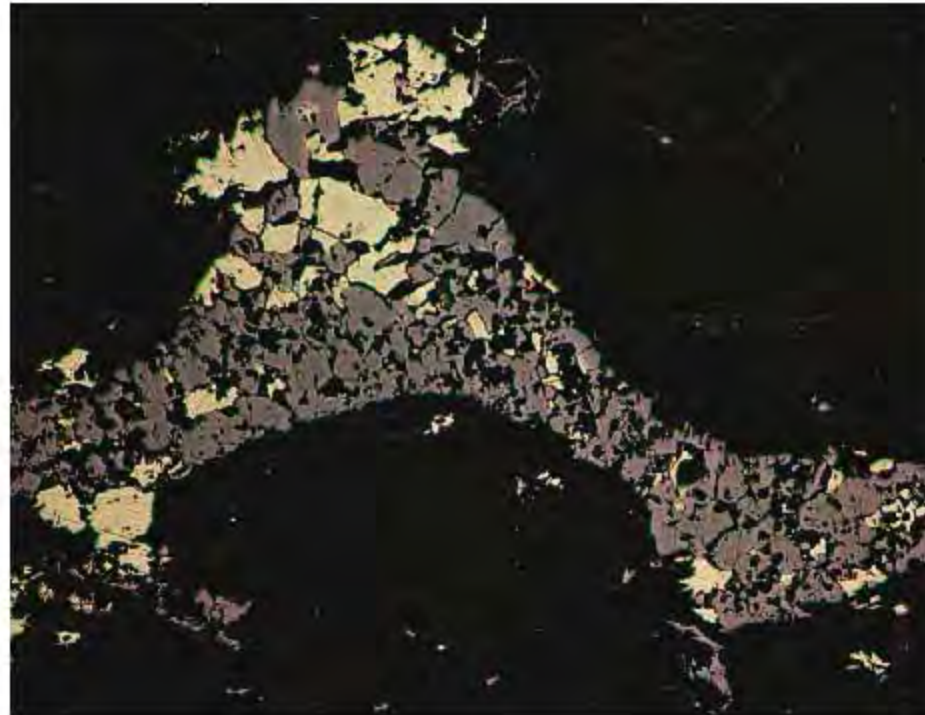
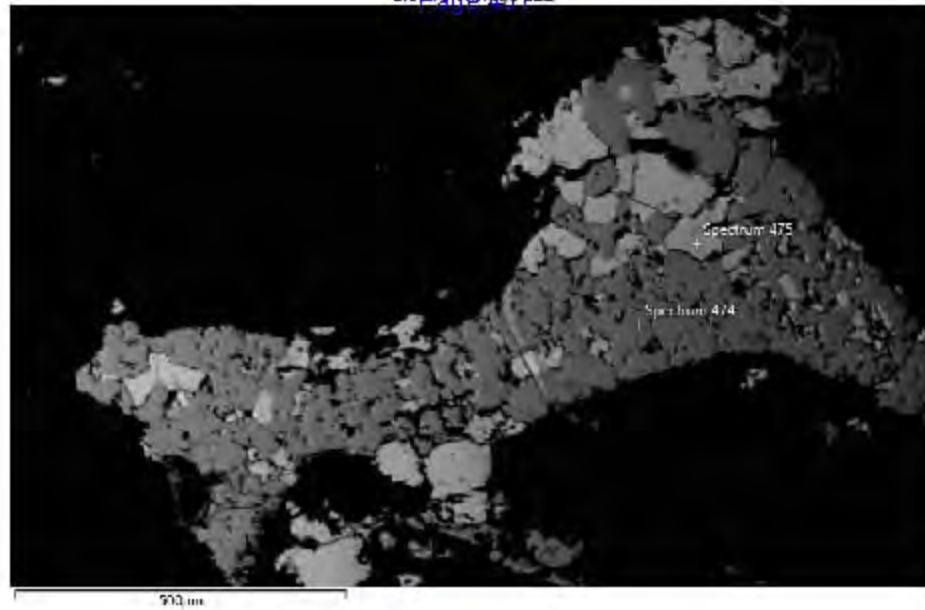


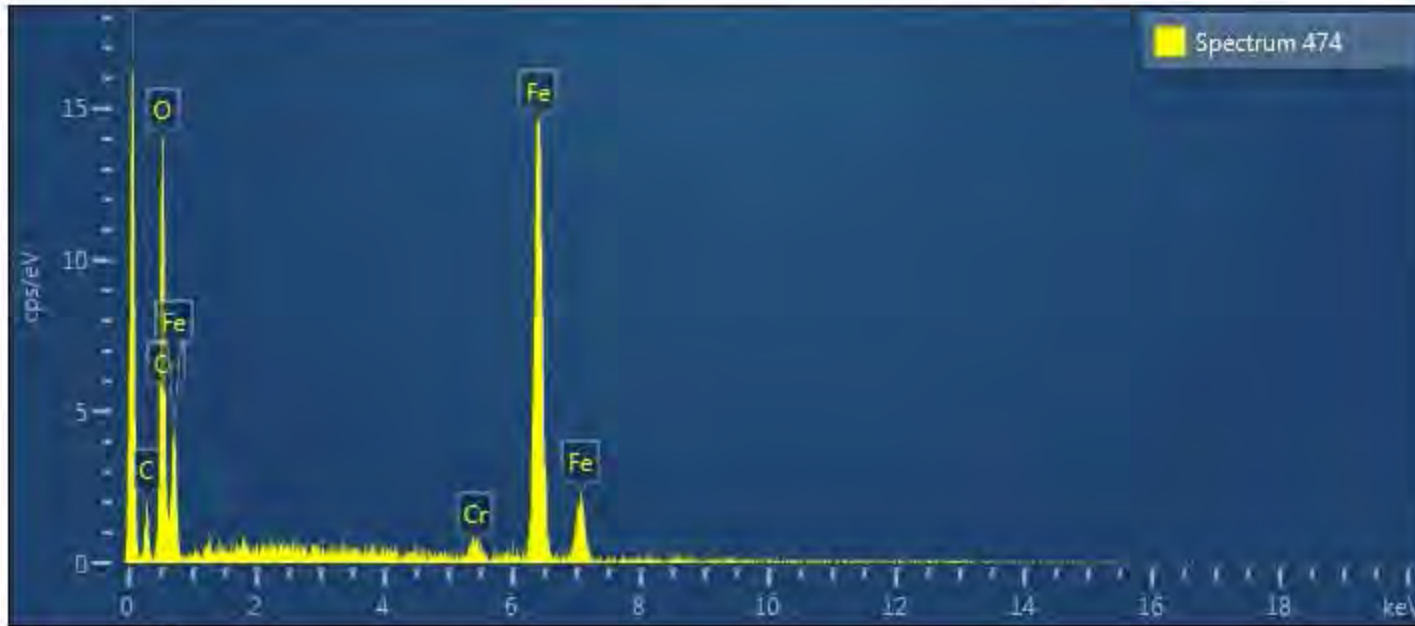
| Spectrum 473 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| Fe | K series | 23.48 | 0.62 | 24.39 |
| Ni | K series | 76.52 | 0.62 | 75.61 |
| Total | | 100.00 | | 100.00 |

Specimen Notes for '563' - Sulphide Mineral Inventory – Co-pentlandite, Heazlewoodite

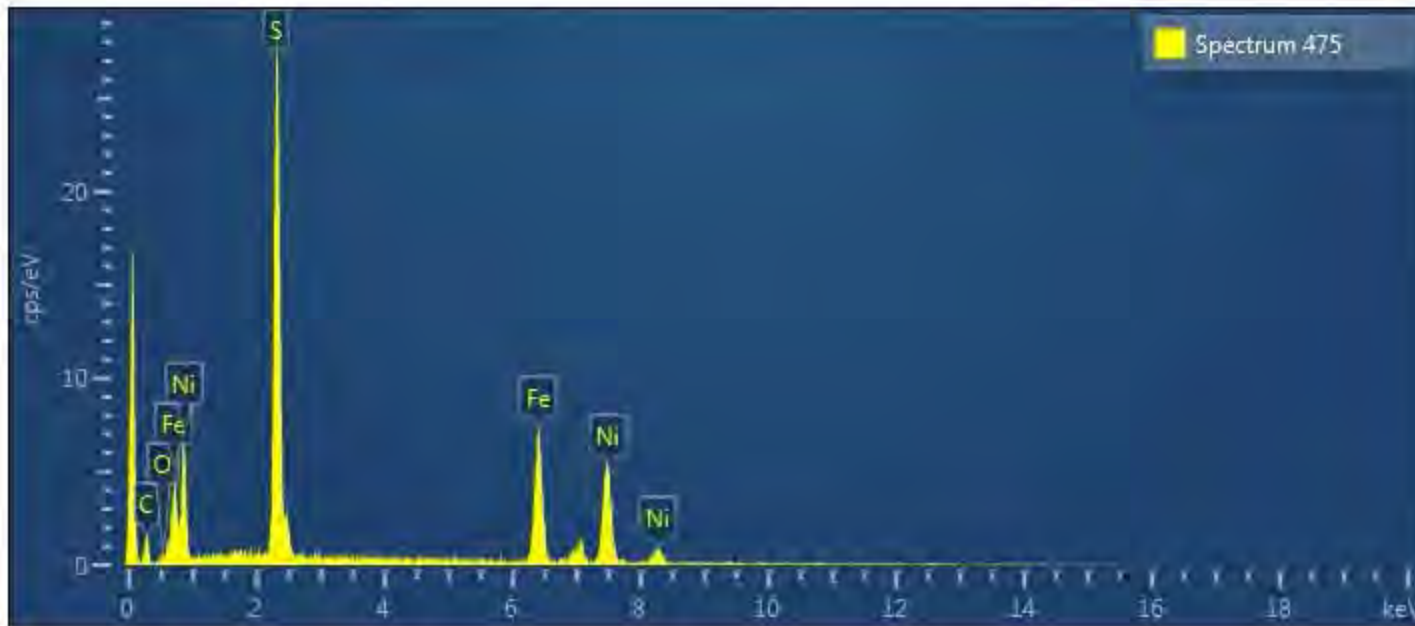
SITE 1 AND SITE 2 CIRCLE 3 is magnetite-Co-pentlandite with what appears to be an exsolution phase of heazlewoodite

SITE 4 CIRCLE 5 appears to be magnetite and Co-pentlandite with an exsolved phase of heazlewoodite



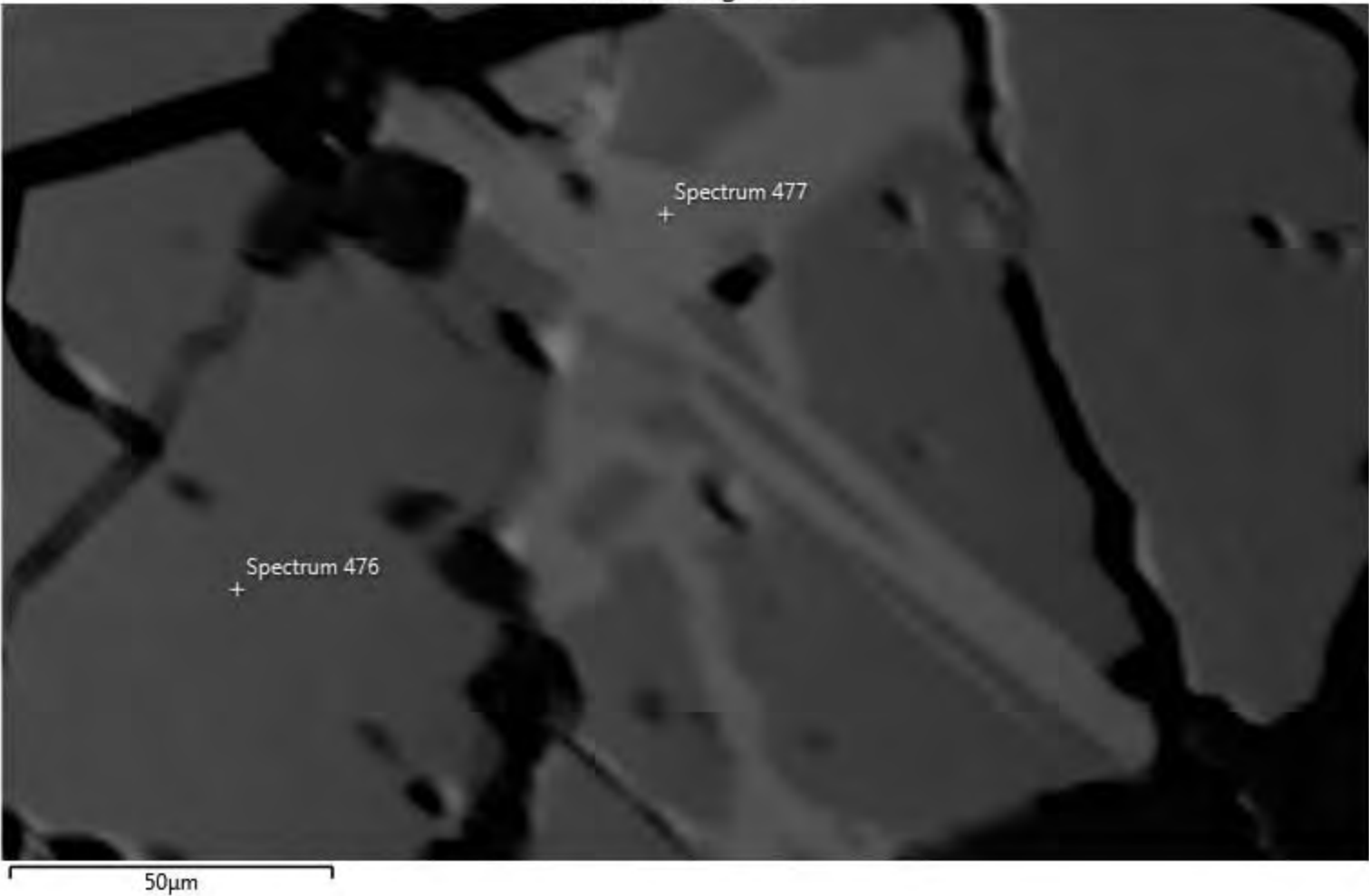


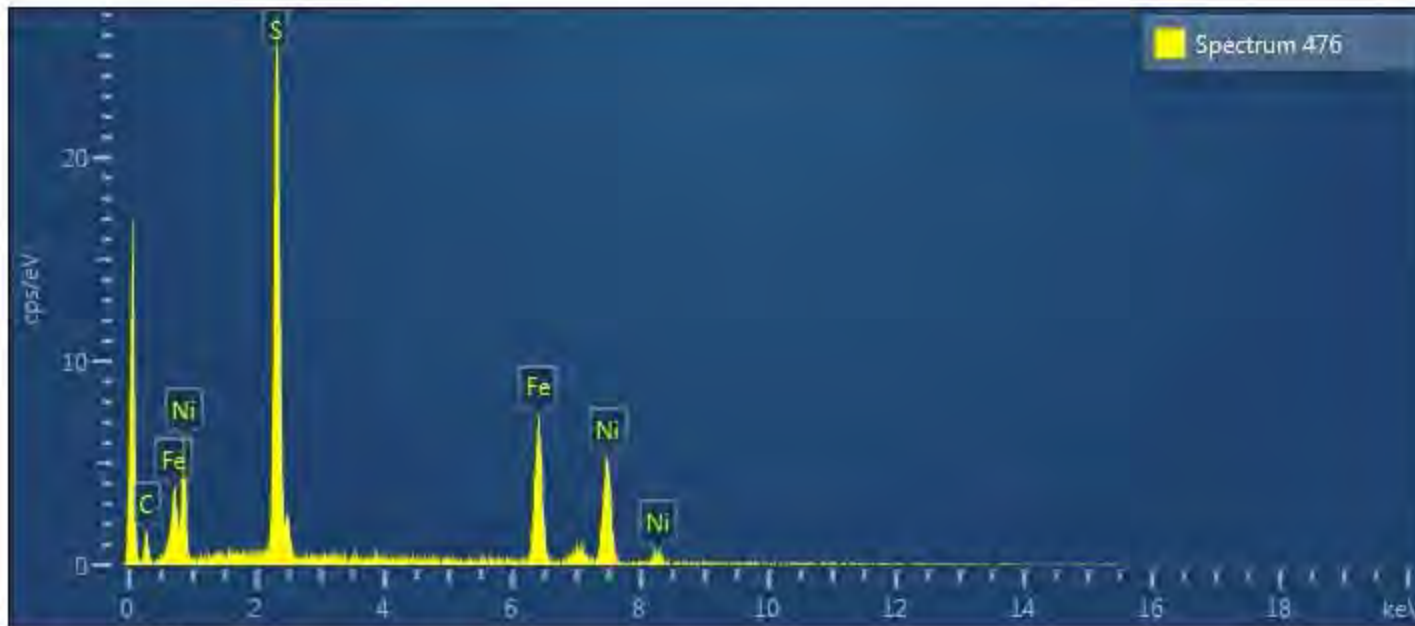
| Spectrum 474 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 29.49 | 1.07 | 59.31 |
| Cr | K series | 1.46 | 0.31 | 0.90 |
| Fe | K series | 69.04 | 1.08 | 39.78 |
| Total | | 100.00 | | 100.00 |



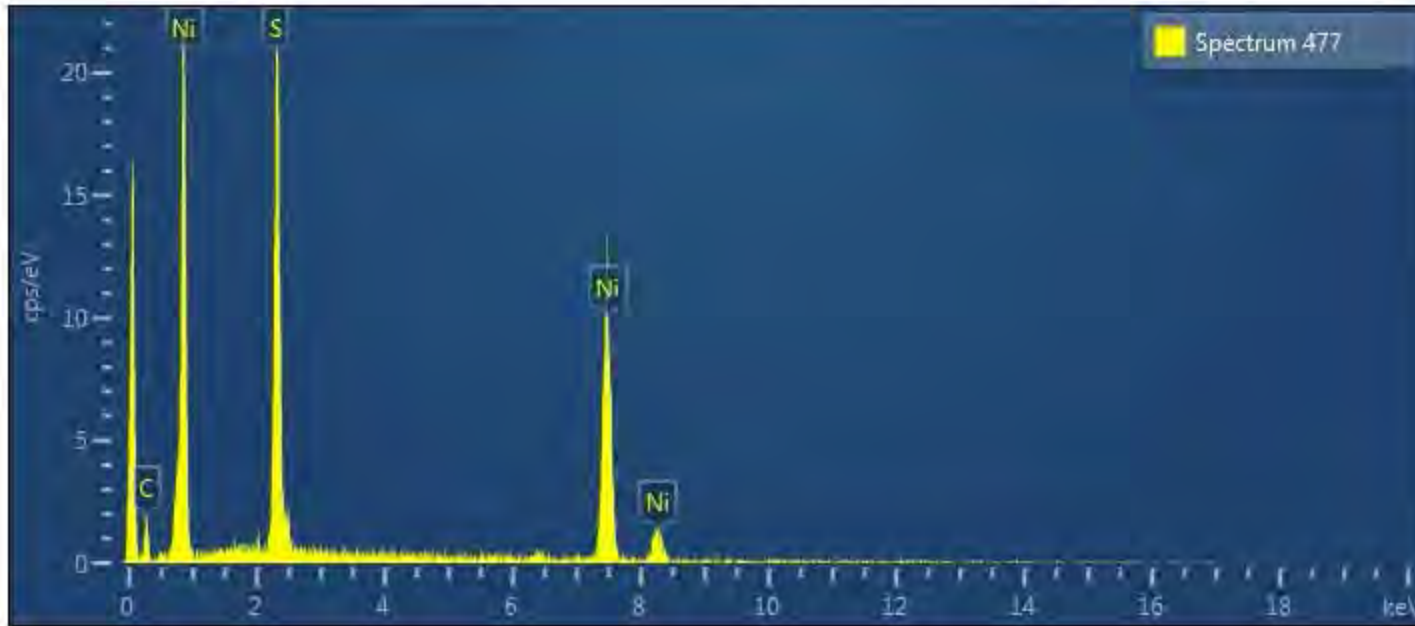
| Spectrum 475 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.71 | 0.68 | 45.47 |
| Fe | K series | 28.59 | 0.74 | 22.14 |
| Ni | K series | 35.36 | 0.87 | 26.05 |
| O | K series | 2.34 | 0.57 | 6.33 |
| Total | | 100.00 | | 100.00 |

Electron Image 112



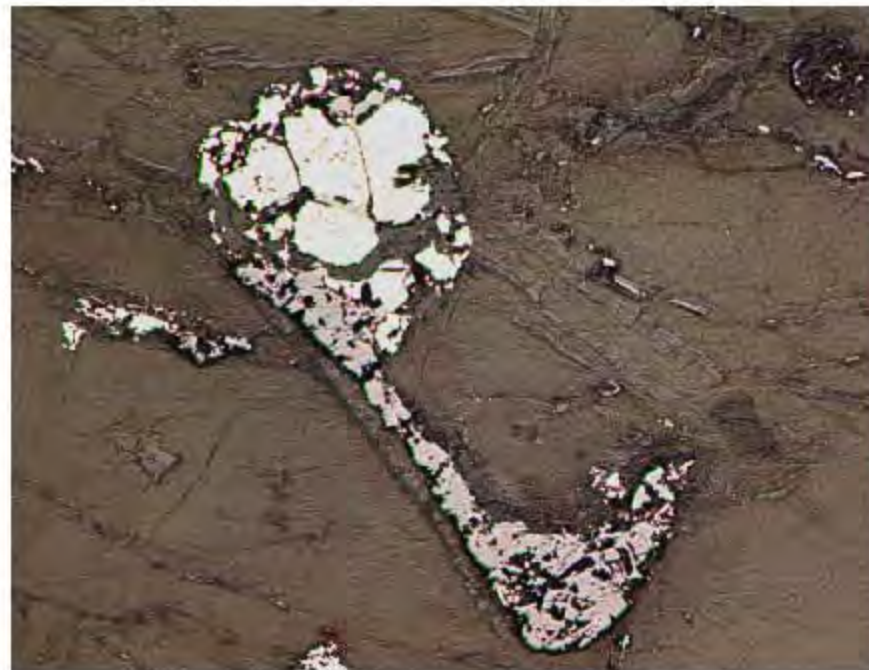
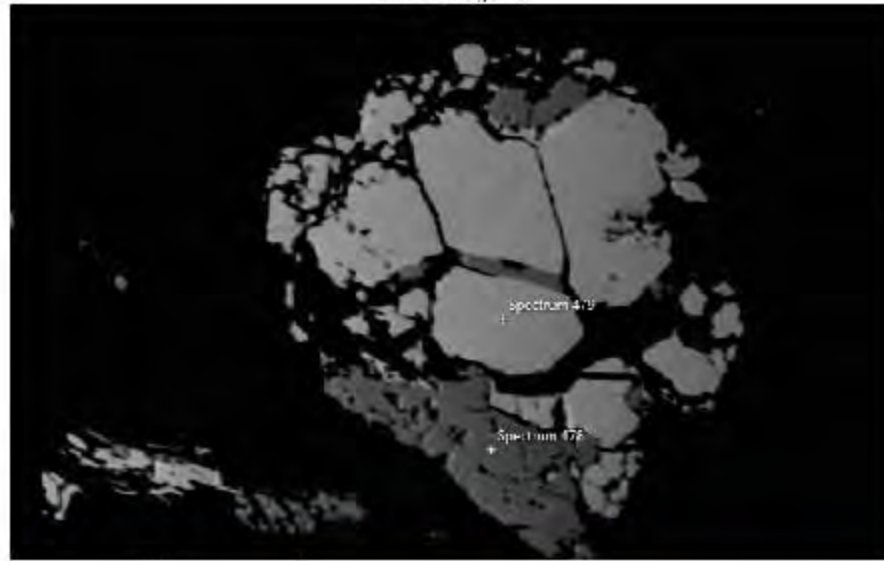


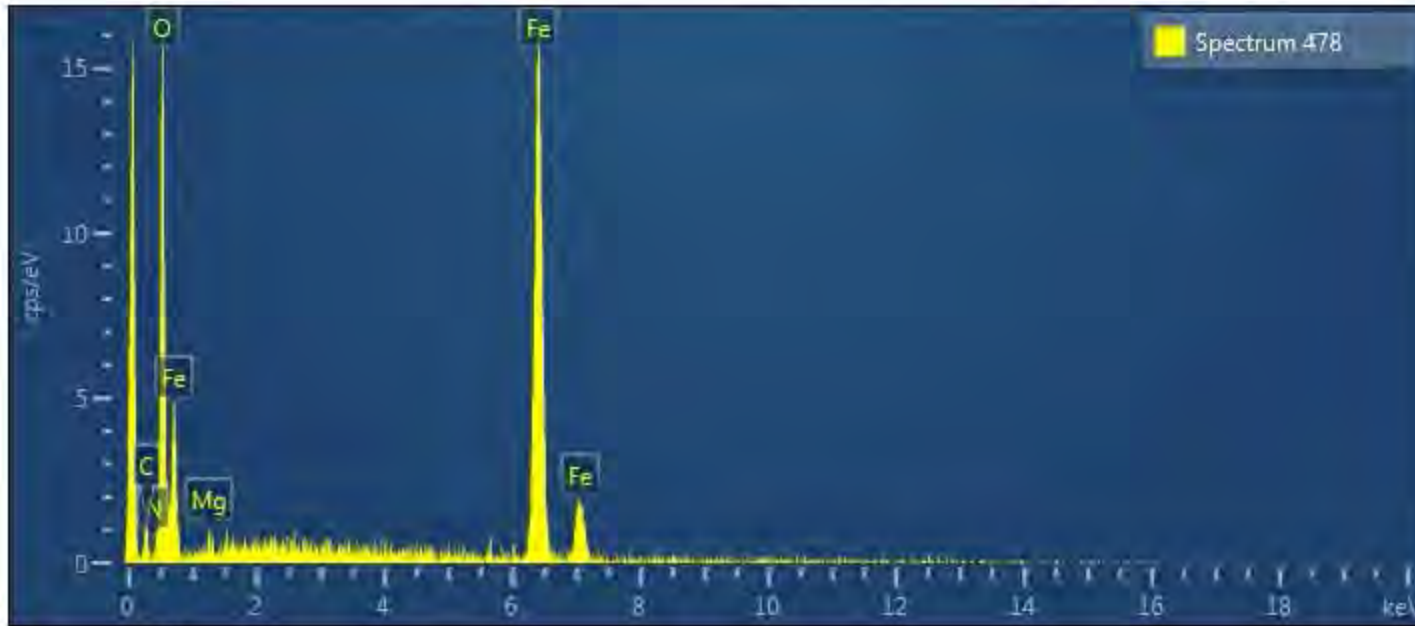
| Spectrum 476 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.42 | 0.80 | 48.43 |
| Fe | K series | 29.70 | 0.88 | 23.99 |
| Ni | K series | 35.88 | 1.01 | 27.58 |
| Total | | 100.00 | | 100.00 |



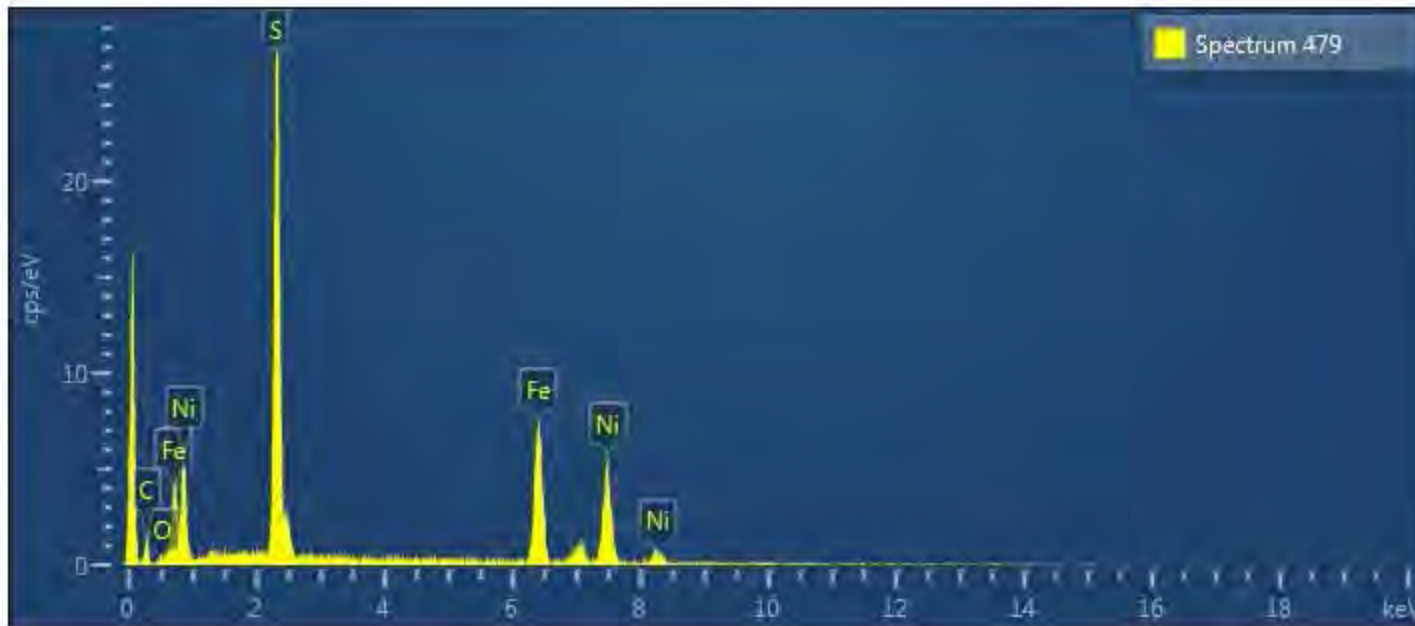
| Spectrum 477 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.94 | 0.74 | 41.52 |
| Ni | K series | 72.06 | 0.74 | 58.48 |
| Total | | 100.00 | | 100.00 |

Electron Image 113



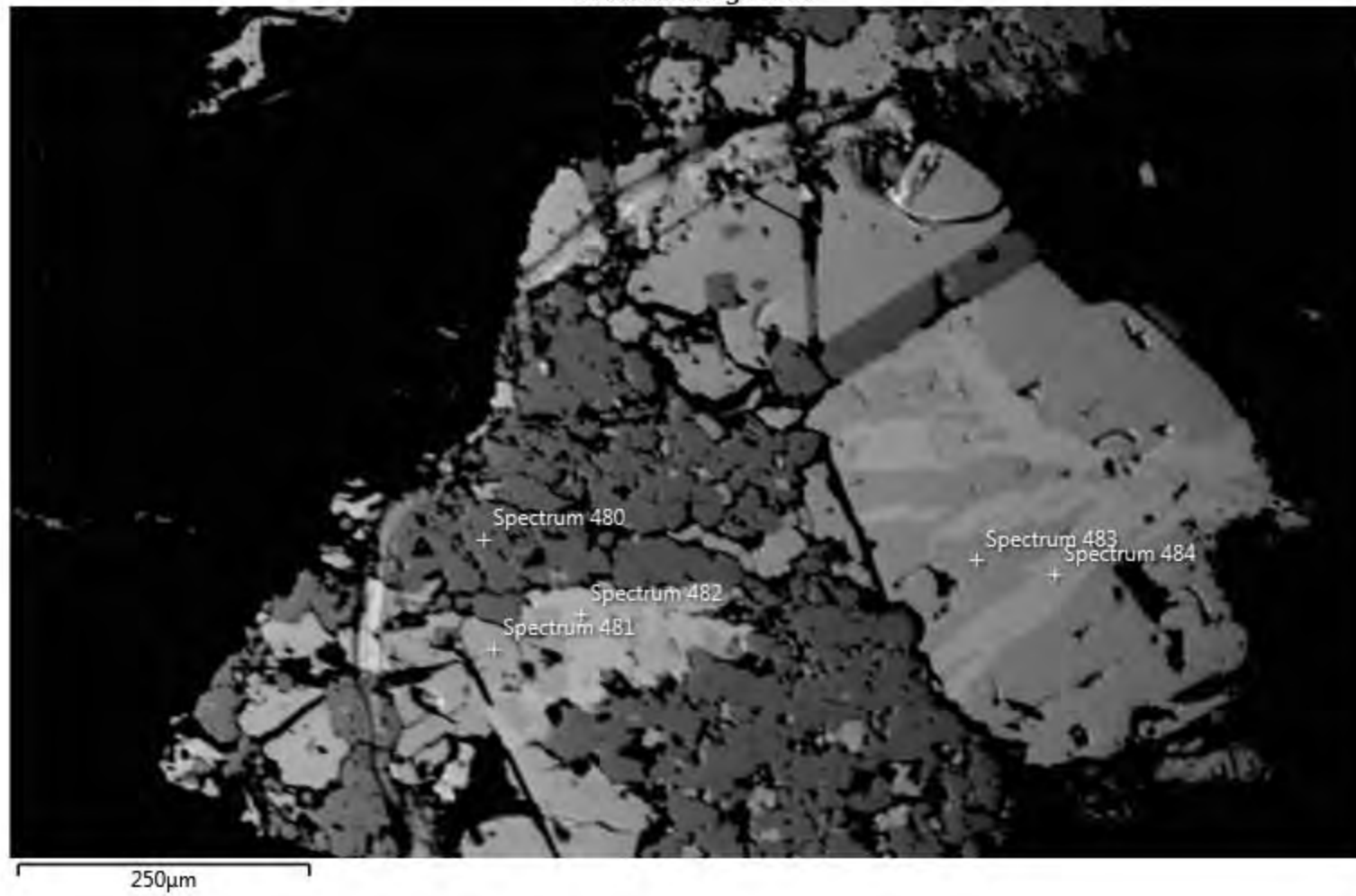


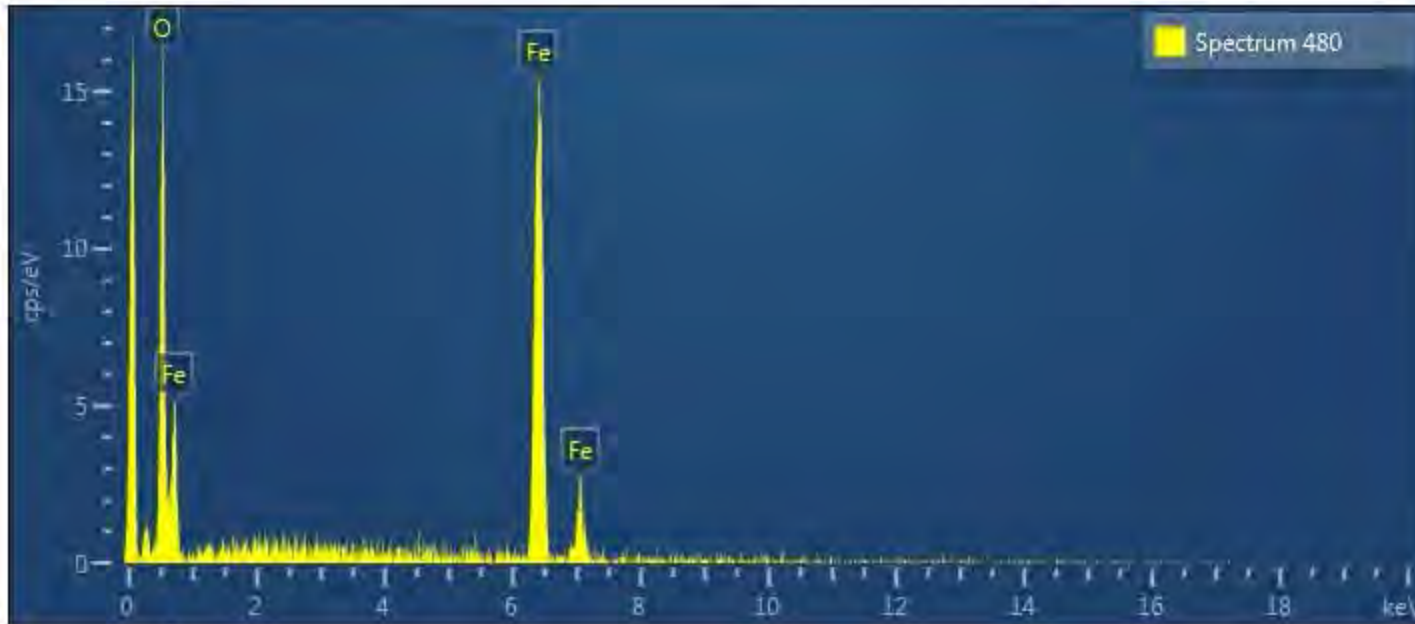
| Spectrum 478 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| N | K series | 7.45 | 1.11 | 14.37 |
| O | K series | 33.39 | 1.13 | 56.40 |
| Fe | K series | 58.21 | 1.26 | 28.17 |
| Mg | K series | 0.96 | 0.30 | 1.07 |
| Total | | 100.00 | | 100.00 |



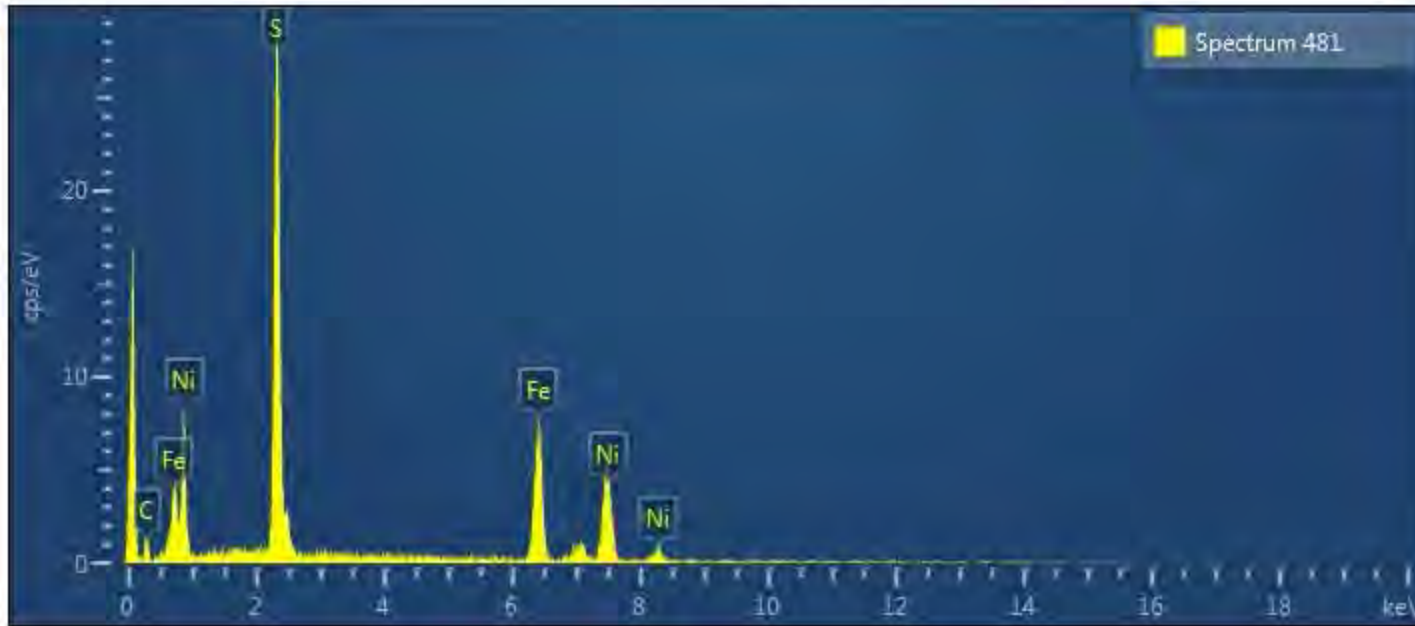
| Spectrum 479 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.68 | 0.72 | 45.43 |
| Fe | K series | 30.73 | 0.81 | 23.80 |
| Ni | K series | 33.29 | 0.93 | 24.53 |
| O | K series | 2.31 | 0.63 | 6.24 |
| Total | | 100.00 | | 100.00 |

Electron Image 114

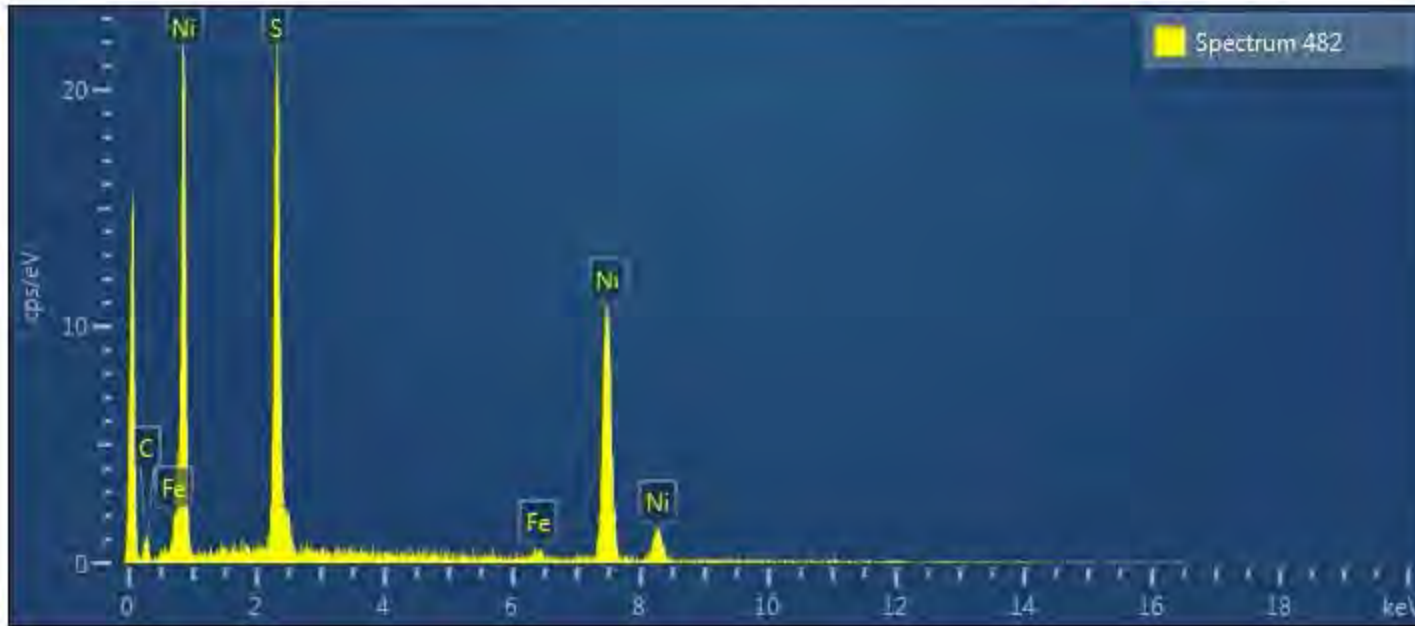




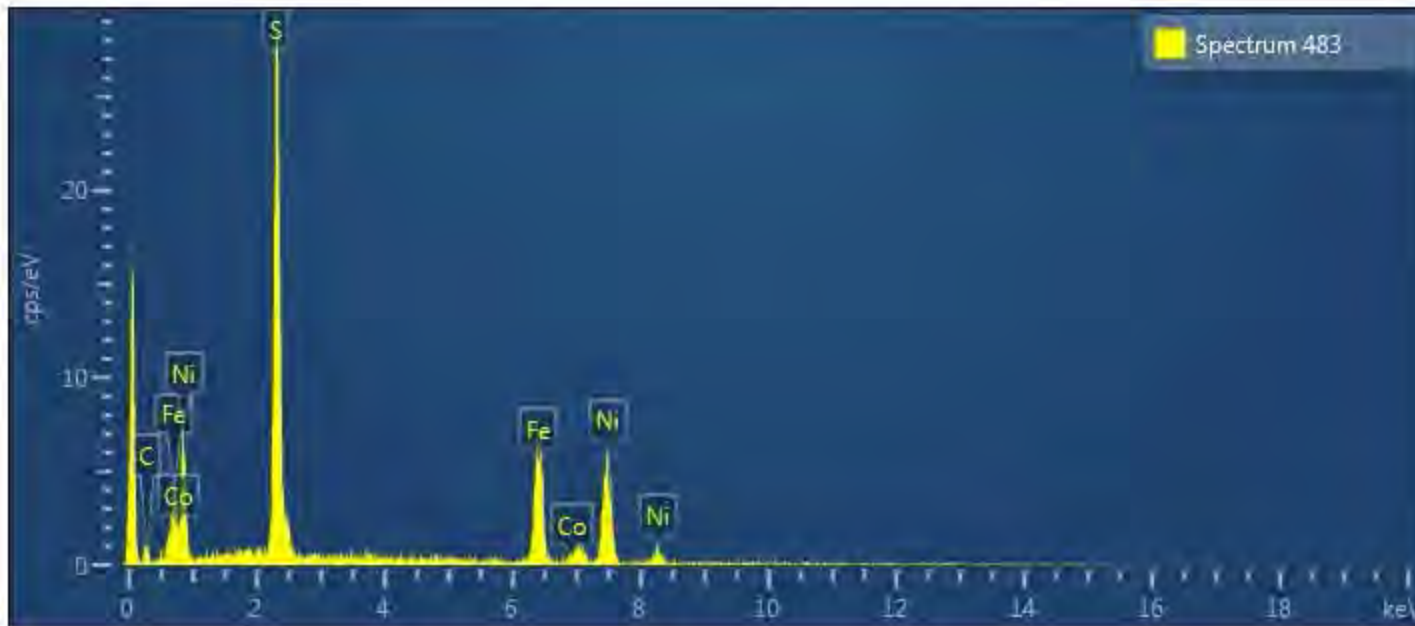
| Spectrum 480 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 30.40 | 1.28 | 60.39 |
| Fe | K series | 69.60 | 1.28 | 39.61 |
| Total | | 100.00 | | 100.00 |



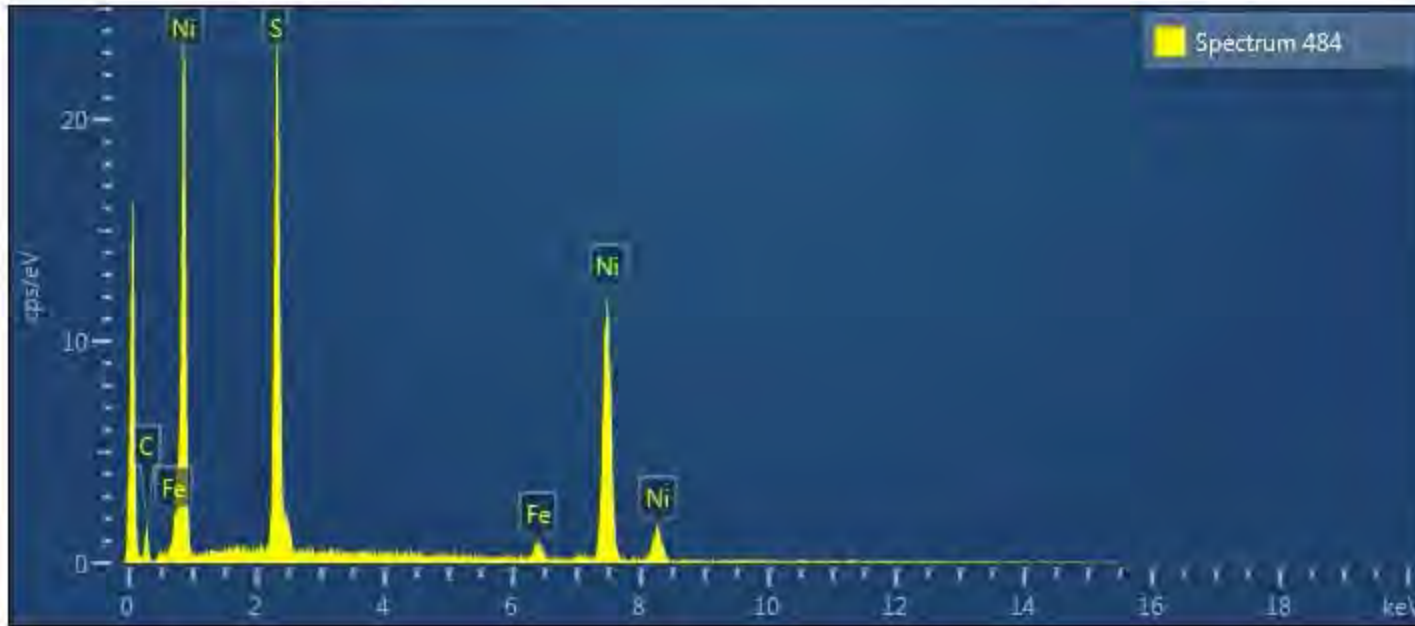
| Spectrum 481 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.25 | 0.78 | 49.32 |
| Fe | K series | 30.39 | 0.86 | 24.42 |
| Ni | K series | 34.36 | 0.99 | 26.26 |
| Total | | 100.00 | | 100.00 |



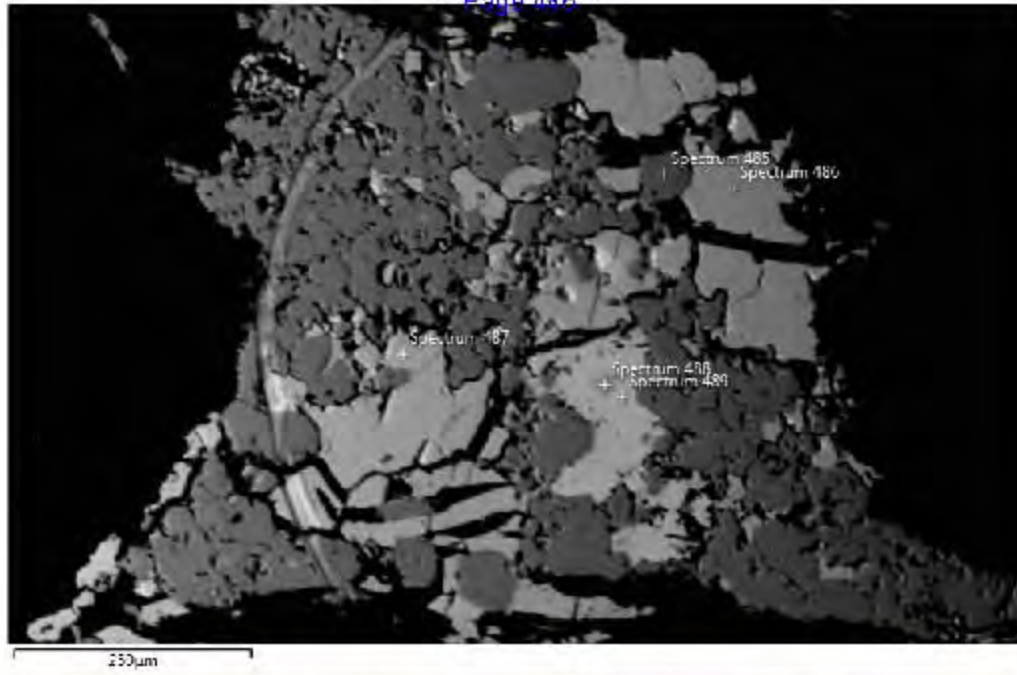
| Spectrum 482 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.53 | 0.72 | 41.00 |
| Ni | K series | 71.30 | 0.77 | 58.00 |
| Fe | K series | 1.17 | 0.34 | 1.00 |
| Total | | 100.00 | | 100.00 |

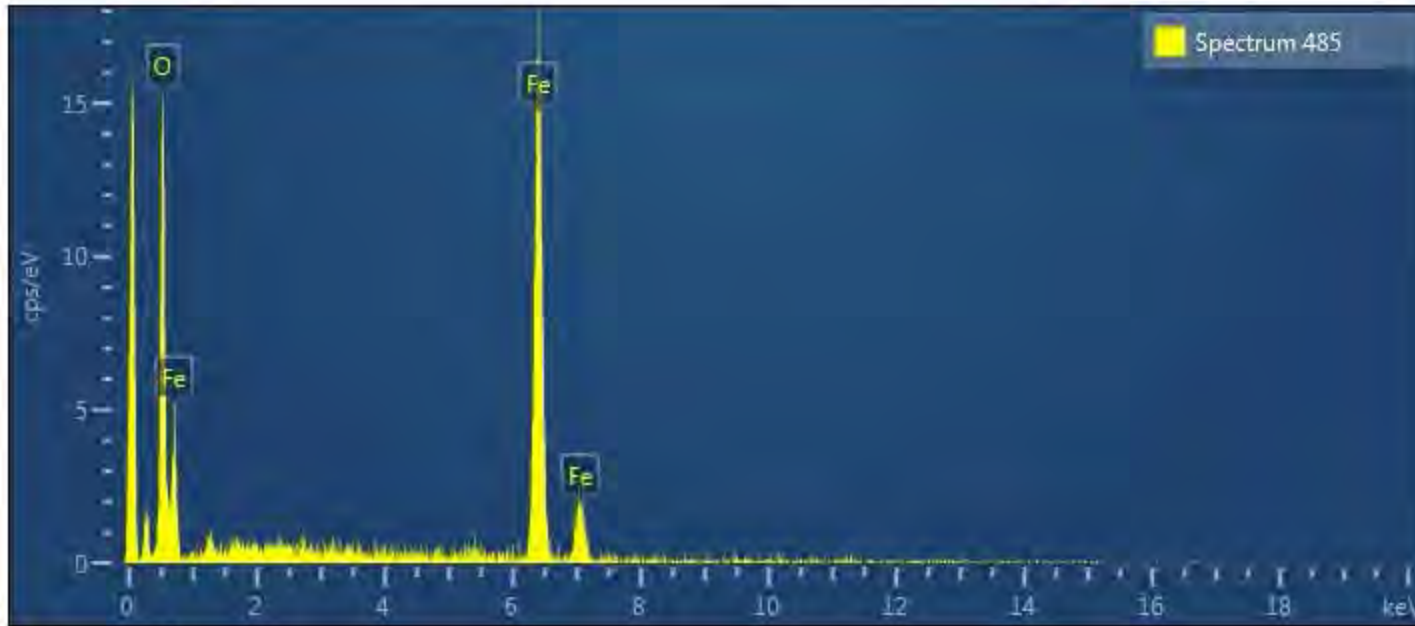


| Spectrum 483 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 33.47 | 0.82 | 47.41 |
| Fe | K series | 28.42 | 0.91 | 23.11 |
| Ni | K series | 35.49 | 1.05 | 27.45 |
| Co | K series | 2.62 | 0.64 | 2.02 |
| Total | | 100.00 | | 100.00 |

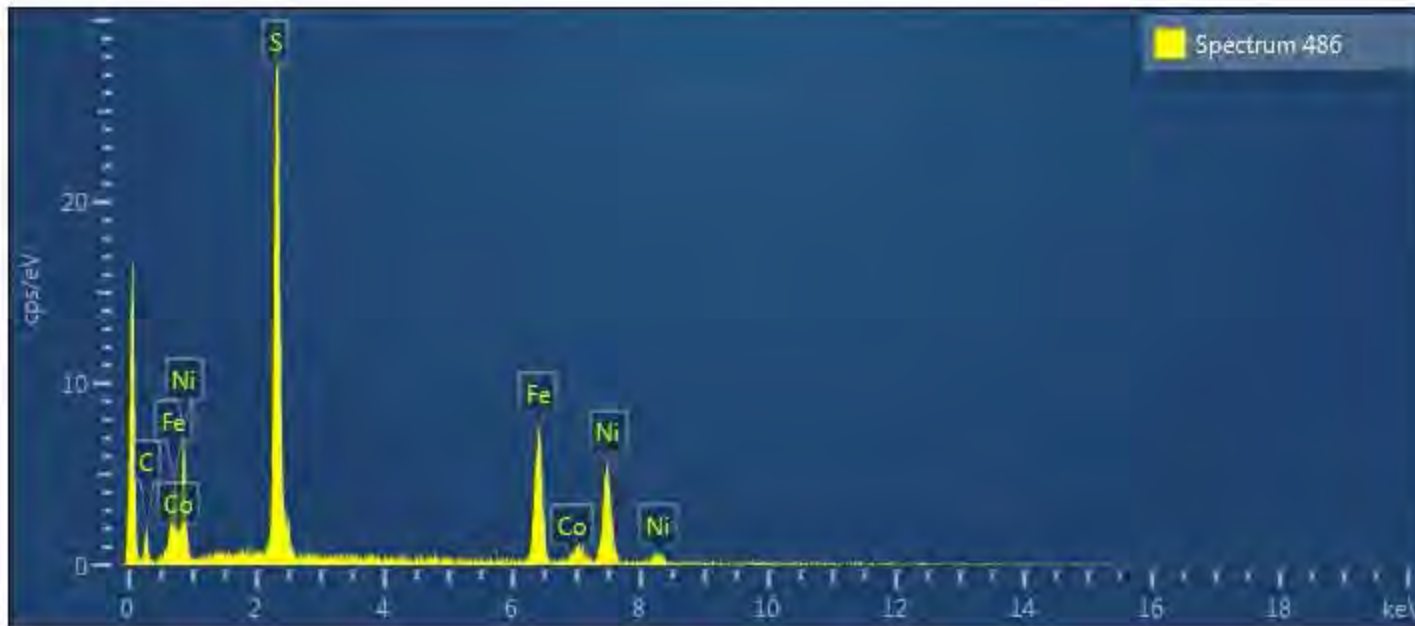


| Spectrum 484 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.55 | 0.51 | 41.00 |
| Fe | K series | 2.57 | 0.28 | 2.20 |
| Ni | K series | 69.88 | 0.56 | 56.80 |
| Total | | 100.00 | | 100.00 |

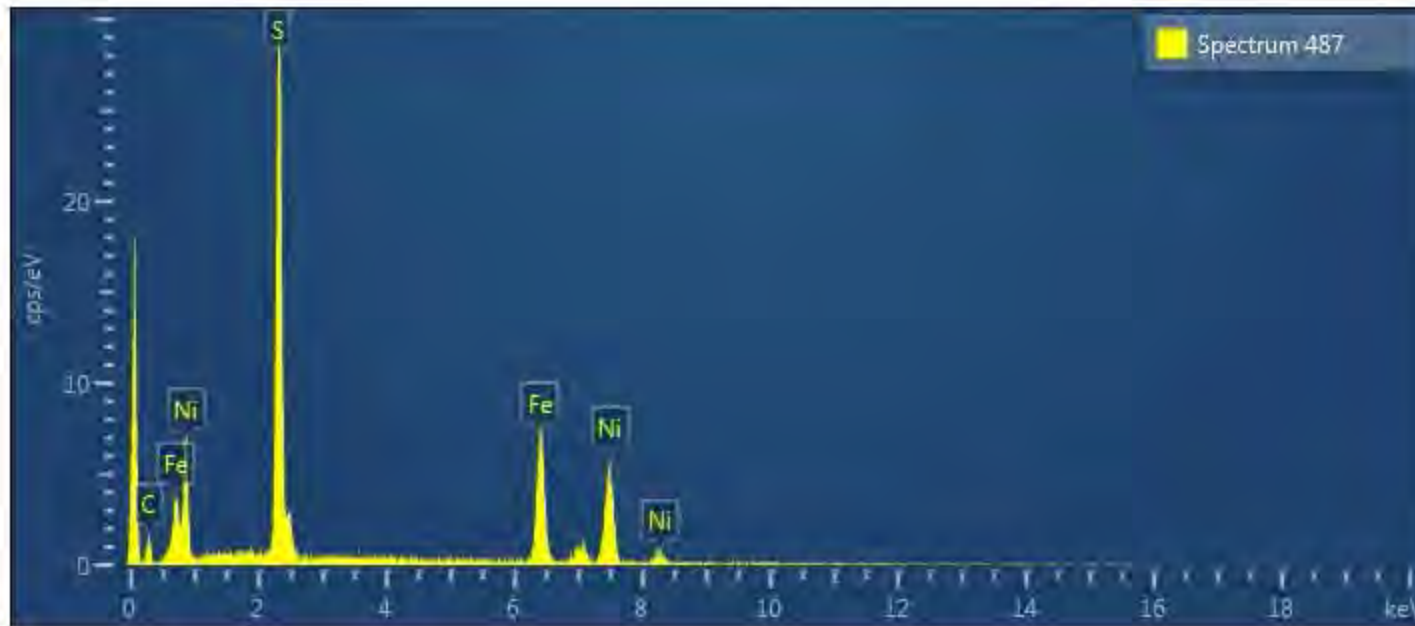




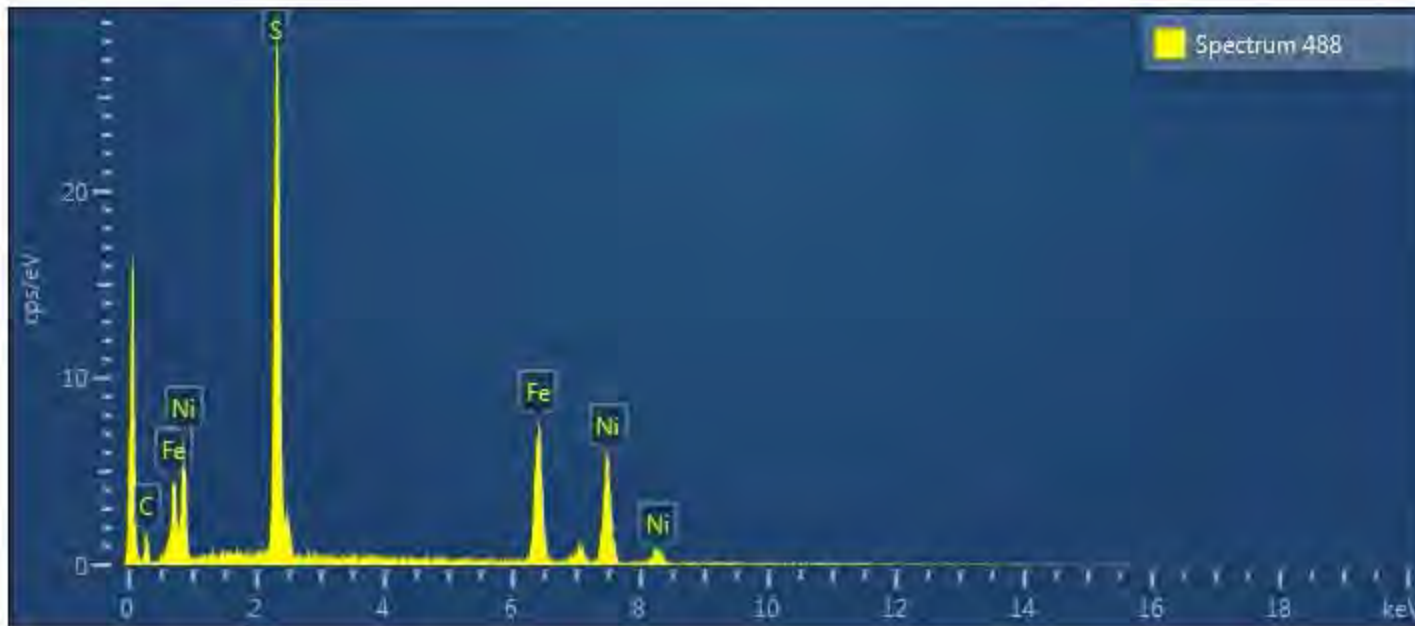
| Spectrum 485 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| O | K series | 28.47 | 1.04 | 58.15 |
| Fe | K series | 71.53 | 1.04 | 41.85 |
| Total | | 100.00 | | 100.00 |



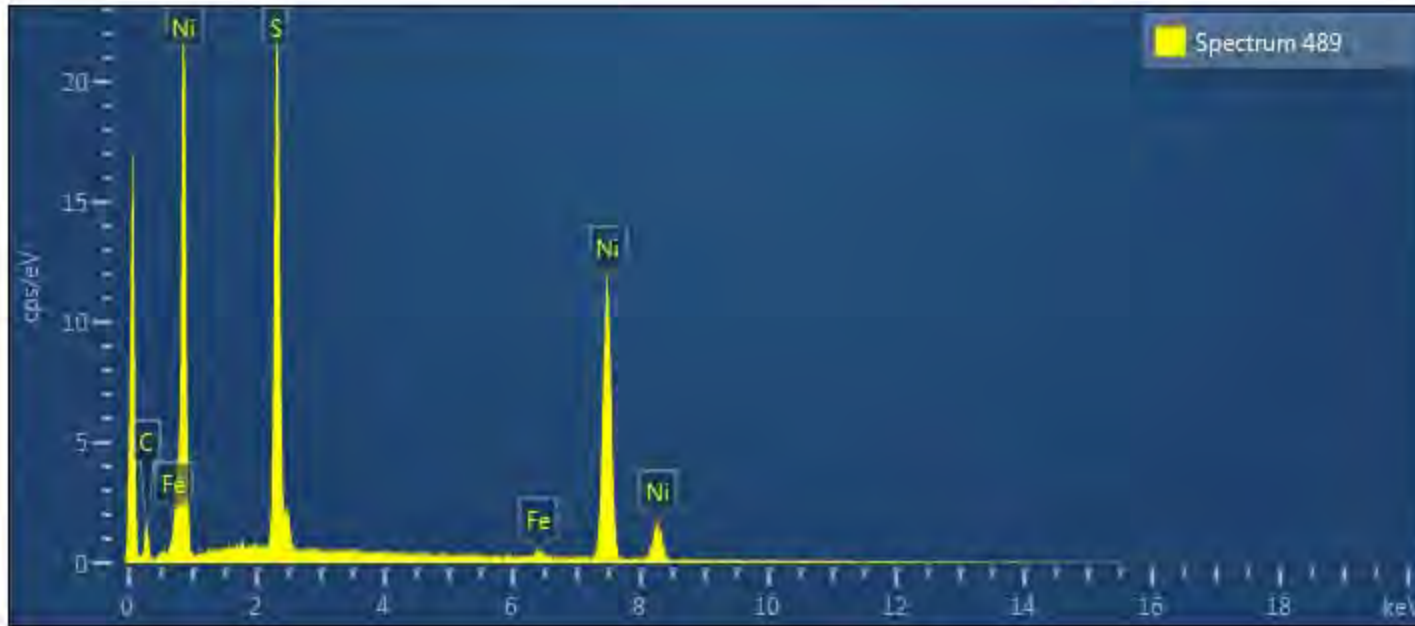
| Spectrum 486 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.35 | 0.84 | 48.35 |
| Fe | K series | 30.59 | 0.93 | 24.72 |
| Ni | K series | 32.91 | 1.07 | 25.29 |
| Co | K series | 2.14 | 0.65 | 1.64 |
| Total | | 100.00 | | 100.00 |



| Spectrum 487 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 35.74 | 0.77 | 49.86 |
| Fe | K series | 29.78 | 0.84 | 23.86 |
| Ni | K series | 34.48 | 0.97 | 26.28 |
| Total | | 100.00 | | 100.00 |



| Spectrum 488 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 34.36 | 0.68 | 48.39 |
| Fe | K series | 28.59 | 0.74 | 23.11 |
| Ni | K series | 37.05 | 0.86 | 28.49 |
| Total | | 100.00 | | 100.00 |



| Spectrum 489 | | | | |
|--------------|-----------|----------|----------------|----------|
| Element | Line Type | Weight % | Weight % Sigma | Atomic % |
| S | K series | 27.44 | 0.38 | 40.90 |
| Ni | K series | 71.64 | 0.40 | 58.31 |
| Fe | K series | 0.92 | 0.18 | 0.79 |
| Total | | 100.00 | | 100.00 |