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**Ministry of Energy, Mines & Petroleum Resources**
Mining & Minerals Division
BC Geological Survey

**Assessment Report**
**Title Page and Summary**

**TYPE OF REPORT [type of survey(s)]:** Geological & Geochemical

**TOTAL COST:** 19,868

**AUTHOR(S):** Roy E. Greig, Jeffrey D. Rowe

**SIGNATURE(S):**

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):**

**YEAR OF WORK:** 2016

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** 5640142/ March 2, 2017

**PROPERTY NAME:** Nik

**CLAIM NAME(S) (on which the work was done):** Tenure 1042539

**COMMODITIES SOUGHT:** Cu, Mo, Au

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 094D 162

**MINING DIVISION:** Omineca

**NTS/BCGS:** 094D/09E

**LATITUDE:** 56 ° 38 ' 30 " **LONGITUDE:** 126 ° 05 ' 43 " **(at centre of work)**

**OWNER(S):**

1) A. Walcott

2) T. Kocan

**MAILING ADDRESS:**

111-17 Fawcett Road
Coquitlam, BC V3K 6V2

**OPERATOR(S) [who paid for the work]:**

1) A. Walcott

2) T. Kocan

**MAILING ADDRESS:**

111-17 Fawcett Road
Coquitlam, BC V3K 6V2

**PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):**

The Nik property is an early-stage porphyry copper prospect located in north-central British Columbia, within the Quesnel Trough, which is the locale for several major deposits in the region, and it is underlain by similar lithologic units that host the world class copper-gold porphyry deposits at Mt. Milligan (210 kilometres to the southeast) and at Kemess (60 kilometres to the northwest).

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:** AR 07249, 24408, 29768, 31136, 34392

Next Page

| TYPE OF WORK IN THIS REPORT | EXTENT OF WORK (IN METRIC UNITS) | ON WHICH CLAIMS | PROJECT COSTS APPORTIONED (incl. support) |
|---|---|---|---|
| **GEOLOGICAL (scale, area)** | | | |
| Ground, mapping | Recon mapping, eval, rock sampling | 1042593 | 9,868 |
| Photo interpretation | | | |
| **GEOPHYSICAL (line-kilometres)** | | | |
| Ground | | | |
| Magnetic | | | |
| Electromagnetic | | | |
| Induced Polarization | | | |
| Radiometric | | | |
| Seismic | | | |
| Other | | | |
| Airborne | | | |
| **GEOCHEMICAL (number of samples analysed for...)** | | | |
| Soil | 44 multi-elem XRF | 1042593 | 10,000 |
| Silt | | | |
| Rock | | | |
| Other | | | |
| **DRILLING (total metres; number of holes, size)** | | | |
| Core | | | |
| Non-core | | | |
| **RELATED TECHNICAL** | | | |
| Sampling/assaying | | | |
| Petrographic | | | |
| Mineralographic | | | |
| Metallurgic | | | |
| **PROSPECTING (scale, area)** | | | |
| **PREPARATORY / PHYSICAL** | | | |
| Line/grid (kilometres) | | | |
| Topographic/Photogrammetric (scale, area) | | | |
| Legal surveys (scale, area) | | | |
| Road, local access (kilometres)/trail | | | |
| Trench (metres) | | | |
| Underground dev. (metres) | | | |
| Other | | | |
| | | **TOTAL COST:** | 19,868 |

# 2016 Geological and Soil Geochemical Program on the Nik Property

Tenure No. 1042539

Omineca Mining Division

Wrede Creek Area, Northern British Columbia

(NTS 94D/09)

Latitude 56° 38' 30" N, Longitude 126° 05' 43" W

Prepared for

Alex Walcott &
Thomas Kocan
(Owners)

by

R.E. Greig, B.Sc. &
J.D. Rowe, B.Sc., P.Geo.

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September 30, 2017

## Table of Contents



## List of Figures and Tables

## List of Appendices

## 1.0 Summary and Recommendations

The Nik property consists of a single claim that hosts a swarm of Cu (-Au) mineralized pegmatitic veins (the Redgold occurrence) and includes adjacent, overburden-covered areas with coincident soil geochemical and IP chargeability anomalies, which were discovered by previous exploration programs. The exploration target is a higher-grade extension of the vein swarm or other associated porphyry-style mineralization. The economic potential of this style of mineralization in the area is demonstrated by the Kemess Mine and the cluster of porphyry Cu-Au deposits that it was developed to exploit.

The current soil sampling and geological program was undertaken to better characterize the Redgold occurrence and help guide the direction of future exploration programs. Previous exploration has been conducted in the area, but has focussed primarily on the Nik occurrence proper, located northwest of the current property. No drilling has been reported on the Redgold showing, nor the overburden-covered anomaly described above, while strongly anomalous Cu values have been intersected in the few, short (<200 m) drill holes reported at the adjacent Nik occurrence. The disseminated mineralization at Nik and the unusual pegmatitic mineralization at Redgold represent parts of a porphyry system, and the intervening coincident geochemical and geophysical anomaly suggests that further parts are yet to be discovered. Viable targets may consist of disseminated, breccia pipe, or pegmatitic copper mineralization.

Future work should consist of expanded and higher-resolution geophysical (specifically IP) and geochemical (soil) surveys in covered areas northwest and southwest of the Redgold occurrence. Pending results of those surveys, drilling may be warranted in those areas, and also down-dip of the Redgold vein swarm.

## 2.0 Introduction

The Nik claim was staked to cover an area of coincident geophysical and soil geochemical anomalies and an adjacent occurrence of Cu-mineralized pegmatitic veins (the Redgold occurrence). These were discovered and outlined during previous exploration programs (summarized in section 7 below) that endeavoured to delineate porphyry-style Cu mineralization. The economic potential of porphyry-style deposits in the area is demonstrated by the Kemess mine, located 58 km to the northwest, which produced 3.0 million ounces of gold and 750 million pounds of copper from 218 Mt of ore in the Kemess South deposit, and which may reopen in the form of an underground, block-cave operation exploiting the satellite deposits in Kemess North (Measured and Indicated Resources of 246.4 Mt at 0.22 % Cu and

0.42 g/t Au) and Kemess East (Indicated Resource of 113.1 Mt at 0.38 % Cu and 0.46 g/t Au) (Aurico Metals website, 2017).

The 2016 program at Nik consisted of contour soil sampling and geological observations which were intended to better characterize the Redgold occurrence and to guide the direction of future exploration programs.

Maps and tables showing the results of the sampling program are included in this report. A Cost Statement summarizing costs incurred for the sampling, analyses and geological evaluation appears as Appendix III. A list of personnel who worked on the project appears as Appendix IV and the authors' Statements of Qualifications are attached in Appendix V.

## 3.0 Location, Access, Physiography, Climate and Vegetation

The Nik property, located 58 km southeast of the Kemess Mine and airstrip, and 240 km north-northwest of Mackenzie, BC, is seasonally road-accessible via a network of historical mineral exploration roads which connect it to the Omineca Mining Road (Figures 1 & 2). The historical road network intersects the Omineca Mining Road 2.5 km north of the snowmobile/fishing cabin at the north end of Johanson Lake, and the property is 7 km east of the road by air. The claim lies on NTS map sheet 94D/09, centered at 56° 38' 30" N, 126° 05' 43" W.

The historical exploration roads were not used during the current program, which was helicopter-supported. A tent camp was established on the shore of a small alpine lake east of the property at 56° 38' 18" N, 126° 03' 34" W for the purposes of the current program, though an historical exploration road located near the center of the current property may be a more efficient location for future work. Transportation to the camp was via Eurocopter A-Star helicopter operated by Silver King Helicopters.

The property lies on the north-northwest-facing margin and bottom of a wide, northeast-trending glacial valley, and thus the topography varies from, steep, un-vegetated rocky slopes with excellent bedrock exposure to the overburden-covered, brushy, grassland-wetland of the valley bottom. Elevations vary from 1400 to 2100m on the property. The exploration field season typically spans June through October, depending on snow cover.


**Figure 1: Location of the Nik Property.**

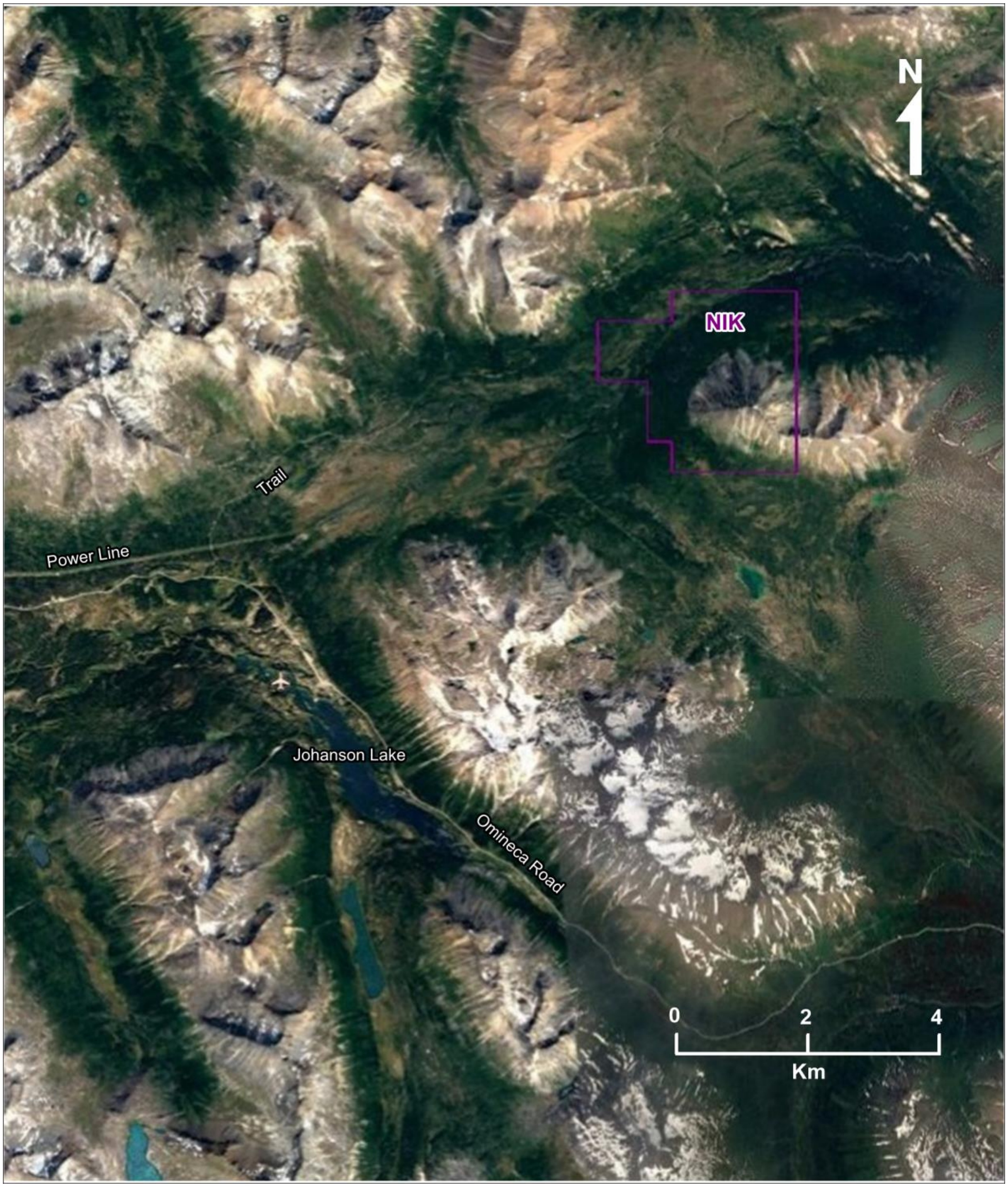


**Figure 2: Nik property location on satellite image with Omineca Mining Road, access trail, power line and Johanson Lake**

## 4.0 Claim Status

The Nik property consists of one MTO claim tenure (1042539) with an area of 676 hectares (see Figure 5 for claim location). The claim is held by Alex Walcott (80%) and Thomas Kocan (20%). The claim was staked March 3, 2016, and is currently good to February 8, 2021 based on assessment costs claimed for this program. The field work that constitutes part of the assessment costs was performed on August 21 and 22, 2016. The Cost Statement is included in Appendix III.

## 5.0 Regional & Property Geology

The regional and sub-regional scale geology of the area including the Nik property is described by Schiarizza & Tan (2005) and references included therein; figures from that publication are included below in modified form as Figures 3 and 4, showing the regional and sub-regional geologic context of the Nik property, which lies at the eastern edge of the Quesnel Terrane.

Porphyry-style mineralization in the Quesnel, and westerly-adjacent Stikine Terrane, is represented in the region by early-middle Jurassic, primarily mildly alkalic deposits such as at Kemess, Lorraine, and Mt. Milligan, although calc-alkalic deposits are also common in British Columbia falling within that timeframe (e.g., Nelson & Colpron, 2007).

Schiarizza & Tan (2005) show the Nik property to be underlain primarily by rocks of the Kliyul Creek subunit of the Upper Triassic Takla group, which is described as consisting primarily of volcanic sedimentary rocks and breccia, with local limestone and basalt. The Kliyul Creek subunit in the Johanson Lake area has been subdivided into 3 main units (Schiarizza, 2004). The most widespread package comprises a heterogeneous assemblage of volcanic sandstones, siltstones and breccias, with local mafic volcanic flows, referred to as the volcanic sandstone unit. A subunit of this package comprises similar rocks intercalated with locally abundant limestone and limestone breccia; these rocks are assigned to the sandstone-carbonate unit. The third unit, referred to as the volcanic breccia unit, is dominated by massive breccias containing pyroxene porphyry volcanic fragments.

The current mapping program (see section 10 below) documented texturally variable pyroxene-feldspar phyric flows and breccias throughout most of the property, which likely belong to the third unit of the Kliyul Creek subunit. The rocks of the breccia unit typically form resistant, blocky, green-brown to rusty-brown weathered exposures. Stratification, or contacts between different breccia units are generally not evident. Fresh surfaces are dark green to grey-green. Breccia fragments are dominantly or exclusively pyroxene-feldspar-phyric basalt, although there is commonly considerable textural variation among clasts based on size and abundance of phenocrysts, as well as proportions of feldspar versus pyroxene phenocrysts.

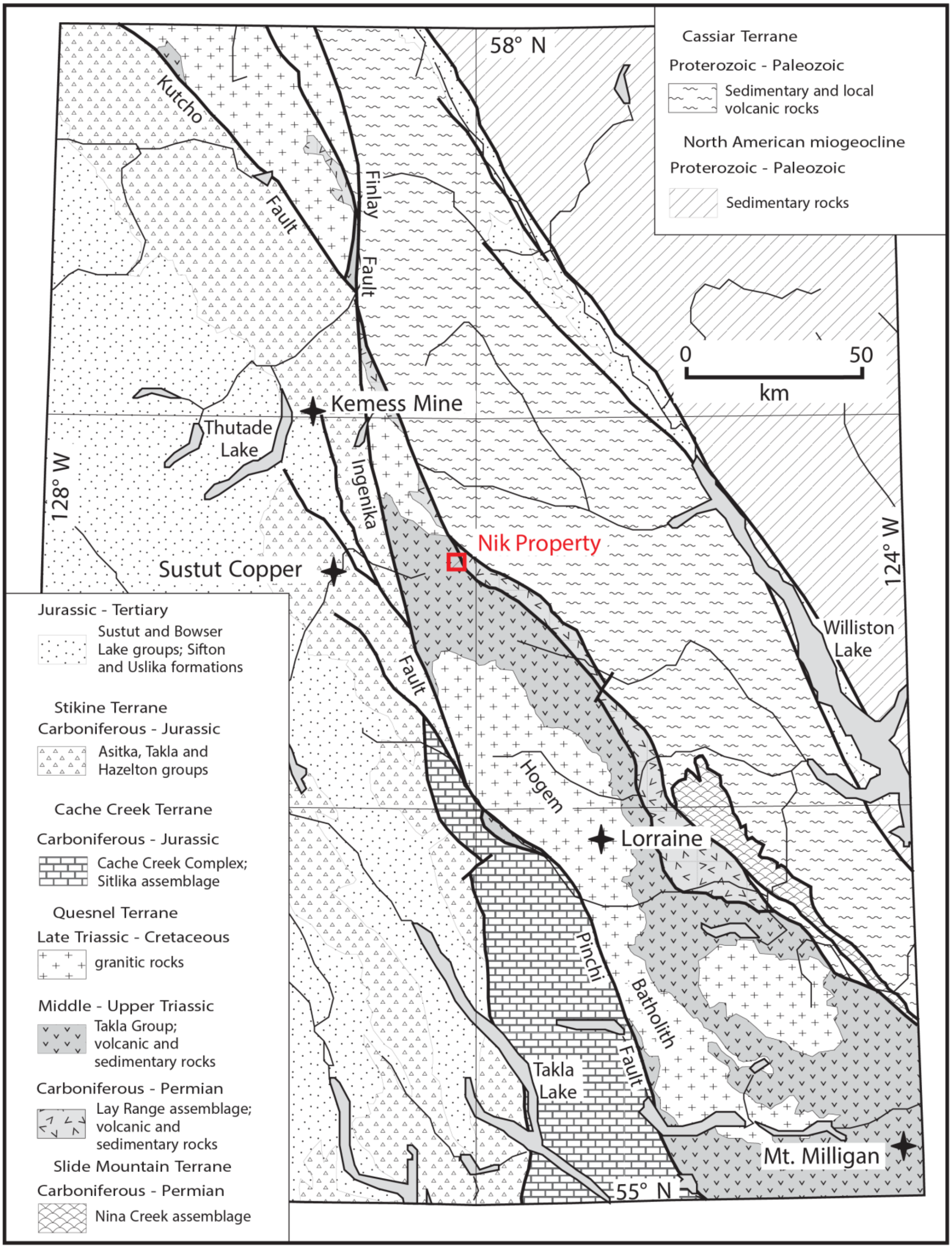


**Figure 3: Regional geological context of the Nik property (modified from Schiarizza & Tan, 2005). Significant mineral deposits indicated.**

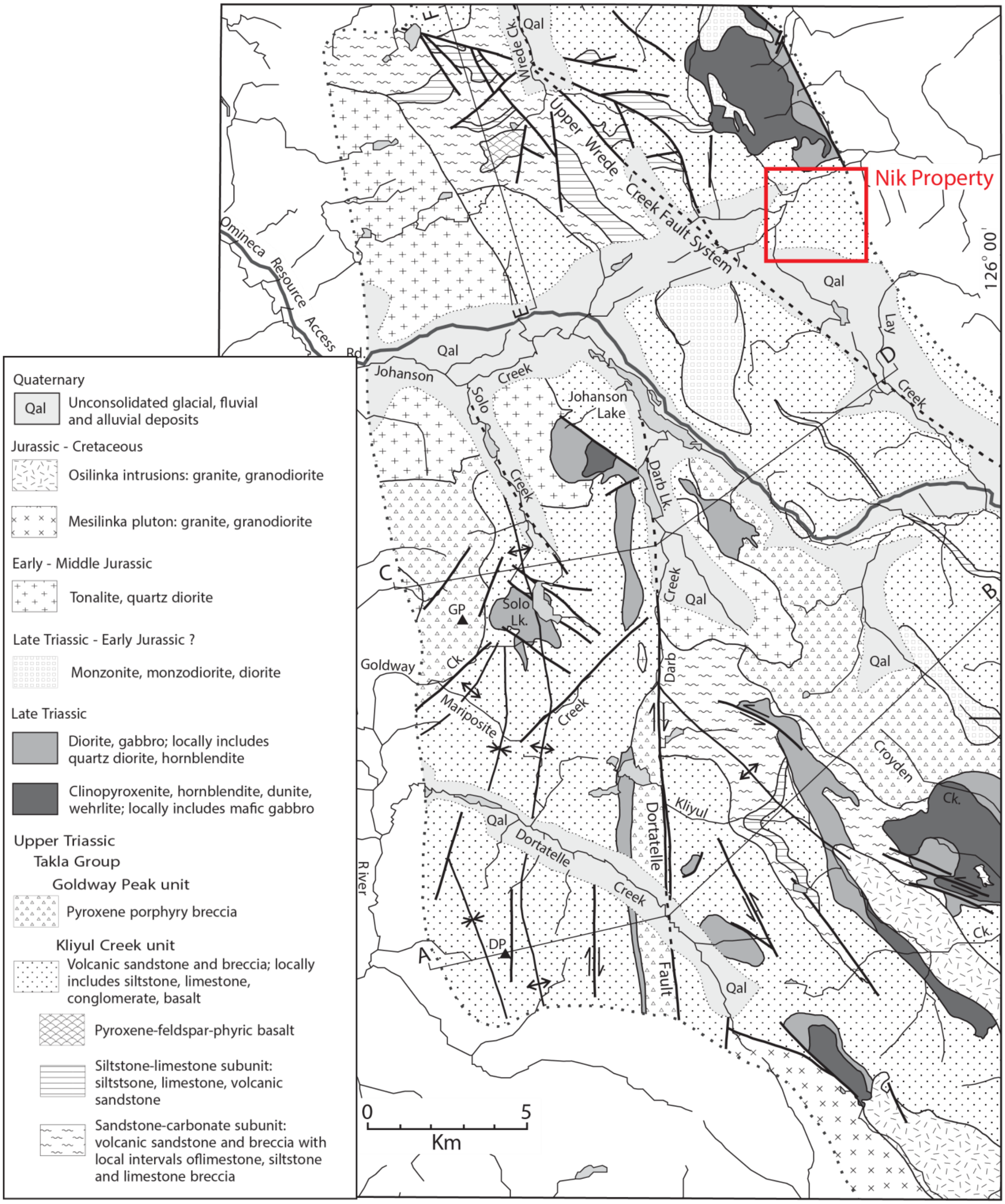


**Figure 4: Sub-regional scale geological context of the Nik property (modified from Schiarizza & Tan, 2005).**

The Wrede Creek Ultramafic Complex, located just north of the property (fig. 4), is late Triassic in age, possibly coeval with Takla Group rocks. It exhibits features common to many Alaskan-type ultramafic-mafic bodies, including a crude concentric zonation and gradation of rock types, from dunite in the core to gabbro along the margins. These rocks are crosscut by middle Jurassic intrusive dikes and hydrothermal alteration that are related to the Nik occurrence (Wong & Godwin, 1980).

Passing near the southwest part of the Nik property a system of mainly northwest-striking faults are informally referred to as the upper Wrede Creek fault system. Individual faults within this system are locally defined by abrupt truncations of subunits within the Kliyul Creek subunit (Schiarizza & Tan, 2005). Steeply dipping, east-striking faults were mapped in several places near the property by Schiarizza & Tan (2005) and these are commonly marked by zones of orange-weathered carbonate-altered rock.

## 6.0 History and Previous Work

Clarke (2013, AR 34392), in a report documenting a soil sampling and prospecting program on the Fleet property (which included the area of the current Nik property) for Serengeti Resources, Inc., summarizes in some detail the exploration history of the area as recorded in the assessment literature.

The current Nik property does not contain the Nik showing area as defined by Clarke and previous workers, but rather lies over the Redgold target area, which includes the Redgold/Tundra occurrence (MINFILE 094D 162). Assessment reports indicate that this occurrence, and potential extensions thereof in the valley bottom toward the northeast, have been the subject of numerous short exploration programs, including the following:

1) The Redgold showing was discovered by BP Minerals prospectors in 1976,
2) Soil sampling by BP in 1977 identified anomalous Cu, Mo in overburden,
3) Overburden drilling and trenching of geochemical targets by BP in 1978 (Hoffman, 1981, AR 09510) discovered molybdenite and chalcopyrite in narrow quartz veins in sheared volcanics,
4) An IP survey by Consolidated North Coast Industries in 1995 (Haslinger et al., 1995, AR 24408) in the valley bottom revealed several IP anomalies,
5) Airborne magnetic and radiometric surveys were done in 2007 by Serengeti Resources Ltd. (Walcott, 2008, AR 29768) to outline intrusive bodies and alteration,
6) In 2008 Serengeti undertook ground IP and magnetic surveys, prospecting, and silt/soil/talus fine sampling (Samson, 2009, AR 31136) revealing a NW-trending chargeability anomaly measuring 1400 m by 800 m,

7) In 2011 prospecting and soil sampling of Ah horizon over the IP anomaly by Serengeti (Clarke, 2013, AR 34392) returned strongly anomalous Cu and Mo across several hundred metres.
8) Follow-up Ah and B horizon sampling in 2013 by Serengeti (Clarke, 2013, AR 34392) extended Cu and Mo anomalies over the IP anomalous zone near the sides of the valley, including the northern part of the Nik property.

The presence of numerous spurs and flat, drill pad-like areas along the exploration roads northwest of the Redgold occurrence, which are first documented in figures from the report on Consolidated North Coast Industries' work (Haslinger et al., 1995), suggests the possibility that unreported drilling or trenching in that area occurred during or subsequent to the program reported in BP's 1981 report (Hoffman, 1981). BP's 1986 report (Hoffman & Wong, 1986) does not mention any such work. Another possibility is that the roads and pad-like areas represent the location of an old exploration camp.

In aggregate, the exploration programs listed above have partially outlined a coincident geochemical (moderately to strongly anomalous Cu and Mo in soil) and geophysical (high IP chargeability values) anomaly that connects Redgold with the Nik mineralized area across the valley, which was the focus of early exploration work and drilling by BP. This anomaly thus extends over a strike length of approximately 5 km (see Figure 4 in Clarke, 2013). The deepest reported drillholes in the Nik occurrence area are 200 m, with reported grades up to 0.18% Cu over 54.9 m (NDH-16), and 0.24% Cu over 15.2 m (NDH-17).

The current program was designed to establish the geological significance and the soil geochemical tenor of the Redgold occurrence.

## 7.0 Soil Sampling

The 2016 program included contour soil sampling, carried out by two employees of C.J. Greig and Associates on August 22$^{nd}$, 2016, which aimed to characterize the signature of the Redgold occurrence. The soil lines were oriented approximately along elevation contours on the slopes below and adjacent to the target area. The collected soils consisted of talus fines and colluvium. Organic layers and A horizon soils are poorly developed or non-existent in most areas on the steep hillside, so most of the soils comprise B or C horizon material.

A total of 44 soil samples were collected from an exploration area measuring about 1.5 km by 1 km. Samples were taken about every 100m along two contour lines.

Soil station UTM co-ordinates were recorded for each station using hand-held Garmin GPS units. Samples were placed in heavy paper Kraft bags marked with identifying numbers, transported back to base camp, packed into sacks, secured, addressed and shipped by courier to the offices of C.J.Greig & Associates in Penticton, B.C., where they were laid out to dry on racks in a drying tent for a minimum of two days.

The dried samples were analyzed with a Thermo Scientific Niton Gold XL3t 500 GOLDD™ handheld X-Ray Fluorescence (XRF) Analyzer unit, operated in the 'benchtop' mode. Prior to each XRF analysis, the sample tag was scanned with a barcode scanner that automatically recorded the sample number in the computer. The sample, in its original paper bag, was then placed on the test stand and centered on the probe window; the test stand lid was then closed and locked. The analyzer was then run in "Soils" mode for 30 seconds, reading three separate "filters" of elements, at 10 seconds per filter. The three "filters" provided analytical values for a total of 33 elements. Data was automatically recorded, saved directly to the analyzer and simultaneously downloaded to a laptop computer. For every 30 samples analyzed, a Canadian Certified Standard, named "Till-4", was analyzed for quality control, to check for drift in the readings. XRF data was compiled in an Excel spreadsheet and then merged with the GPS locations for all samples to allow entry of the sample data into MapInfo GIS computer software.

All XRF analytical values for soil samples are compiled in Appendix I.

### 7.1 Soil Geochemical Results Evaluation

A multi-element anomaly was defined by the contour soil samples, which corresponds well with the outcrop expression of the Redgold occurrence. Figures 4-6 illustrate the Cu and Mo XRF values, which define the anomaly, as well as As, which in part is anti-correlated with the Cu-Mo anomaly and defines a halo around it. Table 1, below, lists and compares the analytical values for Cu, Mo and As; Figure 8 shows sample locations. Other analyzed elements (Appendix I) that produced consistent or localized values above the detection limits for the XRF unit include Ti, Cr, Mn, Fe, Co, Ni, Zn, Rb, Sr, Zr, Nb, W, Au, Pb, Bi, Th, and U; however, the values for Ti, Mn, Fe, Ni, Zn, Sr, Zr do not highlight any clear pattern or anomaly. Cr, Co, Nb and W values exceed detection limit only occasionally, and are not noticeably correlated with other elements. Au, Pb, Bi, Th, Rb and U values exceed detection limit in only a couple of samples each, but these commonly correlate with anomalous Cu and/or Mo values.

The data ranges used to display the data for each element shown on figures below were chosen using the "Natural Break" algorithm in Mapinfo Pro. This uses the average of each range to distribute data more evenly across the ranges; that is, it distributes the values so that the average of each range is as close as possible to each of the range values in that range. The result is that the values within in each range are fairly close together. Visually, this tends to produce well-defined anomalies, and, where necessary, efficiently deals with the detection limit step-function in the XRF dataset.

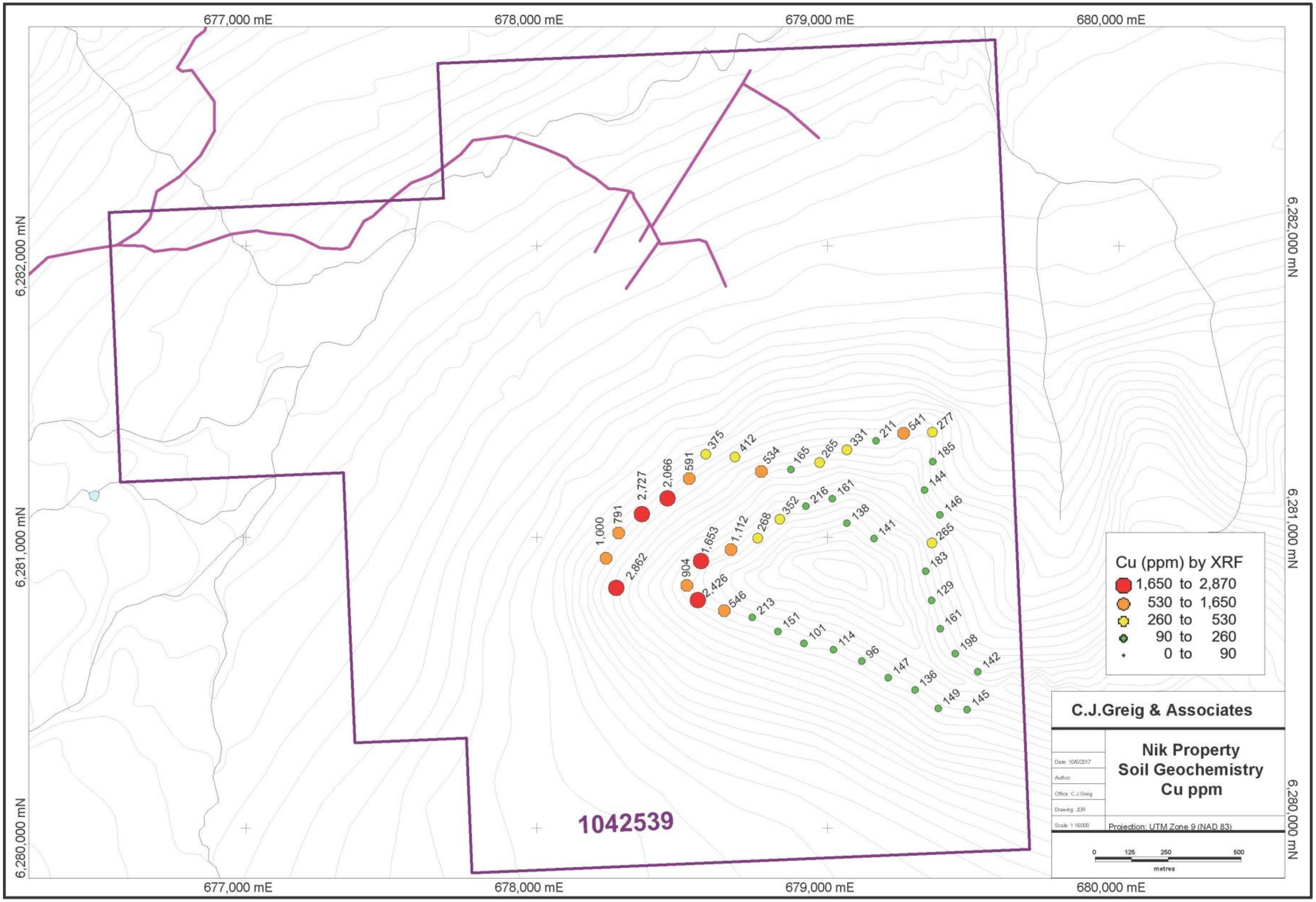


**Figure 5: Cu-in-soil geochemistry analyzed by XRF. In this and following figures, purple line shows extent of claim; pink line exploration roads.**

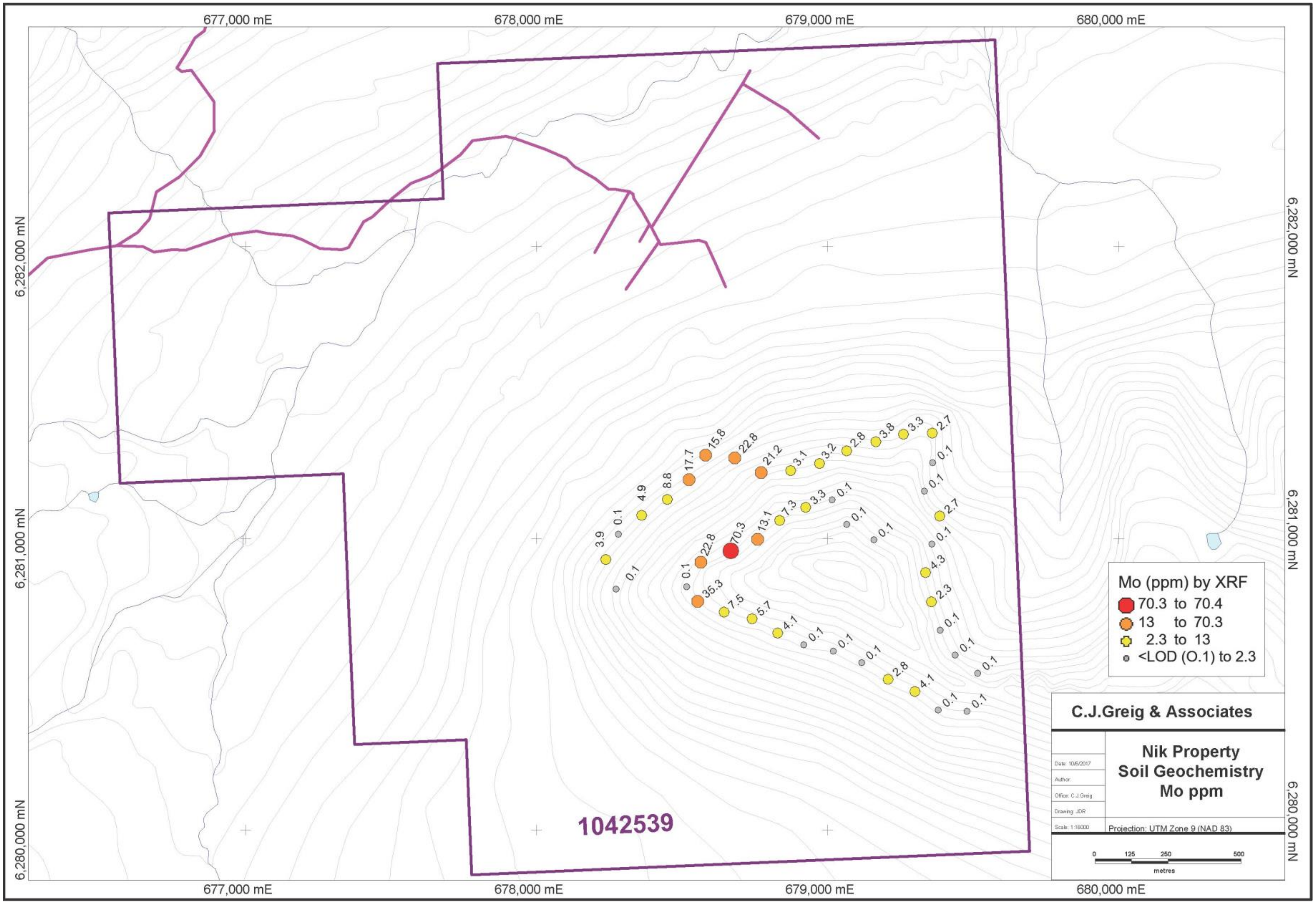


**Figure 6: Mo-in-soil geochemistry analyzed by XRF, 0.1 equals <LOD**

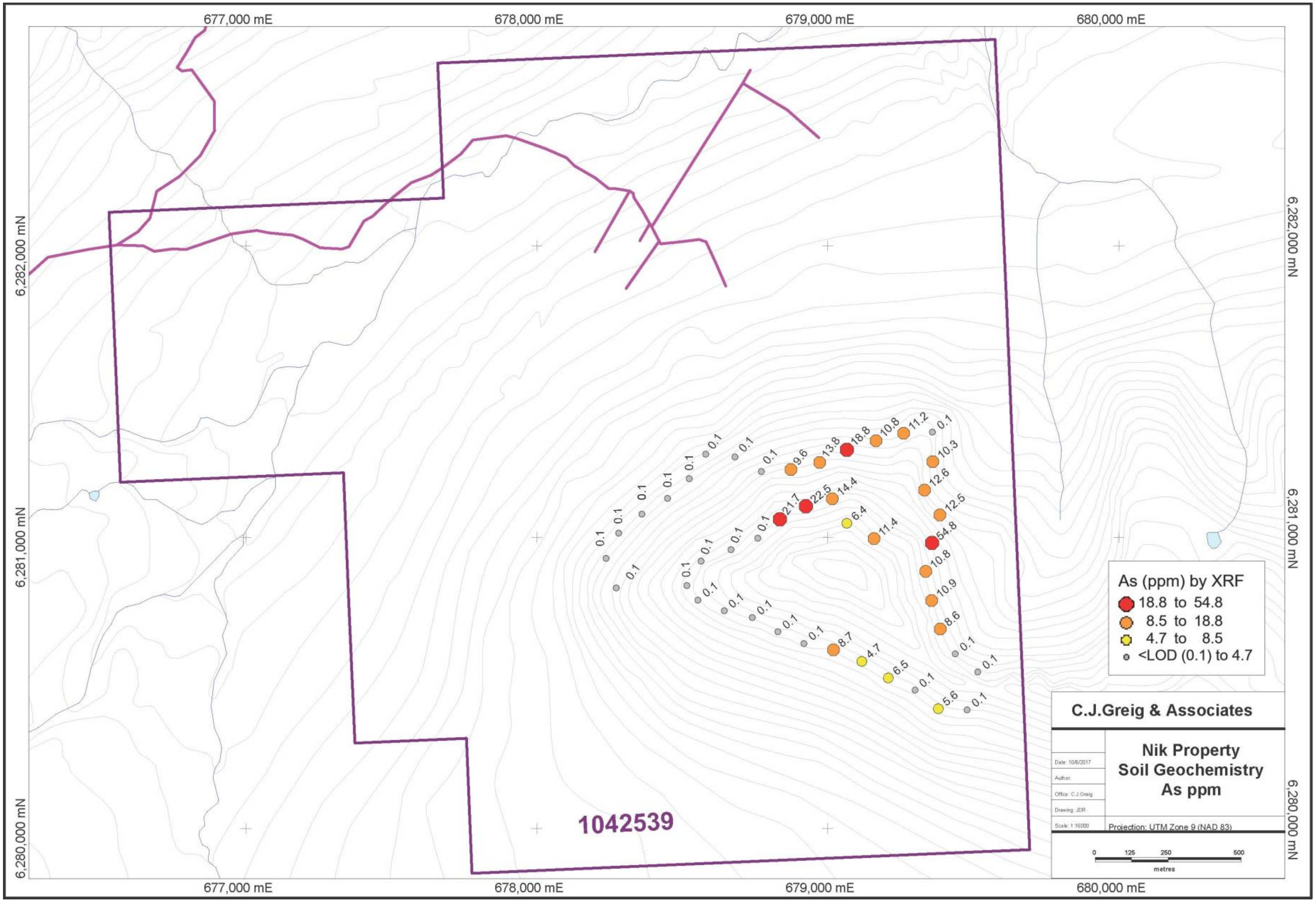


**Figure 7: As-in-soil geochemistry analyzed by XRF, 0.1 equals <LOD**

| Sample | E | N | Elev | Cu (ppm) | Mo (ppm) | As (ppm) |
|---|---|---|---|---|---|---|
| P421571 | 679479 | 6280408 | 1956 | 145.13 | < LOD | < LOD |
| P421572 | 679380 | 6280412 | 1959 | 148.63 | < LOD | 5.56 |
| P421573 | 679300 | 6280475 | 1958 | 135.68 | 4.11 | < LOD |
| P421574 | 679208 | 6280517 | 1960 | 147.39 | 2.85 | 6.52 |
| P421575 | 679117 | 6280574 | 1959 | 96.48 | < LOD | 4.7 |
| P421576 | 679020 | 6280614 | 1957 | 114.24 | < LOD | 8.69 |
| P421577 | 678918 | 6280636 | 1954 | 100.57 | < LOD | < LOD |
| P421578 | 678829 | 6280676 | 1958 | 150.65 | 4.08 | < LOD |
| P421579 | 678741 | 6280725 | 1964 | 213.31 | 5.71 | < LOD |
| P421580 | 678644 | 6280748 | 1963 | 546.34 | 7.45 | < LOD |
| P421581 | 678554 | 6280785 | 1946 | 2426.49 | 35.32 | < LOD |
| P421582 | 678516 | 6280835 | 1939 | 904.45 | < LOD | < LOD |
| P421583 | 678565 | 6280918 | 1935 | 1653.44 | 22.77 | < LOD |
| P421584 | 678668 | 6280958 | 1941 | 1111.86 | 70.34 | < LOD |
| P421585 | 678760 | 6280997 | 1974 | 267.92 | 13.06 | < LOD |
| P421586 | 678836 | 6281062 | 1965 | 351.91 | 7.29 | 21.68 |
| P421587 | 678925 | 6281107 | 1943 | 216.1 | 3.28 | 22.48 |
| P421588 | 679016 | 6281133 | 1954 | 160.76 | < LOD | 14.4 |
| P421589 | 679066 | 6281048 | 2009 | 137.74 | < LOD | 6.43 |
| P421590 | 679159 | 6280995 | 2002 | 140.68 | < LOD | 11.35 |
| P421617 | 679516 | 6280537 | 1956 | 142.29 | < LOD | < LOD |
| P421618 | 679439 | 6280600 | 1944 | 198.39 | < LOD | < LOD |
| P421619 | 679387 | 6280685 | 1944 | 161.42 | < LOD | 8.55 |
| P421620 | 679357 | 6280784 | 1942 | 129.05 | 2.34 | 10.91 |
| P421621 | 679336 | 6280883 | 1933 | 182.66 | 4.34 | 10.83 |
| P421622 | 679358 | 6280980 | 1892 | 265.03 | < LOD | 54.82 |
| P421623 | 679386 | 6281076 | 1823 | 145.67 | 2.69 | 12.5 |
| P421624 | 679332 | 6281162 | 1805 | 143.65 | < LOD | 12.6 |
| P421625 | 679361 | 6281260 | 1770 | 184.74 | < LOD | 10.29 |
| P421626 | 679360 | 6281362 | 1768 | 277.05 | 2.74 | < LOD |
| P421627 | 679261 | 6281357 | 1786 | 540.92 | 3.27 | 11.24 |
| P421628 | 679166 | 6281331 | 1775 | 211.2 | 3.82 | 10.84 |
| P421629 | 679066 | 6281300 | 1800 | 330.76 | 2.78 | 18.84 |
| P421630 | 678972 | 6281256 | 1834 | 264.56 | 3.17 | 13.78 |
| P421631 | 678874 | 6281233 | 1830 | 164.85 | 3.07 | 9.57 |
| P421632 | 678772 | 6281226 | 1811 | 534.25 | 21.23 | < LOD |
| P421633 | 678681 | 6281276 | 1743 | 412.15 | 22.75 | < LOD |
| P421634 | 678581 | 6281285 | 1708 | 375.01 | 15.76 | < LOD |
| P421635 | 678524 | 6281202 | 1738 | 590.76 | 17.69 | < LOD |
| P421636 | 678449 | 6281133 | 1745 | 2066.04 | 8.84 | < LOD |
| P421637 | 678361 | 6281080 | 1733 | 2726.91 | 4.93 | < LOD |
| P421638 | 678281 | 6281014 | 1724 | 790.69 | < LOD | < LOD |
| P421639 | 678239 | 6280928 | 1746 | 999.84 | 3.91 | < LOD |
| P421640 | 678274 | 6280827 | 1803 | 2861.67 | < LOD | < LOD |

**Table 1: Soil sample locations and geochemical analyses by XRF for Cu, Mo, and As**

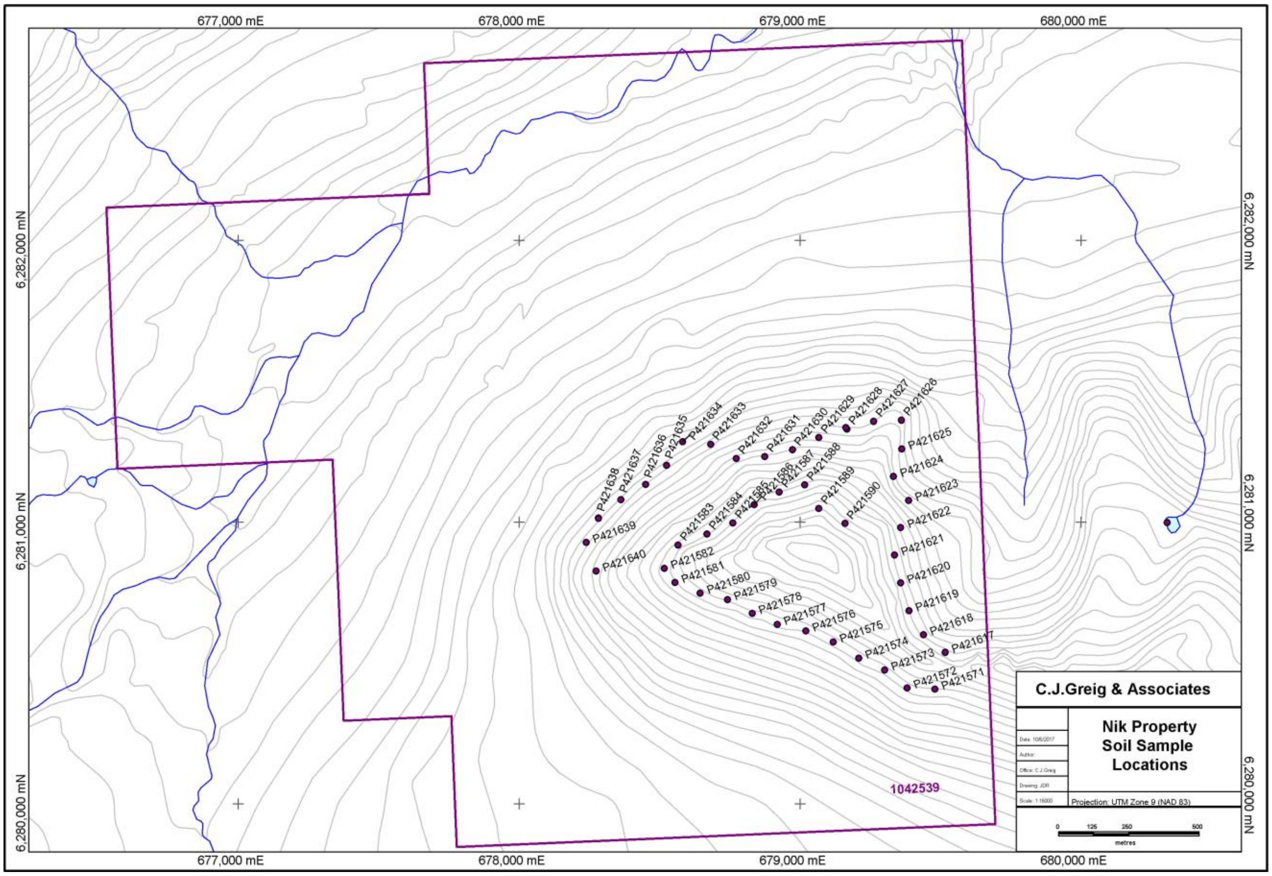


**Figure 8: Soil sample locations map**

## 8.0 Geologic Mapping

One employee of C.J. Greig and Associates examined the Redgold occurrence and surrounding area where it is well exposed on the slopes in the southern part of the property. Observations were recorded at 17 geological stations and 6 hand samples were collected (station locations are shown in Figure 9, and coordinates of samples and accompanying geological observations and descriptions are tabulated in Appendix II).

### 8.1 Geologic Mapping Results

The Redgold occurrence consists of a sheeted swarm of Cu-mineralized pegmatitic veins. Their hypogene mineralogy (in order of decreasing abundance) is quartz-potassium feldspar-chalcopyrite-bornite-anhydrite, with the copper minerals locally altered to chrysocolla, malachite, and glassy limonite, and the anhydrite(?) dissolved and represented only by boxworks with characteristic tabular form. The veins vary from 1 cm to approximately 80 cm in width, average approximately 15 cm in width and, across the southwestern portion of the swarm, constitute approximately 10% by volume of the rock. Cu sulphides make up between zero and 5% by volume of a given vein, averaging perhaps 1% by volume. These estimates suggest an average grade in the exposed part of the occurrence of less than 0.1% Cu – probably in the range of 0.03 to 0.06 % Cu. Grades in the vein material alone might be 10 times that, i.e., between 0.3 and 0.6 % Cu. The presence of bornite suggests the possibility of coincident Au values; however, as these samples were not analyzed this is just supposition. No signficant wallrock alteration is associated with the veins, which crosscut and thus postdate epidote veinlets in the host andesite.

The veins dip between 50 and 59 degrees (averaging 55) to the north-northeast (azimuths between 306 and 004, averaging 332). They diminish in abundance and thickness along strike to the east, eventually disappearing entirely, and disappear to the south-southeast, closing the occurrence off in those directions. However, the swarm disappears under cover along strike to west-southwest and across strike to the north-northwest. Some of the best-mineralized veins were noted at the northwesternmost extent of outcrop.

The total exposed (i.e., minimum) width of the zone near its southwestern end is approximately 350 m in plan view, equivalent to a minimum thickness of 87 m if the zone dips 55 degrees. The exposed (minimum) strike length of the zone is nearly 500 m. Using a vertical extent of 250 m (roughly that exposed), one can calculate a minimum mass of approximately 30,000,000 tons of anomalously mineralized rock.

Most of the part of the property traversed during this program is underlain by andesites, which are commonly, but not pervasively cut by thin epidote+/- quartz veinlets. Hornblende, locally present in the andesites, is often quite fresh (even adjacent to the mineralized veins at the Redgold occurrence) but usually partially chloritized. The andesites are variable in texture, being locally aphanitic, locally amygdaloidal, and commonly fine to medium-grained feldspar+/- hornblende phyric. One 50 cm wide, medium-grained, acicular hornblende-blocky feldspar phyric dike and a small quartz monzodiorite-granodiorite body of undefined geometry were the only intrusive bodies encountered. Neither was associated with significant alteration or mineralization.

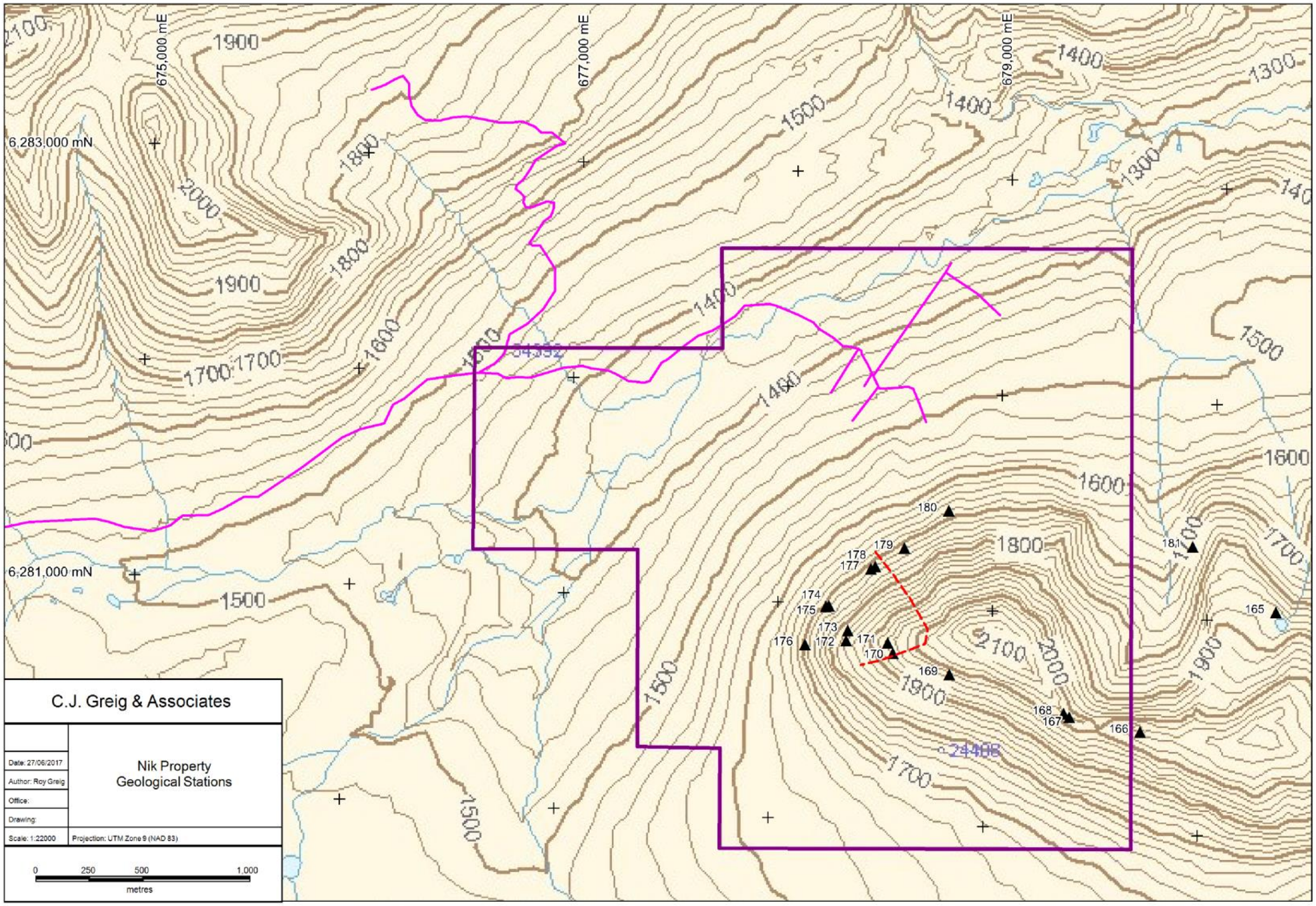


**Figure 9: Geological station locations. Red dashed line shows approximate eastern limit of the Redgold occurrence vein swarm.**

### 8.2 Discussion

The mineralogy of the pegmatitic vein swarm at the Redgold occurrence bears a similarity to that described in many silicate-sulphide pegmatite bodies associated with both disseminated and breccias-pipe hosted porphyry Cu deposits. Wodzicki (1995) describes several examples of such bodies, noting that alteration halos associated with them are relatively small – e.g., less than 60 m at the La Colorada deposit, the largest known of this type (~6 Mt at 7% Cu and 0.8% Mo). In such deposits, the alteration zoning is similar to that typical of porphyry Cu deposits, but occupies a much smaller volume. The veins of the Redgold occurrence could represent the marginal portions of a pegmatitic orebody. This lesser-known deposit type, in addition to more typical, and commonly spatially associated, disseminated and breccia pipe porphyry targets, is viable here, and consequentially smaller geological, geochemical and geophysical footprints should be considered going forward.

## 9.0 Conclusions

Previous work, together with the current exploration program, has collectively outlined coincident geochemical and geophysical anomalies that are potentially associated with the overburden-covered extension of an occurrence of porphyry-style mineralization (the Redgold occurrence). The target may be disseminated, breccia pipe, or pegmatitic in style, and thus targets of different styles should be considered. Future work should consist of expanded and higher-resolution geophysical (specifically IP) and geochemical (soil) surveys in covered areas northwest and southwest of the Redgold occurrence. Pending results of those surveys, drilling is warranted in those areas, and also down-dip of the Redgold vein swarm.

## 10.0 References


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# Appendix I

## Soil Sample

## XRF Analytical Results

(Note - All values in ppm)

| Sample | E | N | Elev | Units | Mo | Mo Error | Zr | Zr Error | Sr | Sr Error | U | U Error | Rb | Rb Error | Th | Th Error | Pb | Pb Error | Se | Se Error | As | As Error | Hg | Hg Error | Au | Au Error | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Avg | Error | 1.9 | | 2.3 | | 3.8 | | 7.2 | | 1.9 | | 3.1 | | 6.0 | | 1.9 | | 3.4 | | 9.0 | | 8.9 | |
| P421571 | 679479 | 6280408 | 1956 | ppm | < LOD | 2.14 | 42.7 | 2.44 | 172.87 | 3.73 | < LOD | 6.13 | 17.83 | 1.32 | < LOD | 3.34 | < LOD | 5.86 | < LOD | 1.69 | < LOD | 4.07 | < LOD | 8.88 | < LOD | 9.3 | 85.43 |
| P421572 | 679380 | 6280412 | 1959 | ppm | < LOD | 2.3 | 37.1 | 2.29 | 170.72 | 3.6 | < LOD | 6.25 | 20.93 | 1.37 | 3.69 | 2.31 | < LOD | 5.81 | < LOD | 1.63 | 5.56 | 2.81 | < LOD | 8.92 | < LOD | 8.79 | 66.61 |
| P421573 | 679300 | 6280475 | 1958 | ppm | 4.11 | 1.63 | 35.03 | 2.42 | 203.5 | 4.1 | < LOD | 6.69 | 24.63 | 1.51 | < LOD | 3.52 | < LOD | 5.96 | < LOD | 1.76 | < LOD | 4.19 | < LOD | 9.17 | < LOD | 9.26 | 76.51 |
| P421574 | 679208 | 6280517 | 1960 | ppm | 2.85 | 1.58 | 37.59 | 2.23 | 130.96 | 3.17 | < LOD | 6.2 | 16.75 | 1.26 | < LOD | 3.37 | < LOD | 5.96 | < LOD | 1.65 | 6.52 | 2.91 | < LOD | 8.68 | < LOD | 8.81 | 77.22 |
| P421575 | 679117 | 6280574 | 1959 | ppm | < LOD | 2.02 | 43.13 | 2.56 | 209.33 | 4.2 | < LOD | 6.71 | 17.37 | 1.34 | 5.87 | 2.55 | < LOD | 6.25 | < LOD | 2.41 | 4.7 | 2.93 | < LOD | 9.04 | < LOD | 9.59 | 82.11 |
| P421576 | 679020 | 6280614 | 1957 | ppm | < LOD | 2.32 | 42.98 | 2.38 | 172.11 | 3.63 | < LOD | 5.92 | 14.44 | 1.19 | < LOD | 3.41 | < LOD | 7.08 | < LOD | 1.71 | 8.69 | 3.02 | < LOD | 8.72 | < LOD | 8.84 | 74.16 |
| P421576D | | | | ppm | 2.58 | 1.58 | 44.88 | 2.49 | 201 | 3.98 | < LOD | 6.3 | 18.24 | 1.32 | 4.46 | 2.4 | < LOD | 6.08 | < LOD | 1.77 | 9.79 | 3.11 | < LOD | 8.74 | < LOD | 6.68 | 75.9 |
| P421577 | 678918 | 6280636 | 1954 | ppm | < LOD | 1.5 | 28.24 | 2.29 | 228.75 | 4.21 | < LOD | 5.98 | 12.36 | 1.13 | < LOD | 3.19 | < LOD | 5.48 | < LOD | 1.5 | < LOD | 3.63 | < LOD | 8.49 | < LOD | 8.9 | 65.44 |
| P421578 | 678829 | 6280676 | 1958 | ppm | 4.08 | 1.69 | 79.95 | 3.02 | 214.23 | 4.22 | < LOD | 6.98 | 28.02 | 1.6 | 4.17 | 2.51 | < LOD | 6.55 | < LOD | 1.76 | < LOD | 3.36 | < LOD | 8.97 | < LOD | 9.59 | 64.22 |
| P421579 | 678741 | 6280725 | 1964 | ppm | 5.71 | 1.68 | 47.5 | 2.64 | 219.78 | 4.3 | < LOD | 8.51 | 66.42 | 2.37 | < LOD | 3.89 | < LOD | 5.95 | < LOD | 1.71 | < LOD | 4.02 | < LOD | 9.19 | < LOD | 6.86 | 67.33 |
| P421580 | 678644 | 6280748 | 1963 | ppm | 7.45 | 1.8 | 35.67 | 2.58 | 203.8 | 4.35 | < LOD | 9.62 | 84.27 | 2.8 | 4.36 | 2.84 | < LOD | 6.69 | < LOD | 2.09 | < LOD | 3.2 | < LOD | 9.95 | < LOD | 10.09 | 68.94 |
| P421581 | 678554 | 6280785 | 1946 | ppm | 35.32 | 2.02 | 48.45 | 2.37 | 148.12 | 3.31 | 9.52 | 5.87 | 83.45 | 2.52 | 13.43 | 3.12 | 30.06 | 5.33 | < LOD | 1.67 | < LOD | 4.26 | < LOD | 8.72 | < LOD | 9.16 | 118.42 |
| P421582 | 678516 | 6280835 | 1939 | ppm | < LOD | 1.53 | 23.86 | 1.9 | 76.56 | 2.45 | < LOD | 9.71 | 111.36 | 3.01 | 6.12 | 2.79 | < LOD | 6.08 | < LOD | 1.76 | < LOD | 2.87 | < LOD | 9 | < LOD | 9.5 | 69.53 |
| P421583 | 678565 | 6280918 | 1935 | ppm | 22.77 | 1.91 | 23.2 | 2.19 | 173.13 | 3.77 | < LOD | 9.7 | 100.95 | 2.91 | 18.94 | 3.45 | < LOD | 6.74 | < LOD | 3 | < LOD | 3.22 | < LOD | 9.41 | < LOD | 9.37 | 67.52 |
| P421584 | 678668 | 6280958 | 1941 | ppm | 70.34 | 2.53 | 25.58 | 2.31 | 216.93 | 4.23 | < LOD | 9.54 | 90.04 | 2.72 | 7.25 | 2.89 | < LOD | 6.71 | < LOD | 1.8 | < LOD | 4.65 | < LOD | 9.18 | 7.38 | 4.69 | 77.16 |
| P421585 | 678760 | 6280997 | 1974 | ppm | 13.06 | 1.78 | 28.97 | 2.39 | 218.69 | 4.31 | < LOD | 9.05 | 83.44 | 2.65 | < LOD | 3.75 | < LOD | 6.63 | < LOD | 2.6 | < LOD | 3.4 | < LOD | 9.35 | < LOD | 9.48 | 73.69 |
| P421586 | 678836 | 6281062 | 1965 | ppm | 7.29 | 1.67 | 21.78 | 2.41 | 272.04 | 4.86 | < LOD | 8.94 | 67.1 | 2.38 | < LOD | 3.55 | < LOD | 6.01 | < LOD | 1.92 | 21.68 | 3.47 | < LOD | 9.46 | < LOD | 7.01 | 77.56 |
| P421586D | | | | ppm | 5.65 | 1.65 | 34.93 | 2.52 | 249.3 | 4.59 | < LOD | 7.26 | 34.29 | 1.74 | < LOD | 3.64 | < LOD | 5.87 | < LOD | 1.84 | 17.64 | 3.29 | < LOD | 9.25 | < LOD | 6.94 | 120.65 |
| P421587 | 678925 | 6281107 | 1943 | ppm | 3.28 | 1.61 | 36.28 | 2.27 | 134.65 | 3.28 | < LOD | 7.65 | 47.43 | 2 | < LOD | 3.65 | < LOD | 6.22 | < LOD | 2.52 | 22.48 | 3.56 | < LOD | 9.14 | < LOD | 9.48 | 70.84 |
| P421588 | 679016 | 6281133 | 1954 | ppm | < LOD | 2.46 | 38.12 | 2.51 | 187.71 | 4.06 | < LOD | 6.93 | 23.39 | 1.53 | 3.93 | 2.51 | < LOD | 6.33 | < LOD | 1.88 | 14.4 | 3.37 | < LOD | 9.82 | < LOD | 10.2 | 76.7 |
| P421589 | 679066 | 6281048 | 2009 | ppm | < LOD | 2.37 | 44.11 | 2.49 | 199.4 | 3.99 | < LOD | 6.81 | 27.73 | 1.56 | < LOD | 3.43 | < LOD | 6.04 | < LOD | 1.7 | 6.43 | 2.93 | < LOD | 8.96 | < LOD | 9.43 | 69.13 |
| P421590 | 679159 | 6280995 | 2002 | ppm | < LOD | 1.84 | 45.25 | 2.51 | 207.32 | 4.06 | < LOD | 6.29 | 21.01 | 1.39 | < LOD | 3.51 | < LOD | 6.09 | < LOD | 1.65 | 11.35 | 3.13 | < LOD | 8.6 | < LOD | 9.27 | 60.48 |
| P421617 | 679516 | 6280537 | 1956 | ppm | < LOD | 2.39 | 38.23 | 2.35 | 154.03 | 3.54 | < LOD | 6.38 | 16.02 | 1.28 | < LOD | 3.26 | < LOD | 5.71 | < LOD | 1.83 | < LOD | 3.98 | < LOD | 9.08 | < LOD | 9.15 | 82.37 |
| P421618 | 679439 | 6280600 | 1944 | ppm | < LOD | 2.01 | 29.27 | 2.19 | 161.2 | 3.54 | < LOD | 6.48 | 26.01 | 1.51 | < LOD | 3.22 | < LOD | 5.71 | < LOD | 1.67 | < LOD | 4.05 | < LOD | 8.8 | < LOD | 9.04 | 70.66 |
| P421619 | 679387 | 6280685 | 1944 | ppm | < LOD | 2.36 | 35.75 | 2.26 | 146.39 | 3.39 | < LOD | 6.46 | 22.66 | 1.44 | < LOD | 3.52 | < LOD | 5.97 | < LOD | 1.7 | 8.55 | 3 | < LOD | 8.88 | < LOD | 9.21 | 75.51 |
| P421620 | 679357 | 6280784 | 1942 | ppm | 2.34 | 1.53 | 36.53 | 2.19 | 136.33 | 3.18 | < LOD | 6.77 | 35.57 | 1.69 | < LOD | 3 | < LOD | 5.81 | < LOD | 1.59 | 10.91 | 3.01 | < LOD | 8.63 | < LOD | 8.93 | 74.82 |
| P421621 | 679336 | 6280883 | 1933 | ppm | 4.34 | 1.62 | 37.67 | 2.51 | 240.11 | 4.46 | < LOD | 6.45 | 16.78 | 1.3 | 4.66 | 2.45 | < LOD | 6.15 | < LOD | 1.65 | 10.83 | 3.13 | < LOD | 9.08 | < LOD | 8.92 | 123.83 |
| P421622 | 679358 | 6280980 | 1892 | ppm | < LOD | 2.39 | 26.64 | 2.23 | 167.95 | 3.73 | < LOD | 6.51 | 18.31 | 1.35 | < LOD | 3.62 | < LOD | 6.29 | < LOD | 1.8 | 54.82 | 4.58 | < LOD | 9.55 | < LOD | 9.68 | 81.67 |
| P421623 | 679386 | 6281076 | 1823 | ppm | 2.69 | 1.62 | 25.05 | 2.47 | 266.55 | 4.85 | < LOD | 6.79 | 20.08 | 1.42 | < LOD | 3.61 | < LOD | 6.4 | < LOD | 1.83 | 12.5 | 3.29 | < LOD | 9.42 | < LOD | 9.52 | 71.58 |
| P421624 | 679332 | 6281162 | 1805 | ppm | < LOD | 2.43 | 33.32 | 2.38 | 178.91 | 3.89 | < LOD | 7.78 | 44.19 | 1.98 | < LOD | 3.71 | < LOD | 5.97 | < LOD | 1.89 | 12.6 | 3.16 | < LOD | 9.41 | < LOD | 9.83 | 77.83 |
| P421625 | 679361 | 6281260 | 1770 | ppm | < LOD | 2.16 | 34.47 | 2.33 | 151.09 | 3.56 | < LOD | 6.56 | 21.54 | 1.46 | < LOD | 3.5 | < LOD | 6.12 | < LOD | 1.86 | 10.29 | 3.14 | < LOD | 9.23 | < LOD | 9.6 | 81.84 |
| P421626 | 679360 | 6281362 | 1768 | ppm | 2.74 | 1.56 | 39.98 | 2.33 | 167.65 | 3.57 | < LOD | 7.22 | 40.31 | 1.81 | 6.34 | 2.53 | < LOD | 5.91 | < LOD | 2.63 | < LOD | 4.01 | < LOD | 8.51 | < LOD | 8.75 | 62.34 |
| P421626D | | | | ppm | < LOD | 2.29 | 37.97 | 2.27 | 163.88 | 3.5 | < LOD | 7.07 | 39.9 | 1.79 | 5.19 | 2.45 | < LOD | 5.8 | < LOD | 1.53 | < LOD | 4.03 | < LOD | 8.66 | < LOD | 8.83 | 55.86 |
| P421627 | 679261 | 6281357 | 1786 | ppm | 3.27 | 1.56 | 29.82 | 2.21 | 170.3 | 3.64 | < LOD | 7.15 | 37.34 | 1.76 | 6.01 | 2.52 | < LOD | 5.87 | < LOD | 1.67 | 11.24 | 3.04 | < LOD | 8.74 | < LOD | 8.59 | 66.12 |
| P421628 | 679166 | 6281331 | 1775 | ppm | 3.82 | 1.61 | 49.52 | 2.4 | 125.98 | 3.12 | 7.63 | 4.5 | 26.79 | 1.53 | 3.85 | 2.37 | < LOD | 5.91 | < LOD | 2.45 | 10.84 | 3.05 | < LOD | 8.91 | < LOD | 8.99 | 88.79 |
| P421629 | 679066 | 6281300 | 1800 | ppm | 2.78 | 1.59 | 35.63 | 2.47 | 225.93 | 4.32 | < LOD | 6.77 | 22.84 | 1.46 | < LOD | 3.45 | < LOD | 6.24 | < LOD | 1.8 | 18.84 | 3.44 | < LOD | 9.27 | < LOD | 9.45 | 73.6 |
| P421630 | 678972 | 6281256 | 1834 | ppm | 3.17 | 1.57 | 32.12 | 2.3 | 191.1 | 3.88 | < LOD | 6.84 | 30.13 | 1.61 | < LOD | 3.51 | < LOD | 5.67 | < LOD | 1.73 | 13.78 | 3.08 | < LOD | 8.79 | < LOD | 9.11 | 77.37 |
| P421631 | 678874 | 6281233 | 1830 | ppm | 3.07 | 1.6 | 34.15 | 2.47 | 231.81 | 4.4 | < LOD | 7.24 | 29.35 | 1.63 | 4.45 | 2.51 | < LOD | 6.26 | < LOD | 1.8 | 9.57 | 3.18 | < LOD | 9.4 | < LOD | 9.22 | 67.36 |
| P421632 | 678772 | 6281226 | 1811 | ppm | 21.23 | 1.85 | 34.13 | 2.27 | 167.58 | 3.61 | 8.33 | 5.53 | 62.06 | 2.23 | 5.3 | 2.63 | 7 | 4.41 | < LOD | 1.65 | < LOD | 4.46 | < LOD | 8.82 | < LOD | 9.34 | 97.7 |
| P421633 | 678681 | 6281276 | 1743 | ppm | 22.75 | 1.89 | 30.35 | 2.43 | 249.91 | 4.54 | < LOD | 8.35 | 62 | 2.25 | < LOD | 3.62 | < LOD | 6.1 | < LOD | 1.78 | < LOD | 3.77 | < LOD | 8.75 | < LOD | 6.72 | 85.93 |
| P421634 | 678581 | 6281285 | 1708 | ppm | 15.76 | 1.74 | 30.65 | 2.23 | 183.83 | 3.75 | < LOD | 8.22 | 67.27 | 2.28 | < LOD | 3.54 | < LOD | 6.11 | < LOD | 1.64 | < LOD | 3 | < LOD | 8.84 | < LOD | 8.95 | 74.07 |
| P421635 | 678524 | 6281202 | 1738 | ppm | 17.69 | 1.81 | 44.37 | 2.5 | 209.01 | 4.07 | < LOD | 9.03 | 81.51 | 2.54 | < LOD | 3.74 | < LOD | 7.45 | < LOD | 2.4 | < LOD | 3.07 | < LOD | 9.08 | < LOD | 9.19 | 60.97 |
| P421636 | 678449 | 6281133 | 1745 | ppm | 8.84 | 1.71 | 25.94 | 2.16 | 144.19 | 3.43 | < LOD | 10.52 | 121.16 | 3.21 | 16.42 | 3.43 | < LOD | 6.97 | < LOD | 2.79 | < LOD | 3.58 | < LOD | 9.49 | < LOD | 10.69 | 87.44 |
| P421636D | | | | ppm | 14.74 | 1.69 | 22.18 | 1.86 | 96.75 | 2.64 | 14.77 | 6.38 | 107.29 | 2.85 | 24.86 | 3.53 | 7.7 | 4.47 | < LOD | 1.7 | < LOD | 3.36 | < LOD | 8.65 | < LOD | 8.65 | 88.25 |
| P421637 | 678361 | 6281080 | 1733 | ppm | 4.93 | 1.58 | 18.47 | 1.92 | 121.29 | 3.05 | 11.14 | 7.21 | 144.44 | 3.42 | 12.72 | 3.21 | < LOD | 6.51 | < LOD | 1.76 | < LOD | 3.14 | < LOD | 8.96 | < LOD | 9.04 | 88.48 |
| P421638 | 678281 | 6281014 | 1724 | ppm | < LOD | 2.08 | 13.66 | 1.62 | 100.8 | 2.54 | < LOD | 6.44 | 43.31 | 1.72 | 6.88 | 2.37 | < LOD | 5.64 | < LOD | 1.5 | < LOD | 3.94 | < LOD | 7.63 | < LOD | 7.64 | 47.21 |
| P421639 | 678239 | 6280928 | 1746 | ppm | 3.91 | 1.59 | 21.78 | 2.14 | 176.31 | 3.76 | 9.43 | 5.92 | 73.77 | 2.46 | 8.25 | 2.89 | 15.13 | 4.85 | < LOD | 1.64 | < LOD | 3.7 | < LOD | 9.06 | < LOD | 9.38 | 85.64 |
| P421640 | 678274 | 6280827 | 1803 | ppm | < LOD | 2.15 | 14.75 | 1.78 | 116.67 | 2.89 | 10.68 | 6.12 | 101.99 | 2.76 | 6.7 | 2.68 | < LOD | 6.03 | < LOD | 1.69 | < LOD | 2.79 | < LOD | 8.61 | < LOD | 8.97 | 74.38 |

| Sample | Zn Error | W | W Error | Cu | Cu Error | Ni | Ni Error | Co | Co Error | Fe | Fe Error | Mn | Mn Error | Cr | Cr Error | V | V Error | Ti | Ti Error | Sb | Sb Error | Sn | Sn Error | Cd | Cd Error |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Avg Error | 9.4 | | 40.6 | | 22.1 | | 25.7 | | 140.6 | | 305.4 | | 82.2 | | 155.1 | | 312.1 | | 342.5 | | 15.1 | | 16.7 | | 12.3 |
| P421571 | 9.46 | < LOD | 38.05 | 145.13 | 15.77 | 94.68 | 25.36 | 168.82 | 106.16 | 56661.64 | 341.84 | 1607.29 | 87.99 | < LOD | 156.79 | < LOD | 299.82 | 1822.64 | 319.34 | < LOD | 15.29 | < LOD | 16.92 | < LOD | 12.37 |
| P421572 | 8.54 | 41.12 | 24.44 | 148.63 | 15.3 | 79.17 | 23.83 | < LOD | 147.36 | 47208.63 | 302.89 | 1491.45 | 81.96 | < LOD | 148.37 | < LOD | 298.34 | 1050.66 | 312.36 | < LOD | 14.6 | < LOD | 16.09 | < LOD | 11.98 |
| P421573 | 9.19 | < LOD | 38.25 | 135.68 | 15.65 | 91.06 | 25.03 | < LOD | 152.54 | 50497.48 | 324.13 | 1303.13 | 81.83 | < LOD | 157.14 | < LOD | 308.45 | 1583.46 | 327.33 | < LOD | 15.24 | < LOD | 16.86 | < LOD | 12.44 |
| P421574 | 8.94 | < LOD | 57.46 | 147.39 | 15.44 | 70.59 | 23.97 | < LOD | 150.33 | 48155.64 | 310.04 | 1250.36 | 78.63 | < LOD | 152.55 | < LOD | 292.54 | 899.5 | 313.71 | < LOD | 14.86 | < LOD | 16.38 | < LOD | 12.04 |
| P421575 | 9.4 | < LOD | 61.64 | 96.48 | 14.63 | 88.73 | 24.96 | < LOD | 147.96 | 43747.43 | 304.09 | 1268.58 | 81.02 | < LOD | 165.44 | < LOD | 324 | 1230.37 | 336.31 | < LOD | 15.3 | < LOD | 16.95 | < LOD | 12.47 |
| P421576 | 8.76 | < LOD | 36.19 | 114.24 | 14.38 | 95.2 | 24.15 | < LOD | 148.53 | 48037.07 | 306.65 | 1431.57 | 81.32 | < LOD | 151.27 | < LOD | 303.61 | 1455.51 | 318.01 | < LOD | 14.8 | < LOD | 16.33 | < LOD | 12.03 |
| P421576D | 8.91 | < LOD | 59.49 | 105.38 | 14.3 | 106.68 | 24.29 | < LOD | 145.89 | 46983.18 | 305.49 | 1381.21 | 81.13 | < LOD | 160.7 | < LOD | 307.02 | 1238.54 | 319.59 | < LOD | 14.89 | < LOD | 16.4 | < LOD | 12.06 |
| P421577 | 8.36 | < LOD | 35.94 | 100.57 | 13.84 | 104.39 | 23.64 | < LOD | 140.16 | 41174.29 | 281.28 | 1173.22 | 75.23 | < LOD | 162.64 | < LOD | 312.5 | 1185.95 | 323.53 | < LOD | 14.64 | < LOD | 16.26 | < LOD | 11.87 |
| P421578 | 8.72 | < LOD | 61.67 | 150.65 | 15.96 | 71.28 | 24.6 | 194.2 | 97.55 | 40153.84 | 289.06 | 999.57 | 74.25 | < LOD | 162.75 | < LOD | 316.9 | 992.81 | 336.11 | < LOD | 15.13 | < LOD | 16.77 | < LOD | 12.3 |
| P421579 | 9.05 | 59.67 | 26.87 | 213.31 | 17.78 | 119.13 | 25.89 | < LOD | 148.36 | 42264.79 | 298.05 | 1137.9 | 78.13 | < LOD | 169.58 | < LOD | 324.23 | 1639.41 | 342.95 | < LOD | 15.38 | < LOD | 17.11 | < LOD | 12.49 |
| P421580 | 9.88 | < LOD | 66.83 | 546.34 | 26.08 | 95.75 | 27.45 | < LOD | 155.22 | 41490.08 | 311.78 | 1089.69 | 81.03 | < LOD | 171.59 | < LOD | 342.58 | 1174.29 | 357.97 | < LOD | 16.22 | < LOD | 17.95 | < LOD | 13.13 |
| P421581 | 11.42 | < LOD | 58.28 | 2426.49 | 44.56 | 71.22 | 22.5 | < LOD | 122.97 | 30191.93 | 240.17 | 936.32 | 68.43 | < LOD | 159.62 | < LOD | 359.03 | 12044.4 | 470.67 | < LOD | 14.44 | < LOD | 15.97 | < LOD | 11.79 |
| P421582 | 9.42 | < LOD | 60.51 | 904.45 | 29.61 | 80.49 | 24.56 | < LOD | 151.99 | 49102.5 | 317.47 | 2051.83 | 94.74 | < LOD | 157.43 | < LOD | 301.49 | 837.89 | 311.6 | < LOD | 15.1 | < LOD | 16.69 | < LOD | 12.27 |
| P421583 | 10.04 | 48.24 | 26.45 | 1653.44 | 39.22 | 85.01 | 24.68 | < LOD | 144.61 | 41040.56 | 293.83 | 1348.64 | 82.26 | < LOD | 168.95 | < LOD | 322.38 | 765.79 | 326.61 | < LOD | 15.36 | < LOD | 17.05 | < LOD | 12.51 |
| P421584 | 9.84 | < LOD | 62.62 | 1111.86 | 32.58 | 129.24 | 25.71 | < LOD | 149.01 | 46752.61 | 310.85 | 1540.73 | 85.92 | < LOD | 162.13 | < LOD | 313.08 | 1404.19 | 324.54 | < LOD | 15.24 | < LOD | 16.8 | < LOD | 12.38 |
| P421585 | 9.27 | < LOD | 38.96 | 267.92 | 19.13 | 144.95 | 26.63 | < LOD | 154.01 | 48473.96 | 320.31 | 1423.29 | 84.98 | < LOD | 166.68 | < LOD | 317.41 | 1315.17 | 327.25 | < LOD | 15.52 | < LOD | 17.17 | < LOD | 12.58 |
| P421586 | 9.47 | < LOD | 39.66 | 351.91 | 20.97 | 173.9 | 27.41 | < LOD | 156.9 | 53348.61 | 334.94 | 1530.88 | 87.11 | < LOD | 160.69 | < LOD | 308.94 | 1490.43 | 321 | < LOD | 15.5 | < LOD | 17.21 | < LOD | 12.58 |
| P421586D | 10.8 | 67.48 | 26.81 | 290.27 | 19.38 | 73.11 | 25.12 | 336.12 | 99.59 | 42089.16 | 295.68 | 1018.26 | 75.11 | < LOD | 168.85 | < LOD | 369.34 | 12645.16 | 477.71 | < LOD | 15.1 | < LOD | 16.62 | < LOD | 12.34 |
| P421587 | 9.06 | < LOD | 38.12 | 216.1 | 17.65 | 95.17 | 25.26 | < LOD | 158.9 | 56637.16 | 343.82 | 1710.82 | 90.27 | < LOD | 154.71 | < LOD | 300.32 | 1910.31 | 322.5 | < LOD | 15.36 | < LOD | 17.1 | < LOD | 12.52 |
| P421588 | 9.68 | 59.05 | 28.18 | 160.76 | 17.15 | 134.68 | 27.63 | < LOD | 163.68 | 54903.04 | 350.01 | 1384.79 | 87.13 | < LOD | 166.14 | < LOD | 327.94 | 2531.64 | 346.97 | < LOD | 16.13 | < LOD | 17.88 | < LOD | 13.06 |
| P421589 | 8.77 | 40.28 | 24.88 | 137.74 | 15.29 | 83.62 | 24.16 | < LOD | 145.54 | 42486.71 | 292.46 | 1222.51 | 77.78 | < LOD | 158.58 | < LOD | 315.17 | 1121.89 | 326.79 | < LOD | 14.98 | < LOD | 16.59 | < LOD | 12.2 |
| P421590 | 8.37 | < LOD | 58.19 | 140.68 | 15.23 | 55.82 | 23.34 | < LOD | 143.05 | 40320.38 | 283.7 | 1321.81 | 79.15 | < LOD | 158.63 | < LOD | 315.48 | 913.74 | 325.84 | < LOD | 14.91 | < LOD | 16.48 | < LOD | 12.2 |
| P421617 | 9.44 | < LOD | 38.12 | 142.29 | 15.98 | 77.13 | 25.38 | < LOD | 158.57 | 53802.52 | 336.69 | 1582.92 | 88.28 | < LOD | 162.05 | < LOD | 307.98 | 2078.43 | 331.61 | < LOD | 15.44 | < LOD | 17.06 | < LOD | 12.55 |
| P421618 | 8.77 | < LOD | 35.94 | 198.39 | 16.82 | 84.74 | 24.26 | < LOD | 149.35 | 48170.7 | 310.43 | 1465.88 | 83.04 | < LOD | 156.12 | < LOD | 308.45 | 1367.75 | 320.52 | < LOD | 15 | < LOD | 16.65 | < LOD | 12.19 |
| P421619 | 9.08 | 46.37 | 25.52 | 161.42 | 16.08 | 94.62 | 24.73 | < LOD | 149.61 | 46719.61 | 308.17 | 1486.27 | 84.04 | < LOD | 160.45 | < LOD | 309.08 | 1245.74 | 324.23 | < LOD | 15.03 | < LOD | 16.66 | < LOD | 12.22 |
| P421620 | 8.77 | 43.46 | 24.27 | 129.05 | 14.68 | 68.57 | 23.36 | < LOD | 150.04 | 52419.88 | 317.96 | 1659.25 | 85.31 | < LOD | 148.2 | < LOD | 294.99 | 1491.47 | 309.61 | < LOD | 14.73 | < LOD | 16.24 | < LOD | 11.98 |
| P421621 | 10.65 | < LOD | 37.87 | 182.66 | 16.64 | 92.15 | 24.89 | 157.82 | 100.91 | 47764.78 | 312.52 | 1797.24 | 90.05 | < LOD | 159.93 | < LOD | 319.26 | 3834.74 | 361.12 | < LOD | 15.06 | < LOD | 16.78 | < LOD | 12.3 |
| P421622 | 9.64 | 42.16 | 26.97 | 265.03 | 19.21 | 175.81 | 27.77 | < LOD | 164.18 | 61402.69 | 361.82 | 1560.58 | 89.6 | 256.02 | 109.33 | < LOD | 293.67 | 1510.6 | 312.64 | < LOD | 15.55 | < LOD | 17.3 | < LOD | 12.69 |
| P421623 | 9.22 | < LOD | 62.04 | 145.67 | 16.34 | 144.7 | 27.06 | < LOD | 156.88 | 49806.34 | 327.3 | 1419.03 | 85.92 | < LOD | 169.84 | < LOD | 319.04 | 1246.74 | 327.48 | < LOD | 15.7 | < LOD | 17.37 | < LOD | 12.76 |
| P421624 | 9.45 | < LOD | 39.7 | 143.65 | 16.28 | 127.87 | 26.38 | < LOD | 155.23 | 50703.31 | 331.27 | 1480.26 | 87.5 | 195.18 | 114.67 | < LOD | 323.71 | 1621.05 | 333.47 | < LOD | 15.74 | < LOD | 17.48 | < LOD | 12.76 |
| P421625 | 9.61 | < LOD | 39.04 | 184.74 | 17.48 | 111.04 | 26.69 | < LOD | 160.65 | 53178.15 | 340.23 | 1436.07 | 87.42 | 307.4 | 116.68 | < LOD | 325.87 | 1960.7 | 335.67 | < LOD | 15.91 | < LOD | 17.61 | < LOD | 12.82 |
| P421626 | 8.43 | < LOD | 35.64 | 277.05 | 18.24 | < LOD | 37.67 | < LOD | 142.39 | 42111.33 | 286.3 | 990.18 | 71.45 | < LOD | 149.81 | < LOD | 301.55 | 690.84 | 316.11 | < LOD | 14.43 | < LOD | 16.1 | < LOD | 11.9 |
| P421626D | 8.2 | 49.59 | 24.33 | 275.6 | 18.12 | < LOD | 37.7 | 141.22 | 93.21 | 39576.85 | 275.7 | 977.08 | 70.47 | < LOD | 152.21 | < LOD | 298.88 | 845.16 | 320.73 | < LOD | 14.4 | < LOD | 15.96 | < LOD | 11.84 |
| P421627 | 8.86 | < LOD | 36.95 | 540.92 | 23.53 | 97.26 | 24.24 | < LOD | 145.59 | 43856.64 | 295.02 | 1393.25 | 80.53 | < LOD | 151.49 | < LOD | 309.79 | 922.72 | 317.74 | < LOD | 14.83 | < LOD | 16.36 | < LOD | 12.05 |
| P421628 | 9.5 | < LOD | 38.09 | 211.2 | 17.33 | 148.43 | 25.93 | < LOD | 150.29 | 47719.35 | 310.55 | 1502.91 | 84.3 | < LOD | 161.91 | < LOD | 311.59 | 1522.74 | 324.75 | < LOD | 15.15 | < LOD | 16.8 | < LOD | 12.27 |
| P421629 | 9.24 | 47.59 | 26.16 | 330.76 | 20.16 | 143.96 | 26.12 | < LOD | 157.29 | 58357.14 | 346.95 | 1777.73 | 91.54 | 184.16 | 107.4 | < LOD | 298.56 | 1806.49 | 315.99 | < LOD | 15.37 | < LOD | 16.99 | < LOD | 12.42 |
| P421630 | 9.11 | 45.22 | 25.04 | 264.56 | 18.28 | 91.82 | 24.41 | 186.07 | 98.29 | 44607.86 | 298.25 | 1525.05 | 83.6 | < LOD | 158.83 | < LOD | 312.02 | 1142.96 | 321.3 | < LOD | 14.9 | < LOD | 16.4 | < LOD | 12.13 |
| P421631 | 8.92 | 43.33 | 26.01 | 164.85 | 16.46 | 96.27 | 25.57 | 204.51 | 102 | 47535.46 | 313.92 | 1221.16 | 80.01 | < LOD | 166.3 | < LOD | 317.04 | 1168.98 | 323.74 | < LOD | 15.38 | < LOD | 17.05 | < LOD | 12.42 |
| P421632 | 9.99 | < LOD | 60.38 | 534.25 | 23.55 | 75.25 | 24.13 | < LOD | 151.5 | 51951.8 | 322.04 | 1697.14 | 87.39 | < LOD | 150.03 | < LOD | 299.7 | 1348.04 | 312.1 | < LOD | 14.98 | < LOD | 16.63 | < LOD | 12.17 |
| P421633 | 9.48 | < LOD | 60.81 | 412.15 | 21.53 | 154.9 | 25.73 | < LOD | 146.79 | 46927.69 | 308.14 | 1583.9 | 85.79 | < LOD | 162.29 | < LOD | 308.95 | 527.96 | 309.61 | < LOD | 14.99 | < LOD | 16.6 | < LOD | 12.14 |
| P421634 | 8.95 | 39.17 | 24.83 | 375.01 | 20.35 | 131.65 | 24.82 | < LOD | 146.05 | 46857.81 | 301.65 | 1535.26 | 83.04 | < LOD | 155.37 | < LOD | 304.92 | 1079.51 | 311.66 | < LOD | 14.66 | < LOD | 16.28 | < LOD | 11.95 |
| P421635 | 8.77 | 39.41 | 25.26 | 590.76 | 24.46 | 129.46 | 24.87 | < LOD | 140.04 | 40686.87 | 284.31 | 1095.91 | 74.68 | < LOD | 161.35 | < LOD | 309.76 | 1030.48 | 325.53 | < LOD | 14.89 | < LOD | 16.47 | < LOD | 12.11 |
| P421636 | 10.96 | < LOD | 62.18 | 2066.04 | 43.71 | 88.62 | 25.38 | < LOD | 149.81 | 46127.33 | 312.72 | 1729.33 | 90.4 | < LOD | 163.66 | < LOD | 314.4 | 878.09 | 321.17 | < LOD | 15.58 | < LOD | 17.18 | < LOD | 12.59 |
| P421636D | 10.45 | < LOD | 36.19 | 2347.35 | 43.7 | 100.65 | 23.63 | < LOD | 141.31 | 46393.8 | 296.03 | 1780.08 | 86.14 | < LOD | 153.7 | < LOD | 290.9 | < LOD | 437.86 | < LOD | 14.48 | < LOD | 16.03 | < LOD | 11.79 |
| P421637 | 10.99 | < LOD | 37.54 | 2726.91 | 48.2 | 74.13 | 23.33 | < LOD | 134.27 | 36893.37 | 271.56 | 1408.25 | 80.49 | < LOD | 157.19 | < LOD | 310.14 | < LOD | 468.67 | < LOD | 14.98 | < LOD | 16.66 | < LOD | 12.17 |
| P421638 | 7.54 | < LOD | 31.89 | 790.69 | 24.96 | 66.76 | 20.22 | < LOD | 111.14 | 26180.82 | 208.8 | 873.95 | 61.42 | < LOD | 143.17 | < LOD | 293.7 | < LOD | 458.15 | < LOD | 13.23 | < LOD | 14.63 | < LOD | 10.88 |
| P421639 | 10.02 | < LOD | 38.49 | 999.84 | 30.93 | 70.3 | 24.18 | < LOD | 142.83 | 42066.12 | 293.44 | 1735.59 | 88.23 | < LOD | 158.41 | < LOD | 309.33 | 750.23 | 322.39 | < LOD | 14.97 | < LOD | 16.56 | < LOD | 12.21 |
| P421640 | 10.37 | < LOD | 58.39 | 2861.67 | 47.65 | < LOD | 36.25 | < LOD | 118.15 | 28601.42 | 231.16 | 1149.73 | 71.63 | < LOD | 155.02 | < LOD | 308.41 | < LOD | 485.06 | < LOD | 14.28 | < LOD | 15.79 | < LOD | 11.6 |

| Sample | Ag | Ag Error | Pd | Pd Error | Bal | Bal Error | Nb | Nb Error | Bi | Bi Error | Re | Re Error | Ta | Ta Error | Hf | Hf Error |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Avg | Error | 8.8 | | 6.8 | | 603.1 | | 1.4 | | 4.2 | | 1.5 | | 1.5 | | 1.5 |
| P421571 | < LOD | 8.93 | < LOD | 6.84 | 933566.19 | 629.66 | 3.5 | 1.35 | < LOD | 3.16 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421572 | < LOD | 8.55 | < LOD | 6.55 | 942645.94 | 582.97 | 3.56 | 1.32 | < LOD | 3.47 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421573 | < LOD | 8.95 | < LOD | 6.82 | 939513.19 | 614.99 | 2.34 | 1.34 | < LOD | 3.47 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421574 | < LOD | 8.68 | < LOD | 6.61 | 942224.63 | 588.57 | 2.3 | 1.31 | < LOD | 3.31 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421575 | < LOD | 8.98 | < LOD | 6.8 | 945989 | 605.59 | 3.88 | 1.38 | < LOD | 4.85 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421576 | < LOD | 8.58 | < LOD | 6.64 | 941557.38 | 590.66 | 2.98 | 1.31 | < LOD | 3.29 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421576D | < LOD | 8.69 | < LOD | 6.64 | 942806.19 | 592.15 | 5.69 | 1.37 | < LOD | 3.55 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421577 | < LOD | 8.49 | < LOD | 6.54 | 948295.88 | 573.88 | 2.74 | 1.29 | < LOD | 3.06 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421578 | < LOD | 8.88 | < LOD | 6.72 | 949693.31 | 587.6 | 4.11 | 1.38 | < LOD | 4.61 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421579 | < LOD | 9.07 | < LOD | 6.88 | 946726.69 | 605.74 | 4.19 | 1.39 | < LOD | 5.14 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421580 | < LOD | 9.51 | < LOD | 7.1 | 947914.38 | 630.84 | 3.03 | 1.45 | < LOD | 5.07 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421581 | < LOD | 8.37 | < LOD | 6.42 | 946933 | 655.97 | 5.71 | 1.35 | 11.18 | 4.2 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421582 | < LOD | 8.81 | < LOD | 6.78 | 940154.94 | 603.78 | 2.8 | 1.33 | < LOD | 6.08 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421583 | < LOD | 8.99 | < LOD | 6.91 | 947606.88 | 596.35 | < LOD | 2 | 17.03 | 4.66 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421584 | < LOD | 8.95 | < LOD | 7.9 | 941986.38 | 608.43 | 2.05 | 1.33 | < LOD | 6 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421585 | < LOD | 9.12 | < LOD | 6.93 | 941051.63 | 617.48 | 4.74 | 1.4 | < LOD | 4.56 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421586 | < LOD | 9.43 | < LOD | 7.42 | 936615.5 | 625.72 | 2.86 | 1.35 | < LOD | 4.2 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421586D | < LOD | 8.88 | < LOD | 6.8 | 935938.13 | 710.39 | 4.91 | 1.39 | < LOD | 3.81 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421587 | < LOD | 9.04 | < LOD | 6.88 | 933499.81 | 631.47 | 2.33 | 1.33 | < LOD | 3.96 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421588 | < LOD | 9.87 | < LOD | 7.15 | 934518.44 | 660.77 | 2.55 | 1.39 | < LOD | 3.78 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421589 | < LOD | 8.79 | < LOD | 6.75 | 947087.88 | 586.78 | 4.01 | 1.35 | < LOD | 3.46 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421590 | < LOD | 8.65 | < LOD | 6.7 | 949222.63 | 577.23 | 2.54 | 1.31 | < LOD | 3.54 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421617 | < LOD | 9.03 | < LOD | 6.88 | 935804.13 | 632.18 | < LOD | 2 | < LOD | 3.24 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421618 | < LOD | 8.79 | < LOD | 6.69 | 941531.06 | 598.06 | 3.29 | 1.33 | < LOD | 3.45 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421619 | < LOD | 8.82 | < LOD | 6.68 | 942919.88 | 599.71 | 2.96 | 1.34 | < LOD | 3.47 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421620 | < LOD | 8.57 | < LOD | 6.94 | 937523.88 | 597 | 3.93 | 1.31 | < LOD | 3.33 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421621 | < LOD | 8.81 | < LOD | 6.74 | 939020 | 635.28 | 3.45 | 1.35 | < LOD | 4.69 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421622 | < LOD | 9.19 | < LOD | 6.97 | 929738.44 | 644.24 | 3.9 | 1.38 | < LOD | 3.54 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421623 | < LOD | 9.19 | < LOD | 6.97 | 940065.25 | 622.95 | 2.17 | 1.35 | < LOD | 3.68 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421624 | < LOD | 9.19 | < LOD | 6.99 | 938884.5 | 633.63 | 2.75 | 1.37 | < LOD | 4.08 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421625 | < LOD | 9.28 | < LOD | 7.05 | 936213.63 | 644.98 | < LOD | 2.02 | < LOD | 3.52 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421626 | < LOD | 8.54 | < LOD | 6.54 | 948070.06 | 568.44 | 5.08 | 1.35 | < LOD | 5.1 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421626D | < LOD | 8.43 | < LOD | 6.5 | 950250.5 | 560.37 | 3.94 | 1.32 | < LOD | 4.97 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421627 | < LOD | 8.73 | < LOD | 6.68 | 945527.88 | 583.71 | 3.32 | 1.32 | < LOD | 5.04 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421628 | < LOD | 8.84 | < LOD | 6.75 | 941594.69 | 603.91 | 4.99 | 1.37 | < LOD | 4.22 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421629 | < LOD | 8.99 | < LOD | 6.85 | 931851.88 | 635.52 | 2.93 | 1.34 | < LOD | 3.68 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421630 | < LOD | 8.77 | < LOD | 6.69 | 944652.5 | 590.1 | 2.22 | 1.3 | < LOD | 4.54 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421631 | < LOD | 9.02 | < LOD | 6.86 | 942294.38 | 606.08 | 2.64 | 1.34 | < LOD | 4.8 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421632 | < LOD | 8.78 | < LOD | 6.87 | 937861.56 | 605.07 | 2.29 | 1.31 | < LOD | 5.45 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421633 | < LOD | 8.8 | < LOD | 6.67 | 943170.06 | 591.73 | 3.29 | 1.34 | < LOD | 4.18 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421634 | < LOD | 8.56 | < LOD | 6.61 | 942665.56 | 585.74 | 3.11 | 1.31 | < LOD | 4.09 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421635 | < LOD | 8.72 | < LOD | 6.66 | 948717.06 | 576.08 | 5.75 | 1.38 | < LOD | 4.37 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421636 | < LOD | 9.08 | < LOD | 6.86 | 942307.19 | 610.17 | 2.58 | 1.36 | 15.43 | 4.8 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421636D | < LOD | 8.5 | < LOD | 6.47 | 942337.94 | 573.77 | 4.31 | 1.31 | 27.17 | 4.8 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421637 | < LOD | 8.7 | < LOD | 6.72 | 951324.06 | 566.69 | 2.39 | 1.31 | 11.03 | 4.68 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421638 | < LOD | 7.62 | < LOD | 5.94 | 964332.44 | 489.96 | < LOD | 1.5 | < LOD | 4.67 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421639 | < LOD | 8.82 | < LOD | 6.7 | 946907.75 | 586.46 | 4.5 | 1.37 | 6.59 | 4.02 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |
| P421640 | < LOD | 8.3 | < LOD | 6.31 | 959638.81 | 531.38 | 2.83 | 1.28 | < LOD | 5.91 | < LOD | 1.5 | < LOD | 1.5 | < LOD | 1.5 |

# Appendix II

## Geological Stations

## & Sample Descriptions

| Station | Sample | UTM Zone | E | N | Elev | Sample description | Other geological notes | Feature | Dip | Dip Direction |
|---|---|---|---|---|---|---|---|---|---|---|
| RG16-165 | | 9 | 680319 | 6281048 | | | fine-medium grained quartz monzodiorite-granodiorite | | | |
| RG16-166 | | 9 | 679712 | 6280468 | 2041 | | fine grained hbl-phyric, medium grey andesite cut by local qz veinlets | | | |
| RG16-167 | | 9 | 679380 | 6280522 | 2018 | | FLPTTP, thin, discontinuous qz+/- ep veinlets of variable orientation cut medium-dark grey andesite which is locally fine-grained hbl-fs phyric and locally aphyric | | | |
| RG16-168 | | 9 | 679352 | 6280538 | 2018 | | calcite-Fe-carbonate alteration in subcrop in saddle - possible fault | | | |
| RG16-169 | | 9 | 678812 | 6280697 | 1982 | | same andesite as described at station 167 FLPTTP, with diminished intensity of veining and predominantly hbl-fs phyric andesite last 200 m | | | |
| RG16-170 | NK170 | 9 | 678545 | 6280785 | 1946 | large (up to 80cm wide) bull quartz vein with minor malachite and chrysocolla, and rare glassy limonite (after chalcopyrite); not obviously pegmatitic | uphill from sample, weakly hematitic fractures and two small bull quartz veins cut a medium-grained, acicular hbl-blocky fs phyric dike 50 cm wide | mineralized vein | 59 | 4 |
| RG16-171 | NK171 (two samples) | 9 | 678518 | 6280832 | 1942 | 1-15 cm wide, qz-Kfs-cpy-bn-anhydrite(?)(boxwork) vein; pegmatitic texture on margins, center dominated by quartz; chrysocolla common, locally inhabiting anhydrite boxworks; wallrock is relatively fresh hbl-fs phyric andesite w/ minor ep-qz veins which are cut by the mineralized pegmatitic veins | downhill to N, veins can be seen to continue to base of slope with consistent spacing, which averages perhaps one 15 cm-wide vein per 1.5m, or a vein density of 10% of the rock by volume; mineralization within veins is somewhat erratic, with some veins containing up to 5% cpy+bn, and others containing almost none; the average vein may contain 1% Cu sulphide by volume | mineralized vein | 50 | 306 |
| RG16-172 | NK172 | 9 | 678324 | 6280835 | 1842 | float sample of mineralized pegmatitic vein and wallrock, as described above | | | | |
| RG16-173 | | 9 | 678329 | 6280880 | 1820 | | in sheeted vein swarm | mineralized vein | 59 | 329 |
| RG16-174 | | 9 | 678236 | 6280992 | 1709 | | continuous veining as described above TTP, which is lower extent of outcrop | mineralized vein | 53 | 329 |
| RG16-175 | NK175 | 9 | 678223 | 6280987 | 1706 | especially well-mineralized vein, 15 cm wide, containing 5% bn and chrysocolla | | | | |
| RG16-176 | | 9 | 678133 | 6280807 | 1707 | | minimum southwestern extent of vein swarm at edge of outcrop | | | |
| RG16-177 | | 9 | 678424 | 6281170 | 1708 | | mineralized vein float abundant TTP, diminishing dramatically further east | | | |
| RG16-178 | NK178 | 9 | 678445 | 6281182 | 1710 | float of thin (1 cm wide) quartz (pegmatitic?) vein with cpy cutting ep veined, weakly chl altered (fs-)hbl phyric andesite | | | | |
| RG16-179 | | 9 | 678577 | 6281273 | 1711 | | locally amygdaloidal, hbl-fs phyric andesite cut by ep veinlets; mineralized veins absent | | | |
| RG16-180 | | 9 | 678774 | 6281456 | 1669 | | FLPTTP no mineralized veins in float; ATP breccia containing andesitic clasts of variable texture (fine-medium grained, fs phyric, locally amygdaloidal) | | | |
| RG16-181 | | 9 | 679918 | 6281337 | 1714 | | weakly phyllitic, chloritized andesite containing locally flattened and stretched hbl | | | |

Abbreviations: FLPTTP = from last place to this place; TTP = to this place; ATP = at this place; qz = quartz; ep = epidote; chl = chlorite; Kfs = potassium feldspar; cpy = chalcopyrite; bn = bornite

# Appendix III

## Cost Statement

| Nik Exploration Cost Statement, August, 2016 - March, 2017 | | | | | |
|---|---|---|---|---|---|
| **Exploration Work Type** | **Details** | | | | **Totals** |
| | | | | | |
| **Geological Consulting** | | Days | Rate | Subtotal | |
| Roy Greig - geologist | Geol mapping, travel, report (* note) | 9 | 650 | 5,850 | |
| Jeff Rowe - geologist | Data review, report preparation | 2 | 650 | 1,300 | |
| McLean Donohoe - geologist | Soil sampling, travel (* note) | 3 | 500 | 1,500 | |
| Alison Schroeder - sampler | Soil sampling, travel (* note) | 3 | 450 | 1,350 | |
| C.J. Greig & Associates, Ltd. | XRF operation, soil sample analyses | 1 | 450 | 450 | |
| C.J. Greig & Associates, Ltd. | GIS maps, figures for report | 1 | 450 | 450 | |
| | | | | | 10,900 |
| **Helicopter** | August 21 & 22, 2016 | | | | |
| Silver King Helicopters | Helicopter access to property | | | 5,198 | |
| | | | | | 5,198 |
| **Analytical Work** | | | | | |
| C.J. Greig & Associates, Ltd. | XRF analysis of 44 soil samples | 44 | 10 | 440 | |
| | Sample shipping | | | 80 | |
| | | | | | 520 |
| **Travel & Accomodation** | | | | | |
| Aurico Metals | Accommodation - Kemess Mine | 6 | 200 | 1,200 | |
| | Truck rental, fuel | | | 750 | |
| | Travel costs, food, motel | | | 300 | |
| | Field gear and equipment rentals | | | 800 | |
| | Office equipment, software | | | 200 | |
| | | | | | 3,250 |
| | | | | | |
| | | **Total Expenditures** | | | **19,868** |

(* note)

Field: Aug 22, 2016 - 1 day x 3 personnel

Travel: Aug 12, Aug 26, 2016 - 2 days x 3 personnel

# Appendix IV

Statements of Qualifications

## Author's Statement of Qualifications

I, Roy Edward Greig, of 250 Farrell St., Penticton, British Columbia, Canada, hereby certify that:

1. I am a graduate of the University of British Columbia with a B.Sc. (Honours) (Geological Sciences, 2012) and have practiced my profession continuously from 2011 to present.

2. I have been employed in the geoscience industry for 11 years, and have explored for base and precious metals in North America, South America, and Africa for a number of junior mining companies.

3. I have been certified as a Professional Geoscientist (P.Geo.) by the Association of Professional Engineers and Geoscientists of British Columbia (license #171943), though I do not currently maintain active status.

4. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the technical report, the omission to disclose which makes the technical report misleading.

5. I have no direct or indirect interest in the property described herein, nor do I expect to receive any.

6. I am an author of the report entitled; "2016 Geological and Soil Geochemical Program on the Nik Property" dated September 30, 2017.

Dated at Penticton, British Columbia, this 30th day of September, 2017.

Respectfully submitted,

*"Roy E. Greig"*

Roy E. Greig, B.Sc.

## Author’s Statement of Qualifications

I, Jeffrey D. Rowe, of 111-6109 Boundary Drive W., Surrey, British Columbia, Canada, hereby certify that:

1. I am a graduate of the University of British Columbia with a B.Sc. (Honours) (Geological Sciences, 1975) and have practiced my profession continuously from 1975 to 1999 and from 2007 to present.

2. I have been employed in the geoscience industry for over 30 years, and have explored for gold and base metals in North and South America for both senior and junior mining companies, on exploration properties as well as at a producing mine.

3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (license #19950).

4. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the technical report, the omission to disclose which makes the technical report misleading.

5. I have no direct or indirect interest in the property described herein, nor do I expect to receive any.

6. I am an author of the report entitled; “2016 Geological and Soil Geochemical Program on the Nik Property” dated September 30, 2017.

Dated at Surrey, British Columbia, this 30th day of September, 2017.

Respectfully submitted,

*“J D Rowe”*

Jeffrey D. Rowe, B.Sc., P.Geo.