ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Shulaps Ultramafic Project: Blue and Peridotite Creek Areas – Exploration and Metallurgical Testing Report

TOTAL COST: $6,552.02

AUTHOR(S): Doug Warkentin
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A
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YEAR OF WORK: 2022

PROPERTY NAME: Shulaps Ultramafic

CLAIM NAME(S) (on which work was done): Blue Shu, Peri Shu, Shu 2.0, Shu 2.1

COMMODITIES SOUGHT: Au, Ni, Co, Cr, Mg

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: None.

MINING DIVISION: Lillooet
NTS / BCGS: 092O/01
LATITUDE: 51 ° 1 ' 6 "
LONGITUDE: 122 ° 27 ' 55 " (at centre of work)
UTM Zone: 10 EASTING: 537500 NORTHING: 5652000

OWNER(S): Doug Warkentin

MAILING ADDRESS: 7069 McBride St., Burnaby, BC, V5E 1R1

OPERATOR(S) [who paid for the work]: Crucible Resources Ltd.

MAILING ADDRESS: 7069 McBride St., Burnaby, BC, V5E 1R1

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**): Shulaps, Yalakom fault, ultramafic rocks, harzburgite, peridotite, serpentinite, dunite, forsterite, olivine, nickel, chromite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 18690, 19599, 21628, 30145, 30616, 34196.

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			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for …)			
Soil			
Silt			
Rock	7 samples, ICP-MS	Blue Shu, Peri Shu	$3579.41
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying	7 samples, prep and ICP-MS analysis	Blue Shu, Peri Shu	$341.61
Petrographic			
Mineralographic			
Metallurgic	3 tests, including ICP solution analysis	Shu 2.0, Shu 2.1	$2631.00
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		TOTAL COST	$6552.02

Shulaps Ultramafic Project

Lillooet Mining Division

NTS 092O 01
Project Centre: UTM NAD 83: Zone 10, 537500 East
5652000 North

Registered Owner: Doug Warkentin
Operator: Crucible Resources Ltd

Blue and Peridotite Creek Areas – Exploration and Metallurgical Testing Report

Project Tenure Numbers:

1091072, 1091098, 1091186, 1093354, 1093481, 1093782, 1093871, 1097134, 1097135, 1097220 and 1097228

SOW Event Numbers: 5967955, 5982445 and 5983255

May 10, 2023

Prepared By: Doug Warkentin, P.Eng

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Introduction

Location and Access

The Shulaps Ultramafic Project lies on the northeast side of the Shulaps Mountain Range near the Yalakom River, approximately 60 kilometres northwest of Lillooet B.C., which is the closest major service centre. Road access is from Lillooet via the Lillooet-Pioneer Road to the rural community of Moha, and then along the Yalakom Forest Service Road (FSR), which approaches the property on the northeast side along the river. The Lillooet-Pioneer Road is a well maintained public access road, while the Yalakom FSR is rough and prone to rock slides, but is maintained year-round and can be travelled by 2WD vehicles when conditions are favourable.

From the Yalakom FSR, a network of deactivated logging roads accesses the southeast part of the project area near Peridotite Creek, along with higher elevation areas to the east. Some of these roads, lying between Retaskit and Peridotite Creeks, remain seasonally passable with a high clearance vehicle. A branch of this road continues into the southern part of the claims but is not accessible to vehicles due to the removal of a bridge on Peridotite Creek. A separate small logging road network covers the northern part of the claims, near Blue Creek, but these roads are similarly inaccessible due to removal of a bridge at Blue Creek. A maintained access road to the nearby Elizabeth Gold Project exploration site passes within 100 meters of the north end of the claims, providing ready access to the small portion of the property lying north of Blue Creek.

The area has an interior climate, with hot dry summers and cold winters when significant snow accumulation can occur in high elevation areas. Lower elevation areas are forested, while most of the upper ridges in the Shulaps Range are open and rocky. The project claims are primarily on lightly forested lower elevation slopes, but a large part of this forest was burned off prior to 2010 and current vegetation remains sparse in areas above the creeks.

Yalakom Provincial Park, a large Class A provincial park in the neighbouring Camelsfoot Range, across the Yalakom River lies within 2 kilometres of the north end of the claim area.

Tenure Information

The Shulaps Ultramafic Project currently consists of 11 Mineral Titles claims with a contiguous area of 610 hectares. The claims were all acquired directly through on-line staking by the author and are currently under option to Crucible Resources Ltd. Crucible is a private B.C. registered company and is acting as the project operator.

Details of the current mineral tenures are listed in Table 1. Expiry dates shown in this table reflect the application of the work described in this report.

Figure 2 outlines the current tenure boundaries of the Shulaps project. There are no known crown-granted or active legacy claims underlying any of these tenures, so the area shown constitutes the complete project area.

Figure 1 – Shulaps Ultramafic Project Location Map

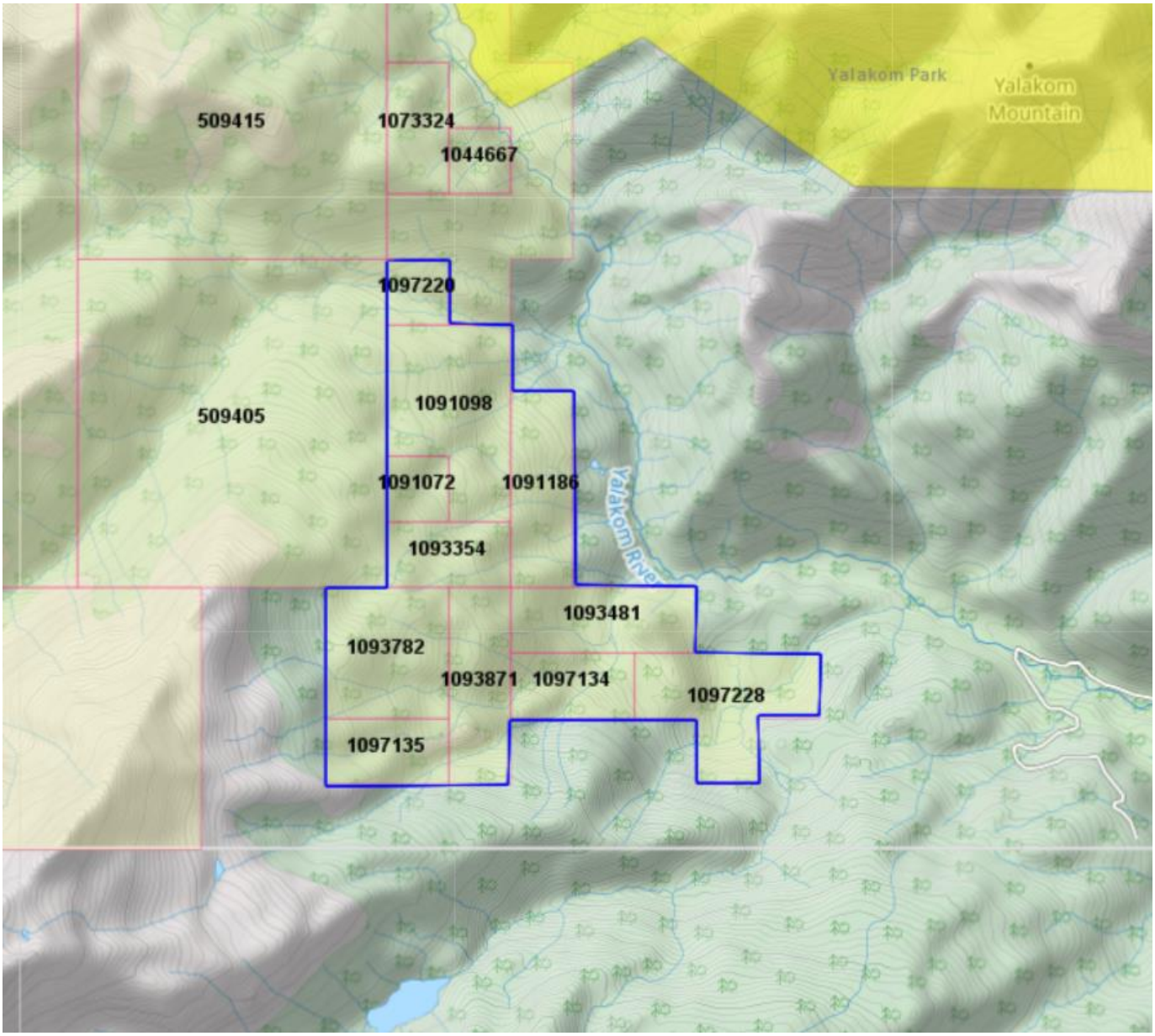

Figure 2 – Project Tenures (outlined in blue)

Table 1 – Shulaps Ultramafic Project - Mineral Tenures

Title Number	Claim Name	Owner	Map Number	Issue Date	Good To Date	Area (ha)
1091072	SHU 1	145582 (100%)	092O	2022/JAN/26	2024/JAN/08	20.33
1091098	SHU 2	145582 (100%)	092O	2022/JAN/26	2024/JAN/08	101.6
1091186	SHU 2A	145582 (100%)	092O	2022/JAN/26	2024/JAN/08	60.98
1093354	SHU 3	145582 (100%)	092O	2022/FEB/17	2024/JAN/08	40.66
1093481	SHU 4	145582 (100%)	092O	2022/FEB/24	2024/JAN/08	60.99
1093782	SHU 2.0	145582 (100%)	092O	2022/MAR/12	2024/JAN/08	81.32
1093871	SHU 2.1	145582 (100%)	092O	2022/MAR/19	2024/JAN/08	61.00
1097134	SHU 2.2	145582 (100%)	092O	2022/AUG/18	2024/JAN/08	40.66
1097135	SHU 2.3	145582 (100%)	092O	2022/AUG/18	2024/JAN/08	40.67
1097220	BLU SHU	145582 (100%)	092O	2022/AUG/24	2024/JAN/08	20.32
1097228	PERI SHU	145582 (100%)	092O	2022/AUG/24	2024/JAN/08	81.33
					Total:	609.9

Regional Geology

The claims of the Shulaps Ultramafic Project lie entirely within the Shulaps Ultramafic Complex, a major ophiolitic sequence within the Bridge River Terrane. The complex is emplaced within sedimentary and volcanic rocks of the Bridge River and Cadwallader Groups. The Bridge River Complex comprises variably metamorphosed chert, clastic sediments, limestone and mafic rocks. It is highly deformed, with most contacts occurring as faults. The Cadwallader Group comprises mafic volcanic formations and overlying bedded sediments.

To the northeast, the Shulaps complex is bounded by the Yalakom fault structure, a major northwest trending regional fault, while to the southwest lies the Marshall Creek fault, another major northwest trending structure. Within the Shulaps complex major rock units are commonly separated by thrust faulting and are crosscut by north or northwest tending regional faults, including the Mission Ridge and the Red Mountain faults.

Numerous small intrusive plutons and dykes occur regionally, including within the ultramafics. These are mainly felsic and porphyritic, and significant gold occurrences known in the area tend to be associated with these bodies.

The Shulaps ultrabasic rocks consist predominantly of harzburgites with subordinate amounts of dunite, peridotite, pyroxenite and gabbro, all of which has been variably serpentinized. The harzburgite is largely homogenous but local layering is common with layering defined by centimeter wide bands of orthopyroxenite and chromite. The dunite, peridotite and pyroxenite may locally define layering but more commonly occur as unoriented lenses and irregular masses which may crosscut layering within the harzburgite. Outlying rock units in the complex are dominated by serpentinite, surrounding the central harzburgite units. The origin of the Shulaps Complex has most recently been described as part of a dismembered ophiolitic suite (Nagel 1979, Wright et al 1982, Calon et al 1990).

The general geology of the claim area is shown in Figure 3.

Local Geology

As noted, the Shulaps Ultramafic Complex underlies the entire project area, with the majority within the main Harzburgite unit. The claims are located on the northeast side of this unit, and overlap into the adjacent Serpentinite Melange rocks that lie between the Harzburgite and the Yalakom fault. To the west and northwest are several small porphyritic diorite intrusions known as the Blue Creek Porphyries. Smaller occurrences of these intrusives are also mapped within the project boundaries between Blue Creek and Peridotite Creek.

Significant north and northwest trending faults cross the Harzburgite, including the Red Mountain and Mission Ridge faults. Thrust faults form the contacts between the Harzburgite and the Serpentinite Melange. The property is transected by the Red Mountain fault and includes the intersection of this structure with the contact fault on the northeast side of the Harzburgite unit.

Recorded mineralization on the property is limited to a small area along the ridge between Blue and Peridotite Creeks, where a gold-in-soil anomaly was found in the 1980's and follow-up trenching showed broad low-grade nickel with minor anomalous gold sections. Two Minfile occurrences are recorded within the Harzburgite rocks, a zone of chromite mineralization (Peridotite Creek, Minfile #092J NE141) and an asbestos showing (Shulaps Mountain, Minfile #092J NE112). In addition, deposits of magnesite are known to occur in the ultramafic rocks, particularly near fault zones, including one recorded a short distance north of the property (Sunny, Minfile #092O 014). Jade occurrences are also found in the serpentine, both to the south in the Jim Creek area and in the northwest of the property (Blue Creek, Minfile #092O 013). Chromite is reported to occur as small blebs and disseminated masses in layers of Dunite at several locations within the Harzburgite unit.

The most important mineral occurrences explored in the area are quartz and quartz-carbonate veins that occur in association with small felsic intrusive units (Blue Creek Porphyries). The Elizabeth (Minfile #092O 012) and the Big Sheep Mountain (Minfile #092O 047) deposits are 4- and 12-kilometres west project boundary, respectively. The Elizabeth is a significant gold development project with on-going drill programs and a historical inferred resource of 206,000 oz Au.

Regional geochemical sampling carried out by the BC Geological Survey indicates that ultramafic rocks of the Shulaps Complex contain high nickel and cobalt values, particularly in the harzburgite unit. These metals appear to be mainly associated with high-olivine rocks such as Dunite and Forsterite, likely occurring at least in part as solid solution replacement of iron in magnesium iron silicate minerals. Little information is available about the presence or nature of any specific nickel or cobalt minerals that may be present.

Minfile occurrences within 5 km of the property are listed in Table 2.

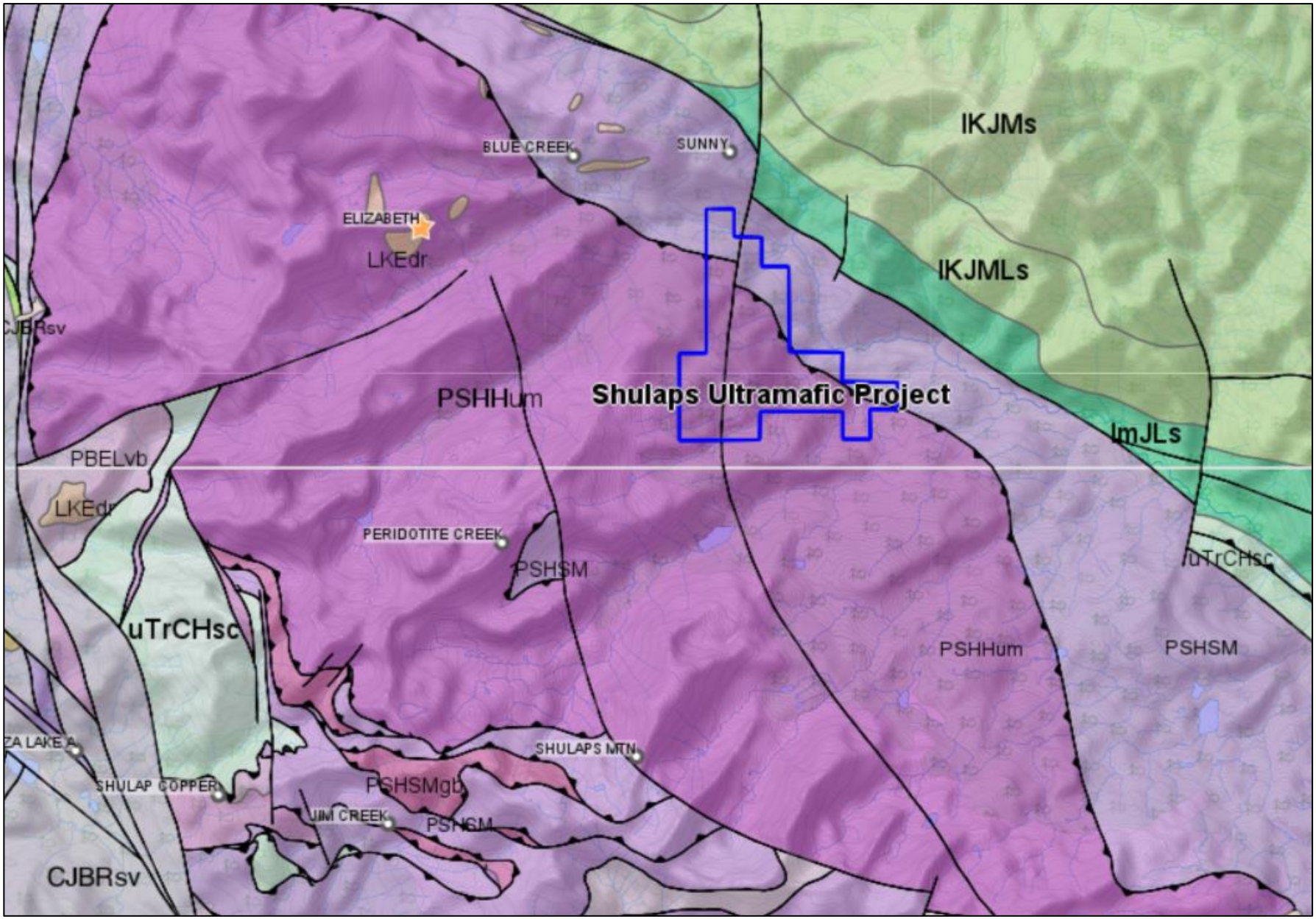

Figure 3 – Regional Geology, Shulaps Ultramafic Area

CJBRsv - Middle Mississippian to Middle Jurassic Bridge River Complex, marine sedimentary and volcanic rocks
lKJMs – Lower Cretaceous Jackass Mountain Group, undivided sedimentary rock
lKJMLs – Lower Cretaceous Jackass Mountain Group, coarse clastic sedimentary rock
lmJLs – Lower to Middle Jurassic Ladner Group, undivided sedimentary rocks
LKEdr – Late Cretaceous to Eocene, dioritic intrusive rock
PBELvb - Permian Bralorne-East Liza Complex, basaltic volcanic rocks
PSHHum – Permian Shulaps Ultramafic Complex – Harzburgite Unit, ultramafic rocks
PSHSM – Permian Shulaps Ultramafic Complex – Serpentinite Melange Unit, serpentinite ultramafic rocks
PSHSMgb – Permian Shulaps Ultramafic Complex – Serpentine Melange Unit, gabbro
uTrCHsc – Upper Triassic Cadwallader Group – Hurley Formation, coarse clastic sedimentary rocks

Figure 3 – Regional Geology, Shulaps Ultramafic Area (continued)

Table 2: Shulaps Ultramafic Project – Area Minfile Showings

Occurrence	Minfile #	Status	Commodities	Production (tonnes)	Historical Grades (Date)
Blue Creek	092O 013	Showing	Jade/Nephrite	-	
Elizabeth	092O 012	Developed Prospect	Au, Ag, Pb, Zn, Cu, Mo	8	19.5 g/t Au, 19.5 g/t Ag, 0.3% Pb (1958)
Peridotite Creek	092JNE141	Showing	Cr	-	
Shulaps Mtn	092JNE112	Showing	ChrysotileAsbestos	-	
Sunny	092O 014	Showing	Magnesite	-	32-42.8% MgO

Property History

The area first began to receive attention in the late 1930's with the discovery of the Elizabeth deposit on Blue Creek. That property has seen intermittent development work since that time, including recent drill programs that have continued to expand the known gold mineralization. A 2009 resource estimate for J-Pacific Gold Inc. gave an inferred resource of 522,900 tonnes grading 12.3 g/t Au. The Big Sheep Mountain gold prospect further to the west of the project area has also been explored. Further to the north the Poison Mountain porphyry copper deposit has been drilled extensively. A 1995 Imperial Metals Corp. report cited and inferred resource of 18.3 million tonnes at 0.31% Cu and 0.128 g/t Au.

The most detailed exploration program that is known to have been carried out within the project area was by Corona Corporation in the late 1980's. Their 'Shulaps Project' covered an extensive area of the southern Shulaps Range that included the current project area. In 1988 and 1989 they conducted a broad grassroots exploration campaign that included extensive stream geochemical sampling, some prospecting and airborne geophysics. The primary target of this work was apparently high-grade gold mineralization similar to that of the Elizabeth prospect. The work identified several areas of anomalous gold in stream sediments, as well as a strong gold-in-soil anomaly within the current project area. This was followed up by a single trench in the area that returned consistent low-grade

nickel values but only minor anomalous gold values. Results were not followed up further and the claims were allowed to lapse some time thereafter. The geophysical work conducted identified many features, including at least one that was tentatively identified as a possible massive sulphide occurrence, but there is no information on any follow up work on that target.

Much of the south end of the Shulaps ultramafic unit was staked by Crucible Resources and explored by small reconnaissance programs between 2007 and 2009. This work was able to identify an area on the northeast side of the Shulaps range between Peridotite and Retaskit Creek where surface sampling gave consistently high values for nickel in the ultramafic rocks. Values in these samples ranged from 0.17% to 0.33% nickel, including extensive exposures of peridotite along a ridge and plateau which consistently graded above 0.22% Ni. Metallurgical testing of this nickeliferous material showed the nickel to be largely refractory to conventional processing methods, supporting an interpretation of the nickel occurring mainly within the silicate matrix.

In 2012 and 2013 a similar area was held by 2313245 Ontario Inc, but only including a small part of the current claims. They conducted a broad program of rock geochemical sampling. Many samples (41 of 45) returned 0.2-0.3% nickel, with similar values for chromium, but Davis tube testing showed generally low DTR nickel values, with 6 of 45 samples returning greater than 0.05% DTR Ni.

Summary of Work

A site visit was conducted over two days in August 2022 to prospect in the Peridotite and Blue Creek areas at the south and north ends of the property, respectively. The work was principally a reconnaissance visit aimed at investigating current road access and terrain, prospect along the creeks and collect mineralized material for future laboratory investigations. Rock samples collected were principally float rock or subcrop, aside from a single outcrop sample collected from a canyon wall along Blue Creek. A total of seven rock samples were collected, including the single outcrop chip sample, four float samples and two subcrop samples.

Metallurgical Testing was conducted using a composite of archived sample material from the Peridotite Creek area. Three preliminary scoping tests were conducted covering a range of both conventional and proprietary chemical extraction methods aimed at recovering nickel from the silicate matrix.

Work Program

Sampling and Data Collection

Samples were collected during a two-day site visit to the Shulaps Ultramafic project claims. On August 26th, 2022, the southeast part of the property was visited, in the vicinity of Peridotite Creek. Access was via the Yalakom FSR to the deactivated Burkholder FSR network. The crossing at Peridotite Creek has been removed, so work was conducted along this road and along the south side of the creek and surrounding hillside. The following day the area north of Blue Creek was investigated as far upstream as the west boundary of the property. The area was accessed directly from the Yalakom FSR, which crosses the river just north of the Blue Creek confluence, and from the Elizabeth Mine access road, which passes close to the northwest corner of the property. A forestry road spur to the south of Blue Creek was inaccessible due to the removal of a bridge near its intersection with the Yalakom FSR. This work consisted of a traverse following the canyon of

Blue Creek, and along the steep slopes above the creek. Four samples were collected from the Peridotite Creek area, which included sampling of a peridotite float boulder near the creek, peridotite subcrop above the road, and two samples of iron-stained quartz-carbonate vein material. Three additional samples were collected near Blue Creek, including a chip sample from an outcrop of fresh ultramafics in the canyon wall and two samples from peridotite float boulders. In total 7 rock samples were collected.

In addition to the site visit, this report includes three multi-stage metallurgical tests conducted using an archived sample composite from material collected in the Peridotite Creek area in 2008 and 2009. The testing was a scoping program covering a range of potential extraction chemistry targeting the nickel content, with the objective of unlocking the economic potential of the silicate-bound nickel, which is widespread in this region.

Sample descriptions and locations, along with principal assay results for the rock samples collected are summarized in Table 3, while Table 4 summarizes the results from the metallurgical testing. Locations and key results are shown for the samples collected on the maps in Appendix 1. Individual metallurgical test reports are included in Appendix 2. Complete assay reports are included in Appendix 3. Rock samples were dried, crushed, split and pulverized before being analyzed. Solution samples from metallurgical testing were filtered, weighed and submitted for assay using a 33 element scan by ICP-ES. Solid residues were dried and pulverized before being digested in aqua regia and submitted for the same 33 element scan by ICP-ES. For rock samples, 0.5 grams of pulverized material was digested with aqua regia. Rock samples were analyzed using a standard 37 element scan by ICP-MS. Site rock sample analyses were carried out by Bureau Veritas Mineral Laboratories (formerly Acme Analytical Laboratories Ltd.) located in Vancouver, B.C. Metallurgical test sample analyses were conducted by Kemetco Research Inc., located in Richmond, BC.

The locations visited, samples collected, and tests completed are described below.

Site Samples

Both areas visited were characterized by heavy forest cover in lower elevations near the creeks, with more exposed rock and talus slopes rising upslope to the west and away from the deep ravines cut by the creeks. Clearly exposed bedrock was rare as even exposed rocky slopes were typically talus covered with large float boulders. In the Peridotite Creek area large amounts of float material were present below a narrow ravine. At the mouth of this ravine there were numerous prominent rusty peridotite boulders that appeared to be typical of mineralized Harzburgite sections of the Shulaps Ultramafics. A sample was collected consisting of chips from a typical example these float boulders (CR220826-1) which showed values similar to those reported in past work from higher elevations to the west (0.24% Ni). Rusty peridotite was also exposed on a hillside above the road, a short distance south of the creek. It was unclear if this was a bedrock exposure or very large subcrop, but a chip sample was collected (CR220826-3) which also showed high nickel content (0.20%).

In a flatter area below the road extensive talus and stream float included a significant amount of quartz-carbonate float, some showing minor pyrite and iron staining. A selection of this material (CR220826-2) returned anomalous copper content, but otherwise low values. There were some limited exposures of serpentinite and peridotite subcrop in cuts along the road to the northeast, with occasional zones of mineralized float in road-cut talus. In one such section a sample was collected from a large piece of quartz-carbonate float showing strong iron staining (CR220826-4). This sample showed similar grades to the vein float material collected near the creek, including the anomalous copper.

Table 3: Rock Sample Descriptions with Analytical Results

Sample #	Date	Description	UTM East	UTM North	Width (m)	Au g/t	Ag g/t	Cu ppm	Ni ppm	Co ppm
	Peridotite Creek Area - Rock									
CR220826-1	2022-08-26	Floiat boulder - perid w Fe oxides	538835	5650753	0.6	0.002	<0.1	13.4	2363	98.9
CR220826-2	2022-08-26	Silicified float with sulphides	538827	5650783	-	0.002	0.1	246.6	9.5	7.4
CR220826-3	2022-08-26	Gossanous altered mafic subcrop	538851	5650766	-	0.001	<0.1	11.8	2010	96.7
CR220826-4	2022-08-26	Pyritic quartz float	539131	5650972	0.5	0.001	0.1	197.5	18.2	12.8
	Blue Creek Area - Rock									
CR220827-1	2022-08-27	Mafic outcrop, oxidized and iron stained	536423	5653914	2.0	0.001	<0.1	4.9	2074	97.4
CR220827-2	2022-08-27	Dunite/peridotite bldrs along creek	536273	5653940		0.001	<0.1	8.5	1994	91.4
CR220827-3	2022-08-27	Rusty perid. boulders on ridge above creek	536300	5653950		0.001	<0.1	6.7	1830	90.1

Along Blue Creek to the north the steep canyon made access to rock exposures along the creek difficult. Slopes varied between steep rock faces and unstable talus slopes. One chip sample was collected from an exposed rock face showing dark ultramafics with limited iron staining of exposed surfaces. This sample (CR220827-1) carried significant nickel (0.21% Ni) despite the lack of typical rusty peridotite. Further upstream, near the claim boundary, a field of very large float boulders has accumulated on a small bench at the bottom of the canyon. This included peridotite and possible dunite boulders. A sampling of the peridotite (CR220827-2) carried 0.20% Ni. On the hillside above the crest of the canyon there were numerous rusty peridotite float boulders and subcrop on a relatively gentle slope. A sampling of a few of these (CR220827-3) again showed elevated nickel content (0.18% Ni).

Metallurgical Test Program

Past work in this region has demonstrated that the harzburgite unit of the Shulaps Ultramafic complex carries consistently high nickel values over wide areas, and the current site sampling adds further confirmation of widespread mineralization. Previous analysis has shown that much of the nickel is not amenable to conventional metallurgical techniques such as froth flotation, magnetic or gravity separation, although recent Davis tube testing showed that in some locations a small fraction of the nickel can be recovered to the magnetic fraction. Developing the nickel potential of these rocks will therefore require identification of less conventional processing methods that can extract the nickel, and other potential values, to a degree that could justify the processing cost. With this objective, a metallurgical test program was initiated to investigate the response to a range of possible chemical process conditions favourable to nickel extraction.

Table 4: Metallurgical Test Descriptions and Extractions

Test #	Start Date	Description	Ni Extr. %	Co Extr. %	Mg Extr. %	Fe Extr. %
ShNi T1	2022-05-17	Multi-stage complexing alkaline leach, 15-80^{o}C	20.8	6.1	2.9	0
ShNi T2	2022-06-02	Multi-stage acid and alkaline leach, 15^{o}C	63.7	57.2	46.9	58.6
ShNi T3	2022-09-02	Staged silicate matrix leach, 15^{o}C	81.1	25.8	63.7	68.2

For this initial round of scoping tests, a composite sample was used, which was made up of well mineralized archived samples from Crucible's archived material. These samples were collected in 2008 and 2009 in the Peridotite Creek area and represent typical rusty peridotite from the harzburgite unit of the Shulaps complex. The composite grades 0.22% Ni and has been previously examined with conventional processing methods, giving at best 20-25% nickel recovery.

The three tests reported here were all scoping-level leach extraction tests, conducted in multiple stages to allow for a range of process conditions to be examined. The resulting extractions for major components of interest are listed in Table 4. The first test (ShNi T1) used alkaline leach conditions with ammonium salts, using chemistry that is well established in nickel and cobalt refining and which is typically selective for those metals. The second test (ShNi T2) used a hybrid approach with acid and alkaline stages in a more broad-based leach aimed at breaking down the silicate matrix. The results from this test showed significant promise, along with those from the final test (ShNi T3) which used a proprietary reagent scheme that similarly attacked the silicate matrix. The latter two tests achieved economically interesting levels of nickel extraction, and also leached high levels of magnesium and iron into solution.

Interpretation of Results

The site work conducted had a limited scope, but the consistently high nickel values found in the ultramafic samples collected was promising for defining the scale of the nickel potential of these rocks. Previous high nickel values have generally come from higher elevation areas to the west, in the core of the harzburgite unit. The current work was near the mapped north-eastern margin of the unit, but grades were similar to those seen further west.

The claim area for this project is also projected to have potential for gold mineralization associated with dioritic intrusions, as found further west at the Elizabeth gold deposit. Float in the Peridotite Creek area showed numerous examples of quartz-carbonate vein float, as well as some diorite float, but sample collected did not show elevated precious metals. The relatively high copper values in these samples may be of geochemical interest, as there have been no copper occurrences reported in this area.

Metallurgical test results were promising in that a leaching method was identified that materially extracted then nickel content in Shulaps rocks through the breakdown of the silicate matrix. These results are very preliminary and will need follow-up to optimize extraction and to develop an overall process that considers all major components. Reagent and other costs have not yet been evaluated, which will be needed to determine whether this process can create economic potential for this project.

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Author's Qualifications

I, Douglas Warkentin, P.Eng., a professional engineer with a business address at 7069 McBride Street, Burnaby, B.C., certify that:

I have been a Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia since 1992.

I am a graduate of the University of British Columbia, Vancouver, B.C. and hold a degree of Bachelor of Applied Science in Mining and Mineral Process Engineering.

I have practiced my profession as a Metallurgist and Mineral Process Engineer for 34 years.

I am currently employed as a Metallurgical Engineer by Kemetco Research Inc., Vancouver B.C., and have previously been employed as a Mineral Process Engineer by Vista Mines Inc., Coastech Research Inc., NTBC Research Corp., Biomet Mining Ltd., Blue Sky Mines Ltd., and Vizon Scitec Inc. I have also previously served as a Director of Duncastle Gold Corp., a TSX-Venture listed company.

Since 2001 I have acted as an independent engineering consultant for a number of mining clients.

I am a qualified person for the purposes of National Instrument 43-101 in relation to metallurgical testing and evaluation programs.

I directly conducted or supervised all sampling, sample handling and preparation related to the Shulaps Ultramafic Project that is described in this report.

I am the sole author of this report.

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

Dated at Vancouver, B.C., this 10th day of May 2023.

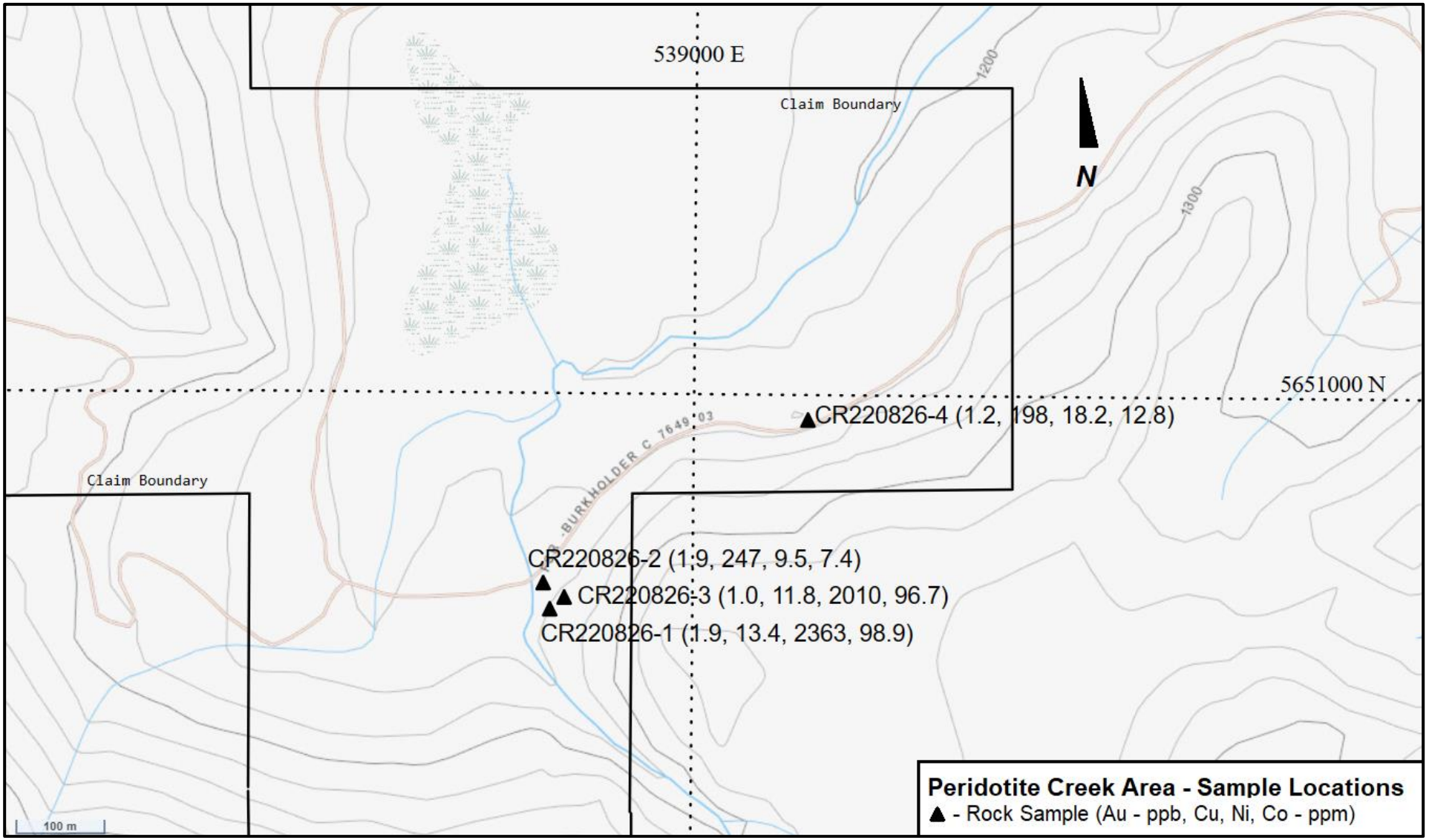
Doug Warkentin, PEng.
Metallurgical Engineer

Statement of Costs

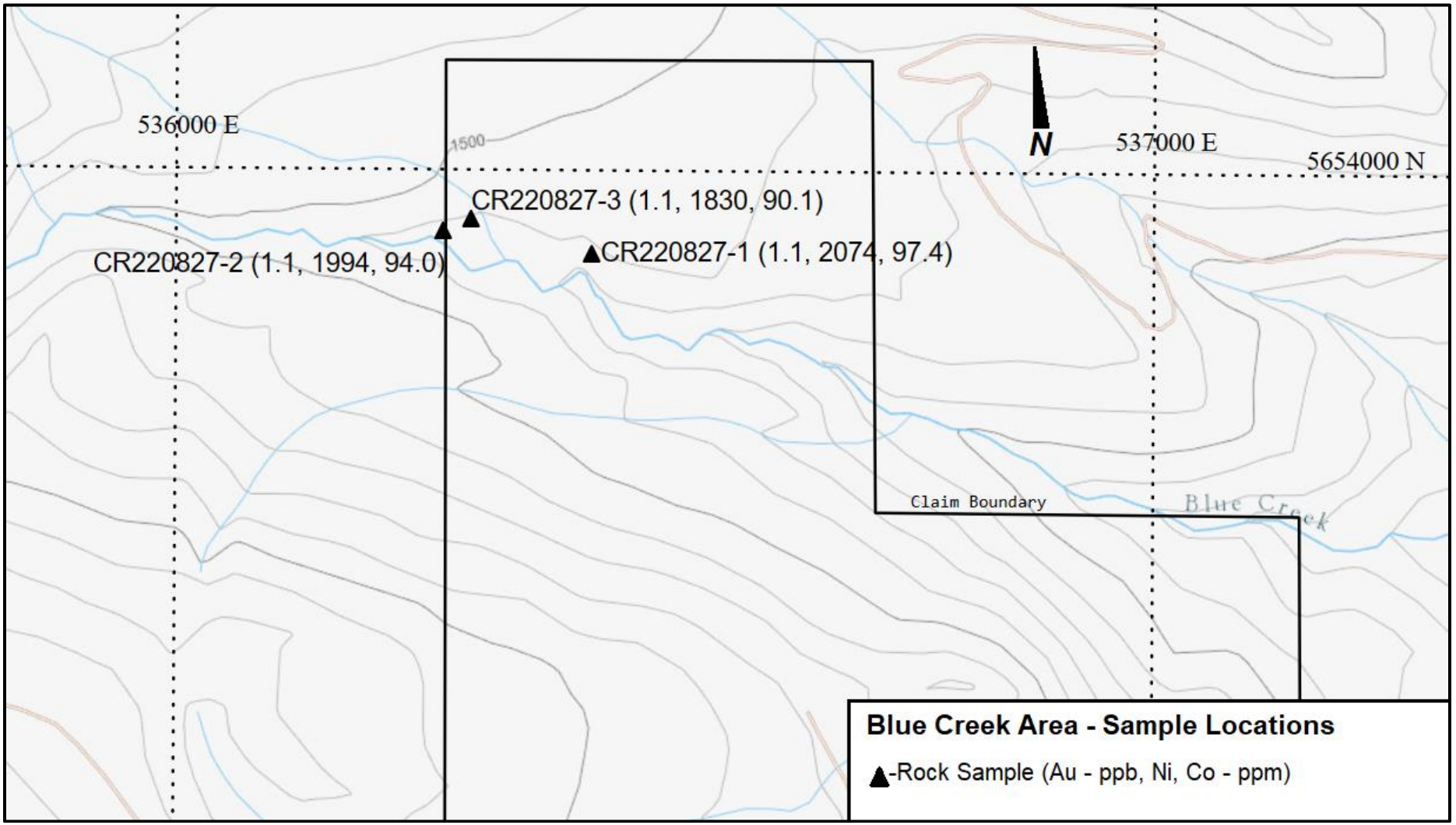
Site Reconnaissance and Sampling

Labour		
Doug Warkentin, P.Eng.: August 26-28, 2022 (28 hours @ $62.50/hr)		$1750.00
Transportation (2 days - mileage and fuel)		$307.21
Camp costs and supplies (1 night)		$97.66
Food (2 days)		$49.55
Metallurgical Testing		
Laboratory Testing	(3 tests @ $500/test)	$1500.00
Solution anlayisis	(29 samples @ $39.00/sample)	$1131.00
Sample Analysis		
Sample Preparation	(7 samples @ $21.69/sample)	$151.84
Sample Assaying	(7 samples @ $27.11/sample)	$189.77
Report Preparation		$1375.00
Total Cost		**$6,552.02**

Appendix 1 – Sample Location Map



Map Scale 1:6500



Map Scale 1:6000

Appendix 2 – Metallurgical Test Reports

CRUCIBLE
Crucible Resources Ltd. 745 East 30th Ave. Vancouver, BC Canada V5V 2V8 Tel: 604 684 3850 Fax: 604 684 3870

Leach Extraction Test Report

Test: ShNi T1
Sample: 2010 Comp
Date: 17-May-22
Project: Shulaps Nickel

Test Conditions

Solids:	127.6 g		
Solution:	127.62 g		
Tare:	88.4	Hot Tare	282.84
Solids Content:	50.00 %		
Grind Size:	45 sec		
Temp:	amb.	pulverize	
pH:	alk.		
Duration:	var	hrs	

Notes:

Head Grade

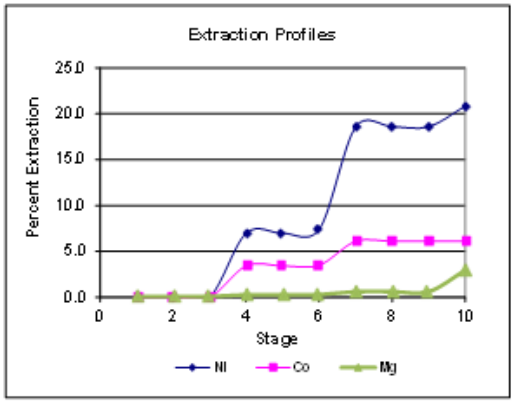
	Ni	Co	Mg	Fe	
Assayed:	2150	100			g/t
Calculated:	1915	94	231798	51949	g/t

Leach Solution Data

Stage	Gross (g)	Slurry (g)	pH	Reag 1 (g)	Alk 1 (g)	Reag 2 (g)	Sol'n wt. (g)	Sample (mL)	Ni (mg/L)	Co (mg/L)	Mg (mg/L)	Fe (mg/L)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)
Elute	296.7	208.3	9.59					1297.8			18		0	0	23.4	0
Coarse Leach 1	295.8	207.4	10.61		33.6	26.75	157	5.0					0	0	0.0	0
Coarse Leach 3	296.9	208.6	10.40				159	5.0					0.00	0.00	0.0	0.00
Full Leach 12	414.3	325.9	10.07				201	205	83.2	2.0	272		17.03	0.41	55.7	0.00
2nd Leach 2	366.2	277.9	9.53		13.06	26.75	153	5.0					0.00	0.00	0.0	0.00
2nd Leach 18	383.9	275.6	9.52				151	5.0	201	1.8	345		1.01	0.01	1.7	0.00
2nd leach 36	376.0	287.6	9.26	0.40	3.58	5.35	163	156.4	175	2.0	641		27.37	0.31	100.3	0.00
Hot Leach N1	961.6	678.8	7.51			53.49	557	5.0					0.00	0.00	0.0	0.00
Hot Leach N2	891.2	608.4	6.59			5.35	487	5.0					0.00	0.00	0.0	0.00
Hot Leach N3	985.9	703.1	9.50		28.03		582	561.2	9.8		1224		5.50	0.00	686.8	0.00
Total				0.40	78.26	117.69							50.91	0.73	867.9	0.00

Solids

Product	Wt (g)	Ni (g/t)	Co (g/t)	Mg (g/t)	Fe (g/t)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)
Non Mag	117.63	1640	93	242263	54629	192.9	10.94	28497	6426
Mag	3.73	1640	93	242263	54629	6.1	0.3	903.6	203.8
Total	121.36					193.5	11.29	28714	6630



Leach Results

Stage	Ni Dist. (%)	Co Dist. (%)	Mg Dist. (%)	Fe Dist. (%)	Reag 1 Cons. (kg/t)	Alk 1 Cons. (kg/t)	Reag 2 Cons. (kg/t)
1	0.0	0.0	0.1	0.0	0.00	0.00	0.00
2	0.0	0.0	0.1	0.0	0.00	263.3	209.6
3	0.0	0.0	0.1	0.0			
4	7.0	3.4	0.3	0.0			
5	7.0	3.4	0.3	0.0	0.00	263.3	209.6
6	7.4	3.5	0.3	0.0			
7	18.6	8.1	0.6	0.0			
8	18.6	8.1	0.6	0.0			
9	18.6	8.1	0.6	0.0			
10	20.8	8.1	2.9	0.0	0.00	365.6	419.2
Non Mag Res.	79.2	93.9	97.1	100.0			
Mag Residue	2.5	2.9	3.1	3.1			
Total	102.5	102.9	103.1	103.1			

* Values below detection limit shown as zero

CRUCIBLE

Crucible Resources Ltd. 745 East 30th Ave. Vancouver, BC Canada V5V 2V8 Tel: 604 684 3850 Fax: 604 684 3870

Leach Extraction Test Report

Test: ShNi T2
Sample: 2010 Comp

Date: 02-Jun-22
Project: Shulaps Nickel

Test Conditions

Solids:	109.8 g		
Solution:	16.35 g		
Tare:	88.3	282.84	
Solids Content:	87.04 %		
Grind Size:	45 sec pulverize		
Temp:	amb. (15 °C)		
pH:	var		
Duration:	var hrs		

Notes:

Head Grade

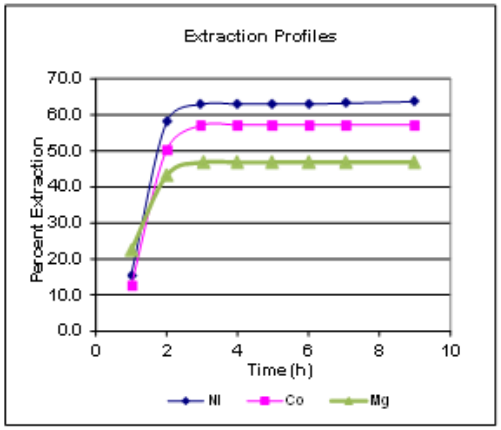
	Ni	Co	Mg	Fe	Mn	Cr	
Assayed:	2150	100					g/t
Calculated:	2001	101	240743	52849	829	826	g/t

Leach Solution Data

Stage	Gross (g)	Slurry (g)	pH	Reag 1 (g)	Alk 1 (g)	Reag 2 (g)	Sol'n wt (g)	Sample (mL)	Ni (mg/L)	Co (mg/L)	Mg (mg/L)	Fe (mg/L)	Mn (mg/L)	Cr (mg/L)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)	Mn (mg)	Cr (mg)
R1 Leach 1	319.0	230.6	2.84	32.00			131	309.7	110	4.5	19132	1853	37.6	7.4	34.06	1.39	5925	574	11.64	2.29
R1 Leach 2	347.7	259.4	1.83	25.60			159	241.7	387	17.3	22770	10287	176	23.4	93.66	4.18	5505	2487	42.55	5.66
R1 Leach 3	235.7	147.4	4.22	9.00			47	171.9	62.4	4.4	5512	1977	27.9	8.0	10.73	0.76	948	340	4.80	1.37
R2 Leach 3h	263.9	175.5	2.65			16.05	94	5.0	6.5	0.7	377		3.1		0.033	0.004	1.9	0.0	0.016	0.000
R2 Leach 24h	306.5	218.2	5.50			5.35	137	5.0	4.9		787		1.8		0.025	0.000	3.9	0.0	0.009	0.000
R2 Leach 2h	366.5	277.2	9.92		15.52		196	5.0	3.4		110				0.017	0.000	0.6	0.0	0.000	0.000
R2 Leach 8h	369.3	280.9	9.98		1.86		199	137.6	3.2		23.9				0.440	0.000	3.3	0.0	0.000	0.000
R2 Leach W	985.9	897.6	9.50				816	787.3	1.3		1.1				1.000	0.000	0.8	0.0	0.000	0.000
Total				66.60	17.39	21.40									139.9	6.3	12387	3400	59	9

Solids

Fractions	Wt (g)	Ni (g/t)	Co (g/t)	Mg (g/t)	Fe (g/t)	Mn (g/t)	Cr (g/t)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)	Mn (mg)	Cr (mg)
+200#	11.67	1105	69	173052	40589	662	1366	12.90	0.81	2019.5	473.7	7.61	15.94
200 x 325#	10.54	1264	76	188712	45886	596	1279	13.32	0.80	1989	484	6	13
-325#	59.25	904	53	169255	24353	305	876	53.6	3.1	10028.4	1442.9	18.1	51.9
Total	81.46	979						79.8	4.7	14037	2400	32	81



Leach Results

Stage	Ni Dist. (%)	Co Dist. (%)	Mg Dist. (%)	Fe Dist. (%)	Mn Dist. (%)	Cr Dist. (%)	Reag 1 Cons. (kg/t)	Alk 1 Cons. (kg/t)	Reag 2 Cons. (kg/t)
1	15.5	12.6	22.4	9.9	12.8	2.5	291.5	0.0	0.0
2	58.1	50.3	43.3	52.8	59.6	8.8	524.8	0.0	0.0
3	63.0	57.1	46.8	58.6	64.8	10.3	606.8	0.0	0.0
4	63.0	57.2	46.8	58.6	64.9	10.3	606.8	0.0	146.2
5	63.0	57.2	46.9	58.6	64.9	10.3	606.8	0.0	195.0
6	63.0	57.2	46.9	58.6	64.9	10.3	606.8	141.4	195.0
7	63.2	57.2	46.9	58.6	64.9	10.3	606.8	158.4	195.0
9	63.7	57.2	46.9	58.6	64.9	10.3	606.8	158.4	195.0
+200#	5.9	7.3	7.6	8.2	8.4	17.6			
200 x 325#	6.1	7.2	7.5	8.3	6.9	14.9			
-325#	24.4	28.3	38.0	24.9	19.9	57.3			
Total	100.0	100.0	100.0	100.0	100.0	100.0			

* Values below detection limit shown as zero

CRUCIBLE

Crucible Resources Ltd. 745 East 30th Ave. Vancouver, BC Canada V5V 2V8 Tel: 604 684 3850 Fax: 604 684 3870

Leach Extraction Test Report

Test: ShNi T3
Sample: 2010 Comp

Date: 02-Sep-22
Project: Shulaps Nickel

Test Conditions

Solids: 93.0 g
Init. Solution: 9.98 g
Tare: 88.4
Solids Content: 90.31 %
Grind Size: 105.6 H_{80} (µm) (30 sec pulv.)
Temp: amb. (15 °C)
pH: var
Duration: var hrs

Notes:

Head Grade

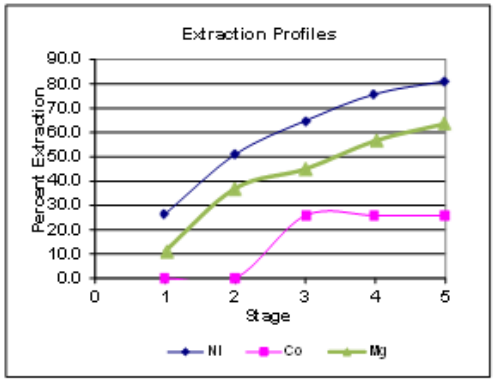
	Ni	Co	Mg	Fe	Mn	Cr	
Assayed:	2150	100					g/t
Calculated:	2304	53	239879	53600	1106	872	g/t

Leach Solution Data

Stage	Gross (g)	Slurry (g)	pH	Reag 1 (g)	Alk 1 (g)	Reag 2 (g)	Sol'n wt. (g)	Filtrate (mL)	Ni (mg/L)	Co (mg/L)	Mg (mg/L)	Fe (mg/L)	Mn (mg/L)	Cr (mg/L)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)	Mn (mg)	Cr (mg)
R1 Leach 1	288.3	199.9	-	18.48			110	95.8	591		26194	6418	216		56.65	0.00	2511	615	20.70	0.00
R1 Leach 2	311.9	223.4	-	30.63			138	251.1	209		22909	4749	134		52.48	0.00	5753	1193	33.65	0.00
R1 Leach 3	399.2	310.7	-	18.61			251	206.9	143.0	6.1	8559	2825	45.4	10.3	29.58	1.26	1771	584	9.39	2.13
R1 Leach 4	319.6	231.2	-	19.48			171	160.0	148.0		16288	3864	55.3		23.67	0.000	2605	618	8.85	0.00
R1 Leach 5	308.2	219.8	-	18.20			160	267.5	42.2		5822	1447	16.5	14	11.29	0.000	1557	387	4.41	3.69
Total				105.40	0.00	0.00									173.7	1.3	14197	3397	77	6
								981.3	177	1	14467	3462	78	6						

Solids

Fractions	Wt (g)	Ni (g/t)	Co (g/t)	Mg (g/t)	Fe (g/t)	Mn (g/t)	Cr (g/t)	Ni (mg)	Co (mg)	Mg (mg)	Fe (mg)	Mn (mg)	Cr (mg)
+140#	8.60	623	55	121712	27792	705	1158	5.36	0.47	1047	239.0	6.06	9.96
140 x 325#	14.95	807	67	147164	41479	421	1761	12.06	1.00	2200	620	6	26
-325#	36.49	632	59	133063	19904	368	1068	23.1	2.2	4855	726.3	13.4	39.0
Total	60.04	674						40.5	3.6	8102	1585	26	75



Leach Results

Stage	Ni Dist. (%)	Co Dist. (%)	Mg Dist. (%)	Fe Dist. (%)	Mn Dist. (%)	Cr Dist. (%)	Reag 1 Cons. (kg/t)	Alk 1 Cons. (kg/t)	Reag 2 Cons. (kg/t)
1	26.5	0.0	11.3	12.3	20.1	0.0	198.8	0.00	0.00
2	51.0	0.0	37.1	36.3	52.9	0.0	528.3	0.00	0.00
3	64.8	25.8	45.0	48.0	62.0	2.6	728.5	0.00	0.00
4	75.8	25.8	56.7	60.4	70.6	2.6	938.0	0.00	0.00
5	81.1	25.8	63.7	68.2	74.9	7.2	1133.8	0.00	0.00
+140#	2.5	9.7	4.7	4.8	5.9	12.3			
140 x 325#	5.6	20.5	9.9	12.4	8.1	32.5			
-325#	10.8	44.0	21.8	14.6	13.1	48.1			
Total	100.0	100.0	100.0	100.0	100.0	100.0			

* Values below detection limit shown as zero

Appendix 3 – Assay Reports

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Submitted By:	Doug Warkentin
Receiving Lab:	Canada-Vancouver
Received:	January 05, 2023
Analysis Start:	January 07, 2023
Report Date:	January 26, 2023
Page:	1 of 3

CERTIFICATE OF ANALYSIS VAN23000015.1

CLIENT JOB INFORMATION

Project:	Fr-Lkv-WB-IT-Sh
Shipment ID:	
P.O. Number	
Number of Samples:	32

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	32	Crush, split and pulverize 250 g rock to 200 mesh			VAN
AQ200	32	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

SAMPLE DISPOSAL

PICKUP-PLP	Client to Pickup Pulps
PICKUP-RJT	Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

ADDITIONAL COMMENTS

Invoice To: Crucible Resources Ltd.
745 East 30th Ave
Vancouver British Columbia V5V 2V8
Canada

CC:

JEFFREY CANNON
Geochemistry Department Supervisor

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Crucible Resources Ltd.**
745 East 30th Ave
Vancouver British Columbia V5V 2V8 Canada

Project: Fr-Lkv-WB-IT-Sh
Report Date: January 26, 2023

CERTIFICATE OF ANALYSIS VAN23000015.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.1	0.5	0.1	1	0.1	0.1	0.1	1	0.01
CR220826-1	Rock	1.27	0.1	13.4	<0.1	24	<0.1	2362.6	98.9	940	4.84	0.6	<0.1	1.9	<0.1	<1	<0.1	<0.1	<0.1	21	0.09
CR220826-2	Rock	1.97	14.7	246.6	2.6	22	0.1	9.5	7.4	121	2.86	<0.5	0.2	1.9	0.8	78	<0.1	<0.1	0.3	61	1.13
CR220826-3	Rock	1.39	0.1	11.8	0.1	24	<0.1	2010.1	96.7	881	4.78	<0.5	<0.1	1.0	<0.1	2	<0.1	<0.1	<0.1	24	0.10
CR220826-4	Rock	0.58	0.3	197.5	2.4	107	0.1	18.2	12.8	218	3.17	0.9	0.2	1.2	0.4	49	0.3	<0.1	0.2	71	1.30
CR220827-1	Rock	1.12	<0.1	4.9	0.3	30	<0.1	2073.8	97.4	803	4.67	4.1	<0.1	1.1	<0.1	10	<0.1	<0.1	<0.1	34	0.07
CR220827-2	Rock	2.08	0.1	8.5	<0.1	25	<0.1	1993.7	91.4	776	4.55	<0.5	<0.1	1.1	<0.1	<1	<0.1	<0.1	<0.1	11	0.07
CR220827-3	Rock	2.29	0.1	6.7	0.1	33	<0.1	1829.6	90.1	778	4.51	0.7	<0.1	1.1	<0.1	<1	<0.1	<0.1	<0.1	22	0.19
CR220928-1	Rock	1.01	7.2	174.3	1788.6	388	8.6	22.5	2.8	338	7.71	65.0	0.5	6.1	5.2	55	1.3	0.9	22.5	37	0.52
CR220928-2	Rock	0.75	0.6	10.4	6.3	85	0.3	106.0	21.6	960	4.41	12.1	0.5	1.9	3.5	110	<0.1	0.7	0.2	84	1.32
CR220928-3	Rock	0.88	0.7	29.4	8.7	32	<0.1	9.8	4.7	335	1.83	2.5	1.4	0.8	12.5	32	<0.1	0.2	0.1	19	0.31
CR220929-1	Rock	2.37	0.8	32.4	37.4	125	1.2	9.3	4.6	759	2.58	3.2	1.0	11.8	6.8	49	1.7	0.2	1.0	41	0.62
CR220929-2	Rock	1.48	20.5	28.4	74.8	202	0.9	29.3	3.8	390	1.52	43.1	0.8	9.3	2.1	229	1.6	0.7	0.1	65	2.43
CR220929-3	Rock	1.27	10.4	20.4	17.3	71	0.3	16.7	3.4	308	0.95	4.9	1.3	2.4	3.9	184	2.0	0.6	<0.1	27	2.29
CR220929-4	Rock	1.43	1.3	7.0	6.9	43	0.1	14.7	4.5	323	2.27	2.2	1.8	4.4	6.2	47	0.2	0.1	0.2	39	0.51
CR220929-5	Rock	1.15	0.4	3.0	13.4	27	<0.1	4.4	1.5	220	0.99	0.8	1.7	4.0	4.9	16	0.2	<0.1	<0.1	17	0.32
CR220929-6	Rock	1.42	1.1	28.1	9.7	24	0.1	2.9	2.6	143	1.43	1.0	2.8	4.9	13.2	19	0.2	0.2	0.1	19	0.25
CR220929-7	Rock	0.59	2.0	35.5	26.5	62	0.6	41.4	11.4	574	1.94	23.9	0.4	7.1	2.6	8	0.4	0.4	0.3	4	0.08
CR220930-1	Rock	0.91	0.4	13.4	2.8	23	<0.1	4.9	3.1	371	1.19	0.8	0.5	1.1	2.8	53	<0.1	<0.1	<0.1	8	0.39
CR220930-2	Rock	1.14	0.2	146.4	2.8	77	0.1	51.0	38.3	1125	6.23	18.8	<0.1	4.4	0.4	62	0.1	0.1	<0.1	124	2.81
CR220930-3	Rock	0.74	0.4	15.9	6.6	29	<0.1	8.5	6.6	709	1.61	<0.5	0.4	1.2	4.3	25	<0.1	<0.1	0.4	5	0.92
CR220930-4	Rock	1.09	0.3	163.6	3.0	113	<0.1	54.2	43.2	1527	7.09	7.2	0.1	1.0	0.7	51	0.1	<0.1	<0.1	161	1.47
CR220930-5	Rock	0.88	0.3	81.2	1.3	88	<0.1	54.1	33.4	768	5.78	1.4	0.5	2.0	1.6	17	<0.1	0.1	<0.1	136	0.78
CR221001-1	Rock	1.11	0.2	34.3	2.7	59	<0.1	7.5	7.6	913	2.78	2.7	0.5	1.2	4.4	53	0.1	0.1	<0.1	57	1.16
CR221001-2	Rock	1.92	0.5	81.2	3.9	47	<0.1	4.9	7.2	887	1.56	3.2	0.5	1.1	5.1	29	0.2	<0.1	<0.1	40	0.79
CR221001-3	Rock	1.78	0.4	24.1	3.2	36	<0.1	3.5	5.0	739	1.41	4.2	0.7	1.2	12.6	55	0.1	0.2	<0.1	62	1.78
CR221001-4	Rock	1.56	1.6	113.1	4.5	48	0.3	5.5	6.9	751	2.73	4.7	0.8	4.8	4.7	44	0.2	0.6	0.2	63	0.70
CR221001-5	Rock	1.26	0.4	62.8	3.3	62	0.1	19.0	12.3	922	3.40	1.3	1.0	2.4	1.9	100	0.2	0.6	<0.1	80	2.02
CR221002-1	Rock	1.34	6.8	95.4	7.4	27	0.3	14.2	24.0	412	3.24	57.3	0.3	17.2	2.0	22	0.1	0.8	0.2	54	0.52
CR221002-2	Rock	1.83	1.3	55.6	0.9	32	<0.1	13.8	10.7	385	3.41	7.9	0.1	5.9	0.8	15	<0.1	0.2	<0.1	118	0.28
CR221002-3	Rock	1.99	12.2	100.0	10.6	24	1.0	6.9	25.4	249	4.20	28.9	<0.1	77.2	0.2	3	<0.1	0.3	0.2	17	0.04

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Project: Fr-Lkv-WB-IT-Sh
Report Date: January 26, 2023

CERTIFICATE OF ANALYSIS VAN23000015.1

Method		AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
CR220826-1	Rock	0.002	<1	843	18.78	3	0.002	38	0.32	0.003	<0.01	0.1	<0.01	7.0	<0.1	<0.05	<1	<0.5	<0.2
CR220826-2	Rock	0.093	4	18	0.83	18	0.122	<20	1.14	0.158	0.09	0.7	<0.01	2.1	<0.1	0.96	7	0.9	<0.2
CR220826-3	Rock	0.006	<1	1056	19.65	6	0.002	63	0.31	0.002	<0.01	0.2	<0.01	6.6	<0.1	<0.05	<1	<0.5	<0.2
CR220826-4	Rock	0.090	2	42	1.08	22	0.113	<20	1.76	0.100	0.06	0.7	<0.01	2.5	<0.1	1.58	11	0.6	<0.2
CR220827-1	Rock	<0.001	<1	1242	20.49	2	0.006	101	0.62	0.002	<0.01	<0.1	<0.01	9.2	<0.1	0.10	5	<0.5	<0.2
CR220827-2	Rock	0.002	<1	416	20.08	1	0.002	<20	0.23	0.002	<0.01	<0.1	<0.01	3.6	<0.1	<0.05	<1	<0.5	<0.2
CR220827-3	Rock	0.002	<1	952	18.30	2	0.002	<20	0.46	0.002	<0.01	<0.1	<0.01	5.8	<0.1	<0.05	<1	<0.5	<0.2
CR220928-1	Rock	0.195	11	25	0.46	104	0.028	<20	1.66	0.122	0.29	0.5	<0.01	1.6	<0.1	0.09	8	1.5	1.0
CR220928-2	Rock	0.240	24	179	2.75	95	0.160	<20	2.61	0.066	0.43	5.5	<0.01	4.1	0.2	<0.05	10	<0.5	<0.2
CR220928-3	Rock	0.054	19	9	0.46	42	0.062	<20	0.83	0.068	0.12	0.3	<0.01	1.2	<0.1	<0.05	5	<0.5	<0.2
CR220929-1	Rock	0.097	14	9	0.63	97	0.098	<20	1.27	0.103	0.36	0.4	<0.01	3.2	0.2	0.79	6	1.6	<0.2
CR220929-2	Rock	0.031	5	18	0.24	27	0.018	<20	0.73	0.029	0.11	0.2	<0.01	1.8	0.1	<0.05	3	6.0	0.4
CR220929-3	Rock	0.098	7	17	0.11	14	0.082	<20	1.44	0.165	0.07	0.5	<0.01	1.4	<0.1	0.24	4	1.2	<0.2
CR220929-4	Rock	0.053	17	28	0.87	95	0.165	<20	1.94	0.149	0.87	0.3	<0.01	5.3	0.6	<0.05	8	0.6	<0.2
CR220929-5	Rock	0.058	10	5	0.36	35	0.074	<20	0.79	0.080	0.22	1.0	<0.01	3.3	0.1	<0.05	4	<0.5	<0.2
CR220929-6	Rock	0.075	26	7	0.44	42	0.089	<20	0.87	0.067	0.36	0.3	<0.01	2.8	0.2	<0.05	5	0.9	<0.2
CR220929-7	Rock	0.062	10	7	0.06	49	<0.001	<20	0.47	0.007	0.09	<0.1	<0.01	1.5	<0.1	<0.05	<1	3.7	<0.2
CR220930-1	Rock	0.028	6	6	0.37	38	0.015	<20	0.68	0.064	0.10	0.1	<0.01	0.9	<0.1	<0.05	2	<0.5	<0.2
CR220930-2	Rock	0.102	4	41	2.17	42	0.249	<20	2.27	0.024	0.10	0.1	<0.01	6.6	<0.1	<0.05	8	<0.5	<0.2
CR220930-3	Rock	0.021	15	6	0.50	92	0.004	<20	0.38	0.007	0.19	<0.1	<0.01	1.3	<0.1	<0.05	<1	<0.5	<0.2
CR220930-4	Rock	0.158	4	77	2.26	75	0.339	<20	3.28	0.014	0.19	<0.1	<0.01	7.7	<0.1	<0.05	12	<0.5	<0.2
CR220930-5	Rock	0.094	5	63	1.94	39	0.517	<20	3.21	0.031	0.37	0.1	<0.01	5.6	0.1	0.23	10	<0.5	<0.2
CR221001-1	Rock	0.088	11	15	0.96	259	0.007	<20	1.40	0.044	0.18	<0.1	<0.01	5.6	<0.1	<0.05	6	<0.5	<0.2
CR221001-2	Rock	0.100	13	9	0.59	114	0.004	<20	0.92	0.041	0.14	<0.1	<0.01	5.2	<0.1	<0.05	4	<0.5	<0.2
CR221001-3	Rock	0.168	12	10	0.81	76	0.018	<20	0.91	0.063	0.10	<0.1	<0.01	8.7	<0.1	<0.05	4	<0.5	<0.2
CR221001-4	Rock	0.077	9	9	0.73	219	0.044	<20	1.16	0.038	0.12	0.1	<0.01	4.7	<0.1	0.07	6	<0.5	<0.2
CR221001-5	Rock	0.111	10	37	1.13	372	0.052	<20	1.35	0.059	0.09	<0.1	<0.01	9.0	<0.1	<0.05	7	<0.5	<0.2
CR221002-1	Rock	0.067	5	29	0.57	99	0.035	<20	0.93	0.040	0.13	0.1	<0.01	4.6	<0.1	0.10	5	1.5	0.2
CR221002-2	Rock	0.100	7	24	1.78	41	0.067	<20	1.88	0.080	0.09	<0.1	<0.01	7.4	<0.1	0.09	9	0.6	<0.2
CR221002-3	Rock	0.032	2	8	0.16	49	0.001	<20	0.46	0.004	0.15	<0.1	<0.01	1.4	<0.1	0.43	1	2.2	0.3

KEMETCO RESEARCH INC

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Sample ID ELEMENTS	Q1906 ShNi T1-1 mg/L	Q1906 ShNi T1-4 mg/L	Q1906 ShNi T1-6 mg/L	Q1906 ShNi T1-N3 mg/L	Q1906 ShNi T1-7 mg/L	Q1906 ShNi T1-P1 mg/L	Q1906 ShNi T1-P2 mg/L
Ag Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Al Aluminium	<1.	<1.	<1.	<1.	<1.	7.5	39.278
As Arsenic	<2.	<2.	<2.	<2.	<2.	3.1	<2.
B Boron	<5.	<5.	<5.	<5.	<5.	<5.	<5.
Ba Barium	<0.2	0.5	0.6	<0.2	0.5	0.5	<0.2
Be Beryllium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bi Bismuth	<2.	<2.	<2.	<2.	<2.	<2.	<2.
Ca Calcium	1.9	12.9	18.2	168	18.8	26.9	44
Cd Cadmium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Co Cobalt	<0.5	2.0	1.8	<0.5	2.0	7.4	1.8
Cr Chromium	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	15.9
Cu Copper	<1.	<1.	3.8	13.3	823.4	2.5	3.245
Fe Iron	<1.	<1.	<1.	<1.	<1.	116	1034
K Potassium	<5.	8.6	7.8	6.5	6.8	<5.	<5.
Li Lithium	<1.	<1.	<1.	<1.	<1.	3.4	<1.
Mg Magnesium	18.0	272	345	1224	641	330	4585
Mn Manganese	<0.2	10.8	3.4	0.3	1.9	187.1	15.8
Mo Molybdenum	<1.	<1.	<1.	<1.	<1.	<1.	<1.
Na Sodium	<5.	5.3	<5.	5.6	42.7	34.0	<5.
Ni Nickel	<0.5	83.2	201	9.8	175	171	31
P Phosphorus	<5.	<5.	<5.	<5.	<5.	<5.	<5.
Pb Lead	<2.	<2.	<2.	<2.	<2.	2.1	<2.
S Sulfur	<2.	11.7	86.2	11.0	99.0	1553	4
Sb Antimony	<2.	<2.	<2.	<2.	<2.	<2.	<2.
Se Selenium	<2.	<2.	<2.	<2.	<2.	<2.	<2.
Si Silicon	2.4	<2.	<2.	<2.	<2.	2.6	4
Sn Tin	<2.	<2.	<2.	<2.	<2.	<2.	<2.
Sr Strontium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ti Titanium	<1.	<1.	<1.	<1.	<1.	<1.	<1.
Tl Thallium	<2.	<2.	<2.	<2.	<2.	<2.	<2.
U Uranium	<5.	<5.	<5.	<5.	<5.	<5.	<5.
V Vanadium	<1.	<1.	<1.	<1.	<1.	<1.	<1.
Zn Zinc	<0.5	1.9	2.0	0.8	2.6	7.1	0.679

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Sample ID	Q1906 ShNi T2-1	Q1906 KM ShNi T2-2	Q1906 KM ShNi T2-3	Q1906 ShNi T2-4	Q1906 ShNi T2-5	Q1906 ShNi T2-6	Q1906 ShNi T2-7
ELEMENTS	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Ag Silver	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Al Aluminium	<5.	16.3	<2.	<2.	<1.	<1.	<1.
As Arsenic	<10.	4.0	<2.	<2.	<2.	<2.	<2.
B Boron	<25.	<5.	<5.	<5.	<5.	<5.	<5.
Ba Barium	<1.	0.4	<0.2	0.8	0.5	<0.2	<0.2
Be Beryllium	<1.	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bi Bismuth	<10.	4.0	<2.	<2.	<2.	<2.	<2.
Ca Calcium	215	92.6	9.5	5.0	3.7	<1.	<1.
Cd Cadmium	<1.	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Co Cobalt	4.5	17.3	4.4	0.7	<0.5	<0.5	<0.5
Cr Chromium	7.4	23.4	7.956	<0.5	<0.5	<0.5	<0.5
Cu Copper	<5.	2.7	<1.	<1.	<1.	<1.	<1.
Fe Iron	1853	10286.9	1977.216	<1.	<1.	<1.	<1.
K Potassium	<25.	<5.	<5.	<5.	<5.	<5.	<5.
Li Lithium	<5.	2.4	<1.	<1.	<1.	<1.	<1.
Mg Magnesium	19132	22770	5512	377	787	110	24
Mn Manganese	37.6	175.7	27.9	3.1	1.8	<0.2	<0.2
Mo Molybdenum	<5.	<1.	<1.	<1.	<1.	<1.	<1.
Na Sodium	<25.	7.9	5.379	13.9	<5.	<5.	<5.
Ni Nickel	110	387.4	62	6.5	5	3	3.2
P Phosphorus	<25.	<5.	<5.	<5.	<5.	<5.	<5.
Pb Lead	<10.	<2.	<2.	<2.	<2.	<2.	<2.
S Sulfur	867427	1211473	123689.8	498	436.2	277	241.4
Sb Antimony	<10.	<2.	<2.	<2.	<2.	<2.	<2.
Se Selenium	<10.	<2.	<2.	<2.	<2.	<2.	<2.
Si Silicon	124	1003.9	129.698	30.8	32.116	61.3	87.2
Sn Tin	<10.	<2.	<2.	<2.	<2.	<2.	<2.
Sr Strontium	<1.	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ti Titanium	<5.	<1.	<1.	<1.	<1.	<1.	<1.
Tl Thallium	<10.	<2.	<2.	<2.	<2.	<2.	<2.
U Uranium	<25.	<5.	<5.	<5.	<5.	<5.	<5.
V Vanadium	<5.	<1.	<1.	<1.	<1.	<1.	<1.
Zn Zinc	<2.5	5.5	1.0	1.0	<0.5	<0.5	<0.5

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Sample ID	Q1906 Sh Ni T3-1	Q1906 KM Sh Ni T3-2	Q1906 KM Sh Ni T3-3	Q1906 Sh Ni T3-4	Q1906 Sh Ni T3-5	Q1906 Sh Ni T3 W	Q1906 Sh Ni T3 -325	Q1906 Sh Ni T3 140x325	Q1906 Sh Ni T3 +140
ELEMENTS	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Ag Silver	<50.	<50.	<0.5	<50.	<5.	<0.5	<0.5	<0.5	<0.5
Al Aluminium	<100.	<100.	26.7	<100.	45.6	<1.	65.6	61.1	54.8
As Arsenic	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
B Boron	<500.	<500.	<5.	<500.	<50.	<5.	<5.	<5.	<5.
Ba Barium	<20.	<20.	<0.2	<20.	<2.	<0.2	0.31	0.30	0.29
Be Beryllium	<20.	<20.	<0.2	<20.	<2.	<0.2	<0.2	<0.2	<0.2
Bi Bismuth	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
Ca Calcium	568	112.9	18.0	<100.	<10.	1.7	79.1	43.7	42
Cd Cadmium	<20.	<20.	<0.2	<20.	<2.	<0.2	<0.2	<0.2	<0.2
Co Cobalt	<50.	<50.	6.1	<50.	<5.	<0.5	1.4	1.4	1.1
Cr Chromium	<50.	<50.	10.28	<50.	13.81	<0.5	24.7	36.8	23.4
Cu Copper	<100.	<100.	<1.	<100.	<10.	<1.	<1.	<1.	<1.
Fe Iron	6418	4748.6	2825.1	3864.0	1447.5	<1.	460	867	560
K Potassium	<500.	<500.	<5.	<500.	<50.	<1.5	<1.5	<1.5	1.93
Li Lithium	<100.	<100.	<1.	<100.	<10.	<1.	<1.	<1.	<1.
Mg Magnesium	26194	22909	8559	16288	5822	39	3073	3075	2454
Mn Manganese	216.0	134.5	45.4	55.3	16.5	<0.2	8.5	8.8	14.2
Mo Molybdenum	<100.	<100.	<1.	<100.	<10.	<1.	<1.	<1.	<1.
Na Sodium	<500.	<500.	5.014	<500.	<50.	<5.	<5.	<5.	<5.
Ni Nickel	591	208.6	143	148.2	42	<0.5	14.6	16.9	13
P Phosphorus	<500.	<500.	<5.	<500.	<50.	<5.	<5.	<5.	<5.
Pb Lead	<200.	<200.	<2.	<200.	<20.	<2.	2.865	<2.	<2.
S Sulfur	n/a	n/a	n/a	n/a	n/a	56.4	14.6	22.5	17
Sb Antimony	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
Se Selenium	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
Si Silicon	1864	<200.	848.4	458.0	133.9	24.5	5.3	11.4	3
Sn Tin	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
Sr Strontium	<20.	<20.	<0.2	<20.	<2.	<0.2	0.237	<0.2	<0.2
Ti Titanium	<100.	<100.	<1.	<100.	<10.	<1.	<1.	<1.	<1.
Tl Thallium	<200.	<200.	<2.	<200.	<20.	<2.	<2.	<2.	<2.
U Uranium	<500.	<500.	<5.	<500.	<50.	<5.	<5.	<5.	<5.
V Vanadium	<100.	<100.	<1.	<100.	<10.	<1.	<1.	<1.	<1.
Zn Zinc	<50.	<50.	1.8	<50.	<5.	<0.5	0.7	0.8	0.56