Phase 2 Mineral Exploration Field Work
2016 Program Report

Kluane Lake West Project

Yukon Mining Exploration Program
Target Evaluation 16-018

Kluane First Nation

Category A Settlement Lands

Near Burwash Landing, YT

KLUANE MINERAL RESOURCES INC.

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1 Summary

The Kluane Lake West Project was a combined field exploration and training program carried out on selected areas of the Kluane First Nation (KFN)Category A Settlement Lands in 2016. The 2016 program was the second phase of a three phase multi-year mineral exploration project. Work included establishing 3 grids, ground magnetic and VLF-EM over 2 grids, prospecting, rock sampling, soil sampling and spruce bark sampling. The project started on August 22, 2016 and ended on Sept 16, 2016 for a total of 158 man-days. Funding was provided by Kluane Mineral Resources Inc. (KMRI) with assistance from the Yukon Mineral Exploration Program (YMEP) and other sources.

The Category A Settlement lands are located close to the communities of Burwash Landing and Destruction Bay on the west shore of Kluane Lake in the southwestern Yukon Territory. Burwash Landing is 277 km by road from Whitehorse, capital of Yukon, and connected by the all-weather, paved Alaska Highway. The project area is on NTS map sheets 115 G02, G03, G05, G06 and G07 and centered at a latitude of 61°18'N and a longitude of 139°07'W. Road access to a large part of the project area is along user-maintained gravel or dirt roads up Burwash Creek and the Duke River that connect to the Alaska Highway north of Burwash Landing.

Shortly after incorporation in 2014, KMRI commissioned two helicopter borne aerial surveys in conjunction with the Government of Yukon. A regional magnetic survey was flown west of Kluane Lake and a smaller HeliTEM survey were flown over the project area. Following the survey, KMRI commissioned two interpretive reports, whose targets were the main drivers of the 2015 and 2016 programs.

Nickel-Cu-PGE mineralization in the region is hosted by the 600 km long Kluane Ultramafic Belt, a series of Triassic aged mafic to ultramafic intrusions known as the Kluane mafic-ultramafic suite. The belt extends from northern British Columbia through Yukon and into Alaska; 32 km of the belt are within the project area. The mafic-ultramafic intrusions are sill-like bodies that preferentially intrude the country rock sequences at or near the contacts between the older Hasen Creek and Station Creek Formations. Many of the sills have marginal gabbro phases at their bases and upper contacts that are preferentially mineralized. The Kluane Belt Ni-Cu-PGE occurrences are particularly enriched in the rarer platinum group elements osmium, iridium, ruthenium and rhodium. Three intrusions or complexes (series of related intrusions or the same intrusion that have been folded or faulted, increasing their thickness) are located with the project area.

The Tatamagouche ultramafic complex is the largest and apparently the least deformed in the Kluane region,. It trends northwest across the project area for 22 km, varying from 300m wide at the northwest end up to 4.5 km across at the southeast end. Lack of outcrop has impeded exploration with the only Ni-Cu-PGE showings found so far along downcutting creeks that have exposed ultramafic and gabbroic rocks in contact with Hasen Creek and Station Creek Formations.

Twelve documented YGS minfile occurrences are within, or close to, the project area; seven are Ultramafic Mafic Gabbroid Cu-Ni-PGE showings, sharing characteristics with the Wellgreen Project 6 kilometres to the northwest.

Three grids were established over the course of the program over airborne geophysical anomalies in areas with little to no outcrop. Targeted ground magnetic and VLF-EM surveys were carried out over the grids. Both these surveys are relatively quick and affordable and suitable for continued use. Grid layout is quick, line cutting can be kept to a minimum, and in some cases is not required if the crew are proficient with a GPS and the forest is open. Both surveys were successful and delineated anomalies, although the resolution/precision is not great enough to pinpoint diamond drill targets. Interpretation by a geophysicist experienced with the area should yield more confidence in the anomalies.

256 soil samples were collected over the course of the program. Seventy five were collected on a grid and the remaining samples were from contour soil lines above Burwash Creek, Tatamagouche Creek and the Duke River. Despite the difficult soil sampling conditions, the soils results were better and more varied than expected. Glacial cover and permafrost often mute the geochemical response in the elements of interest, but the results match with underlying mapped rock types. Soil sampling is a viable exploration technique in this area if care is taken to ensure a good quality sample is collected and sufficient data about the sample is recorded to assist in interpretation.

To augment the soil sampling, a test of spruce bark sampling was carried out to determine if this method could be used in other areas where soil development is poor or non-existent, and spruce coverage is consistent. Results were inconclusive when compared to either soil results or geology and further testing of this method is required. Twelve rock and fourteen silt samples were collected from areas that had not been sampled previously.

Field technicians participated in: grid establishment, soil, silt, rock and spruce sampling, operation of geophysics equipment, claim staking, sample management and data management. All were given the opportunity to operate the magnetometer and VLF-EM equipment, and the better operators worked without oversight by the end of the program. Safety meetings were conducted covering bush safety and operation of vehicles with an emphasis on ATV safety. Additionally, geologic theory and an appreciation for the relative scarcity of economically feasible deposits (and the many factors which can make or break a project's economics) were taught in a casual, hands-on manner in the field and around the table in the kitchen/office.

Given the characteristics of a great deal of the KFN Category A lands, KMRI is faced with exploring in highly prospective ground with a nearly-complete blanket of cover. Between the many proximal mineral occurrences, including the standout Wellgreen deposit, and analogous geophysical anomalies, the Burwash Uplands represent a high value exploration target. Unfortunately, a blanket of quaternary sediments prevents the use of many traditional prospecting, exploration, and drill targeting/vectoring techniques. In the remaining areas, most of the more accessible, better exposed targets that could be explored by traditional prospecting, mapping and sampling techniques have been repeatedly sampled but have not been moved beyond early stage exploration.

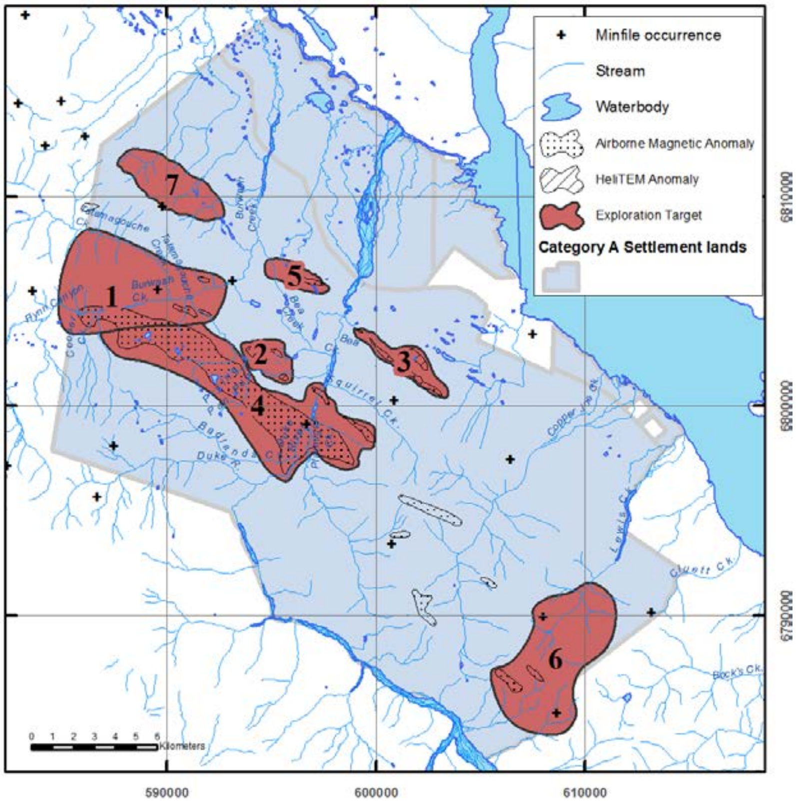

Figure 1: Target Areas.

A combination of methods developed to "see through cover" must be employed. These methods include increasingly sophisticated (and high-resolution) geophysical imaging techniques, non-traditional sampling techniques including biogeochemical sampling, till sampling, deep soil sampling, and shallow drilling. KMRI have made a start along that path with the airborne geophysical survey and follow-up interpretive reports which are the most significant exploration work undertaken over the Category A settlement lands since the 1990s.

With respect to drilling, there is a resurgence in the use of Rotary Air Blast (RAB) and ultra-portable Reverse Circulation (RC) drills in exploration due to the significant cost savings compared to diamond drilling. While diamond drilling remains the best technique for well-defined drill targets, it is not a cost-effective way to ground-truth geophysical or geochemical anomalies like those encountered on this project. Instead, at a lower cost, RAB or ultra-portable RC rigs provide fast, low-impact drilling over higher risk targets. A gridded drill pattern like that used in soil sampling is followed, with shallow bedrock samples being taken at regular spacing. This approach provides similar data to trenching with minimal surface disturbance, as well as allowing for interpretations across the entire grid due to the continuous nature of the dataset. While not immune to issues in bad ground, RAB/RC drills typically fare better than diamond drills, and can achieve orders of magnitude higher rates of penetration.

A program and budget is laid out for the next stage of work. A two phase program is recommended on the targets described in the table below and in figure 1 above. The first phase of the program is intended to delineate RAB or RC dill targets and is estimated at $168,000. The second phase, dependent on delineating suitable targets from the first phase, is a 2000 metre drill program with a budget of $390,000.

Target	ID on map	Recommended work	Percentage of next season's budget
Burwash/Tat confluence, Glen showing M11, M12, M14	1	Soil sample lines or grids to cover edges of mapped ultramafic. Extend M10 grid or establish new grid off existing baseline. Ground mag/VLF-EM surveys. Continue soil sampling, emphasis on good quality samples. Probe or RAB drill if required. Open old trenches if historic assays warrant and/or excavate new trenches.	30
Frying Pan Creek, M10	2	Extend grid in all directions. HLEM to further delineate conductors. Interpretative report on geophysics. Trenching or RAB/RC drilling.	30
M8/M9	3	Extend grid to cover M7 and EM2 targets. Continue with magnetic/VLF-EM surveys. Biogeochemical or deep sampling candidate.	10
Tatamagouche Complex: includes Duke River, Ptarmigan/Duke confluence, M16, M5, M6	4	Large area to tackle. Start with anomalous areas from historic work, recent work, geophysics targets, the edges of mapped ultramafic, contacts with Hasen Creek sediments and areas of magnetic complexity. Review Condor North report for more detail. Biogeochemical or deep sampling target. Ideal candidate for grid RAB/RC drilling, perhaps in winter or early spring when the ground is frozen.	20
M13	5	Mag and VLF-EM over grid. Biogeochemical or deep sampling target.	4
Lewis and Duke R. Intrusions, M1a, M1b, M17	6	Heli access prospecting targets. Follow up on anomalies from historic work and airborne geophysics, priority areas are where they coincide.	3
Slopes between Burwash Creek and Wash occurrence, M15	7	Heli access prospecting target. Review Wash occurrence. Follow up 2015 rock sample 618251 which drains the Jaquot occurrence and M15 geophysics anomaly. Anomalous Ni, Cr, PGEs and Au.	3

2 Introduction

This report describes a field exploration program carried out on selected areas of the Kluane First Nation (KFN) Category A Settlement Lands in 2016. The 2016 program was the second phase of a three phase multi-year mineral exploration project. This report was prepared to satisfy requirements for the Yukon Mineral Exploration Program (YMEP) reporting.

The work was carried out by contract employees of Kluane Mineral Resources Inc. (KMRI), a 100% KFN owned corporation, and 3 geologists from Midnight Mining Services, Skypilot Exploration and 927852 Alberta Ltd. Project management was conducted by Midnight Mining Services and Asuna Strategies. Geophysical processing was done by Pioneer Exploration Consultants Ltd. Vehicles and equipment were provided by KMRI, rented from consulting companies or local residents. Funding was provided by Kluane Mineral Resources Inc. with assistance from the Yukon Mineral Exploration Program (YMEP) and other sources.

The project started on August 22, 2016 and ended on Sept 16, 2016 for a total of 158 man-days.

3 Reliance on Other Experts

The author relied on information, maps, geochemical analysis results and interpretations produced by other experts in the fields of geology or geophysics during the preparation of this report. Methodology, sample collection techniques and original analysis certificates are available for 2014- 2016 work and for much of the 1980s work authored by Halferdahl.

4 Project Purpose and Location

4.1 Purpose

KMRI was created in 2014 as a 100% KFN owned corporation to carry out mineral exploration on KFN settlement lands. The corporation’s mineral exploration strategy has three phases:

Phase 1 – Geological and Geochemical Ground Truthing – completed in 2014 and 2015

Phase 2 – Drill Target identification, Geochemical Sampling and Ground Geophysics - ongoing

Phase 3 - Reconnaissance Diamond Drilling – planned for 2017

The project described in this report is the start of Phase 2. The original goals of the 2016 project from the YMEP proposal (KMRI, 2016) were:

1. Follow-up geological mapping and sampling of known mineral occurrences, identified aeromagnetic anomalies, and Phase 1 target areas,

2. A relatively small, targeted ground geophysical survey, and

3. Initiating local employment and training. Training opportunities formed a large component of the program and KFN citizens will be encouraged to participate and learn skills in exploration techniques in addition to gaining insight into the exploration process and the typical progression of these techniques.

Once work had started on the project the goals were modified to incorporate the training requirement, the number of trainees and the nature of terrain in the project area. Many of the recommendations involved prospecting, mapping and sampling in areas that either had no outcrop, were difficult to access quickly on foot or by ATV, or had been sampled previously. Additionally, wet weather for the first half of the program made the road up Burwash Creek impassable so this area could not be accessed. A decision was made to concentrate on ground geophysics and soil sampling to effectively work over difficult ground with a large crew. The most efficient way to follow up the broad airborne geophysics targets is with targeted ground geophysics and geochemical sample.

4.2 Location

The Kluane Lake West Project is located close to the communities of Burwash Landing and Destruction Bay on the west shore of Kluane Lake in the southwestern Yukon Territory. Burwash Landing is 225 km directly west or 277 km by road from Whitehorse, capital of Yukon, and connected by the all-weather, paved Alaska Highway. The project was carried out on Category A Settlement Lands belonging to KFN.

KFN is a self-governing Yukon First Nation that signed Final and Self-Government Agreements with the federal and territorial governments in 2003. KFN retained 906 km^2 of Settlement Land within their traditional territory. Category A Settlement Lands cover 647.5 km^2 of land on which KFN has complete ownership of the surface and sub-surface. The remaining 259 km^2 is mostly Category B Settlement Lands on which KFN holds complete ownership of the surface, but not the sub-surface.

The project area is on NTS map sheets 115 G02, G03, G05, G06 and G07 and centered at a latitude of 61°18’N and a longitude of 139°07’W.

The Category A Settlement Lands are adjoined by Category B Settlement lands on the northwest, Kluane National Park Reserve on the southwest and the community of Burwash Landing on the northeast. The whole of the project area is within the Kluane Wildlife Sanctuary where exploration and mining are allowed. Both the park and wildlife sanctuary are managed cooperatively by Parks Canada, KFN and the Champagne-Aishihik First Nation.

4.3 Land

The Kluane Lake West Project takes place on Category A Settlement Lands owned by KFN, so no permits are required from other governments. However, KMRI was created to carry out ***responsible*** mineral exploration of KFN settlement lands. This involves:

- Local employment and training.
- Local business and contracting opportunities.

- Developing standard exploration operating procedures based on sustainable environmental stewardship and
- Applying FN mineral exploration capacity towards exploring on non-KFN Yukon traditional territory.

All field activities in 2016 were Class 1 activities based on the criteria of the Quartz Mining Act (Gov't of Yukon). Land disturbance was minimized and restricted to regular access routes. Overgrown trails and new, short access trails to grids were cleared to allow ATV access using hand tools and chainsaws. Grid lines were flagged and cleared just enough to allow foot or ATV access.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Access

Road access to a large part of the project area is along user-maintained gravel or dirt roads up Burwash Creek (Mile 1104 Alaska Highway) and the Duke River that connect to the Alaska Highway north of Burwash Landing. Depending on road conditions a 4WD truck can reach 4 km up the Duke River road to the placer operation at Bea Creek, and at least 15 km up the Burwash Creek road to the highest upstream placer operation on the creek, close to the Category A/B settlement lands boundary. An alternative access to Burwash Creek is along the Tatamagouche Creek road that branches off the Wellgreen Mine access road up Quill Creek. Bush road access is seasonal and highly variable. By mid-June the roads are usually free of snow and ice but summer flood events can wash out roads and may preclude access for some time. Placer mining activities affect road access as the owners maintain the roads to access their claims, but sometimes temporarily close or divert a road during placer operations.

From the end of drivable roads, access trails lead into the Burwash Uplands and can be navigated for some distance by ATV. The open forest on the Burwash Uplands is amenable to ATV travel but care must be taken to avoid damaging the often wet and boggy surface. The best access to this area would be in the winter once the ground is frozen and protected by a layer of snow, and able to support a snowmobile. Informal trails passable by foot, ATV, and/or snowmobile follow the banks of the Duke River from the highway well into the Uplands. Some of these were used in the past to move equipment and crews in for exploration programs.

The high country surrounding the Burwash Uplands on the north, south and west is best accessed by helicopter. None of the high country was worked on during the 2016 program.

5.2 Climate

The climate of the region is complex with a moist coastal climate on the west side of the Kluane Ranges and a drier interior climate on the east. The Kluane Lake West project is on the drier east side and receives an average annual total of 280 mm of precipitation which falls as rain in summer and early fall and snow the rest of the year. Probable annual mean temperatures for the interior slopes over eastern portions are -3 to -8°C for elevations of 1500 to 2500m. In December annual means are -20°C and in June 10°C to -1°C. Strong winds from storms in the Gulf of Alaska funnel through well-defined valleys.

Exploration can be carried on all year, but is best from June to October. October/November drill programs have been carried out in the area but would require extra heaters to keep the water supply running, and may in some cases require long hose lines as many of the upland creeks are ephemeral in nature.

5.3 Local Resources & Infrastructure

The nearest community to the project area is Burwash Landing. Burwash has a population of 85 and is the seat of the KFN government. The economic base is public administration, construction and tourism. A Yukon government airport is located 4 km northwest of Burwash with a 1500m runway. No scheduled flight services are offered.

Destruction Bay is 17 km south of Burwash along the Alaska Highway towards Whitehorse. Destruction Bay is unincorporated with a population of 51. Its economic base is a Government of Yukon highways works yard used to maintain the Alaska Highway. Between them, the two communities offer a range of services including fuel, post office, bank, fire department, recycling and waste transfer station, cell service, internet and telephone, health centre, campsites, accommodation, restaurant, and a small grocery store. Haines Junction, 122km to the south offers more fuel, helicopter rental, accommodation and restaurant services but groceries are limited. Whitehorse offers the widest choose of bulk groceries, assay preparation labs, exploration supplies and field gear.

No camp was used for this project. Local employees commuted to work each day and out of town consultants were housed at the Talbot Arm Motel in Destruction Bay. A seasonal café at the card lock fuel station in Burwash Landing served as an office and kitchen. In the Phase 1 program a short term tent camp was built at the Burwash Tatamagouche Creeks confluence when working in that area. During the 1980s there were exploration camps along Bea Creek and in the Burwash Creek valley.

5.4 Physiography

The project area is within the St. Elias Mountains Ecoregion within the broader Boreal Cordillera Ecozone (Yukon Ecoregions Working Group, 2004). This Ecoregion is one of the geologically youngest and most dynamic in Yukon; the mountains were uplifted over the last 14 million years. It is a landscape of steep-sided mountains and valleys with glaciers and swift streams. Precipitation is relatively high and the area is known for high numbers of Dall sheep and mountain goat. Large scale topographic features are the Icefield Ranges on the west side, the broad valley of the Duke Depression, and the Kluane Ranges on the east. The Kluane Ranges are the front range of the St. Elias Mountains and rise steeply from the Shakwak Valley along a fault scarp. Valley glaciers and broad braided rivers prevail on the west side, but on the east side the glaciers have retreated to isolated ice patches on higher peaks and in cirques.

In the project area the Duke Depression is represented by the distinctive Burwash Uplands, a gently rolling plateau with variable drainage stretching from Burwash Creek eastwards past the Duke River. Elevations are in the 900-1200m range with local relief of 250m caused by downcutting streams. The

Burwash Uplands are an erosion surface that formed prior to the Pleistocene. Late Cenozoic tectonism and stream dissection have resulted in this surface being elevated above present stream levels. Steeper mountain of the Kluane Ranges surround the Burwash Uplands on three sides, rising up to 2500m (figure 2).

Major drainages in the area are the Duke River and Burwash Creek. Most streams drain north or northeast into Kluane Lake. Black and white spruce dominated forest covers the lower elevations, thinning out over the Burwash Uplands where willow and other shrubs become more abundant. Above 1300m the project is generally devoid of vegetation, dominated by barren talus slopes, rocky cliffs and mountain peaks, with willow and buck brush along the valleys. Water is available year round from major creeks and seasonally from their tributaries. Rock exposure on the project is good at higher elevations, but the Burwash Uplands, and lower elevations are covered with glacial material and talus fans.

Permafrost is discontinuous, typically found above 1600m elevation in the mountains, but the active layer depth is controlled by surficial material. In low lying areas, permafrost is associated with organic soils, colluvial deposits and some moraines. Ground ice is also associated with the emergence of groundwater into near-surface materials. Deposits of White River ash up to 75cm occur in the region and are often invaded by permafrost.

Figure 2: Looking southeast from the M10 grid over the Burwash Uplands to the Kluane Ranges.

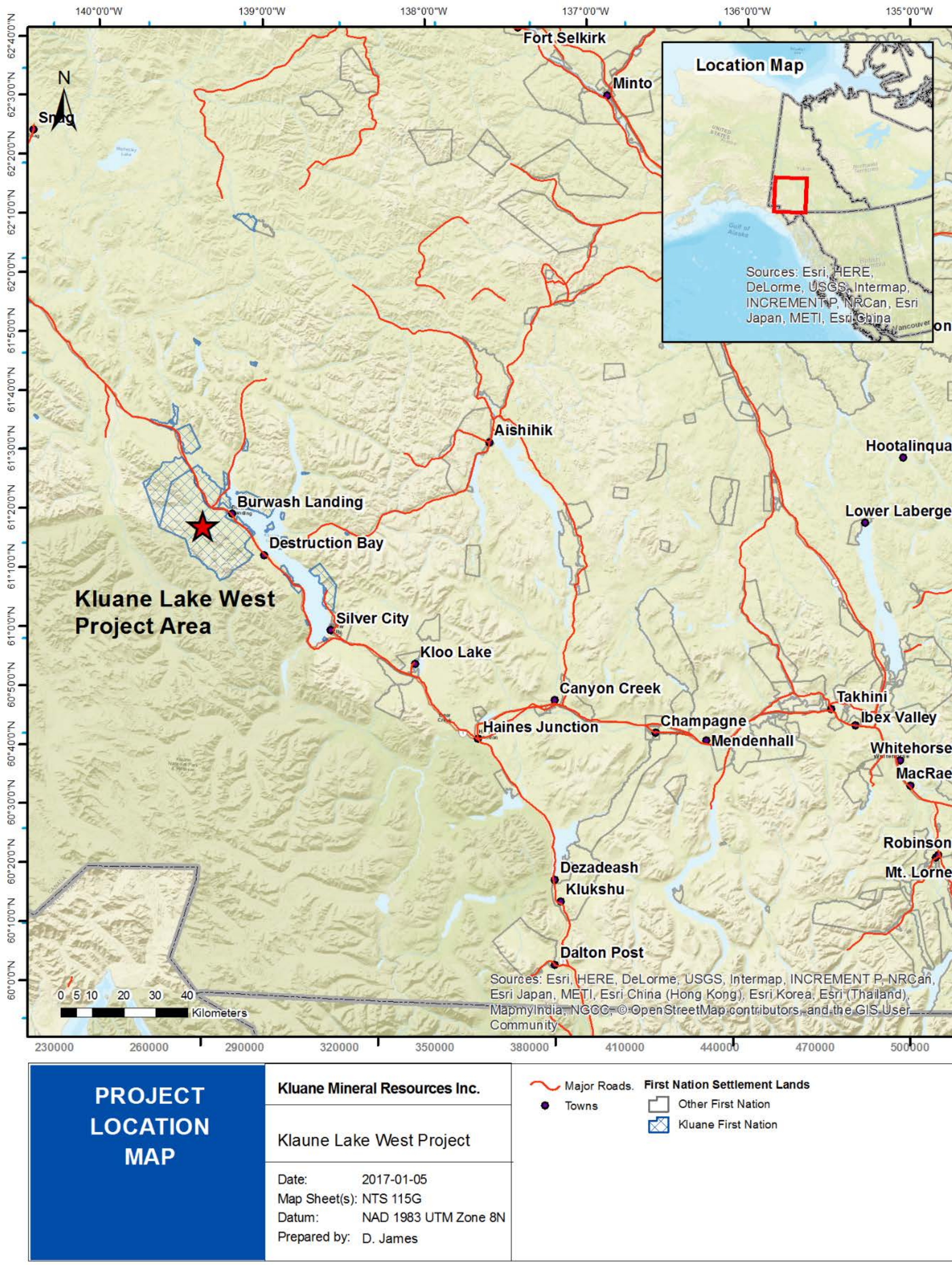

Figure 3: Location Map

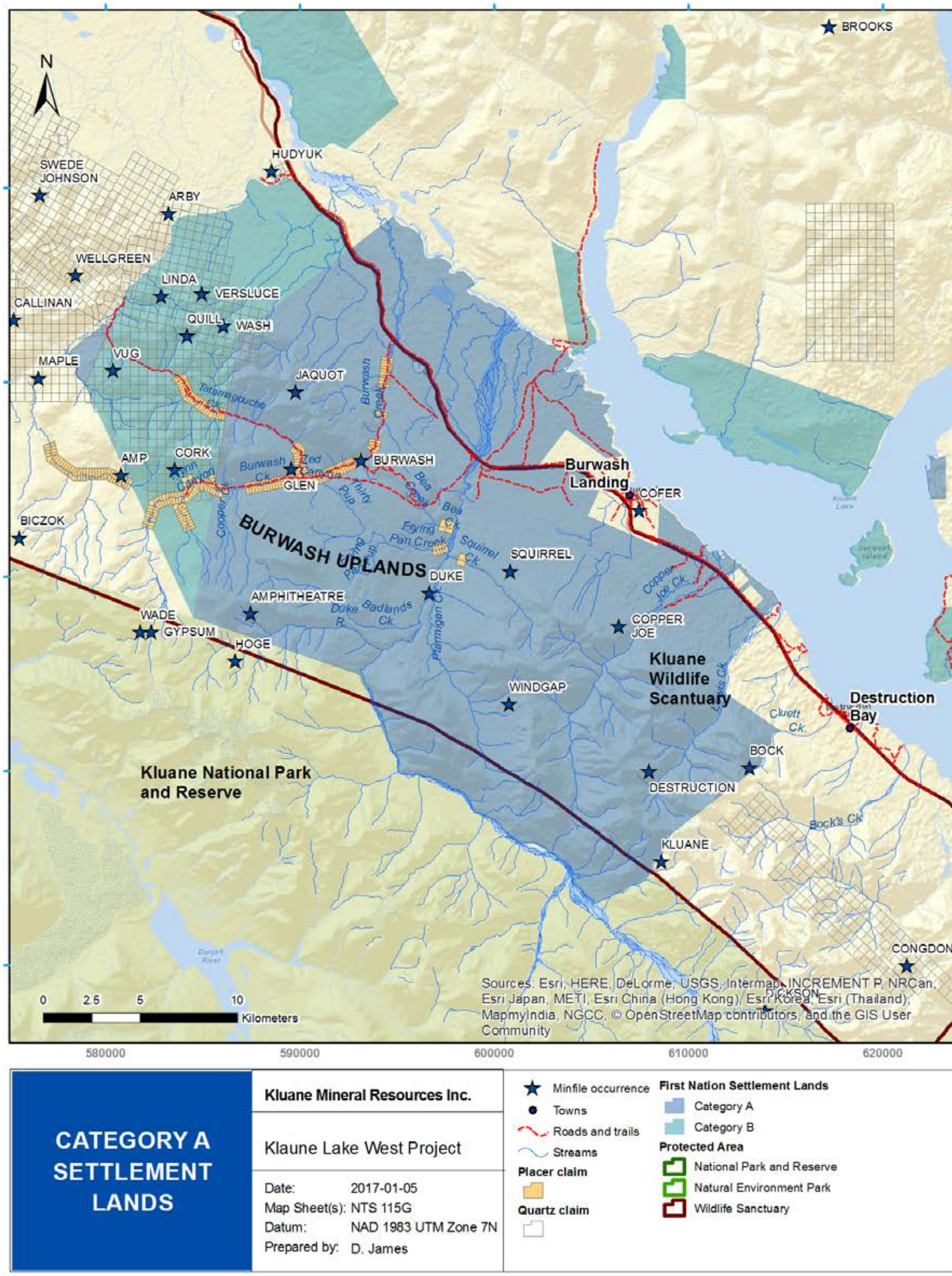

Figure 4: KFN Settlement Lands

6 Exploration History

Exploration History of the Category A Settlement lands will not be covered in detail in this report. Preceding reports by Lewis and Froc (2015) and KMRI (2016) have handled this task thoroughly so the information will not be repeated. Further, additional digitization and a compilation report of historic work is underway that will expand upon the exploration history. Instead, pertinent information and new insights pertaining to the areas worked on in 2016 will be discussed. See section 7.4 for a discussion of mineralization which overlap with this section.

Twelve documented YGS minfile occurrences are covered by, or close to, the project area. Three are coal showings: Amphitheatre (115G012), Hoge (115G 011) and Windgap (115G009). Seven are Ultramafic Mafic Gabbroid Cu-Ni-PGE: Bock (115G 084), Copper Joe (115G007), Destruction (115G006), Glen (115G016), Jaquot (115G019), Kluane (115G099), Squirrel (115G008), and Wash (115G100). Burwash (115G017), is classified as Volcanogenic Massive Sulphide Besshi Cu-Zn, Cork (115G015) as a Porphyry Cu-Mo-Au occurrence and Duke (115G010) as Ultramafic asbestos.

6.1 Exploration Chronology

Year	**Work**	**results**
1903-1914	Burwash occurrence in First Canyon staked by placer miners.	Copper showing in Nikolai volcanics.
1904-1914	Jaquot occurrence discovered.	Classified as Ultramafic Mafic Gabbroid Cu-Ni-PGE, but description sounds more like a copper and silver showing in Nikolai basalt.
1945	Duke occurrence staked.	
1948-1950	Coal lease staked on Amphitheatre, Hoge occurrences.	Small amount of coal reportedly hauled to Burwash Landing
1952-1954	Glen occurrence staked by Hudson Bay Mining as part of a large block extending south from Wellgreen. Also called “Burwash Creek showing.” Drilled in 1954	Elusive showing that has only been reported to have been seen twice since its discovery when extreme flooding events expose the showing. Drilling results unavailable.
1952	Cork and Destruction occurrences staked.	
1953	Conwest staked the RAM claims over headwaters of Copper Joe (then Halfbreed) and Lewis Creeks. Program of detailed geological mapping and prospecting.	Several minor showings of copper-nickel and copper found. Destruction occurrence.
1954	Mapping, trenching, ground geophysics on Duke occurrence by Teck	Detailed mapping along Duke River. EM and Magnetic surveys over Burwash Uplands. Asbestos occurrence and carbonate vein with trace Au and Ag found.
1966-1970	Trenching, geophysics and drilling on the Jaquot occurrence	Minor showings of bornite, chalcopyrite and chalcocite in basalt. Hand sample assayed 33.1% Cu. Another 329.1 g/t Ag. Low drilling results.
1967	Copper Joe occurrence staked.	Aeromagnetic anomaly. No significant results.
1967	Burwash occurrence trenched.	

Year	Work	results
1967, 1987	Destruction and Kluane occurrences staked by Newmont in 1967, and 1n 1900s by Kluane Joint Venture and Rockridge	Prospecting and soil geochemistry. Unusual stratiform sulphides in Maple Creek gabbro.
1967	Alice Lake Mines drill Glen occurrence	Target is EM conductor heading west from anomaly. Disappointing results
1970	Trenching and mapping at Windgap coal occurrence.	
1972	Alice Lake conduct work on Glen occurrence	Outline copper-nickel soil anomaly 427m by 732m.
1978-1990	Headed by L.B. Halferdahl, systematic exploration is carried out over the Burwash Uplands for 12 years. The claim block expands eastward past the Duke River to cover most of the Burwash Uplands. Bur Syndicate, then Tatam Resources then Nathan Minerals Inc. Initial work is focused on VMS base metal deposits, but later expands to include Ni-Cu-PGEs. Covers Burwash, Cork, Duke and Glen occurrences plus other showings.	A well-documented source of geological mapping, soil, rock, silt, heavy mineral sampling, overburden, percussion and diamond drilling, ground and airborne geophysical surveys. Assessment reports were filed annually with the mining recorder containing sample locations, drill logs, survey results and copies of original assay certificates. Familiarity with these reports and data is essential to effective exploration in the Burwash Uplands.
1987-2005	Wash occurrence staked by Silverquest Resources. Located in Category B Settlement lands within 2 km of Category A boundary.	High grade rock samples with peak rock samples at 4.3% Cu, 1.5% Ni, 2.2 g/t Pt, 2.2 g/t Pd and 1 g/t Au. Outside of current project area, but useful as model and increases potential of northwest end of category A lands.
1994-2005	In Oct/94 Inco Ltd staked a block of 508 Klu claims, the northern extent of which covers the Lewis Intrusions. Inco, Santoy, Resolve work the Klu claims.	Best results from showings south of Settlement lands, but only minor work carried out on Lewis Intrusions. Airborne magnetic survey over entire block.
2014	KMRI created. Desktop study on mineral potential on KFN lands.	Confidential report ranks settlement lands on mineral potential based on Ni-Cu-PGE, Cu-Au, coal and placer deposits.
2015	Regional aeromagnetic and focused electromagnetic surveys flown over the west side of Kluane Lake. Follow up regional program of prospecting, mapping.	Geophysical survey data interpreted by Condor and CSA Global. Geophysical targets generated. See section 6.2.

6.2 Recent Work

Following the incorporation of Kluane Mineral Resources Inc. in 2014, the company initiated a desktop study on mineral potential on KFN settlement lands. The confidential report (Bateman and Froc, 2015) produced a ranking of mineral potential for Ni-Cu-PGE, Cu-Au, coal and placer deposits. The ranking maps drove the exploration strategy and provided direction for the 2015 work program.

In March and April 2015, two helicopter borne aerial surveys were commissioned by KFN and the Government of Yukon. A regional magnetic survey was flown west of Kluane Lake over a 105 km long by 11 km wide strip between Congdon Creek and the Donjek River. Traverse lines were oriented at 45^{o} and control lines at 135^{o}. Within that area, two smaller HELITEM surveys were flown over the Donjek River and the KFN Category A settlement lands between Burwash Creek and the Duke River; traverse lines at

45° and control lines at 130°. KMRI commissioned two interpretive reports, one from CSA Global whose targets were the main drivers of the 2015 and 2016 and another from Condor North Consulting ULC. Although the two reports generally agree on targets there is considerable information in the Condor report that has not received much attention; partly due to the reporting not being finished until March 2016 after the initial field program and partly because the Condor interpretation is not as easy to plot on a map and use. Most of the EM information is presented as profiles which require some knowledge to read, but provide better information than a contour plot. The original geophysical survey and the two interpretive reports are the most significant exploration work undertaken over the Category A settlement lands since the end of the Halferdahl-led exploration in the 1990s.

During the 2015 field season, work was focused on ground-truthing targets from CSA Global's interpretation of the airborne geophysics that were in areas ranked Very High or High for potential to host Ni-Cu-PGE occurrences. Prospecting, mapping and sampling were the main activities, and outcrop exposures along streams accessible by foot or ATV were systematically sampled. No outcrop exposures containing the scale of sulphide mineralization as is found at Wellgreen were located, but many of the geophysical targets are buried under overburden. Some historical work for the area and all information collected during the 2015 field season was organized into an MS Access database and a GIS workspace.

7 Geological Setting and Mineralization

7.1 Regional Geology and Mineral Potential

The Kluane Lake West project lies mostly within the Wrangell Terrane in the northeastern portion of the accreted Insular Super Terrane, made up of the Alexander and Wrangell Terranes. The Wrangell Terrane consists of Devonian to Permian arc volcanic, clastic and platform carbonate rocks overlain by Triassic oceanic rift tholeiitic basalt and carbonate rocks. The Wrangell Terrane is bounded by the Denali and the Duke River Faults. The Denali Fault is a large strike-slip fault, with a dextral sense of motion and an offset in the order of 350 km, that defines the Shakwak Valley and lies along the northeast side of the project subparallel to and inland of the Alaska Highway. The Duke River Fault, separating the Alexander and Wrangell Terranes, lies approximately 3 km southwest of the property boundary.

Post accretionary units, overlapping and suturing the terranes, include Jura- Cretaceous sedimentary rocks of the Tatamagouche Group and Tertiary felsic to mafic volcanic rocks with interbedded terrestrial sedimentary rocks. Post accretionary intrusions include Jura-Cretaceous, mid Cretaceous and Neogene plutons. Rock units are faulted and folded about steep axial planes with shallow northwest trending axes. Faulting has occurred along bedding plane slip faults and strike slip faults which trend subparallel to the Denali Fault.

The Wrangell Terrane hosts the 600 km long Kluane Ultramafic Belt, which is characterized by Triassic aged mafic (gabbro to diorite) to ultramafic (commonly peridotite) sills known as the Kluane mafic-ultramafic suite. The Kluane mafic-ultramafic suite hosts many magmatic nickel (Ni) - copper (Cu) - platinum group element (PGE) ±gold (Au) occurrences from northern British Columbia, through Yukon and into Alaska.

The mafic-ultramafic intrusions are sill-like bodies that preferentially intrude the country rock sequences at or near the contact between the Hasen Creek Formation (tuffs, mafic volcanics, argillite and limestone) and Station Creek Formation (tuffs, pyritic black tuff, mafic volcanics and argillite), part of the Pennsylvanian to Permian Skolai Group. Many of the ultramafic sills have marginal gabbro phases at their bases and upper contacts that appear to be preferentially mineralized. The Kluane Belt Ni-Cu-PGE occurrences are particularly enriched in the rarer platinum group elements osmium, iridium, ruthenium and rhodium.

The Wellgreen deposit is most advanced property within the Kluane Belt, with historic production (1972-1973) of 171,652 tonnes grading 2.23% Ni, 1.39% Cu, 0.073% Co, and 2.15 g/t Pt and Pd. As of February 2015, Wellgreen released a preliminary economic assessment with a measured and indicated resource of 5.5 Million ounces PGM+Au, 2.9 billion pounds Ni+Cu and an inferred resource of 13.8 million ounces of PGM+Au and 7 billion pounds Ni+Cu. Measured and indicated grades are 1.67 g/t platinum equivalent or 0.44% nickel equivalent. Inferred grades are 1.57 g/t platinum equivalent and 5% nickel equivalent. Wellgreen has the potential to become the second largest PGM and third largest nickel sulphide producer outside Russia or Africa. The Wellgreen deposit emphasizes the excellent potential for large tonnage nickel- copper-PGE deposits in the Kluane Ultramafic Belt.
(http://www.wellgreenplatinum.com/)

7.2 Project Area Geology

Project area geology is summarized from work by Hulbert (1997), Israel and Van Zeyl (2005), Israel et al. (2006), Lewis and Froc (2014) and. See Lewis and Froc for detailed unit descriptions and photographs of rock types from the 2015 mapping. See geology map in appendix 6 and the stratigraphic column in figure 5.

The oldest exposed rocks are volcanic and volcaniclastic Station Creek Formation overlain by clastic sedimentary rocks of the Hasen Creek Formation, both part of the Pennsylvanian to Lower Permian Skolai Group and mapped along the length of the project area. The strata trend northwest and display moderate to steep southwest or northeast dips. The Skolai Group rocks are intruded by younger Late Triassic mafic to ultramafic sills of the Kluane mafic-ultramafic suite. Maple Creek gabbros intrude the Station Creek formation and Kluane suite intrusions.

The Hasen Creek Formation is overlain by the middle Triassic Hoge succession, upper Triassic Nikolai Group volcanic rocks, and upper Triassic McCarthy Formation and Chitistone Limestone. Overlap assemblages deposited or intruded following collision of the Wrangell and Alexander Terraces include Triassic to Cretaceous clastic rocks of the Tatamagouche succession, Tertiary Amphitheatre Group and Wrangell Lavas, Cretaceous Kluane Ranges Suite and Oligocene Tkope Suite intrusions.

The informally name Hoge Succession phyllites and limestone overly the Hasen Creek Formation; with fossils the only way to distinguish the two apart. Where no Nikolai volcanics are present, the Hoge is overlain by Chitistone Limestone and McCarthy Formation. Hoge Succession rocks are restricted in extent over the project area, the largest outcrop is west of Lewis Creek.

The Nikolai formation is a thick package of subaerial basalts locally topped with limestone and argillite. The largest volume of Nikolai rocks in the study area is on the southeast side of the study area where they are found in fault contact (Bock's Creek Fault) with Kluane suite intrusions and Skolai Group rocks.

The McCarthy Formation, Chitistone Limestone and Tatamagouche Formation are a series of conformable sedimentary rocks deposited on top of the Nikolai volcanics. In the project area, the largest extent of McCarthy and Chitistone is an area west of Ptarmigan Creek. An extensive area of Tatamagouche succession sits southeast of the Bock's Creek fault between Lewis and Burwash Creeks.

Early Cretaceous Kluane Ranges suite rocks stretch from Ptarmigan Creek northwest to Maple Creek, beyond the KFN Settlement lands boundary. These intrusions of quartz diorite, diorite and gabbro composition intrude older rocks and are in fault contact with overlying Amphitheatre Formation. Oligocene Tkope suite hornblende +/- biotite quart-feldspar porphyry intrusions are found only along Burwash Creek, intruding the Skolai Group, Kluane ultramafic intrusions and the Kluane Ranges suite.

The Amphitheatre Group, Wrangell Lavas and Wrangell intrusions are located along the southwest side of the project area. The Amphitheatre Group is composed of coarse terrestrial sediments in either unconformable or fault contact with older rocks. Local, discontinuous coal seams up to tens of metres thick are found throughout the group.

The youngest rocks, Paleogene to Neogene Wrangell Lavas form the midslopes of mountains along the southwest project boundary. They consist of rusty, red-brown basaltic andesite flows, interbedded with felsic tuff. A related Wrangell intrusion outcrops along the upper reaches of Copper Joe Creek.

On the northeast side of the Denali Fault, undivided metamorphic rocks of the Proterozoic to Mesozoic Kluane Schist underlay the broad valley of the Shakwak Trench.

All the above units are locally overlain by Quaternary unconsolidated glacial, glaciofluvial and glaciolacustrine deposits and ice. Depths around the Duke River are reported (Walker, 1955) as being on average 20-30m and up to 60m in places.

7.2.1 Kluane mafic-ultramafic suite

The Kluane mafic-ultramafic suite intrusions are the focus of most exploration in the region and host to the nearby Wellgreen deposit. Three intrusions or complexes (series of related intrusions or the same intrusion that have been folded or faulted, increasing their thickness) are located with the project area (figure 6).

The Tatamagouche ultramafic complex is the largest in the Kluane region, and in exposed sections is the least deformed of the Kluane belt ultramafic intrusions. It trends northwest across the project area for 22 km, varying from 300m wide at the northwest end up to 4.5 km across at the southeast end. It intrudes Station Creek and to lesser extent Hasen Creek rocks except for the Tatamagouche Creek and Squirrel Creek areas where it is in direct fault contact with younger Nikolai volcanics. Lack of outcrop has impeded exploration with the only Ni-Cu-PGE showing so far in the Burwash-Tatamagouche confluence area where the creek has cut down through overlying cover and exposed ultramafic and gabbroic rocks in contact with Hasen Creek and Station Creek formations.

The Lewis Intrusions cover an area 7 km long between Copper Joe and Lewis Creeks ranging from 100m wide at the southwest end to 800m wide at Copper Joe Creek. This is least altered of all the ultramafic intrusions in the area; three intrusions of relatively unserpentinized peridotite to pyroxenite composition intrude Hasen Creek Formation sediments.

The Duke River Intrusive Complex overlaps the southeastern part of the Category A settlement lands. The Duke River complex is unusual in that it contains a greater thickness of gabbroic rocks along the northern margin, has been less modified by faulting and hosts stratiform magmatic sulphides in contact within probable Maple Creek gabbroic rocks. The Lewis and Duke River intrusions may belong to the same intrusion that has been folded into a syncline, whose axis is located halfway between the two bodies.

Smaller sills less than 200m wide and with a lineal extent of approximately 1 km outcrop along the lower reaches of the Duke River and Burwash Creek. On trend magnetic anomalies M7-M9 and M13 may represent their continuation under cover.

Maple Creek gabbroic sills intrude Kluane ultramafic intrusions and can occur stratigraphically above and below. Maple Creek gabbros are typically barren of mineralization except for the Duke River intrusion.

7.3 Structure

Northwest-southeast trending structural features parallel to the regional Denali Fault characterize the project area. Israel et al. (2005) suggest three phase of deformation: a compressional event prior to the Mid Triassic, a post-Triassic, contractional event, and a post-Cretaceous strike-slip faulting event. Little evidence remains of the pre-mid Triassic event except for missing Station Creek Formation sediments in some locales. The second contractional event is expressed by northwest-southeast trending, upright to locally overturned, tight to isoclinal folds and thrust faults dipping to the northeast. Some folds and fault from this event have been reactivated or overprinted by younger deformation.

The third deformational event is expressed as the Denali and Duke Faults on either side of the project area. The Denali Fault is a right lateral active fault that may have accommodated 370 km of movement since the mid-Cretaceous. It extends from northwestern BC into central Alaska and is a major, terrane bounding fault. The still-active Duke River fault is an active fault that extends from the southwest Yukon, into Alaska and since the late-Mesozoic has shown strike slip motion. Numerous steeply dipping faults related to the major faults cut across the project area. Bock’s Creek fault is a large structure running the length of the project area, cross cutting older steeply dipping faults and splaying along its length.

Quaternary material over the Burwash Uplands obscures the structure, but it can be assumed that the fold and faults continue underneath the overburden. Repeated folding and thrusting of the Tatamagouche ultramafic complex may account for its extent and thickness.

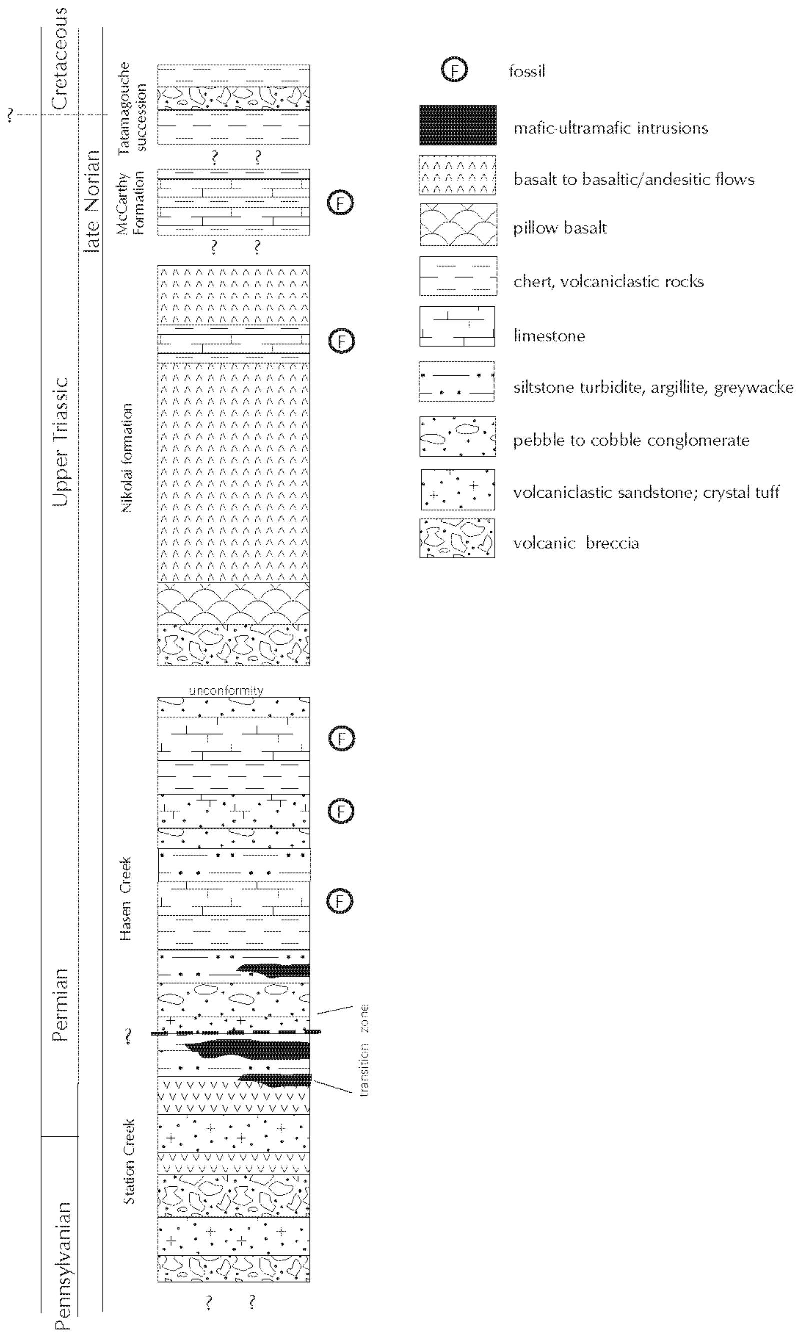

Figure 5: Stratigraphic column from Israel and Van Zeyl, 2005

7.4 Mineralization

The focus of this section is Ni-Cu-PGE mineralization in Kluane ultramafic intrusions, the deposit type that has been the target of most exploration in the area since the 1950s when Hudson Bay Mining staked a large claim block to cover prospective ground south of Wellgreen.

Twelve documented YGS minfile occurrences are within or close to, the project area. Three are coal showings: Amphitheatre (115G012), Hoge (115G 011) and Windgap (115G009). Seven are Ultramafic Mafic Gabbroid Cu-Ni-PGE: Bock (115G 084), Copper Joe (115G007), Destruction (115G006), Glen (115G016), Jaquot (115G019), Kluane (115G099), Squirrel (115G008), and Wash (115G100). Burwash (115G017), is classified as Volcanogenic Massive Sulphide Besshi Cu-Zn. Cork (115G015) as a Porphyry Cu-Mo-Au occurrence and Duke (115G010) as Ultramafic asbestos. These occurrences have been discussed in detail in previous reports so that information will not be repeated, instead areas that were worked on in 2016 will be discussed. See also section 6.0 for a brief history of exploration and figure 6 below for locations.

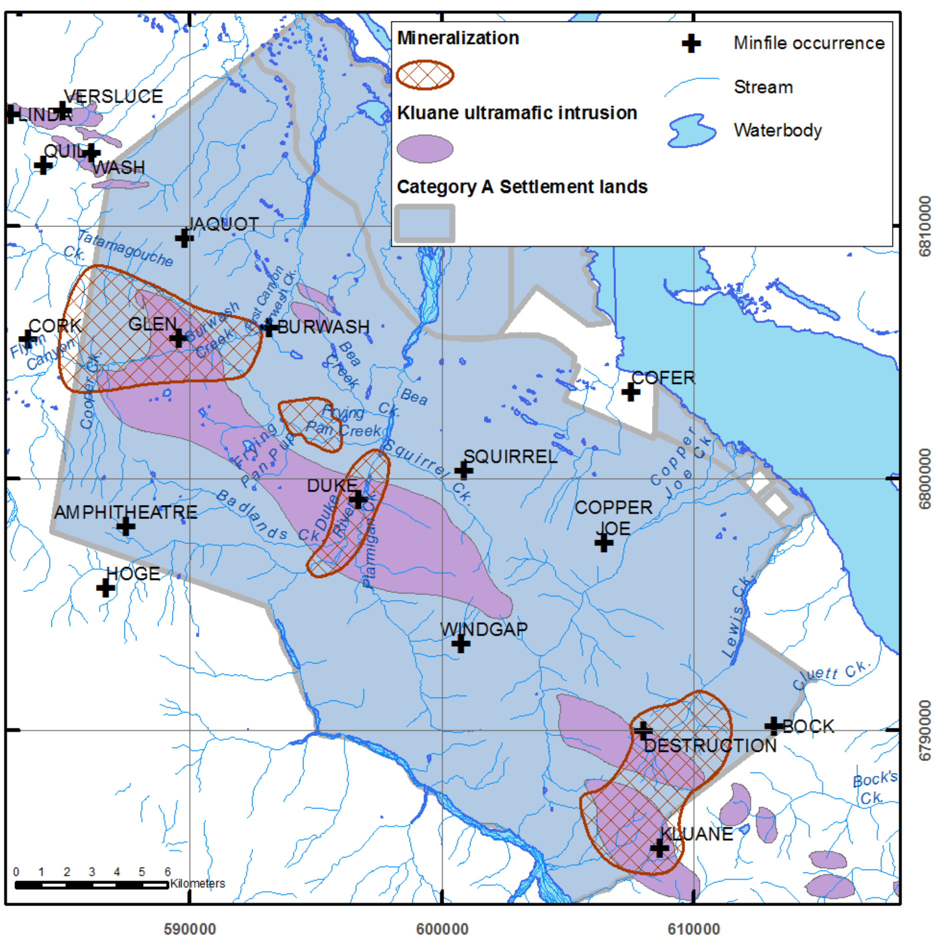

Figure 6: Ultramafic Intrusions, Mineralization, and Minfile Occurrences

7.4.1 Tatamagouche Ultramafic Complex Mineralization

Although the Tatamagouche Complex is the largest ultramafic intrusion in the Kluane belt, less than half of its mapped area is exposed. The middle section lies under the Burwash Uplands where it is covered with Quaternary glacial and alluvial deposits. Diamond drill logs report depths of overburden up to 70m deep (Halferdahl, 1989). Lack of outcrop has impeded exploration with the only Ni-Cu-PGE showings so far in the Burwash-Tatamagouche confluence area and along the Duke River where the streams cut down through overlying cover and exposed ultramafic and gabbroic rocks. Other buried "occurrences" of mineralization may be represented by airborne and ground geophysical anomalies.

Burwash-Tatamagouche Confluence

The Burwash Tatamagouche confluence area is loosely defined as a wedge-shaped area bordered by the western Category A Settlement Lands boundary. It covers approximately 2500 ha and includes the area of historic work around the Glen minfile occurrence and airborne geophysical anomalies M11, M12, M14 and part of M16. Burwash-Tatamagouche has seen the most exploration work on the project area with the bulk of it occurring between 1978 and 1990 when the Bur Syndicate, Tatam Resources and Nathan Minerals carried out extensive work in this area.

Hulbert, 1997 considers the elusive Glen occurrence to be the ". . . most significant sulphide discovery to date." It occurs along the north bank of Burwash Creek, about 180m upstream from the mouth of Tatamagouche Creek. The showing is reported to be approximately 6 by 1.5m and occurs between gabbros and latite porphyries that intrude volcaniclastic rocks of the Station Creek Formation. A narrow zone of disseminated sulphides and small lenses and patches of semi-massive pyrrhotite-pyrite-chalcopyrite-pentlandite. A grab sample containing 50% sulphides assayed 3.6% Ni and 0.7% Cu (not analyzed for PGEs). After the showing was discovered, placer miners buried it under an access road and the showing is only revealed after rare extreme flood events wash away the road fill.

Frying Pan Creek

Frying Pan Creek is a geologically complex area along the northeastern boundary of the Tatamagouche complex covering West Bea, Gopher, Frying Pan and Martin Creeks. The M10 aeromagnetic and EM1a and EM1b HeliTEM anomalies underlie the area; M10 coinciding with a mapped ultramafic. An outcrop of gabbroic rocks is exposed in the road cut and ultramafic sills were mapped in Bea Creek and further to the northeast towards Bea Creek during the 2015 field season. A wedge of pyritic black tuff from the Hasen Creek formation lies between the gabbro and the main body of the Tatamagouche Complex. Anomalous multi-element silt samples were collected from Gopher and W. Bea Creeks in 2015 and 2016. The combination of geology and geophysical anomalies makes the area fertile ground for Ni-Cu-PGE mineralization. This prospectivity was recognized in the 1980s by Halferdahl who persisted in exploring the area despite deep overburden and lack of outcrop. Eight diamond drill holes were drilled between Frying Pan and Gopher Creeks in 1989. Drilling was difficult and core recovery low; some holes hit conductive graphite, although it is unclear from the drill logs if graphite was used as a lubricant for the drilling or intersected in the holes. Further, there is question as to target and direction of the drillholes. Care must be taken to use the historic data to avoid making the same mistakes, and to proceed methodically prior to using a diamond drill.

Duke River

The Duke River has down cut and exposed a 5.5 km long stretch of the Tatamagouche Ultramafic complex at its widest point south of Squirrel Creek. The Duke minfile occurrence is in this area and includes an ultramafic-hosted asbestos showing on Ptarmigan Creek and a pyritic carbonate vein near Squirrel Creek. The minfile report locates the carbonate vein at 500m upstream from Squirrel Creek, while the 1954 assessment report locates the vein 300m south of Squirrel Creek at the north end of the Tatamagouche ultramafic complex.

Detailed outcrop mapping was carried out by Teck along the Duke River in 1954 in conjunction with a 80 km ground EM and 13 km magnetic surveys over the Burwash Uplands on both sides of the river. No sample results are reported from the 1954 work, but in 2015 the KMRI program identified sulphide-bearing ultramafic rocks containing weakly anomalous nickel, copper, cobalt, palladium and chromium along this stretch of the river.

7.4.2 Lewis and Duke River Intrusions

Two minfile occurrences, Kluane and Destruction, are hosted in the Lewis and Duke River intrusions that occupy a rugged area close to the southwestern Category A settlement lands boundary. Access is by foot along either creek, or by helicopter and the intrusions are well exposed on steep slopes above talus fans. This area has not received much work due to the rugged terrain, difficult access, proximity to protected areas and the past uncertainty of land claims in the area.

The Duke River intrusion contains multiple sulphide showings within gabbro, ultramafic and adjacent country rock. Samples results suggest higher Ni and Co values and lower Cu values than Wellgreen. The Kluane minfile occurrence is located at the east end of the mapped outcrop. (Hulbert, 1997).

8 Deposit Types

The most common occurrence type on the KFN Category A Settlement Lands is classified by the YGS as Gabbroid Ni-Cu-PGE (Au) a term roughly synonymous with magmatic Ni-Cu-PGE and USGS model 7a synorogenic-synvolcanic Ni-Cu (Page). The same model, with local variations, is applicable to all ultramafic associated mineralization within the Kluane belt. Lesser occurrence types are volcanogenic Massive Sulphide base metals and Porphyry Copper Molybdenum which will not be discussed in detail.

Gabbroid Ni-Cu-PGE (Au) deposits are characterized by basal massive sulphide lenses and matrix and disseminated sulphides in small to medium sized gabbroic intrusions in orogenic belts of metamorphosed volcanic and sedimentary rocks. The intrusions were emplaced during an orogeny or simultaneously with basalt volcanism. Typical mineralogy is pyrrhotite, pentlandite, chalcopyrite ± pyrite, ± Ti-magnetite ± Cr-magnetite ± graphite and by-product cobalt, platinum group elements and gold.

In the Kluane Belt Ni-Cu PGE + Au mineralization is spatially associated with ultramafic intrusions (usually sills or lenses) that zone outwards from a dunite core to peridotite and pyroxenite and finally to a gabbroic margin. The intrusions are preferentially located at the contact between the Station Creek and overlying Hasen Creek formations. Massive sulphide mineralization occurs at the base of the sill and sometimes at the top. Net and mesh textured sulphides are found in the marginal gabbro. Hydrothermal and skarn type mineralization may occur in the Hasen Creek sediments above the contact, especially where there are carbonates beds. Hulbert (1997) considers the contact between the gabbroic margins and the Hasen Creek formation to be a more productive location for massive and semi-massive sulphides accumulations than the Station Creek formation contact.

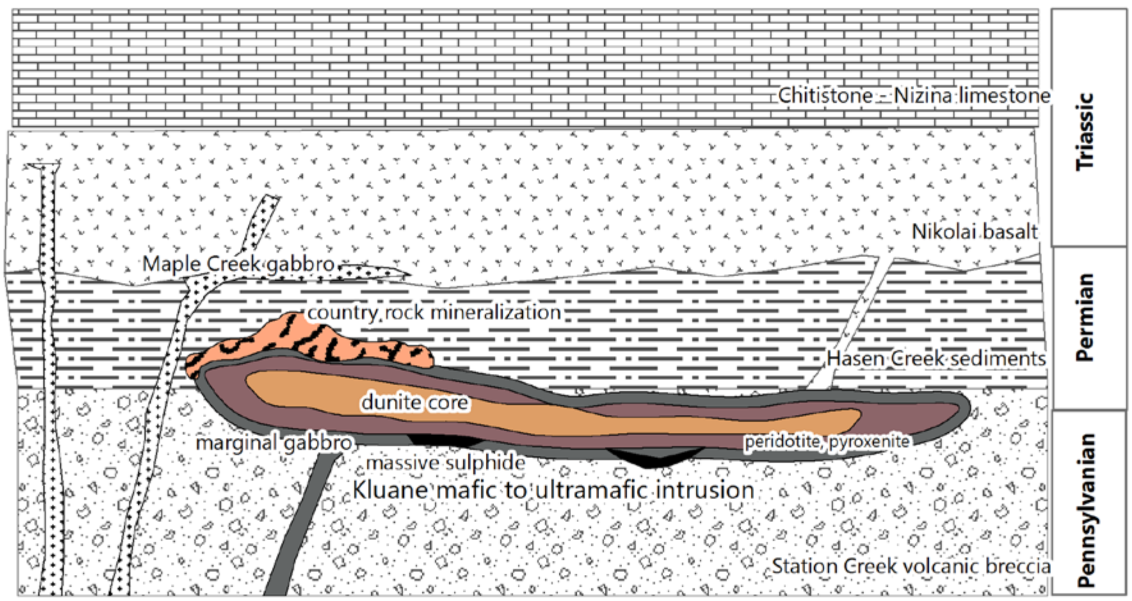

Figure 7 Deposit model for the Kluane Belt (modified from Hulbert, 1997)

There is potential for copper occurrences in the overlying Nikolai basalt and andesite. These rocks have a high copper background which is remobilized and redeposited as native copper and copper oxides in amygdules, veinlets and joint plants. Additionally, polymetallic vein deposits can be found that have formed in a similar manner in the Nikolai basalts. The Hasen Creek and Station Creek Formations and the Nikolai volcanics and related rocks have the potential to host volcanogenic massive sulphide (VMS).

9 2016 Program

A combined field exploration and training program was carried out on selected areas of the KFN Category A Settlement Lands in 2016. The 2016 program was the second phase of a three phase multi-year mineral exploration project. Work included establishing 3 grids, ground magnetic and VLF-EM over 2 grids, prospecting, rock sampling, soil sampling and spruce bark sampling. The project started on August 22, 2016 and ended on Sept 16, 2016 for a total of 158 man-days. A two day break was taken on September 10th and 11th.

The work was carried out by contract employees of Kluane Mineral Resources Inc. (KMRI), a 100% KFN owned corporation, and 3 geologists from Midnight Mining Services, Skypilot Exploration and 927852 Alberta Ltd. Project management was conducted by Midnight Mining Services and Asuna Strategies. Geophysical processing was done by Pioneer Exploration Consultants Ltd. Vehicles and equipment were provided by KMRI, rented from consulting companies or residents. Funding was provided by Kluane Mineral Resources Inc. with assistance from the Yukon Mineral Exploration Program (YMEP) and other sources.

Figure 8: Blazed and flagged tree along the baseline at a station.

The training requirement, the number of trainees and the nature of terrain in the project area all combined to modify the original program from the recommendations in the YMEP proposal. Many of the recommendations involved prospecting, mapping and sampling in areas that either had no outcrop, were difficult to access quickly on foot or by ATV, or had been sampled previously. Additionally, wet weather for the first half of the program made the road up Burwash Creek impassable so this area could not be accessed. A decision was made to concentrate on ground geophysics and soil sampling as ways to effectively work over difficult ground and see through thick cover. The most efficient way to follow up the broad airborne geophysics targets is with targeted ground geophysics.

9.1 Grids

Three grids were established over the course of the program over airborne geophysical anomalies in areas with little to no outcrop. The lines were marked by blazes and/or flags on trees, and with pickets in open areas (figure 8). All grids were at the same orientation (baselines 308° and crosslines 218°) and can be extended if required. The grids were named after the airborne geophysics anomaly they cover using nomenclature from the CSA global report. These grids were used for ground geophysics surveys and soil sampling. Line cutting was kept to a minimum, the open forest on the Burwash Uplands did not require much cutting for the type of surveys.

9.1.1 M10 grid

A 7.5 km baseline was flagged from West Bea Creek/Gopher Creek northwest (azimuth 308°) to Tatamagouche Creek. A 3 km crossline perpendicular to the baseline was run southwest over the middle of the M16 airborne magnetic anomaly. The M10 grid was established at the southeast end of the baseline over the Frying Pan and West Bea Creeks area. Thirty three kilometers of crosslines were marked with flagging at 20m intervals. A 5 km trail was brushed out by chainsaw and hand tools to facilitate access.

The M10 grid covers airborne magnetic anomaly M10 and electromagnetic anomaly EM1a. The grid was designed to be extended southeast over airborne anomaly EM1b, northwest to cover the Tatamagouche Burwash confluence, and southwest to cover the M16 airborne magnetic anomaly.

9.1.2 M8 and M9 grid

A grid was established over airborne magnetic anomalies M8 and M9. The baseline is 2.7 km long, with 12.9 km of crosslines.

9.1.3 M13 grid

A grid was established over airborne magnetic anomaly M13 with a 1.4 km baseline, and 3.3 kilometers of crosslines. No surveys were run over this grid in 2016 due to time constraints.

9.2 Ground Geophysics

9.2.1 Magnetic Survey

Thirty three line kilometres of ground magnetics was carried out over the M10 grid, and 11.4 kilometres over the M8/M9 grid. The equipment used was a GEM Systems Proton Precession magnetometer rented by Midnight Mining Services from Longford Exploration Services. Readings were collected at 20m intervals along grid crosslines. Instrument data was downloaded at the end of each day. At the end of the program, data was forwarded to Pioneer Exploration Consultants for processing. No interpretation was carried out and the report is in appendix 5.

> *The following description of magnetic surveys was adapted from http://www.geophysical.biz/ with additions from Mariita (2007).*

Magnetic surveying is ideal for both reconnaissance and focused surveys. It is expedient and cost effective, covers ground quickly, and requires a minimum of field support. The portability of the instruments makes magnetic surveying well suited to sites with topographic variations.

Magnetic surveys measure small, localised variations in the Earth's magnetic field. The magnetic properties of naturally occurring materials such as magnetic ore bodies and basic igneous rocks allows them to be identified and mapped by magnetic surveys. Magnetometers are highly accurate instruments that measure both orientation and strength of local magnetic fields to a high degree of precision. Magnetometer systems use proton rich fluids surrounded by an electric coil. A current is applied through the coil, which generates a magnetic field that temporarily polarises the protons. When the current is removed, the protons realign or precess along the line of the Earth's magnetic field. The proton precession produces a small but measurable electric current in the coil, at a frequency proportional to the magnetic field intensity.

Data acquisition for magnetic surveys involves taking a series of point readings at regular intervals on a survey grid. The spacing between grid lines and reading stations is dependent upon the application. Generally smaller targets require higher resolution surveys and denser survey grids.

To make accurate magnetic anomaly maps, temporal changes in the earth's field during the period of the survey must be considered. Normal changes during a day, sometimes called diurnal drift, are a few tens of nanoTeslas (nT) but changes of hundreds or thousands of nT may occur over a few hours during magnetic storms. During severe magnetic storms, which occur infrequently, magnetic surveys should not be made. The correction for diurnal drift can be made by repeat measurements of a base station at frequent intervals. The measurements at field stations are then corrected for temporal variations by assuming a linear change of the field between repeat base station readings. If time is accurately recorded at both base site and field location, the field data can be corrected by subtraction of the variations at the base site.

9.2.2 VLF-EM

Thirty two kilometres of VLF-EM survey was carried out over the M10 grid, and 12.5 km over the M8/M9 grid. Data was collected by the KMRI crew using an EM16 VLF instrument. The Seattle, Washington transmitter station was chosen because of its favourable orientation to the geology of the area. Readings were taken at 20 meter intervals over the grids with both the dip angle and the quadrature being noted at each station. The lines were surveyed in a southwest direction to utilize the Seattle frequency.

Figure 9: Operating the EM-16 VLF-EM machine. Fieldbook is used to record readings.

To take a reading the reference coil in the lower end of the handle is orientated along the magnetic lines 90 degrees to the station direction. This is achieved by swinging the instrument back and forth until a minimum sound intensity is heard. The quadrature dial is then adjusted until the sound is further minimized. The dip angle is then read from the inclinometer and the quadrature from the dial. Measurements were recorded in field notebooks and merged with GPS locations from the magnetometer. At the end of the program the data was compiled and forwarded to Pioneer Exploration Consultants for processing. No interpretation was done. The report is in Appendix 5.

The following description of VLF-EM was adapted from Zonge International (Source: http://zonge.com/geophysical-methods).

VLF survey methods use very-low-frequency, radio communication signals to determine electrical properties of bedrock and soils, primarily as a reconnaissance tool. VLF profiles can be run quickly and inexpensively to identify anomalous areas warranting further investigation by other surveys, drilling or sampling. The technique is especially useful for mapping steeply dipping structures such as faults, fractures and shallow areas of potential mineralization.

VLF techniques measure the perturbations in a plane-wave radio signal (15-30 kHz) emanating from one of several worldwide radio transmitters maintained for submarine communications. Military transmitters in Bangor, Maine; Seattle, Washington; Annapolis, Maryland; and Lualualei, Hawaii provide adequate coverage for this purpose for all of North America. The VLF-transmitting stations have a vertical antenna and thus the antenna current is vertical, creating a concentric horizontal magnetic field around the antenna. When these magnetic fields meet conductive bodies in the ground, secondary fields will be generated. VLF-EM instruments measure the vertical components of these secondary fields. VLF instruments measure two components of the magnetic field: the “tilt angle” and ellipticity. Local tilt and ellipticity of VLF broadcasts are measured and resolved into inphase and quadrature components of VLF response.

9.3 Rock Sampling

Twelve rock samples were collected from three areas that had not been sampled in 2015 along Burwash and Tatamagouche Creeks. The scarcity of outcrop in the Burwash Uplands and systematic sampling in 2015 meant that only a few rock samples were collected to avoid unnecessary duplication of previous work.

Rock descriptions and GPS coordinates were recorded for each sample and entered into an MS Excel spreadsheet. Rock samples were packaged in numbered plastic bags, secured with plastic zap straps and packed into a rice bag for delivery to the preparation facility in Whitehorse. All rocks were analysed at Bureau Veritas laboratories in Whitehorse and Vancouver. Results are discussed in Section 11; complete results, method descriptions and analysis certificates are in appendix 3 and maps in appendix 6.

9.4 Soil Geochemical Sampling

256 soil samples were collected over the course of the program. Seventy five were collected on the M10 grid along crosslines at 50 m spacing. The remaining samples were equal elevation or contour soils collected from the slopes above Burwash Creek, Tatamagouche Creek and the Duke River.

Field crews took GPS readings at all sample sites and recorded data about site characteristics, soil type and vegetation in notebooks collecting the same data as in 2015. The actual GPS coordinates of the sample at the time of collection were used to plot sample locations instead of the grid station coordinates because it was sometimes necessary to move away from the station to get a good sample.

Figure 10: Contour soil sampling west of the Duke River. One person collects the sample using the Dutch auger while the other records location and sample description.

After the fieldwork was completed information from the sample form was entered into an MS Excel spreadsheet. Results are discussed in Section 11; complete results are in appendix 3 and maps in appendix 6.

Samples were initially collected using mattocks or geotuls, but samplers switched to soil augers in order to collect deeper samples below the organic and volcanic ash layers. The augers also penetrated partway into permafrost. The target soil horizon was the B horizon, but immature soil development in many areas and shallow permafrost meant that sample quality was highly variable. In many locations the soils are developing on glacial material and are too young to have a distinctive B horizon. Average sample depth was 0.46 m, with a wide range from 0.15 to 1.0 m. Soil descriptions show that while some samples were from the B horizon, many were mixtures of A, B and C horizons. Better quality samples were collected if samplers were diligent about digging deep enough to get below organics and volcanic ash and into the permafrost.

9.5 Biogeochemical Sampling

To augment the soil sampling, a test of spruce bark sampling was carried out over the M10 grid to determine if this method could be used in other areas where soil development is poor or non-existent, and spruce coverage is consistent. Spruce samples overlapped with soil samples except over the wettest area of the grid where soil samples could not be taken because of a deep organic layer and permafrost. Seventy five samples and 1 duplicate were collected.

Spruce bark was chosen as a sample medium because:

1. Spruce is widespread on the Burwash Uplands and in the boreal forest.
2. Black spruce (especially bark) has an affinity for the PGEs and was successful in delineating the Rottenstone Ni-Cu-PGE deposit in northern Saskatchewan.
3. Tree bark is slow growing and is unaffected by seasonal changes in metal content.
4. Tree bark is the oldest part of the tree so has had a long time to extract metals from the ground.
5. All plants leach trace elements by using a selective leach of carbonic acid, formic acid and hydrogen peroxide.

6. Trees collect metals from groundwater, organic and soil horizons, and underlying material over a wide area. A mature tree can sample a large area (~450m^2) because roots can reach out 12m from the trunk.
7. It is quick and easy to sample tree bark and can be done at any time of the year.

A paint scraper was used to collect a sample of outer bark; the grey to brown, brittle layer on the outside of the trunk. The inner bark is a younger, softer layer with an orange or yellow tint that can easily be distinguished from outer bark. The bark was collected in a dustpan held below the paint scraper. Once enough bark had been collected it was inspected and any inner bark, sap, needles or twigs were discarded. The bark was then placed in a standard kraft paper soil bag and identified with a sample number. Duplicates were identified using a different sample sequence. A piece of flagging tied to the tree identified the sample location. GPS coordinates and site information were recorded and entered into a spreadsheet.

Spruce bark samples were packaged in a rice bag and shipped to Bureau Veritas' preparation facility in Whitehorse. Complete Spruce bark results, method descriptions and analysis certificates are in appendix 3. See figure 15 for comparison of soil and spruce bark.

9.6 Silt Sampling

Fourteen silt samples were collected over the course of the program. Three were collected on the M10 grid from West Bea Creek and Gopher Creek. The remaining samples were collected over or close to airborne magnetic anomaly M16 from Thirty Pup and a tributary of Frying Pan Creek.

Field crews took GPS readings at all sample sites and recorded data about site characteristics, soil type and vegetation in notebooks collecting the same data as in 2015. After the fieldwork was completed information from the sample form was entered into an MS Excel spreadsheet. Spreadsheets with full results and analytical information are in Appendix 3 and maps in Appendix 6.

Figure 11: Silt sampling along Thirty Pup. Sample site 1531253.

The original plan was to do more silt sampling, but a couple of factors reduced the number collected. High water levels at the start of the program meant that samples could not be collected because creeks were flooded or inaccessible. Once levels dropped, potential sample sites had been scoured clean and were not suitable to sample. Some chosen sites had already been sampled, but this was not discovered until the crew were out in the field.

9.7 Training

One of the goals of the 2016 program was to train KFN citizens in exploration techniques and introduce the process of exploration. KMRI is tasked with developing exploration capacity from with the KFN community. KFN citizens had been involved with the project as field assistants in the phase 1 groundwork and KFN has its own in-house GIS manager who maintains the database and provides mapping services.

The training component of the program focused not only on teaching and experience leading to mastery of field techniques, but also sought to impart an understanding of how these techniques fit into the broader exploration strategy. Consultants working side-by-side with KFN citizens explained how each field task provided data used to target, or vector, towards increasingly expensive, risky, and/or high disturbance exploration techniques. Additionally, geologic theory and an appreciation for the relative scarcity of economically feasible deposits (and the many factors which can make or break a project's economics) were taught in a casual, hands-on manner in the field and around the table in the kitchen/office.

Six field technicians were hired and clocked up 94.5 man-days of work. The work schedule was flexible and employees could take time off with one day's notice. The number who worked each day varied between 2 and 6. There was a general decrease in numbers over the course of the program and no new workers were added after September 1st. One employee worked the entire 22.5 day stretch, two worked 18 days and the other three worked 11-13 days. Reasons for variable attendance included: other work, hunting season, injuries, special events and lack of interest.

The café at the gas station in Burwash was used as an office and kitchen. Crew members assembled each morning for breakfast, took a lunch to work and reconvened at the end of the day to download data, debrief and prepare for the following day before sitting down to a shared dinner. The cafe was also used for sample drying, safe storage, vehicle parking and as an office.

The field assistants were all KFN citizens and lived in the local area at least part time. Past work experience in mineral exploration varied from none to substantial. One employee had worked for a few years as a contractor providing staking, sampling, and core cutting services to various exploration service companies and junior companies. He had also worked on the Kluane West Project in 2015. Others had related experience in the placer mining industry or as hunting/fishing guides.

The field assistants were trained in, and took part in all the tasks described above: grid establishment, soil, silt, rock and spruce sampling, operation of geophysics equipment, sample management and data management. More experienced assistants operated the magnetometer and VLF-EM equipment, working without oversight by the end of the program. Safety meetings were conducted at the café and in the field covering bush safety and operation of vehicles with an emphasis on ATV safety. A short course on claim staking was also part of the training.

10 Adjacent Properties

10.1 Wellgreen

The Wellgreen project, located 3 km directly northwest of KFN's Category B lands, hosts a large Nickel and PGM deposit that is accessible via an all-weather road from the paved Alaska Highway; a major all-season trucking route leading to deep sea ports at Haines and Skagway, Alaska. The operator has an Exploration Cooperation & Benefits Agreement with KFN since August 2012.

The Wellgreen deposit occurs within, and along the lower margin of, the Quill Creek mafic-ultramafic Complex, an assemblage of mafic-ultramafic rocks 20 kilometres long that intrudes along the contact between the Station Creek and Hasen Creek formations. The main mass of the Quill Creek Complex, the Wellgreen and Quill intrusions, is 4.7 kilometres long and up to 1,000 metres wide. Mineralization occurs within the Quill Creek Complex, a layered intrusion which gradationally transitions from Dunite to Peridotite to Pyroxenite to Clinopyroxenite to Gabbro with a corresponding increasing sulphide content through this sequence toward contact with the Paleozoic sedimentary country rocks. Mineralization within the main Wellgreen deposit has been delineated into six zones of massive and disseminated mineralization. Exploration drilling has defined a mineralized zone over a 2.8 kilometre East-West trend. The deposit averages 100 to 200 metres in thickness at surface in the Far West Zone, expands to 500 metres in thickness in the Central Zone and to nearly a kilometre wide in the Far East Zone where the deposit remains open down dip and along trend.

10.2 Wash Project

The Wash (or Burwash) project and minfile occurrence is located within 2 km of the Category A boundary. It was first staked in 1987, trenched and drilled in 2004-2005, and most recently worked in 2007. The property is currently held by Strategic Metals and a few of the claims overlap the Category A lands.

Mineralization at the Wash project is hosted in a swarm of 8 Kluane Suite mafic-ultramafic sills with a stratigraphic thickness of 1500m, over a 4.5 km strike. Pyrrhotite, chalcopyrite and pentlandite occur as disseminations and fracture fill, with higher grades to the west where the ultramafic rocks zone into gabbro. Peak values in rock samples are 43,000 ppm Cu, 15,200 Ni, 2.2 g/t Pt, 169 ppb Pd and 1 g/t Au. The property has potential for both narrow high grade and bulk tonnage deposit types. Like the Tatamagouche complex, overburden and permafrost have made exploration difficult over parts of the property. Recent reports recommend collecting soils with a power auger or digging deep soil pits.

This property is worth more study as a possible model for the geometry of the Tatamagouche Complex plus the sills may continue onto the Category A lands along the northeast facing slopes north of Burwash Creek.

10.3 Spy Project

Historically known as the Ram and Klu claims, junior mining company Group Ten's Spy property is located southwest of the settlement lands. The claim configuration has changed since it was first staked in 1953 and at one time has included part of the Lewis and Duke River intrusions. The main mineralization on the property is in a Kluane mafic-ultramafic intrusion known as the Spy Sill that is sporadically exposed over 6.5km. Only limited work has been carried out recently and no drilling has been attempted on the project.

10.4 Placer Gold

There are active and historical placer gold operations along Burwash and Tatamagouche Creeks and tributaries of the Duke River (figure 4). Burwash Creek is the best known and has been mined since 1904. Descriptions of placer operations are beyond the scope of this report, but of interest is the iron-platinum nuggets and large copper nuggets found in the creek (Fedortchouk, 2010).

Figure 12: Placer operation on Burwash Creek.

11 Results and Interpretation

The 2016 Kluane Lake West project used ground geophysics and soil sampling as the most efficient methods to follow up the broad airborne geophysics targets. In this manner it differed from the Phase 1 programs that focused on prospecting and collecting rock or silt samples from all readily accessible areas with outcrop. Results and interpretation of each survey and sampling type are discussed below.

11.1 Ground Geophysics

Small, targeted ground magnetic and VLF-EM surveys were carried out over the M8, M9 M10, and EM1b, airborne geophysical anomalies. Both these surveys are relatively quick and affordable and suitable for continued use. Grid layout is quick, line cutting can be kept to a minimum, and in some cases is not required if the crew are proficient with a GPS and the forest is open. Both surveys were successful and delineated anomalies, although the resolution/precision is not great enough to pinpoint diamond drill targets. Interpretation by a geophysicist experienced with the area should yield more confidence in the anomalies.

11.1.1 Magnetic Survey Results

The data has not been interpreted by a geophysicist so only simple deductions can be made at this point. See processing report in appendix 5 and figure 12.

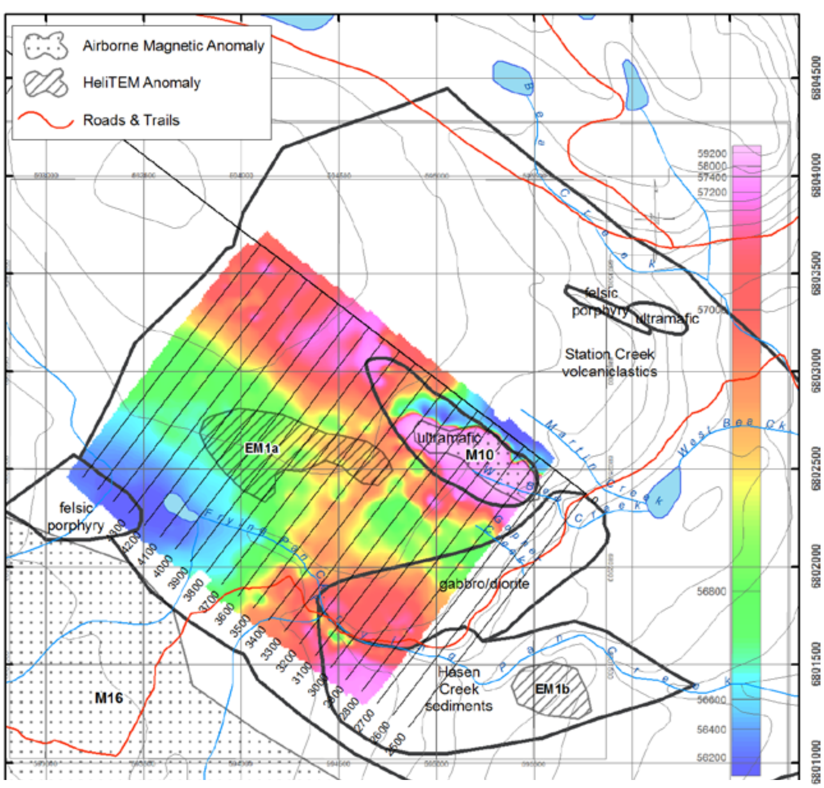

Figure 13: Total magnetic Intensity from ground magnetic survey on the M10 grid. Preliminary field mapping for comparison.

As expected, the highest magnetic response on the M10 grid is in the same place as the M10 magnetic anomaly from the airborne survey over an area underlain by ultramafic rocks. A moderate to high magnetic anomaly northeast of the ultramafic may be a continuation of the unit, but it is less well defined, and is separated by a magnetic low oriented east-west. Another magnetic high anomaly in the south corner of the grid is underlain by a pyritic tuff from the Hasen Creek Formation. A magnetic low in the west corner of the grid under Frying Pan Lake coincides with mapped felsic porphyry.

11.1.2 VLF-EM Results

A preliminary interpretation of the VLF-EM survey on the M10 grid has shown 6 primary and 5 secondary conductors trending northwest across the grid, the dominant structural direction in the area (figure 14).

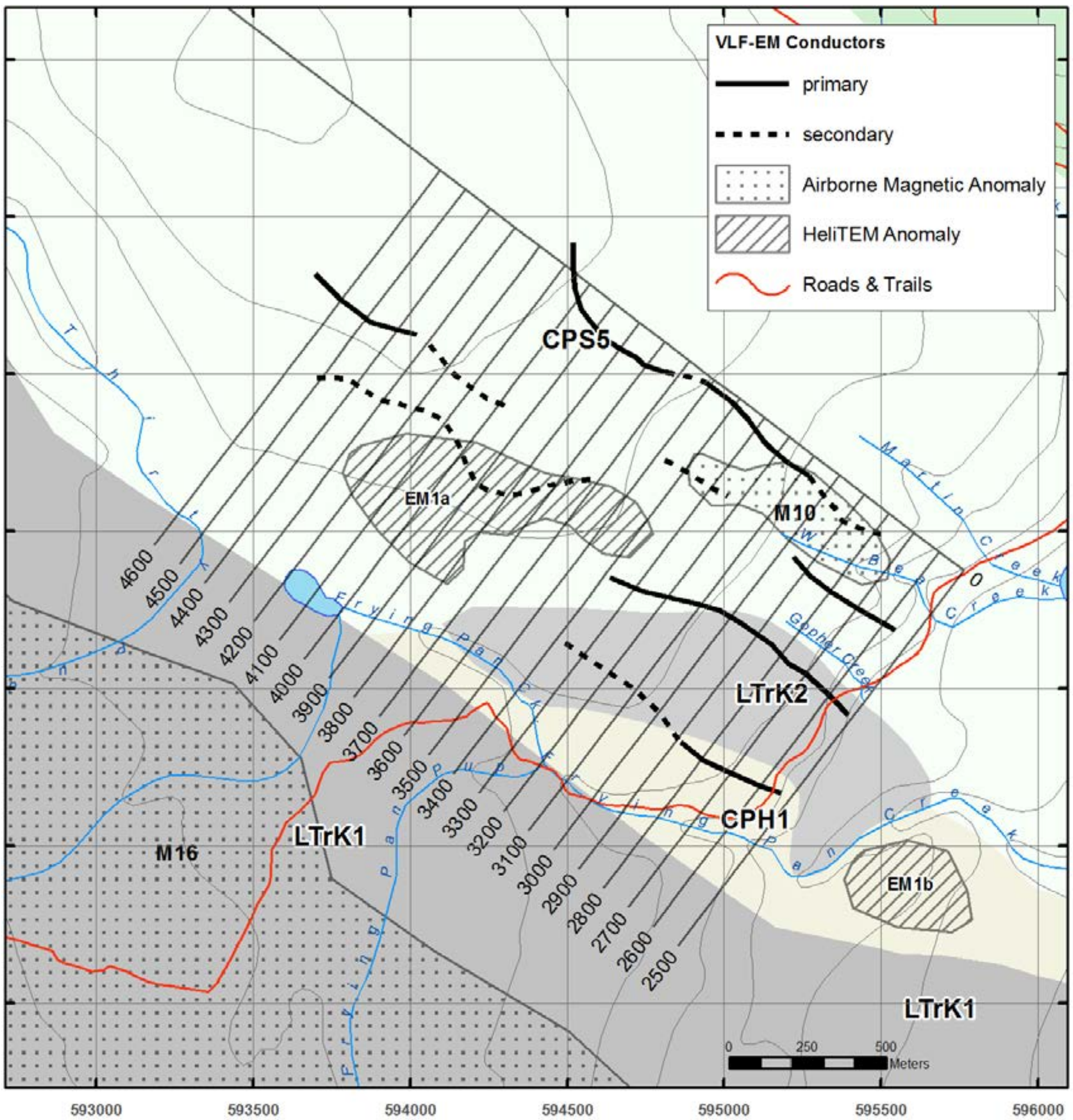

Figure 14: Preliminary interpretation of VLF-EM conductors on the M10 grid. Regional geology shown for comparison.

11.2 Rock Sampling

Rock sample assay results were low. The best series of samples was 1531258-1531263 which were collected across an outcrop on lower Burwash Creek. Of the 6 samples collected, 5 were anomalous in different elements. The samples were collected from a shear zone in sedimentary rock with quartz veins and blebby pyrite. Regional mapping shows the area underlain by Kluane Schist metamorphosed sedimentary rock and close to the surface trace of the Denali Fault. Lithology is difficult to determine because the rocks have been altered and deformed by shearing and faulting. Shears and faults often provide sites for fluid flow and deposition of metals.

Table of Rock Sample Results

Sample ID	Location	length (m)	Au (ppb)	Pt (ppb)	Pd (ppb)	Mo (ppm)	Cu (ppm)	Zn (ppm)	Ag (ppm)	Ni (ppm)	Co (ppm)	Cr (ppm)
1531254	Burwash Ck. Above 1st canyon	0.5	2	1.0	1.4	1.4	65.8	14	0.1	11.1	20.5	30
1531255		0.4	2	1.2	1.4	1.0	149.9	22	0.4	16.0	**38.3**	53
1531256		0.4	2	3.3	2.6	4.5	81.1	27	0.4	16.4	12.9	43
1531257		0.4	1	1.3	1.5	3.4	62.6	59	0.2	14.7	14.5	54
1531258	Lower Burwash Ck.	0.5	25	**7.1**	**9.4**	3.1	67.1	114	0.7	63.7	28.1	**271**
1531259		0.4	**352**	1.1	1.5	20.8	51.5	51	0.2	52.3	17.5	46
1531260		0.8	13	1.7	2.5	28.2	**106.6**	92	0.2	**100.6**	27.9	62
1531261		1.2	12	2.2	2.8	15.7	40.3	85	0.2	28.3	14.1	21
1531262		2	13	2.0	2.9	**40.1**	41.8	81	0.4	26.0	12.9	19
1531263		0.6	14	2.2	4.6	28.9	82.0	**1770**	0.4	40.0	7.8	20
1531264	Tat. Ck.	NA	2	0.7	1.1	3.4	38.0	15	0.3	5.1	6.9	36
1531265		NA	2	0.9	1.3	0.8	54.1	37	0.3	11.9	14.4	92

11.3 Soil Sampling

Despite the difficult soil sampling conditions, the soils results were better and more varied than expected. Glacial cover and permafrost often mute the geochemical response in the elements of interest, but there was enough variation in the results that appears to match with underlying mapped rock types. Overburden and sample composition did have some effect. Contour soil lines taken from south and west facing slopes where better quality samples that did not encounter permafrost were taken were inclined to have higher results overall than samples from north and east facing slopes. Soil sampling is a viable exploration technique in this area if care is taken to ensure a good quality sample is collected and sufficient data about the sample is recorded to assist in interpretation. See appendix 6 for maps of soil results. Associated elements have been grouped to highlight rock types and mineralization. This technique can help to visualize rock types and patterns, especially when individual elements are low.

11.3.1 Platinum Group Elements and Gold

The highest soil results for PGE+ Au are a single sample along the west side of the Duke River and a cluster of nine samples on two adjacent contour soil lines along the northwest side of Tatamagouche Creek. Single element anomalies are usually treated with scepticism but in this case the sample is on trend with the highest rock samples collected in 2015 along the Duke River. The contour soil line highs are in the contact zone between ultramafic and country rocks, a locus for PGE mineralization.

11.3.2 Ultramafic Elements (Ca, Cr, Mg, Ni)

The highest results for ultramafic elements are along the contour soil line west of the Duke River, two clusters on the M10 grid, a cluster at the west end of geophysics anomaly M12 and the contour soil line along the southwest side of Tatamagouche Creek.

The Duke River contour line higher values are spread out with relatively consistent values in between which is a good match with mapped Tatamagouche ultramafic complex interbedded with Hasen Creek and Station Creek sediments. The M10 grid has an anomalous cluster on the southwest and northeast sides of the grid coinciding with underlying gabbro and ultramafic respectively. The anomaly at the western end of M12 is underlain by Tkope Suite intrusion but is located downslope from ultramafic rock, suggesting that the anomaly has moved downslope from its source. The contour line on the southwest side of Tatamagouche Creek traverses ultramafic rock so would be expected to show an elevated response in these elements.

In general the locations of soils with the highest PGE+Au results and ultramafic elements results do not coincide, reflecting the underlying geology in which the marginal gabbros and mineralized country rocks carry higher PGE+Au values when compared to the more ultramafic rocks which contain higher Ca, Cr, Mg and Ni. This differentiation in soil response indicates that the soils are reflecting the underlying geology.

11.4 Spruce Bark Sampling

Spruce bark sampling results were inconclusive when compared to either soil results or geology. of the Platinum and palladium results were at or just above the detection limit while gold showed more variation. Spruce bark anomalies showed a tendency to follow grid lines, the highest results for PGEs + Au were along line 3100 and the highest results for ultramafic elements were along the 2900 and 3100 lines. It is not clear if this reflects the actual distribution or if it is an artifact. The soil results over the same area are more inclined to follow geology than the spruce bark (figure 15).

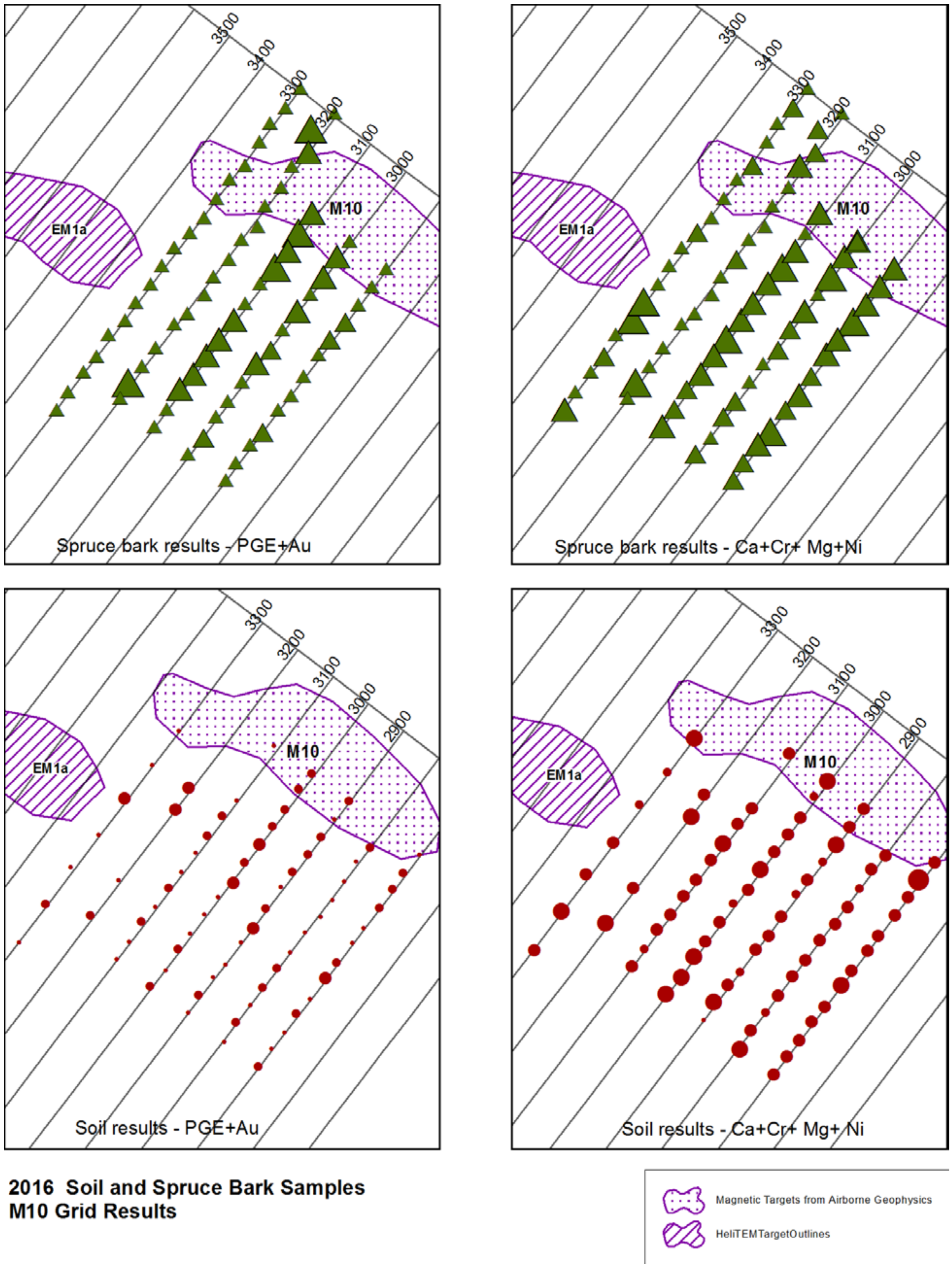

Figure 15: Comparison of spruce bark and soil sample results on the M10 grid.

11.5 Silt Sampling

The highest silt sample result was from sample 1531369 collected from Gopher Creek on the M10 grid which was anomalous in Au, Pt, Pd, Cu, Ag, Ni and Co. Sample 1531367 from nearby W. Bea Creek had the highest Platinum value but was low in other elements. See appendix 6 for maps.

Table of Silt Sample Results.

Sample ID	Location	Au (ppb)	Pt (ppb)	Pd (ppb)	Mo (ppm)	Cu (ppm)	Zn (ppm)	Ag (ppb)	Ni (ppm)	Co (ppm)
1531051	Frying Pan tributary, M16	2.8	1	5	5.36	63.46	215.1	173	36.8	13.9
1531052		3.7	1	5	3.56	124.76	84.2	293	17.8	7.1
1531053		3.4	3	5	2.64	61.08	103.8	153	23.5	10.4
1531054		5.1	3	5	3.9	**240.85**	76	253	15.3	4.6
1531055		0.2	1	5	**6.63**	54.68	**404.9**	189	89.2	40.6
1531251	30 Pup, M16	5.8	1	5	1.51	170.91	187.4	**325**	220.2	47.5
1531252		5.9	1	5	1.18	200.33	126.8	**315**	72.2	17.1
1531253		2.7	5	5	2.13	104.4	263.8	203	158.3	51.6
1531364		4.8	5	5	1.66	147.16	255.5	269	270.6	64.2
1531365		3.7	3	**12**	2.15	135.46	250.9	225	242.8	53.4
1531366		2.7	4	5	2.28	133.56	237.6	154	332.3	79.6
1531367	W. Bea, M10	2.5	**9**	5	4.7	92.4	251.6	253	225.2	77.8
1531368	W. Bea, M10	2	1	5	3.77	30.14	**293.4**	115	93.8	67.9
1531369	**Gopher, M10**	**12.9**	**8**	**12**	0.62	**325.85**	109	**393**	**631**	**99.3**

11.6 Status of Phase 1 Recommendations

Due to shifting priorities, some of the recommendations from Phase 1 were not completed in 2016. See Appendix 2 for more information.

12 Conclusions and Recommendations

12.1 Conclusions

Given the characteristics of the Burwash Uplands, and indeed a great deal of the KFN Category A lands in general, KMRI is faced with a unique, but increasingly common exploration problem: exploring in highly prospective ground with a nearly-complete blanket of cover. Between the many proximal mineral occurrences, including the standout Wellgreen deposit, and analogous geophysical anomalies (including airborne MAG, Heli-TEM, ground MAG, and VLF-EM), the Burwash Uplands represent a high value exploration target. Unfortunately, a blanket of quaternary sediments prevents the use of many traditional prospecting, exploration, and drill targeting/vectoring techniques. In the remaining areas, most of the more accessible, better exposed targets that could be explored by traditional prospecting, mapping and sampling techniques have been repeatedly sampled without advancing past early stage exploration.

A combination of methods developed to "see through cover" must be employed. These methods include increasingly sophisticated (and high-resolution) geophysical imaging techniques, non-traditional sampling techniques including biogeochemical sampling and till and/or deep soil sampling, and drilling. KMRI have started along that path with the airborne geophysical survey and follow-up interpretive reports which are the most significant exploration work undertaken over the Category A settlement lands since the 1990s. The Condor North report in particular has been underutilized and should be reviewed and incorporated into further work, especially for the insights it may provide into tackling the large M16 target.

With respect to drilling, there is a resurgence in the use of RAB (Rotary Air Blast) and ultra-portable RC (Reverse Circulation) drilling in exploration due to the significant cost savings associated with these methods in comparison to diamond drilling. While diamond drilling remains the best technique for well-defined drill targets, it is not a cost-effective way to prospect or ground-truth geophysical or geochemical anomalies like those encountered on this project. Instead, at a per metre cost between one quarter and one half that of diamond (core) drilling, RAB or ultra-portable RC rigs are able to provide fast, low-impact drilling over higher risk targets than typically explored with diamond drills. Exploration managers can design a gridded drill pattern very like that used in soil sampling, with shallow bedrock samples being taken at regular spacing on a grid. This approach provides similar data to trenching with minimal surface disturbance, as well as allowing for interpretations across the entire grid due to the continuous nature of the dataset (vs 2 diamond drill holes in a large anomaly). Also, explorationists simply get "more kicks at the can" due to the cost effectiveness of the method. These drills are highly portable, fast, and efficient – and can quickly mobilize off a grid deemed "dead" and onto the next target. While not immune to issues in bad ground, RAB/RC drills typically fare better than diamond drills, and can achieve orders of magnitude higher rates of penetration.

The process of logging RAB or RC chips is also significantly faster than core logging and requires a much smaller and relatively less sophisticated facility. Samples can be sent to the assay lab the same evening they were drilled. Significantly less reliance on water availability: RAB/RC drill rigs typically use a small volume of water to wet the sample at the surface to cut down on dust (and airborne particulate such as asbestiform talc, etc.). This volume is so small that a cube can last several short holes – there is no need to set up pumps nor water line, significantly simplifying winter operations in cold climates.

12.2 General Recommendations

12.2.1 Logistical

1. Compile and understand historic work. Note that pre-1978 exploration directed towards nonmagnetic base metals and gold. Limited Ni, Cu, Cr PGE analysis was conducted.

2. KMRI may consider hiring an individual to oversee future mineral exploration programs to help with continuity. Nine geologists or geophysicists have worked on the project since its inception in 2014. Although all the work is of good quality, lack of continuity can cause problems with the same areas being worked over and an ever-increasing slate of recommendations, some of which may be in conflict. The project may also benefit from having a "champion" who could liaise with the community, keep the program ticking over during the winter, work with the environmental side, and assist with training and identifying potential trainees from the community.

3. To keep a workable balance between training and work accomplished limit the number of people trained at any one time to no more than 1 trainee per geologist. Or, run the training part of the program first and then use the best trainees in the following work program. Screen potential trainees prior to program and choose those who have an interest in mineral exploration or working outdoors. To keep expectations from getting too high, trainees should be paid lower than the industry standard during training.

4. Work over the past two years has focused on Ni-Cu-PGE deposits. Although these are the best targets, broaden the exploration approach to include other deposit types such as base metal VMS and intrusion related deposits associated with the Tkope and Kluane Ranges Suites. Placer mining is active in the area, and although beyond the scope of this report, its potential should be considered. KFN citizens are actively involved in placer mining and there is potential for alluvial gold in the extensive quaternary deposits that blanket the Burwash Uplands.

12.2.2 Geophysics

5. Continue with ground geophysics over airborne geophysics anomalies. Geophysics is the best non-intrusive tool to see through ground cover on the Burwash Uplands, plus KFN has already invested significant time and money on the airborne survey. Ground magnetic and VLF-EM surveys are fast, relatively cheap and effective. Areas of complexity around magnetic anomalies are targets at the Wellgreen property.

6. Geophysical data collected in 2016 has been processed but not interpreted. Include interpretation of 2016 geophysics surveys along with new work. Data from the airborne survey interpretations should be included in new interpretations.

7. Conductors from VLF-EM surveys should be further refined with HLEM or similar surveys to derive drill targets. Run test surveys over the M10 grid and follow up with RAB/RC drilling or trenching.

8. Geophysical targets should be treated as occurrences and all should be explored, even if they are of lesser strength.

9. Consider drones or unmanned aerial vehicles (UAVs) for magnetic surveys over inaccessible terrain, high quality photogrammetric or LIDAR elevation models and aerial photography. UAVs fly closer to the ground and have a tighter line spacing than a helicopter or fixed wing survey and can cover steeper terrain than a ground magnetic survey. At the present time, UAVs cannot carry the additional weight of a VLF-EM.

12.2.3 Soil and Silt Sampling

10. Consider geochemical landscape mapping to determine the best techniques for sampling the overburden covered Burwash Uplands. Deep penetrating sampling and sampling of alternative media such as till, plants and humus are a few of the methods that could be used to see through cover.

11. Implement QAQC procedures for sample collections greater than 20 samples.

12. Where warranted, it is worthwhile to resample old sampling sites, but prioritise those with anomalies over those without. Newer soil analyses method have lower detection limits and test for at least 30 elements. Older analysis methods often didn’t test for PGE or had detection limits that were too high.

13. Consider mechanized probes that can reach 2-4m or a light RAB drill that can reach up to 30m to collect deep soil or bedrock samples. Both machines are tracked and can propel themselves without need of equipment or roads. These methods are less intrusive than trenching with an excavator or bulldozer and require only limited reclamation.

12.2.4 Prospecting, Mapping, Rock Sampling

14. Continue with these activities where suitable, but the lack of rock outcrop over much of the Burwash Uplands means that ground geophysics, deep penetrating geochemistry, trenching and drilling will be required to see underneath cover.

12.2.5 Trenching

15. Geophysics surveys and geochemical sampling will only take the project so far. At the end of the next season some targets will be ready for either trenching or drilling. Following data compilation, old trenches should be reviewed and those meriting further work should be reopened or deepened.

12.2.6 Drilling

16. Compliment or replace trenching with shallow RC or RAB drilling. Although there is some surface disturbance caused by the drill moving on its own tracks, road building will be minimized and there is no large volume of dirt and overburden to be replaced back in a trench.

12.3 Target Area Recommendations

Recommendations for specific target areas are provided below (figure 16). The budget percentage reflects the target's priority.

Target	ID on map	Recommended work	Percentage of next season's budget
Burwash/Tat confluence, Glen showing M11, M12, M14	1	Soil sample lines or grids to cover edges of mapped ultramafic. Extend M10 grid or establish new grid off existing baseline. Ground mag/VLF-EM surveys. Continue soil sampling, emphasis on good quality samples. Probe or shallow drill if required. Open old trenches if historic assays warrant and/or excavate new trenches.	30
Frying Pan Creek, M10	2	Extend grid in all directions. HLEM survey to further delineate conductors. Interpretative report on geophysics. Trenching or RAB/RC drilling.	30
M8/M9	3	Extend grid to cover M7 and EM2 targets. Continue with magnetic/VLF-EM surveys. Biogeochemical or deep sampling candidate.	10
Tatamagouche Complex: includes Duke River, Ptarmigan/Duke confluence, M16, M5, M6	4	Large area to tackle. Start with anomalous areas from historic work, recent work, geophysics targets, the edges of mapped ultramafic, contacts with Hasen Creek sediments and areas of magnetic complexity. Review Condor North report for more detail. Biogeochemical or deep sampling target. Ideal candidate for grid RAB/RC drilling, perhaps in winter or early spring when the ground is frozen.	20
M13	5	Mag and VLF-EM over grid. Biogeochemical or deep sampling target.	4
Lewis and Duke R. Intrusions, M1a, M1b, M17	6	Heli access prospecting targets. Follow up on anomalies from historic work and airborne geophysics, priority areas are where they coincide.	3
Slopes between Burwash Creek and Wash occurrence, M15	7	Heli access prospecting target. Review Wash occurrence. Follow up 2015 rock sample 618251 which drains the Jaquot occurrence and M15 geophysics anomaly. Anomalous Ni, Cr, PGEs and Au.	3

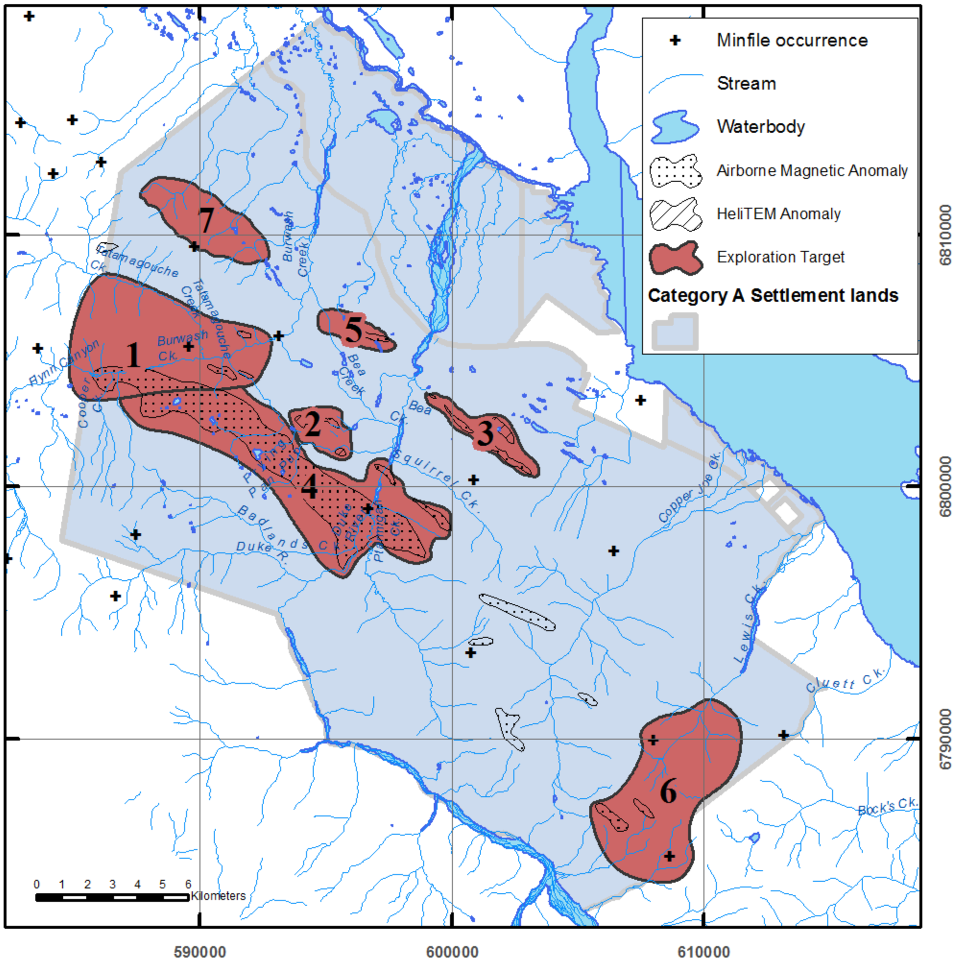

Figure 16: Target Areas referred to in Recommendations table.

12.4 Budget

The budget has been split into two phases. The first is a continuation of the 2016 program with the addition of trenching, and is suitable for a YMEP program application. The second phase is a short, 2 week RAB or RC drilling program.

Geophysics

Estimated costs use in the budget are for an independently run, two man ground magnetic and VLF-EM survey by Aurora Geosciences. The two surveys are run simultaneously and typically each operator runs a machine. Estimated production is 15 km/day. KMRI may be able to reduce costs and meet training requirements by hiring their own field assistant to substitute for the second Aurora crewman. Two days of HLEM ground geophysics have been included for test lines over the VLF-EM anomalies on the M10 grid. Use of a drone to conduct magnetic surveys is another option, but as yet drones are not capable of carrying out a VLF-EM survey. Time has been budgeted for grid refurbishment in case the 2016 flagging has been destroyed over the winter and if some of the grids need additional line cutting to accommodate the HLEM survey.

Rare PGEs

If some high grade platinum and/or palladium rock samples are collected, KMRI may want to rerun pulps or rejects for the rare platinum group elements: Osmium, Iridium, Ruthenium and Rhodium. The actual number of samples to be analyzed will not be known until regular assay results are received. This analysis is expensive (~$150) so is a separate line item from regular analysis.

Trenching

A generic cost of $3000 per day including operator and fuel is used in the budget. A smaller machine would have a reduced daily cost but would take longer to move the same amount of dirt and rock so the overall costs will be similar. If a local operator is used, or a KFN citizen, costs may be less.

Drilling

Drilling costs are variable depending on the size and type of drill, local ground conditions and the length drilled. A cost of $150 per metre drilled for RC/RAB including fuel, labour, mobe/demobe has been used. By comparison, diamond drilling has an estimated cost of $300 per metre. Two thousand metres of drilling is budgeted.

Phase 1: Spring field program - program planning, ground geophysics

		amount	time	unit cost	total
Labour	geologist	1	4	500	$2,000
	GIS technician	1	4	350	$1,400
mobe/demobe					$4,000
Ground mag/VLF-EM		1	5	2400	$12,000
grid refurbishment	field technician	2	3	350	$2,100
Ground HLEM		1	2	2400	$5,000
Geophysics report					$5,000
subtotal					**$31,500**

Phase 1: Summer field program - follow up previous work and spring geophysics

Geochemistry	rock samples	50		45	$2,250
	silt samples	20		35	$700
	soil samples	500		30	$15,000
	biogeochemical samples	100		35	$3,500
	surficial geology report				$10,000
Labour	senior geologist	1	21	500	$10,500
	jr geologist	1	21	400	$8,400
	field technician	2	21	350	$14,700
Camp, travel, logistics	camp costs	1	50	150	$7,500
	fuel		21	100	$2,100
	ATV	2	21	125	$2,625
	truck	2	21	150	$6,300
	helicopter	1	5	1600	$8,000
trenching	mobe/demobe	1	2	2000	$4,000
	machine + operator + fuel	1	5	3000	$15,000
subtotal field follow-up					**$110,575**

Subtotal - Phase 1 (Geophysics and Follow-up field program)	**$142,075**
contingency 15%	$21,311.25
Report Writing and GIS	$5,000
Field Total Phase 1	**$168,386**

Phase 2: Fall drilling program

Geochemistry	rock samples	200		45	$9,000
	rare PGEs assay	5		150	$750
Labour	senior geologist	1	14	500	$7,000
	jr geologist	1	14	400	$5,600
	field technician	1	14	350	$4,900
Camp, travel, logistics	camp costs	1	14	150	$2,100
	fuel		14	100	$1,400
	ATV	1	14	100	$1,400
	truck	1	14	150	$2,100
RAB or RC drilling		2000	1	150	$300,000
subtotal drilling					**$334,250**

Subtotal -drilling	**$334,250**
contingency 15%	$50,137.50
Report Writing and GIS	$5,000
Total Drilling	**$389,388**

Entire program	**$497,636**

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Appendix 1 Certificate of Author

I, Deborah Ann Rachel James, do hereby certify that:

1) I, Deborah Ann Rachel James of 11-3194 Gibbins Road, Duncan, British Columbia am self-employed as a consultant geologist and have authored this report.

2) I am a graduate of the University of British Columbia with a B.Sc. degree in Geological Sciences

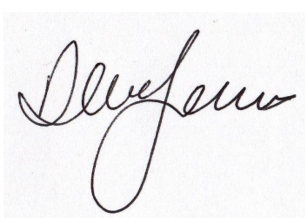
3) I am a geologist with more than thirteen years of experience in the Canadian Cordillera and twelve years of experience in Yukon.

4) I am registered as a professional geoscientist with the Association of Professional Engineers and Geoscientists of B.C. #094996.

5) I was one of three geologists on the 2016 KMRI program on the Category A Settlement Lands.

6) I have worked on other Ni-Cu-PGE prospects in the Kluane region, namely the Arch, Spy and Ultra properties for Group 10.

DATED at Duncan, British Columbia, this 11th day of January, 2017



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Debbie James
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Duncan, BC, V9L 1G8

Appendix 2: Status of Phase 1 Recommendations

The following table updates recommendations from Lewis and Froc (2015) and Stanley (2016). It combines remaining tasks from the phase 1 program and follow-up tasks from the airborne geophysics and phase 1 field program. Progress on the recommendations and a brief discussion is provided, and the tasks are assigned a priority. Information from this table was used to derive recommendations in section 12 of this report.

Completion of Remainder of Phase 1 Program

Location	2015 recommendation	2016 result/work	Discussion	priority
Airborne magnetic anomalies M1-M5	prospecting	Not done. Heli support required.	M1, M5 better targets than the others because they cover mapped ultramafic rocks. Prospecting suitable, outcrop in this area	moderate
Western half M13	Prospecting western half	No outcrop, wet organic soils. Grid flagged in preparation for ground geophysics.	Complete ground geophysics. Possible biogeochemical sampling or shallow drilling candidate.	high
M16	Ground truthing to check for outcrop, prospecting	Initial contour soil and silt sampling. One grid crossline flagged. No outcrop found.	Large area. Little outcrop. Covered by glacial material Data compilation and data mining of extensive previous work required. Extension of M10 grid to cover this area. Systematic work, initial targets are complex magnetic anomalies, edges of mapped ultramafic	high
Duke River upstream and east of 2015 mapping, M6	Detailed mapping and sampling	Not done. Unsuitable work for large untrained crew. Difficult access.	Review Walker, 1955 prior to field work. Duke River mapped in detail from south of Ptarmigan Creek to Squirrel Ck. Compare with 2015 mapping and sampling.	moderate
Duke River north of Squirrel Creek	Detailed mapping over weak EM anomaly	Not done. Unsuitable work for large untrained crew. Difficult access.	Weak EM anomaly coincides with mapped trace of Bock's Creek Fault	low
Bea Creek/Lake 8 area, east and north of M10 and EM1a	Prospecting and additional stream sampling	Not done, but M10 can be extended over this area.	Low airborne geophysical response. 2015 mapping located ultramafic outcrop Extend M10 grid to cover this area.	moderate
East of Ptarmigan – Duke confluence	Prospecting and stream sediment sampling	Examined but no outcrop. Thick overburden and permafrost.	Complex magnetic signature at edge of EM signature Candidate for biogeochemical sampling, and ground or drone geophysics	moderate
South of Burwash Creek, DDH 89-9, 10	Prospecting	Done. Trench is sluffed in. Nothing to sample.	Open up trench with excavator or drill RAB lines across area.	moderate

Follow-up from the Regional Geophysics and 2015 Phase 1 Field Program

Location	**2015 recommendation**	**2016 result/work**	**Discussion Suggested work**	**priority**
Magnetic targets M11, M12, M14	ELF-EM, field review of outcrops around M11, M12	Two lines of contour soils.	Part of the prospective Burwash-Tat confluence area Extend M10 grid to cover this area. Continue ground mag and VLF-EM. Possible trenching or drilling target.	high
EM1a, EM1b, M10	Ground geophysics	Mag and VLF-EM done for M10 and EM1a	Close to drill target. Trenching or overburden drilling over M10. Extend grid to cover EM1b, continue with mag and VLF-EM. Possible HLEM test survey site.	high
Tributary of Tatamagouche Creek, 2 km upstream of confluence with Burwash Ck.	Prospecting and infill sampling	Three lines of contour soils. Anomalous PGE values upstream of tributary.	Part of the prospective Burwash-Tat confluence area Data compilation and data mining of extensive historic work. Grid soil or soil lines.	high
Glen occurrence	Find it	Not found. Occurrence is close to creek and was buried under a placer road. Only exposed during extreme floods.	Part of the prospective Burwash-Tat confluence area Data compilation and data mining of extensive historic work. Grid soil or soil lines. Open up old trenches if historic assays warrant. Infill trenching if needed.	high
EM2	Ground EM survey	Not done	At edge of airborne survey. Located along mapped trace of Denali fault. Low magnetic response Extend M8/M9 grid and ground geophysics to cover this area.	low

Recommendations from Stanley (2016) not covered above

Location	**2016 result/work**	**Discussion Suggested work**	**priority**
Copper Joe and Lewis creeks area M1a, M1b, M17	Not done. Helicopter required.	Lewis and Duke River intrusions, Kluane and Destruction occurrences. Prospect areas where the magnetic targets overlap mapped ultramafic rock and anomalies from historic work.	Low moderate

Appendix 3: Sample Results

Hardcopy and digital files

Appendix 4: Work summary and cost statements

Hardcopy and digital files

DAILY SUMMARY OF 2016 KLUANE WEST PROGRAM

Crew: Curtis Carlich (CC), Jason Johnson (JJ), Jareed Dulac (JD), Jenessa Tlen (JT), Sam White (SW), Nick Johnson (NJ)
Geologists: Cam MacKay-Stotesbury (CMS), Debbie James (DJ), Graham Davidson (GD)

August 25, 2016

Orientation and safety meeting at the office in Burwash. Topics discussed included bear safety, bush safety, ATV operation, chain saw safety, vehicle operation, communication. Leave office at 10AM, drive up Burwash Creek to Tatamagouche confluence, unload ATVs and travel 2.5km up Tatamagouche Creek. Traverse with a two person crew to start a contour soil line (GD, JT, JD) on northeast bank above Tatamagouche Creek and proceed southwest towards Burwash Creek (samples 1531301-1531320). Cam and two crew started (CMS, SW, CC, JJ) a picket baseline marking survey lath at 100m intervals on 140 degree bearing to Burwash Creek. Back to truck by 6PM and depart for café.

August 26, 2016

Poor weather overnight, heavy rain. Drive up Burwash Creek intending to run contour soil lines bellow M11 & M12 aeromagnetic anomalies. Unable to ford Burwash Creek due to high water levels, alternate plan to run contour soil lines up left and right side of Tatamagouche Creek valley above yesterday's starting point and continue baseline towards M10 aeromagnetic anomaly. Ran two contour soil lines on northeast side of Tatamagouche Creek (GD, JD, CC) in northwesterly direction (samples 1531321-1531343 & 1531351-1531363). Ran one contour soil line on southwest side of Tatamagouche Creek (CMS, JT) in northwesterly direction (samples 1531201-12). Soil sampling on contour lines encountered sections of poor sampling conditions due to rock rubble, seeps, slide material and permafrost. Baseline was extended (SW, JJ) to east rim of Burwash Creek valley.

August 27, 2016

Bad weather conditions, drive to Duke River gravel pit and unload ATVs and side by side. Discuss off road vehicle operation and safety concerns including working in wet weather. Travel up north side of Duke River on road and trail to Burwash uplands. Locate area for grid development suggested by Condor airborne geophysical report over the M10 aeromagnetic anomaly and EM1a electromagnetic response. Instruct crew on how to run flagline grid with line interval of 100m, marking 20m stations and labelling coordinates on 100m flags. Also using lath as 100m station markers in open areas with no brush. Explain VLF EM operation and ran instrument (GD, JT) for 3km on Lines 4+200N & 4+300N. Cam traversed with crew to show how to run gridlines (JD, JJ) and later set up and tested the magnetometer instruments (CMS). Baseline was run (SW) southwest across upland to access trail.

August 28, 2016

Wet weather conditions, proceed from Duke River gravel pit and drive ATV's to upland. Crew working on the trail to uplands (SW, CC) cutting overhanging branches, trees and willows, also working on boggy sections. Two crew members running flag grid lines (JD, JJ) and Cam operating magnetometer (CMS) on

M10 grid. A two person team (GD, JT) drove ATV along the old trail on the upland traversing over aeromagnetic anomaly M16 and collected 3 silt samples (1531364-66). The silt sample procedure outlined by L. Lewis (2015) was followed and explained to the crew. Other potential silt sample sites proved to be swampy areas with no silt or sand deposition and high water flow.

August 29, 2016

Intermittent rain today, working on M10 grid due to high water levels and limited access to other areas. Two crew members (JJ, CC) working on clearing along access trail and three (SW, JD, JT) working on gridlines on M10 grid. Magnetometer (CMS) and VLF-EM survey (GD) underway on the M10 grid.

August 30, 2016

Before leaving office reviewed safety concerns with ATVs and wet weather working conditions. Vehicles need to be kept clean and garbage picked up on a daily basis. Reviewed individual responsibility for doing a good job on flaglines, taking care to label flags and stations with the correct coordinates and write details in a notebook if you have trouble remembering stations as you run the lines. Expressed the importance of producing high quality work if you are employed by contractors or companies providing mineral exploration services.

Snow line dropping to approximately 1800m with a touch of snow on Hill 90 and upland creeks in full flood conditions. Two crews (JD, JJ) & (CMS, JT) proceeded over upland to collect silt samples on drainages over the M16 aeromagnetic anomaly (Samples 1531051-54, 1531251-53). Also two crew members (SW, CC) worked on the M10 grid access trail and one operator performed VLF-EM survey (GD) on flaglines.

August 31, 2016

Proceeded up the vastly improved access trail to Burwash upland. Two crew members (JT, JJ) continued silt sampling over the M16 aeromagnetic anomaly (Sample 1531055) with limited success. Most of the creeks shown on maps of the M16 area are little more than swamp hummocks or grassy streams with no silt or sand deposits. Three crew ran grid lines (SW, CC, JD) and two geophysical operators (CMS, GD) worked on the M10 Grid.

September 1, 2016

A three person crew (CMS, JJ,JT) drove up Burwash Creek to sample gossan zones along the canyon walls and continued up as far as Cooper Creek, examining outcrops and access to the Burwash uplands from this area (Samples 1531254-64). Water levels had dropped sufficiently to allow access to the south side of Burwash Creek. Silt samples were collected (GD) over the M10 aeromagnetic anomaly (Samples 1531367-69). Also a traverse along the M10 Grid access trail and Frying Pan Creek examined outcrop of gabbro and Hasen Creek argillaceous rocks. Four crew (NJ, SW, CC, JD) ran grid lines on the M10 Grid.

September 2, 2016

Tatamagouche Creek canyon and valley where examined by a three person crew (CMS, JJ, JT) traversing approximately 3.5km upstream from confluence with Burwash Creek (Sample 1531265). They also checked the area for the historic Glen showing but where not able to locate any mineralization. One operator (GD) continued the VLF-EM survey and two crew (NJ, CC) ran the last three grid lines on the M10 Grid.

September 3, 2016

The aeromagnetic anomalies M11 & M12 south of Burwash Creek where the targets of two contour soil lines run by a four person crew (GD, NJ, CC, JT) along slope to the northeast below the magnetic responses (Samples 1531377-93, 1531214-30). Outcrop along the valley wall consists of felsic feldspar porphyry intruding Hasen Creek argillite. Towards the end of the traverse outcrop of ultramafic rock where visible in the canyon of a tributary of Burwash Creek. These ultramafic rocks were examined and sampled in the 2015 program. Cam spent the day on sample and computer work (CMS).

September 4, 2016

A three person crew (CMS, GD, NJ) traversed upstream along the northwest bank of the Duke River for 3km examining this area of the Tatamagouche ultramafic complex. On the way back to the access trail a contour soil line was run along the break in slope above the river at 1020m elevation across aeromagnetic anomaly M16 (Samples 1531231-50, 1531451-70). A two person crew (JJ, CC) established a baseline and access trail for a flagline grid on the M8 & M9 aeromagnetic anomalies. Sample spreadsheets and sorting (JT) was started in the office.

September 5, 2016

The baseline and crosslines were run on the M8 & M9 anomalies by a 2 person crew (SW, CC). The geophysical survey was completed on the M10 grid area by 2 operators (CMS, GD). Sample preparation, spreadsheets and sorting (JT) continued in the office.

September 6, 2016

A four person crew (SW, CC, NJ, GD) continued to run gridlines on the M8 & M9 anomalies. A two person crew (CMS, JD) examined upper Burwash Creek in the area of the M16 magnetic anomaly and started a contour soil line from Cooper Creek (Samples 1531267-71). Sample preparation, spreadsheets and sorting (JT) continued in the office. Debbie (DJ) arrived in Destruction Bay for one night.

September 7, 2016

A three person crew (JT, CC, JD) ran gridlines on the M8 & M9 anomalies. The VLF-EM survey (GD) was started on this grid and Cam showed Nick how to operate the magnetometer (CMS, NJ). Cam and Debbie departed for Whitehorse.

September 8, 2016

Claim staking course for the crew (JT, JD, JJ, NJ, GD) with help from Nick. Reviewed mineral titles, claim tags, cutting claim posts and marking claim lines, claim forms and transfers. Also discussed the quality of work expected when working as a claim staker or line cutter for an exploration contractor.

Later a three person crew (NJ, CC, GD) finished the gridlines on the M8 & M9 anomaly. Sample preparation, spreadsheets and sorting (JT) continued in the office.

September 9, 2016

Reviewed claim staking for one crew member (JD) absent yesterday. Proceeded to Duke River gravel pit to go over operation of VLF-EM and magnetometer instruments with two crew (JD, CC, GD). Ran practice line in pit. Heavy rain fall and cool temperatures started in the morning and with a reduced crew size of three we decided to take a weather break and take care of chores we had been ignoring. Curtis delivered a side by side tire to Destruction Bay for repair, Jared reviewed the mining recorder web site and Jenessa continued to work on sample spreadsheets. Break over the weekend.

September 12, 2016

The magnetometer (NJ) and VLF-EM (JD) surveys were underway with two operators on the M8 & M9 grids. A new grid was started on the M 13 aeromagnetic anomaly with a 1.4km picket baseline and 3.5km of crosslines established by a three person crew (GD, JT, CC).

Debbie arrived in Destruction Bay and after reviewing previous helicopter access traverses from 2015 a decision was made not to use helicopter set outs this season. The remaining field time would be used for a soil and spruce bark sampling program on the M10 grid and to complete the geophysical survey on the M8 & M9 grids.

September 13, 2016

The magnetometer and VLF-EM surveys were continued by three operators (NJ, JD, CC) on the M8 & M9 grid. A quick tour with Debbie of the M10 grid and overview of the M16 anomaly (Tatamagouche Ultramafic Complex) showed the recessive terrane and permafrost features off the aeromagnetic anomalies on the Burwash Uplands and on slopes above the Duke River. The soil and spruce bark sampling program was initiated on the M10 grid by a three person crew (DJ, JT, GD) (Soil Samples 1531101-25 & Bark Samples 1531151-56).

September 14, 2016

The magnetometer and VLF-EM surveys was completed by two operators (NJ, JD) on the M8 & M9 grid. A three person crew (DJ, JT, GD) continued the soil and spruce bark sampling program on the M10 grid (Soil Samples 1531126-50, 1531001-12 & Bark Samples 1531151-89).

September 15, 2016

On the final day of fieldwork the personnel was limited to two geologists and two assistants. A two person crew (GD, JD) drove up Burwash Creek road to Cooper Creek area to complete a contour soil line across the M16 aeromagnetic anomaly (Samples 1531272-98). The sample line was across a north facing slope featuring a soil profile of organic material above a light grey ash interval underlain by a poorly developed B horizon brown clay-soil lying above permafrost. In several sample holes the permafrost was a second ash layer (orange weathering) below the B horizon. Permafrost depths were 50-70cm. Traversing back to the vehicle along Burwash Creek all outcrop was feldspar porphyry. An old road used by ATV's leaves Burwash Creek just above the confluence with Cooper Creek and leads to the Burwash Uplands, connecting to the trail from the Duke River side. The remaining two person crew (DJ, JT) continued the soil and spruce bark sampling program on the M10 grid (Soil Samples 1531013-23, 1531057, 1531059 & Bark Samples 1531190-200, N292873-97, 1531058).

September 16, 2016

The day was spent completing sample spreadsheets and preparing samples for transport (DJ, JT). Field equipment was packed and transferred to the C-Can for storage (GD, JD, NJ). The truck, ATV's and side by side were cleaned and returned to the owners.

Thanks to everyone participating in the 2016 Kluane West exploration program.

Appendix 5: Geophysical Report

Hardcopy and digital files

Appendix 6: Maps

Hardcopy and digital files