

**Technical Report**  
**On**  
**the Murray Ridge Property**

**British Columbia**  
**Omineca Mining Division**

**NTS: 93K/8, 9,10**

**124°18.7' W Longitude / 54°32.8' N Latitude**

**For**

**Nanton Nickel Corp.**  
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**Vancouver, British Columbia**  
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## 1 Summary

The Murray Ridge (MR) Property is located approximately 15 to 30 km northwest of Fort St. James and 120 km northwest of Prince George in the central British Columbia. The property consists of 47 mineral claims totaling 17,648 ha with the approximate centre of 124°18.7' W Longitude and 54°32.8' N Latitude, on NTS map sheets 93K/8,9,10 in the Omineca Mining Division. The accessibility to and within the claims is provided by well-maintained network of gravel roads from Fort St. James off Highway 27. The claims are 100% owned by Nanton Nickel Corporation of Vancouver.

Previous exploration in the region identified numerous mercury showings in association with the regional Pinchi Fault structural zone and chromite-low platinum-group-element occurrences in ultramafic-mafic intrusions. The Nanton Nickel Corp. has undertaken evaluation of this property for nickel-iron alloy (awaruite) mineralization in tectonized and serpentinized ultramafic rocks of Cache Creek Group Trembleur Intrusions. This is the first attempt to locate awaruite in the area. The geological and structural setting of the MR Property is analogous to the Decar Project (First Point Minerals Ltd.) about 60 km to the northwest.

Murray Ridge Property is underlain by the Lower Pennsylvanian to Middle Triassic Cache Creek complex, a mixture of calcareous and clastic sedimentary rocks that are intruded by Trembleur ultramafic and Rubyrock mafic intrusions. The Triassic to Jurassic Takla Group and Tezzeron Sequence are at fault bounded contacts with the older assemblages. The youngest is tonalite of the Cretaceous Endako Batholith. A strong structural fabric of the region is characterized by a system of northwest striking faults and thrusts including the known Pinchi Lake Fault system.

The 2011 exploration program involved completion of 1055 line-km of high sensitivity helicopter-borne magnetic survey in two areas by New-Sense Geophysics Ltd. of Toronto and a follow-up reconnaissance mapping, prospecting and geochemical sampling. A total of 31 rock, 25 stream-sediment and 13 soil samples were collected from the prospective areas and analyzed for nickel and 32 other elements by ICP-ES method at Acme Laboratories in Vancouver.

The result of the 2011 aeromagnetic survey was successful in delineating linear, northwest striking zones of high TMI (Total Magnetic Intensity) and DVD (1<sup>st</sup> Order Vertical Derivative) corresponding to the magnetite-bearing ultramafic-mafic intrusions.

The reconnaissance mapping and prospecting has confirmed the presence of perspective ultramafic-mafic rocks of the Trembleur Intrusions throughout the property. These form typically prominent, well-resistive ridges, Murray Ridge in the southeast and Pinchi Mountain in the northwest. Results of rock, stream-sediment and soil geochemistry returned highly anomalous nickel contents with

best assays of 0.13 to 0.25% Ni in rocks, to 1519 ppm and 881 ppm Ni, in stream-sediments and in soils, respectively.

The positive results of aeromagnetic survey, previous regional stream-sediment sampling and follow-up geological and geochemical (rock, stream-sediment and soil) evaluation warrant further exploration of the Murray Ridge Property for nickel-iron alloy mineralization. A two stage exploration costing an estimated \$750,000 is recommended. Phase 1 is designed to develop nickel targets using detailed ground magnetic survey, property geological mapping, trenching and rock, stream-sediment and soil-grid geochemical sampling. Petrographic studies on selected suite of rocks will be undertaken to gain an understanding of the style and controls on nickel mineralization. Phase 2 involves detailed target definition and 1500 m NQ diamond drilling.

## **2 Introduction**

The authors were contracted by the issuer to prepare a technical report on the Murray Ridge property conforming to the standards set out in National Instrument 43-101. The information contained in this report is from the examination of historical exploration data and the authors' personal knowledge of the property.

Richard Haslinger, Jr., P.Eng. is the independent Qualified Person for this Technical Report. The author is responsible for all sections of this Technical Report. A property visit was conducted on October 19 and 24, 2011.

Daria Duba, MSc is an independent mineral exploration consultant. She was personally associated with an exploration program on the property between 15 to 24 October 2011 as consultant for Nanton Nickel Corporation. She designed and executed a reconnaissance geological mapping and prospecting, geochemical sampling, and completion of the "Geophysical, Geological and Geochemical Assessment Report on the Murray Ridge Property" (Duba, 2012). Although a highly experienced geoscientist, Daria Duba is not a qualified person as defined by NI 43-101.

## **3 Reliance on Other Experts**

The authors have assumed that all of the information and technical documents reviewed and listed in the "References" are accurate and complete in all material aspects. The land tenure was reviewed in a preliminary fashion and the legal status or ownership of the property or any of the underlying agreements were not independently verified. The authors have not investigated any environmental or social issues that could conceivably affect the Murray Ridge project.

The statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

## 4 Property Description and Location

The Murray Ridge Property is located approximately 15 to 30 km north to northwest of Fort St. James and 120 km northwest of Prince George, on NTS map sheets 93K/8, 9 and 10 within the Omineca Mining Division in the central British Columbia (Figure 1). Geographic coordinates of the approximate centre of the property are 124°18.7' west longitude and 54°32.8' north latitude (UTM Zone 10, NAD 83: coordinates 415100 m East and 6045150 m North).

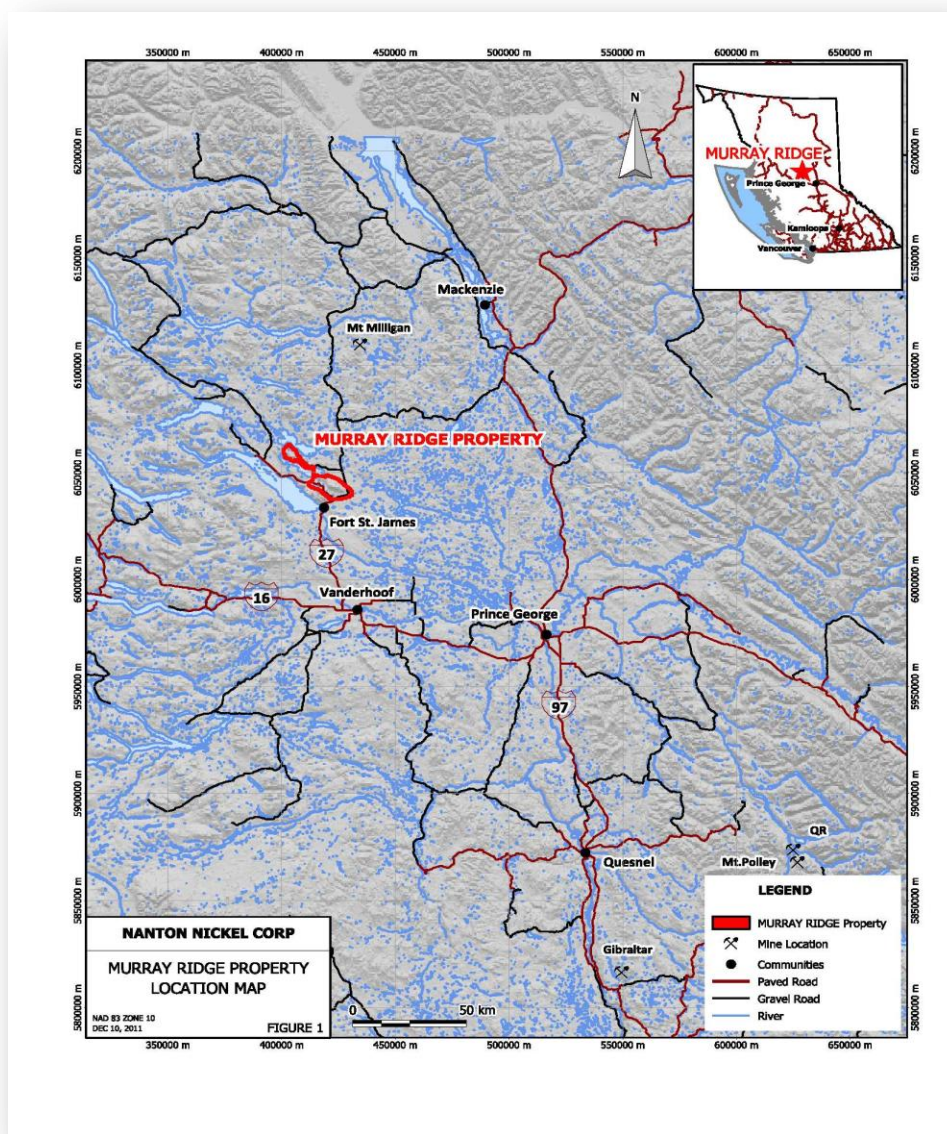


Figure 1. Murray Ridge Property Location Map.

The property consists of contiguous 47-unit mineral claim package totaling a combined area of 17,648.3 ha (Figure 2). Claims status was searched on the website of the British Columbia Ministry of Energy and Mines, Mineral Titles Online BC (MTO: [www.mtonline.gov.bc.ca](http://www.mtonline.gov.bc.ca)). The Table 1 summarizing the mineral tenures of this property was directly taken from the MTO record. All claims are indicated to be in good standing until September 15-24, 2012 and January 15, 2013, respectively. The claims are listed under Client #257980, Nanton Nickel Corporation of Suite #800-1199 West Hastings, Vancouver, BC, V6E 3T5.

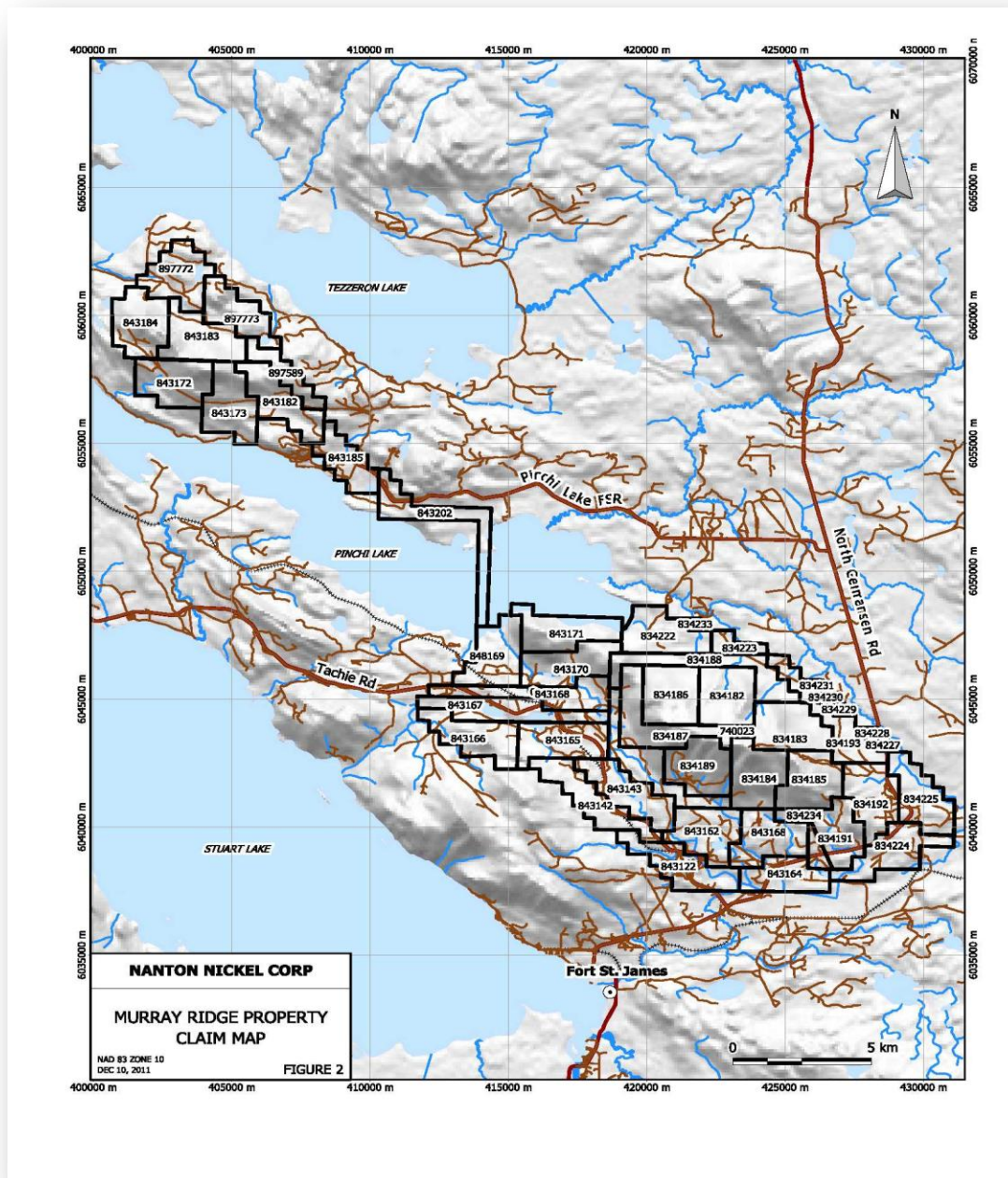


Figure 2. Claim Map.

Table 1. Murray Ridge Property Claims.

Tenure Number	Claim Name	Owner	Tenure Type	Map Number	Good To Date	Status	Area (ha)
740023	CIRC	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	75.0648
834182	MR	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	468.9967
834183	MR1	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.1196
834184	MR2	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.3166
834185	MR3	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.3296
834186	MR4	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	468.9903
834187	MR5	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.0868
834188	MR6	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	468.8928
834189	MR7	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.2879
834190	MR8	257590 (100%)	Mineral	093K	2012/sep/24	GOOD	469.2768
834191	MR9	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	469.5434
834192	MR10	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	469.3904
834193	MR11	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	469.0813
834222	MR14	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	468.7395
834223	MR14	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	131.2611
834224	MR15	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	469.6038
834225	MR16	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	469.3916
834227	MR12	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7674
834228	MR17	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7655
834229	MR18	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7617
834230	MR19	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7597
834231	MR20	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7579
834233	MR21	142170 (100%)	Mineral	093K	2012/sep/24	GOOD	18.7481
834234	MR22	142170 (100%)	Mineral	093K	2013/sep/24	GOOD	56.3357
843122	MR100	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.709
843142	MR101	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.4097
843143	MR102	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.3873
843162	MR103	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.5624
843163	MR104	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.5644
843164	MR105	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	375.765
843165	MR106	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.1674
843166	MR107	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.1367
843167	MR107	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	469.0361
843168	MR108	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	468.9743
843169	MR109	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	468.8084
843170	MR110	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	468.8554
843171	MR111	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	468.7154
843172	PL1	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	467.8302
843173	PL2	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	467.9063
843182	PL3	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	467.8901
843183	PL4	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	467.6378
843184	PL4	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	467.6014
843185	PL5	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	337.0523
843202	PL6	142170 (100%)	Mineral	093K	2013/jan/15	GOOD	468.369

897589	PL7	257590 (100%)	Mineral	093K	2012/Sep15	GOOD	224.53
897772	PL8	257590 (100%)	Mineral	093K	2012/Sept16	GOOD	467.39
897773	PL9	257590 (100%)	Mineral	093K	2012/Sept16	GOOD	392.71

## 5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Murray Ridge Property is situated approximately 15 to 30 km northwest of the community Fort St. James (FSJ). The southeastern part of the claims is accessible by Tachie Road originating approximately 5 km north of the town site and heading northwesterly in between Stuart and Pinchi lakes. A well-maintained Pinchi Lake Forest Service road leads to the northwest part of the property by North Germansen Road, branching off to the west at about 22 km north of FSJ. A network of secondary, drivable and non-drivable gravel roads provide an access to other parts of the property (Figure 2).

The Murray Ridge ski recreation facility occupies the south side of the prominent ridge, referred to as Murray Ridge, and the Ministry of Forests radio repeater station, fire lookout and microwave towers are at its crest. All are accessible by all-weather gravel roads.

The climate in the region is characterized by short and cool summers with temperatures in 10 to 25° C range and cold winters of sub-freezing temperatures dropping to -30° C. Recorded annual precipitation at Fort St. James is 40 cm. Snow accumulations of 1 to over 2 meters are normal with snow-free months from May to October.

The Murray Ridge property, its southwestern claim boundary, is located approximately 15 to 30 km northwest of Fort St. James and 65 km northwest of Vanderhoof. Both of these communities are situated on highways, #27 and #16, respectively, and provide basic supplies and services including lodging, restaurants, and hospitals.

The Murray Ridge property lies within the Nechako Plateau of the Interior Plateau System of the Canadian Cordillera. The Nechako Plateau is near the southern limits of the Swannell Range of the Omineca Mountain and the northern boundary of the Southern Plateau with the mountain region of the Cordilleran Interior System. The region is characterized by moderately sloped terrain with Murray Ridge and Pinchi Mountain forming prominent highs at about 1400 m asl and 1267 m asl, in southeast and northwest, respectively. The valley bottoms are at about 750 m asl. The Pleistocene glaciation events affecting the entire region are manifested as a very thin to non-existent glacial till cover on the ridge tops to significant till thicknesses of up to tens of meters on lower hills and in the valleys. Glacial movement has been interpreted easterly (Armstrong, 1965).

The terrain is covered predominantly by moderately dense stands of white and black spruce, lodge-pole pine, Douglas fir and aspen. Willow and ground birch are widespread at lower elevations. Vegetation is sparse on the steep south facing slopes of the Murray Ridge and dense on the north oriented slopes. Bedrocks is abundant on ridge tops and locally in steep drainages. It is rare to absent in the low elevation areas.

## **6 History**

The early exploration activity in the region dates back to mid 1860's when placer gold was discovered on lower Fraser and Thompson Rivers. In 1937, a modern exploration followed the discovery of cinnabar (ore of mercury) by J.G. Gray, geologist with the Geological Survey of Canada, in the Cache Creek limestone on the north shore of the Pinchi Lake. Subsequently numerous other mercury showings were discovered within the Pinchi Lake fault zone in a variety of host rocks including limestone, serpentized ultramafic and non-calcareous rocks. The property was optioned by the Consolidated Mining and Smelting of Canada Ltd. (CMSC) which developed the occurrence into the well-known Pinchi Lake Mercury Mine in 1940. Between 1940-1944 the mine produced 4 million pounds of mercury. The company has conducted further exploration in 1960'S in an attempt to locate additional mineralization (Hedde, 1966a, 1966b, 1966c).

In the 1940's carbonatized and serpentized float containing cinnabar was also discovered south of the Murray Ridge (Midnight claims) along the extension of the regional Pinchi Lake fault system. Canadian Exploration Ltd. conducted a 10-hole diamond drilling program in 1957 that followed by Darbar Exploration Ltd. completing trenching and stripping of some carbonate altered zones in 1965. In 1969, Cominco Ltd. did more exploration in the area for mercury mineralization. The prospect was staked by again in 1982 by M. Morrison. This time it was believed that mercury might represent a halo over a buried epithermal gold system. The results of 35 rocks samples confirmed the presence of mercury, elevated Ba, Ni, Cr and As and negligible Au and Ag in association with carbonate altered ultramafic dykes (Morrison, 1983).

In 1986, the MR property covering the Trembleur ultramafic intrusion along the Murray Ridge crest was staked and explored for chromite and associated platinum group elements (PGE) (Morrison, 1987). The initial results of geological mapping and rock-chip sampling were not encouraging. The best values returned for Pt, Pa, Ir were 38, 13, 13 ppm, respectively, from selected 30 samples. In 2000, Morrison (with a joint venture partner of Doublestar Resources) conducted a program of geological mapping and sampling of the region, in the lower portions of the ultramafic intrusion (Morrison, 2001). The program results failed to find anomalous PGE's in the ultramafic bodies.

## 7 Geological Setting

### 7.1 Regional Geology

The Murray Ridge Property is located in the Cache Creek (CC) Terrane which is part of Intermontane Superterrane, a low metamorphic grade magmatic arc that was accreted to the ancestral North American continental margin in Jurassic time. To the east, Cache Creek Terrane is in fault contact with the Lower Triassic to Early Jurassic island-arc complexes of the Quesnel Terrane comprising of mafic volcanic and sedimentary rocks and coeval plutons. Towards the west, the CC Terrane is juxtaposed against the Stikine Terrane, that has formed in the volcanic-arc environment, similarly to Quesnel Terrane, from Paleozoic to Mesozoic period. The compilation of terrane geology is presented in Figure 3.

The Cache Creek Terrane is composed of oceanic and marginal-basin assemblages that contain a complex mixture of Paleozoic to Mesozoic in age volcano-sedimentary rocks and abundant ultramafic, mafic to intermediate intrusives of possible ophiolite affinity. Ultramafic and mafic intrusions and their associated metallogeny is of the key importance in this report because of their potential to host nickel-iron alloy mineralization. In British Columbia, many of these ultramafic intrusions are considered to be of Alaskan-type, and are generally interpreted to be coeval with intermediate to mafic pre-accretionary arc volcanism in the western Cordillera. Many are deformed and strongly serpentized bodies of questionable origin (Nixon and Hammack, 1991).

The Alaskan-type complexes are named for a distinctive suite of ultramafic-mafic intrusions with a type area in southeastern Alaska. Their geological and petrographic features are summarized by Taylor (1967). Most of these complexes represent crystal cumulates of mantle derived ultramafic magmas. One of the primary attributes of Alaska-type complexes is a crude zonation of rock types ranging from dunite through wehrlite and clinopyroxenite to hornblende pyroxenite and hornblende. In central British Columbia, these ultramafic bodies have commonly gabbro to diorite envelopes that may be comagmatic. Some intrusions also have well developed contact aureoles of lowermost amphibolite grade metamorphism.

### 7.2 Property Geology and Structure

Geological setting and structure of the Murray Ridge Property is presented in Figure 4, taken from a digital regional geological compilation by the BC Geological survey at a scale of 1:250,000 (Massey et al, 2005:

<http://www.empr.gov.bc.ca/Mining/Geoscience/Pages/default.aspx>).

The stratigraphic units from oldest to youngest are as follows:

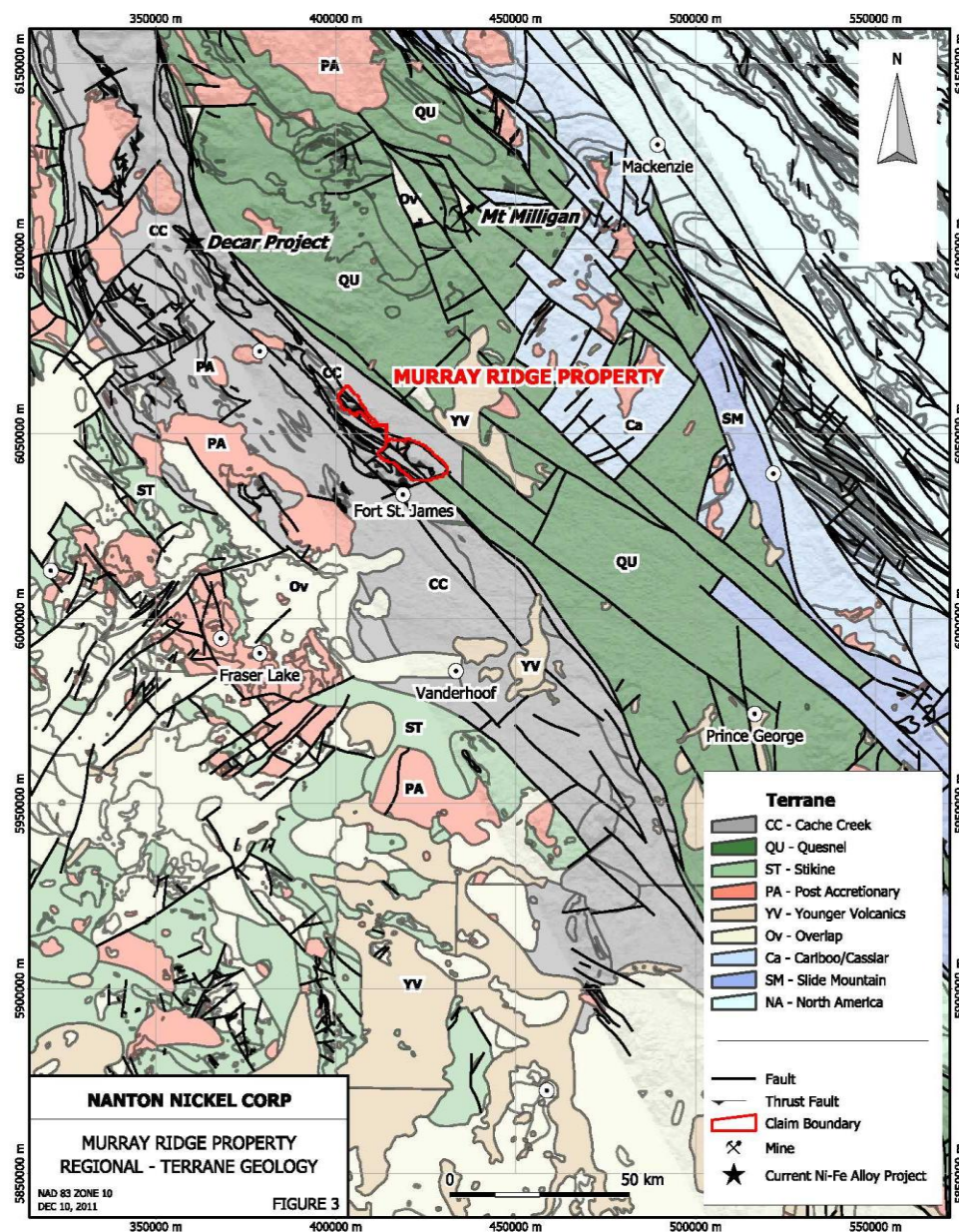


Figure 3. Regional (Terrane) Geology with the claim outlines of Murray Ridge Property in red and Decar Project location as black star.

The Pope Succession (PnTrCP/PnTrCPma), the oldest unit of the Lower Pennsylvanian to Middle Triassic Cache Creek complex, occurs as a continuous northwest striking sedimentary sequence along the entire length of the property. The lithologies are calcareous sediments and their metamorphic equivalents including limestone and marble. This unit is overlain by clastic sedimentary rocks (PTrCCh) composed of chert, siliceous argillite and other siliceous lithologies.

The supracrustal sequences are invaded by the Trembleur ultramafic intrusions (PTrCTum) covering large, NW trending, fault bounded areas throughout the property. Rocks are pyroxenite, harzburgite, dunite, gabbro and their serpentized equivalents. These lithologies typically form prominent ridges, Murray Ridge and Pinchi Mountain, in the southeast and northwest, respectively.

The Ruby Igneous Complex (PTrCRgb) is documented in several localities as a fault bounded unit, both in the southeast and in the northwest. Lithologies represented are gabbro to diorite. The spatial and temporal relationship of this unit with ultramafic intrusions suggests a comagmatic zonation.

The Blueschist unit (PnTrCbs) is observed not that commonly. It always forms a structural contact with the ultramafic-mafic intrusions. The dominant lithologies are glaucophane schist, chert and metabasalt among others. The blueschist metamorphic rocks are characterized by high-pressure, low-temperature assemblages considered to form in subduction zone environment.

The Upper Triassic Takla Group (uTrTca) of calc-alkaline volcanic rocks outcrops only at the southeastern margin of the property, at the fault contact with ultramafic-mafic rocks.

The Upper Triassic to Lower Jurassic Tezzeron Sequence (uTrJTz/uTrJTzlm) of clastic and calcareous sedimentary rocks is mapped in lower elevations areas, as northwest striking, fault-bounded basin strata straddling the ultramafic-mafic bodies throughout the region. These units are composed dominantly of argillite, greywacke, conglomerate (uTrJTz), and limestone, marble (uTrJTzlm).

Late Cretaceous Endako Batholith (LKEnP) outcrops as a small tonalite plug in the centre of the property.

Quaternary glacial till and gravel cover the entire area with thin veneer on steeper slopes and deeper accumulations in the valley bottoms.

Regional deformation and structure of the Cache Creek Terrane is northwesterly. Within the terrane, the strike of the Cache Creek Group and younger volcano-sedimentary rocks, tectonic fabric and layering of the ultramafic assemblages is northwesterly, that is in conformity with the regional trend. Younger east-northeast cross-faults disrupt the northwest structures with minor strike-slip displacements.

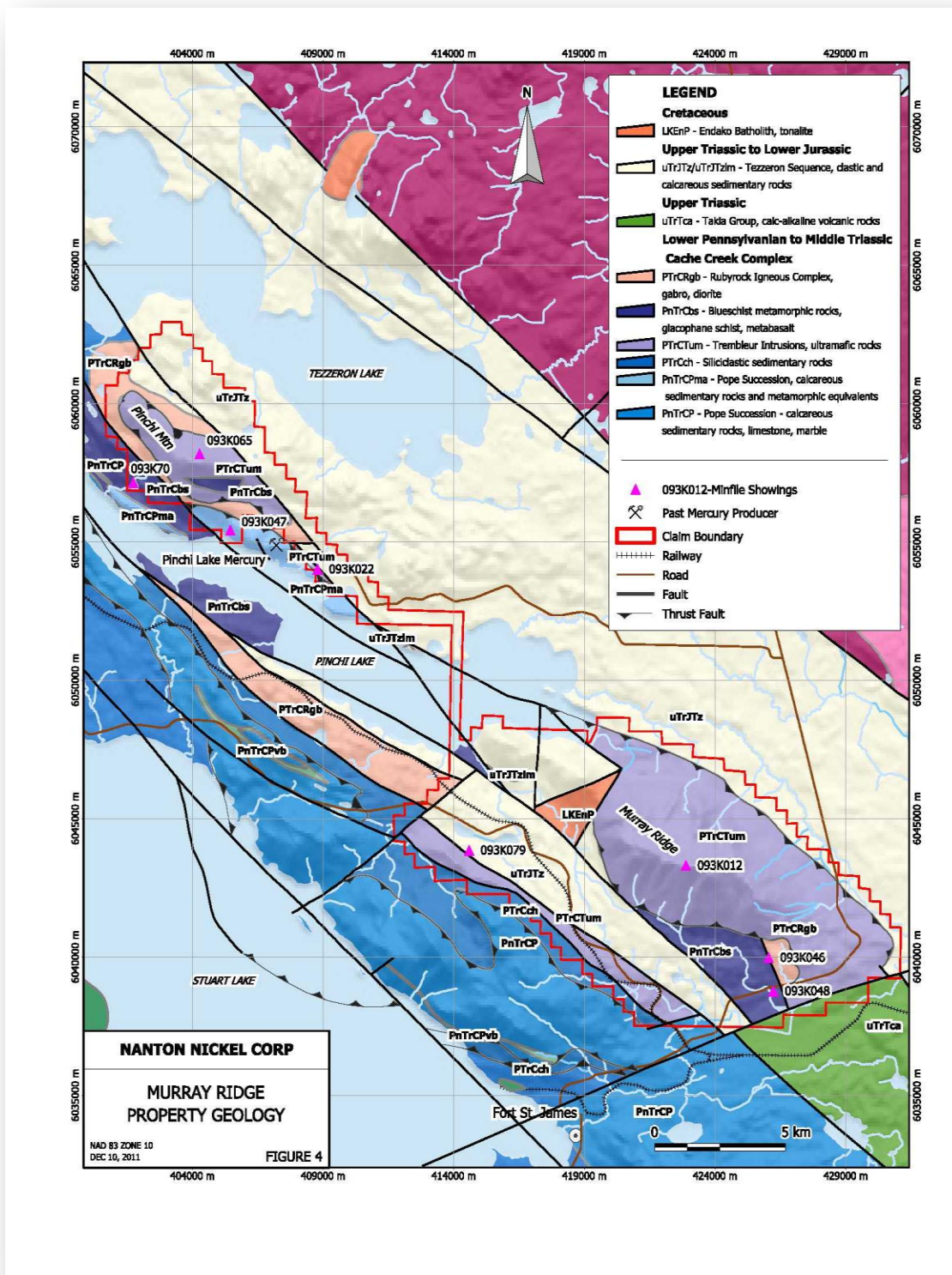


Figure 4. Murray Ridge Property Geology (after Massey et al, 2005).

The Pinchi Lake Fault is a regional, northwest striking fault system forming a structural contact between Pennsylvanian-Permian Cache Creek assemblages to the southwest and Upper Triassic-Lower Jurassic Takla group weakly metamorphosed volcano-sedimentary rocks to the northeast. Many northwesterly striking subsidiary faults with steep dips to west are documented. Some of these structures also mark the contacts between various intrusive units throughout the property (Figure 4).

### 7.3 Mineralization

Murray Ridge Property and its surroundings are historically known for their mercury showings and deposits as documented in BC Minfile and assessment records, as well as non-economic chromite and industrial mineral occurrences (<http://www.minfile.gov.bc.ca/Summary.aspx>) (Figure 4). There are not known nickel-iron alloy occurrences, to date, from this locality.

Mercury occurrences are as follow: the **Sunshine** ( Minfile 93K 046-6039971N, 426051E), the **Calex** (Minfile 93K 048-6038762N, 426229E) and the **Dad** (Minfile 093K 079- 6043850N, 414590E) in the southeast and **Mount Pinchi** (Minfile 93K 070-6057309N 401864E), **CIN** (Minfile 93K 047, 6055470N, 405501E) and **Pinchi Lake Mercury Mine**, in the northwest (Minfile 93K049-6054877N, 407228E). Mercury occurrences are closely spatially and temporally associated with the Pinchi Fault zone. The host rocks are Cache Creek Group carbonate altered andesite, schist and Trembleur ultramafic intrusives.

Several chromite occurrences are also documented: **MR and MUR showings** (Minfile 93K 012-6043300N, 422887E), in the Murray Ridge area. Chromite showings are found in the northwest striking ultramafic rocks of disrupted ophiolite affinity near the Pinchi Fault system. The dominant hosts are harzburgite and subordinate dunite and orthopyroxene veins.

In addition, several industrial mineral occurrences are recorded in the area, limestone (**Pinchi Lake Limestone**/ 93K 022-6053976N, 408968E) and magnesite (**Pinchi Lake** / 93K 065- 6058094N, 404211E)).

## 8 Deposit Types

The Nanton Nickel Corp. has undertaken an exploration for the nickel-iron alloy mineralization, awaruite, in the ultramafic rocks of the Permian-Triassic Cache Creek complex on the Murray Ridge Property. The property geological and structural setting is analogous to the Decar Property of First Point Minerals/Cliff Natural Resources, approximately 60 km to the northwest.

Compositionally, awaruite (Ni<sub>3</sub>Fe) consists of 75% nickel, 25% iron and 0% sulphur, and therefore it is considered “natural steel”. Absence of sulphur allows a

concentrate to be shipped directly to steel mills without incurring smelting and refining costs, and minimal environmental problems.

The economics of nickel-iron alloy deposits are potentially very favourable as they avoid the significant cost associated with nickel sulphide deposits required for smelting and environmental mitigation and large amounts of energy and acid required for the processing of laterite nickel deposits.

## 9 Exploration

Several phases of exploration were completed on the Murray Ridge Property in 2011; airborne regional geophysical survey between 11-14 and 20-21 September and follow-up reconnaissance geological mapping, prospecting, and geochemical sampling between 15 to 24 October.

### 9.1 Geophysical survey

#### 9.1.1 General

New-Sense Geophysics Ltd. (NSG) was contracted to carry out a high sensitivity, helicopter-airborne magnetic survey over the Murray Ridge Property. The objective of the survey was to provide high-resolution total field magnetic maps suitable for anomaly delineation which in turn provides a tool for detailed geological evaluation and identification of structural and lithologic trends.

A total of 1055 line kilometers of aeromagnetic survey was completed in two areas separated by Pinchi Lake: southeast block, 779 km line-km and northwest block, 279 line-km (referred to as Ski Hill and Ski Hill Extension in Yakovenko, 2011).

The summary of survey parameters are as follows:

Traverse Line spacing:	200 m
Control Line spacing:	2000 m
Average Terrain clearance:	39 m (Ski Hill); 40 m (Ski Hill Extension)
Navigation:	GPS
Traverse Line direction:	90 <sup>0</sup> , 270 <sup>0</sup>
Control Line direction:	0 <sup>0</sup> , 180 <sup>0</sup>
Measurement interval:	0.02/0.1 sec for magnetic; 0.1 sec for GPS
Groundspeed (average):	153 km/hr (Ski Hill); 154 km/hr (Ski Hill Extension)
Measurement spacing (average):	4.3 m/0.1 sec for magnetic & GPS

The aircraft used was a Bell 206 Jetranger B3 helicopter (C-GMPS) equipped with a high sensitivity cesium magnetometer mounted in a fixed stinger assembly. The aircraft service was provided by Northern Air Support based in Kelowna, BC. An airborne ancillary equipment included; digital recorders, fluxgate magnetometer, radar

altimeter, and global positioning system (GPS) receiver. The GPS receiver provided accurate real-time navigation and subsequent flight path recovery. Surface equipment included a magnetic base station with GPS time synchronization, and a PC-based field workstation which was used to check the data quality and completeness on a daily basis. A detailed aircraft specification, ground monitoring systems, data compilation and procedures are found in the Appendix I.

The aeromagnetic data was plotted as Total Magnetic Intensity (TMI) in nT (nano Tesla) and 1<sup>st</sup> Order Vertical Derivative (VDV) in nT/m (nano Tesla per meter) for both surveyed blocks on the property structural map at a scale of 1:175,000, Figures 5 and 6, respectively (at the end of the report). More detailed TMI and VDV maps (1:50,000) are found in the Appendix I.

### **9.1.2 Aeromagnetic Survey Results**

The TMI maps (Figure 5) document magnetic intensity range from 55328 nT (in dark blue) to 58118 nT (in bright pink) from southeast surveyed block, and 56206 nT to 58018 nT from the northwest block, respectively.

The results of the survey delineate four major, magnetic-high (TMI) anomalies as discrete zones (pink to red colour range). In the southeastern surveyed block, the anomalously high magnetic values form several large zones; a broad zone over the Murray Ridge and its surroundings, and a narrow, linear zone to the south. Both have sharp boundaries and northwesterly trends. On the other hand, low magnetic field values outline narrow, northwest trending zones (blue to green colour range) in between the magnetic-highs.

The TMI magnetic data in the northwestern block exhibit similar patterns; two strong, narrow, high magnetic intensity anomalies separated by low intensity zones. The transition from high to low magnetics is abrupt. Both, TMI highs and lows, delineate west-northwest to northwest striking zones. The 1<sup>st</sup> Order Vertical Derivative (VDV) plot shows similar but not as well defined magnetic patterns as TMI (Figure 6).

The compilation of the aeromagnetic surveys on the geology and structure map of the property indicates a strong correspondence between these parameters. The magnetic-high anomalies show excellent correlation with the Trembleur ultramafic and Rubyrock mafic intrusions that characteristically carry significant magnetite contents. Magnetic-highs are separated by magnetic-lows, latter corresponding to the non-magnetic Cache Creek Group and younger Triassic-Jurassic calcareous and clastic sediments. A sharp transition from high to low magnetics is marked by structural contacts, faults and thrust faults.

In the northwestern part of the southeast block strong TMI and VDV is noted over an area which is mapped as being underlain by the Triassic-Jurassic calcareous

sediments and Cretaceous tonalite. This area has been briefly visited by the author during the recent prospecting program. However, the geology was not verified because of the absence of bedrock and poor accessibility.

## **9.2 Reconnaissance Mapping and Geochemical Sampling**

### **9.2.1 General**

Reconnaissance geological mapping, prospecting and geochemical sampling of the Murray Property were undertaken by the author between October 15 to 24, 2011. The objective of the field examination was to evaluate the following:

1. Geological and structural setting of areas which returned magnetic-highs (TMI and VDV) from the earlier geophysical survey.
2. Re-sampling of sites/drainages with anomalous nickel-in-silts from Regional Geochemical Surveys (RGS) of BC Geological Survey (complete geochemical data is recorded on line at:  
[www.em.gov.bc.ca/mining/geoscience/geochemistry/pages/default.aspx](http://www.em.gov.bc.ca/mining/geoscience/geochemistry/pages/default.aspx)
3. Additional, more detailed prospecting/mapping, litho-geochemical, stream-sediment and soil sampling in prospective areas defined by previous geology compilation, and both, anomalous geophysical and RGS stream-sediment geochemical results.

All geochemical sampling results are plotted on property geology map at a scale of 1:50,000 and presented in Figures 7 and 8, from southeastern and northwestern areas, respectively (at the end of this report). Rock sample descriptions and nickel analysis are summarized in Table 2 and stream-sediment site description, sample type and nickel analysis in Table 3 (both in Appendix II). Assay certificates for rock, stream-sediment and soil samples are appended (Appendix III).

**Reconnaissance mapping/prospecting** - The follow-up reconnaissance mapping involved verification of the geological and structural setting as mapped by previous authors and geologists of the BC Geological Survey. A network of well-maintained gravel roads allowed access to some parts of the property for this brief assessment. The readily accessible areas of highly anomalous magnetics were also examined. A total of 31 rock samples of ultramafic and mafic lithologies were collected dominantly from ridge tops and creek beds.

The low elevations areas, especially in the southern part of the property had total absence of bedrock exposure. As such, rock sampling is not representative of all perspective areas, but only those with abundant outcrops.

**Stream-sediment Sampling** – A total of 25 stream-sediment samples were collected throughout the property with majority of the samples from the southeastern part of the claims. The focus of sample collection was a region drained

by four creeks which returned anomalous nickel in stream-sediments from the RGS of BC Geological Survey (Figure 7). These sites were visited to verify the location, quality of sampling medium and to do the re-sampling. The additional stream-sediment sampling of the anomalous creeks was also undertaken.

The creek which returned highly anomalous nickel value (1,246.5 ppm Ni/93K021429) was investigated in a great detail which included stream-sediment sampling at 500-800 m centres, prospecting and rock sampling along the drainage. The stream-sediment samples were also collected, wherever the access was permissible, in adjacent creeks. At each sample site the description including the sample type, creek width and slope, intensity of the flow were recorded. This information is summarized in Table 3 (Appendix II).

In the northwestern part of the property where RGS work did not generate any stream sediment anomalous sites, the exploration was concentrated in areas underlain by favourable ultramafic intrusions (Figure 8).

**Soil Sampling** - A small soil sampling program was designed, in addition to rock and silt sampling, to test the effectiveness of soil geochemistry as a useful tool in detecting anomalous metals over large, overburden covered areas. A total of 13 soil samples were collected, all in the southeastern part of the property (Figure 7). Commonly soil profile was poorly developed and B-horizon was identified in about 25% of the sites. Sampled material was generally pale-grey, bleached, clay-rich A horizon and medium brown silt-sand-subordinate clay with a partial glacial-till component. Samples were collected with a shovel from an average depth of 30-35 cm.

One small soil-grid was designed adjacent to the anomalous creek (RGS 93K021429) with samples collected on about 100 m centres sub-parallel to its strike (8 soil samples). In addition, 5 soils were collected along the gravel road straddling another high nickel-anomalous drainage (RGS 93K021430).

### **9.2.2 Reconnaissance mapping/prospecting results**

Reconnaissance mapping and prospecting was focused on areas of known prospective geology. The best rock exposures were on the ridge tops and along road cuts, specifically Murray Ridge and Pinchi Mountain areas. Geological evaluation has confirmed the occurrence of ultramafic-mafic bodies of the Cache Creek Complex Trembleur Intrusions. Ultramafic rocks typically form prominent, rugged, outcrop covered ridges with sparse vegetation, both in the southeast (Photo 1) and northwest.



Photo 1. A typical rugged terrain on the top of the Murray Ridge underlain by variably serpentinized harzburgite and minor dunite (Trembleur Intrusions).

Rocks are dominantly represented by harzburgite (95%) with subordinate dunite layering (5%), and rare orthopyroxenite and gabbro. Harzburgite is typically dark brown to black, weathered yellow-green with red blotches, massive, medium to coarse grained, and variably serpentinized, weak to rarely strong (Photo 2). Dunite is minor lithologic component in this particular area occurring as differentially weathered, olive green, elongate, irregularly shaped, north-westerly trending bodies parallel to ridge crest) and vary in size from 5 to 10cm (Photo 3). In the literature, the recorded width is from 0.1 to 25 m across (Minfile 093K012). All ultramafic lithologies are weakly to moderately magnetic and rarely non-magnetic. Magnetic minerals are weakly disseminated, fine grained magnetite (<1-2%) and locally subordinate pentlandite. Chromite mineralization occurs as weak, brownish black, fine grained (1-3mm), disseminations in harzburgite and as disseminations and stringers in dunite, <0.5-1%.

In the Pinchi Mountain area, ultramafic rocks are locally strongly oxidized and fractured with largely obliterated primary textures. Fracturing is associated with white quartz veining and stockwork and fracture-controlled bright green mariposite (Photo 4). Rare medium grey, narrow (<1.5m) quartz diorite dykes are observed cutting ultramafics.



Photo 2. Light green serpentinized weathering surface and fractures in harzburgite of Trembleur Intrusions (MRR-27).



Photo 3. Differentially weathered, narrow, northwest striking dunite layer in blotchy red-yellow weathered harzburgite (MRR-10).

Medium to green, fine grained mafic rocks, gabbroic in composition are subordinate. These are probably related to the zoned envelope around the ultramafic intrusions represented by the Rubyrock Igneous Complex.

Structural fabric is generally northwesterly. Dunite and orthopyroxenite layering strikes  $280^{\circ}$  to  $310^{\circ}$  with steep northeasterly dips,  $70^{\circ}$  to  $90^{\circ}$ .

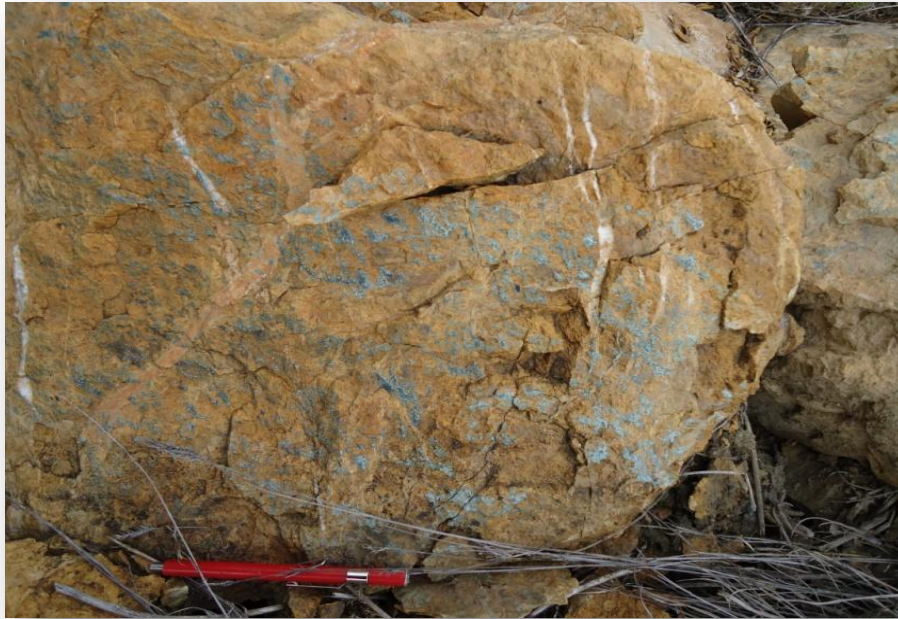


Photo 4. Heavily oxidized and fractured ultramafic rocks in the Pichi Mountain area. Note white quartz veining and bright green mariposite on the fracture surface (MRR-21).

### 9.2.3 Geochemical Sampling Results

**Rock geochemistry.** The assay results of rock geochemistry have returned nickel values ranging from 37 to 2513 ppm nickel. Only two samples (MRR-20 and 22) carry low nickel contents, 37 and 61 ppm, respectively. Both were collected from outcrops of gabbroic rocks in the Pinchi Mountain area (Figures 7 and 8).

All the ultramafic rocks from the southeast, Murray Ridge area, consistently assayed 2053 to 2513 ppm Ni. The nickel values from the northwest, Pinch Mountain area, returned anomalous but slightly weaker nickel values ranging from 1329 to 1981 ppm.

Much more rock sampling is needed throughout all ultramafic bodies to get a good understanding of nickel potential of the area.

**Stream-sediment geochemistry.** The stream-sediment geochemistry has returned nickel values ranging from 139 to 1519 ppm Ni from the southeast, and 172 to 782

ppm Ni from the northwest, respectively (Figures 7 and 8). The nickel contents are considered highly anomalous for all the collected samples.

Results of nickel geochemistry from stream-sediment re-sampling show very encouraging results. All nickel values were very well reproduced and closely comparable to the original results from the RGS program; **1280** ppm (SSM-11) (**1247** ppm-93K021429), **457** (SSM-15) (**545** ppm-93K21430), **190** (SSM-02) (**155** ppm-93K021428) and **573** ppm (**157** ppm-93K021427). All nickel values came highly anomalous, from 457 to 1280 ppm.

Comparing the nickel results from the various explored areas, the best values were returned from the north-slopes of the Murray Ridge covering an area of about 2.5-3 km by 7 km.

**Soil geochemistry.** Assay results of the soil sampling from a small grid adjacent to the highly anomalous creek returned nickel values from 134 to 558 ppm and soils samples from a road cut adjacent to another anomalous creek, from 315 to 881 ppm nickel (Figure 7).

All the soils carry anomalous nickel contents reflecting the metal enrichment in the underlying ultramafic rocks, if these are at least partially residual, in-situ developed material.

## 10 Drilling

Nanton Nickel Corp. has not conducted any drilling on the MR property to date.

## 11 Sample Preparation, Analysis and Security

The sample preparation, analysis and security measures taken by Nanton Nickel Corporation were to industry standard.

A total of thirty-one rock, twenty-five stream-sediment and thirteen soil samples were collected on the property by D.Duba during the 2011 exploration program. Sampling method is discussed in the section 9.2 Reconnaissance Mapping and Geochemical Sampling. Samples were placed in clear plastic bags for rock and canvas bags for soil and silt, labeled and packed into the rice bags. After, the bags were secured and taken to the Greyhound cargo depot in Penticton for the shipment to the Acme Laboratories in Vancouver.

In the assay lab rock samples were dried and weighed, fine crushed, 80% passing less than 10 mesh (<2mm), split off 250 g and pulverized, 85% passing less than 200 mesh (75 microns). Soil and stream-sediment samples were dried at 60°C and sieved 100 g to -80 mesh. Then prepared samples were treated with strong four-acid digestion. This process involved a 0.25g sample split heated in HNO<sub>3</sub>-HClO<sub>4</sub>-

HF to fuming and taken to dryness and then the residue dissolved in HCl. The final solution was analyzed for total of 33 elements (Al, Ag, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sr, Te, Th, Ti, V, W and Zn) using Acme's Inductively Coupled Plasma and Emission Spectrometry (ICP-ES)-1D01 method.

Quality control procedure was implemented at the laboratory involving insertion of standards, blanks and pulp duplicates for at least 25% of the total analyzed samples.

Sample preparation, analytical procedure and security conducted by the laboratory are acceptable. Examination of routine quality control data indicates that the assay results are within generally accepted parameters for accuracy, precision and lack of contamination.

## **12 Data Verification**

The co-author (D. Duba) of this report was directly involved in the 2011 exploration program. Twenty-five stream-sediment samples were collected throughout the property to verify significant geochemical results of Regional Geochemical Survey of BC Geological Survey. As discussed under the section 9.2.3 "Geochemical Sampling Results", highly anomalous nickel values were confirmed in stream sediments in the southeastern part of the property. Rock and soil geochemistry have returned similarly high nickel values verifying the presence of nickel mineralization in ultramafic and mafic rocks of Trembleur Intrusions.

The analytical data quality assurance and quality control was indicated by the favourable reproducibility obtained in the laboratory standards, blanks and duplicates. The authors have no reason to doubt the accuracy and precision of the laboratory data. The quality control procedures discussed under "Sample Preparation, Analysis and Security" verified the obtained results.

## **13 Mineral Processing and Metallurgical Testing**

This section is not applicable to this report.

## **14 Mineral Resource Estimates**

This section is not applicable to this report.

## **15 Adjacent Properties**

The most significant property adjacent to the Murray Ridge Property is the Decar Project James of First Point Minerals Ltd and their joint venture partner Cliff Natural Resources. Decar Project covers an area of 23,885 ha, approximately 90 km

northwest of Fort St. James (Figure 3) and is aggressively developed for its bulk-tonnage, open-pit mineable potential resource of nickel-iron alloy.

Nickel-iron alloy occurs in form of a heavy, magnetic awaruite mineral, which is naturally occurring stainless steel comprising of 75% nickel, 25% iron and 0% sulfur. Awaruite is hosted in serpentinized ultramafic rocks, in 0.1 to 0.15 % range, as 5 to 400 microns (0.4mm) in widths silver-white grains. Metallurgical testing have shown 80% of the awaruite is recoverable to produce a desirable ferronickel concentrate grading 2.6% nickel, 52% iron as magnetite and 2.2% chromite (Allan, 2011).

## **16 Other Relevant Data and Information**

This section is not applicable to this report.

## **17 Interpretation and Conclusions**

The Murray Ridge property has been explored, for the first time, for nickel-iron alloy (awaruite) mineralization in the ultramafic rocks of the Trembleur Intrusions (Cache Creek Complex). The analogous suite of ultramafic intrusions host disseminated, coarse grained awaruite mineralization on the Decar property of the First Point Minerals, approximately 60 km northwest.

The MR property is underlain by a complex mixture of Permian to Cretaceous rocks characterized by Cache Creek Complex clastic and calcareous sedimentary assemblages that are intruded by Trembleur ultramafic-mafic and Rubyrock gabbro to diorite. Cache Creek Complex rocks are at the structural contacts with younger Jurassic-Triassic volcano-sedimentary rocks of Takla Group and Tezzeron Sequence and Cretaceous Endako Batholith. The region has a strong northwest striking structural fabric of faults and thrust faults including Pinchi Lake fault system, historically important for its associated significant mercury occurrences.

Several northwest trending, linear magnetic-high (TMI) anomalies were delineated in both, northwestern and southeastern part of the property. These anomalies exhibit an excellent correspondence with the previously mapped northwest striking ultramafic intrusions. The sharp transitions from high to low magnetics coincide with the structural contacts of high magnetic susceptibility rocks (ultramafics-mafics) and low susceptibility rocks (sediments). High resolution aeromagnetic survey proved to be an effective mapping tool in defining prospective geology and structure for further exploration.

Geological mapping and prospecting has confirmed the occurrence of favourable geological setting and localized serpentinization associated with ultramafic rocks throughout the property.

Rock sampling results have returned anomalous nickel values from majority of collected grab samples; 0.1 to 0.25% Ni. These represent variably serpentinized ultramafic rocks of Trembleur intrusions covering areas of about 2x8 km in Pinchi Mountain (northwest) and 5x13 km in Murray Ridge (southeast).

Stream-sediment sampling program was successful in verifying the historical RGS anomalous nickel-in stream-sediment results and expanding the anomalous nickel occurrences over much larger areas of the Murray Ridge and Pinchi Mountain, both underlain by Trembleur ultramafic intrusions. The nickel values vary from 139 to impressive 1519 ppm.

A small soil sampling program of several areas adjacent to the nickel-in-stream-sediment anomalous drainages also returned an anomalous nickel from all collected samples; 134 to 881 ppm Ni. Nickel anomalies in soils, assumed to be at least in part in-situ, would reflect the nickel enrichment in the underlying ultramafic rocks.

The current exploration program has detected highly anomalous nickel in all the sampling mediums. However, the source of nickel has not been established at this phase of property examination. Petrographic studies and specific analytical methods will have to be used to differentiate between nickel-alloy (awaruite) from nickel sulfide mineralization.

## **18 Recommendations**

Recent exploration activity on the Murray Ridge Property has produced encouraging results from high resolution aeromagnetic survey. Follow-up reconnaissance geological mapping/prospecting, and results of rock, stream-sediment and soil geochemical sampling have confirmed highly anomalous nickel in association with ultramafic rocks, both in the southeastern (Murray Ridge) and northwestern (Pinchi Mountain) areas of the property.

A two phase multi-disciplinary exploration program is recommended. Phase 1 exploration involves a systematic property scale exploration including ground magnetic survey, detailed geological mapping/prospecting, trenching and geochemical sampling (rock and stream-sediment). A detailed petrographic studies will be undertaken on selected rock suite to gain an understanding of the style and control on nickel mineralization. Phase 2 exploration will use the results of the Phase 1 program to define drill targets for a 1500 m drilling program. It is recommended to drill 15 NQ holes, to 100 m depth throughout the favourable areas of the property.

### **Proposed Exploration Budget**

Phase 1 Exploration

1. Ground magnetic survey 550 km @ \$120/km, all inclusive	\$65,000
2. Program design, detailed geological mapping, sampling 32 days/geologist+assistant \$1500/day, all inclusive	\$50,000
3. Excavator rental+operator /Trenching and road access 7 days @\$1500/day, all inclusive	\$10,000
4. Line-cutting crew (geophysical and soil grids) 10 days @\$1500/day, all inclusive	\$15,000
5. Geochemical sampling crew/30 days @ @1200/day all inclusive Stream sediment and grid-soil sampling	\$35,000
6. Geochemical analysis, 650 samples @ \$30/sample	\$20,000
7. Petrographic studies	\$15,000
8. Field supplies, vehicle/ATV rental, fuel	\$20,000
9. Report, database compilation, maps	<u>\$20,000</u>
Estimated Cost Phase 1	\$250,000
Phase 2 Exploration	
1500 m Diamond-Drilling, 15 holes-100 m depth \$330/m, all inclusive	<u>\$500,000</u>
Estimated Cost Phase 2	\$500,000
<b>Estimated Total Cost Phase 1 and Phase 2</b>	<b>\$750,000</b>

## 19 References

BC Minfile Records: <http://minfile.gov.bc.ca/searchbasic.aspx>

Regional Geochemical Surveys (RGS) of BC Geological Survey:  
<http://www.em.gov.bc.ca/Mining/Geoscience/Geochemistry/RegionalGeochemistry/Pages/93k.aspx>

Allan, M. 2011. First Point, Cliffs rev up Decar nickel-iron project in BC. Northern Miner, October 3-9, 2011, Vol. 97, No.33.

Bacon, W.R. 1965. Geochemical Report on the CIN 1, CIN2 and CIN3 Claim Groups, Pinchi Lake area, BC. Assessment Report #00686.

Armstrong, J.E. 1949. Fort St. James Map-Area, Cassiar and Cost Districts, British Columbia, Department of Mines and Technical Surveys, GSC Memoir 252, 210 pp.

Duba, D. 2012. Geophysical, Geological and Geochemical Assessment Report on the Murray Ridge Property, Omineca Mining Division, British Columbia, submitted in January 2012.

Heddle, D.W. 1966a. Geochemical Survey Report on the Merc. No.1 and Merc No.2 Claim Groups, Pinchi Lake Area, Omineca Mining Division, British Columbia, Assessment Report #00716.

Heddle, D.W. 1966b. Geochemical Survey Report on the Will Group No.1 Claims, Omineca Mining Division, British Columbia, Assessment Report #00719.

Heddle, D.W. 1966c. Geochemical Survey Report on the Ban No.2 Claim Group, Omineca Mining Division, British Columbia, Assessment Report #00721

Heddle, D.W. 1966d. Geochemical Survey Report on the Pinchi No.1 Claim Group, Pinchi Lake area, Omineca Mining Division, British Columbia, Assessment Report #00774.

Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T., 2005. Digital Map of British Columbia: Tile NN10 Central B.C., B.C. Ministry of Energy and Mines, GeoFile 2005-6.

Morrison, M.S. 1983. Prospecting Report on the Midnight #1-4 Mineral Claims, Fort St. James Area, Omineca Mining Division, British Columbia, Assessment Report #11,213.

Morrison, M.S. 1987. Preliminary Geology on the MR-1-11 Mineral Claims, Fort St. James Area, Omineca Mining Division, British Columbia, Assessment Report #16,532.

Morrison, M.S. 2001. Geological Assessment Report on the Mur Claim Group, Fort St. James Area, Omineca Mining Division, British Columbia, Assessment Report #26,628.

Nixon, G.T. and Hammack, J.L. 1991. Metallogeny of ultramafic-mafic rocks in British Columbia with emphasis on the platinum-group element; *in* Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera, MEMPR, British Columbia, Paper 1991-4, pages 125-161.

Taylor, H.P. 1967. The Zoned Ultramafic Complexes of Southeastern Alaska; *in* Ultramafic and Related Rocks, Wyllie, P.J., Editor, John Wiley & Sons Inc., pages 97-121.

Whittaker, P.J. and Watkinson, D.H. 1981: Chromite in Some Ultramafic Rocks of the Cache Creek Group, British Columbia, Geological Survey Canada, Paper 01, pages 349-355.

Yakovenko, A. 2011. Logistics and Interpretation Report for the High Resolution Helicopter Magnetic Airborne Geophysical Survey, Fort St. James area, New-Sense Geophysics Ltd., Unpublished report for Nanton Nickel Corp.

## 20 Certificate of Qualified Person

I, Richard J. Haslinger, P.Eng., am a consulting Geological Engineer residing at 1245 Woodland Drive in Vancouver, V5L 3S2, British Columbia, Canada, do hereby certify that:

1. I graduated from the University of British Columbia with a Bachelor of Applied Science degree in Geological Engineering in 1986. I have practiced my profession continuously since 1986.
2. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, License Number 16798. My relevant experience for the purpose of the Technical Report is: Mineral exploration and exploration project management experience on numerous projects, including Canada, United States, Africa and Brazil.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I am responsible for the Technical Report titled “ Technical Report on The Murray Ridge Property” dated at April 5, 2012. I personally visited Murray Ridge Property on October 19 and 23, 2011 (1 day) and supervised the exploration activity, including examination of bedrock outcrops and stream-sediment sample sites.
6. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form 6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
7. I am independent of the Nanton Nickel Corp. as described in Section 1.5 of NI 43-101 and have no interests, either direct or indirect, in the Murray Ridge Property.
8. I consent to the filing of the Technical Report with any stock exchange and any other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[signed]

\_\_\_\_\_  
Richard J. Haslinger, P.Eng.  
Consulting Geological Engineer

Signed on 5 April, 2012

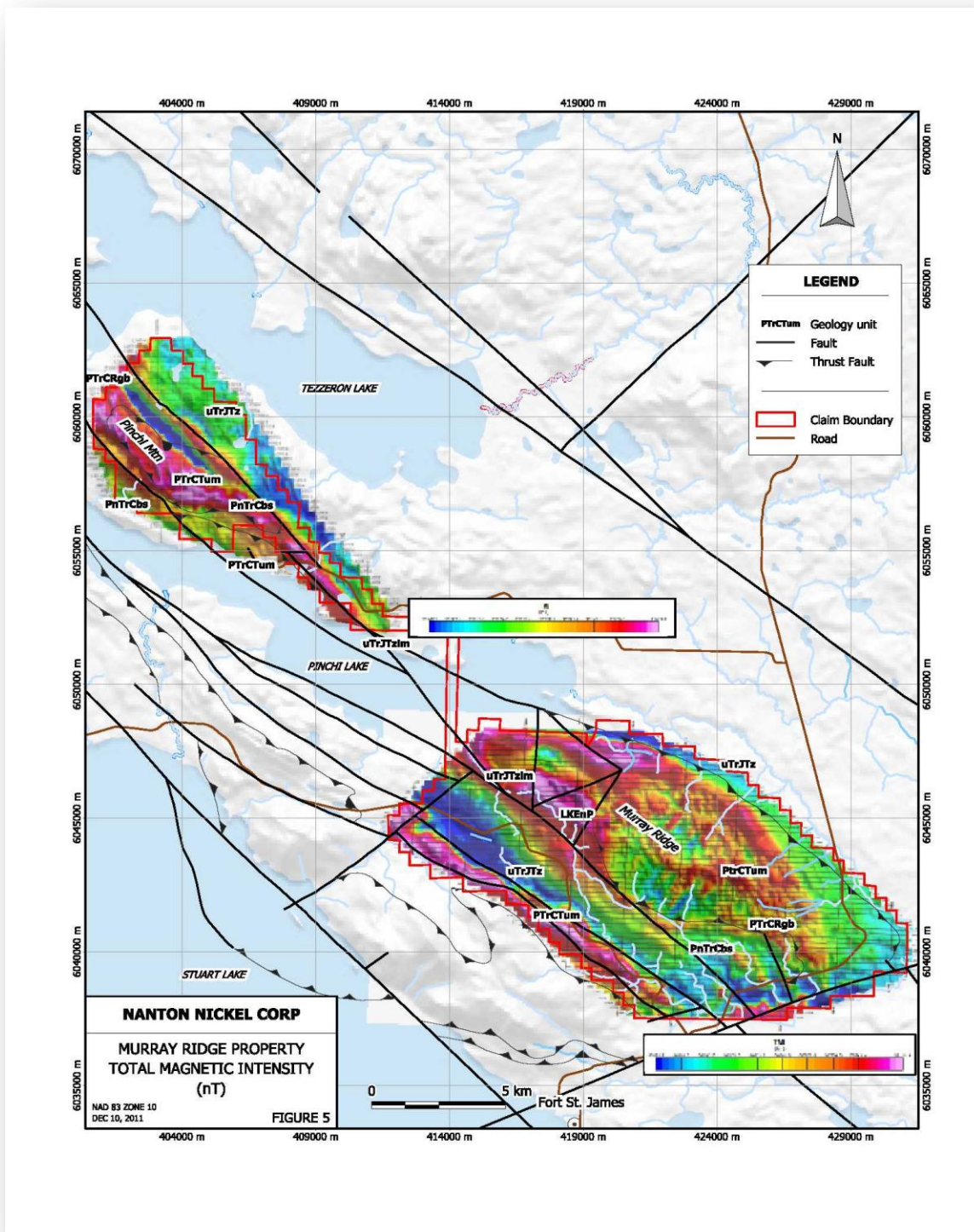


Figure 5. Total Magnetic Intensity (TMI) in nT.

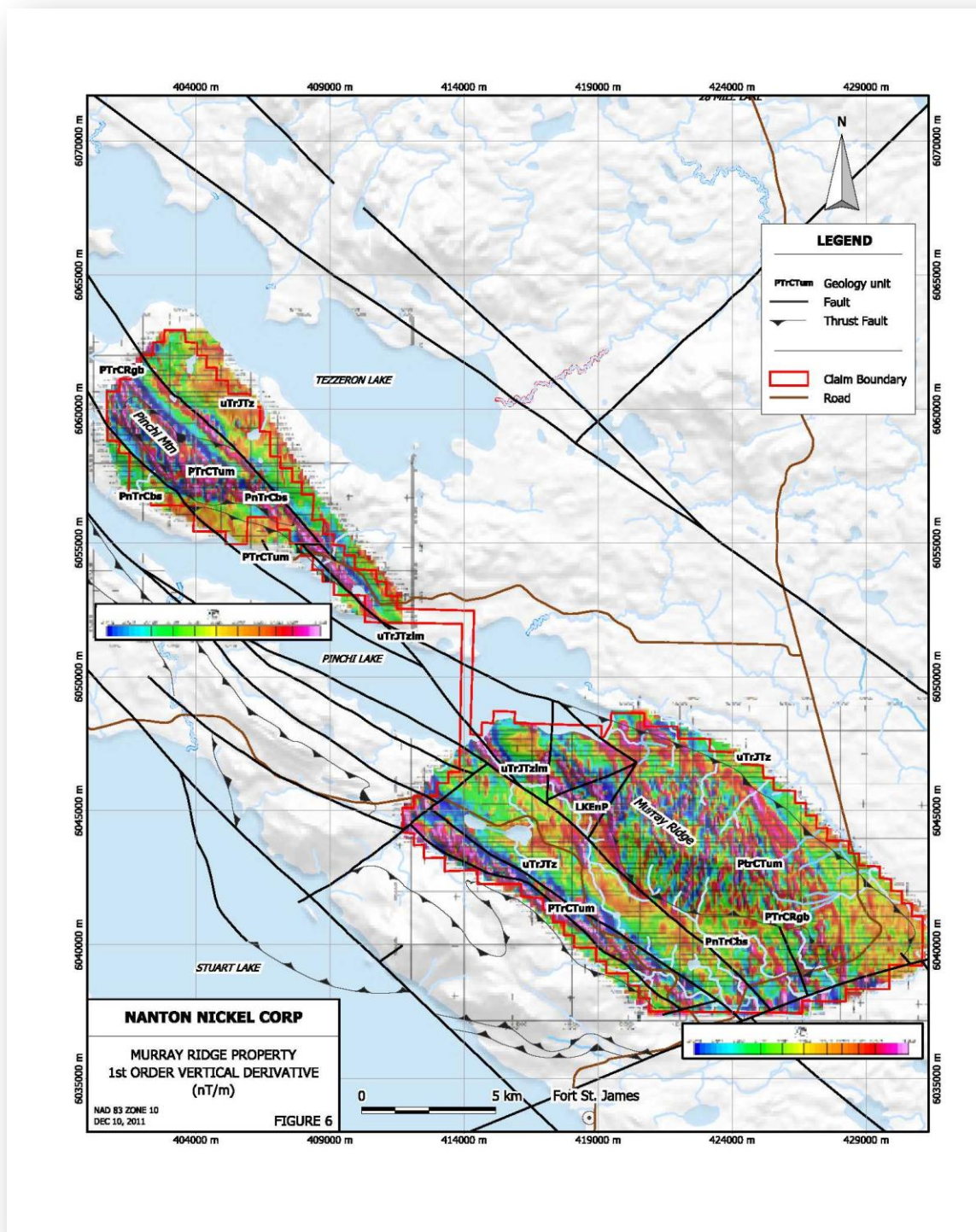
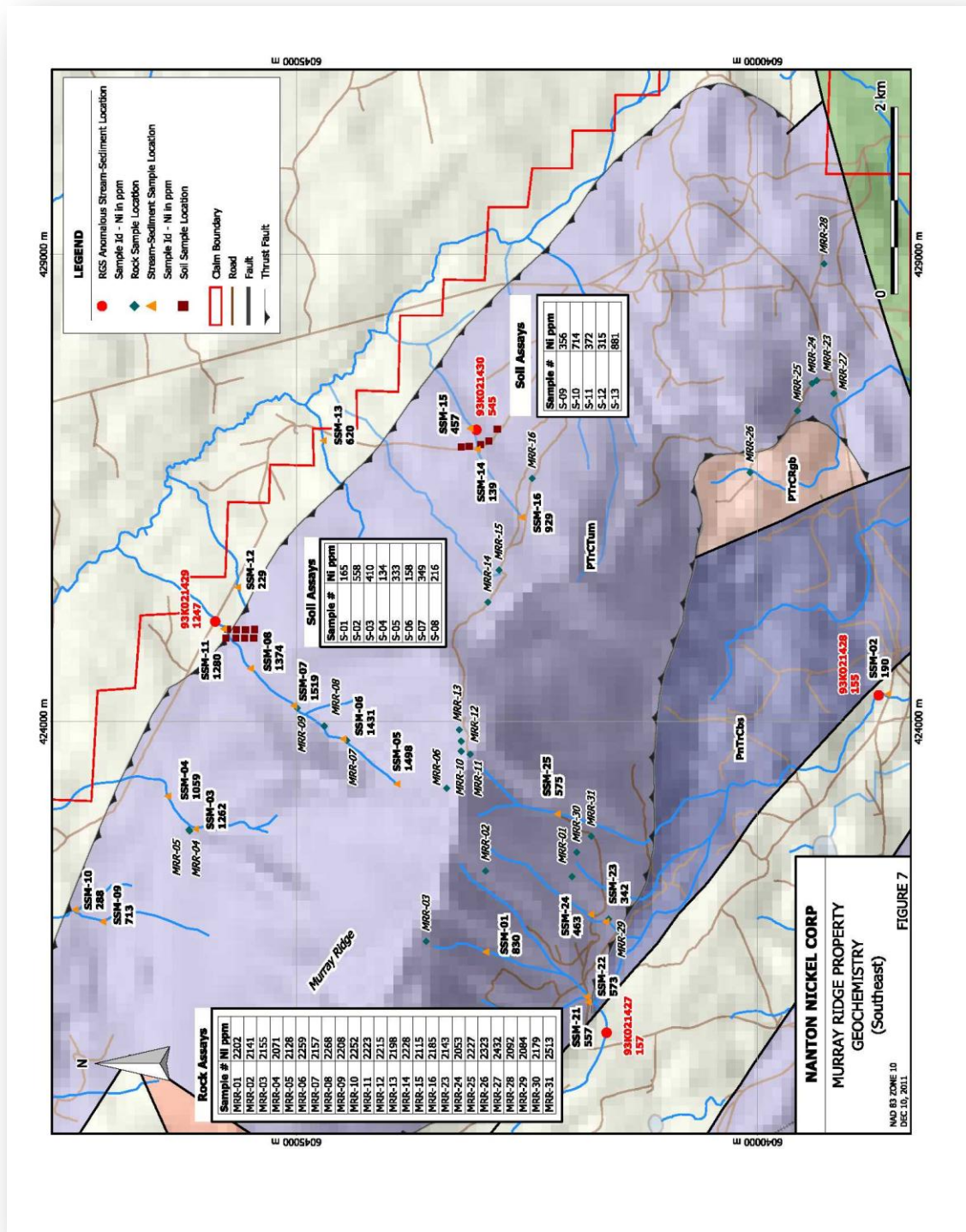


Figure 6. 1<sup>st</sup> Order Vertical Derivative (DVD) in nT/m.



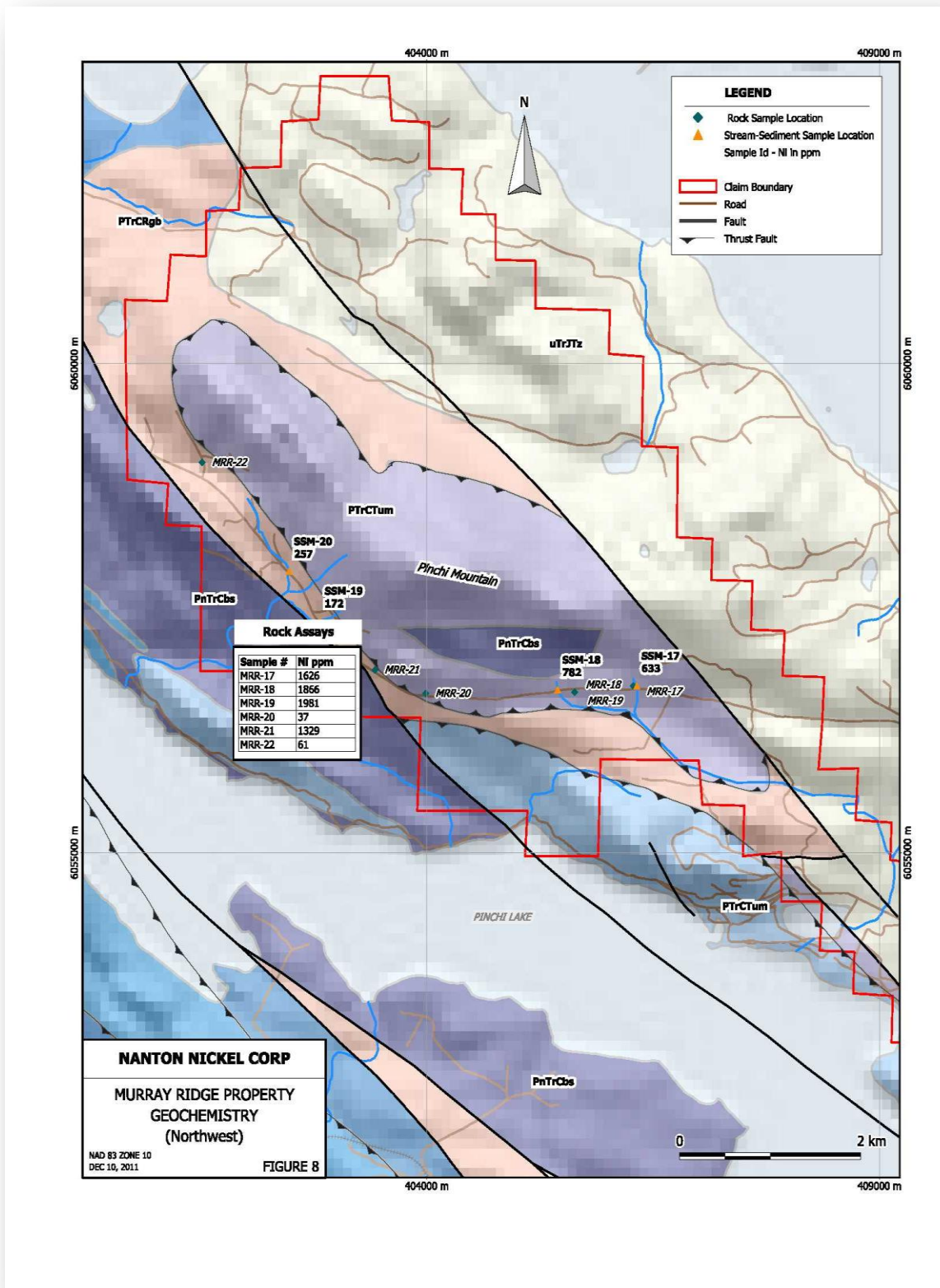


Figure 8. Rock-Stream-sediment Geochemistry, Nickel in ppm (Northwest).

## **APPENDIX I**

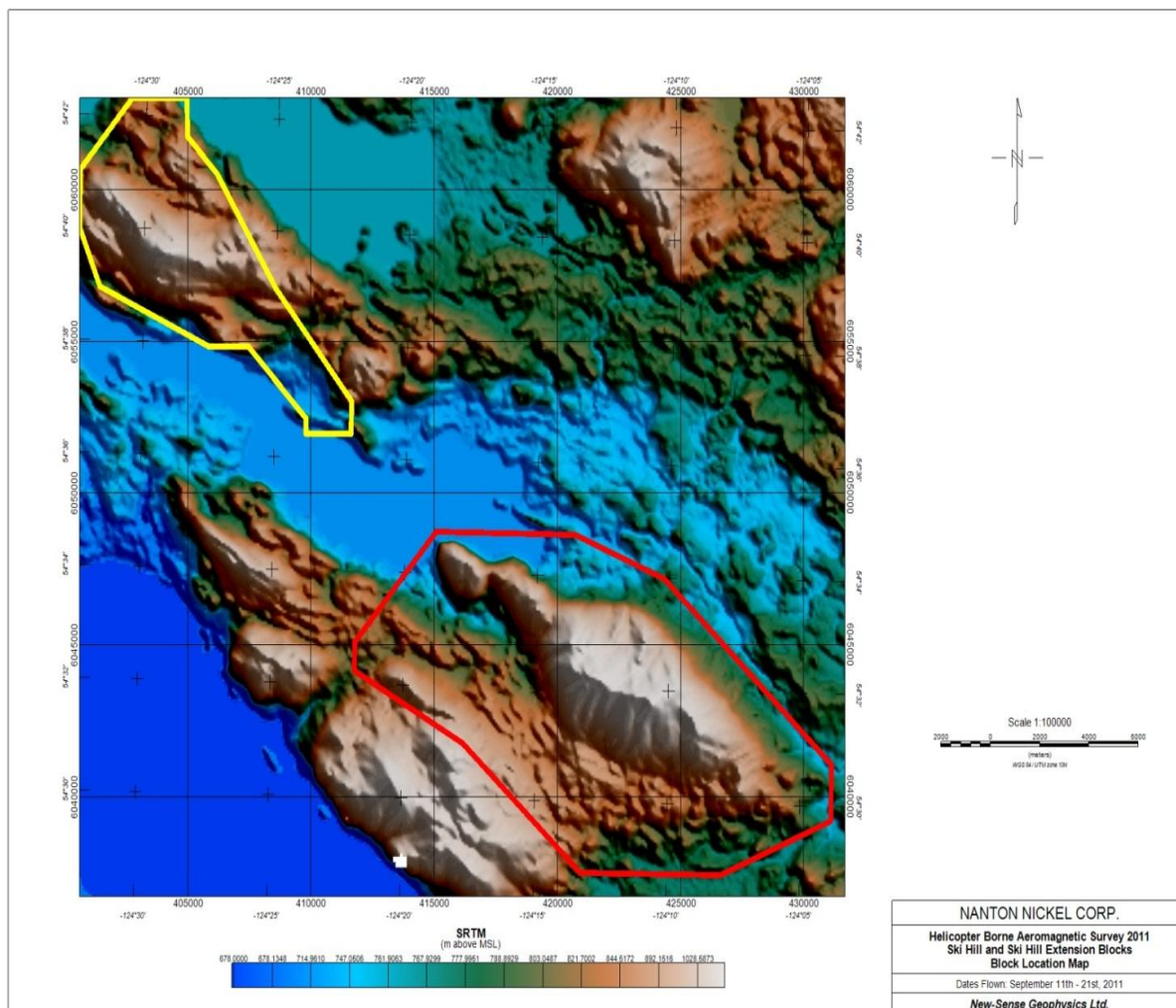
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### **AIRBORNE MAGNETIC SURVEY**

### **EPQUIPMENT SPECIFICATIONS AND PROCEDURES**

By

**New-Sense Geophysics Ltd.**



Map depicting the outlines of the two surveyed areas, southeast block in red and northwest block in yellow. Coordinate system is WGS84 UTM Zone 10N and UTM grid cell is 5km.

## **AIRBORNE MAGNETIC SURVEY EQUIPMENT SPECIFICATIONS AND PROCEDURES**

### **Airborne Geophysical System**

Magnetometer - One Scintrex CS-3 optically pumped Cesium split beam sensor was mounted in a fixed stinger assembly. The magnetometer's Larmor frequency output was processed by a KMAG-4 magnetometer counter, which provides a resolution of 0.15 ppm (in a magnetic field of 50,000 nT, resolution equivalent to 0.0075 nT). The raw magnetic data was recorded at 50 Hz, anti-aliased with 51 point COSINE filter and resampled at 10 Hz.

Magnetic Compensation - The proximity of the aircraft to the magnetic sensor creates a measurable anomalous response as a result of the aircraft's movement. The orientation of the aircraft with respect to the sensor and the motion of the aircraft through the earth's magnetic field are contributing factors to the strength of this response. A special calibration flight, Figure of Merit (i.e., FOM), was flown to record the information necessary to compensate for these effects.

The FOM maneuvers consist of a series of calibration lines flown at high altitude to gain information in each of the required line directions. During this procedure, pitch, roll and yaw maneuvers are performed on the aircraft (typical angle ranges are 10° pitch, 10° roll, and 10° yaw). Each variation is conducted three times in succession (first pitch, then roll, then yaw), providing a complete picture of the aircraft's effects at designated headings in all orientations.

A three-axis Bartington fluxgate magnetometer (recorded at 50 Hz) was used to measure the orientation and rates of change of the magnetic field of the aircraft, away from localized terrestrial magnetic anomalies. The QC Tools digital compensation algorithm was then applied to generate a correction factor to compensate for permanent, induced, and eddy current magnetic responses generated by the aircraft's movements.

GPS Navigation - A NovAtel state of the art OEM628 GPS board was used for navigation and flight path recovery. The OEM628 is designed with NovAtel's new 120 channel ASIC, which tracks all current and upcoming GNSS constellations and satellite signals including GPS, GLONASS, Galileo and Compass. The channels were configured for GPS: L1, L2.

Altimeter - A TRA 3500 radar altimeter was mounted inside the stinger. This instrument operates with a linear performance over the range of 0 to 2,500 feet and records the terrain clearance of the sensors. The raw radar altimeter data was recorded at 50 Hz, anti-aliased with a 21 point COSINE filter and re-sampled at 10 Hz.

Geophysical Flight Control System - New-Sense's iNAV V4 geophysical flight control system monitored and recorded magnetometer, altimeter, and GPS equipment performance. Input from the various sensors was monitored every 0.005 seconds for the

precise coordination of geophysical and positional measurements. The input was recorded fifty times per second (ten times per second in the case of GPS data). GPS positional coordinates and terrain clearance were presented to the pilot by means of a panel mounted LCD indicator display. The magnetometer response, fluxgate profiles, and altimeter profiles were also available via a netbook computer via Ethernet cable, for real-time monitoring of equipment performance.

IDAS Digital Recording - The output of the CS-3 magnetometer, fluxgate magnetometer, altimeter, GPS coordinates, and time (system and GPS), were recorded digitally on a solid state drive (SSD) at a sample rate of fifty times per second (ten times per second for GPS) by the NSG iNAV system.

## **GROUND MONITORING SYSTEM**

Base Station Magnetometer - A Scintrex CS-3 optically pumped cesium split beam sensor was used at the base of operations within the airport boundaries, in an area of low magnetic gradient and low/free from cultural electric & magnetic noise sources. The sensitivity and absolute accuracy of the ground magnetometer is +/- 0.01 nT. The magnetic data was recorded continuously at 50Hz (re-sampled to 1 Hz using; 1 sec equivalent 51 point low pass filter) throughout all survey operations in digital form on an iDAS V3 data acquisition system. Both the ground and airborne magnetic readings were synchronized using GPS clocks.

Recording - The output of the magnetic and GPS monitors was recorded digitally on an iDAS V3 data acquisition system. A visual record of the last three hours was graphically maintained on the computer screen to provide an up to date appraisal of magnetic activity. At the conclusion of each production flight, the raw GPS and magnetic data were transferred to the main field compilation computer via Compact Flash disk drive.

## **FIELD COMPILATION SYSTEM**

A field laptop computer was used for field data processing and presentation. The raw data was imported to Geosoft Oasis montaj for QA/QC and processing purposes. After the data was checked for quality control, the database with uncompensated magnetic readings was exported to QC Tools software package for magnetic compensation and base station data merging purposes. The compensated database was then imported back to Oasis for the subsequent and final processing.

## **OPERATIONS AND PROCEDURES**

Flight Planning and Flight Path -The block outline coordinates were used to generate pre-calculated navigation files. The navigation files were used to plan flights at the designated traverse line spacing of 200 meters and control lines of 2000. Preliminary flight path maps and magnetic maps were plotted and updated, to monitor coverage of the survey area.

Base Station - The magnetic base station was established in magnetically quiet area at the camp site at latitude: 54.393547; Longitude: -124.255659. The base station readings were monitored to ensure that the diurnal variation were within the peak-to-peak envelope of 20 nT from a long chord distance equivalent to a period of two minutes.

Airborne Magnetometers - The FOM test of the performance of the CS-3 and fluxgate magnetometers was performed on September 12<sup>th</sup>, 2011 in order to monitor the ability of the system to remove the effects of aircraft motion on the magnetic measurement.

The FOM maneuvers consisted of a series of calibration lines flown at high altitude (10,000+ ft above sea level) to gain information in each of the required line directions. During this procedure, pitch, roll, and yaw maneuvers were performed on the aircraft.

The following ranges were used: Pitch: 10-15<sup>o</sup>, Roll: 10-15<sup>o</sup> Yaw: 10-15<sup>o</sup> The total FOM noise was 1.05nT with an envelope of 0.13nT.

Data Compilation - Data recorded by the airborne and base station systems was transferred to the field compilation system. As each flight was completed, the following compilation operations were carried out:

Flight Path Corrections - The navigational correction process yields a flight path expressed in WGS84, World, UTM Zone 10N.

Filtering and Compensation - The raw 50Hz magnetic data were filtered, along with the fluxgate magnetometer data, with a 51 cosine anti-aliasing algorithm and re-sampled at 10 Hz.

The filtered and re-sampled data were stored in the MAG\_FILT channel.

Then the MAG\_FILT data were compensated for permanent, induced, and eddy current magnetic noise generated by the aircraft using data from the fluxgate magnetometer error. The compensated magnetic data were then stored in the MAG\_COMP channel.

Diurnal Corrections - The compensated magnetic data were adjusted to account for diurnal variations. When the magnetic variations recorded at the base station recognized to be caused by man-made sources, (such as equipment, vehicles passing by the sensor), they were removed and gaps interpolated.

The diurnal data were recorded at 50Hz and filtered with a (31-point equivalent 1Hz) low pass filter. The filtered data were then subtracted directly from the aeromagnetic measurements to provide a first order diurnal correction.

After base station removal, the total magnetic field values become very small. To bring the total magnetic measurements back to 'normal' values, project averages (i.e., Ski Hill:

56,842.70 nT; Ski Hill Extension: 56,831.40 nT) from the base station readings were added back to the magnetic data.

The resulting base station corrected data were stored in the MAG\_DIURNAL\_CORR channel.

Heading Corrections - Optically pumped magnetic sensors have an inherent heading error, typically 1 to 2 nT peak-to-peak, as the sensor is rotated through 360 degrees. On flight line directions of the opposite heading, the affect is reasonably predictable.

A heading test flight was flown at magnetically quite area (same area as the FOM lines) at 10,000+ ft above sea level altitude. Test was performed on September 12<sup>th</sup>, 2011 with the following results:

#### Heading Test flight results

Direction (deg.)	Mean on line (nT)	Mean in direction (nT)	Mean on heading (nT)	Error (nT)
360	56606.18	56606.96	56608.35	1.39
360	56607.74			
180	56609.32	56609.74	56608.35	-1.39
180	56610.16			
90	56591.55	56591.63	56597.76	6.13
90	56591.71			
270	56603.13	56603.89	56597.76	-6.13
270	56604.65			

The heading corrected data were stored in the MAG\_HEADING\_CORR channel.

Lag Corrections - There are two potential types of Lag offsets when collecting airborne data: time lag and distance lag.

NSG insures that there is no time lag in the data acquisition system by recording unique markers every 1-second based on the GPS time stamp (associated with the EXACT change in GPS positioning). This information is used to realign (if necessary) the individual data records.

The distance lag is determined by dividing the distance from the GPS antenna to the sensor head by the averaged sample rate distance.

$$5.3 / 4.3 = 1.23 \text{ records}$$

A lag correction of -1 records was applied to the MAG\_DIURNAL\_CORR channel and stored in the MAG\_LAG\_CORR channel.

**IGRF Corrections** - The total field strength of the International Geomagnetic Reference Field (IGRF, 2010 model) was calculated for every data point, based on the spot values of Latitude, Longitude and altitude. This IGRF was removed from the measured survey data on a point-by-point basis from the lag corrected channel.

After IGRF correction the total magnetic field values become negative. To bring the total magnetic measurements back to 'normal' values an average (i.e., Ski Hill: 56,738.94 nT; Ski Hill Extension: 56,745.92 nT) of IGRF values based on the whole project were added back to the magnetic data.

The IGRF corrections were applied to the MAG\_LAG\_CORR channel and stored in the MAG\_IGRF\_CORR channel.

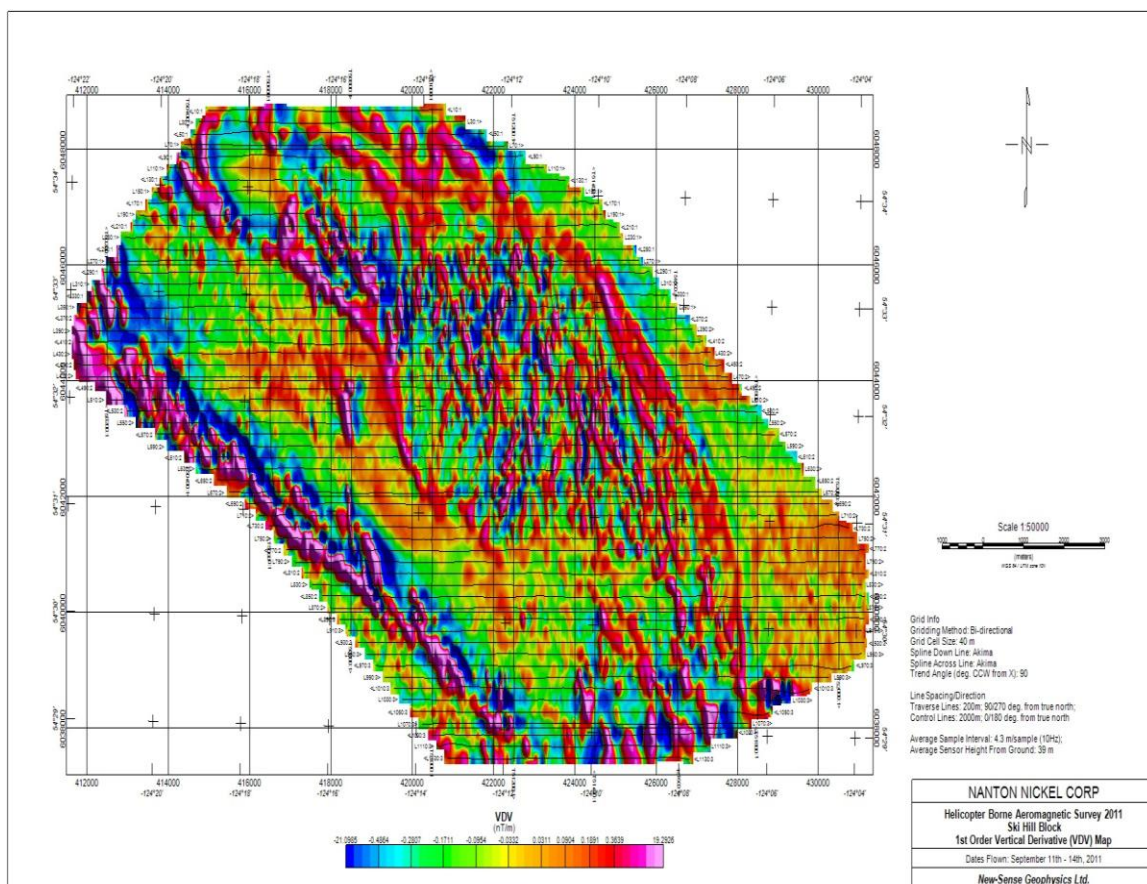
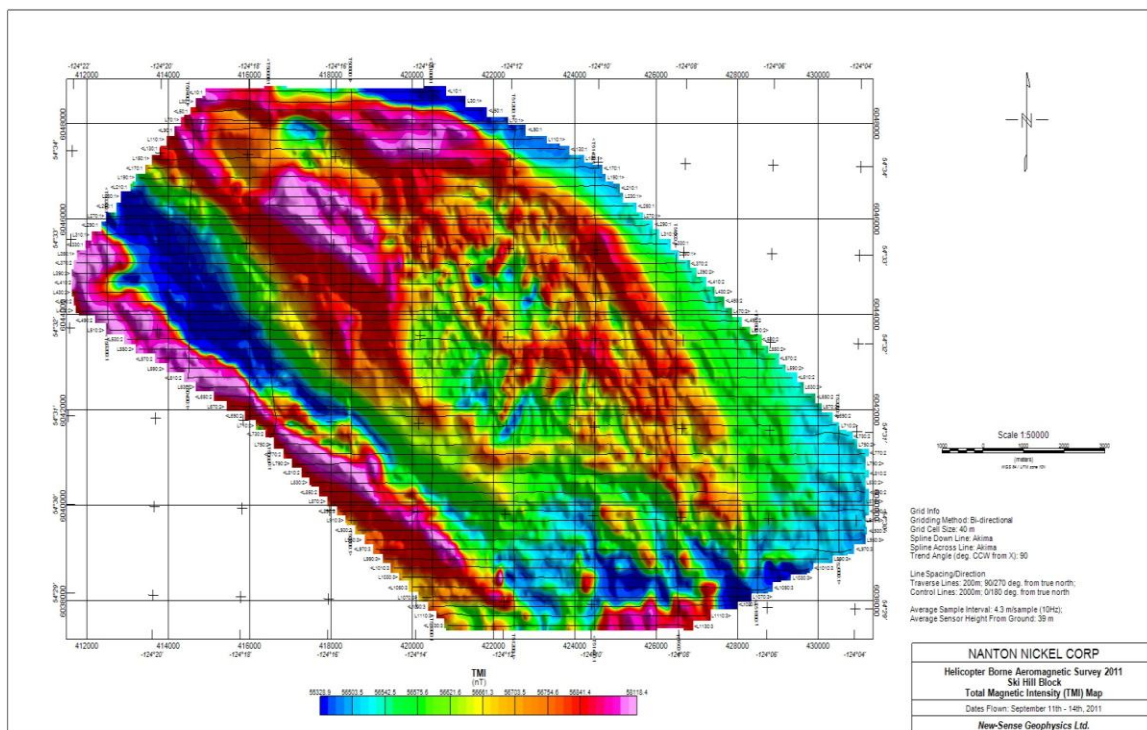
**Leveling Corrections** - After the data were corrected for IGRF, a survey traverse/control line intercepts array/matrix (i.e., Simple Leveling) was created for determining differences in magnetic field at the intersection points. The somewhat rugged terrain of the survey blocks, resulted in some line-to-line difference in altitude, and relatively strong magnetic anomalies made magnetic signal at some Traverse/Control line intersection points quite different. As a result, some of those intersection points needed to be manually adjusted in order to reduce line-to-line magnetic differences.

The resulting simple leveled magnetic data were stored in TMI\_FINAL channel.

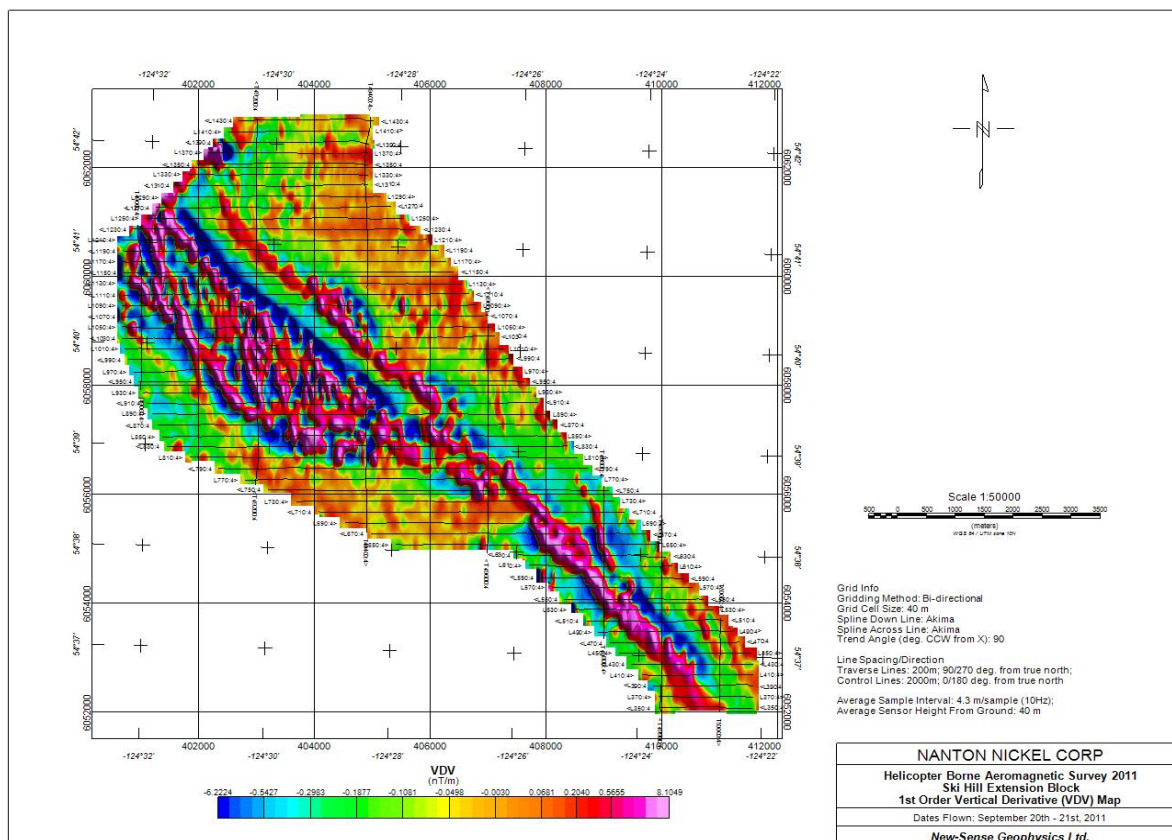
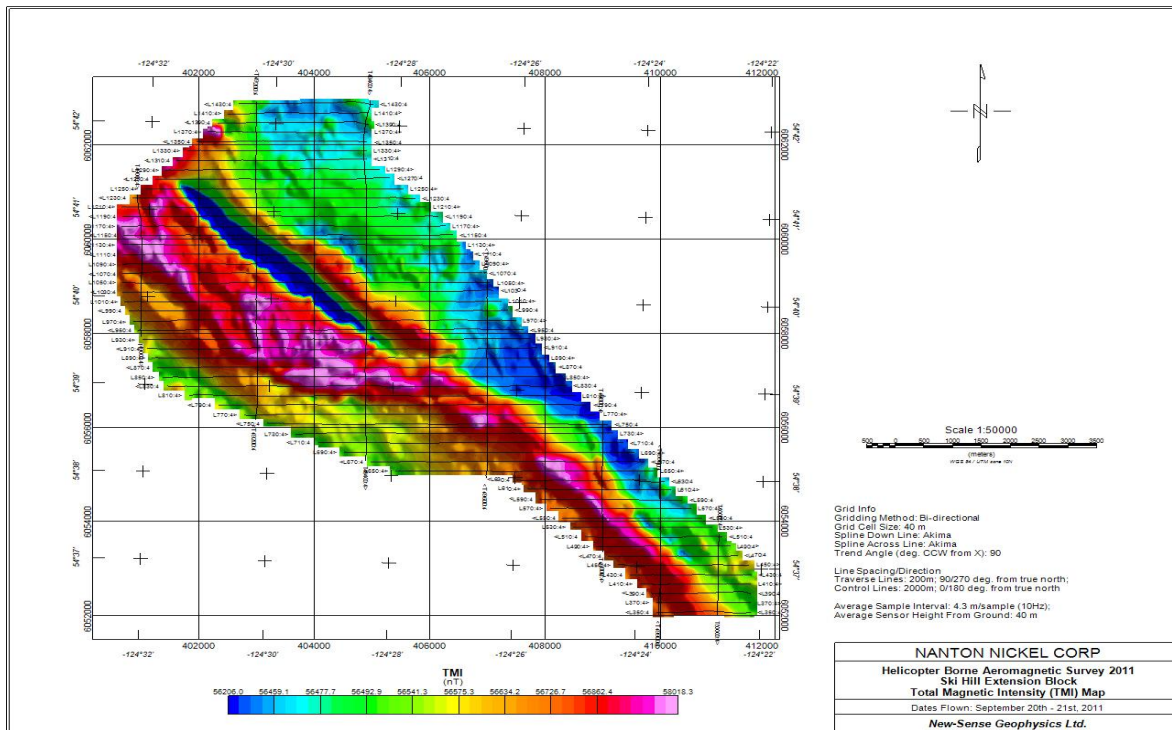
**Vertical Derivative (VDV)** - A 1-st Order Vertical Derivative (VDV) data was calculated based on the TMI\_FINAL channel and stored in the VDV channel.

**Gridding** - The final TMI and VDV grids were produced from the TMI\_FINAL, and VDV channels respectively.

The data were gridded using a bi-directional line gridding method with a grid cell size of 40 meters, Akima interpolation method for across and down line spline and trend angles perpendicular to those of traverse line directions (i.e., 90<sup>0</sup>).



TMI and VDV Maps, southeast.



TMI and VDV maps, northwest.

## **APENDIX II**

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ROCK SAMPLE DESCRIPTIONS AND NICKEL ANALYSIS

STREAM-SEDIMENT SAMPLE DESCRIPTIONS AND NICKEL ANALYSIS

Table 2. Rock Sample Description and Nickel Analysis.

Sample_ID	East_m	North_m	Sample Description	Ni_ppm
MRR-01	422342	6042011	MR ski hill area; yellow-brown weathered w/patchy red-brown, cg, dark green-brown ultramafic/harzburgite (peridotite), chloritized mafics, weakly magnetic	2202
MRR-02	422403	6042948	MR ski hill area; yellow-brown weathered w/patchy red-brown, cg, dark green-brown ultramafic/harzburgite, chloritized mafics	2141
MRR-03	421650	6043592	Ski hill area western side; dark green-brown, cg ultramafics, harzburgite	2155
MRR-04	422832	6046158	NW part of the intrusive; black weathered, dark green-brown, cg ultramafic, strongly fractured, rare black equant grains (chromite?)	2071
MRR-05	422845	6046165	Similar to MRR-04; locally strong white calcite on fractures	2128
MRR-06	423286	6043370	North of the Murray Ridge top; yellow-beige weathered, cg ultramafic	2259
MRR-07	423799	6044450	On the anomalous creek; dark grey weathered, dark green ultramafic/peridotite, trace specks of pentlandite?, weakly magnetic	2157
MRR-08	423953	6044696	On the high grade creek; red-brown weathered ultramafic	2268
MRR-09	424146	6044990	The same creek as above; a large outcrop (>100m) of yellow-beige to rusty brown ultramafic	2208
MRR-10	423684	6043212	Microwave towers; large outcrop area on the ridge top-dark green, cg harzburgite, yellow-green weathered with red-brown oxidized patches, strongly fractured, serpentinized fractures, weakly magnetic	2252
MRR-11	423652	6043116	South facing slope of MR/Microwave tower area; dark green, cg harzburgite	2223
MRR-12	423792	6043212	On the road heading down/east; similar to 50, dark green-brown ultramafic	2215
MRR-13	423912	6043233	On the road east; mg dark green ultramafic, rare pinhead silver specks (Ni-alloy?), non magnetic	2198
MRR-14	425278	6042924	On the microwave tower road, fg chloritized mafic?/ultramafic, serpentine on fractures, very weakly magnetic, speck of black metallic mineral chromite, non-magnetic	2228
MRR-15	425621	6042804	On the road; fg chloritized ultramafic? (mafic?- gabbro)	2115
MRR-16	426602	6042445	Microwave tower road; dark green ultramafic, rusty yellow beige weathering surface	2185
MRR-17	406282	6056703	Pinchi Lake area; sub-oc of extremely oxidized, rusty yellow orange, fractured ultramafic?, completely obliterated primary textures, narrow (<0.3-0.5cm) white quartz stringers	1626
MRR-18	405634	6056640	Pinchi Lake area, main access road; a small quarry, highly oxidized ultramafic, similar to 61, strongly crackled, numerous white random quartz veinlets and stockwork, 1-2% mariposite disseminations	1866
MRR-19	405634	6056640	Dark green, strongly chloritized and fracture-controlled serpentinized ultramafic	1981
MRR-20	403989	6056629	Medium-dark green, fg, locally augite phyric gabbro?/ultramafic, possibly basalt	37
MRR-21	403427	6056869	Strongly oxidized, rusty orange ultramafic, abundant white qtz stringers, strong crackle brecciation, mariposite in quartz and on fracture; medium grey, mg quartz diorite dyke (~1-1.5m width), poorly exposed contacts, rough trend N-S	1329
MRR-22	401521	6058990	Last sample at the NW part of the ultramafic on the road; medium to dark green, fg mafic to ultramafic, to 20% chloritized augite phenocrysts, minor calcite veinlets	61
MRR-23	427651	6039359	SE part of the large ultramafic intrusive; on the road of Germansen, a large outcrop of moderately serpentinized dark green, mg-cg ultramafic (harzburgite)	2143
MRR-24	427619	6039409	On the same road further north; ultramafic breccia with to 3-5% steel grey, vfg chromite?, weakly magnetic, serpentinized fractures	2053

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Sample_ID	East_m	North_m	Sample Description	Ni_ppm
MRR-25	427326	6039567	On the same road as above samples 71-73; serpentized (fractures) harzburgite	2227
MRR-26	426668	6040081	On the road further north; sub oc of chloritized and serpentized ultramafic, serpentine on fractures	2323
MRR-27	427510	6039173	On the Germansen North road; dark green, chloritized harzburgite, yellow-beige with red-brown oxidized patchy weathering surface, non-magnetic	2432
MRR-28	428899	6039279	On the Germansen North road; dark green, chloritized harzburgite, non-magnetic	2092
MRR-29	421888	6041613	MR skill hill area; rusty red brown oxidized and yellow, cg dark green ultramafic (harzburgite)	2084
MRR-30	422603	6041962	Ski hill area, dark green ultramafic, red-brown patchy and yellow weathering surface	2179
MRR-31	422772	6041802	MR ski hill; dark grey, fg-mg dark green ultramafic	2513

Table 3. Stream-sediment sample description and nickel analysis

Sample_ID	East_m	North_m	Ni_ppm	Site description	Comments
SSM-01	421536	6042946	830	MR ski hill, upstream of RGS 93K021427 (157 ppm Ni)	slow flowing, shallow slope, flat to <3 degrees, stagnant pools
SSM-02	424294	6038587	190	Downstream of RGS 93K021428 (155 ppm Ni)	to 1m, shallow slope, slow moving
SSM-03	422851	6046092	1262	North side of the MR, west of the 93K021429 creek	1.5m, medium fast flow, moderate flow in canyon like valley, ultramafic boulders
SSM-04	423203	6046396	1059	North side of the MR, west of the 93K021429 creek	1.5m, slow flow, low relief, flat to <2-3 degrees
SSM-05	423333	6043909	1498	SW extremity of 93K021429 creek (1247 ppm Ni)	0.5m, slow flow, moderate slop, lack of fines, ultramafic boulders
SSM-06	423815	6044493	1431	Highly anomalous creek (93K021429)	2m, shallow to moderate gradient, medium flow, mod coarse sand, ultramafic float
SSM-07	424172	6045028	1519	Highly anomalous creek (93K021429)	2m, small waterfall, mod to fast flow over cascades, lack of fines, ultramafic float
SSM-08	424570	6045500	1374	Highly anomalous creek (93K021429)	1.5m, slow moving, flat terrain
SSM-09	421860	6047098	713	Westernmost drainage north side of MR	0.8m, slow flowing, very gently north facing slope, abundant organics, vfg sand
SSM-10	421988	6047399	288	Westernmost drainage north side of MR	0.8 m average, flat terrain, slow flow to trickle, vfg sand+silt (clay?), organics?
SSM-11	424992	6045789	1280	Resample of RGS 93K021429 (1247 ppm Ni)	2m wide, shallow slope, moderate flow, gravel with sand+silt
SSM-12	425437	6045637	229	Adjacent creek east of RGS 93K021429	0.7 m, medium fast flow, underwater sandbars, abundant fines (vfg sand/silt)
SSM-13	427007	6044709	620	Another creek SE close to the road	0.8m, low gradient, slow flow, vfg sand+silt, minor <1cm pebbles, underwater bars
SSM-14	426914	6043041	139	Upstream of RGS 93K021430	0.4 m, flat-low slope, slow flow, all sand bars underwater, vfg sand/silt & organics
SSM-15	427136	6043119	457	Adjacent to (resample) RGS 93K021430 (545 ppm Ni)	<1.0m, very slow flow, flat terrain, no exposed sand bars, vfg sand+silt+organics?
SSM-16	426187	6042558	929	upslope of RGS 93K021430	dry creek, 0.5m wide, medium steep slope, north facing, sand+silt
SSM-17	406319	6056705	633	NW claim block-Pinchi Lake area	<0.5m, slow flow, gentle slope, lack of sand bars (all underwater), vfg sand+silt/organics
SSM-18	405446	6056665	782	NW claim block-Pinchi Lake area	1-2m, moderately fast flow, well developed sandbars, abundant fines
SSM-19	402820	6057369	172	NW-Pinchi Lake area, small creek, ~ NE (025) trend	0.5m, moderate-steep slope, fast flowing, fg sand+silt/clay

Sample_ID	East_m	North_m	Ni_ppm	Site description	Comments
SSM-20	402480	6057876	257	NW-Pinchi Lake area	0.8m, slow flow with stagnant pools, well formed sandbars, deep valley
SSM-21	420999	6041833	557	MR ski hill area	dry creek, 1-2 m wide, flat-very gently sloped south, sand+silt+pebbles
SSM-22	421058	6041855	573	MR ski hill area	dry creek, well developed steep sided drainage area, 0.8-1.0m width, flat to very gently sloped
SSM-23	421860	6041644	342	MR ski hill area	dry creek, 3-4m width rimmed by alders, flat, well formed silt-sand bars
SSM-24	421938	6041806	463	MR ski hill area	0.5-1.2 m, gently gradient, slow flowing, well formed sand-silt bars
SSM-25	423013	6042172	575	MR ski hill area	dry creek, gently sloped SSW, well formed silt-sand-pebble bars

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**APPENDIX III**

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**ASSAY CERTIFICATES**



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client: Nanton Nickel Corp.
800 - 1199 West Hastings St.
Vancouver BC V6E 3T5 Canada

Submitted By: Adam Cegielski
Receiving Lab: Canada-Vancouver
Received: November 08, 2011
Report Date: December 15, 2011
Page: 1 of 3

CERTIFICATE OF ANALYSIS

VAN11006051.1

CLIENT JOB INFORMATION

Project: Murray Ridge
Shipment ID:
P.O. Number
Number of Samples: 31

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

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

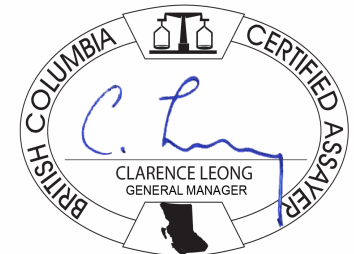
Invoice To: Nanton Nickel Corp.
800 - 1199 West Hastings St.
Vancouver BC V6E 3T5
Canada

CC: Dasha Duba

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 6 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Rows include R200-250, 1D01, and 1E.

ADDITIONAL COMMENTS



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



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 800 - 1199 West Hastings St.  
 Vancouver BC V6E 3T5 Canada

Project: Murray Ridge  
 Report Date: December 15, 2011

Page: 2 of 3 Part 1

CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001	
MRR-01	Rock	0.89	<1	6	<3	17	<0.3	2202	101	772	4.71	<2	<2	<2	<1	<0.5	<3	<3	12	0.14	0.003
MRR-02	Rock	0.55	<1	5	<3	15	<0.3	2141	98	754	4.56	<2	<2	<2	<1	<0.5	<3	<3	16	0.12	0.001
MRR-03	Rock	0.93	<1	2	<3	15	<0.3	2155	100	761	4.51	<2	<2	<2	<1	<0.5	<3	<3	11	0.12	<0.001
MRR-04	Rock	0.50	<1	10	<3	14	<0.3	2071	97	742	4.56	<2	<2	<2	1	<0.5	<3	<3	15	0.11	0.002
MRR-05	Rock	0.89	<1	7	<3	17	<0.3	2128	101	796	4.82	<2	<2	<2	<1	<0.5	<3	<3	20	0.03	0.002
MRR-06	Rock	0.78	<1	2	<3	14	<0.3	2259	100	767	4.76	<2	<2	<2	<1	<0.5	<3	<3	14	0.02	0.002
MRR-07	Rock	0.88	<1	13	<3	15	<0.3	2157	101	792	4.82	<2	<2	<2	<1	<0.5	<3	<3	16	0.11	<0.001
MRR-08	Rock	0.91	<1	6	<3	20	<0.3	2268	105	793	4.97	<2	<2	<2	<1	<0.5	<3	<3	12	0.09	<0.001
MRR-09	Rock	0.76	<1	3	<3	16	<0.3	2208	95	783	4.80	<2	<2	<2	<1	<0.5	<3	<3	21	0.07	0.003
MRR-10	Rock	1.13	<1	7	<3	16	<0.3	2252	102	766	4.77	<2	<2	<2	<1	<0.5	<3	<3	11	0.10	0.001
MRR-11	Rock	0.78	<1	9	<3	18	<0.3	2223	97	808	4.77	<2	<2	<2	<1	<0.5	<3	<3	20	0.03	<0.001
MRR-12	Rock	1.07	<1	3	<3	17	<0.3	2215	100	754	4.71	<2	<2	<2	<1	<0.5	<3	<3	10	0.11	<0.001
MRR-13	Rock	1.07	<1	4	<3	18	<0.3	2198	101	785	4.71	<2	<2	<2	<1	<0.5	<3	<3	11	0.04	<0.001
MRR-14	Rock	1.42	<1	2	<3	14	<0.3	2228	101	762	4.81	<2	<2	<2	<1	<0.5	<3	<3	13	0.05	<0.001
MRR-15	Rock	0.89	<1	3	<3	16	<0.3	2115	99	748	4.64	<2	<2	<2	<1	<0.5	<3	<3	20	0.02	<0.001
MRR-16	Rock	0.88	<1	3	<3	11	<0.3	2185	100	763	4.85	<2	<2	<2	<1	<0.5	<3	<3	21	0.01	<0.001
MRR-17	Rock	1.55	<1	7	<3	12	<0.3	1626	76	819	4.02	<2	<2	<2	22	<0.5	<3	<3	20	0.49	0.002
MRR-18	Rock	1.34	<1	6	<3	23	<0.3	1866	86	742	4.15	<2	<2	<2	9	<0.5	<3	<3	14	0.29	0.002
MRR-19	Rock	1.11	<1	20	<3	8	<0.3	1981	94	769	4.34	<2	<2	<2	10	<0.5	<3	<3	40	0.50	<0.001
MRR-20	Rock	1.07	<1	23	<3	122	<0.3	37	42	941	5.97	<2	<2	<2	196	0.7	<3	<3	93	2.37	0.200
MRR-21	Rock	1.49	<1	5	<3	15	<0.3	1329	59	337	3.03	5	<2	<2	85	<0.5	<3	<3	18	1.13	<0.001
MRR-22	Rock	0.82	1	36	<3	86	<0.3	61	37	859	7.82	<2	<2	<2	462	0.7	<3	<3	138	4.74	0.143
MRR-23	Rock	1.21	<1	7	<3	11	<0.3	2143	100	715	4.69	<2	<2	<2	<1	<0.5	<3	<3	16	0.04	0.001
MRR-24	Rock	1.03	<1	2	<3	14	<0.3	2053	98	735	4.55	<2	<2	<2	12	<0.5	<3	<3	14	0.56	0.001
MRR-25	Rock	1.10	<1	3	<3	14	<0.3	2227	105	847	4.98	<2	<2	<2	<1	<0.5	<3	<3	12	0.02	0.004
MRR-26	Rock	0.69	<1	24	<3	16	<0.3	2323	111	830	4.41	<2	<2	<2	26	0.5	<3	<3	44	0.69	<0.001
MRR-27	Rock	1.04	<1	3	<3	17	<0.3	2432	108	790	5.08	<2	<2	<2	1	<0.5	<3	<3	7	0.06	0.003
MRR-28	Rock	0.88	<1	3	<3	13	<0.3	2092	98	755	4.72	<2	<2	<2	8	<0.5	<3	<3	18	0.51	<0.001
MRR-29	Rock	1.53	<1	8	<3	18	<0.3	2084	97	726	4.53	<2	<2	<2	<1	<0.5	<3	<3	11	0.15	0.005
MRR-30	Rock	1.02	<1	9	<3	16	<0.3	2179	97	710	4.58	<2	<2	<2	<1	<0.5	<3	<3	8	0.08	0.003

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Project: Murray Ridge  
 Report Date: December 15, 2011

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CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	Analyte	Unit	MDL	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1E	1E	1E	1E	1E	1E	1E			
				La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Mo	Cu	Pb	Zn	Ag	Ni	Co	
				ppm	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
				1	1	0.01	1	0.001	20	0.01	0.01	0.01	0.01	2	0.05	5	5	2	2	5	2	0.5	2	2
MRR-01	Rock			2	339	22.38	5	<0.001	<20	0.10	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	28	<0.5	2235	106	
MRR-02	Rock			2	428	22.38	1	<0.001	<20	0.11	<0.01	<0.01	<2	<0.05	5	<5	<2	<2	<5	26	<0.5	2315	104	
MRR-03	Rock			2	333	22.76	<1	<0.001	<20	0.08	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	24	<0.5	2296	104	
MRR-04	Rock			2	489	23.16	2	<0.001	<20	0.15	<0.01	<0.01	<2	<0.05	5	<5	<2	2	<5	25	<0.5	2211	100	
MRR-05	Rock			2	637	22.32	1	<0.001	<20	0.18	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	29	<0.5	2324	106	
MRR-06	Rock			2	474	22.71	4	<0.001	<20	0.13	<0.01	<0.01	<2	<0.05	5	<5	<2	<2	<5	25	<0.5	2374	108	
MRR-07	Rock			2	442	22.99	2	<0.001	<20	0.14	<0.01	<0.01	<2	<0.05	5	<5	<2	6	<5	29	<0.5	2234	107	
MRR-08	Rock			2	373	23.16	1	<0.001	<20	0.09	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	33	<0.5	2273	106	
MRR-09	Rock			2	801	21.77	5	<0.001	<20	0.27	<0.01	<0.01	<2	<0.05	5	<5	<2	<2	<5	34	<0.5	2295	105	
MRR-10	Rock			2	311	23.04	<1	<0.001	<20	0.08	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	26	<0.5	2316	106	
MRR-11	Rock			2	572	22.85	2	<0.001	<20	0.15	<0.01	<0.01	<2	<0.05	7	<5	<2	3	<5	33	<0.5	2342	102	
MRR-12	Rock			2	268	22.64	2	<0.001	<20	0.07	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	28	<0.5	2381	109	
MRR-13	Rock			2	323	22.38	2	<0.001	<20	0.08	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	28	<0.5	2340	106	
MRR-14	Rock			2	392	23.07	<1	<0.001	<20	0.10	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	27	<0.5	2439	112	
MRR-15	Rock			2	579	22.41	1	<0.001	<20	0.17	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	29	<0.5	2349	108	
MRR-16	Rock			2	663	21.93	3	<0.001	<20	0.16	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	25	<0.5	2373	112	
MRR-17	Rock			1	514	16.31	55	<0.001	61	0.07	0.02	<0.01	<2	<0.05	6	<5	<2	5	<5	37	<0.5	1771	89	
MRR-18	Rock			1	483	16.44	19	<0.001	83	0.05	0.02	<0.01	<2	<0.05	6	<5	<2	<2	<5	34	<0.5	2075	95	
MRR-19	Rock			1	1352	21.31	12	0.002	142	0.58	<0.01	<0.01	<2	<0.05	10	<5	<2	14	<5	48	<0.5	2120	101	
MRR-20	Rock			14	2	1.86	432	0.359	<20	2.78	0.05	0.04	<2	<0.05	<5	14	<2	25	<5	134	<0.5	42	36	
MRR-21	Rock			<1	734	10.52	66	0.001	<20	0.06	0.02	<0.01	<2	<0.05	<5	<5	<2	2	<5	28	<0.5	1480	66	
MRR-22	Rock			14	25	1.44	131	0.418	<20	3.24	0.02	0.18	<2	<0.05	7	14	<2	38	5	99	<0.5	68	30	
MRR-23	Rock			2	530	22.53	6	0.001	<20	0.10	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	22	<0.5	2225	106	
MRR-24	Rock			2	389	21.57	15	<0.001	<20	0.11	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	26	<0.5	2196	105	
MRR-25	Rock			2	501	24.04	5	<0.001	<20	0.10	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	27	<0.5	2383	109	
MRR-26	Rock			2	2092	19.96	29	0.004	<20	0.70	<0.01	<0.01	<2	<0.05	11	<5	<2	18	<5	47	<0.5	2595	121	
MRR-27	Rock			2	192	23.45	4	<0.001	<20	0.05	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	30	<0.5	2575	117	
MRR-28	Rock			2	542	22.06	9	<0.001	<20	0.14	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	27	<0.5	2250	104	
MRR-29	Rock			2	293	21.75	7	<0.001	<20	0.11	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	34	<0.5	2314	110	
MRR-30	Rock			2	212	21.66	1	<0.001	<20	0.06	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	29	<0.5	2398	109	

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CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	Analyte	Unit	MDL	1E Mn	1E Fe	1E As	1E U	1E Au	1E Th	1E Sr	1E Cd	1E Sb	1E Bi	1E V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na
				ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%
				5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002	2	2	0.01	1	0.01	0.01	0.01
MRR-01	Rock			886	5.35	<5	<20	<4	<2	<2	<0.4	<5	<5	28	0.48	<0.002	<2	615	23.35	6	<0.01	0.25	<0.01
MRR-02	Rock			881	5.37	<5	<20	<4	<2	<2	<0.4	<5	<5	25	0.39	<0.002	<2	501	23.60	3	<0.01	0.21	<0.01
MRR-03	Rock			841	5.11	<5	<20	<4	<2	<2	<0.4	<5	<5	14	0.19	<0.002	<2	314	22.92	<1	<0.01	0.09	<0.01
MRR-04	Rock			843	5.24	<5	<20	<4	<2	<2	<0.4	<5	<5	24	0.29	<0.002	<2	519	23.65	2	<0.01	0.21	<0.01
MRR-05	Rock			905	5.64	<5	<20	<4	<2	<2	<0.4	<5	<5	29	0.24	<0.002	<2	821	23.35	1	<0.01	0.24	<0.01
MRR-06	Rock			818	5.21	<5	<20	<4	<2	<2	<0.4	<5	<5	16	0.05	<0.002	<2	454	22.79	5	<0.01	0.15	<0.01
MRR-07	Rock			866	5.30	<5	<20	<4	<2	<2	0.5	<5	<5	26	0.37	<0.002	<2	692	22.37	3	<0.01	0.25	<0.01
MRR-08	Rock			851	5.33	<5	<20	<4	<2	<2	0.4	<5	<5	22	0.25	<0.002	<2	754	23.28	1	<0.01	0.18	<0.01
MRR-09	Rock			852	5.30	<5	<20	<4	<2	<2	<0.4	<5	<5	31	0.24	<0.002	<2	1098	22.13	5	<0.01	0.40	<0.01
MRR-10	Rock			840	5.28	<5	<20	<4	<2	<2	<0.4	<5	<5	19	0.28	<0.002	<2	426	23.38	1	<0.01	0.15	<0.01
MRR-11	Rock			864	5.31	<5	<20	<4	<2	<2	<0.4	<5	<5	26	0.09	<0.002	<2	836	22.66	2	<0.01	0.19	<0.01
MRR-12	Rock			865	5.44	<5	<20	<4	<2	<2	<0.4	<5	<5	20	0.28	<0.002	<2	433	23.90	2	<0.01	0.15	<0.01
MRR-13	Rock			846	5.22	<5	<20	<4	<2	<2	<0.4	<5	<5	14	0.08	<0.002	<2	377	22.98	2	<0.01	0.10	<0.01
MRR-14	Rock			845	5.38	<5	<20	<4	<2	<2	<0.4	<5	<5	20	0.27	<0.002	<2	526	24.36	<1	<0.01	0.16	<0.01
MRR-15	Rock			841	5.30	<5	<20	<4	<2	<2	0.5	<5	<5	25	0.08	<0.002	<2	531	23.18	2	<0.01	0.23	<0.01
MRR-16	Rock			826	5.44	<5	<20	<4	<2	<2	<0.4	<5	<5	29	0.08	<0.002	<2	740	22.78	3	<0.01	0.20	<0.01
MRR-17	Rock			880	4.59	<5	<20	<4	<2	26	<0.4	<5	<5	29	0.50	<0.002	<2	943	16.92	80	<0.01	0.36	0.04
MRR-18	Rock			810	4.81	<5	<20	4	<2	13	<0.4	<5	<5	19	0.30	<0.002	<2	815	17.38	37	<0.01	0.22	0.04
MRR-19	Rock			856	4.90	<5	<20	<4	<2	11	<0.4	<5	<5	49	0.60	<0.002	<2	1358	21.43	13	<0.01	0.61	<0.01
MRR-20	Rock			1100	7.78	<5	<20	<4	3	293	1.5	<5	<5	250	4.52	0.238	24	9	1.99	465	2.39	7.08	4.35
MRR-21	Rock			366	3.44	<5	<20	<4	<2	100	<0.4	<5	<5	24	1.24	<0.002	<2	1459	10.80	113	<0.01	0.33	0.04
MRR-22	Rock			917	8.51	<5	<20	<4	<2	554	0.7	<5	<5	310	6.13	0.218	19	42	1.63	151	2.15	6.98	2.39
MRR-23	Rock			732	4.97	<5	<20	<4	<2	<2	<0.4	<5	<5	19	0.05	<0.002	2	536	22.31	8	<0.01	0.13	<0.01
MRR-24	Rock			770	4.89	<5	<20	<4	<2	13	<0.4	<5	<5	18	0.65	<0.002	2	446	21.26	17	<0.01	0.15	<0.01
MRR-25	Rock			903	5.45	<5	<20	4	<2	<2	<0.4	<5	<5	17	0.04	<0.002	<2	801	23.55	6	<0.01	0.12	<0.01
MRR-26	Rock			989	5.10	<5	<20	<4	<2	28	<0.4	<5	<5	51	0.89	<0.002	<2	1725	20.66	31	<0.01	0.72	<0.01
MRR-27	Rock			838	5.50	<5	<20	<4	<2	2	<0.4	<5	<5	13	0.14	<0.002	<2	698	23.61	6	<0.01	0.11	<0.01
MRR-28	Rock			812	5.18	<5	<20	<4	<2	8	<0.4	<5	<5	27	0.65	<0.002	<2	773	23.02	10	<0.01	0.21	<0.01
MRR-29	Rock			905	5.41	<5	<20	<4	<2	<2	<0.4	<5	<5	36	0.80	0.002	2	919	23.40	7	<0.01	0.37	<0.01
MRR-30	Rock			875	5.52	<5	<20	<4	<2	<2	<0.4	<5	<5	24	0.38	<0.002	2	653	24.08	2	<0.01	0.22	<0.01

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Project: Murray Ridge  
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# CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	Analyte	Unit	MDL	1E K	1E W	1E Zr	1E Sn	1E Y	1E Nb	1E Be	1E Sc	1E S
				%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
				0.01	4	2	2	2	2	1	1	0.1
MRR-01	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-02	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-03	Rock			<0.01	<4	<2	<2	<2	<2	<1	6	<0.1
MRR-04	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-05	Rock			<0.01	<4	<2	<2	<2	<2	<1	9	<0.1
MRR-06	Rock			<0.01	<4	<2	<2	<2	<2	<1	6	<0.1
MRR-07	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-08	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-09	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-10	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-11	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-12	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-13	Rock			<0.01	<4	<2	<2	<2	<2	<1	5	<0.1
MRR-14	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-15	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-16	Rock			<0.01	<4	<2	<2	<2	<2	<1	8	<0.1
MRR-17	Rock			0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-18	Rock			0.01	5	<2	<2	<2	<2	<1	7	<0.1
MRR-19	Rock			<0.01	<4	<2	<2	<2	<2	<1	10	<0.1
MRR-20	Rock			0.14	<4	242	3	30	34	1	18	<0.1
MRR-21	Rock			0.04	<4	2	<2	<2	<2	<1	4	<0.1
MRR-22	Rock			0.79	<4	80	<2	21	29	1	16	<0.1
MRR-23	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-24	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-25	Rock			<0.01	<4	<2	<2	<2	<2	<1	6	<0.1
MRR-26	Rock			<0.01	<4	<2	<2	<2	<2	<1	11	<0.1
MRR-27	Rock			<0.01	<4	<2	<2	<2	<2	<1	5	<0.1
MRR-28	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
MRR-29	Rock			<0.01	<4	<2	<2	<2	<2	<1	9	<0.1
MRR-30	Rock			<0.01	<4	<2	<2	<2	<2	<1	7	<0.1



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**Report Date:** December 15, 2011

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# CERTIFICATE OF ANALYSIS

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Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001	
MRR-31	Rock	1.20	<1	2	<3	12	<0.3	2513	112	658	4.39	<2	<2	<2	<1	<0.5	<3	<3	2	0.05	0.002



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**CERTIFICATE OF ANALYSIS**

**VAN11006051.1**

Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1E	1E	1E	1E	1E	1E	1E		
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Mo	Cu	Pb	Zn	Ag	Ni	Co		
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
MDL	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5	2	2	5	2	0.5	2	2		
MRR-31	Rock	2	40	25.31	3	<0.001	<20	<0.01	<0.01	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	21	<0.5	2712	122



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CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
Analyte	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na	
Unit	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	
MDL	5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002	2	2	0.01	1	0.01	0.01	0.01	
MRR-31	Rock	702	4.81	<5	<20	<4	<2	<2	<0.4	<5	<5	3	0.06	<0.002	2	241	26.37	3	<0.01	0.01	<0.01



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**Report Date:** December 15, 2011

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CERTIFICATE OF ANALYSIS

VAN11006051.1

Method	1E	1E	1E	1E	1E	1E	1E	1E	1E	
Analyte	K	W	Zr	Sn	Y	Nb	Be	Sc	S	
Unit	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	4	2	2	2	2	1	1	0.1	
MRR-31	Rock	<0.01	<4	<2	<2	<2	<2	<1	2	<0.1



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QUALITY CONTROL REPORT

VAN11006051.1

Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001	
Pulp Duplicates																					
REP G1	QC																				
MRR-24	Rock	1.03	<1	2	<3	14	<0.3	2053	98	735	4.55	<2	<2	<2	12	<0.5	<3	<3	14	0.56	0.001
REP MRR-24	QC		<1	2	<3	13	<0.3	2080	97	739	4.60	<2	<2	<2	12	<0.5	<3	<3	14	0.55	0.001
Core Reject Duplicates																					
MRR-03	Rock	0.93	<1	2	<3	15	<0.3	2155	100	761	4.51	<2	<2	<2	<1	<0.5	<3	<3	11	0.12	<0.001
DUP MRR-03	QC		<1	2	<3	15	<0.3	2163	101	771	4.55	<2	<2	<2	<1	<0.5	<3	<3	11	0.12	0.001
Reference Materials																					
STD DS8	Standard		13	110	125	342	1.6	38	7	645	2.56	26	<2	6	70	2.4	4	6	41	0.76	0.078
STD OREAS24P	Standard																				
STD OREAS45CA	Standard		2	508	20	59	<0.3	249	87	894	15.95	<2	<2	8	14	0.5	<3	<3	203	0.42	0.038
STD OREAS45C	Standard																				
STD DS8 Expected		13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	0.107	6.89	67.7	2.38	4.8	6.67	41.1	0.7	0.08	
STD OREAS45CA Expected		1	494	20	60	0.275	240	92	943	15.69	3.8	0.043	7	15	0.1	0.13	0.19	215	0.4265	0.0385	
STD OREAS24P Expected																					
STD OREAS45C Expected																					
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001
BLK	Blank																				
Prep Wash																					
G1	Prep Blank		<1	3	<3	52	<0.3	7	4	576	2.02	<2	<2	7	67	<0.5	<3	<3	42	0.55	0.078
G1	Prep Blank		<1	3	<3	50	<0.3	7	4	575	2.10	<2	<2	6	67	<0.5	<3	<3	39	0.56	0.080
G1	Prep Blank																				



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QUALITY CONTROL REPORT

VAN11006051.1

Method	Analyte	Unit	MDL	1D La ppm	1D Cr ppm	1D Mg %	1D Ba ppm	1D Ti %	1D B ppm	1D Al %	1D Na %	1D K %	1D W ppm	1D S %	1D Sc ppm	1D Ga ppm	1E Mo ppm	1E Cu ppm	1E Pb ppm	1E Zn ppm	1E Ag ppm	1E Ni ppm	1E Co ppm
Pulp Duplicates																							
REP G1	QC																<2	3	11	55	<0.5	7	3
MRR-24	Rock			2	389	21.57	15	<0.001	<20	0.11	<0.01	<0.01	<2	<0.05	6	<5	<2	<2	<5	26	<0.5	2196	105
REP MRR-24	QC			2	383	21.77	14	<0.001	<20	0.11	<0.01	<0.01	<2	<0.05	6	<5							
Core Reject Duplicates																							
MRR-03	Rock			2	333	22.76	<1	<0.001	<20	0.08	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	24	<0.5	2296	104
DUP MRR-03	QC			2	334	23.05	<1	<0.001	<20	0.07	<0.01	<0.01	<2	<0.05	<5	<5	<2	<2	<5	23	<0.5	2240	102
Reference Materials																							
STD DS8	Standard			16	120	0.58	303	0.116	<20	0.99	0.10	0.44	<2	0.17	<5	<5							
STD OREAS24P	Standard																2	45	<5	116	<0.5	145	37
STD OREAS45CA	Standard			16	751	0.08	151	0.139	<20	3.81	<0.01	0.08	<2	<0.05	47	17							
STD OREAS45C	Standard																3	591	21	83	<0.5	328	94
STD DS8 Expected				14.6	115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.1679	2.3	4.7							
STD OREAS45CA Expected				15.9	709	0.1358	164	0.128		3.592	0.0075	0.0717		0.021									
STD OREAS24P Expected																	1.5	52	2.9	119	0.06	141	44
STD OREAS45C Expected																	2.26	620	24	83	0.28	333	104
BLK	Blank			<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5							
BLK	Blank																<2	<2	<5	<2	<0.5	<2	<2
Prep Wash																							
G1	Prep Blank			16	9	0.53	166	0.132	<20	0.95	0.09	0.49	<2	<0.05	<5	11	<2	3	10	56	<0.5	7	3
G1	Prep Blank			15	8	0.58	181	0.128	<20	0.99	0.10	0.53	<2	<0.05	<5	8							
G1	Prep Blank																<2	3	9	57	<0.5	7	3



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QUALITY CONTROL REPORT

VAN11006051.1

Method	Analyte	1E Mn	1E Fe	1E As	1E U	1E Au	1E Th	1E Sr	1E Cd	1E Sb	1E Bi	1E V	1E Ca	1E P	1E La	1E Cr	1E Mg	1E Ba	1E Ti	1E Al	1E Na
Unit		ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%
MDL		5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002	2	2	0.01	1	0.01	0.01	0.01
Pulp Duplicates																					
REP G1	QC	709	2.19	<5	<20	<4	8	742	<0.4	<5	<5	49	2.27	0.082	27	9	0.62	1151	0.24	7.21	2.66
MRR-24	Rock	770	4.89	<5	<20	<4	<2	13	<0.4	<5	<5	18	0.65	<0.002	2	446	21.26	17	<0.01	0.15	<0.01
REP MRR-24 QC																					
Core Reject Duplicates																					
MRR-03	Rock	841	5.11	<5	<20	<4	<2	<2	<0.4	<5	<5	14	0.19	<0.002	<2	314	22.92	<1	<0.01	0.09	<0.01
DUP MRR-03	QC	818	4.97	<5	<20	<4	<2	<2	<0.4	<5	<5	14	0.19	<0.002	<2	271	22.75	<1	<0.01	0.10	<0.01
Reference Materials																					
STD DS8	Standard																				
STD OREAS24P	Standard	1075	7.37	<5	<20	<4	<2	382	0.8	<5	<5	158	5.43	0.137	16	183	4.03	279	1.04	7.50	2.44
STD OREAS45CA	Standard																				
STD OREAS45C	Standard	1101	17.87	11	<20	<4	6	35	0.5	<5	<5	268	0.47	0.051	22	950	0.21	270	1.16	6.94	0.10
STD DS8 Expected																					
STD OREAS45CA Expected																					
STD OREAS24P Expected		1100	7.53	1.2	0.75		2.85	403	0.15	0.09		158	5.83	0.136	17.4	196	4.13	285	1.1	7.66	2.34
STD OREAS45C Expected		1160	18.33	10.1	2.4	0.045	10.2	36.4	0.15	0.79	0.21	270	0.482	0.051	26.2	962	0.25	270	1.1313	7.59	0.097
BLK	Blank																				
BLK	Blank	<5	<0.01	<5	<20	<4	<2	<2	<0.4	<5	<5	<2	<0.01	<0.002	<2	<2	<0.01	<1	<0.01	<0.01	<0.01
Prep Wash																					
G1	Prep Blank	750	2.31	<5	<20	4	9	752	0.7	<5	<5	50	2.27	0.081	30	5	0.61	1165	0.24	7.58	2.66
G1	Prep Blank																				
G1	Prep Blank	740	2.28	<5	<20	<4	7	763	<0.4	<5	<5	50	2.34	0.083	24	10	0.65	1196	0.24	7.48	2.72



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## QUALITY CONTROL REPORT

VAN11006051.1

Method		1E	1E	1E	1E	1E	1E	1E	1E	1E
Analyte		K	W	Zr	Sn	Y	Nb	Be	Sc	S
Unit		%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	4	2	2	2	2	1	1	0.1
Pulp Duplicates										
REP G1	QC	1.96	<4	11	<2	14	25	3	5	<0.1
MRR-24	Rock	<0.01	<4	<2	<2	<2	<2	<1	7	<0.1
REP MRR-24	QC									
Core Reject Duplicates										
MRR-03	Rock	<0.01	<4	<2	<2	<2	<2	<1	6	<0.1
DUP MRR-03	QC	<0.01	<4	<2	<2	<2	<2	<1	6	<0.1
Reference Materials										
STD DS8	Standard									
STD OREAS24P	Standard	0.72	<4	131	<2	21	19	1	21	<0.1
STD OREAS45CA	Standard									
STD OREAS45C	Standard	0.34	<4	162	<2	8	22	<1	59	<0.1
STD DS8 Expected										
STD OREAS45CA Expected										
STD OREAS24P Expected		0.7	0.5	141	1.6	21.3	21		20	
STD OREAS45C Expected		0.36	1.06	169.7	2.9	12.9	23.05		59.03	0.021
BLK	Blank									
BLK	Blank	<0.01	<4	<2	<2	<2	<2	<1	<1	<0.1
Prep Wash										
G1	Prep Blank	2.31	<4	11	<2	15	26	3	5	<0.1
G1	Prep Blank									
G1	Prep Blank	1.96	<4	12	<2	15	25	3	5	<0.1



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Submitted By: Adam Cegielski
Receiving Lab: Canada-Vancouver
Received: November 08, 2011
Report Date: December 22, 2011
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN11006050.1

CLIENT JOB INFORMATION

Project: Murray Ridge
Shipment ID:
P.O. Number
Number of Samples: 25

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

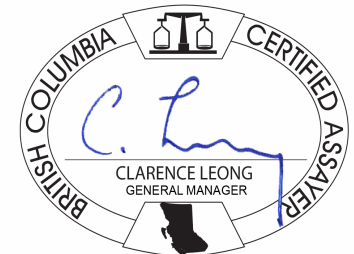
Invoice To: Nanton Nickel Corp.
800 - 1199 West Hastings St.
Vancouver BC V6E 3T5
Canada

CC: Dasha Duba

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 6 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Rows include methods like Dry at 60C, SS80, and 1E.

ADDITIONAL COMMENTS



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



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CERTIFICATE OF ANALYSIS

VAN11006050.1

Method	Analyte	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		2	2	5	2	0.5	2	2	5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002
SSM-01	Stream	5	19	<5	80	<0.5	830	51	902	4.52	<5	<20	<4	<2	149	<0.4	<5	<5	80	1.00	0.055
SSM-02	Stream	<2	17	7	86	<0.5	190	25	2098	3.67	<5	<20	<4	3	208	<0.4	<5	<5	87	1.60	0.080
SSM-03	Stream	4	18	<5	72	<0.5	1262	62	940	5.00	<5	<20	<4	<2	114	<0.4	<5	<5	64	0.90	0.048
SSM-04	Stream	6	18	6	85	<0.5	1059	53	798	4.92	<5	<20	<4	<2	129	<0.4	<5	<5	77	0.99	0.055
SSM-05	Stream	3	13	<5	64	<0.5	1498	83	1046	5.28	<5	<20	<4	<2	59	<0.4	<5	<5	47	0.53	0.051
SSM-06	Stream	3	13	<5	63	<0.5	1431	70	854	4.96	<5	<20	<4	<2	67	<0.4	<5	<5	50	0.58	0.045
SSM-07	Stream	2	14	6	62	<0.5	1519	76	925	5.11	<5	<20	<4	<2	66	<0.4	<5	<5	55	0.65	0.038
SSM-08	Stream	<2	12	<5	54	<0.5	1374	61	749	4.74	<5	<20	<4	<2	70	0.7	<5	<5	50	0.56	0.044
SSM-09	Stream	<2	17	6	74	<0.5	713	41	934	4.29	<5	<20	<4	<2	147	0.9	<5	<5	84	1.05	0.052
SSM-10	Stream	<2	22	10	104	<0.5	288	27	1950	3.67	<5	<20	<4	<2	139	1.0	<5	<5	78	0.96	0.070
SSM-11	Stream	<2	10	6	60	<0.5	1280	62	846	4.76	<5	<20	<4	<2	93	0.5	<5	<5	63	0.79	0.037
SSM-12	Stream	<2	42	14	105	<0.5	229	29	1608	4.36	9	<20	<4	<2	167	0.7	<5	<5	120	0.81	0.067
SSM-13	Stream	<2	17	<5	62	<0.5	620	35	575	3.57	<5	<20	<4	<2	159	0.6	<5	<5	71	1.20	0.045
SSM-14	Stream	<2	36	12	97	<0.5	139	19	1007	4.09	8	<20	<4	<2	183	0.6	<5	<5	127	0.80	0.062
SSM-15	Stream	<2	13	<5	48	<0.5	457	27	783	2.88	<5	<20	<4	<2	170	0.5	<5	<5	57	1.20	0.044
SSM-16	Stream	<2	17	<5	85	<0.5	929	60	971	4.82	<5	<20	<4	<2	148	<0.4	<5	<5	78	0.91	0.038
SSM-17	Stream	<2	15	<5	53	<0.5	633	37	1201	3.73	<5	<20	<4	<2	172	0.5	<5	<5	72	1.37	0.048
SSM-18	Stream	<2	13	<5	69	<0.5	782	46	752	4.75	<5	<20	<4	<2	127	0.6	<5	<5	92	1.18	0.040
SSM-19	Stream	<2	26	11	66	<0.5	172	20	1031	3.61	<5	<20	<4	<2	212	0.4	<5	<5	114	1.56	0.064
SSM-20	Stream	<2	22	5	75	<0.5	257	27	1150	4.77	<5	<20	<4	<2	214	0.6	<5	<5	153	1.94	0.062
SSM-21	Stream	<2	25	<5	76	<0.5	557	39	993	4.05	<5	<20	<4	<2	196	0.6	<5	<5	96	1.37	0.066
SSM-22	Stream	<2	20	7	71	<0.5	573	38	847	4.07	<5	<20	<4	<2	182	<0.4	<5	<5	95	1.15	0.059
SSM-23	Stream	<2	19	8	81	<0.5	342	27	882	3.82	<5	<20	<4	<2	237	0.6	<5	<5	113	1.54	0.059
SSM-24	Stream	<2	20	8	57	<0.5	463	33	899	3.39	<5	<20	<4	<2	201	<0.4	<5	<5	86	1.26	0.049
SSM-25	Stream	<2	17	5	67	<0.5	575	41	891	4.25	<5	<20	<4	<2	194	0.4	<5	<5	104	1.27	0.050



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Project: Murray Ridge  
 Report Date: December 22, 2011

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CERTIFICATE OF ANALYSIS

VAN11006050.1

Method	Analyte	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	S
Unit		ppm	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL		2	2	0.01	1	0.01	0.01	0.01	0.01	4	2	2	2	2	1	0.1	
SSM-01	Stream	13	2149	7.12	530	0.27	4.23	1.17	0.79	<4	38	8	11	9	1	11	<0.1
SSM-02	Stream	15	254	1.79	936	0.35	5.59	1.60	1.03	<4	43	2	15	5	<1	12	<0.1
SSM-03	Stream	9	1091	10.58	445	0.18	3.34	0.87	0.59	<4	28	5	9	5	<1	12	<0.1
SSM-04	Stream	11	2854	8.88	458	0.23	3.77	0.96	0.64	<4	32	12	11	10	1	13	<0.1
SSM-05	Stream	7	1142	12.15	242	0.12	2.20	0.43	0.34	<4	17	5	7	4	<1	10	<0.1
SSM-06	Stream	7	1495	12.47	257	0.13	2.25	0.50	0.36	<4	18	7	7	5	<1	10	<0.1
SSM-07	Stream	7	1165	13.86	272	0.13	2.31	0.52	0.39	<4	20	6	6	5	<1	11	<0.1
SSM-08	Stream	7	775	11.74	263	0.13	2.33	0.52	0.37	<4	22	2	7	2	<1	11	<0.1
SSM-09	Stream	10	1356	6.54	539	0.28	4.35	1.12	0.75	<4	41	<2	11	4	<1	13	<0.1
SSM-10	Stream	10	213	2.37	624	0.25	4.82	0.80	0.83	<4	41	<2	12	4	<1	12	<0.1
SSM-11	Stream	6	987	11.38	344	0.18	2.68	0.72	0.44	<4	24	<2	7	3	<1	11	<0.1
SSM-12	Stream	12	244	2.20	856	0.36	5.84	1.26	1.22	<4	56	<2	15	5	1	14	<0.1
SSM-13	Stream	11	1032	6.20	554	0.28	4.06	1.22	0.71	<4	37	3	10	4	<1	11	<0.1
SSM-14	Stream	13	161	1.76	883	0.40	6.18	1.51	1.34	<4	60	<2	16	6	1	14	<0.1
SSM-15	Stream	9	401	4.40	552	0.23	3.92	1.33	0.71	<4	32	<2	10	4	<1	9	<0.1
SSM-16	Stream	11	874	7.73	481	0.27	3.92	1.20	0.69	<4	39	3	10	5	<1	12	<0.1
SSM-17	Stream	11	617	6.85	605	0.30	3.60	1.17	0.71	<4	35	<2	9	5	<1	10	<0.1
SSM-18	Stream	11	1943	8.47	491	0.35	3.60	1.13	0.66	<4	41	4	10	6	<1	11	<0.1
SSM-19	Stream	15	227	2.16	825	0.52	5.34	1.80	1.08	<4	59	<2	15	9	<1	12	<0.1
SSM-20	Stream	23	1298	2.74	838	0.66	5.15	1.71	0.98	<4	57	3	16	11	<1	13	<0.1
SSM-21	Stream	14	779	4.82	630	0.34	5.13	1.48	1.02	<4	50	<2	14	5	<1	13	<0.1
SSM-22	Stream	12	1405	5.18	575	0.33	4.89	1.41	0.95	<4	49	3	13	5	<1	12	<0.1
SSM-23	Stream	14	1126	3.39	684	0.39	5.34	1.82	1.09	<4	51	3	14	6	<1	12	<0.1
SSM-24	Stream	11	649	4.50	616	0.30	4.81	1.64	0.98	<4	45	<2	12	5	<1	10	<0.1
SSM-25	Stream	12	1880	5.46	581	0.36	4.51	1.52	0.86	<4	47	4	12	6	<1	11	<0.1



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Project: Murray Ridge

Report Date: December 22, 2011

Page: 1 of 1 Part 1

# QUALITY CONTROL REPORT

VAN11006050.1

Method	Analyte	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		2	2	5	2	0.5	2	2	5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002
Pulp Duplicates																					
SSM-13	Stream Sedim	<2	17	<5	62	<0.5	620	35	575	3.57	<5	<20	<4	<2	159	0.6	<5	<5	71	1.20	0.045
REP SSM-13	QC	<2	16	<5	61	<0.5	603	35	568	3.49	<5	<20	<4	<2	158	0.4	<5	<5	71	1.19	0.044
Reference Materials																					
STD OREAS24P	Standard	3	46	9	128	<0.5	150	45	1118	7.68	<5	<20	<4	<2	384	<0.4	<5	<5	166	5.67	0.138
STD OREAS24P	Standard	2	46	<5	113	<0.5	148	43	1097	7.27	<5	<20	<4	<2	391	1.4	<5	<5	163	5.37	0.136
STD OREAS45C	Standard	5	615	36	92	<0.5	330	100	1152	18.20	8	<20	<4	8	36	<0.4	<5	<5	255	0.51	0.053
STD OREAS45C	Standard	3	627	23	86	<0.5	335	99	1163	17.98	9	<20	<4	<2	37	<0.4	<5	<5	265	0.48	0.051
STD OREAS24P Expected		1.5	52	2.9	119	0.06	141	44	1100	7.53	1.2	0.75		2.85	403	0.15	0.09		158	5.83	0.136
STD OREAS45C Expected		2.26	620	24	83	0.28	333	104	1160	18.33	10.1	2.4	0.045	10.2	36.4	0.15	0.79	0.21	270	0.482	0.051
BLK	Blank	<2	<2	<5	<2	<0.5	<2	<2	<5	<0.01	<5	<20	<4	<2	<2	<0.4	<5	<5	<2	<0.01	<0.002
BLK	Blank	<2	<2	<5	<2	<0.5	<2	<2	<5	<0.01	<5	<20	<4	<2	<2	<0.4	<5	<5	<2	<0.01	<0.002



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Project: Murray Ridge

Report Date: December 22, 2011

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# QUALITY CONTROL REPORT

VAN11006050.1

Method		1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
Analyte		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	
Unit		ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	2	0.01	1	0.01	0.01	0.01	0.01	4	2	2	2	2	1	1	
Pulp Duplicates																	
SSM-13	Stream Sedim	11	1032	6.20	554	0.28	4.06	1.22	0.71	<4	37	3	10	4	<1	11	<0.1
REP SSM-13	QC	10	1130	6.05	541	0.28	4.03	1.23	0.71	<4	37	<2	10	5	<1	11	<0.1
Reference Materials																	
STD OREAS24P	Standard	19	203	4.18	277	1.04	7.77	2.50	0.72	<4	127	5	23	20	1	20	<0.1
STD OREAS24P	Standard	15	207	4.09	266	1.08	7.69	2.50	0.71	<4	129	2	22	19	1	20	<0.1
STD OREAS45C	Standard	26	923	0.27	277	1.07	7.12	0.09	0.35	<4	156	9	13	23	1	59	<0.1
STD OREAS45C	Standard	23	998	0.24	275	1.19	7.16	0.10	0.35	<4	165	4	13	22	<1	60	<0.1
STD OREAS24P Expected		17.4	196	4.13	285	1.1	7.66	2.34	0.7	0.5	141	1.6	21.3	21		20	
STD OREAS45C Expected		26.2	962	0.25	270	1.1313	7.59	0.097	0.36	1.06	169.7	2.9	12.9	23.05		59.03	0.021
BLK	Blank	<2	<2	<0.01	<1	<0.01	<0.01	<0.01	<0.01	<4	<2	<2	<2	<2	<1	<1	<0.1
BLK	Blank	<2	<2	<0.01	<1	<0.01	<0.01	<0.01	<0.01	<4	<2	<2	<2	<2	<1	<1	<0.1



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Submitted By: Adam Cegielski
Receiving Lab: Canada-Vancouver
Received: November 08, 2011
Report Date: December 15, 2011
Page: 1 of 2

CERTIFICATE OF ANALYSIS

VAN11006049.1

CLIENT JOB INFORMATION

Project: Murray Ridge
Shipment ID:
P.O. Number
Number of Samples: 13

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

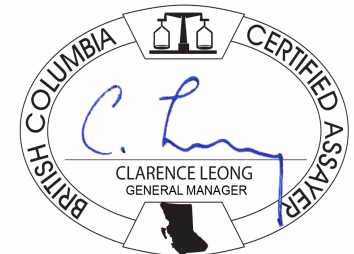
Invoice To: Nanton Nickel Corp.
800 - 1199 West Hastings St.
Vancouver BC V6E 3T5
Canada

CC: Dasha Duba

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 6 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Rows include Dry at 60C, SS80, and 4 Acid digestion ICP-ES analysis.

ADDITIONAL COMMENTS



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



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Project: Murray Ridge  
 Report Date: December 15, 2011

Page: 2 of 2 Part 1

CERTIFICATE OF ANALYSIS

VAN11006049.1

Method	Analyte	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		2	2	5	2	0.5	2	2	5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002
S-01	Soil	<2	31	13	269	<0.5	165	24	1167	3.91	<5	<20	<4	3	149	1.0	<5	<5	110	0.63	0.038
S-02	Soil	5	11	9	79	<0.5	558	39	639	4.33	<5	<20	<4	<2	185	<0.4	<5	<5	91	1.16	0.046
S-03	Soil	3	7	8	94	<0.5	410	39	620	3.40	<5	<20	<4	<2	184	<0.4	<5	<5	82	0.90	0.049
S-04	Soil	<2	13	8	73	<0.5	134	13	405	2.85	<5	<20	<4	<2	210	<0.4	<5	<5	94	0.87	0.046
S-05	Soil	2	13	8	71	<0.5	333	27	562	3.37	5	<20	<4	<2	220	0.4	<5	<5	93	1.05	0.043
S-06	Soil	2	43	12	124	<0.5	158	18	1017	4.06	9	<20	<4	4	180	0.9	<5	<5	114	0.97	0.039
S-07	Soil	2	28	7	120	<0.5	349	28	757	3.87	<5	<20	<4	<2	185	0.5	<5	<5	92	1.17	0.059
S-08	Soil	<2	41	14	120	<0.5	216	25	890	4.71	10	<20	<4	4	160	<0.4	<5	<5	138	0.69	0.042
S-09	Soil	3	8	<5	58	<0.5	356	31	436	3.59	<5	<20	<4	2	215	<0.4	<5	<5	86	1.07	0.037
S-10	Soil	4	8	<5	65	<0.5	714	54	636	4.84	<5	<20	<4	<2	157	<0.4	<5	<5	81	0.86	0.063
S-11	Soil	<2	24	<5	66	<0.5	372	25	698	3.04	<5	<20	<4	2	184	<0.4	<5	<5	72	1.28	0.060
S-12	Soil	2	9	7	61	<0.5	315	27	555	3.20	<5	<20	<4	3	225	<0.4	<5	<5	87	1.17	0.060
S-13	Soil	3	9	<5	76	<0.5	881	67	807	4.93	<5	<20	<4	<2	136	<0.4	<5	<5	68	0.77	0.070



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Project: Murray Ridge  
 Report Date: December 15, 2011

Page: 2 of 2 Part 2

CERTIFICATE OF ANALYSIS

VAN11006049.1

Method	Analyte	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	S
Unit		ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	2	0.01	1	0.01	0.01	0.01	0.01	4	2	2	2	2	1	1	
S-01	Soil	12	136	1.74	812	0.38	6.92	1.24	1.34	5	52	2	12	7	1	15	<0.1
S-02	Soil	12	2192	4.62	595	0.33	4.58	1.60	0.83	<4	40	8	9	11	1	12	<0.1
S-03	Soil	12	1518	3.05	587	0.36	4.81	1.77	0.80	<4	39	6	8	10	<1	10	<0.1
S-04	Soil	14	158	1.39	767	0.42	5.67	1.98	1.15	<4	46	<2	10	7	<1	10	<0.1
S-05	Soil	13	363	2.54	726	0.39	5.57	1.89	1.16	<4	45	4	10	8	<1	12	<0.1
S-06	Soil	18	112	1.49	820	0.37	6.82	1.38	1.27	<4	52	3	18	7	1	15	<0.1
S-07	Soil	14	620	3.59	736	0.32	6.09	1.42	1.11	<4	59	4	16	8	<1	15	<0.1
S-08	Soil	14	189	1.76	899	0.41	7.64	1.23	1.49	<4	62	3	16	7	1	18	<0.1
S-09	Soil	14	853	3.09	636	0.36	5.14	1.89	0.94	<4	44	6	9	9	<1	10	<0.1
S-10	Soil	12	1426	6.15	545	0.30	4.12	1.42	0.77	<4	37	7	8	9	<1	10	<0.1
S-11	Soil	17	323	3.22	640	0.28	4.82	1.42	0.89	<4	45	3	17	6	<1	12	<0.1
S-12	Soil	15	560	2.90	693	0.38	5.30	1.93	1.03	<4	45	3	11	8	<1	11	<0.1
S-13	Soil	11	973	6.89	403	0.27	3.60	1.18	0.65	<4	33	5	7	7	<1	10	<0.1



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**Project:** Murray Ridge

**Report Date:** December 15, 2011

**Page:** 1 of 1 **Part** 1

QUALITY CONTROL REPORT

VAN11006049.1

Method		1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E		
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL		2	2	5	2	0.5	2	2	5	0.01	5	20	4	2	2	0.4	5	5	2	0.01	0.002	
Pulp Duplicates																						
S-10	Soil	4	8	<5	65	<0.5	714	54	636	4.84	<5	<20	<4	<2	157	<0.4	<5	<5	81	0.86	0.063	
REP S-10	QC	3	9	6	65	<0.5	710	55	627	4.77	<5	<20	<4	<2	163	<0.4	<5	<5	82	0.89	0.064	
Reference Materials																						
STD OREAS24P	Standard	3	46	9	128	<0.5	150	45	1118	7.68	<5	<20	<4	<2	384	<0.4	<5	<5	166	5.67	0.138	
STD OREAS45C	Standard	5	615	36	92	<0.5	330	100	1152	18.20	8	<20	<4	8	36	<0.4	<5	<5	255	0.51	0.053	
STD OREAS24P Expected		1.5	52	2.9	119	0.06	141	44	1100	7.53	1.2	0.75	2.85	403	0.15	0.09		158	5.83	0.136		
STD OREAS45C Expected		2.26	620	24	83	0.28	333	104	1160	18.33	10.1	2.4	0.045	10.2	36.4	0.15	0.79	0.21	270	0.482	0.051	
BLK	Blank	<2	<2	<5	<2	<0.5	<2	<2	<5	<0.01	<5	<20	<4	<2	<2	<0.4	<5	<5	<2	<0.01	<0.002	



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**Project:** Murray Ridge

**Report Date:** December 15, 2011

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# QUALITY CONTROL REPORT

VAN11006049.1

Method		1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	1E	
Analyte		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	
Unit		ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL		2	2	0.01	1	0.01	0.01	0.01	0.01	4	2	2	2	2	1	1	
Pulp Duplicates																	
S-10	Soil	12	1426	6.15	545	0.30	4.12	1.42	0.77	<4	37	7	8	9	<1	10	<0.1
REP S-10	QC	11	1271	6.07	534	0.31	4.26	1.47	0.76	<4	37	7	8	9	<1	10	<0.1
Reference Materials																	
STD OREAS24P	Standard	19	203	4.18	277	1.04	7.77	2.50	0.72	<4	127	5	23	20	1	20	<0.1
STD OREAS45C	Standard	26	923	0.27	277	1.07	7.12	0.09	0.35	<4	156	9	13	23	1	59	<0.1
STD OREAS24P Expected		17.4	196	4.13	285	1.1	7.66	2.34	0.7	0.5	141	1.6	21.3	21		20	
STD OREAS45C Expected		26.2	962	0.25	270	1.1313	7.59	0.097	0.36	1.06	169.7	2.9	12.9	23.05		59.03	0.021
BLK	Blank	<2	<2	<0.01	<1	<0.01	<0.01	<0.01	<0.01	<4	<2	<2	<2	<2	<1	<1	<0.1