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BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Mineral Claim Exploration & Development Work

TOTAL COST: $37,503.75

AUTHOR(S): C. Dunn, R. Hetherington, R.I. Thompson

SIGNATURE(S):

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

YEAR OF WORK:

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5500548/2014/April/18

PROPERTY NAME: CD Property

CLAIM NAME(S) (on which the work was done): CD 1; CD 2; CD 3; CD 4; CD 5

COMMODITIES SOUGHT: Zn, Pb, Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Kamloops

NTS/BCGS: 82L10K0-75A, -62B, -52B, -92B, 94A,B, -95A,B

LATITUDE: 50 ° 43 ' 45 " LONGITUDE: 118 ° 47 ' 17 " (at centre of work)

OWNER(S):
1) RIT Minerals (RITM) Corp
2) Colin Dunn Consulting Inc.

MAILING ADDRESS:
10915 Deep Cove Road
North Saanich, B.C. V8L 5P9

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OPERATOR(S) [who paid for the work]:
1) RIT Minerals (RITM) Corp
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PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Paleoproterozoic; meta-sedimentary and meta-igneous rocks of the Monashee Complex; SedEx; sphalerite; pyrrhotite; pyrite; calcsilicate; marble; stratabound pyritic quartzite; garnet-biotite schist; Kingfisher; Broken Hill type; VLF; Ah soils; semi-massive sulphide

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: SOW 5444169; AR 34180; SOW 5500548

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic	1.9 km	CD 1 & CD 2	$13,896.61
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	32 Ah soils & 5 veg'n	CD 1 & CD 2	$9,305.81
Silt			
Rock	18	CD 1 & CD 2	$12,880.02
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying	32 Ah soil, 5 veg'n, 18 rocks	CD 1 & CD 2	$1421.31
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	$37,503.75

Technical Report

CD Property,
Hunters Creek, Southeastern British Columbia

North Okanagan Regional District, Kamloops Land Title District, British Columbia

CD1: NTS 82L10K075A
UTM Zone 11, 373400E, 5621700N (NAD 83)
CD2: NTS 82L10K062B
UTM Zone 11, 373650E, 5620500N (NAD 83)
CD3: NTS 82L10K052B
UTM Zone 11, 374100E, 5619300N (NAD 83)
CD4: NTS 82L10K092B
UTM Zone 11, 374700E, 5623000N (NAD 83)
CD5: NTS 82L 10K94A,B and 95A,B
UTM Zone 11: 372900E, 5622850N (NAD83)

By

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Revised: 15/02/10

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1.0 Summary

Field reconnaissance of the CD Property (Claims CD1-5) was undertaken in October, 2013. Soils (Ah horizon), rocks and a few vegetation samples were collected. Sites yielding anomalous levels of Zn and Au in Ah soils from the collections made in 2012 were visited and some hand trenching undertaken as well as more Ah samples and rocks collected. The field reconnaissance and localized sampling was designed to focus on 2 areas identified as anomalous in Ah soils the previous year, and one centred upon a gossanous outcrop which yielded anomalous Zn values.

Most of the emphasis was on an area approximately 1 km south of the previous year's soil sampling where a gossanous rock had returned anomalous values of Zn (4738 ppm), Pb (3560 ppm), Cu (50 ppm), Ag (0.7 ppm) and Fe (13%). Hand-digging revealed that the metal-rich rock was outcrop and 3 follow-up hand-dug trenches 1 to 3 metres long exposed mineralization having Zn values between 1.3-8.5% Zn with up to 1.8% Pb, 143 ppm Cu, and 3.3 ppm Ag).. A boulder about 30 m to the north of the hand-trenched area contained 3.4% Zn.

A test pit was dug on a Zn-in-soil value of 492 ppm located 1.4 km north northwest of the hand-trenched area. Results include: The key indicator lithology for Zn – dipside-bearing calcsilicate – was exposed and subcrop containing ~25% coarse-crystalline black sphalerite was sampled; additional work at this discovery pit is required.

In general, the CD tenures have subtle enrichments in cadmium (Cd) and thallium (Tl) based on results from a tree-top sampling program conducted in 2005 (GSC Open Files 5538; Dunn and Thompson, 2007; and 6147 Dunn and Thompson, 2009).

Table 1. *Summary of Surface Sampling*

Mineral Claim	Total Samples	Ah soil samples	Rock chip samples	Vegetation
CD1	**14**	12	0	2
CD2	**39**	18	18	3
CD3	**0**	0	0	0
CD4	**0**	0	0	0
CD5	**0**	0	0	0
Totals	**53**	**30**	**18**	**5**

A VLF (very long frequency) geophysical survey was undertaken to assess the conductivity characteristics of rocks in the vicinity of areas sampled for soil and rocks. Two lines of data

were recorded: Line 1 - a long (1.2 km) east southeast-north northwest profile and Line 2, a 0.6 km east-west profile. Signals were recorded from two transmitters, Seattle (NLK; 24800 Hz) and LaMoure, North Dakota (NML; 25200 Hz). Although the Seattle transmitter is in an optimum orientation for north-south striking conductors, the North Dakota station is better located for optimization of east-west line orientations. Renée Hetherington acquired the data using 12.5 m station spacing; GPS positions and elevations were recorded every 100m.

RFR Discoveries, LLP, supplied the recording instruments and Dr. F. Cook (Salt Spring Imaging, Ltd.) interpreted the data. Dr. Cook concluded that 1) data quality was good and required little filtering for signal enhancement; 2) there are few conductors in the vicinity of the hand-trenched area and those identified are low in magnitude and limited in extent; and 3) there is a significant conductor beneath the northern half of Line 1 that requires additional examination.

2.0 Introduction and Terms of Reference

The CD Property comprises 5 contiguous claims encompassing 1431.88 hectares (Table 2). The mineral cell titles were acquired online and as such there are no posts or lines marking the location of the Property on the ground. RIT Minerals Corp. and Colin Dunn Consulting Inc. jointly staked the CD1-5 claims (982242, 982262, 982282, 982283, and 1019835) in the Hunters Creek area, east of Hunters Range in the Spallumcheen Provincial Forest (Figs. 3.1 and 3.2). This report is a statement of geological, geochemical and geophpysical exploration activities undertaken in the 12 months since 28TH May, 2013.

2.1 Terms of Reference

The authors formed the TL Property Partnership for the purpose of exploration. No fees were paid to the partnership, and the preparation of this Technical Report is not dependent in whole or in part on any prior or future engagement. The claim for work done is in accordance with industry standards for work of this nature.

Figures in this report were prepared by the authors, or copied from published reports. The sections of this report that discuss geochemical aspects of the Property rely in part on new analyses of rock, soil and vegetation samples collected by the authors. All samples were submitted to Acme Laboratories Ltd., Vancouver, an accredited, third party, independent laboratory. Sections of the report that describe regional-, local- and property-scale geology rely on field work undertaken by the authors and published in Thompson et al., (2006), Dunn and Thompson (2007 and 2009).

This report presents: 1) a description of the general geological setting of the Property; and 2) a description and analysis of: a) geological mapping, b) soil and rock geochemical samples and results, c) geophysical data and interpretation, and c) an evaluation of the merits of the Property. Reports reviewed by the authors are listed in the references at the end of this report.

The authors are familiar with the CD1-5 and adjacent properties having spent approximately 5 days exploring them in October, 2012, and 7 days in October, 2013, as well as having spent several days over the period from 2005-2008 evaluating the area. As well, the authors have examined the area as part of regional mapping and geochemical surveys (references cited above).

All measurement units used in this report are metric. The coordinate system in use on the Property and on all maps is UTM zone 11 (NAD83).

2.2 Abbreviations and Acronyms

In addition to the use of standard chemical element symbols, the following is a list of frequently used acronyms and abbreviations:

ICP-ES: Inductively Coupled Plasma Emission Spectrometry (analytical method)
ICP-MS: Inductively Coupled Plasma Mass Spectrometry (analytical method)
AAS: Atomic Absorption Spectrometry
masl: metres above sea level
ppb: parts per billion
ppm: parts per million (34.286 ppm equals one troy ounce per short ton)
tonne: metric ton (1000 kg)
VLF : Very Low Frequency.

3.0 Mineral Tenure Description and Location

The CD1, CD2, CD3, CD4 and CD5 properties are roughly centered at UTM Zone 11, 373400E, 5621200N within NTS map sheet 82L/10 east of the mountains forming Hunters Range in southern British Columbia (Figs. 3.1 and 3.2) in the Spallumcheen Forest. The tenures occupy southerly and easterly facing slopes, and are centred approximately 12 km west from the north end of Mabel Lake and are contiguous with the Kingfisher (Colby) Zn deposit (Fig. 6.2). The town of Enderby is situated 32 km to the southwest and Vernon is a further 30 km to the southwest in the North Okanagan Valley.

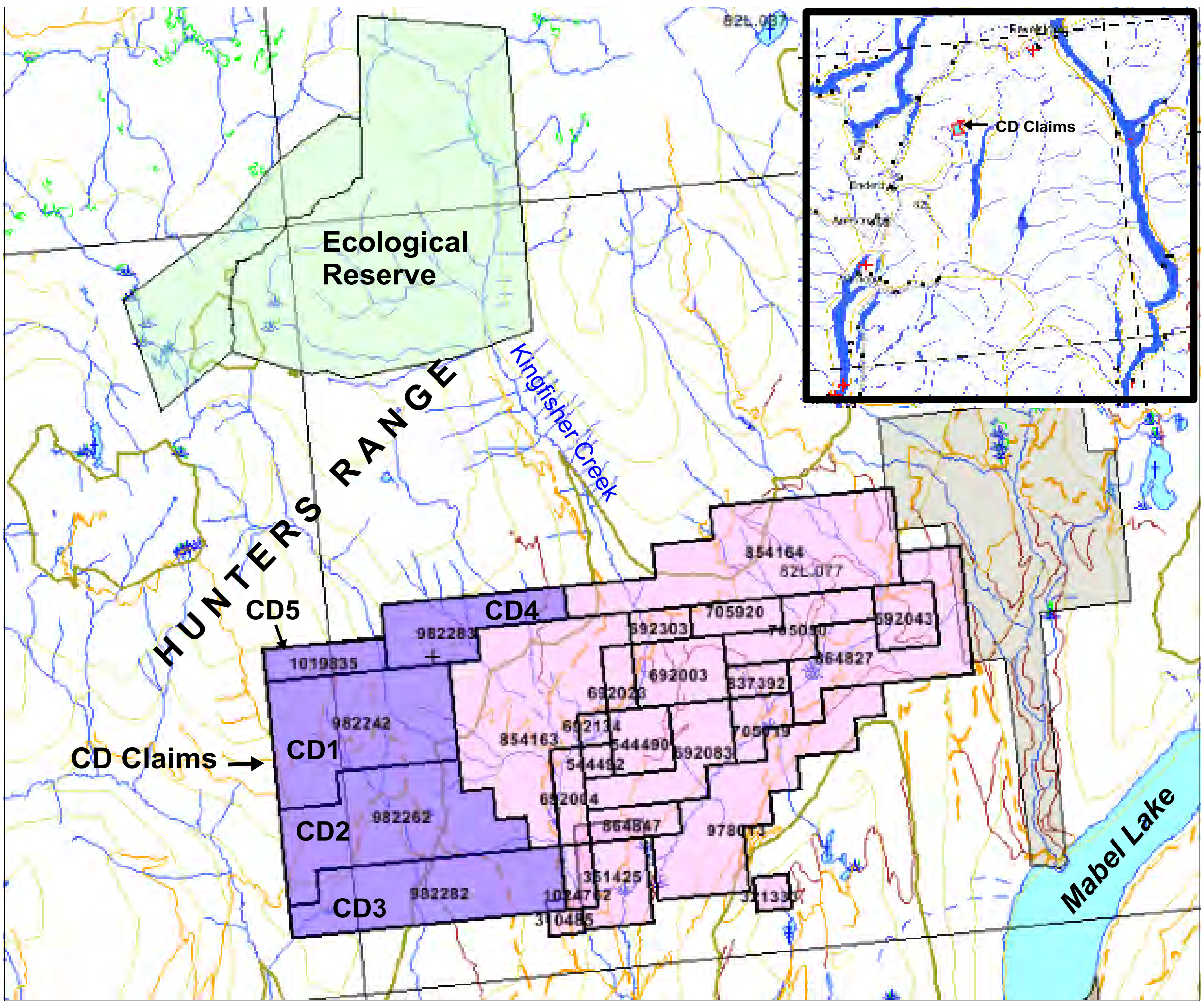

Figure 3.1: *Location of CD1-5 mineral tenures east of Hunters Range in purple. Vernon is the closest major logistical centre, 62 km to the southwest.*

Figure 3.2: *Trail at southern limit of CD3, looking westward to Hunters Range*

Table 2. *Description of the CD1-5 mineral titles*

Tenure #	Good To Date	Claim Name	Owner	Area (ha)
982242	2015/apr/25	CD1	50% RITM Corp/50% Colin Dunn Consulting Inc.	409.05
982262	2015/apr/25	CD2	50% RITM Corp/50% Colin Dunn Consulting Inc.	409.16
982282	2015/apr/25	CD3	50% RITM Corp/50% Colin Dunn Consulting Inc.	347.86
982283	2015/apr/25	CD4	50% RITM Corp/50% Colin Dunn Consulting Inc.	184.02
1019835	2014/may/27	CD5	50% RITM Corp/50% Colin Dunn Consulting Inc.	81.79

4.0 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

Maps showing up-to-date road access for the region are available from Front Counter BC located in the Provincial Forest Services office in Vernon.

The Property is accessible from the town of Enderby (Fig. 3.1): Proceed east toward Mabel Lake and at 373554 E; 5607920 N turn north onto the unpaved Tolko Forestry road toward Kingfisher (Kingfisher Main). Ten km along is a bridge over Kingfisher Ck. Turn left at the junction to Mara Mountain Lookout (376421 E; 5617623 N) and after ~0.5 km bear left. At 375121 E; 5618990 N you are close to the SE corner of claim 982282 (Fig. 3.1). A drivable trail leads northward for access to the east side of the claim blocks, and a trail continues westward (Fig. 3.1) along the southern margin of Claim block CD3. Given the steep terrain, off-road traverses require significant physical effort over much of the property.

The towns of Enderby and Vernon are the nearest major supply centres where material and services adequate to explore the property can be found. Infrastructure resources are excellent and readily available. The hydroelectric grid is within 1 km of the Property. The region has a long history of mining, hence personnel with heavy equipment, exploration and mining experience are available. The climate is benign, with agreeable spring-summer-fall seasons and a temperate winter that sees significant (>1 m) snow accumulations at upper levels of the Hunters Range while valley bottoms may be relatively snow-free. Work above 1200 m is seasonal, limited to June through mid-October; at lower elevations the field season extends from late April until November. The Property has moderate to rugged slopes cut by deeply incised fast-flowing streams that flow east- and southeast-ward. Elevations range from about 900 m to 1450 m. Tree species are dominated by Interior Douglas-fir (*Pseudotsuga menziesii*), Western Hemlock (*Tsuga heterophylla*), Western Redcedar (*Thuja plicata*), and Engelmann Spruce *(Picea engelmannii)*.

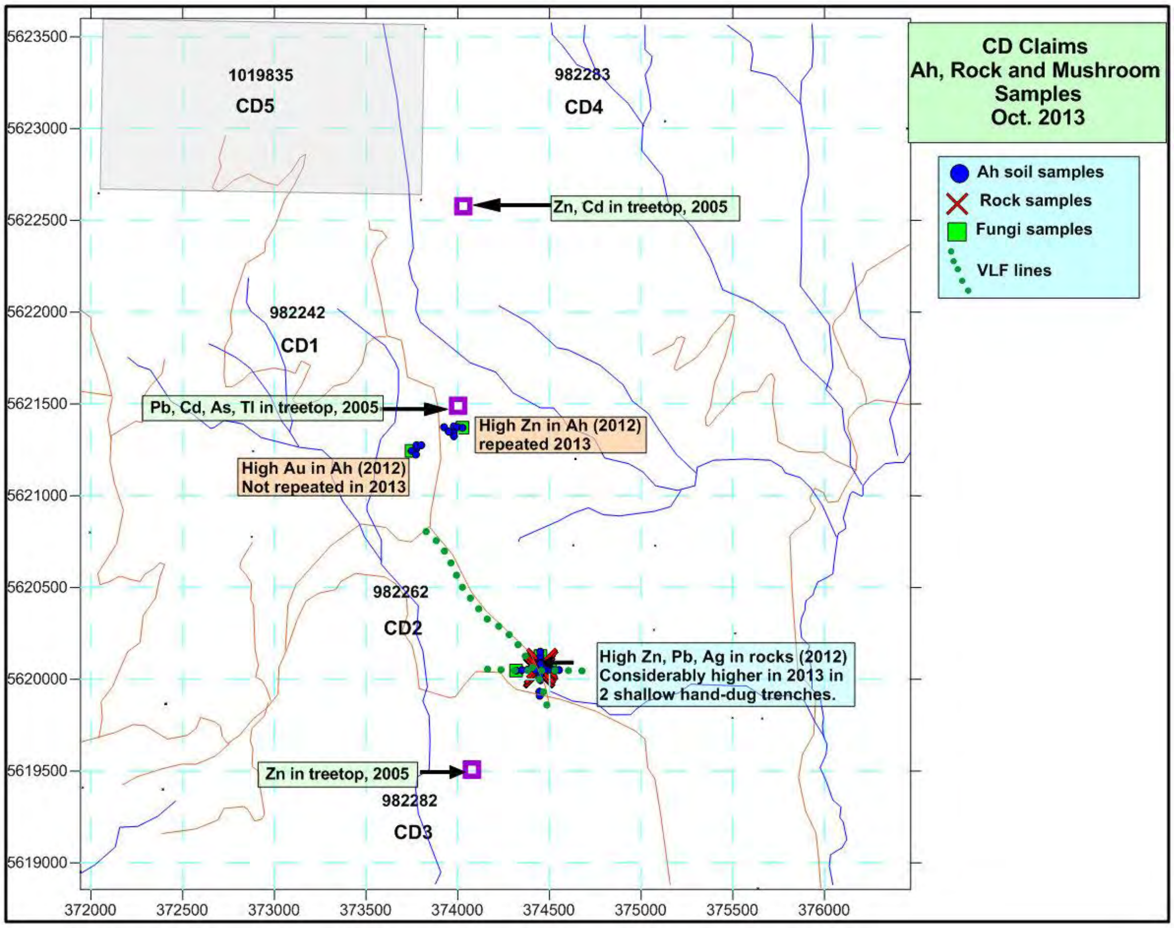

Figure 4.1: *Locations of Ah soil, rock and fungi samples and VLF lines*

5.0 Exploration History

CD is a new discovery hence there is no exploration history prior to tenure acquisition by the TL Property Partnership; however, contiguous with tenure CD3 is the Kingfisher (Colby) deposit (Figs. 3.1 and 6.2), a Zn-Pb deposit measuring: 1.67 million tonnes grading 2.6% Zn and 0.58% Pb (not NI 43-101 compliant; Colby Mining Ltd, 1974).

Base metal mineralization was first discovered on the *central zone* (ref. Fig. 6.2) (Kingfisher-Colby Property) in 1963 by W.C. Rotar of the Bright Star Trio Syndicate, Vernon. Cominco Ltd. (Consolidated Mining Company of Canada, Limited) discovered the *Cominco* and *12 mile* showings.

Bright Star optioned their 'Bright Star' and 'Kingfisher' claims to Sheep Creek Mines Ltd in 1964 who completed trenches and a 642 foot (195 m) diamond drill program before dropping the option. Cominco completed geological mapping and a high resolution magnetometer survey on the Bright Star claims in the fall of 1964.

Between 1965 and 1973, stripping, trenching and modest diamond drilling was completed by Bright Star Trio Syndicate. From 1973 through 1974, Colby Mines completed a program of geological mapping, geophysics (electromagnetic and magnetic), and 5,600 feet (1707 m) of diamond drilling from which a resource measuring 1.67 million tonnes grading 2.6% Zn and 0.58% Pb was calculated (not NI43-101 compliant; Colby Mining Ltd, 1974). Additional trenching in 1974 discovered mineralization east of the original showings. The property was staked by the Peregrine Syndicate in 2000.

Although the strike length of mineralization at Kingfisher is roughly 8 km, thickness of the zone is rarely more than 0.5 m; structural thickening of sulphides, e.g., in an isoclinal fold hinge, has not yet been discovered; however, this possibility is real given the metamorphic grade and style of folding within the succession.

Exploration in the area by TL Property Partnership began in 2012; however, interest in the area dates to 2006 when results from a biogeochemical survey became available. A timeline to discovery of the CD occurrences follows:

1. March 2006: Treetop biogeochemistry survey conducted involving the collection of 562 Douglas-fir tops from a helicopter within an area of 700 km^2.
2. Results presented at 'Minerals South' forum in Nelson, November, 2006, and other public forums including 2006 (Round-up) and 2007 (International Association of Applied Geochemists' symposium in Fredericton, NB, May).
3. Results published as GSC Open File (Dunn and Thompson, 2007).
4. Original results substantiated from re-analysis of archived material – using different tissues and procedures. Ground follow-up conducted in selected areas sampling conifer bark. Significant thallium anomaly confirmed. Results written up and published as GSC Open File (Dunn and Thompson, 2009).
5. Results presented at additional forums 2007-2009.
6. 2012: CD tenures 1-4 (totalling 1350 ha) were staked in April based on Cd and Pb tree-top biogeochemical anomalies published in Dunn and Thompson, 2007.
7. A geological and geochemical field reconnaissance was conducted in October, 2012. Results were submitted to the BC Ministry of Energy and Mines for assessment purposes.
8. Spring 2013: An additional tenure, CD-5 (totalling 184 ha), was acquired in light of sampling success during the 2012 program.
9. Summer 2013: Follow-up geochemical, geological and geophysical data were collected to investigate anomalous Zn and Pb Ah (humus) soil samples collected

during the 2012 campaign. Closely-spaced site-specific Ah samples were collected, and two test pits and three short trenches were hand-dug to test soil and rock anomalies. Significant sphalerite-bearing paragneiss was present as sub-crop in one test pit dug on a 492 ppm Zn anomaly (in Ah soil), and all three trenches produced grab samples up to 8.5% Zn and 1.5 to 3 m channel sample widths approximating 2-7% Zn. Two VLF lines were surveyed, one parallel to regional strike, the other perpendicular to it; 2-D cross sections were produced using (new) inversion techniques and revealed a significant, and for the moment, unaccounted-for conductivity anomaly north and on strike of Zn mineralization.

10. A summary of 2012 results were presented at the KEGS conference in Kamloops in 2012 and of the additional results from 2013 at the Minerals South Exploration Forum in Cranbrook, BC.

The reader is referred to Hoy (1967), Assessment Report 26730, and the list of reports in the bibliography for more complete historical descriptions.

6.0 Geological Setting

The CD zinc prospect occurs in a cluster of five (discovered to now) Monashee-type stratabound occurrences (Fig. 6.1) located in the southwestern Monashee Mountains of southern British Columbia, east of Vernon.

CD, TL and SH are recently discovered, whereas Kingfisher and Ledge have relatively extensive exploration histories (Höy, 1976, 1977a, 1977b). This cluster of occurrences is part of a regionally extensive metallogenic province defined by a broad distribution of sedex (Broken Hill-type? Hoy, 2001) Zn-Pb-Ag occurrences and deposits (Fig. 6.1) hosted by ~1.57-1.86 Ga schist, calc-silicate, marble and paragneiss called the Monashee Cover Assemblage (Parkinson, 1992; Parrish, 1995; Crowley, 1997, 1999; Höy, 1976, 1987; Thompson et. al., 2006 and references therein).

The Ruddock Creek deposit (Fig. 6.1), slated for near-term production, is situated 100 km north of the CD Property (Selkirk Metals Corp.) in comparable lithologies to CD; its resource estimates are: 2,338,000T @ 7.79% Zn and 1.61% Pb Indicated; and 1,492,000T @ 6.5% Zn and 1.26% Pb Inferred, assuming a cut-off grade of 4% combined Zn:Pb (Simpson and Chapman, 2009; SEDAR).

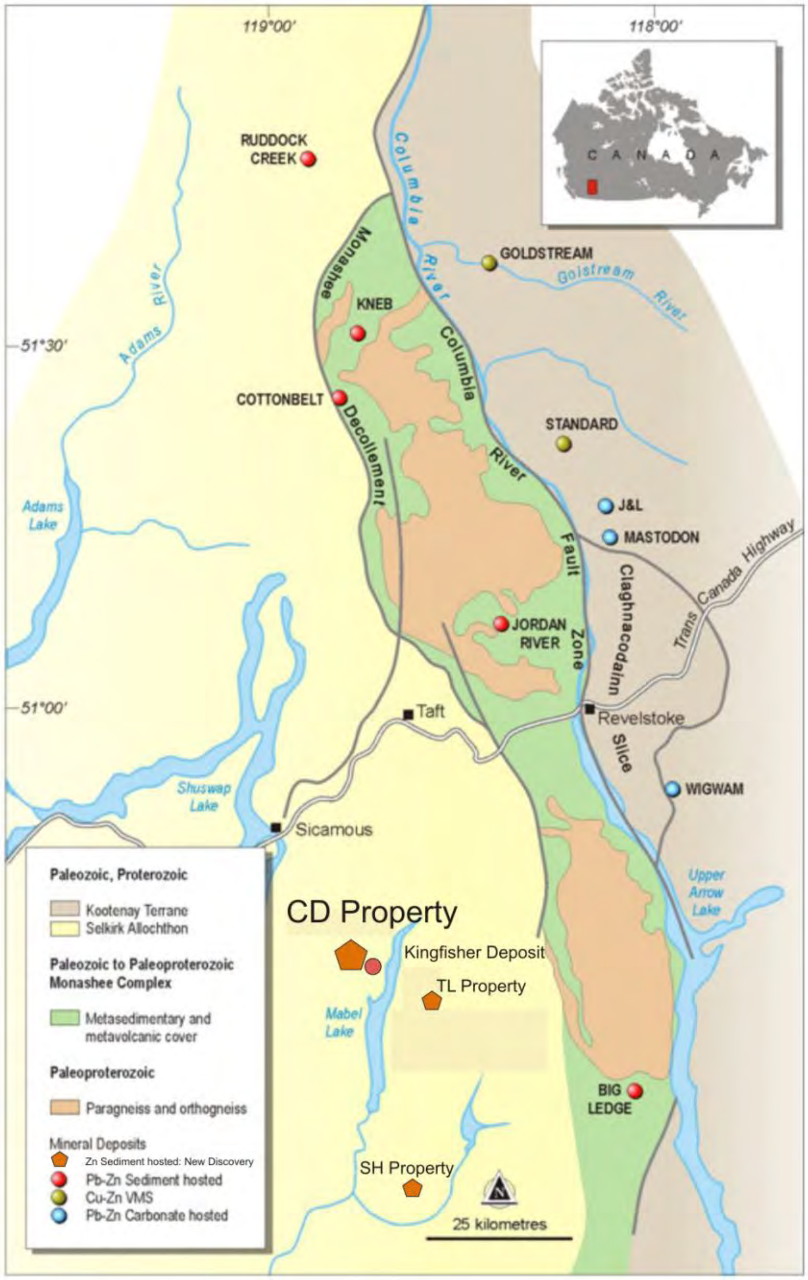

Figure 6.1: *Geological setting of the CD Property within the context of the regional distribution of deposits and new discoveries (SH and TL properties). The Paleoproterozoic Monashee Cover Assemblage is colored pale yellow and green. CD Property is a newly discovered SedEx Zn occurrence having characteristics typical of Kingfisher and Big Ledge; like TL Property, it was first identified through application of aerial biogeochemical survey methods (Dunn and Thompson, 2007, 2009).*

Each of the known Monashee-type occurrences is characterized by high zinc-to-lead ratios, strike lengths measured in km, low As and Se contents, and ores having favorable metallurgical properties.

The association of Zn mineralization with high-metamorphic-grade and isoclinally-folded rocks of Paleoproterozoic age are some of the characteristics typical of BHT (Broken Hill-type) deposits (Höy, 2001).

6.1 Local Geology

Six metasedimentary units and two intrusive units characterize the local geology as described by Höy (1976; Fig. 6.2). They are: 1) hornblende-garnet-biotite paragneiss; 2) rusty-weathering garnet-biotite-sillimanite paragneiss; 3) massive, coarse-crystalline marble ± diopside, tremolite, dolomite and quartz; 4) calc-silicate paragneiss; 5) interlayered marble and quartzite; and 6) a composite of coarse-crystalline garnet-biotite paragneiss interlayered with white quartzite, marble and calc-silicate gneiss. The succession is intruded by Eocene pegmatite (Lady Bird Granite) and aplite dykes and sills. Units 1 and 2 are characteristic of the Monashee Assemblage as a whole; however, the 3 dominantly calcareous units are distinctive and serve as host for zinc-bearing sulfides. At Kingfisher, Zn-rich sulfides occur in each of units 3, 4 and 5 of Höy (1977b; Figs. 6.2 and 6.3).

A series of steep-dipping, northwest trending faults having small displacements (100's m) segment the succession (Fig. 6.2). A pervasive metamorphic foliation, parallel to lithologic layering, strikes north-northeast and dips southeast and northwest; a mineral lineation plunges in the dip direction.

Folds at the mesoscopic scale are tight to isoclinal and plunge at a shallow angle towards the east and west, parallel with the mineral lineation. These (phase 1) folds may be refolded (phase 2) about coaxial hinges; fold limbs vary from open to closed.

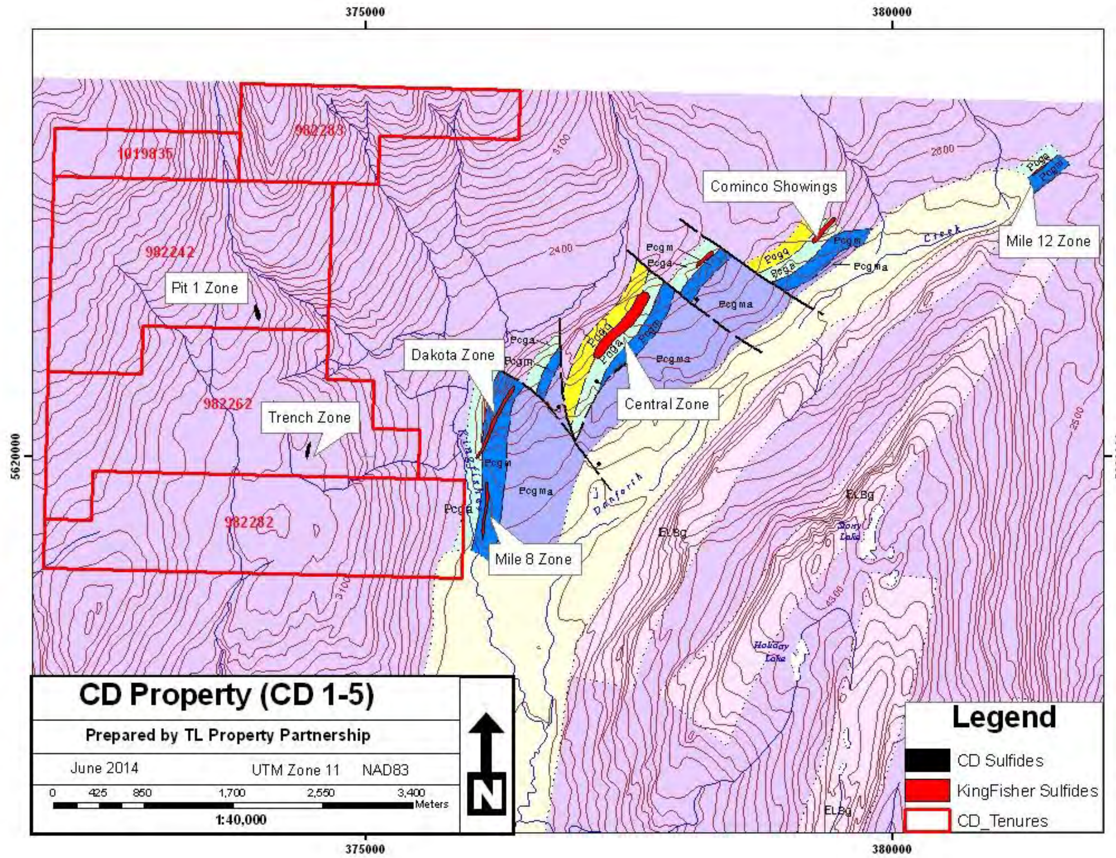

Figure 6.2: *Reconnaissance area geology (Thompson, OF 4379, 2006) showing map units in and around the Kingfisher Zn-Pb deposit (from Höy, 1977b) together with the distribution of massive sulfide zones (red) within the deposit. For comparison, two massive sulfide zones recently discovered on the CD Property are highlighted in black; these zones, up to 1.5 m thick (so far) and grades up to 8.4% Zn appear to have a north northeast strike and strike-length potential of at least 1.4 km. The map units that host sulfides at Kingfisher are also present and host sulfides on the CD Property. Map unit labels are the following: Pcgma = hornblende-bioitite-garnet paragneiss and schist ± amphibolitic schist; Pcgm = calcsilicate paragneiss and massive, coarse-crystalline marble; Pcga = calcsilicate paragneiss ± amphibolitic schist; Pcgq = calcsilicate gneiss, quartzite and marble; Pfhq = hornblende-biotite-feldspathic quartzite paragneiss and schist; ELBg = Eocene granite.*

Figure 6.3: *Rusty-weathering massive sulfide layer at Kingfisher deposit (8 mile showing; ref. Fig. 6.2 for location) striking north northeast and dipping 35^o toward the east. The sulfide unit is approximately 0.5 m thick and is intercalated with and overlain by white-weathering calcsilicate paragneiss, marble and quartzite.*

6.2 Property Geology

Essentially all of the CD Property is covered by overburden and vegetation, with the exception of deeply incised creek bottoms and resistant ledges of Eocene pegmatite. Fortunately the veneer of mostly glacial till is relatively thin (1-2 m).
In the trench-zone area, the association of Zn sulfides with distinctive glassy quartzite, diopside-bearing calcsilicate, marble, and pyritic quartzite is considered important because these are the host lithologies at Kingfisher deposit and the TL prospect (Fig. 6.1). The glassy quartz-gossan association occurs at several scales (Fig. 6.4): as (disorganized) breccia-like mixtures of sphalerite, pyrrhotite and quartz; as sphalerite and Fe-sulfides crudely interlayered with quartzite; and as a mappable, glassy quartzite interval more than 0.5 m thick adjacent to sphalerite-rich varieties. The quartzite is clear and clean and likely underwent significant melting and recrystallization.

In the immediate footwall of the mineralized zone is calcsilicate, hosting large, pale green diopside crystals and marble enclaves (Fig. 6.5).

Figure 6.4: *A breccias-like mixture of oxidized sphalerite, pyrite, pyrrhotite, and glassy quartzite (above), and light translucent-grey glassy quartzite (below) that occurs as a separate unit adjacent to the sulfide zone. This type of association also occurs at the TL prospect and can be seen in core textures from the Ruddock Creek deposit.*

The marble (Fig. 6.6), found both above and below the trench sulfide zone, is typically very coarse crystalline and may contain quartz.

High-grade metamorphism coupled with penetrative deformation has 'remodeled' a carbonate-rich protolith probably consisting of quartz-bearing limestone and dolomite, and pelite. The glassy quartz might represent an original silica gel deposited on the seafloor as part of an exhalative sulfide deposition event. If correct, this exhalative event was areally extensive and pervasive. Subsequent remobilization, recrystallization and deformation of host lithologies has muted evidence supporting the origins of mineralization, but may have served to concentrate and thicken it.

Figure 6.5: *Diopside-rich calcsilicate from the footwall of the trench sulfide zone.*

Figure 6.6: *Coarse marble from the footwall of the trench sulfide zone: fresh surface above.*

The key sulfide-bearing lithologies seen at the Kingfisher deposit are not only present on CD Property, they contain semi-massive to massive sphalerite horizons up to 1.5 m thick (Figs. 7.1 to 7.5c). Preliminary observation suggest the strike continution of this calcareous rock package can be measured in kilometers; however, its distribution has not been mapped as yet, due in part to poor exposure. Based on the distribution of sulfides, high Zn-in-soil values and foliation measurements, we expect the succession to traverse the property from south to north, dip at shallow to moderate angle westward, and to join with the same succession at Kingfisher.

7.0 Mineralization

Semi-massive (~30%) sphalerite was discovered at two locations 1.4 km apart – the *pit zone* and the *trench zone* (Fig. 6.2). At the *pit zone*, shallow excavation of a Zn-in-soil anomaly exposed subcrop of coarse-crystalline sphalerite in a quartz-carbonate matrix (Fig. 7.1); at the *trench zone*, trenches were excavated by hand to expose semi-massive sphalerite (Fig. 7.2). The *pit zone* was not adequately explored and will become a focus of future exploration; the *trench zone* holds significant promise and received the bulk of attention. A more detailed description of mineralization follows.

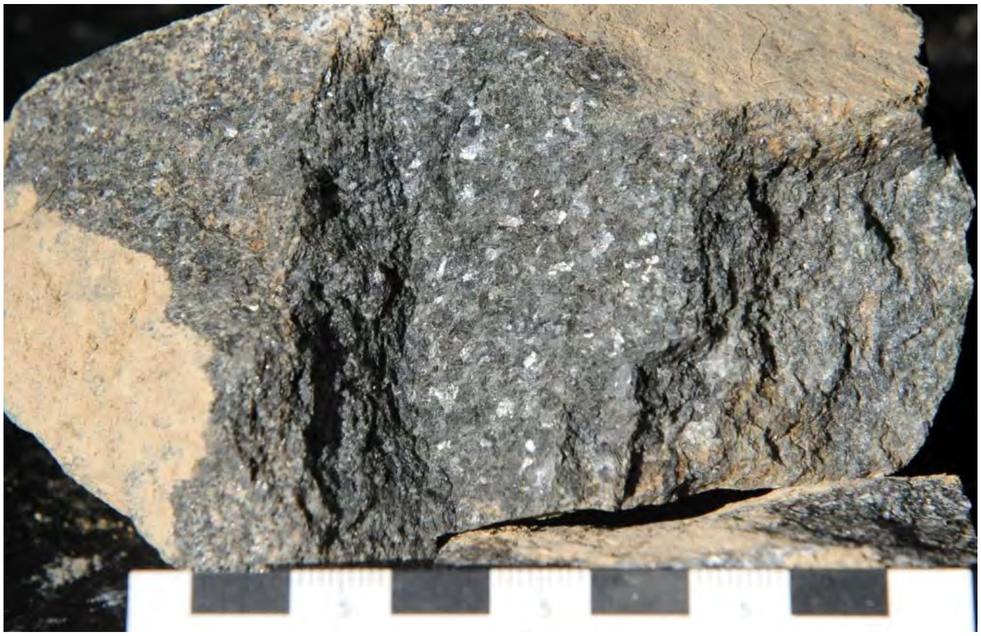

Figure 7.1: *Massive, coarse-crystalline black sphalerite sample from subcrop excavated in test pit1 (1.5 m deep) dug on a 492 ppm Zn anomaly in Ah (humus) soil. Excavated bedrock consists of diopside-bearing calcsilicate and marble, which is host to Zn-rich mineralization 1.4 km farther south (in the trench zone) along the regional strike.*

Figure 7.2: *Coarse sphalerite in glassy-quartz and diopside-bearing calcsilicate characterizes the style of mineralization.*

Two hand-dug trenches located on small surface exposures of hematitic gossan (Figs. 7.4a and 7.4b) exposed semi-massive sphalerite intervals 1.5 to 3 m wide averaging 2-5% Zn; individual grab samples ranged up to 7.9% Zn. We call this mineralized interval the *trench zone* (Figs. 6.2 and 7.3). In all cases, the host lithology is marble-calcsilicate-glassy quartz (Figs. 6.4-6.6, 7.2; ref. Table 3)

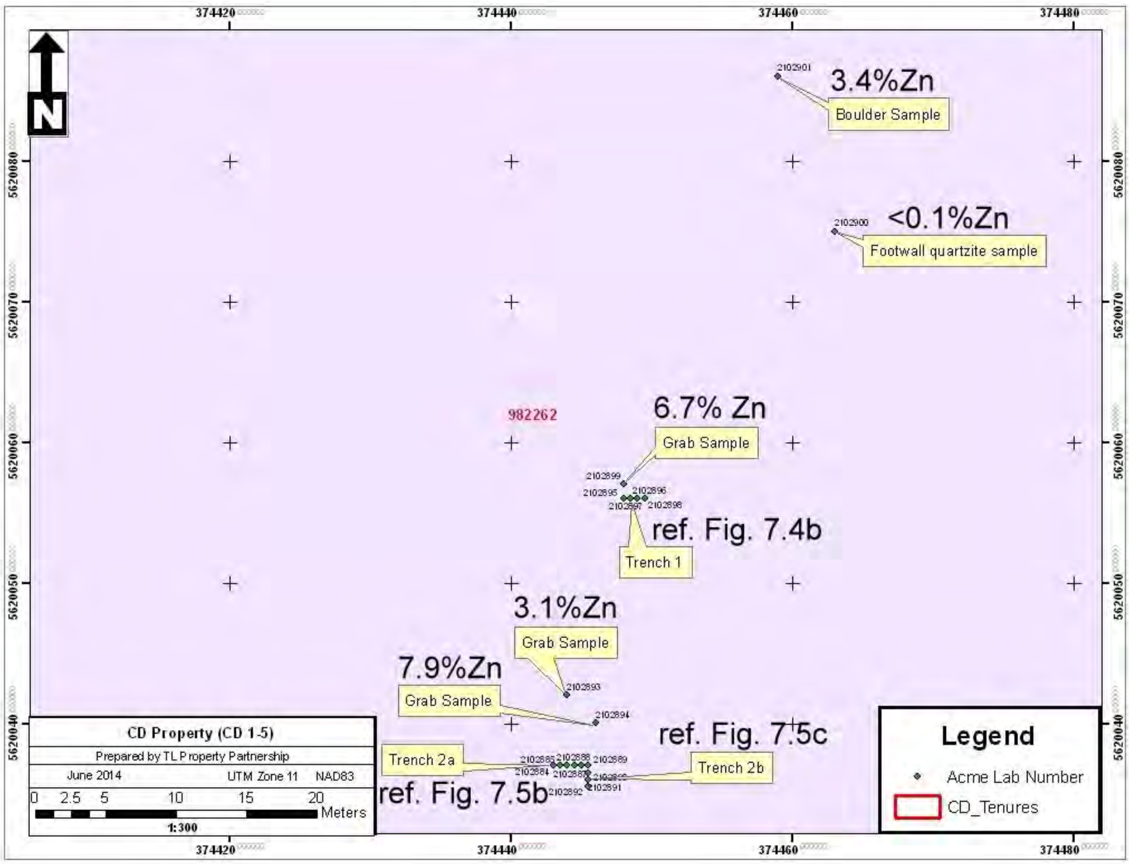

Figure 7.3: *Relative positions of samples taken in and around the trench zone. Data for each of the annotated locations is presented in table 3. Results for each 0.5 m sample interval in trenches 1, 2a and 2b are shown in figures 7.4b, 7.5b and 7.5c. Location of the trench zone relative to tenure boundaries and the Kingfisher deposit is presented figures 4.1 and 6.2.*

A boulder assaying more than 3.4% Zn located 50 m on strike (north) from the trenches supports the strike extension of the *trench zone* (Fig. 7.3).

Sphalerite-rich subcrop exposed in a test pit dug 1.4 km farther north (Fig. 6.2), along strike from the trenches, suggests significant strike potential for the mineralized zone. This pit was dug on a 492 ppm Zn anomaly in Ah (humus) soil. Other high Zn values in Ah soils –

347 ppm, 306 ppm, 345 ppm – collected as part of a reconnaissance geochemical program in 2012 stretch the possible strike length of the mineralized "exhalite" at least 2.5 km north from the *trench zone*.

A high Zn value in treetop tissues, located 500 m south from the *trench zone* (Fig. 4.1), suggests a strike dimension southward as well – this anomaly has not been ground-tested.

The massive sulfide is pyrrhotite-pyrite poor, dominated almost entirely by coarse crystalline red to black sphalerite (blackjack) in a glassy quartz (exhalite?) and (or) calcsilicate-marble matrix.

The host rocks – diopside-bearing calcsilicate, coarse crystalline marble, glassy quartz, garnet-biotite schist, pyritic quartzite – are lithologically identical to those at the TL Property (Fig. 6.1) prospect and are consistent with rocks that host the Kingfisher massive sulfide deposit (Figs. 6.2 and 6.3). This portends a metal-rich depositional interval or event that is regional in scale, carrying with it the potential for a very large Sedex-type deposit (Höy, 2001).

Figure 7.4a: *Mineralized gossan outcrop (UTM zone 11: 374443E; 5620037N) to right of trench1 excavation (ref. Fig. 7.3).*

The *trench zone* comprises two hand-dug trenches situated 20 m apart: trench 1 (Figs. 7.4a and 7.4b) was located on a small gossan outcrop; 20 metres to the south, trench 2 (Figs. 7.5a-c) forms an inverted L and was located on surface boulders of shpalerite-bearing calcsilicate. Neither 1 nor 2 crosses the entire width of mineralization nor is it clear what the strike of mineralization is. Continuous chip samples were collected over 0.5 m intervals; the results for each interval are posted in figures 7.4b, 7.5b and 7.5c and summarized in table 3.

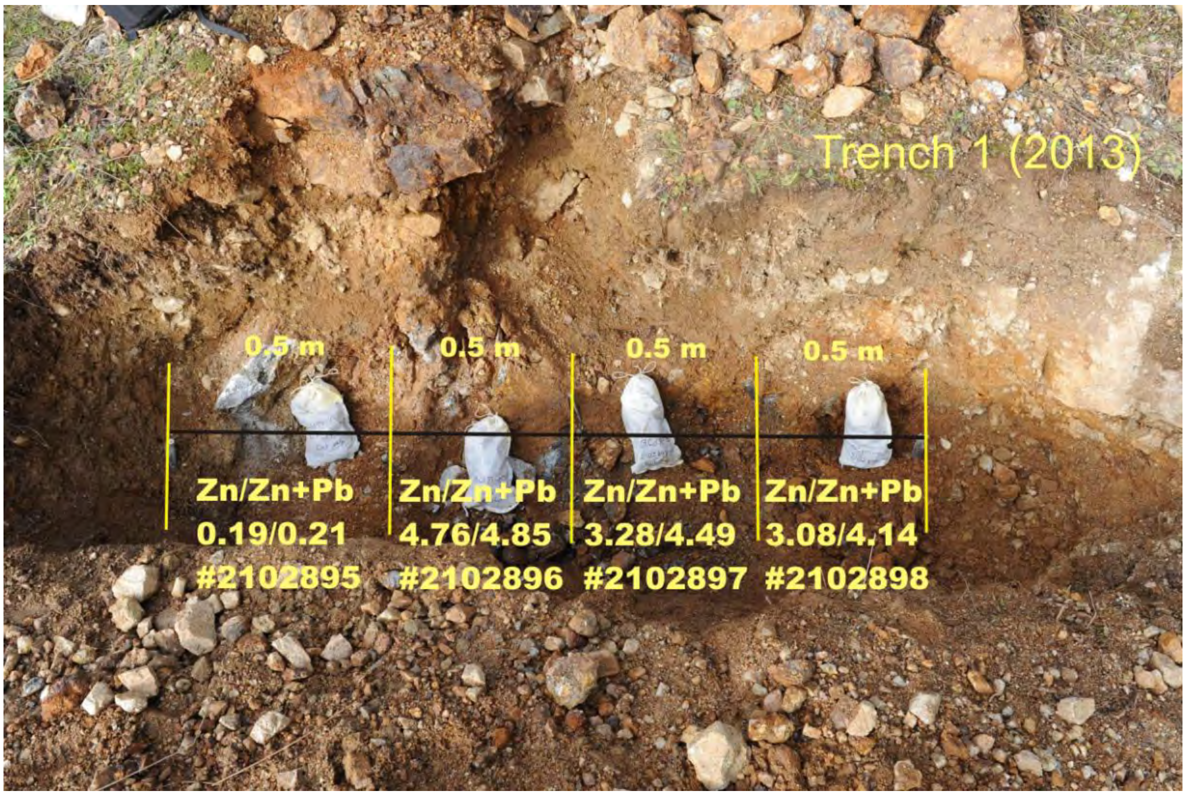

Figure 7.4b: *Assay results plotted graphically onto image of trench 1. The combined Zn-Pb results from the right are: 4.14%, 4.49%, 4.85% representing an average grade of 4.5% Zn+Pb over a 1.5 m width. Mineralization is open to the right (east) but appears to be contained on the left (west) by a coarse crystaline marble which assayed only 0.21% Zn+Pb. Trench 3 crosses the strike of mineralization.*

Figure 7.5a: *View toward the southeast of trenches 2a and 2b. The gossan in trench 2 was not exposed at surface prior to digging; the decision to dig was based on the scattered presence of hematitic rocks and the knowledge that minerealization was nearby in trench 1.*

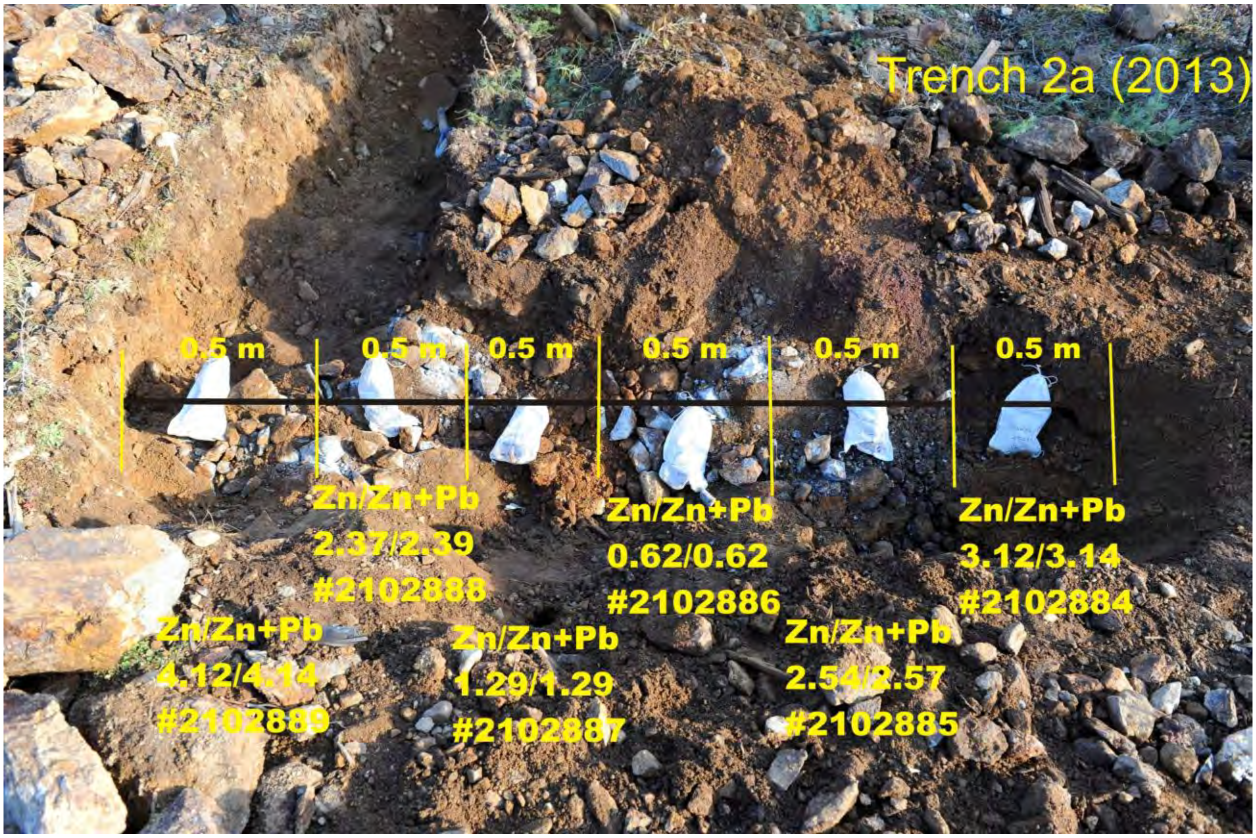

Figure 7.5b: *Assay results plotted graphically onto image of trench 2a. The combined Zn-Pb results from the right are: 3.14%, 2.57%, 0.62%, 1.29%, 2.39%, 4.14% representing an average grade of 2.36 % Zn+Pb over a 3 m width. Mineralization is open in both directions.*

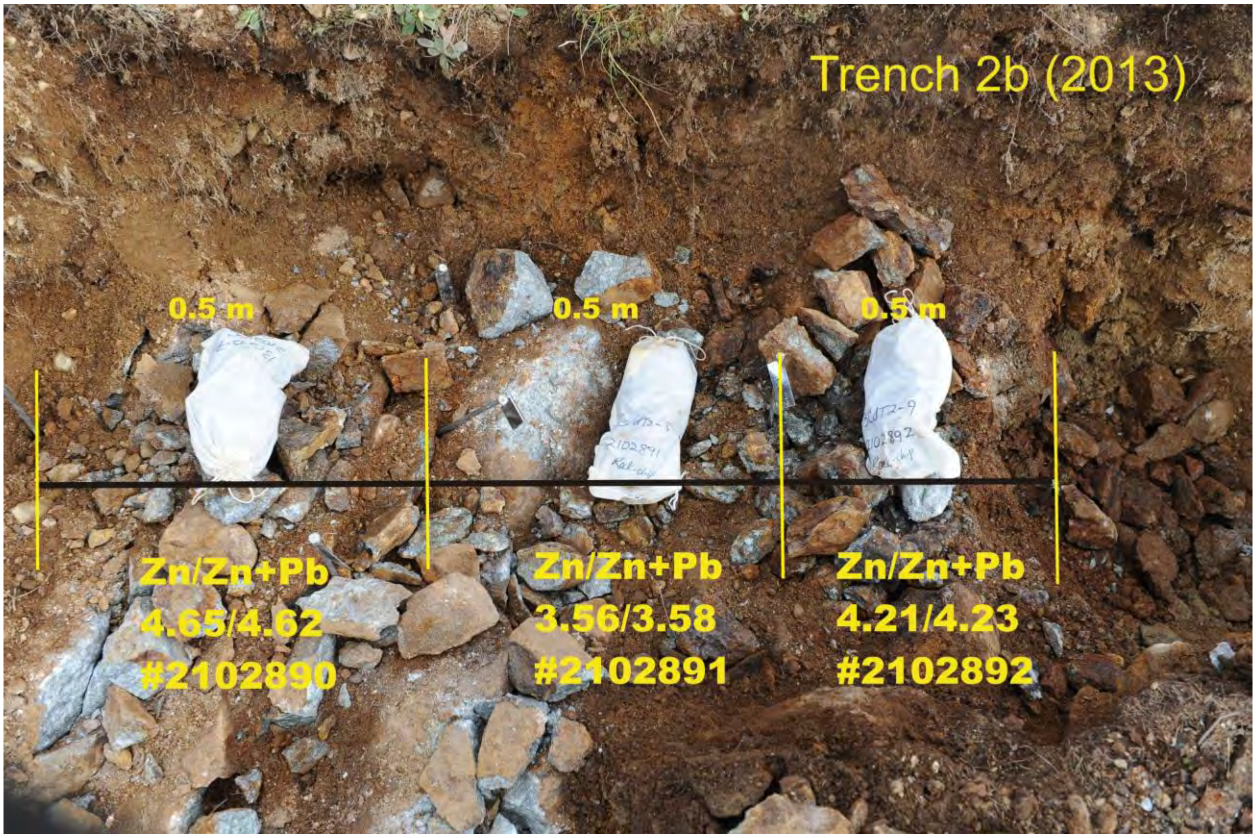

Figure 7.5c: *Assay results plotted graphically onto image of trench 2b. The combined Zn-Pb results from the right are: 4.23%, 3.58%, 4.62% representing an average grade of 4.14% Zn+Pb over a 1.5 m width. Mineralization is open to the lelft (north) and right (south). Trench 2b appears to cross the strike of mineralization.*

Three grab samples taken from the waste piles (Fig. 7.4 and 7.5a) and returned encouraging assay results of 3.17%, 7.94% and 8.44% Zn+Pb respectively. A chip sample taken 10+ m below the mineralized zone from a rusty-weathering pyritic quartzite assayed negligable Zn+Pb.

Potential for at least 50 m strike length of the trench sulfide zone north from trench 1 is suggested by assay results from a mineralized boulder found amongst glassy quartzite and calcsilicate subcrop and outcrop. This grab sample assayed 3.39% Zn+Pb.

Table 3: *Summary of rock sample assay results discussed in text and illustrated in figures 7.3a-c and 7.4a-c. Sample coordinates are presented in Table 5 and all analytical results are presented in Appendix 2.*

Sample #	Pb%	Zn%	Zn+Pb%	Notes
2102884	0.02	3.12	**3.14**	**Trench 2a:** Continuous chip samples of sulfide bearing calcsilicate marble taken along 0.5 m intervals. Ref. figures 7.3, 7.5a, 7.5b
2102885	0.03	2.54	**2.57**	
2102886	0.01	0.6	**0.61**	
2102887	<0.01	1.29	**1.29**	
2102888	0.02	2.37	**2.39**	
2102889	0.02	4.12	**4.14**	
2102890	0.04	4.58	**4.62**	**Trench 2b:** Continuous chip samples of sulofide-bearing calcsilicate marble taken along 0.5 m intervals. Ref. fgures 7.3, 7.5a,
2102891	0.02	3.56	**3.58**	
2102892	0.02	4.21	**4.23**	
2102893	0.06	3.1	**3.17**	**Grab samples** of sulfide-bearing calcsilicate marble taken from debris pile at trench 2
2102894	0.02	7.92	**7.94**	
2102895	0.02	0.19	**0.21**	**Trench 1:** Continuous chip samples of sulfide-bearing calcsilicate marble taken along 0.5 m intervals. Ref. figures 7.3, 7.4b
2102896	0.09	4.76	**4.85**	
2102897	1.21	3.28	**4.49**	
2102898	1.06	3.08	**4.14**	
2102899	1.79	6.65	**8.44**	**Grab sample** of sulfide-bearing calcsilicate marble taken from debris pile at trench 1
2102900	<0.01	<0.01	**<0.01**	**Chip sample** from rusty-weathering pyritic quartzie 10+ m down in footwall from mineralized succession
2102901	0.02	3.37	**3.39**	**Grab sample** of sulfide-bearing calcsilicate marble taken from mineralized boulder found 50 m north and along strike from trench 1. Ref. Fig. 7.3

In all samples collected, sphalerite is typically coarse crystalline (e.g. Figs. 7.1 and 7.2) within a matrix of glassy quartz and calcite. Although the schistose and gneissic host rocks have a penetrative foliation, this is not the case for the mineralized marble and calcsilicate, which are coarse crystalline, recrysallized and lacking a penetrative foliation; these textural relations were observed at TL prospect as well. Pyrite and pyrrhotite are accessory to sphalerite, unlike at TL prospect, but magnetic properties of the pyrrhotite are easily discerned using a pencil magnet.

8.0 Sampling, Analytical Methods and Verification

In the authors' opinions, all samples were securely handled. Samples were placed in polyurethane woven bags (rock) and kraft paper (soil) bags and their tops secured. Rock and soil samples were shipped on separate occasions to Acme Analytical Laboratories in Vancouver, together with sample shipment forms listing the sample numbers. Proper and secure handling procedures were employed prior to, and during, preparation and analysis of the samples. Rock samples were crushed to 70% passing a 2mm screen, and a 250 g split from the crushed sample was then pulverized to 85% passing a 75-micron screen. Digestion was by a standard 4-acid method followed by analysis using ICP-MS and ICP-ES. Concentrations of Zn and Pb that returned values above the DL of 1%, were subsequently assayed following an aqua regia digestion and atomic absorption spectrometry (AAS).

The organic-rich (Ah) soil samples were oven-dried at 80^{o}C, screened to -80 mesh and the latter analyzed for 53-elements by ICP-MS and ICP-ES following an aqua regia digestion. The few mushrooms were oven dried at 80^{o}C, milled to a fine powder, digested in nitric acid followed by aqua regia, and then analyzed for 53 elements by ICP-MS and ICP-ES. Sample analysis was the sole responsibility of the accredited laboratory.

Analytical precision and accuracy were checked against sample standards. Laboratory analytical certificates (Appendices 1 and 2) were vetted by the authors for unreasonable values caused by typographical errors, mistaken units, or corrupted data entries. Results were also checked against internal laboratory standards for both accuracy and precision. In the authors' opinion all results reported here in Appendices 1 and 2 meet or surpass industry standards for accuracy and precision.

Acme Labs is accredited under ISO 9002; they are participants in the CAEAL Proficiency Testing Program; and the laboratory is registered by the BC Ministry of Water, Land and Air Protection under the Environmental Data Quality Assurance (EDQA) Regulation; Acme also participates regularly in the CANMET and Geostats round robin proficiency tests.

9.0 Analytical Results

9. 1 Soils

A soil (Ah organic-rich horizon) geochemistry sampling program was conducted in the vicinities of two areas sampled in the previous year that yielded anomalous levels of Zn and Au, respectively in Ah soil samples. Additional Ah soil sampling was conducted in the vicinity of a gossanous outcrop that proved to be mineralized, 1.4 km to the south (Fig. 9.1a, 9.1b and 9.1c). Each sample was given a unique field number and UTM coordinates. This information has been collated with analytical results (Appendix 1) received from

Acme and the lab certificates produced as Appendix 1.

A total of 32 soil samples were collected at 50 m intervals in three areas. Results confirm the relatively high concentrations of Zn, Pb and Ag noted the previous year, but the one site investigated that yielded elevated Au values in 2012 did not yield significant Au values on this occasion (Fig. 9.1b). Other sites elsewhere on the property warrant closer investigation. Results are summarized in Table 4 which includes data for 2 control samples derived from field samples.

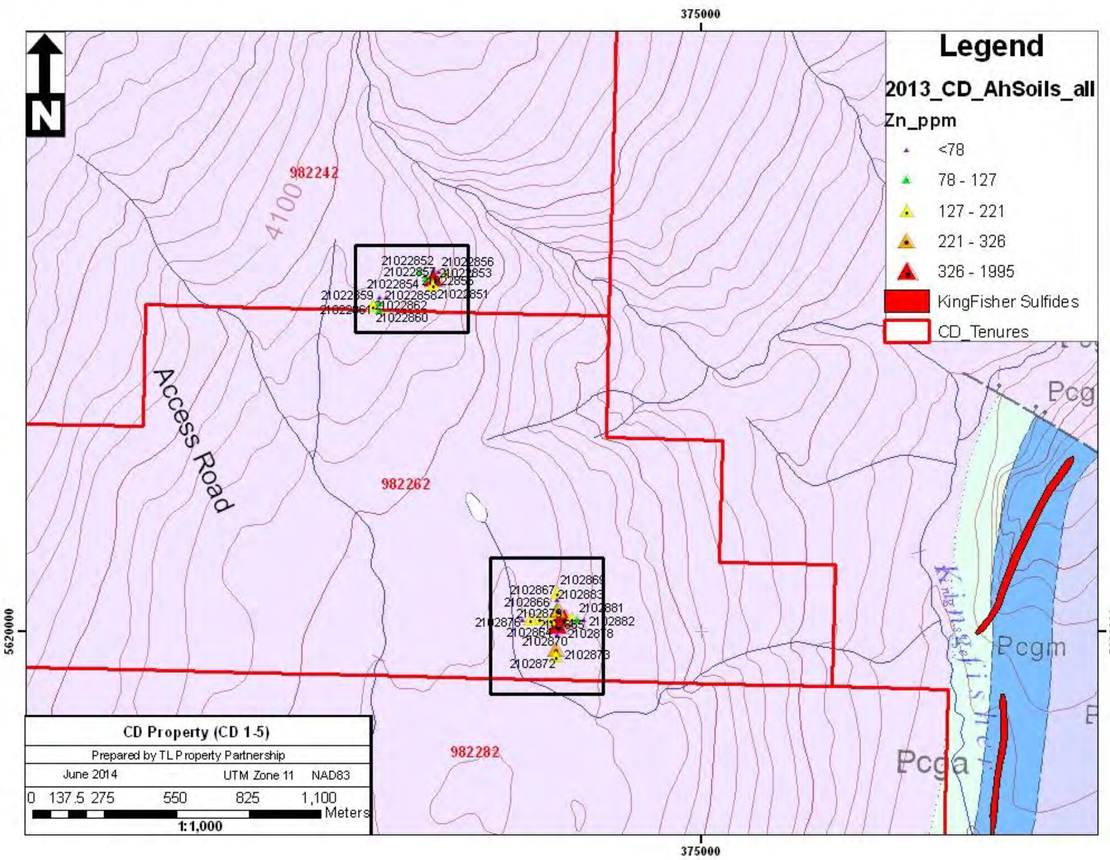

Figure 9.1a: *Map showing areas where follow-up Ah soil samples were collected and analyzed. The northern inset map is shown in detail in figure 9.1b; details for the southern inset map are presented in figure 9.1c.*

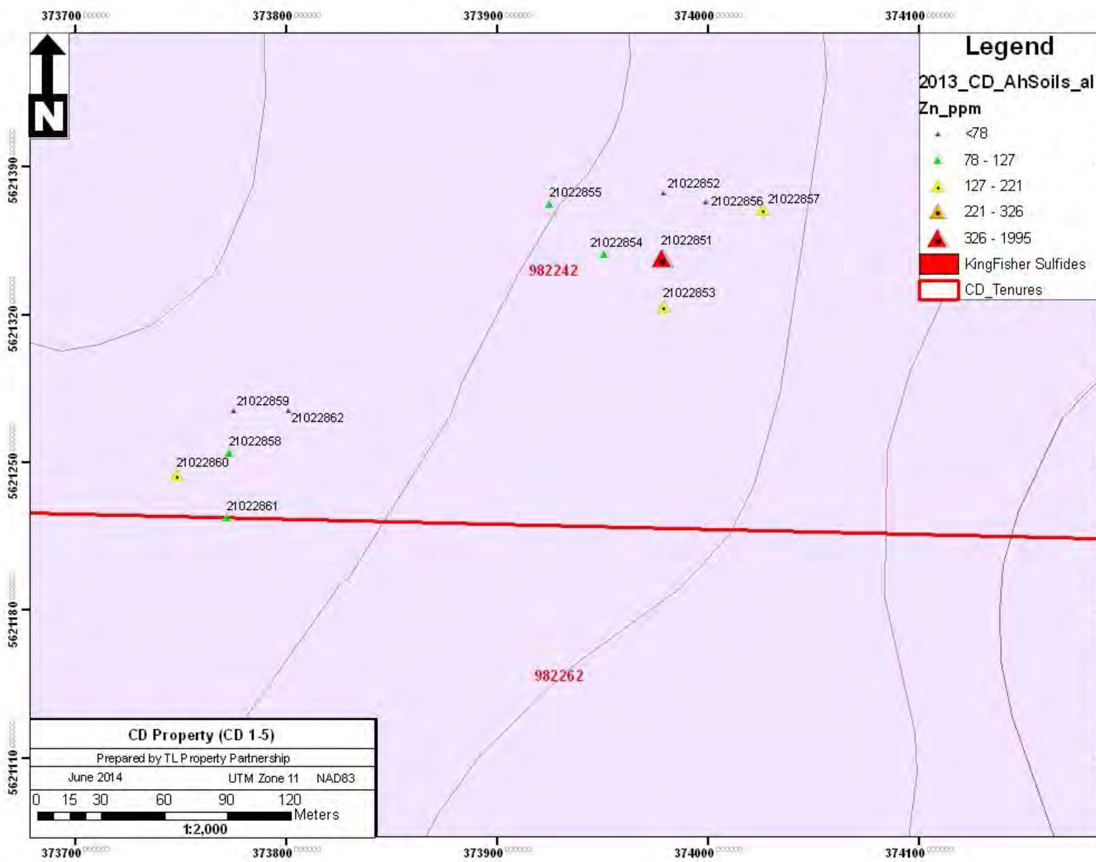

Figure 9.1b: *Two clusters of samples were taken (see northern inset map, Fig. 9.1a) as follow-up to anomalies identified in the 2012 sample program. The cluster at the left was situated around an anomalous gold (Au) value which was not duplicated by these samples. The cluster on the upper right was taken as a test for anomalous zinc (Zn) observed in 2012; in this case results were duplicated (large red triangle). This is the pit zone (Fig. 6.2) where semi-massive sphalerite was found as subcrop in a hand-dug test pit.*

A new area for the Ah sampling was in the vicinity of the gossanous mineralized outcrop that was noted in 2012 . This yielded significantly higher levels of several elements than from the former two areas – up to 1995 ppm Zn, 366 ppm Pb, and 524 ppb Ag. Plots of several key elements are shown in figure 9.1c.

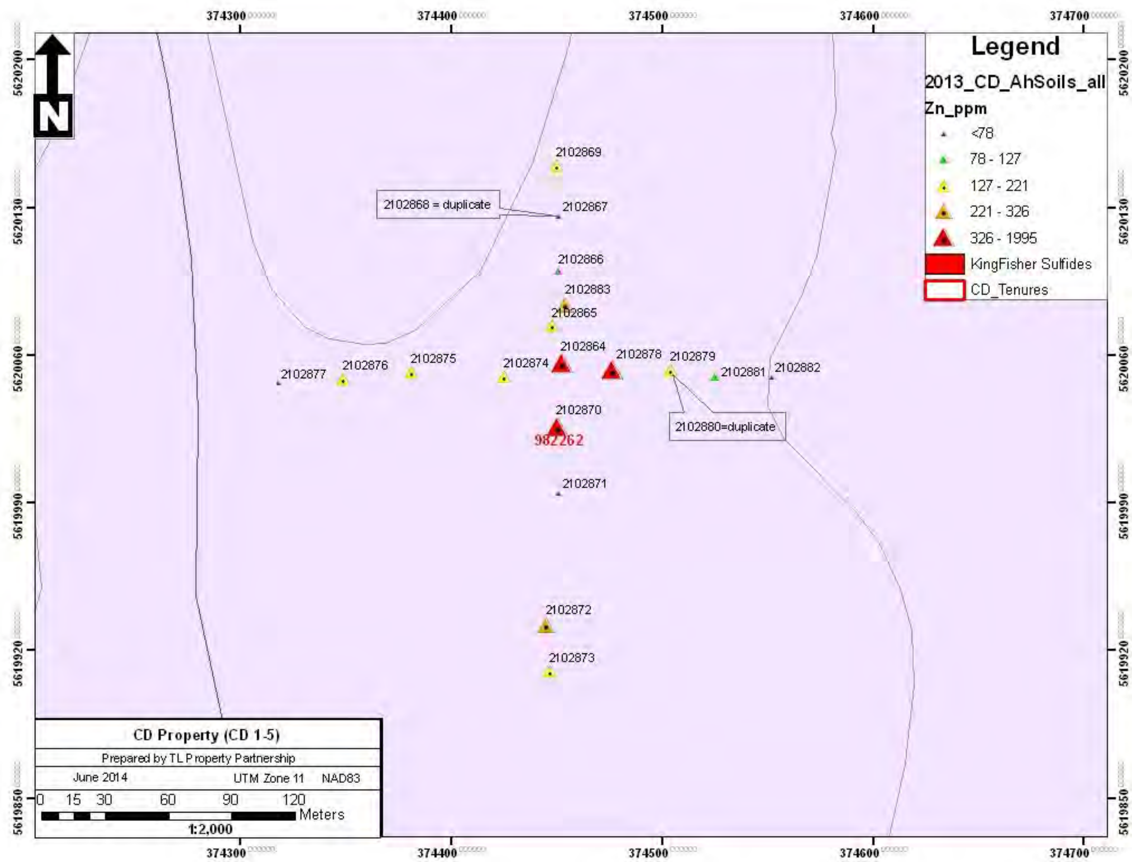

Figure 9.1c: *Cluster of Ah soil samples taken in the vicinity of the trench zone (Fig. 6.2). Numbered tags refer to Acme laboratory identification numbers (table 4). Note, two field duplicate samples were taken (call-out labels) thereby accounting for the apparent discrepancy between the number of points plotted on the map and the number of analyses reported in table 4.*

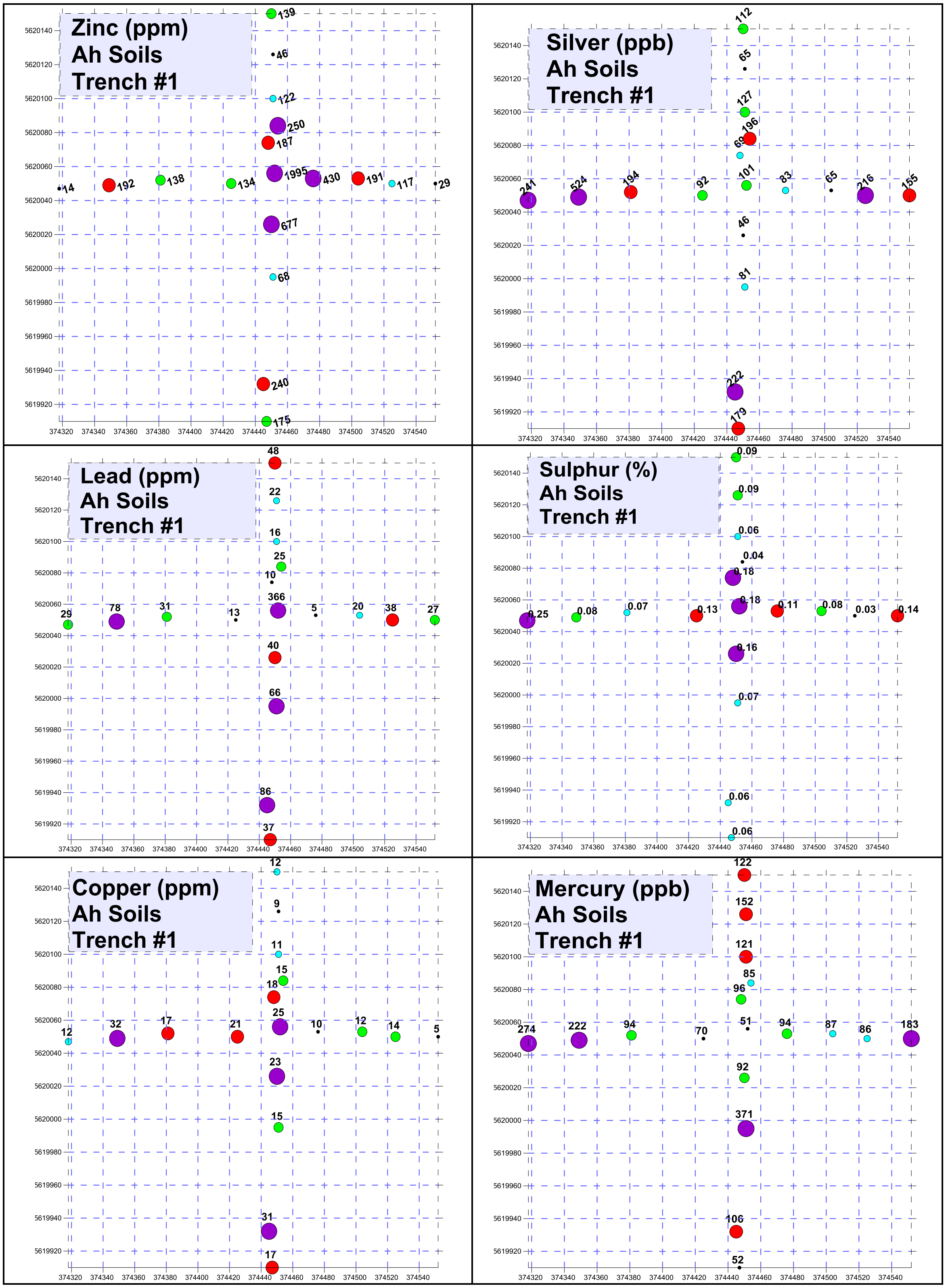

Figure 9.1d: *Zn, Ag, Pb, S, Cu and Hg in Ah soils sampled in the vicinity of trenches 1 and 2 (ref. Figs. 4.1, 6.2, 7.3 and 9.2 for location of trenches)*

Table 4: *Selected analytical results for soil analyses shown in figures 9.1a-d together with sample numbers and UTM coordinates. Laboratory certificates of analytical results are presented as appendix 2 and descriptions are provided in table 3.*

Sample_No	Acme_No	UTM_X	UTM_Y	Ag_ppb	Au_ppb	Cu_ppm	Mn_ppm	Mo_ppm	Pb_ppm	Zn_ppm
13CdA-2851	2102851	373978	5621347	370	<0.2	23.42	8034	0.92	78.6	349.2
13CdA-2852	2102852	373979	5621378	687	0.6	11.04	1924	0.56	57.44	58.6
13CdA-2853	2102853	373979	5621324	427	<0.2	46.44	6897	0.6	121.18	214.5
13CdA-2854	2102854	373951	5621349	118	<0.2	10.49	1215	0.97	16.18	8<0.2
13CdA-2855	2102855	373925	5621373	418	0.7	28.06	3055	0.72	65.36	126.3
13CdA-2856	2102856	373999	5621374	400	<0.2	14.56	5863	1.72	85.38	56
13CdA-2857	2102857	374026	5621370	142	<0.2	13.47	1452	1.05	13.87	215.8
13CdA-2858	2102858	373773	5621255	73	<0.2	11.58	1392	0.54	4.18	116.2
13CdA-2859	2102859	373775	5621275	219	0.5	27.2	2833	1.71	54.36	73.5
13CdA-2860	2102860	373748	5621244	75	<0.2	13.82	4985	0.42	18.25	188.7
13CdA-2861	2102861	373772	5621224	55	0.2	7.21	3555	0.62	4.36	120.4
13CdA-2862	2102862	373801	5621275	133	<0.2	13.08	971	1.3	23.61	42.1
13CdA-2863c	2102863	control		253	3.3	32.08	434	1.68	98.22	190
13CdA-2864	2102864	374452	5620056	101	<0.2	24.94	785	2.11	366.49	1995
13CdA-2865	2102865	374448	5620074	69	<0.2	18.17	975	1.29	10.27	187
13CdA-2866	2102866	374451	5620100	127	<0.2	11.18	1976	0.61	16.3	122
13CdA-2867	2102867	374451	5620126	65	0.6	9.23	1702	0.49	22.41	46
13CdA-2868d	2102868	374451	5620126	82	<0.2	11.51	1539	0.46	24.46	59
13CdA-2869	2102869	374450	5620150	112	<0.2	11.82	5837	0.99	48.11	139
13CdA-2870	2102870	374450	5620026	46	<0.2	23.11	1066	1.64	40.01	677
13CdA-2871	2102871	374451	5619995	81	<0.2	14.83	1968	0.9	66.47	68
13CdA-2872	2102872	374445	5619932	222	<0.2	31.32	6211	1.42	86.09	240
13CdA-2873	2102873	374447	5619910	179	<0.2	17.44	5114	1.22	36.75	175
13CdA-2874	2102874	374425	5620050	92	<0.2	20.54	945	1.78	12.86	134
13CdA-2875	2102875	374381	5620052	194	<0.2	16.63	1988	1.14	30.89	138
13CdA-2876	2102876	374349	5620049	524	<0.2	32.04	3455	2.78	78.28	192
13CdA-2877	2102877	374318	5620047	241	<0.2	11.63	763	1	28.87	14
13CdA-2878	2102878	374476	5620053	83	0.3	9.95	1234	0.82	5.29	430
13CdA-2879	2102879	374504	5620053	65	0.7	11.88	1720	0.9	19.68	191
13CdA-2880d	2102880	374504	5620053	157	<0.2	18.57	2712	0.95	17.73	259
13CdA-2881	2102881	374525	5620050	216	<0.2	14.37	1602	0.89	37.61	117
13CdA-2882	2102882	374552	5620050	155	<0.2	4.88	66	1.25	26.82	29
13CdA-2883	2102883	374454	5620084	196	<0.2	14.73	3759	0.36	25.42	250
13CdA-2884c	2102884	control		239	13.6	30.68	431	1.6	86.25	181

9.2 Rocks

Eighteen rock samples were submitted for multi-element analysis at Acme Labs. All were collected within a distance of 60 m from the gossanous mineralized outcrop mentioned above (Trench #1). Eleven were from in and near Trench 2, and 5 from Trench 1, located about 20 m to the south southwest (Fig. 7.3). Two grab samples (footwall sample and mineralized boulder labeled in Fig. 7.3) were collected 20 m and 30 m northeast of Trench 2 respectively.

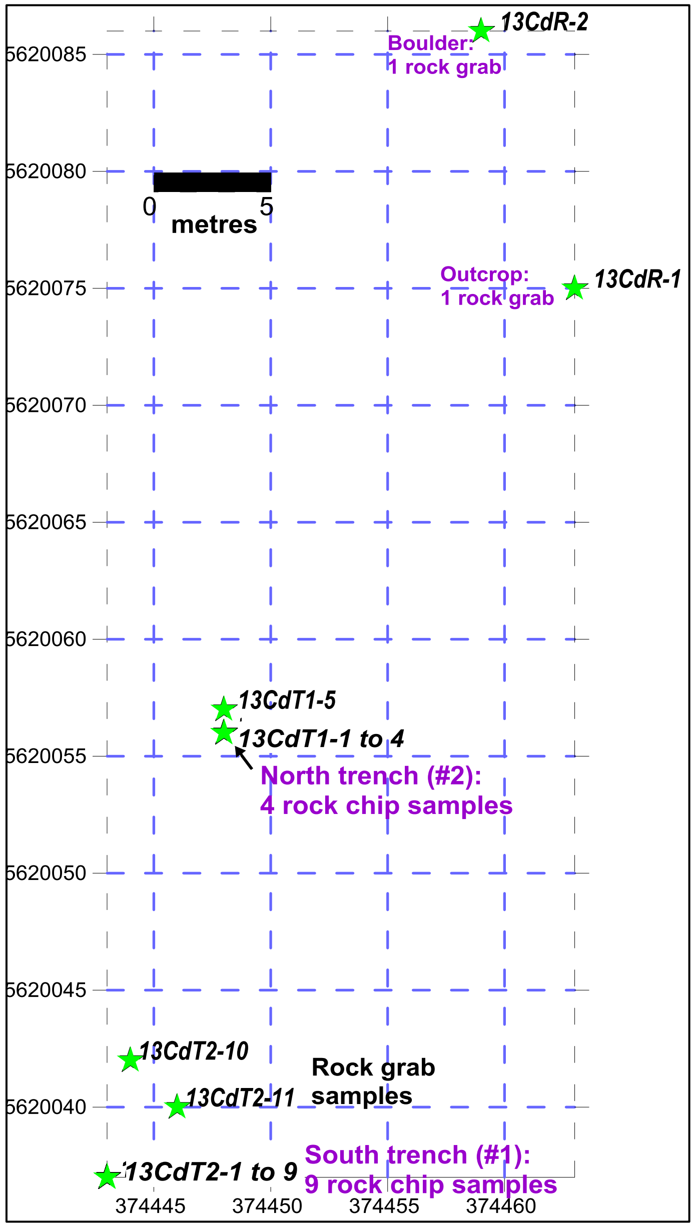

Fig. 9.2: *Locations of rock samples submitted for analysis. Note, the trench numbers have been mislabeled and should be interchanged (ref. Fig. 7.3).*

Table 4 shows a summary of the analytical data (see table 3 for sample descriptions). All samples were massive sulphide-rich, glassy white Qtz with sphalerite, py, po, biotite, except the last sample which was a sulphide rich boulder.

Table 5: *Summary of rock analyses*

Easting	Northing	Sample #	Acme #	Ag	Bi	Ca	Cd	Cu	Fe	Pb	S	Zn
				ppm	ppm	%	ppm	ppm	%	%	%	%
			DL	0.1	0.1	0.01	0.1	0.1	0.01	0.01	0.05	0.01
374443	5620037	13CdT2-1	2102884	0.3	0.3	0.26	56.3	71.4	6.78	0.02	5.41	3.12
374443	5620037	13CdT2-2	2102885	0.3	0.5	0.28	29	30	4.89	0.03	3.62	2.54
374443	5620037	13CdT2-3	2102886	<0.1	0.1	0.43	5.9	25.5	3.98	0.008	2.45	0.62
374443	5620037	13CdT2-4	2102887	0.2	0.1	0.31	15.7	27.9	5.36	0.006	2.24	1.29
374443	5620037	13CdT2-5	2102888	0.3	0.4	0.42	27.1	20.7	3.67	0.02	2.9	2.37
374443	5620037	13CdT2-6	2102889	0.3	0.4	0.57	58.4	24.8	4.4	0.02	3.14	4.12
374443	5620037	13CdT2-7	2102890	0.5	0.5	0.49	58.9	25.5	4.28	0.04	3.6	4.58
374443	5620037	13CdT2-8	2102891	0.3	0.3	0.66	31.4	23.4	4.14	0.02	3.54	3.56
374443	5620037	13CdT2-9	2102892	0.5	0.5	0.42	37.9	31.3	5.24	0.02	4.05	4.21
374444	5620042	13CdT2-10	2102893	0.6	1.2	0.47	31.7	27.7	4.32	0.06	3.34	3.1
374446	5620040	13CdT2-11	2102894	0.4	0.3	0.34	77.5	50.9	8.33	0.02	7.54	7.92
374448	5620056	13CdT1-1	2102895	<0.1	<0.1	11.46	2.2	8.3	1.93	0.02	0.23	0.19
374448	5620056	13CdT1-2	2102896	0.3	0.6	0.5	42.5	34.6	6.19	0.09	5.5	4.76
374448	5620056	13CdT1-3	2102897	2.5	8.8	0.59	70.9	70.6	9.17	1.21	4.37	3.28
374448	5620056	13CdT1-4	2102898	2	7.3	0.38	46.7	46.5	8.64	1.06	3.54	3.08
374448	5620057	13CdT1-5	2102899	3.3	12.9	0.69	62.9	60.6	10.29	1.79	7.03	6.65
374463	5620075	13CdR-1	2102900	<0.1	<0.1	2.84	0.1	17.5	2.32	0.008	0.98	0.018
374459	5620086	13CdR-2	2102901	0.6	0.4	0.38	36.2	143.5	6.61	0.02	6.03	3.37

All analytical data are shown in Appendix 2.

Of note from the above are the Zn grades in both trenches – up to 7.92% Zn in Trench 1 and 6.65% Zn in Trench 2. Lead is considerably more enriched in Trench 1 (3 samples ranging from 1.06-1.79% Pb) as is Ag (2, 2.5 and 3.3 ppm [=g/tonne]). In the latter 3 samples the Bi is correspondingly high reaching 12.9 ppm Bi. Copper values are modest in samples from the trenches, ranging from 8-143 ppm Cu. A description of minerealization is provided in section 7.

9.3 Vegetation

Only 5 vegetation samples were collected and all were fungi (Table 6). The reason for this collection is that some species of fungi are known to accumulate extraordinarily high levels of some elements. Of note is the genus *Amanita* in which concentrations up to 1253 ppm Ag in dry tissue have been recorded (Borovička et al., 2007, 2010). With concentrations in Ag-polluted areas commonly in the 100s ppm Ag range. As such, fungi can be significant accumulators of Ag that might render them useful in exploration. In pristine areas, the highest recorded concentrations are <3 ppm Ag.

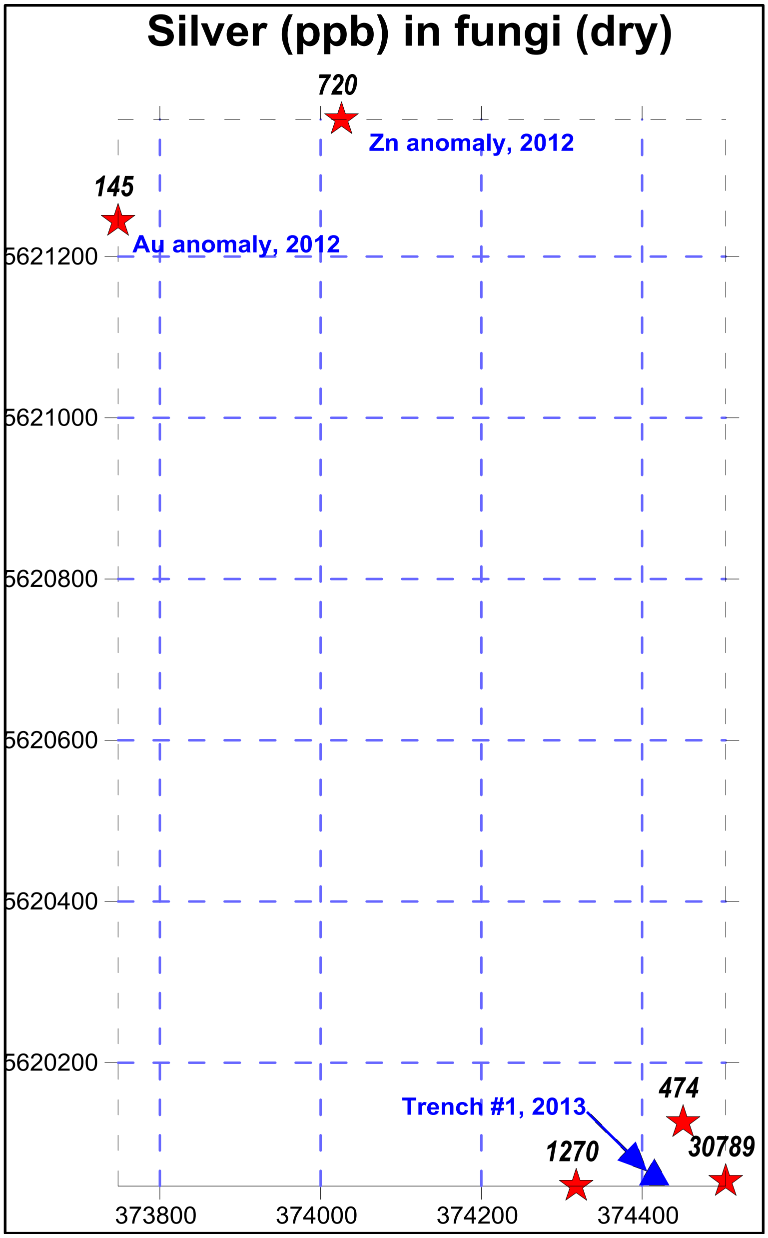

Figure 9.3: *Silver in dry fungi*

Samples collected were not identified, since this was a simple first-pass look to determine metal concentrations. Of particular note is the very high concentration of Ag (>30 ppm) to the east of Trench 1 in a pristine forest environment (Figure 9.3). This is some 30-100 times usual background concentrations in fungi. Other elements enriched at this locality include As, Cd, Cs, Hg, Rb and Tl. A summary of the data is shown in Table 6, with details of all elements in Appendix 1.

Table 6: Summary of selected elements in fungi

Easting	Northing	Sample number	Location	Ag	As	Au	Cd	Cs	Cu	Hg	Pb	Rb	S	Tl	Zn
				ppb	*ppm*	*ppb*	*ppm*	*ppm*	*ppm*	*ppb*	*ppm*	*ppm*	*%*	*ppm*	*ppm*
374026	5621370	13CdM-2857	Zn-x	720	<0.1	<0.2	0.22	0.67	5.85	183	0.08	147.1	0.11	<0.02	65
373748	5621244	13CdM-2860	Au-x	145	<0.1	<0.2	0.23	1.2	7.88	174	0.85	190.5	0.13	0.04	125
374451	5620126	13CdM-2867	Trench #1-x	474	<0.1	0.2	0.16	1.77	6.18	255	0.12	187.3	0.1	0.04	59
374318	5620047	13CdM-2877	Trench #1-x	1270	<0.1	0.8	1.34	1.28	31.51	254	0.18	168.5	0.52	<0.02	128
374504	5620053	13CdM-2879	Trench #1-x	30789	5.7	<0.2	17.12	26.5	19.22	852	0.16	706.4	0.28	0.16	131

9.4 Geophysics - VLF

Data reduction consists of calculating GPS positions and elevations for every station and preparing the data for input into the inversion program. Prior to running the inversions, a series of tests are run to analyze the quality of the data and the effectiveness of filtering.

Two characteristics are immediately obvious on the data. First, there is little difference between the results for the different transmitters, particularly for Line 1. Second, there is a significant conductivity anomaly in the near subsurface (upper 50 m) beneath the northern end of Line 1 (Figs. 9.4 and 9.5) Although the scale used for the contours shows values greater than 10 mS/m as red, some of the calculated conductivity values in this zone exceed 40 mS/m. However, the magnitudes of these values are, to a large extent, dependent on the magnitude of the background resistivity (assumed to be 500 Ohm-m), which can only be estimated at this time. Conversely, Line 2 shows very few conductive zones, and those that are present tend to be weak (low magnitude).

Both lines crossed the *trench zone*. The anomalous mineralization is located near the line intersection (indicated on the conductivity cross sections, Figs. 9.4 and 9.5); however, there are no prominent conductors that appear on the inversions in this area; minor conductors appearing on the NML versions at the surface are discussed below. This may be because mineralization consists mainly of sphalerite which has poor conductivity, whereas the zone of high conductivity may indicate the presence of significant pyrite and (or) pyrrhotite.

In his report to us, Fred Cook noted in his summary that the profile inversions identified a substantial conductivity anomaly in the northern half of Line 1 (N/S line) that should be examined further.

The full report is presented in Appendix 3.

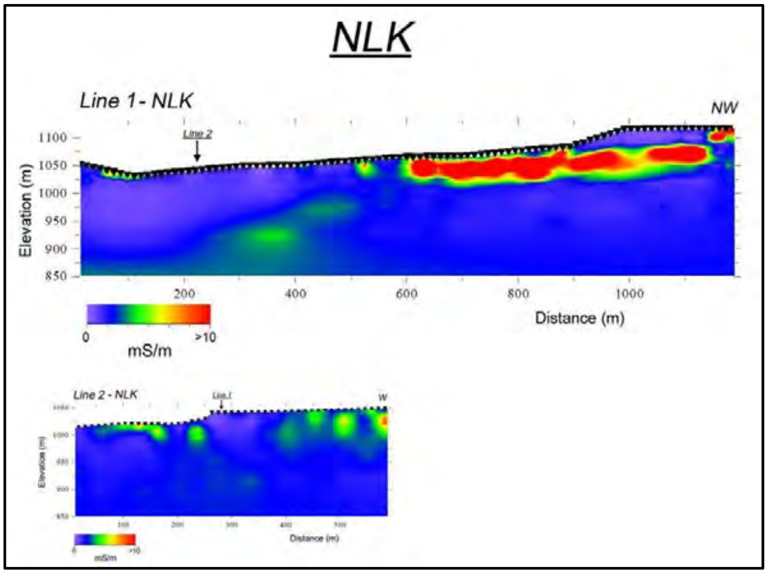

Figure 9.4: *Inversion results along Line 1 (top) and Line 2 (bottom) for the Seattle (NLK) transmitter looking to the southwest (perpendicular to the line). The lines intersected at the arrows drawn on each profile. The inverted triangles are the station locations, and colour contours are in mS/m (millsiemens per metre).*

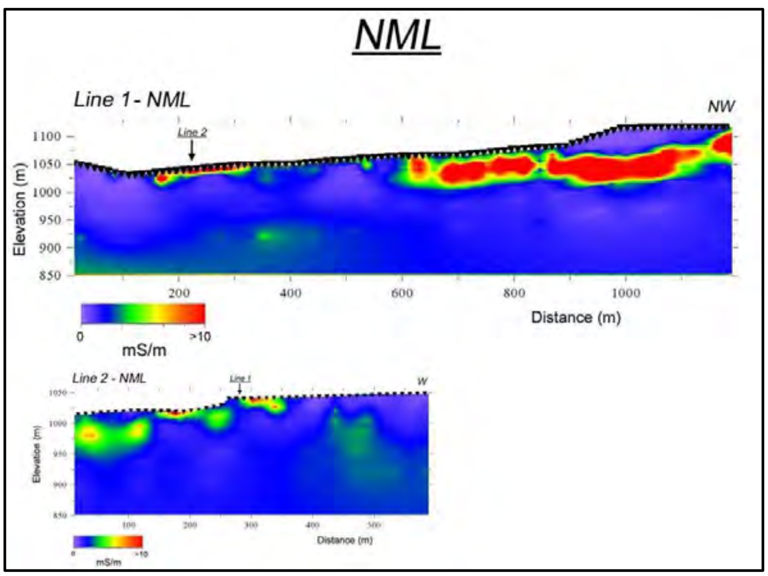

Figure 9.5: *Inversion results along Line 1 (top) and Line 2 (bottom) for the LaMoure, North Dakota (NML) transmitter looking to the south. The lines intersected at the arrows drawn on each profile.*

10. References

Borovička J, Kotrba P., Gryndler M., Mihaljevič M., Řanda 497 Z., Rohovec J., Cajthaml T., Stijve T, Dunn CE. 2010. Bioaccumulation of silver in ectomycorrhizal saprobic macrofungi from pristine and polluted areas. Science of the Total Environment 408: 2733-2744.

Borovička J, Řanda Z, Jelínek E, Kotrba P, Dunn CE. 2007. Hyperaccumulation of silver by Amanita strobiliformis and related species of the section Lepidella. Mycological Research 111:1339-1344.

British Columbia Ministry of Energy, Mines and Petroleum Resources; *Annual Reports*: 1964 (p. 105-108), 1965 (p. 165), 1968 (p. 222).

British Columbia Ministry of energy, Mines and Petroleum Resources; *Assessment Reports*: Nos. 578, 579, 2169, 4933, 4934, 4945, 5369, 6214, 6551.

British Columbia Ministry of Energy, Mines and Petroleum Resources; *Geology, Exploration and Mining*: 1969 (p. 298), 1974 (p. 91-94).

British Columbia Ministry of Energy, Mines and Petroleum Resources; *Exploration in British Columbia*: 1975 (p. E54), 1977 (p. E82)

Dunn, C.E. and Thompson, R.I. 2007, Biogeochemical Exploration using Douglas-fir Tree Tops in the Mabel Lake Area, Southern British Columbia (NTS 82L09 and 10), GSC Open File 5538.

Dunn, C.E. and Thompson, R I. 2009, Investigations of base metal and gold biogeochemical anomalies in the Mabel Lake area, southern British Columbia (NTS 82L09 and 10); Geological Survey of Canada, Open File 6147, 59 p and CD-ROM.

Höy, T., 1976, Lead-zinc deposits, southeastern British Columbia, in Geological Fieldwork 1975: B.C. Department of Mines and Petroleum Resources, Paper 1976-1, p. 7-18.

Höy, T., 1977a, Big Ledge (82L/8E), in Geology in British Columbia 1975: B.C. Department of Mines and Petroleum Resources, p. G12-G18.

Höy, T., 1977b, Kingfisher, Bright Star (82L/8E), in Geology in British Columbia 1975: B.C. Department of Mines and Petroleum Resources, p. G18-G30.

Thompson, R.I., Glombick, P., Erdmer, P., Heaman, L.M., Lemieux, Y. and Daughtry, K.L., 2006, Evolution of the ancestral Pacific margin, southern Canadian Cordillera: Insights from new geological maps, *in* Colpron, M. and Nelson, J.L., eds., Paleozoic Evolution and Metallogeny of Pericratonic Terranes at the Ancient Pacific Margin of North American, Canadian and Alaskan Cordillera: Geological Association of Canada, Special Paper 45, p. 433-482.

Thompson, R.I., in press, Geology, Mabel Lake, British Columbia: Geological Survey of Canada, Open File 4379, 1:50,000.

11.0 Statement of Costs

CD CLAIMS – "CD1 – CD5"
(27 May 2013 to 18 April, 2014)

Technical Field Personnel & Expenses (Oct 3-11, 2013)			
C. Dunn (2.5 days: Oct 4-6/13 @ $800/day)	$ 2,000.00		
R. Hetherington (8 days: Oct 4-11/13 @ $800/day)	6,400.00		
R.I. Thompson (8.2 days; Oct 3-11/13 @ $80/day)	6,560.00		
Total Field Personnel	$14,960.00		
Employment-related fees & insurance (5% of labour)	748.00		
Total Field Personnel expenses		*$15,708.00*	
Field gear & supplies	$ 9.50		
Field living expenses	512.91		
Field office & telephone expenses	47.08		
Field travel & accommodation	1,441.05		
Vehicle mileage, rental & fuel expense	2,105.50		
Total Field expenses		*$ 4,116.04*	
Total Personnel & Field expenses			*$19,824.04*
Office, Data Interpretation & Reporting			
C. Dunn (5.5 days @ $800/day)	$ 4,400.00		
R. Hetherington (3.8 days @ $800/day)	3,040.00		
R.I. Thompson (3.5 days @ $800/day)	2,800.00		
Total Office Personnel	$ 10,240.00		
Employment-related fees & insurance (5% of labour)	512.00		
Total Office Personnel expenses		*$ 10,752.00*	
Geophysical subcontract			
F. Cook - Salt Spring Island Imaging, Ltd.: Nov 3/13		$ 800.00	
Total subcontracting		*$ 800.00*	
Laboratory Expenses			
ACME Labs (18 rocks, 32 Ah soils +2 controls & 5 veg'n)	$ 1,207.00		
Shipping	28.92		
Total Assays		*$1,235.92*	
Total Office, Data Interpretation & Reporting			*$12,787.92*
Sub-total			***$32,611.96***
15% administration fee			$ 4,891.79
Total CD Property April 2013-2014 expenses			**$37,503.75**
Total amount applied			**$37,455.36**

12.0 Statement of Qualifications

I, **Robert I. Thompson**, do hereby certify that:

I attained the degree of Doctor of Philosophy (PhD) in geology from Queens University, Kingston, Ontario in 1972.
I have a Hon. B.Sc. in geology from Queens University, Kingston, Ontario (1968). I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (P.Eng. 1972).
I am a Fellow of the Geological Association of Canada.
I have worked as a geologist for a total of 38 years since my graduation from university, all of it in the Canadian Cordillera.
I have worked for the BC Geological Survey (1972-74) and the Geological Survey of Canada (1974-2007) and now act as an independent consultant (2007-present). I acted as a consultant to the Petroleum Department of the Bolivian Government (1990) under the auspices of PCIAC (Petro Canada International Aid Corp).
I have a thorough knowledge of the geology of southern British Columbia based on extensive field mapping.
I have authored numerous scholarly publications in peer-reviewed journals, and have published or am preparing to publish 32, 1:50,000 scale geological maps of Lardeau (NTS 82K) and Vernon (NTS: 82L) areas.
I am a co-author of this report.
I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report.

signed and sealed at North Saanich, B.C.

Robert I. Thompson, PhD, P.Eng
RIT Minerals Corp
10915 Deep Cove Rd., North Saanich, B.C.

Dated at North Saanich, B.C., 17th June, 2014; Reg. No. 115741 **Association of Professional Engineers and Geoscientists of British Columbia**

I, **Colin E. Dunn**, do hereby certify that:

I attained the degree of Doctor of Philosophy (PhD) in geology and geochemistry from London University, UK, in 1972.
I have a Hon. B.Sc. in geology from London University, UK (1968).
I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (P.Geo., 2000)
I am a registered member of the Association of Professional Engineers and Geoscientists of Saskatchewan (P. Eng from 1974-1985; and P.Geo since 2000)
I have worked as a geologist for a total of 42 years since my graduation from university, all of it in Canadian except for short contracts overseas.
I have worked for the Saskatchewan Geological Survey (1972-85) and the Geological Survey of Canada (1985-1998) and now act as an independent consultant (1998-present).
From 1974-1976 I was a Sessional Lecturer in Geology at the University of Regina.
I have published about 250 papers, book chapters, and articles covering a wide range of topics (mostly geochemistry), and more than 100 confidential reports for private companies and presented research papers and courses in dozens of countries on 6 continents. Among the positions that I have held there are:

- President, Saskatchewan Geological Society (1975).
- Chairman and Canadian representative to International Atomic Energy Agency/Nuclear Energy Agency Working Group on Uranium Biogeochemistry (1979 - 1982).
- Councillor, Association of Exploration Geochemists (1986-1992).
- Headed the implementation and co-ordination of GSC program on Environmental Geochemistry (1988-1993)
- Federal Geoscience program coordinator for Mineral Development Agreement with Saskatchewan (1991-1996)
- Participant in two scientific expeditions sponsored by the National Geographic Society - Morocco in 1993; Brazil, Paraguay and Argentina in 1996.
- Project leader of Canada/Brazil project (CIDA) on biogeochemical study of mercury and gold in vegetation around garimpeiro gold workings at Creporizão, Pará, Brazil (1998).
- Principal (1998-present) – Colin Dunn Consulting Inc.

I was sole author of a book detailing latest developments on biogeochemical methods, entitled Dunn, C.E. , 2007, Biogeochemistry in Mineral Exploration, (Handbook of Exploration and Environmental Geochemistry 9, Series editor, M. Hale), Elsevier, Amsterdam (462 pp. + CD)
I am a co-author of this present report.

I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report.

signed and sealed at North Saanich, B.C.

Colin E. Dunn, PhD, P.Geo
8756 Pender Park Drive
North Saanich BC, V8L3Z5.

Dated at North Saanich, B.C. 17th June, 2014; Reg. No. 136910 **Association of Professional Engineers and Geoscientists of British Columbia**

I, **Renée Hetherington**, do hereby certify that:

I attained the degree of Doctor of Philosophy (PhD) in interdisciplinary studies (anthropology, biology, geography and geology) from University of Victoria, Victoria, British Columbia in 2002.
I obtained an SME Enterprise Board Effectiveness Program from Univ. of Toronto (2012)
I have a Masters in Business Administration from the University of Western Ontario, London, Ontario (1985).
I have a B.A. in Business Administration from Simon Fraser University, Burnaby, British Columbia (1981).
I am a member of the Geological Association of Canada.
I was co-leader of International Geological Correlation Program (IGCP) Project 526 "Risks, Resources and Record on the Continental Shelf (2007-2011).
I was Canadian co-leader of IGCP Project 464 from 2003-2007.
I was a SSHRC Research Postdoctoral Fellow at the University of Victoria, School of Earth and Ocean Sciences (2005-2007).
I was Research Associate for Dr. Andrew Weaver, University of Victoria, Climate Modelling Group (2003-2007).
I have been a field assistant and volunteer for the Geological Survey of Canada (1996-2008; 2011-present)
I now act as an independent consultant (2007- present).
I acted as a consultant to the Ministry of Agriculture, Cattle Industry Development Council of British Columbia (1994-1995).
I was Executive Director, Finance and Research & Development, BC Cattlemen's Association (1992-1994).
I was a member of the Executive Council, Cattle Industry Development Council of British Columbia, BC Ministry of Agriculture (1992-1994).
I was Financial and Systems Analyst for Lever Bros. A & W Canada (1985-1986).
I have authored numerous scholarly publications in peer-reviewed journals, and have recently co-authored an academic text published by Cambridge University Press: *The Climate Connection* (2010) and authored *Living in a Dangerous Climate* (2012) also by Cambridge University Press.
I am a co-author of this report.
I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report.

"signed and sealed" at North Saanich, B.C. Renée

Hetherington, PhD, MBA
RIT Minerals Corp
10915 Deep Cove Rd., North Saanich, B.C.

Dated at North Saanich, B.C., 17th June 2014.

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Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

Client:	**Colin Dunn Consulting Inc.** 8756 Pender Park Drive Sidney BC V8L 3Z5 CANADA
Submitted By:	Colin Dunn
Receiving Lab:	Canada-Vancouver
Received:	October 10, 2013
Report Date:	November 25, 2013
Page:	1 of 3

CERTIFICATE OF ANALYSIS VAN13004468.1

CLIENT JOB INFORMATION

Project:	CD CLAIMS
Shipment ID:	FEDEX876356242499
P.O. Number	
Number of Samples:	39

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.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	39	Dry at 60C			VAN
SS80	32	Dry at 60C sieve 100g to -80 mesh			VAN
1F04	39	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Colin Dunn Consulting Inc.
8756 Pender Park Drive
Sidney BC V8L 3Z5
CANADA

CC: Bob Thompson
Renee Hetherington

BRITISH COLUMBIA CERTIFIED ASSAYER
RAYMOND CHAN
CHIEF ASSAYER

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Client: **Colin Dunn Consulting Inc.**
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Project: CD CLAIMS
Report Date: November 25, 2013

CERTIFICATE OF ANALYSIS VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	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	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001
2102851	Soil	0.92	23.42	78.60	349.2	370	14.7	5.1	8034	0.81	1.5	0.3	0.2	0.2	103.2	2.35	0.58	0.58	14	1.39	0.110
2102852	Soil	0.56	11.04	57.44	58.6	687	8.5	3.3	1924	0.41	1.6	0.1	0.6	<0.1	127.8	0.69	0.92	0.47	7	1.76	0.095
2102853	Soil	0.60	46.44	121.18	214.5	427	16.3	7.0	6897	0.87	1.3	0.2	<0.2	0.1	134.6	2.84	0.35	0.70	13	1.77	0.160
2102854	Soil	0.97	10.49	16.18	80.1	118	8.0	3.0	1215	0.42	0.9	0.2	<0.2	0.1	100.0	0.50	0.22	0.28	7	1.44	0.167
2102855	Soil	0.72	28.06	65.36	126.3	418	22.0	6.4	3055	1.05	1.5	0.3	0.7	<0.1	126.2	1.80	0.47	0.41	17	1.61	0.143
2102856	Soil	1.72	14.56	85.38	56.0	400	7.7	4.0	5863	0.45	1.9	0.2	<0.2	<0.1	131.4	1.30	0.87	0.46	8	2.20	0.117
2102857	Soil	1.05	13.47	13.87	215.8	142	14.5	6.2	1452	0.80	0.5	0.2	<0.2	0.6	196.3	1.99	0.11	0.12	14	2.82	0.092
2102858	Soil	0.54	11.58	4.18	116.2	73	6.9	2.7	1392	0.26	<0.1	<0.1	<0.2	<0.1	86.3	2.36	0.05	0.07	4	1.92	0.182
2102859	Soil	1.71	27.20	54.36	73.5	219	38.2	9.3	2833	1.55	2.1	0.9	0.5	0.3	69.2	1.27	0.32	0.38	24	1.63	0.168
2102860	Soil	0.42	13.82	18.25	188.7	75	19.6	6.4	4985	0.83	0.5	0.1	<0.2	0.2	81.7	0.38	0.10	0.13	16	1.86	0.165
2102861	Soil	0.62	7.21	4.36	120.4	55	2.3	0.5	3555	0.08	0.3	<0.1	0.2	<0.1	52.0	0.58	0.07	0.04	<2	1.31	0.188
2102862	Soil	1.30	13.08	23.61	42.1	133	11.7	4.9	971	0.75	0.9	0.2	<0.2	0.2	78.4	0.32	0.19	0.17	13	0.79	0.140
2102863	Soil	1.68	32.08	98.22	190.0	253	32.6	10.6	434	2.52	14.8	28.5	3.3	1.4	38.4	2.18	1.01	0.52	32	0.89	0.139
2102864	Soil	2.11	24.94	366.49	1994.7	101	19.9	8.4	785	2.67	0.8	0.8	<0.2	0.8	57.5	1.99	0.07	0.89	30	1.16	0.187
2102865	Soil	1.29	18.17	10.27	186.7	69	8.4	4.8	975	0.75	0.7	0.2	<0.2	0.6	79.9	1.71	0.07	0.10	11	1.57	0.145
2102866	Soil	0.61	11.18	16.30	122.0	127	12.6	5.5	1976	1.29	1.1	0.2	<0.2	0.2	47.1	0.87	0.17	0.16	22	0.94	0.086
2102867	Soil	0.49	9.23	22.41	46.2	65	3.5	1.5	1702	0.38	0.4	<0.1	0.6	0.1	85.2	0.68	0.27	0.16	6	1.13	0.070
2102868	Soil	0.46	11.51	24.46	59.4	82	5.2	2.5	1539	0.63	0.6	0.1	<0.2	0.3	95.9	0.77	0.23	0.36	10	1.36	0.083
2102869	Soil	0.99	11.82	48.11	138.5	112	8.8	4.7	5837	0.74	0.2	0.2	<0.2	0.3	74.2	1.89	0.28	0.33	13	1.31	0.069
2102870	Soil	1.64	23.11	40.01	676.6	46	24.7	10.9	1066	2.15	0.9	0.3	<0.2	1.3	93.8	1.55	0.07	0.14	23	2.35	0.111
2102871	Soil	0.90	14.83	66.47	67.5	81	12.6	4.2	1968	0.95	1.7	0.3	<0.2	0.6	39.6	1.02	1.28	0.37	16	0.78	0.074
2102872	Soil	1.42	31.32	86.09	239.7	222	16.6	6.0	6211	1.24	1.8	0.3	<0.2	0.5	67.6	2.53	0.34	0.59	21	1.48	0.109
2102873	Soil	1.22	17.44	36.75	175.3	179	11.5	4.5	5114	1.05	1.0	0.3	<0.2	0.8	59.2	1.56	0.25	0.30	20	1.92	0.098
2102874	Soil	1.78	20.54	12.86	134.2	92	20.5	8.0	945	1.88	1.3	0.6	<0.2	0.7	38.4	0.48	0.08	0.13	31	1.10	0.148
2102875	Soil	1.14	16.63	30.89	137.6	194	4.1	1.8	1988	0.54	0.7	0.1	<0.2	<0.1	52.6	1.01	0.36	0.19	9	1.34	0.128
2102876	Soil	2.78	32.04	78.28	191.9	524	7.7	2.4	3455	0.55	1.4	0.2	<0.2	<0.1	46.7	2.07	0.96	0.49	10	1.33	0.106
2102877	Soil	1.00	11.63	28.87	13.6	241	4.5	7.9	763	0.48	3.2	1.1	<0.2	0.3	123.0	0.69	0.87	0.23	5	2.63	0.078
2102878	Soil	0.82	9.95	5.29	429.9	83	4.2	2.7	1234	0.50	0.7	0.2	0.3	0.1	69.5	8.33	0.05	0.06	8	2.37	0.159
2102879	Soil	0.90	11.88	19.68	191.0	65	13.7	6.9	1720	1.44	0.9	0.3	0.7	0.9	28.3	0.54	0.09	0.16	21	0.57	0.115
2102880	Soil	0.95	18.57	17.73	259.1	157	9.6	4.4	2712	0.92	0.5	0.2	<0.2	0.2	46.2	1.18	0.11	0.13	15	0.96	0.109

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Project: CD CLAIMS
Report Date: November 25, 2013

CERTIFICATE OF ANALYSIS   VAN13004468.1

Method		1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
2102851	Soil	13.1	10.9	0.15	755.2	0.041	<20	0.75	0.011	0.12	<0.1	0.9	0.17	0.05	176	0.2	0.04	4.0	0.91	<0.1	0.03
2102852	Soil	3.6	7.0	0.14	487.4	0.014	<20	0.50	0.010	0.11	<0.1	0.4	0.12	0.11	300	0.6	<0.02	1.8	0.52	<0.1	<0.02
2102853	Soil	6.8	12.1	0.18	749.7	0.032	<20	0.93	0.013	0.15	<0.1	0.9	0.11	0.06	133	0.2	<0.02	3.6	0.81	<0.1	0.03
2102854	Soil	5.4	6.6	0.15	242.4	0.019	<20	0.42	0.012	0.17	<0.1	0.5	0.11	0.16	195	0.5	0.08	1.9	0.57	<0.1	0.03
2102855	Soil	7.0	17.0	0.31	480.4	0.043	<20	0.96	0.011	0.17	<0.1	0.7	0.15	0.07	105	0.1	<0.02	5.2	1.18	<0.1	<0.02
2102856	Soil	6.7	6.3	0.21	431.2	0.023	<20	0.38	0.008	0.12	0.1	0.6	0.23	0.14	291	0.4	0.04	1.6	0.69	<0.1	<0.02
2102857	Soil	4.8	14.3	0.26	311.5	0.050	<20	0.67	0.008	0.13	<0.1	1.2	0.11	0.12	137	0.2	<0.02	3.5	0.98	<0.1	0.05
2102858	Soil	1.8	5.8	0.13	132.4	0.014	<20	0.22	0.005	0.24	<0.1	0.6	0.10	0.16	111	0.5	<0.02	1.0	0.61	<0.1	<0.02
2102859	Soil	15.1	21.0	0.23	151.6	0.042	<20	1.56	0.009	0.16	0.1	1.3	0.19	0.13	153	0.6	0.04	6.1	2.13	<0.1	0.05
2102860	Soil	2.3	17.7	0.25	477.1	0.055	<20	0.68	0.010	0.14	<0.1	0.7	0.16	0.11	145	0.1	<0.02	3.3	1.11	<0.1	0.02
2102861	Soil	1.2	2.3	0.06	169.9	0.004	<20	0.07	0.006	0.25	<0.1	0.4	0.09	0.14	119	0.3	<0.02	0.3	0.25	<0.1	<0.02
2102862	Soil	6.1	10.6	0.18	310.0	0.036	<20	0.56	0.006	0.10	0.1	0.8	0.09	0.13	192	0.3	<0.02	3.1	0.76	<0.1	0.03
2102863	Soil	20.6	20.1	0.35	157.8	0.050	<20	1.29	0.018	0.11	0.2	3.6	0.42	0.99	169	2.5	0.14	4.1	1.06	<0.1	0.03
2102864	Soil	8.6	30.0	0.56	1020.0	0.078	<20	1.80	0.014	0.24	0.2	2.2	0.15	0.18	51	0.2	<0.02	6.9	1.77	<0.1	0.04
2102865	Soil	6.1	11.5	0.23	345.9	0.040	<20	0.69	0.010	0.20	<0.1	1.0	0.09	0.18	96	0.1	0.02	3.2	1.02	<0.1	0.06
2102866	Soil	4.2	16.5	0.22	263.0	0.079	<20	1.41	0.011	0.11	0.1	1.2	0.16	0.06	121	<0.1	<0.02	7.4	1.65	<0.1	0.07
2102867	Soil	3.5	4.6	0.11	255.9	0.027	<20	0.39	0.010	0.10	<0.1	0.5	0.11	0.09	152	<0.1	<0.02	2.3	0.85	<0.1	0.03
2102868	Soil	4.2	6.3	0.12	289.7	0.045	<20	0.69	0.010	0.10	<0.1	0.6	0.07	0.09	141	0.1	0.02	3.9	0.81	<0.1	0.04
2102869	Soil	5.1	8.0	0.13	299.7	0.051	<20	0.54	0.010	0.10	<0.1	0.8	0.18	0.09	122	0.2	0.02	4.0	0.89	<0.1	0.04
2102870	Soil	12.7	23.4	0.54	309.4	0.071	<20	2.07	0.062	0.24	0.2	3.1	0.21	0.16	92	0.4	0.02	5.9	2.38	<0.1	0.06
2102871	Soil	4.7	13.1	0.18	143.7	0.062	<20	0.83	0.008	0.13	0.1	1.5	0.25	0.07	371	0.3	0.03	4.1	1.16	<0.1	0.05
2102872	Soil	7.9	16.7	0.20	412.3	0.052	<20	1.06	0.011	0.14	<0.1	1.4	0.19	0.06	106	0.4	<0.02	4.6	1.11	<0.1	0.04
2102873	Soil	6.4	11.4	0.15	305.7	0.069	<20	0.74	0.011	0.11	0.1	1.2	0.17	0.06	52	0.1	0.05	4.9	0.93	<0.1	0.04
2102874	Soil	7.6	29.8	0.44	199.4	0.093	<20	1.91	0.011	0.30	0.1	2.2	0.14	0.13	70	<0.1	0.05	7.5	1.67	<0.1	0.07
2102875	Soil	2.8	5.8	0.12	218.1	0.016	<20	0.46	0.014	0.13	<0.1	0.4	0.07	0.07	94	<0.1	<0.02	2.4	0.57	<0.1	<0.02
2102876	Soil	4.0	6.1	0.07	203.1	0.014	<20	0.59	0.009	0.11	<0.1	0.5	0.24	0.08	222	0.2	0.02	2.1	1.28	<0.1	<0.02
2102877	Soil	26.2	4.0	0.07	102.5	0.008	<20	0.73	0.022	0.05	<0.1	0.8	0.11	0.25	274	0.5	0.03	0.9	0.10	0.3	0.04
2102878	Soil	2.3	6.2	0.19	132.9	0.029	<20	0.61	0.011	0.23	<0.1	0.5	0.04	0.11	94	0.3	<0.02	2.5	0.49	<0.1	0.03
2102879	Soil	4.4	21.5	0.27	228.8	0.088	<20	1.28	0.021	0.15	<0.1	2.1	0.15	0.08	87	0.3	<0.02	6.5	1.80	<0.1	0.09
2102880	Soil	2.9	13.2	0.18	389.1	0.057	<20	0.86	0.013	0.13	<0.1	1.0	0.13	0.10	197	0.2	<0.02	4.3	2.34	<0.1	0.04

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Project: CD CLAIMS
Report Date: November 25, 2013

CERTIFICATE OF ANALYSIS VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
2102851	Soil	0.98	14.5	1.1	<0.05	1.0	3.88	14.4	0.10	<1	0.4	4.8	<10	<2
2102852	Soil	0.62	11.2	0.6	<0.05	0.2	1.18	5.7	0.06	<1	0.3	2.0	<10	<2
2102853	Soil	0.81	14.9	1.5	<0.05	0.7	2.44	10.7	0.14	<1	0.3	3.2	<10	<2
2102854	Soil	0.76	10.2	1.0	<0.05	1.0	2.75	5.2	<0.02	<1	<0.1	3.5	<10	2
2102855	Soil	1.60	32.9	1.0	<0.05	0.6	1.96	10.6	0.09	<1	0.2	5.3	<10	<2
2102856	Soil	0.52	13.3	0.9	<0.05	0.5	2.21	7.8	0.06	<1	0.3	1.3	<10	<2
2102857	Soil	1.83	23.6	0.6	<0.05	1.8	1.85	8.4	0.02	<1	0.2	7.7	<10	<2
2102858	Soil	0.52	17.3	0.3	<0.05	0.4	0.54	3.2	<0.02	<1	<0.1	2.2	<10	<2
2102859	Soil	2.02	20.1	1.2	<0.05	1.8	6.32	20.6	0.06	<1	0.6	10.0	<10	<2
2102860	Soil	1.51	24.7	0.4	<0.05	0.8	0.91	5.4	<0.02	<1	0.2	6.0	<10	<2
2102861	Soil	0.08	12.6	0.2	<0.05	0.2	0.29	0.8	<0.02	<1	<0.1	0.4	<10	<2
2102862	Soil	1.59	13.8	0.7	<0.05	0.9	1.67	8.1	<0.02	<1	0.3	4.9	<10	<2
2102863	Soil	1.25	10.6	3.5	<0.05	1.4	16.73	38.1	0.05	4	0.5	9.9	<10	<2
2102864	Soil	3.50	35.1	0.7	<0.05	2.0	4.04	17.6	0.03	<1	0.4	13.8	<10	<2
2102865	Soil	1.52	26.8	0.5	<0.05	1.7	2.25	10.0	<0.02	<1	0.2	5.4	<10	<2
2102866	Soil	2.88	34.5	0.9	<0.05	3.2	1.40	8.1	0.02	<1	0.5	9.0	<10	<2
2102867	Soil	0.79	13.6	0.6	<0.05	1.1	1.19	4.3	<0.02	<1	0.2	1.7	<10	<2
2102868	Soil	1.20	12.8	0.8	<0.05	2.8	1.64	5.6	<0.02	<1	0.6	3.1	<10	3
2102869	Soil	1.12	15.7	0.8	<0.05	1.2	1.36	8.4	0.03	<1	0.2	3.0	<10	<2
2102870	Soil	2.46	34.6	0.5	<0.05	2.9	6.65	26.2	0.03	<1	0.8	12.9	<10	<2
2102871	Soil	1.67	23.2	1.0	<0.05	2.0	1.70	9.4	0.04	<1	0.5	4.0	<10	<2
2102872	Soil	1.59	22.4	1.3	<0.05	1.5	2.88	15.9	0.10	<1	0.4	4.2	<10	<2
2102873	Soil	1.83	16.7	1.0	<0.05	2.0	1.89	11.6	0.03	<1	0.4	4.4	<10	<2
2102874	Soil	3.55	37.2	0.6	<0.05	2.9	3.27	16.7	0.03	<1	0.7	17.5	<10	<2
2102875	Soil	0.44	9.9	0.7	<0.05	0.3	0.87	5.0	0.03	<1	<0.1	1.6	<10	<2
2102876	Soil	0.41	5.6	1.1	<0.05	0.4	1.77	7.3	0.09	<1	0.2	1.2	<10	<2
2102877	Soil	0.29	1.8	0.4	<0.05	2.5	11.64	37.7	0.04	<1	0.7	0.3	<10	<2
2102878	Soil	1.10	11.6	0.4	<0.05	1.7	1.16	4.7	<0.02	<1	0.2	3.1	<10	<2
2102879	Soil	3.02	31.0	0.8	<0.05	3.7	1.53	10.3	<0.02	<1	0.3	8.9	<10	<2
2102880	Soil	1.79	24.7	0.8	<0.05	1.8	1.25	7.1	<0.02	<1	0.5	4.5	<10	<2

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Project: CD CLAIMS
Report Date: November 25, 2013

CERTIFICATE OF ANALYSIS VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	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	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001
2102881	Soil	0.89	14.37	37.61	116.9	216	9.6	4.1	1602	1.70	2.1	0.5	<0.2	1.4	27.9	0.83	0.26	0.26	27	1.21	0.093
2102882	Soil	1.25	4.88	26.82	29.2	155	1.7	0.6	66	0.18	2.2	<0.1	<0.2	<0.1	42.8	0.49	0.59	0.17	3	1.09	0.065
2102883	Soil	0.36	14.73	25.42	249.7	196	7.2	4.1	3759	0.84	0.9	0.2	<0.2	0.5	35.4	1.55	0.15	0.14	12	1.16	0.115
2102884	Soil	1.60	30.68	86.25	180.6	239	33.4	9.6	431	2.41	13.6	27.0	1.0	1.4	37.3	2.17	0.94	0.49	30	0.85	0.124
2102857M	Soil	<0.01	5.85	0.08	65.4	720	0.5	<0.1	9	<0.01	<0.1	<0.1	<0.2	<0.1	4.1	0.22	<0.02	<0.02	<2	0.05	0.468
2102860M	Soil	<0.01	7.88	0.85	124.7	145	1.5	<0.1	16	<0.01	<0.1	<0.1	<0.2	<0.1	1.7	0.23	<0.02	<0.02	<2	0.03	0.584
2102867M	Soil	<0.01	6.18	0.12	58.6	474	0.8	<0.1	11	<0.01	<0.1	<0.1	0.2	<0.1	1.4	0.16	<0.02	0.04	<2	0.02	0.517
2102877M	Soil	0.33	31.51	0.18	128.2	1270	0.4	<0.1	6	<0.01	<0.1	<0.1	0.8	<0.1	1.2	1.34	<0.02	<0.02	<2	0.04	0.552
2102879M	Soil	0.06	19.22	0.16	130.7	30789	1.2	0.6	36	<0.01	5.7	<0.1	<0.2	<0.1	1.5	17.12	<0.02	<0.02	<2	0.04	0.719

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Project: CD CLAIMS
Report Date: November 25, 2013

CERTIFICATE OF ANALYSIS VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
2102881	Soil	4.8	13.0	0.13	102.5	0.110	<20	2.62	0.019	0.09	<0.1	2.1	0.03	0.03	86	<0.1	0.03	9.9	1.41	<0.1	0.45
2102882	Soil	1.0	3.0	0.04	74.5	0.009	<20	0.17	0.006	0.06	<0.1	0.5	<0.02	0.14	183	0.2	0.05	0.6	0.16	<0.1	<0.02
2102883	Soil	2.8	7.9	0.13	1635.3	0.051	<20	0.81	0.011	0.13	<0.1	1.0	0.16	0.04	85	0.1	<0.02	4.5	1.26	<0.1	0.04
2102884	Soil	19.6	19.4	0.31	131.1	0.045	<20	1.22	0.014	0.10	0.2	3.5	0.38	0.96	173	1.9	0.11	3.9	0.89	<0.1	0.03
2102857M	Soil	<0.5	1.7	0.10	1.3	0.002	<20	<0.01	0.014	2.62	<0.1	0.7	<0.02	0.11	183	0.8	<0.02	<0.1	0.67	<0.1	<0.02
2102860M	Soil	<0.5	2.0	0.10	1.4	0.002	<20	<0.01	0.021	2.10	<0.1	0.9	0.04	0.13	174	0.6	<0.02	<0.1	1.20	<0.1	<0.02
2102867M	Soil	<0.5	3.0	0.14	1.9	0.002	<20	<0.01	0.024	3.73	<0.1	0.4	0.04	0.10	255	0.5	0.02	<0.1	1.77	<0.1	<0.02
2102877M	Soil	<0.5	1.8	0.08	0.6	0.002	21	<0.01	0.009	3.48	<0.1	0.2	<0.02	0.52	254	0.6	<0.02	<0.1	1.28	<0.1	<0.02
2102879M	Soil	<0.5	2.3	0.11	3.4	0.003	<20	<0.01	0.043	4.37	<0.1	0.5	0.16	0.28	852	1.6	<0.02	<0.1	26.50	<0.1	<0.02

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CERTIFICATE OF ANALYSIS VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
2102881	Soil	2.38	13.7	1.2	<0.05	15.2	2.22	10.2	0.06	<1	0.4	8.9	<10	<2
2102882	Soil	0.23	2.9	0.3	<0.05	0.8	0.48	1.8	0.02	<1	<0.1	0.2	<10	<2
2102883	Soil	1.10	24.7	0.5	<0.05	1.6	1.15	6.1	<0.02	<1	0.6	3.7	<10	<2
2102884	Soil	1.18	9.4	3.1	<0.05	1.2	15.64	35.3	0.05	3	0.5	9.4	<10	<2
2102857M	Soil	<0.02	147.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
2102860M	Soil	<0.02	190.5	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	0.1	<10	<2
2102867M	Soil	<0.02	187.3	<0.1	<0.05	0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
2102877M	Soil	<0.02	168.5	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
2102879M	Soil	<0.02	706.4	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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QUALITY CONTROL REPORT VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	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	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	0.001
Pulp Duplicates																					
2102875	Soil	1.14	16.63	30.89	137.6	194	4.1	1.8	1988	0.54	0.7	0.1	<0.2	<0.1	52.6	1.01	0.36	0.19	9	1.34	0.128
REP 2102875	QC	1.22	16.02	34.22	146.3	220	4.2	1.8	2112	0.57	0.6	0.1	<0.2	<0.1	51.2	1.04	0.35	0.21	10	1.43	0.129
2102879M	Soil	0.06	19.22	0.16	130.7	30789	1.2	0.6	36	<0.01	5.7	<0.1	<0.2	<0.1	1.5	17.12	<0.02	<0.02	<2	0.04	0.719
REP 2102879M	QC	0.04	19.74	0.18	128.9	29976	0.8	0.5	35	<0.01	5.7	<0.1	0.7	<0.1	1.5	17.38	0.03	<0.02	<2	0.04	0.722
Reference Materials																					
STD DS10	Standard	14.19	164.15	156.80	362.9	1967	78.2	12.4	890	2.80	45.6	2.3	91.3	6.7	65.7	2.79	7.03	11.29	43	1.09	0.076
STD DS10	Standard	12.91	150.17	144.30	352.2	1945	69.0	11.8	851	2.70	45.6	2.4	63.9	6.2	64.4	2.72	6.45	10.97	42	1.05	0.076
STD OREAS45EA	Standard	1.31	684.00	12.95	29.8	279	392.6	46.5	378	21.99	8.5	1.6	49.6	9.5	3.5	0.04	0.16	0.22	305	0.04	0.028
STD OREAS45EA	Standard	1.08	646.56	12.89	25.2	252	367.1	42.4	356	20.29	7.4	1.7	58.7	9.4	3.4	0.03	0.15	0.35	290	0.03	0.027
STD DS10 Expected		14.69	154.61	150.55	352.9	1960	74.6	12.9	861	2.7188	43.7	2.59	91.9	7.5	67.1	2.48	9.51	11.65	43	1.0355	0.073
STD OREAS45EA Expected		1.39	709	14.3	28.9	260	381	52	400	23.51	9.1	1.73	53	10.7	3.5	0.02	0.2	0.26	303	0.036	0.029
BLK	Blank	<0.01	<0.01	0.04	<0.1	4	<0.1	<0.1	2	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<2	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	3	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<2	<0.01	<0.001

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Client: **Colin Dunn Consulting Inc.**
8756 Pender Park Drive
Sidney BC V8L 3Z5 CANADA

Project: CD CLAIMS
Report Date: November 25, 2013

QUALITY CONTROL REPORT VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Cs	Ge	Hf
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	0.02	0.1	0.02
Pulp Duplicates																					
2102875	Soil	2.8	5.8	0.12	218.1	0.016	<20	0.46	0.014	0.13	<0.1	0.4	0.07	0.07	94	<0.1	<0.02	2.4	0.57	<0.1	<0.02
REP 2102875	QC	2.8	6.0	0.12	216.7	0.016	<20	0.49	0.014	0.14	<0.1	0.4	0.08	0.07	93	<0.1	<0.02	2.5	0.63	<0.1	<0.02
2102879M	Soil	<0.5	2.3	0.11	3.4	0.003	<20	<0.01	0.043	4.37	<0.1	0.5	0.16	0.28	852	1.6	<0.02	<0.1	26.50	<0.1	<0.02
REP 2102879M	QC	<0.5	2.3	0.10	4.0	0.003	<20	<0.01	0.043	4.31	<0.1	0.2	0.16	0.27	886	1.8	<0.02	<0.1	27.87	<0.1	<0.02
Reference Materials																					
STD DS10	Standard	15.4	54.3	0.80	399.4	0.074	<20	1.03	0.064	0.33	2.9	2.8	5.14	0.28	298	2.7	4.95	4.2	2.45	<0.1	0.04
STD DS10	Standard	14.8	48.7	0.77	378.8	0.068	<20	0.98	0.062	0.33	2.9	2.9	4.83	0.28	275	2.2	4.77	4.2	2.40	<0.1	0.05
STD OREAS45EA	Standard	6.0	789.0	0.09	156.8	0.081	<20	3.19	0.021	0.05	<0.1	73.0	<0.02	0.04	7	0.5	0.04	11.8	0.61	0.2	0.57
STD OREAS45EA	Standard	6.2	771.8	0.08	143.3	0.078	<20	2.94	0.020	0.05	<0.1	71.8	<0.02	0.04	14	0.4	0.06	10.1	0.53	0.2	0.56
STD DS10 Expected		17.5	54.6	0.7651	349	0.0817		1.0259	0.0638	0.3245	3.34	2.8	4.79	0.2743	289	2.3	4.89	4.3	2.63	0.08	0.05
STD OREAS45EA Expected		6.57	849	0.095	148	0.0875		3.13	0.02	0.053		78	0.072	0.036	10	0.63	0.07	11.7	0.63	0.26	0.57
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	6	<0.1	<0.02	<0.1	<0.02	<0.1	<0.02

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Sidney BC V8L 3Z5 CANADA

Project: CD CLAIMS
Report Date: November 25, 2013

QUALITY CONTROL REPORT VAN13004468.1

	Method	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
	Analyte	Nb	Rb	Sn	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb
	MDL	0.02	0.1	0.1	0.05	0.1	0.01	0.1	0.02	1	0.1	0.1	10	2
Pulp Duplicates														
2102875	Soil	0.44	9.9	0.7	<0.05	0.3	0.87	5.0	0.03	<1	<0.1	1.6	<10	<2
REP 2102875	QC	0.44	10.3	0.8	<0.05	0.2	0.98	5.3	0.03	<1	<0.1	1.8	<10	<2
2102879M	Soil	<0.02	706.4	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
REP 2102879M	QC	<0.02	716.8	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
Reference Materials														
STD DS10	Standard	1.08	31.2	1.6	<0.05	2.2	7.23	31.0	0.28	50	<0.1	21.7	109	186
STD DS10	Standard	0.90	28.4	1.5	<0.05	1.9	6.75	28.9	0.20	52	0.7	20.0	117	183
STD OREAS45EA	Standard	0.05	7.4	0.8	<0.05	21.1	5.19	15.0	0.08	<1	0.5	2.7	55	99
STD OREAS45EA	Standard	0.06	6.9	0.8	<0.05	18.0	4.70	14.4	0.06	<1	0.4	2.3	55	97
STD DS10 Expected		0.96	27.7	1.6		2.3	7.77	36	0.22	50	0.6	19.1	110	188
STD OREAS45EA Expected		0.06	7.04	0.83		20	5.09	17.7	0.08		0.41	2.37	66	108
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2
BLK	Blank	<0.02	<0.1	<0.1	<0.05	<0.1	<0.01	<0.1	<0.02	<1	<0.1	<0.1	<10	<2

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Client: **RIT Minerals Corp.**
10915 Deep Cove Rd
North Saanich BC V8L 5P9 Canada

Submitted By:	Colin Dunn
Receiving Lab:	Canada-Vancouver
Received:	October 11, 2013
Report Date:	October 29, 2013
Page:	1 of 2

CERTIFICATE OF ANALYSIS VAN13004187.1

CLIENT JOB INFORMATION

Project:	CD13
Shipment ID:	
P.O. Number	
Number of Samples:	18

SAMPLE DISPOSAL

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

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	18	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX2	18	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
8TD	15	4 Acid Digest AAS Finish Vancouver	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Colin Dunn Consulting Inc.
8756 Pender Park Drive
Sidney BC V8L 3Z5
CANADA

CC: Renee Hetherington
Robert Thompson

BRITISH COLUMBIA CERTIFIED ASSAYER
RAYMOND CHAN
CHIEF ASSAYER

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Client: **RIT Minerals Corp.**
10915 Deep Cove Rd
North Saanich BC V8L 5P9 Canada

Project: CD13
Report Date: October 29, 2013

CERTIFICATE OF ANALYSIS VAN13004187.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	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	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
2102884	Rock	1.53	0.7	71.4	157.7	>10000	0.3	6.5	3.5	57	6.78	<0.5	6.7	0.1	6	56.3	<0.1	0.3	<2	0.26	0.028
2102885	Rock	2.19	0.8	30.0	299.0	>10000	0.3	3.0	1.7	66	4.89	<0.5	1.2	<0.1	12	29.0	<0.1	0.5	<2	0.28	0.016
2102886	Rock	2.02	2.1	25.5	82.5	6215	<0.1	2.8	1.7	65	3.98	<0.5	1.7	<0.1	14	5.9	<0.1	0.1	<2	0.43	0.009
2102887	Rock	2.84	2.1	27.9	57.5	>10000	0.2	1.7	1.3	63	5.36	<0.5	<0.5	0.7	13	15.7	<0.1	0.1	3	0.31	0.035
2102888	Rock	2.92	1.1	20.7	205.5	>10000	0.3	1.9	0.9	58	3.67	<0.5	3.6	<0.1	18	27.1	<0.1	0.4	<2	0.42	0.037
2102889	Rock	3.48	0.8	24.8	150.3	>10000	0.3	1.6	1.3	62	4.40	<0.5	2.0	<0.1	29	58.4	<0.1	0.4	4	0.57	0.125
2102890	Rock	3.05	0.9	25.5	297.0	>10000	0.5	2.3	1.4	71	4.28	<0.5	3.8	<0.1	22	58.9	<0.1	0.5	3	0.49	0.075
2102891	Rock	2.96	1.3	23.4	119.1	>10000	0.3	2.0	1.0	64	4.14	<0.5	1.4	<0.1	50	31.4	<0.1	0.3	<2	0.66	0.018
2102892	Rock	3.08	1.8	31.3	194.3	>10000	0.5	2.9	1.0	66	5.24	<0.5	0.9	<0.1	33	37.9	<0.1	0.5	<2	0.42	0.020
2102893	Rock	2.43	1.7	27.7	547.5	>10000	0.6	2.2	0.9	57	4.32	<0.5	2.8	<0.1	26	31.7	<0.1	1.2	<2	0.47	0.042
2102894	Rock	2.31	1.6	50.9	117.5	>10000	0.4	3.1	1.9	88	8.33	<0.5	6.1	<0.1	13	77.5	<0.1	0.3	<2	0.34	0.025
2102895	Rock	2.40	0.4	8.3	219.6	1902	<0.1	4.4	1.6	123	1.93	<0.5	1.0	0.6	346	2.2	<0.1	<0.1	4	11.46	0.043
2102896	Rock	3.13	1.1	34.6	786.5	>10000	0.3	2.9	0.9	81	6.19	<0.5	1.5	<0.1	30	42.5	<0.1	0.6	3	0.50	0.100
2102897	Rock	2.29	0.8	70.6	>10000	>10000	2.5	7.7	1.9	52	9.17	<0.5	1.2	0.3	67	70.9	<0.1	8.8	19	0.59	0.397
2102898	Rock	2.20	1.8	46.5	>10000	>10000	2.0	6.5	1.8	79	8.64	<0.5	<0.5	0.3	35	46.7	<0.1	7.3	16	0.38	0.245
2102899	Rock	2.37	1.3	60.6	>10000	>10000	3.3	6.0	1.8	83	10.29	<0.5	2.1	0.2	59	62.9	<0.1	12.9	8	0.69	0.317
2102900	Rock	2.24	1.3	17.5	78.5	175	<0.1	20.8	11.0	53	2.32	<0.5	<0.5	3.4	148	0.1	<0.1	<0.1	7	2.84	0.045
2102901	Rock	2.36	3.2	143.5	170.1	>10000	0.6	7.4	5.6	49	6.61	<0.5	1.8	0.1	16	36.2	<0.1	0.4	2	0.38	0.135

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Client: **RIT Minerals Corp.**
10915 Deep Cove Rd
North Saanich BC V8L 5P9 Canada

Project: CD13
Report Date: October 29, 2013

CERTIFICATE OF ANALYSIS   VAN13004187.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	8TD	8TD
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Pb	Zn
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01
2102884	Rock	<1	4	0.07	12	0.001	3	0.03	0.002	<0.01	<0.1	0.03	0.4	<0.1	5.41	<1	2.0	<0.2	0.02	3.12
2102885	Rock	<1	6	0.08	21	<0.001	<1	0.03	0.002	<0.01	<0.1	<0.01	0.4	<0.1	3.62	<1	3.0	<0.2	0.03	2.54
2102886	Rock	<1	11	0.08	47	<0.001	<1	0.03	0.002	<0.01	<0.1	0.01	0.4	<0.1	2.45	<1	1.5	<0.2		
2102887	Rock	1	4	0.28	56	<0.001	<1	0.11	0.002	<0.01	<0.1	<0.01	0.7	<0.1	2.24	<1	2.3	<0.2	<0.01	1.29
2102888	Rock	1	8	0.31	42	<0.001	1	0.03	0.002	<0.01	<0.1	0.01	0.4	<0.1	2.90	<1	2.0	<0.2	0.02	2.37
2102889	Rock	1	6	0.35	43	0.002	<1	0.06	0.002	0.01	<0.1	0.03	0.7	<0.1	3.14	<1	3.7	<0.2	0.02	4.12
2102890	Rock	1	6	0.38	40	0.001	<1	0.04	0.002	<0.01	<0.1	0.03	0.7	<0.1	3.60	<1	2.5	<0.2	0.04	4.58
2102891	Rock	2	7	0.17	22	<0.001	2	0.02	0.002	<0.01	<0.1	<0.01	0.2	<0.1	3.54	<1	1.4	<0.2	0.02	3.56
2102892	Rock	2	8	0.18	22	<0.001	<1	0.03	0.002	<0.01	<0.1	0.02	0.4	<0.1	4.05	<1	1.8	<0.2	0.02	4.21
2102893	Rock	1	7	0.29	32	<0.001	2	0.07	0.002	<0.01	<0.1	<0.01	0.5	<0.1	3.34	<1	1.8	<0.2	0.06	3.10
2102894	Rock	<1	5	0.23	10	<0.001	2	0.02	0.002	<0.01	<0.1	<0.01	0.4	<0.1	7.54	<1	4.2	<0.2	0.02	7.92
2102895	Rock	8	6	0.26	1090	0.020	1	0.36	0.007	0.09	<0.1	<0.01	0.8	<0.1	0.23	1	1.1	<0.2		
2102896	Rock	1	9	0.19	12	0.001	2	0.12	0.002	0.01	<0.1	0.05	0.3	<0.1	5.50	<1	2.8	<0.2	0.09	4.76
2102897	Rock	4	11	0.07	16	0.004	<1	0.19	0.002	0.02	<0.1	0.07	1.4	<0.1	4.37	1	3.9	<0.2	1.21	3.28
2102898	Rock	4	11	0.16	20	0.008	1	0.40	0.004	0.05	<0.1	0.08	0.9	0.1	3.54	2	1.9	<0.2	1.06	3.08
2102899	Rock	4	7	0.11	14	0.005	1	0.21	0.003	0.03	<0.1	0.14	0.5	0.1	7.03	1	3.0	0.2	1.79	6.65
2102900	Rock	8	9	0.04	273	0.098	1	3.26	0.421	0.26	0.3	0.01	1.2	0.1	0.98	8	1.4	<0.2		
2102901	Rock	1	5	0.05	11	<0.001	<1	0.04	0.001	<0.01	<0.1	0.02	0.3	<0.1	6.03	<1	2.7	<0.2	0.02	3.37

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Project: CD13
Report Date: October 29, 2013

QUALITY CONTROL REPORT VAN13004187.1

	Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
	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	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
2102893	Rock	2.43	1.7	27.7	547.5	>10000	0.6	2.2	0.9	57	4.32	<0.5	2.8	<0.1	26	31.7	<0.1	1.2	<2	0.47	0.042
REP 2102893	QC																				
2102898	Rock	2.20	1.8	46.5	>10000	>10000	2.0	6.5	1.8	79	8.64	<0.5	<0.5	0.3	35	46.7	<0.1	7.3	16	0.38	0.245
REP 2102898	QC		2.0	44.9	>10000	>10000	2.0	6.3	1.6	79	8.55	0.6	<0.5	0.4	33	46.0	<0.1	7.3	16	0.41	0.242
Reference Materials																					
STD DS10	Standard		14.1	151.3	146.4	359	1.8	71.8	12.9	849	2.71	44.6	82.2	7.0	67	3.0	8.7	10.8	45	1.07	0.073
STD OREAS132A	Standard																				
STD OREAS134B	Standard																				
STD OXC109	Standard		1.4	34.5	9.8	38	<0.1	72.1	19.4	398	2.79	0.9	187.4	1.4	141	<0.1	<0.1	<0.1	49	0.66	0.112
STD DS10 Expected			14.69	154.61	150.55	352.9	1.96	74.6	12.9	861	2.7188	43.7	91.9	7.5	67.1	2.48	9.51	11.65	43	1.0355	0.073
STD OXC109 Expected													201								
STD OREAS132A Expected																					
STD OREAS134B Expected																					
BLK	Blank		<0.1	<0.1	0.1	2	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank																				
Prep Wash																					
G1	Prep Blank		<0.1	1.4	2.6	43	<0.1	3.3	4.0	562	1.99	<0.5	<0.5	5.0	62	<0.1	<0.1	<0.1	38	0.46	0.076
G1	Prep Blank		<0.1	1.0	2.1	43	<0.1	2.6	3.8	547	1.87	0.6	0.7	4.3	58	<0.1	<0.1	0.2	36	0.44	0.073

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Project: CD13
Report Date: October 29, 2013

QUALITY CONTROL REPORT VAN13004187.1

	Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15		8TD
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Pb	Zn
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	%
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	0.01	0.01
Pulp Duplicates																				
2102893	Rock	1	7	0.29	32	<0.001	2	0.07	0.002	<0.01	<0.1	<0.01	0.5	<0.1	3.34	<1	1.8	<0.2	0.06	3.10
REP 2102893	QC																		0.06	3.10
2102898	Rock	4	11	0.16	20	0.008	1	0.40	0.004	0.05	<0.1	0.08	0.9	0.1	3.54	2	1.9	<0.2	1.06	3.08
REP 2102898	QC	4	10	0.16	45	0.008	<1	0.40	0.004	0.05	<0.1	0.10	1.0	0.1	3.48	2	2.4	<0.2		
Reference Materials																				
STD DS10	Standard	17	55	0.76	367	0.079	8	1.05	0.068	0.33	3.3	0.30	2.8	4.7	0.28	4	2.6	4.5		
STD OREAS132A	Standard																		3.61	4.98
STD OREAS134B	Standard																		13.44	17.65
STD OXC109	Standard	12	58	1.41	55	0.368	2	1.51	0.687	0.42	0.2	<0.01	1.1	<0.1	<0.05	5	<0.5	<0.2		
STD DS10 Expected		17.5	54.6	0.7651	349	0.0817		1.0259	0.0638	0.3245	3.34	0.289	2.8	4.79	0.2743	4.3	2.3	4.89		
STD OXC109 Expected																				
STD OREAS132A Expected																			3.66	4.96
STD OREAS134B Expected																			13.36	18.03
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	0.1	<0.1	<0.05	<1	1.0	<0.2		
BLK	Blank																		<0.01	<0.01
Prep Wash																				
G1	Prep Blank	10	11	0.56	231	0.117	2	1.05	0.109	0.53	<0.1	<0.01	2.4	0.3	<0.05	5	0.6	<0.2		
G1	Prep Blank	9	9	0.55	221	0.108	3	0.99	0.088	0.49	<0.1	<0.01	2.4	0.5	<0.05	4	1.0	<0.2		

Report on VLF Data Processing for the CD Property:

October, 2013

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Introduction

The purpose of this report is to describe the processing and general interpretation of two lines of VLF (Very Low Frequency) data that were recorded across part of the CD property in south-central British Columbia in October, 2013. The data quality presented no significant difficulties in the processing and the results indicate that there are subsurface conductors.

Data

The data were recorded in two lines, a long (1.2 km) southeast-northwest profile (Line 1) and a shorter 0.6 km east-west profile (Line 2; Figure 1). Two transmitters that were used for both lines were Seattle (NLK; 24800 Hz) and LaMoure, North Dakota (NML; 25200 Hz). Although the Seattle transmitter is in an optimum orientation for north-south striking conductors, the North Dakota station is helpful for more east-west orientations. The station spacing was 12.5 m for both lines and GPS positions and elevations were taken every 100m.

Data Processing

Data reduction consists of calculating GPS positions and elevations for every station and preparing the data for input into the inversion program. One of the key components to determine prior to procssing is the orientation of the profile relative to the transmitter. Ideally, the strike of a subsurface conductor should be in the direction of the transmitter, and the profile should be perpendicular to that orientation. Good results are normally obtained when the direction is within 45^0 of this orientation.

What this means is that for Line 1, the Seattle (NLK) transmitter is in a reasonable orientation (220^0), but the LaMoure transmitter direction (100^0) requires that the data be reversed in phase for inversion. Line 2 is also oriented reasonably well for the Seattle transmitter. However, the LaMoure transmitter is only about 10^0 degrees off of the line orientation. Accordingly, the results for north-south striking conductors may not be well represented along Line 2. In any case, the LaMoure signal does not need to be reversed in phase for Line 2.

Prior to running the inversions, a series of tests are run to analyse the quality of the data and the effectiveness of filtering. Results for each line and the Seattle transmitter are shown in Figures 2 through 7. In Figure 2, the in-phase and quadrature curves are shown with no filtering (top) and after application of a simple running average (lower). The Karous-Hjelt (KH) transforms of each of these are shown in Figures 3 and 4, respectively. In the KH transform of the raw data (Figure 3), there is a weak herringbone effect that may be due to some noise in the data. This effect is significantly reduced after application of the running average filter, so that no additional filters were deemed necessary.

Similar results are evident in application of these methods to Line 2 (Figures 5 through 7). In all cases, the Karous-Hjelt transforms indicate the presence of some conductive zones, but provide little information on their geometry or depth.

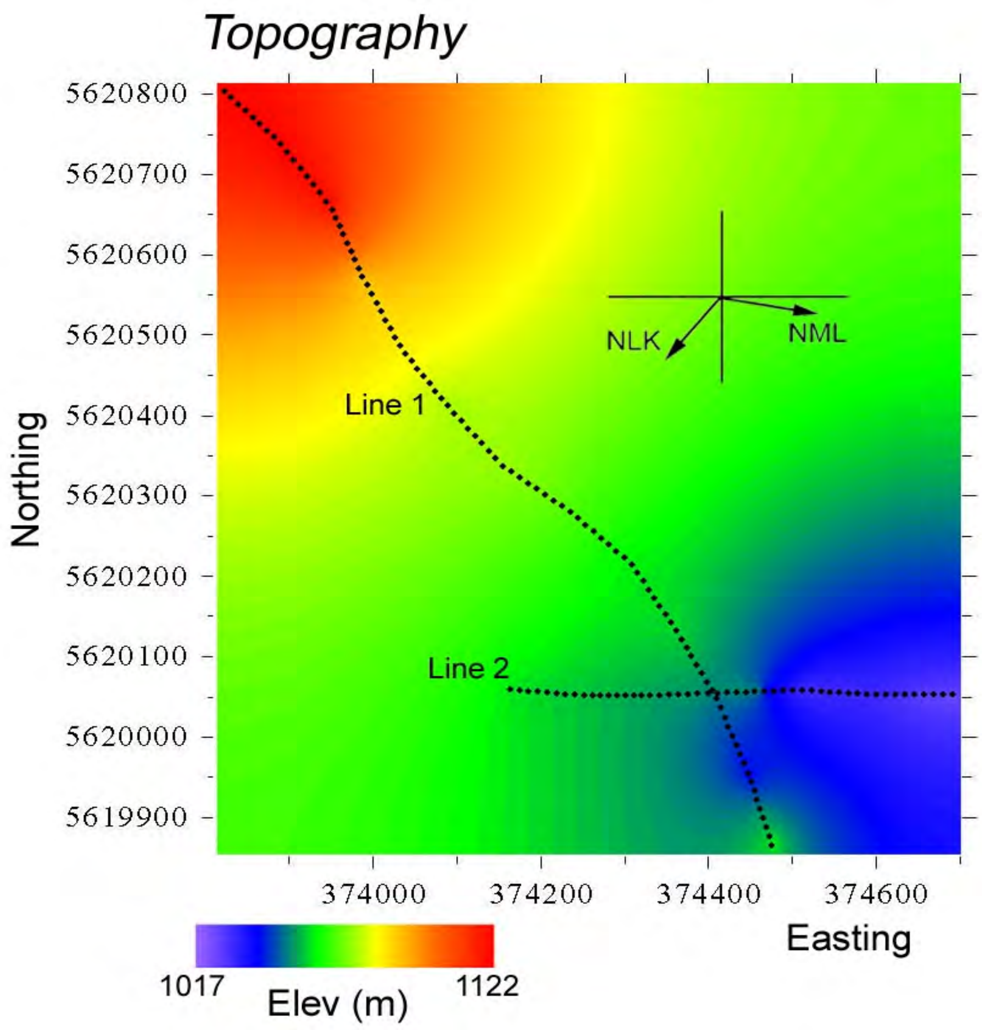

Figure 1. Topography of the CD area in the vicinity if the VLF profiles calculated from the GPS measurements made during the VLF survey. In the northeast corner of the map is a graphic of the azimuths for the two VLF transmitters that were used.

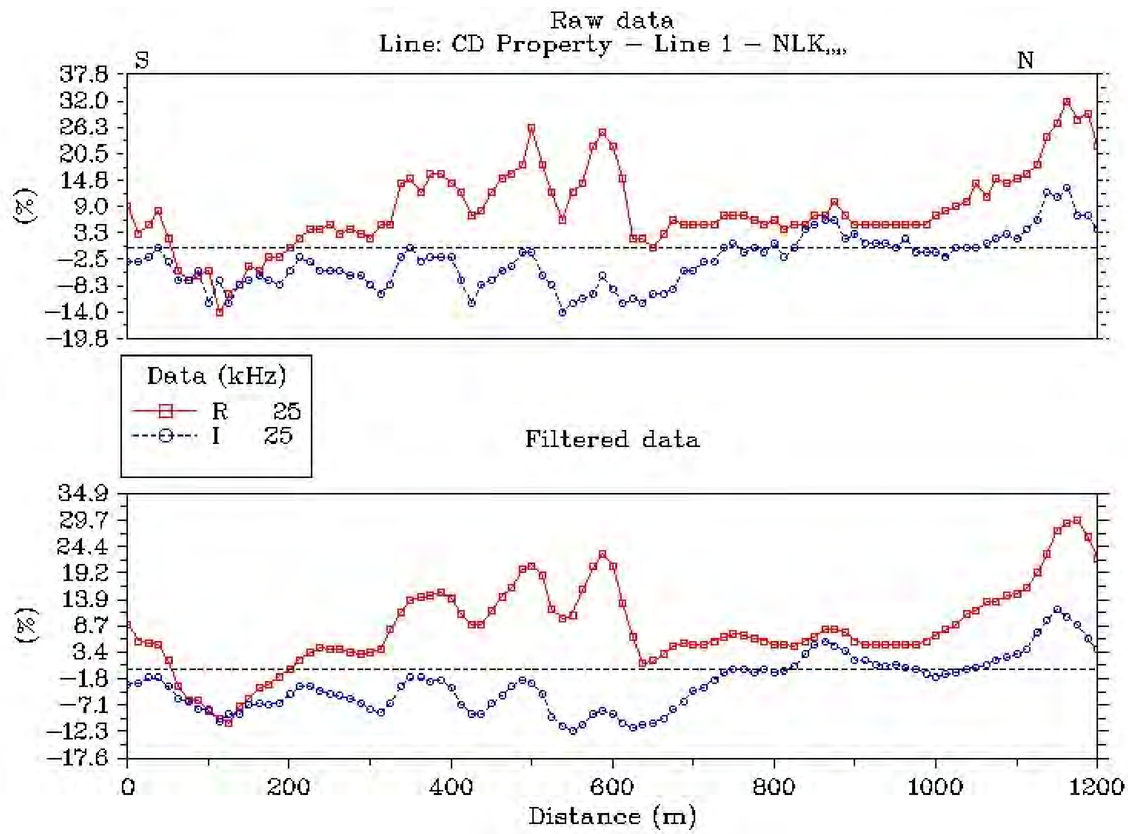

Figure 2. In-phase (=real; red) and quadrature (=imaginary; blue) data recorded along Line 1. The upper diagram shows the raw data, and the lower diagram shows the data after application of a simple running average filter.

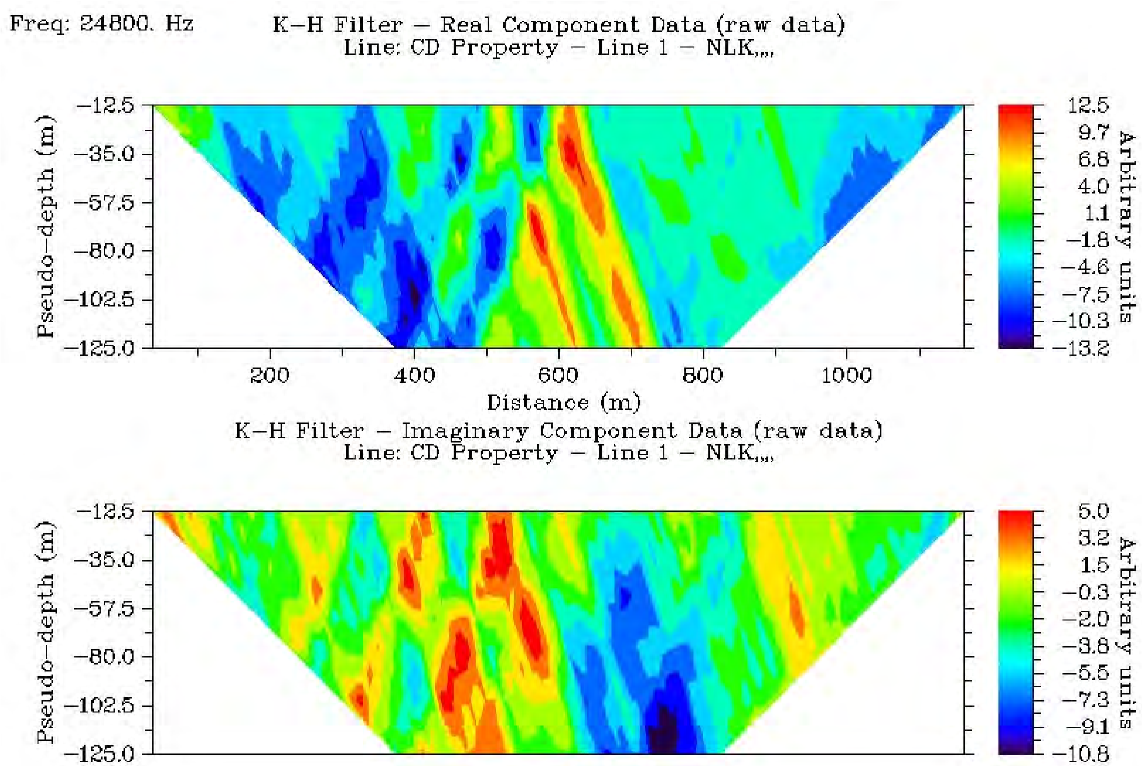

Figure 3. Karous-Hjelt transform of the raw data from Line 1 (upper part of Figure 1). The upper diagram is for the in-phase component, and the lower is for the imaginary (quadrature) component. Note that there is some minor herringbone effect that may be due to some weak noise. Red areas indicate high concentrations of current density.

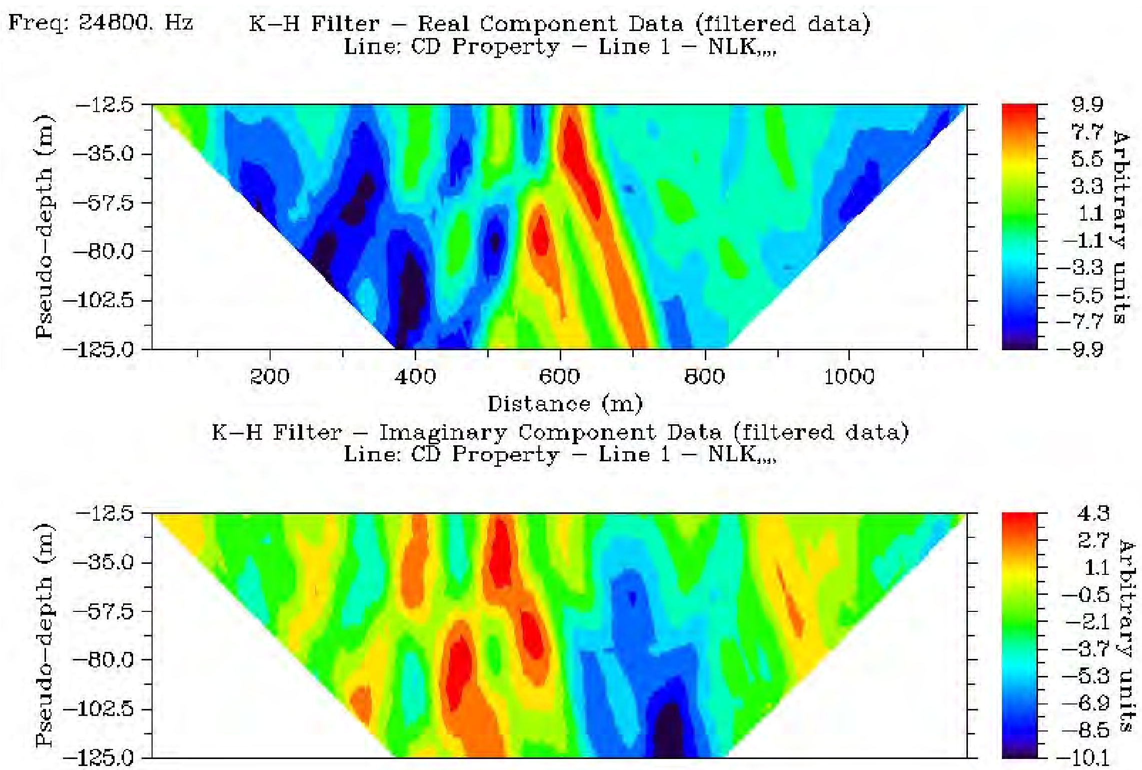

Figure 4. Karous-Hjelt transform applied to the filtered results in the lower part of Figure 2. Note that the herringbone effect of Figure 4 has been subdued.

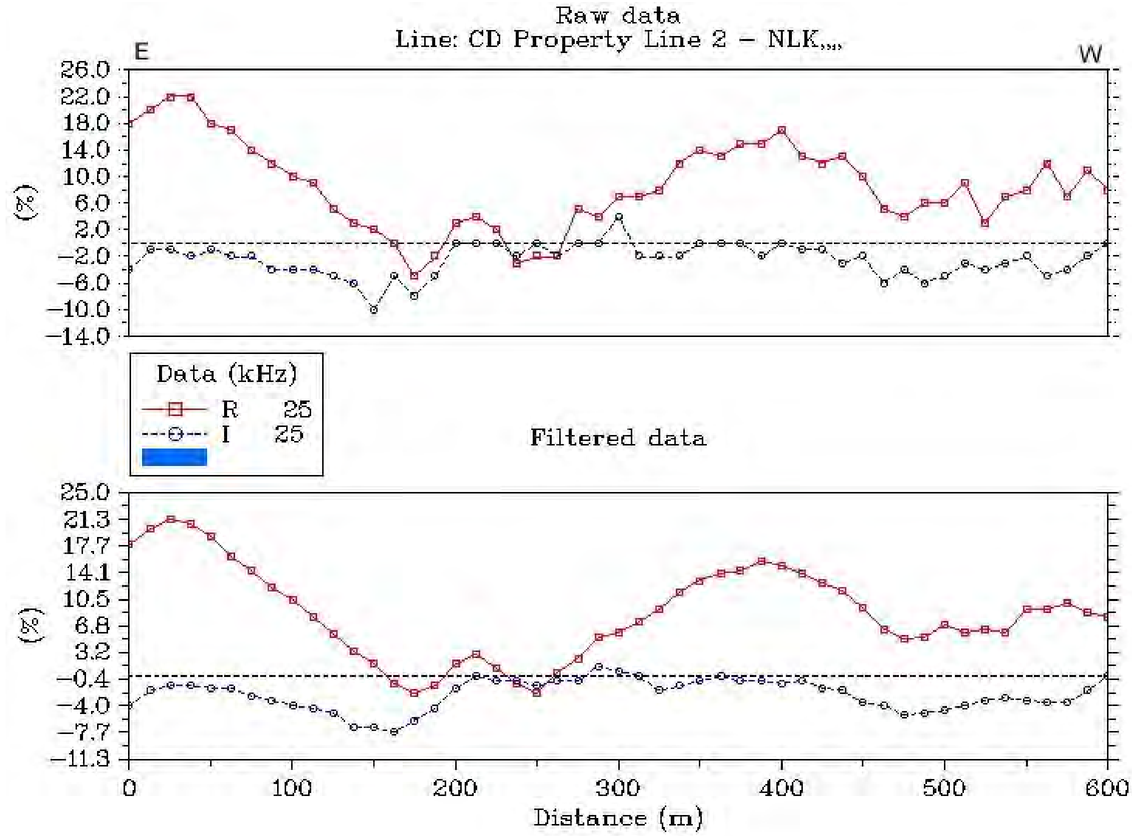

Figure 5. In-phase (red) and quadrature (blue) data recorded along Line 2. The upper diagram shows the raw data, and the lower diagram shows the data after application of a simple running average filter.

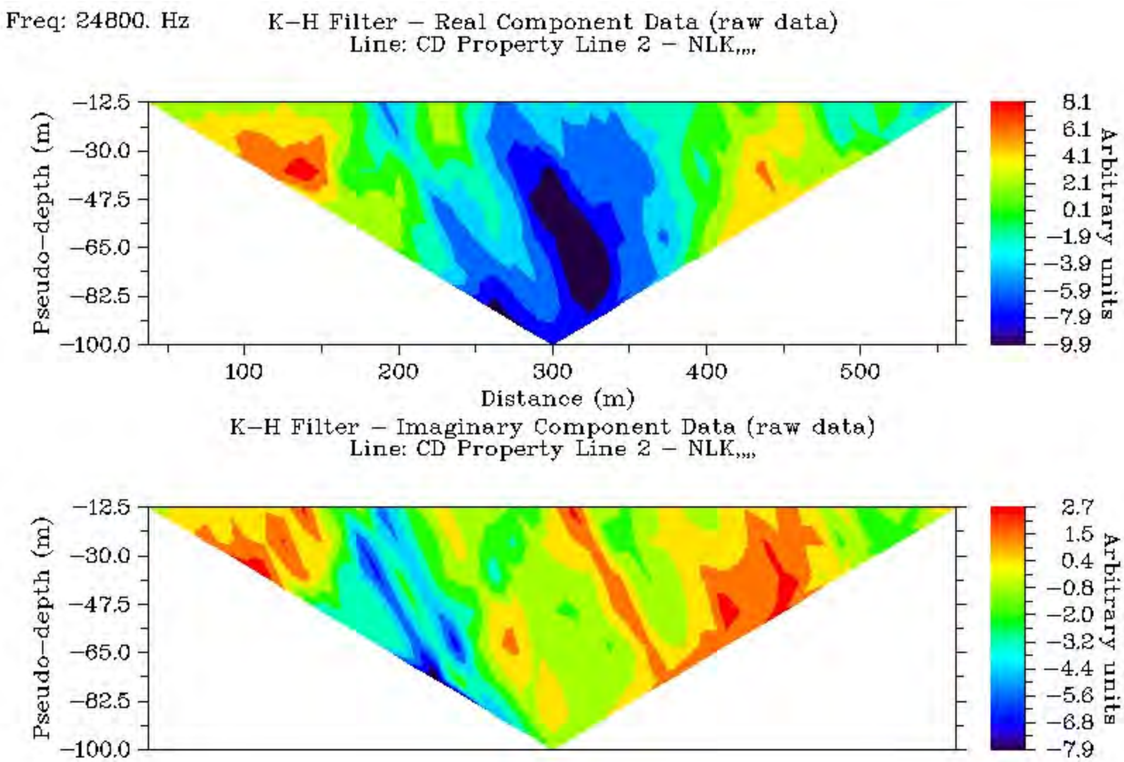

Figure 6. Karous-Hjelt transform of the raw data from Line 2 (upper part of Figure 5). The minor herringbone effect may be due to some weak noise. Red areas indicate high concentrations of current density.

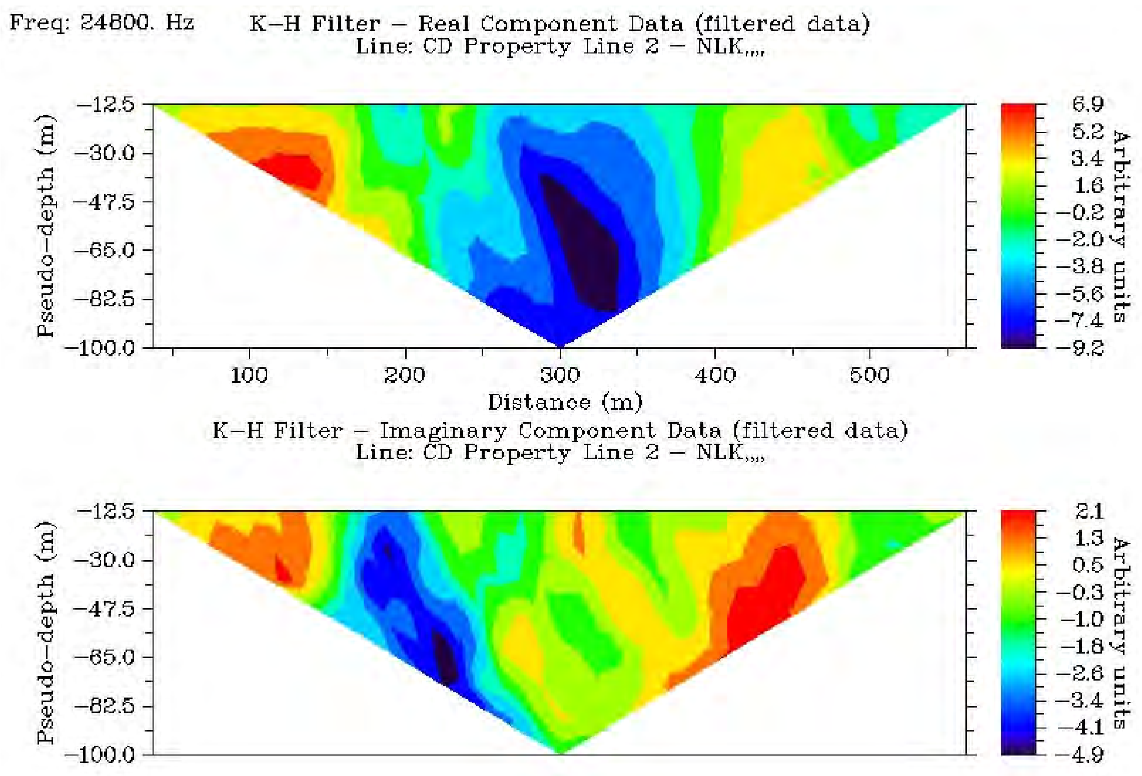

Figure 7. Karous-Hjelt transform applied to the filtered results in the lower part of Figure 5. Note that the herringbone effect of Figure 6 has been subdued.

Inversions

The inversion approach is based on software first described by Monteiro-Santos et al (2006, J. Applied Geophysics) and modified recently to include corrections for variable topography. Results from the program are converted to conductivity, as resistivities are calculated in the inversion. A 500 Ohm-m background resistivity was used for all inversion calculations. Figures 8 and 9 show the results of inversion for all of the lines. The two sections in Figure 8 are for the Seattle (NLK) transmitter and the two in Figure 9 are for the LaMoure, North Dakota (NML) transmitter.

Two characteristics are immediately obvious on the data. First, there is little difference between the results for the different transmitters, particularly for Line 1. Second, there is a significant conductivity anomaly in the near subsurface (upper 50 m) beneath the northern end of Line 1. Although the scale used for the contours shows values greater than 10 mS/m as red, some of the calculated conductivity values in this zone exceed 40 mS/m. However, the magnitudes of these values are, to a large extent, dependent on the magnitude of the background resistivity (assumed to be 500 Ohm-m), which can only be estimated at this time. Conversely, Line 2 shows very few conductive zones, and those that are present tend to be weak (low magnitude).

Apparently, both lines crossed a gossanous area that was trenched, indicating there was some evidence of alteration and, possibly, metallic minerals at depth. The anomalous mineralization is located near the line intersection (indicated on the conductivity cross sections). However, there are no prominent conductors that appear on the inversions in this area; minor conductors appearing on the NML versions at the surface are discussed below.

Interpretation

No detailed geological map or soil sampling information is available to include in this report, so any interpretation has to be considered general, and could easily be revised with additional information. Nevertheless, two features stand out. First the prominent conductor on the north end of Line 1 should be followed up. There appear to be three possible explanations for it: 1) a zone of metals, 2) a zone of graphite, and/or 3) a zone of fluids (e.g., an aquifer). It appears to be relatively flat and about 500 m long. However, if the geological strike is close to north-south, and the azimuth of Line 1 is about 320^0, the width of the anomaly along Line 1 is only an apparent width, and the true width could be substantially less (by the cosine of the angle between the line azimuth and the geological strike). Nevertheless, it is relatively flat.

The second prominent feature is more of a negative result: there are no significant conductivity anomalies in the vicinity of the gossan and trenches. It is my understanding that the dominant sulphide mineral here is sphalerite. Unfortunately, sphalerite is a poor conductor of electrical currents (Figure 10). Of all of the important ore minerals in sulphide deposits, sulphide has the lowest electrical conductivity, by 2-3 orders of magnitude (Figure 10). Thus, the lack of a prominent conductor near the line intersection indicates that if there is substantial ore there, it does not likely have significant quantities of connected metal and may be mostly sphalerite.

On the NML transmitter versions (Figure 9), there appear to be thin zones of high conductivity at the surface near the line intersection. If these are valid (i.e., not some artifact due to the orientation of the transmitter relative to the strike), they could be either fluid-rich zones (e.g., swamps), metals, or graphite. In any case, they do not appear to extend very deep.

Summary

The two VLF lines recorded on the CD property appear to be good quality data that require little filtering for signal enhancement. The results of the inversions indicate that there are few conductors in the vicinity of the gossan and trenches and that the conductors that are in that area are relatively low in magnitude and limited in extent. However, the profile inversions have also identified a substantial conductivity anomaly in the northern half of Line 1 that should be examined further.

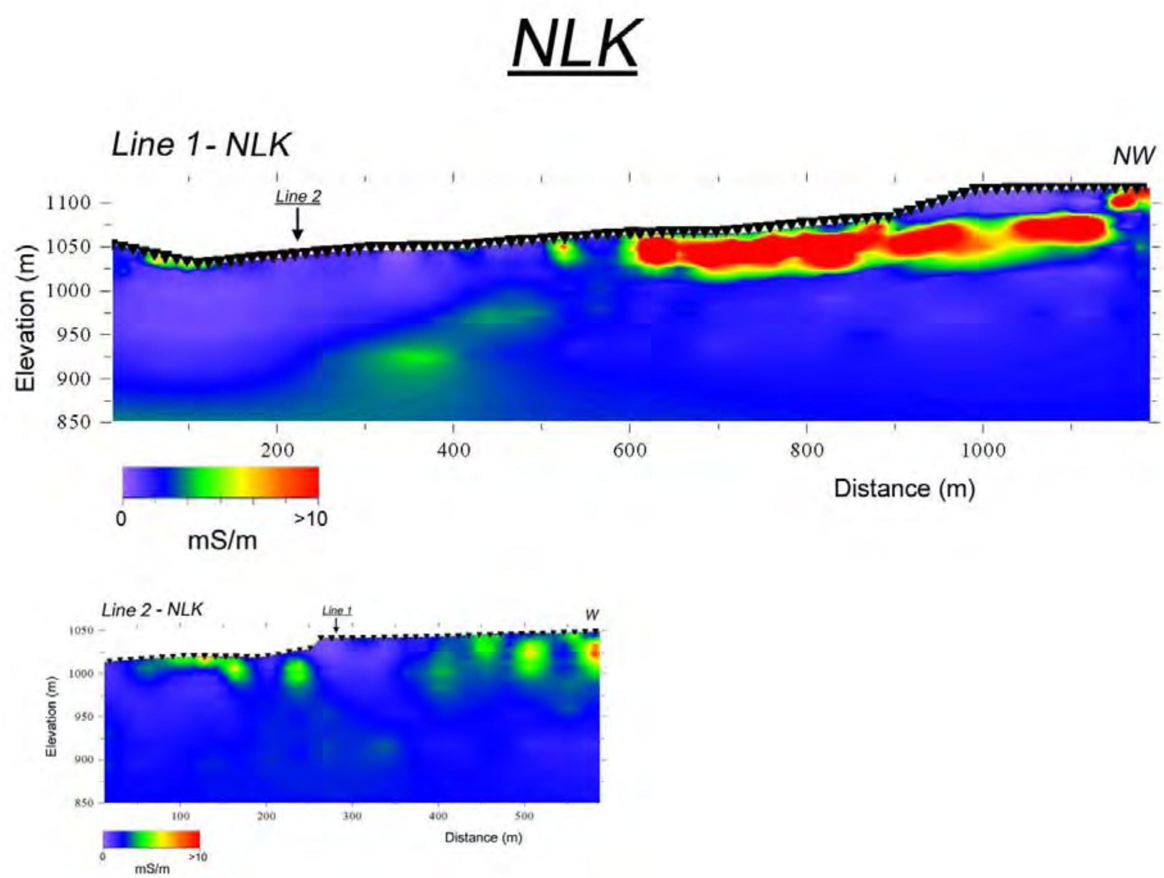

Figure 8. Inversion results along Line 1 (top) and Line 2 (bottom) for the Seattle (NLK) transmitter looking to the southwest (perpendicular to the line). The line intersection is indicated on each profile. The inverted triangles are the station locations, and colour contours are in mS/m.

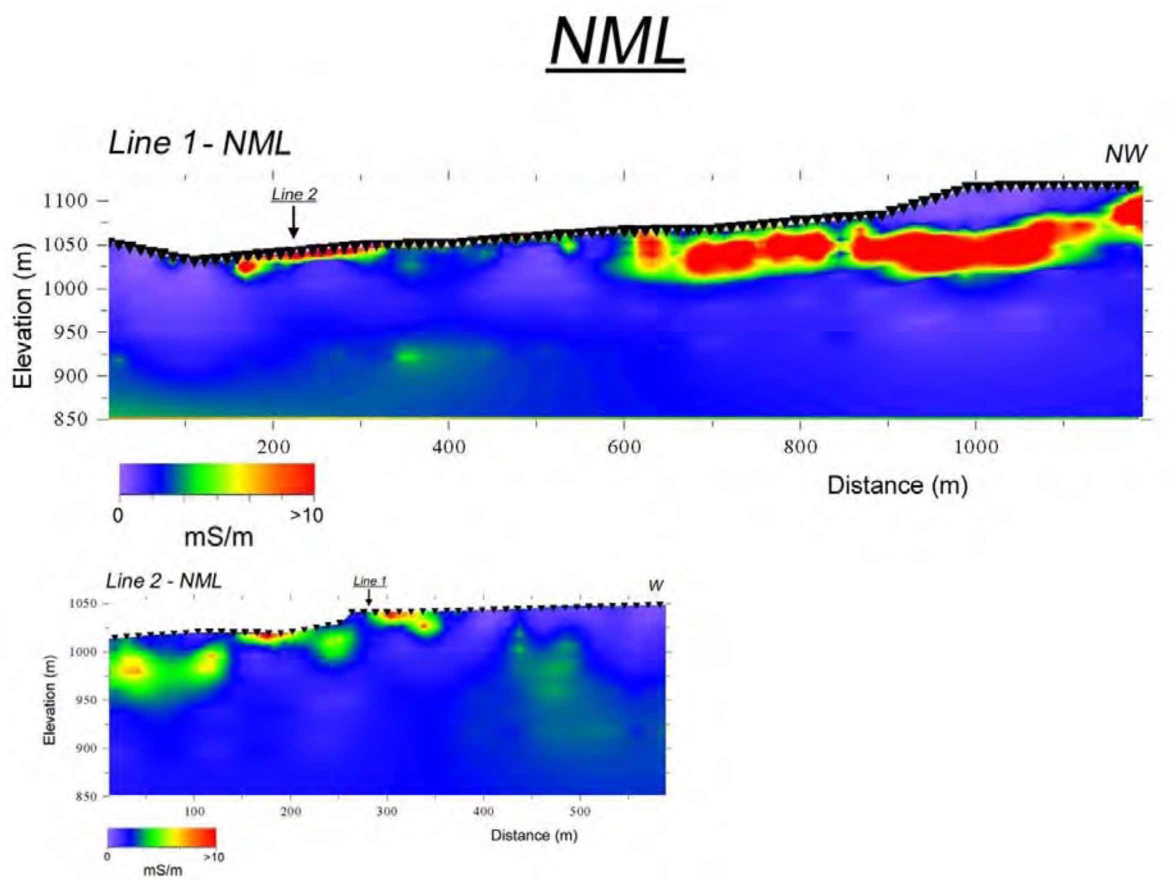

Figure 9. Inversion results along Line 1 (top) and Line 2 (bottom) for the LaMoure, North Dakota (NML) transmitter looking to the south. The line intersection is indicated on each profile.

	Conductivity (S/m)	Resistivity (Ω-m)
Bornite	330	3×10^{-3}
Chalcocite	10^{4}	10^{-4}
Chalcopyrite	250	4×10^{-3}
Galena	500	2×10^{-3}
Graphite	10^{3}	10^{-3}
Marcasite	20	5×10^{-2}
Magnetite	$17 \times 10^{-4} - 2 \times 10^{4}$	$5 \times 10^{-5} - 6 \times 10^{-3}$
Pyrite	3	0.3
Pyrrhotite	10^{4}	10^{-4}
Sphalerite	10^{-2}	10^{2}
Igneous and Metamorphic Rocks	$10^{-7} - 10^{-2}$	$100 - 10^{7}$
Sediments	$10^{-5} - 5 \times 10^{-2}$	$20 - 10^{5}$
Soils	$10^{-3} - 0.5$	$2 - 10^{3}$
Fresh Water	$5 \times 10^{-3} - 0.1$	10 - 200
Saline Overburden	0.1 - 5	0.2 - 1
Salt Water	5 - 20	0.05 - 2
Sulphide Ores	$10^{-2} - 10$	0.1 - 100
Granite Beds and Slates	$10^{-2} - 1$	1 - 100
Altered Ultramafics	$10^{-3} - 0.8$	$1.25 - 10^{3}$
Water-filled faults/shears	$10^{-3} - 1$	$1 - 10^{3}$

Figure 10. Conductivity and resistivity values measured for a variety of Earth materials. Metals are indicated by the blue highlights and sphalerite is indicated in red. Note that conductivity of sphalerite is 2-3 orders magnitude lower than that of metals and is similar to igneous and metamorphic rocks.