

# NI 43-101 Technical Report on the TREO Rare Earth Element Property

Cariboo Mining Division East-Central British Columbia, Canada NTS Reference 093J

Respectfully Submitted to:

Mr. Reagan Glazier, CEO & Director Neotech Metals Corp.



Effective date (revised): March 19, 2024

Prepared by:

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## DATE AND SIGNATURE PAGE

This report titled "NI 43-101 Technical Report on the TREO Rare Earth Element Property, Cariboo Mining Division, East-central British Columbia, dated March 19, 2024, was prepared by and signed by the following author:



<u>"Signed and Sealed"</u> Ike A. Osmani, M.Sc., P.Geo. (#32050) Principal Geologist Faarnad Geological Consulting (FGC) Inc.

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## 1. Summary

Faarnad Geological Consulting Inc. ("FGC") has been contracted by Mr. Reagan Glazier, the CEO and Director of Neotech Metals Corp. ("Neotech" or the "Company") (previously "Caravan Energy Corporation" or "Caravan"), to prepare an NI 43-101 compliant technical report as part of an independent review of their 100% owned TREO Rare Earth Property ("TREO" or the "Property"), located 80 km northeast of Prince George, British Columbia, Canada. Neotech is a Canada-based mineral exploration and development company with its head office in Vancouver, British Columbia. It is listed on the Canadian Stock Exchange (CSE) under the symbol NTMC, on the OTCQB Venture Market as CENCF, and in Frankfurt, Germany, as V690. The Company is engaged in acquiring, exploring, and evaluating mineral resource properties in Canada. FGC is an independent exploration/mining consulting company based in Coquitlam, BC.

FGC's consultant, Ike A. Osmani, M.Sc., P.Geo., is a Qualified Person (QP) as defined by Regulation NI 43-101. The QP has reviewed the data provided by the issuer and by its agents. The QP has also consulted other information sources, such as government databases that handle assessment work and mining title status.

The TREO Property is located 80 km northeast of Prince George, east-central British Columbia, Canada. It occurs on NTS Map Sheet 093J and is centered approximately at 565,000mE/6,040,000mN (UTM NAD83, ZONE 10N). It is accessed by Highway 97 from the nearest city, Prince George (population ~76,000), driving ~80 km north to the Bear Lake community and from there ~50 km east via the well-maintained network of forest service (e.g., Chuchinka Road and unmaintained logging roads to the Property. The Property is 50 km east of provincial Highway 97, the CN rail mainline, a natural gas pipeline, and a power transmission line. Commercial flights are available daily between Prince George and Vancouver, and multiple direct flights each week between Prince George and several destinations, including Victoria (BC), Calgary, and Edmonton (Alberta). Helicopter charter services are available year-round in Prince George. Both skilled and non-skilled workforce, all goods and services, such as laboratory services, exploration and mining equipment, drilling contractors, and supply dealerships, are available in Prince George.

The Property comprises 38 unpatented mining claims of irregular shapes and sizes extending northwest-southeast direction, aggregating approximately 16,342 hectares. All claims are 100% owned by Neotech. As part of the purchase agreement of claims, Neotech (formerly "Caravan") signed a Net Smelter Royalty ("NSR") agreement with multiple vendors as follows:

Christopher N. Delorme: Pay the vendor 1% NSR and buy back the 50% royalty for \$500,000.

Len Harris: Pay 1% NSR") to the vendor and buy back the 50% royalty for \$500,000.

1258713 BC Ltd.: Pay the vendor 1% NSR and buy back the 50% royalty for \$250,000.

1240089 BC Ltd.: Pay the vendor 1% NSR and buy back the 50% royalty for \$250,000.

Reagan Glazier: Pay the vendor 2% NSR and buy back the 50% royalty for \$1,000,000.

Regionally, the TREO property occurs within the Foreland Belt (FB) near the eastern edge of the Omineca Belt. The FB, mainly consisting of Proterozoic rocks, was the last orogenic belt to form in the British Columbia Cordillera, spanning the late Jurassic to Paleocene. It is a northwest-trending morpho-geological feature, marked by the Rocky Mountain Trench (RMT) on its western edge, comprising an assemblage of imbricated and miogeoclinal rocks forming the most easternmost ranges of the Cordillera. The RMT can be traced from the northern edge to the southeastern corner of British Columbia. The Carbonatite-alkaline complexes and dike-diatreme swarms forming the Alkali Province of British Columbia occur mainly within the FB on either side and parallel to the trend of RMT. These rare earth/rare metal-bearing intrusions include the Wicheeda, Aley, Kechika River, Virgil, Lonnie, Mount Bisson, Bearpaw Ridge, Ice River, Trident Mountain, Mount Grace, and Rock Canyon occurrences.

The TREO Property is underlain predominantly by rocks ranging in age from Neoproterozoic to Ordovician. The most dominant rocks on the Property belong to the Kechika Group rocks of the Cambrian to Ordovician, followed by Gog (Upper Proterozoic to Lower Cambrian), Misinchinka (Proterozoic to Cambrian), and Miette (Proterozoic) groups. The central and southern parts of the Property are underlain mainly by fairly massive white limestone interbedded with the least massive, thinly bedded medium to dark grey limestone. The limestone unit is interbedded from the main limestone with light grey calcareous argillites and weakly calcareous phyllites, with few thick light to medium grey limestone beds. Locally, the limestone beds are more silty with increasing pseudo-nodular and sedimentary boudinage structures. The argillites and phyllites are locally ferruginous.

The Carbo Carbonatite, a dike/sill-like complex of varying composition and thickness along its strike, intrudes the sedimentary rocks subparallel to a central limestone unit within the central TREO Property. It is roughly 1.3 km southeast of the Wicheeda Carbonatite Complex on the Defense Metal claims and has been traced intermittently for a distance of 2.70 km. The carbonatite is medium to coarse-grained, generally quartz-free, and contains feldspar, carbonate, pyroxene, and micas intergrowths. The known REE mineralization in the Wicheeda Lake area extends intermittently from the Wicheeda Carbonatite Complex in a southeasterly direction for about 25 km via TREO Property to REE-bearing Cap Carbonatite Complex in the southeast on the Eagle Bay Resources' property.

The Carbo Carbonatite complex on the TREO Property contains predominantly LREE-bearing minerals, which include a combination of bastnasite-parisite, pyrochlore, ancylite, allanite, and monazite. These REE minerals and other rare metals-bearing minerals, such as columbite and sphene-rutile, occur as disseminations, aggregates, clots, and patches in veins and vugs. High-grade mineralization has also been reported from strongly gouged black or whitish clay in fractured intrusive rocks from the central part of the Property, suggesting some remobilization by hydrothermal fluid may have occurred due to syn-to post-emplacement tectonic activity.

As of the date of this Technical Report, the only exploration work conducted by Neotech was geochemical sampling work during the summer and fall of 2023. Neotech collected 1493 soil, 75 stream sediment (silt), and 42 rock samples. The results of the silt and rock samples are discussed in this report. However, certain soil sample results are pending. Historic exploration in the region started in the 1960s. Exploration of the current TREO Property and adjacent claims began in 1986-87 and peaked during 2006-2011. During the peak period, several companies,

including Commerce Resources, Canadian International Minerals, and Bolero Resources, conducted prospecting, mapping, rock sampling, soil geochemical and geophysical (ground and airborne magnetic and radiometric) surveys, and diamond drilling on and adjacent to the TREO Property. Rare earth (REE) and rare metal (niobium) bearing carbonatite dike/sill-like bodies (<10 m wide) were mapped and intersected in drill holes and, for example, drilling in 2010 from the central TREO returned broadened zones of carbonatites and syenites mixed into surrounding country rock.

A two-phase exploration program is recommended further to advance the economic potential of the TREO Property. The Phase-1 program recommended includes an airborne high-resolution magnetic and radiometric survey followed by detailed ground radiometric and magnetic surveys in areas of significant airborne anomalies. The follow-up work also involves prospecting, mapping, and soil geochemical sampling delineated by radiometric and magnetic surveys. An estimated budget of **\$600,817** is required to complete the Phase 1 program. Phase 2, which mainly involves refining targets and drilling, will depend upon the positive outcome of the Phase 1 exploration results.

# 2. Introduction

## 2.1 General

Faarnad Geological Consulting Inc. ("FGC") was commissioned by Mr. Reagan Glazier, the CEO and Director of Neotech Metals Corp.("Neotech" or the "Company") (previously "Caravan Energy Corporation" or "Caravan"), to prepare an NI 43-101 compliant technical report as part of a review of their TREO Rare Earth Property ("TREO" or the "Property"), located 80 km northeast of Prince George, British Columbia, Canada (Figure 1).

Neotech is a Canada-based mineral exploration and development company with its head office in Vancouver, British Columbia. It is listed on the Canadian Stock Exchange (CSE) under the symbol NTMC, on the OTCQB Venture Market as CENCF, and in Frankfurt, Germany, as V690. The Company is engaged in acquiring, exploring, and evaluating mineral properties in Canada. It holds options over the EBB nickel-cobalt property and owns 38 rare earth mineral claims (16,342 ha) comprising the TREO Property in British Columbia, Canada. This report concerns TREO, the Company's objective to explore and, if warranted, develop the Property. This report fully reviews and describes the TREO's geology, mineralization, exploration history, and potential. It provides recommendations for future exploration work to be carried out on the Property.

FGC, founded in 2011, is a mineral exploration and mining consultancy group based in Coquitlam, BC, Canada. FGC and associates comprise experienced consultants who have several decades of experience providing services in the following areas: design, management, and execution of mineral exploration programs; project evaluation and due diligence studies; mine planning and scheduling; resource estimation; and technical audits and reporting.

## 2.2 Terms of Reference

This technical report on the TREO was prepared by Ike A. Osmani, M.Sc., P.Geo. of FGC. Mr. Osmani is a Qualified Person ("QP") on the Project as defined under NI 43-101 regulations.

This technical report, titled "*NI 43-101 Technical Report on the TREO Rare Earth Element Property, Cariboo Mining Division, East-Central British Columbia*", has been prepared following the guidelines of "Form 43-101F1 Technical Report" of National Instrument 43-101 – Standards and Disclosure for Mineral Projects. The qualification certificate for the QP responsible for this technical report is in the "Certificate of Qualifications" section of this Report.

The QP, Mr. Osmani, completed a site visit of the TREO Property on February 10<sup>th</sup>, 2024 (**Figure 1a**). Access to the property was by road in a pickup truck. The site visit included observations of topographic features, road access locations, physiographic features, and bedrock where exposed and accessible, including along road cuts. Mr. Osmani completed and is responsible for all chapters in this report and reviewed the most recent exploration work.

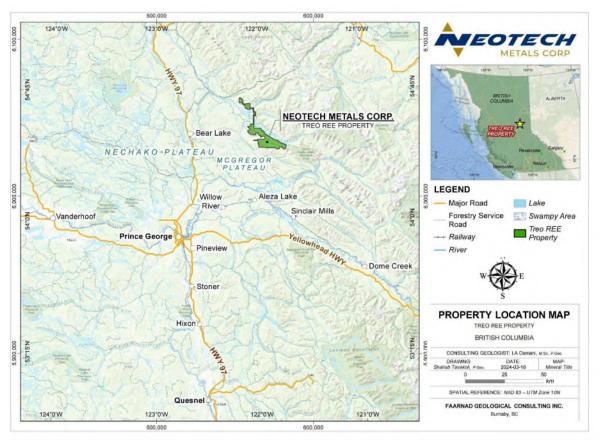


Figure 1. Property Location Map – TREO Property.

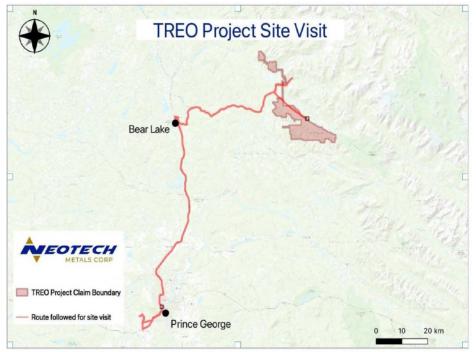


Figure 1a. Track Map from Property Visit – TREO Property.

Mr. Osmani, who completed and is responsible for all chapters in this report, reviewed the results of the most recent exploration work conducted by Neotech and the results of the publicly available historical exploration work completed by other operators on and adjacent to TREO Property. Mr. Osmani also reviewed the results of early reconnaissance geological mapping, geophysical, and geochemical surveys by the Canadian and British Columbia Geological surveys that included the TREO property and adjacent areas.

The QP did not carry out a title search for the claims or review legal, environmental, political, surface rights, water rights, or other non-technical aspects that might indirectly relate to this report.

#### 2.3 Sources of Information

The author sourced the information from reference documents cited in the text and summarized it in Section 27 - "References" of this report.

The principal sources of information for this report are:

- A technical report (NI 43-101) on the Cap Property of Eagle Bay Resources prepared by AWK Geological Consulting Ltd. (Knox, 2022). The predecessor company previously owned and worked on parts of Neotech's TREO claims.
- Assessment reports, maps, and drill hole information from the British Columbia Geological Survey Assessment Report Database.
- Reports maps and digital data sets from the British Columbia Geological Survey publications.
- News releases filed on SEDAR+ (<u>www.sedarplus.ca</u>).
- Observations were made during the site visit.
- Review of the Company's internal reports and maps produced by staff and or consultants,
- Review of technical papers produced in various journals and unpublished theses.
- Discussions with Mr. Glazier (CEO) of Neotech and Company's consultants (e.g., Ellen Hunter-Perkins and Chris Delorme) familiar with the property.
- Personal knowledge of the lead author, Ike A. Osmani, P.Geo., about rare earth elements and rare metal deposits in similar geological environments.
- The mineral tenure/title status was checked at Mineral Titles Online

In preparing this report, the QP has used various unpublished company data, corporate news releases, geological reports/maps, and mineral claim maps sourced from government agencies. Mr. Glazier also provided valuable site-specific and technical information.

#### 2.4 Qualifications, Experience, and Independence

This technical report on the TREO Property was prepared by Ike A. Osmani, M.Sc., P. Geo., the qualified person (QP) as defined under NI 43-101 regulations and is responsible for all sections of the report.

Mr. Osmani has over 36 years of experience in greenfield, near-mine exploration, and resource geology. He is an accredited professional geologist (P.Geo.), a practicing member of EGBC, and

a non-practicing APGO member. Mr. Osmani's work experience includes exploration and resource development of commodities in diverse geological settings. Mr. Osmani has held various responsible positions, ranging from Project Geologist to President, with publicly traded junior and major companies and also acted as an Independent Consultant in the exploration and mining industry. His experience in exploration and resource geology includes gold, base metals, platinum-palladium-PGM, SEDEX-type zinc-lead-silver, iron, manganese, rare earth, and rare metals. As a Principal Geologist of FGC Inc., Osmani spent four years in the Saudi Arabian Shield exploring and developing eight rare earth and rare metal projects for the Saudi Geological Survey. In Ontario (Canada), he also worked on several rare metal projects. Mr. Osmani is also credited with developing under his supervision an NI 43-101 compliant gold resource of almost one million ounces within the Archean greenstone belt setting in the Precambrian Shield in Ontario, Canada. Other mineral exploration and resource development projects included SEDEX-type lead-zinc-silver deposits in northeastern British Columbia, porphyry copper-gold in Argentina, epithermal and placer gold in Indonesia, and VMS in the Himalayan Foothills of India.

Mr. Osmani is not independent of Neotech as he provides ongoing geological consultancy services to the Company.

#### 2.5 Rare Earth Elements and Rare Metals

The rare earth elements (REEs) and rare metals (e.g., Ta, Nb, Zr, Hf) are not particularly rare, but one feature that they share is that they can be difficult to separate (i.e., separate individual REE, Hf from Zr and Ta from Nb) (Table 1 and Table 2). The REEs are a group of seventeen metallic elements - the fifteen lanthanides, with atomic numbers 57 (lanthanum - La) to 71 (lutetium - Lu), together with yttrium (Y - 39) and scandium (Sc - 21) (Table 2). All have similar chemical properties. The lower atomic weight elements lanthanum (La) to samarium (Sm), with atomic numbers 57 to 62, are referred to as the light rare earth elements (LREE), europium (Eu) to lutetium (Lu), with atomic numbers 63 to 71, are the heavy rare earth elements (HREE). The dividing line drawn between LREE and HREE can vary somewhat, and the term 'mid-REE' is also sometimes used. Although Y has a lower atomic weight (39), it is grouped with the HREE because of its chemical similarity.

The estimated abundance of the two light LREEs, La and Ce, is 21, 31, and 63 ppm of Y. In contrast, their concentrations in the bulk continental crust are 19, 20, and 43 ppm, respectively, and in the primitive mantle, they are 4.37, 0.686, and 1.786 ppm, respectively. The abundance of REE decreases with increasing atomic number (Figure 2). The HREE, for example, Yb and Lu, have concentrations of 1.96 and 0.31 ppm in the upper continental crust, 1.9 and 0.3 ppm in the bulk crust, and 0.462 and 0.071 ppm, respectively, in the primitive mantle. Typical ore grades for these elements range from several hundred parts per million in the case of Ta to a few weight percent in the case of Zr, Nb, and REE (commonly reported as total rare-earth oxide - TREO).

Despite the generally low abundances of rare elements in crustal and mantle rocks, minerals that contain these elements as essential components make up approximately 12% of the total number of mineral species known to date. However, only a small fraction has been used, or may potentially be used, to extract rare elements. The bulk of global LREE (La to Eu) production (70–80%) comes from bastnaesite (Ce); monazite (Ce) is another important LREE mineral,

whereas xenotime (Y) and ion-adsorption clays are the primary source of HREE (Gd to Lu) pyrochlore and zircon account for over 90% of the Nb and Zr production, respectively (Sinton, 2005).

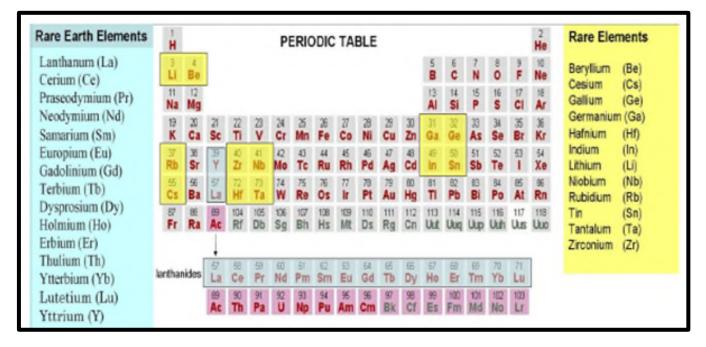


Table 1. Rare Earth vs Rare Metal Comparison. Source: www.nwopa.net.

#### Table 2. Key Features of REEs.

Element	Symbol	Atomic Number	Upper Crust Abundance, ppm	Chondrite Abundance, ppm <sup>†</sup>
Yttrium	Y	39	22	na‡
Lanthanum	La	57	30	0.34
Cerium	Ce	58	64	0.91
Praseodymium	Pr	59	7.1	0.121
Neodymium	Nd	60	26	0.64
Promethium	Pm	61	na	na
Samarium	Sm	62	4.5	0.195
Europium	Eu	63	0.88	0.073
Gadolinium	Gd	64	3.8	0.26
Terbium	ТЬ	65	0.64	0.047
Dysprosium	Dy	66	3.5	0.30
Holmium	Ho	67	0.80	0.078
Erbium	Er	68	2.3	0.20
Thulium	Tm	69	0.33	0.032
Ytterbium	Yb	70	2.2	0.22
Lutetium	Lu	71	0.32	0.034

na = not applicable

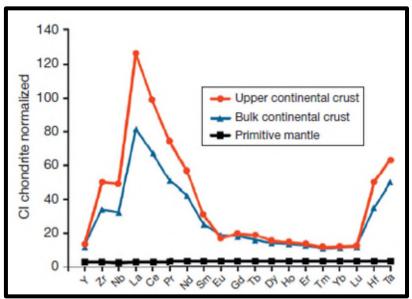


Figure 2. Distribution of rare earth elements (REEs) and some rare metals in the continental crust and mantle. Source: Linnen et al. (2014).

## 2.6 Applications of REEs

With new and developing technologies, the uses of REE have extended from well-established applications such as glass polishing to include high-performance magnets, high-tech catalysts, electronics, glass, ceramics, and alloys. An increasingly important area of REE use is in low-carbon technologies. Large wind turbines can each use up to 2 tonnes of high-strength magnets, which contain about 30% REE. Up to 20 kg of REE is utilized in each hybrid vehicle's batteries, electric traction motors, and regenerative braking systems. Demand for REE in all these applications is expected to continue to increase over the next few years, particularly in the manufacture of magnets. Many of these uses depend on the distinctive properties of REE (individually or as a group) referred to above. Some of the REE applications are summarized in **Table 3**.

Table 3. Applications of REEs in today's world. Source: Geological Survey of India/ Geological Society of India.

Application <sup>3,4,5,6</sup> :	Magnets	Catalysts	Alloys	Glass and Electronics	Miscellaneous
Global consumption (thousands of tonnes) (2008) <sup>7</sup> :	26.3	25.0	22.3	36.0	14.5
Principal REE <sup>3,4,5,6</sup> (main elements shown in bold):	Dysprosium Gadolinium Neod <b>ymium</b> Praseodymium Samarium Terbium	Cerium Lanthanum	Cerium Dysprosium Lanthanum Neodymium Praseodymium	Cerium Europium Gadolinium Lanthanum Neodymium Praseodymium Terbium Yttrium	All
Examples of use <sup>3,4,5,6</sup> :	Electric motors in hybrid vehicles; Wind power generators; Hard disc drives; CD and DVD players; Imaging; Portable electronics; Microphones and speakers; Magnetic refrigeration.	Petroleum refining; Catalytic converters; Diesel additives.	NiMH batteries; Fuel cells; Other alloys (with iron, magnesium, aluminium and in special steels).	Display phosphors (compact fluorescent lamps, LCD and plasma screens, cathode ray tubes, medical imaging); Lasers; Fibre optics; Glass polishing and tinting.	Ceramics; Water treatment; Nuclear fuel rods; Pigments; Fertiliser; Medical tracers.

# 3. Mineral Title

The QP relies on mineral tenure/title status documentation provided by Neotech (provided by Reagan Glazier, the Company's CEO, via emails dated October 27, 2023) for the descriptions of the title and status of the Property agreements (e.g., within Section 4.3), and he has no reason to doubt that the status of the legal title is anything other than what Neotech reports.

## 4. Property Description and Location

## **4.1 Property Location**

Neotech's 100% owned TREO Property is located approximately 80 km northeast of Prince George and 50 km east of Bear Lake, east-central British Columbia (Figure 1). The Property is centered around UTM NAD83, ZONE 10N: 565,000mE/6,040,000mN) (Figure 3) and occurs on the NTS Map Sheet 093J. The south and central claims form an elongated shape extending northwest-southeast, following the Parsnip River. The northernmost claims, elongated in the northwest-southeast direction along the Parsnip River, are connected with the south-central property claims via a three north-south trending contiguous strip of claims (1108481, 1101231, and 1108480) between Table and Missinka rivers.

## 4.2 Property Description

The TREO Property comprises 38 contiguous mineral claims covering approximately 16,342 hectares (ha) within the Cariboo Mining Division. These claims are shown in **Figure 3**, and full details are given in **Table 4**.

The TREO Property is bounded to the west by Defense Metals and west and south by Eagle Bay Resources properties (Figure 4). Other properties close by but not adjacent to TREO are held by Power One and Marvel.

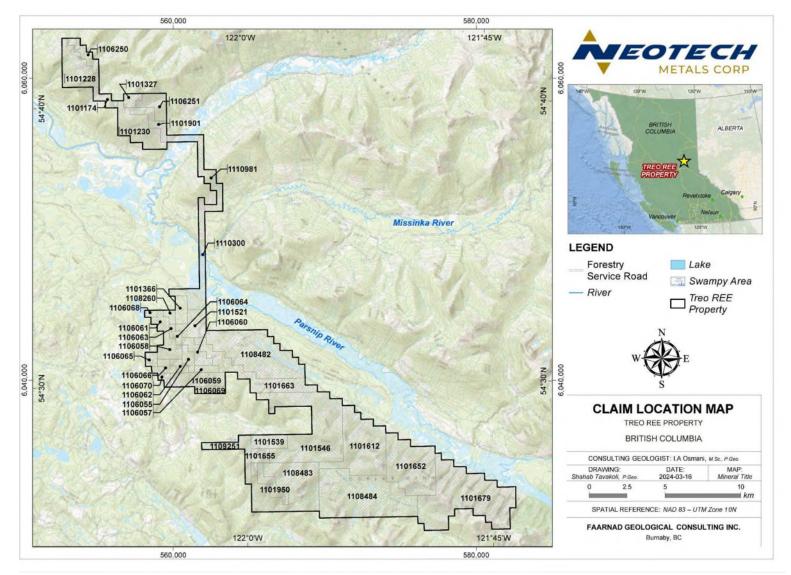


Figure 3. Claim map – TREO Property

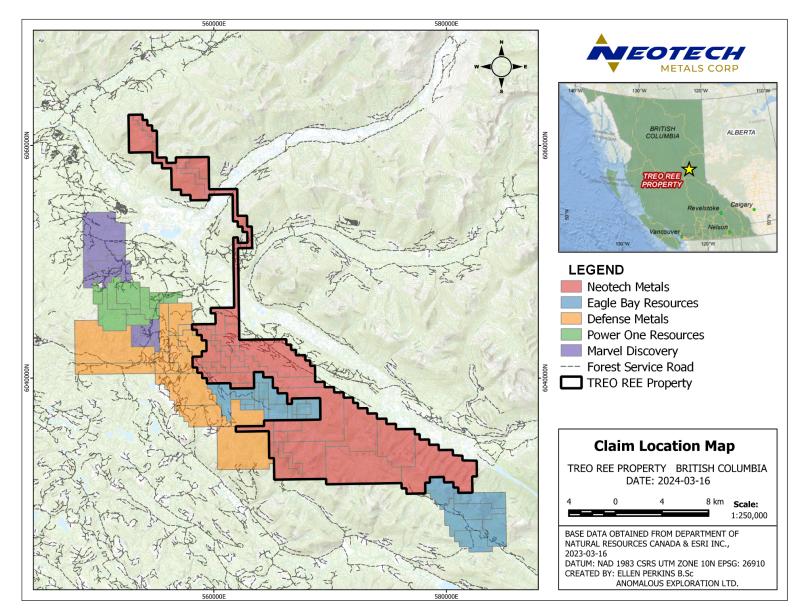


Figure 4. TREO Property and adjacent claims

Claim Number					Expiry Date	
1101174	NEOTECH METALS CORP.	112	2027-04-26			
1101228	NEOTECH METALS 505 CORP.		2027-04-26			
1101230	NEOTECH METALS CORP.	543	2027-04-26			
1101327	NEOTECH METALS CORP.	94	2027-04-26			
1101366	NEOTECH METALS CORP.	150	2027-04-26			
1101521	NEOTECH METALS CORP.	281	2027-04-26			
1101539	NEOTECH METALS CORP.	226	2027-04-26			
1101546	NEOTECH METALS CORP.	1635	2027-04-26			
1101612	NEOTECH METALS CORP.	1166	2027-04-26			
1101652	NEOTECH METALS CORP.	1072	2027-04-26			
1101655	NEOTECH METALS CORP.	113	2027-04-26			
1101663	NEOTECH METALS CORP.	695	2027-04-26			
1101679	NEOTECH METALS CORP.	1881	2027-04-26			
1101901	NEOTECH METALS CORP.	187	2027-04-26			
1101950	NEOTECH METALS CORP.	188	2025-02-02			
1106055	NEOTECH METALS 113 CORP.		2027-04-26			
1106057	NEOTECH METALS 75 CORP. 75		2027-04-26			
1106058	NEOTECH METALS 206 CORP.		2027-04-26			
1106059			2027-04-26			
1106060	NEOTECH METALS CORP.	169	2027-04-26			
1106061	NEOTECH METALS CORP.	113	2027-04-26			

 Table 4. List of claims with summary report – TREO Property.

Claim Number	Ownership	Area (ha)	Expiry Date
1106062	NEOTECH METALS CORP.	75	2027-04-26
1106063	NEOTECH METALS CORP.	19	2027-04-26
1106064	NEOTECH METALS CORP.	56	2027-04-26
1106065	NEOTECH METALS CORP.	75	2027-04-26
1106066	NEOTECH METALS CORP.	75	2027-04-26
1106068	NEOTECH METALS CORP.	38	2027-04-26
1106069	NEOTECH METALS CORP.	94	2027-04-26
1106070	NEOTECH METALS CORP.	94	2027-04-26
1106250	NEOTECH METALS CORP.	168	2027-04-26
1106251	NEOTECH METALS CORP.	243	2027-04-26
1108260	NEOTECH METALS CORP.	56	2024-10-18
1108482	NEOTECH METALS CORP.	1352	2024-10-21
1108483	NEOTECH METALS 1260 CORP.		2024-10-21
1108484	NEOTECH METALS 1712 CORP.		2024-10-21
1109251	NEOTECH METALS 282 CORP.		2024-11-23
1110300			2025-02-01
1110981	NEOTECH METALS CORP.	412	2025-02-01
<b>Total = 38</b>		Total = 16,342	

## 4.3 Royalty Agreements

Neotech holds 100% interest by purchasing claims from various vendors. Caravan Energy Corp. (now Neotech) signed a Net Smelter Royalty ("NSR") agreement with the five different vendors to whom it agreed to pay as follows:

**Christopher N. Delorme:** Caravan (now Neotech) signed a Royalty Agreement with Mr. Delorme on September 08, 2023, wherein the royalty payer agrees to pay Mr. Delorme or the person designated as an assignee by the royalty holder 1% Net Smelter Royalty ("NSR") upon the commencement of commercial production on any portion of the Property. Under this Agreement, the royalty payor can buy back 50% of the Royalty exercisable at any time during the term of this Agreement by paying the royalty holder \$500,000.

Len Harris: Caravan (now Neotech) signed a Royalty Agreement with Mr. Harris on September 08, 2023, wherein the royalty payer agrees to pay Mr. Delorme or the person designated as an assignee by the royalty holder 1% Net Smelter Royalty ("NSR") upon the commencement of commercial production on any portion of the Property. Under this Agreement, the royalty payor can buy back 50% of the Royalty exercisable at any time during the term of this Agreement by paying the royalty holder \$500,000.

**1258713 BC Ltd.:** Caravan (now Neotech) signed a Royalty Agreement with 1258713 BC (the "Numbered Company") on September 8, 2023 (Amended on September 15, 2023), wherein the royalty payer agrees to pay the numbered company or the person designated as an assignee by the royalty holder 1% Net Smelter Royalty ("NSR") upon the commencement of commercial production on any portion of the Property. Under this Agreement, the royalty payor can buy back 50% of the Royalty exercisable at any time during the term of this Agreement by paying the royalty holder \$250,000.

**1240089 BC Ltd.:** Caravan (now Neotech) signed a Royalty Agreement with 1240089 BC (the "Numbered Company") on September 8, 2023 (Amended on September 15, 2023), wherein the royalty payor agrees to pay the numbered company or the person designated as an assignee by the royalty holder 1% Net Smelter Royalty ("NSR") upon the commencement of commercial

production on any portion of the Property. Under this Agreement, the royalty payer can buy back

50% of the Royalty exercisable at any time during the term of this Agreement by paying the royalty holder \$250,000.

**Reagan Glazier:** Caravan (now Neotech) signed a Royalty Agreement with Mr. Glazier on September 22, 2023, wherein the royalty payor agrees to pay Mr. Glazier or the person designated as an assignee by the royalty holder 2% Net Smelter Royalty ("NSR") upon the commencement of commercial production on any portion of the Property. Under this Agreement, the royalty payor can buy back 50% of the Royalty exercisable at any time during the term of this Agreement by paying the royalty holder \$1,000,000.

On December 01, 2023, Neotech announced that it bought two additional claims from vendor Steven Scott by paying \$5,000 cash and issuing 20,000 common shares of the Company subject to a month hold period. This transaction is free from paying any NSR to the vendor.

**Mineral Rights in British Columbia:** In British Columbia, a mineral tenure/claim grants the right to explore the land within its boundaries. It allows the collection of up to one thousand (1,000) tonnes of bulk sample material. Extracting more than this amount from a tenure requires acquiring a mineral lease. A mineral tenure does not grant surface rights. A surface lease or grant is required.

The mineral tenures or claims are held under the British Columbia *Mineral Tenure Act* and acquired through the Government of British Columbia's interactive online mineral tenure system, *Mineral Titles Online* ("MTO"). A *Free Miner Certificate* ("FMC") is required to acquire and maintain mineral claims available to individuals and corporations through the MTO.

The holders of mineral tenures are entitled to hold the claims unlimitedly. However, to maintain the claims, either a minimum amount per hectare (\$5/ha) must be spent on exploration and development work on the claim each year, or a cash-in-lieu payment (\$10/ha) must be paid. As the Table below indicates, the amount of work required and cash-in-lieu payment per hectare for each anniversary year increases.

Anniversary Year	Work Requirement	Cash-in-lieu
1 and 2	\$5/ha	\$10/ha
3 and 4	\$10/ha	\$20/ha
5 and 6	\$15/ha	\$30/ha
7 and subsequent	\$20/ha	\$40/ha

Table 5. Mineral tenure work requirements and cash-in-lieu payments in BC.

**Permitting in British Columbia:** In the Province, any exploration activity on a mineral claim that disturbs the ground surface, such as trenching, excavating, blasting, camp construction or demolition, and drilling, requires a *Notice of Work* ("NoW") permit. The permit applications are online through the Front Counter BC (<u>http://www.frontcounterbc.gov.bc.ca</u>). The work permits specify the terms and conditions under which exploration work can be undertaken.

Additionally, landowners must be notified before mining claims occur on private land or during any mining or exploration activity. This notice must describe the date and type of work, the place of work that will be conducted, and how many people will be on site.

# 5. Accessibility, Local Resources, Infrastructure and Physiography

#### **5.1 Accessibility**

The nearest major city is Prince George (population ~76,000), located ~80 km southwest of the TREO Property. The claims can be accessed by taking B.C. Highway 97 north from Prince George to the Bear Lake community. From there, driving for ~50 km east onto the well-maintained network of forest service (e.g., Chuchinka Road located just south of Bear Lake) and unmaintained logging roads, allowing access to the northeast and southwest edges of the Property.

#### 5.2 Local Resources And Infrastructure

The property is roughly 50 km east of provincial Highway 97, the CN rail mainline, a natural gas pipeline, and a power transmission line. A dormant three-line sawmill, located immediately east of Highway 97 near its junction with the Chuchinka Forest Service Road, has adequate electric power, a railway siding, and a nearby gas pipeline that could be utilized for the project development when needed.

The city of Prince George could provide both a skilled and non-skilled workforce. All goods and services, such as laboratory services, exploration and mining equipment, drilling contractors, and supply dealerships, are available in Prince George. The community of Bear Lake (population 151), located ~50 km west of the property, has a small motel, convenience store, and gas station and may be a source for local non-skilled labour.

Commercial flights are available daily between Prince George and Vancouver. Multiple direct flights are available each week between Prince George and several destinations, including Victoria (BC), Calgary, and Edmonton (Alberta). Helicopter charter services are available year-round in Prince George.

## 5.3 Climate

The climate in the area is typical of central British Columbia. Summer is warm and dry, and Spring and Fall are mild and wet. Winters are relatively dry and cold. The temperature in summer averages around 15°C but can reach as high as 30°C. Winter temperature averages around -10 °C and can be as low as -30°C. Snow typically accumulates across the property from November to March. The higher elevation reaches of the area may still have partial snow cover into June.

## 5.4 Physiography

The physiography of the TREO Property area is located within the Northern Hart Ranges, a subdivision of the Central Rocky Mountains of British Columbia. The mountains are rounded and have a relatively low profile compared to the Rocky Mountains further towards the east. The predominantly sedimentary rocks have been overridden and rounded by glaciers moving from the province's eastward interior. The region is drained by the Hominka, Missinka, and Table streams that flow southwest into the Parsnip River. The Parsnip River flows northwest to eventually reach Williston Lake, which joins the Peace River watershed, flowing east into Alberta. The Northern Hart Ranges are often affected by eastward-moving Pacific air or southwestward-moving Arctic air, which bring heavy precipitation.

## 5.5 Vegetation

Sub-boreal spruce forests dominate valley bottoms and lower slopes, with extensive wetlands terrain in flat-bottomed valleys such as the Hominka, Table, and Anza valleys. Engelmann spruce-subalpine fir forests dominate both the middle and upper slopes. Elevation ranges from 1,000 to 1,600 meters on the Property.

# 6. History

In the 1960s, the Geological Survey of Canada ("GSC") carried out an airborne regional magnetic survey east of Prince George, covering the current TREO Property (GSC, 1964 and 1969). The GSC published the survey results in 1961, and a magnetic high feature was identified on the current Wicheeda Property of Defense Metals adjacent to the current TREO Property. Prospecting the area in 1976 and 1977 by Kol Lovang identified minor base metal showings covering two mineral claims. No follow-up work was completed, and the claims were allowed to lapse. Later, Lovan's samples, assayed by Teck Explorations Limited ("Teck"), found anomalous niobium values. Teck subsequently entered a prospecting agreement with Lovang and optioned it in early 1986 (Betmanis, 1987).

Description of historical work covering the TREO Property and adjacent areas is mainly based on the Assessment Work Reports and Maps submitted to the BC Ministry of Mines and Energy, now called the Ministry of Energy, Mines, and Low Carbon Innovation, by exploration/mining companies and individuals.

## 6.1 Teck Exploration

In addition to Lovang's option, Teck staked its initial claims in April 1986 and established five grids (Lake, George, D, F, and Prince) for reconnaissance work. The 'Lake' and 'George' grids mainly cover the current Defense Metals claims, and the rest entirely or partially cover Neotech's claims. Between 1986 and 1987, Teck conducted geological mapping, rock sampling, soil geochemical and magnetic surveys, and trenching and sampling programs on the Prince grid, covering Neotech's current claims (Lovang and Meyer, 1987; Betmanis, 1987).

James Petrographics Limited conducted a thin-section study for Teck on ten rock chip samples. The primary purpose of this study was to determine whether the rocks are carbonatites or of carbonatitic affinity. These samples were also analyzed using the X-ray fluorescence method to determine the total niobium in the rock. The analysis indicated higher than the crustal abundance (25 ppm) of niobium concentration (111 ppm to 1377 ppm) in studied samples.

For the soil geochemical survey, soil samples were collected from B-horizon at 100-150 m line spacing at 50 m intervals. The northeastern part of the George grid that partially covers the current Property revealed anomalous niobium (Nb). Cerium (Ce) and barium (Ba) anomalous values were also associated with Nb, suggesting the presence of buried carbonatite/alkaline intrusions. The Ce anomalies indicated a considerable amount of light rare earth elements (LREEs – La, Pr, Nd, and Sm), which have already been proven on the adjoining property and may also have mineralization potential on the current Property. *The qualified person has not been able to verify the information on this adjacent property, and the information is not necessarily indicative of the mineralization present on the TREO Property.* 

#### **George Grid**

Geochemical analysis of soil and rock samples from the George grid, partially located on the TREO claims, has reported elevated concentrations of REEs (**Figure 5**). Three trenches were excavated on the adjacent claims on gridline L72+00W for a total length of 87 m as follows:

GT-1 L-72-W from 0 + 25 S to 0 + 59 S (34 metres) GT-2 L-72-W from 1 + 88 S to 2 + 30 S (42 metres) GT-3 L-72-W from 2 + 67 S to 2 + 78 S (11 metres)

Soil sample on gridline L72+00W-0+50S, overlying the syenite outcrop, and the trench GT-1 yielded anomalous REEs . At GT-2, a 42 m wide composite of eight rock samples (#10871 to 10878, inclusive) returned additional anomalous values in the majority of samples. Another 11 m wide composite of three samples (#10868-10870) from GT-3 returned similar REE values, i.e., exceeding the upper detection limits in some samples. Later, all samples with upper detection limits were reanalyzed by the XRF method to obtain maximum REE concentration (Betmanis, 1987). *Mineralization on the adjacent property is not necessarily indicative of the mineralization present on the TREO Property*.

The ground magnetic survey was conducted in 1987 on the George grid. The magnetic readings were taken at 25-metre intervals using a Geometric portable proton magnetometer with a backpack-mounted sensor. The magnetic data display a moderate but still reasonably subdued magnetic relief of the George grid, thought to be caused by magnetic to weakly magnetic narrow dykes partially exposed in outcrop.

#### **Prince Grid**

The Prince Grid saw the most exploration conducted by Teck in 1986 occur on the current Property. The exploration work included soil geochemical and magnetic surveys, geologic mapping, trenching, and litho-geochemical sampling.

The grid consists of a baseline with northeast-southwest (050°) cut lines for 4,350 metres and 28,900 flagged cross-lines established at 150-metre spacings with stations marked at 50-metre intervals. Rock outcrops were mapped at a scale of 1:5,000 using the grid reference. Soil samples were collected at the 50-metre stations. Total field magnetometer readings were taken at 25-metre intervals along the lines. Several test pits were dug to obtain soil profiles, and seven trenches for 79.5 metres were blasted to expose bedrock.

In 1986, Teck conducted a ground magnetic survey on the Prince Grid. The magnetic readings were taken at 25-metre intervals using a Geometric portable proton magnetometer with a backpack-mounted sensor. The total field magnetic data shows that the argillites and limestones display very low magnetic relief. The central part of the carbonatite gives a magnetic relief of at least 100 gammas. However, no magnetite was observed in the carbonatite, but pyrrhotite observed in thin sections may reflect the relative magnetic high relative to the background. An area of relative magnetic high was noted south of the baseline on the western part of the grid. No carbonatite outcrop or float was observed in the anomalous area, and neither soil sampling indicated anomalous niobium.

#### D Grid

A reconnaissance soil survey was made on the "D" grid. Soil samples were collected from lines spaced 100 m apart at 50 m intervals. No anomalous Nb was found. However, Ce and Ba indicated weakly elevated values on one partial grid line, which does not relate to adjacent lines. No other geological or geophysical work was carried out on the grid.

#### F Grid

The reconnaissance soil survey was conducted 150 m apart at 50 m intervals on the "D" grid. All samples returned background values of Nb, Ce, Ba, and Sr. No other geological or geophysical work was carried out on the grid.

#### **Fluorite Grid**

The Fluorite grid located on and adjacent to the current Property explored by Teck in 1987 (Betmanis, 1988a and 1988b) is summarized in the Spectrum Mining Corp. report for the Wicheeda South property (Lane, 2010). Teck conducted soil sampling and a scintillometer survey but never mapped the prospect area. *Mineralization on the adjacent property is not necessarily indicative of the mineralization present on the TREO Property.* 

## 6.2 Commerce Resources Corporation ("CRC")

Jody Dahrouge acquired most of the property claims in 2005 and 2006 on behalf of Commerce Resources Corp., which comprised six groups of claims, namely, Carbo1, Carbo2, Carbo3, Carbo West, Carbo Extension, and Wichcika, covering a total area of 1,953 hectares.

In 2006, Dahrouge Geological Consulting Limited was contracted to carry out exploration work consisting of a soil geochemical survey (345 samples), geophysical surveys (ground magnetic and Scintillometer), prospecting, and litho-geochemical sampling (40 samples) (Guo and Dahrouge, 2006). This work aimed to locate areas of anomalous Nb and REEs.

The forty (40) rock samples were collected from intrusive outcrops, bedrock, and float. All rock samples were analyzed at Acme Laboratories, Vancouver. Fifteen (15) line km of Scintillometer and Magnetometer surveys were carried out on 150 m apart gridlines at 12.5 m intervals using a GR-IIOG/E portable Gamma Ray Scintillometer and GSM-19 Overhauser Magnetometer. Moderately radioactive highs were indicated during the survey. Further work, including trenching or drilling, was recommended to follow up on the observed anomalies.

#### 6.3 Spectrum Mining Corporation – Wicheeda South

In 2009, Spectrum conducted one day of fieldwork on their Wicheeda South Property on October 24, 2009, with the objectives of locating an area on the 1987, Teck-flagged grid between Line 33+00E to Line 37+50E and from about 11+50N to 15+50N. The area was previously identified as anomalous in Nb and F, with a high background in anomalous scintillometer readings. Objectives also included outcrop mapping, and sampling carbonatite lithologies and related mineralization, conducting closely-spaced silt sampling on east and west tributary creeks that form a confluence around 36+15E and 11+25N, and running a reconnaissance-level scintillometer prospecting over Teck's Nb anomaly using handheld GPS.

The highlight of this short-duration work revealed the discovery of an outcrop containing narrow calcite-fluorite and quartz-carbonate veinlets cutting the limestone country rock. Grab samples from the outcrop returned anomalous REEs, which is consistent with high scintillometer readings from the sample site. Two other samples returned highly anomalous light rare earth element values. Sample WI09-04 collected 30 m upstream, and WI09-03 collected more than 150 m upslope.

#### 6.4 Commerce Resources Corp. - Canadian International Minerals Inc., JV

In February 2009, Commerce Resources Corp. (CRC) entered a joint venture agreement with Canadian International Inc. (CIN). Under this joint venture agreement, CIN has acquired a 75% interest in the CRC's Carbo Claims. In April of 2009, Michael Guo, P.Geo., summarized the work on the property in a NI- 43-101 Technical Report for CIN. The JV partners engaged Mackevoy Geoscience Ltd. ("Mackevoy") to conduct a reconnaissance exploration on their property. Fifty-six (56) soil, 45 silt, and 17 rock samples were collected between July 12 and 15, 2009. A new narrow carbonatite dike was discovered on the southwest flank of Wicheeda Ridge. The historic carbonatite intrusion on the ridgetop has confirmed the presence of REE and Nb mineralization.

In 2010, Mackevoy's fieldwork included soil sampling, prospecting, and airborne magnetic and radiometric surveys. All this work was geared toward finding targets for the Fall diamond drilling program on the property.

Four soil sample grids ('406', '425', '708', and '729' grids) were designed for their spatial proximity to the known prospective ground, neighbouring claims' prospective ground, and airborne radiometric and magnetic survey highs (Figure 6). Four hundred eighteen (418) soil samples were collected on grids, and prospecting and reconnaissance work resulted in 21 rock

samples, two soils, and ten (10) silts. The sampling results were encouraging, particularly with soil samples from the '425' grid (Turner et al., 2011). These encouraging results identified three potential drill target locations from which five holes were proposed for drilling.

In July 2010, Aeroquest Survey Ltd. conducted heli-borne AeroTEM electromagnetic and magnetic surveys of the Carbo claims (Aeroquest, 2010). A total of 566 line kilometres were flown in 045°/135° flight direction at 50-metre line spacing, of which 532 line kilometres covered the defined project area. The survey identified several Th radiometric anomalies along the ridge and a 3.7 km long magnetic anomaly along the Wicheeda Ridge in the Copley range.

Mackevoy conducted a helicopter-supported drill program in 2010 (October to December) on behalf of CIM. Drilling targets were selected based on the REEs in soil and geophysical (radiometric -Th and magnetic) anomalies. Nine (9) drill holes from four drill setups, totaling 1,938.9 m, were drilled before winter conditions ended the program (Figure 5). Drill holes intersected bedded non-calcareous to calcareous argillite and siltstone intruded by carbonatite dikes/veins and feldspar sodalite and felsic dikes. Contact breccias related to the carbonatite dikes were also observed.

The REE mineralization occurring in carbonatite dike and a network of carbonatite/calcite veins have intruded the Upper Cambrian to lower Ordovician Kechica Group bedded sedimentary rocks. The bedded argillite and siltstone units strike northwest-southeast with sub-vertical dips. Carbonatite dikes subparallel the sedimentary units. The carbonatite dikes are narrow (less than 10 m), and their contacts with host rocks locally form breccias with carbonatite matrices.

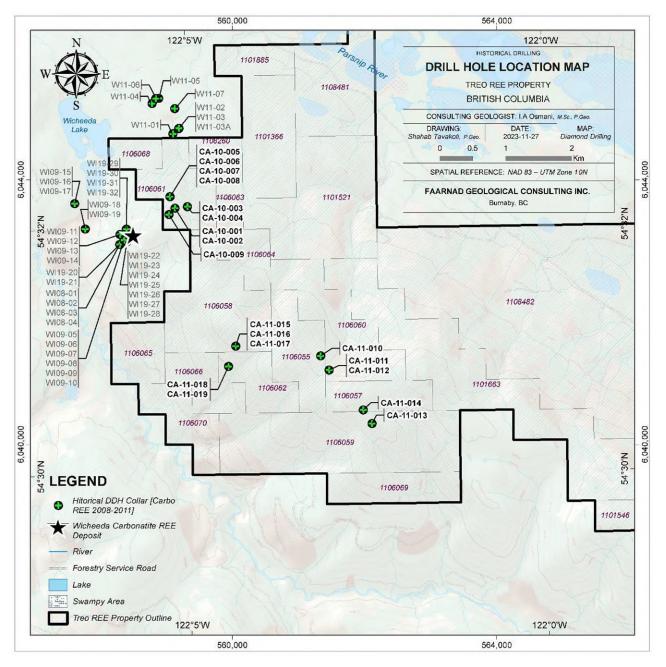


Figure 5. Historical drill holes both on and adjacent claims. The 2010-2011 holes drilled by CIM on the Property are only discussed in the text.

Drill core samples returned anomalous REE values in carbonatite dikes. Some of these and other narrow higher grades of REE intercepts occur within relatively wider but low-grade mineralization envelopes. REE-bearing minerals include parasite, bastnaesite, burbankite, monazite, and aeschynite. Sulphide minerals intersected in drill holes apparently unrelated to the REE and Nb (in rutile) mineralization are pyrite, pyrrhotite, sphalerite, galena, arsenopyrite, and chalcopyrite. These drilling results concluded that the light rare earth elements ("LREEs") are the pathfinders (Bruland, 2011).

In 2011, CIM completed a second heli-supported diamond drilling campaign. Three thousand ninety (3,090) metres in 11 holes were drilled (**Figure 5**), and 647 core samples were collected for geochemical analysis (Bruland, 2012). Geologist Ms. Mallory Dalsin did core logging, which included identifying rock types (e.g., carbonatite, syenite, altered phyllite, etc.), alteration (carbo-hydrothermal), mineralization, and structures. Scintillometer readings of cores were taken systematically to determine if Th is associated with LREE mineralization. Of the 3,090 metres drilled, 743 m were in 3 holes at Target-2, 801 m were in 2 holes at Target-3, and 1,546 m were in 6 holes at Target-4. The core samples collected from Targets 2, 3, and 4 totaled 117, 432, and 98 samples, respectively. Drill core samples did not return significant REE mineralization.

In 2011, Mallory Dalsin, as part of her M.Sc. thesis at the University of British Columbia, mapped the area between the historical George and Prince grids to expand the region's geological understanding (Dalsin, 2013). Dalsin (2011) also conducted a small soil sampling program (98 samples) on CIM's Carbo property. The soil sampling was accompanied by a handheld GPS-paired RS-Gamma Ray Spectrometer capable of discriminating K, U, and Th from total counts. Thorium can be used for honing in on anomalous areas of radioactivity possibly related to REE mineralization when compared against the background of the bedrock. Radioactivity was not high; however, the signal of prospective rocks was distinct from non-mineralized areas. A total of 1849 georeferenced points were collected with the RS-125 Super-Spec portable spectrometer.

The mapping by Dalsin (2013) uncovered a previously unknown, 1.5 km-long trend of carbonatite and associated rocks that have not been extensively sampled for their REE and Nb concentration. In addition to the field mapping, Dalsin collected research samples for the thesis from outcrops and drill cores to produce polished thin sections, whole rock isotopic analysis, mineral chemistry, and geochronology. Dalsin (2012) also prepared a mineralogical summary report from her thin-section study for Canadian International Minerals Inc. Information collected and interpreted from all this work allowed Dalsin (2013) to compare the complex geologically, geochemically, and mineralogically to other carbonatites in B.C. and globally. Most of this work was completed on dykes and sills southeast of the Wicheeda plug on the current TREO Property.

## 6.5 Bolero Resources Corporation (BRC)

During the 2010 field season, BRC explored the Carbonatite Syndicate property comprising 204 individual claims covering 87,571 ha in seven contiguous groups (Turner, 2011). The exploration work in the summer field season included reconnaissance prospecting/mapping, extensive silt sampling, soil sampling, ground-based radiometric surveying, airborne radiometric-EM surveying, and minor small-diameter diamond drilling in late fall. These works were primarily conducted within the original tenure of the "Main Block" (101 core claims covering a total area of 42870 hectares - roughly 50% of the group by size) along the northern flanks of Wicheeda Ridge and towards the southern end of the original mineral tenure.

Through a joint venture with Alix Resources Corp., Bolero Resources Corp. was also involved in an eighth claim block (5 claims, 2,156 hectares) east of Wicheeda Lake north of the Main Claim Block. Bolero performed no work on these claims in the 2010 field season.

Six soil sample grids ('103', '911', '924', '711', '749', and '749T') were established for their spatial proximity to the known prospective ground, neighbouring claims' prospective land,

ground-based radiometric responses, and anomalous airborne radiometric and magnetic survey areas. Most soil grids, except the 911, fall within the current TREO Property (Figure 6). The 911 grid partially extends southeast onto the TREO's Property boundary. Eight-hundred-ninety-five (895) soil samples were collected on these grids. Prospecting and reconnaissance work collected 11 rocks, 68 soil samples, 13 trench tills, and 267 silt samples.

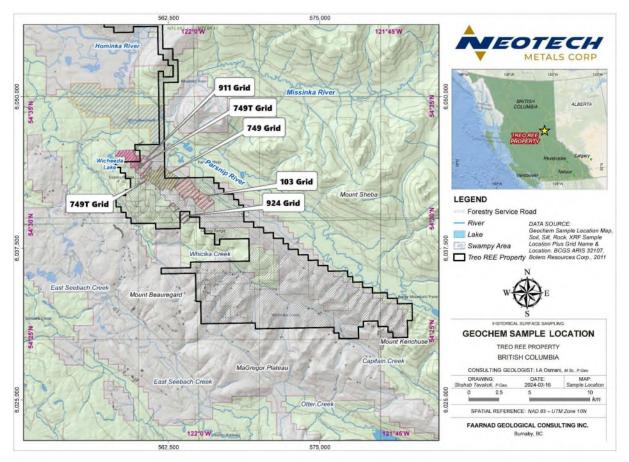


Figure 6. Geochemical sampling grids – Bolero Resources.

The results of the widespread silt sampling were deemed adequate for locating potential mineralization in small upstream drainage basins. The most anomalous area delineated via silt sample geochemistry was the region encompassing the 911 and 749 soil grids. This area showed the strongest REEs, Th, and Nb responses and has been followed up using more spatially restricted sampling methods (i.e., soil sampling). Two areas based on silt REE/Th geochemistry and two samples based on Nb geochemistry were recommended for follow-up. Recommendations were made to continue soil sampling by extending the existing grids, especially along the claim margin on the NE flank of Wicheeda Ridge, increasing sample density in the 911 grid area, establishing a grid North of Spectrum Resources' Fluorite South Zone, and in any area which responds positively to early season radiometric surveys. Diamond drilling was recommended in the 911 Grid area as it showed a strong radiometric response and high soil and float assays.

In 2010-2011, Aeroquest Limited was contracted to conduct a magnetic, gradiometer, and radiometric survey over two blocks (Aeroquest, 2011; Koffyberg and Gilmour, 2012). Block A to the southeast was designed to cover the ground near Spectrum's Fluorite South zone, whereas Block B to the northwest covered the 911 Grid. A total of 438 line-kilometers was flown. In the summer of 2011, a more extensive airborne geophysical survey was flown by Aeroquest, consisting of a North Block (2228 line kilometers), a South Block (1661 line kilometers), and a C Block (145 line kilometers) for a total coverage of 4156 line-kilometers.

In 2011, Bolero conducted a small diamond drill program (1,678m in 8 holes) within the 911 grid based on Mackevoy Geosciences Ltd.'s recommendations. All holes intersected predominantly phyllite and failed to encounter carbonatite or any significant intrusive rocks (Churchill et al., 2012). The conclusion was that glaciers transported the soil anomaly and mineralized boulders from the Wicheeda REE Carbonatite, located about 2 km to the southwest (Knox, 2022).

In April 2012, the survey data was reviewed by a geophysicist. The technique used profiles of various potassium, thorium, and uranium ratios. Six priority areas defined as clusters of point anomalies were produced based on a radiometric signature similar to the signature found in the area known to contain numerous carbonatite float boulders. A further 13 spot anomalies targeted areas of high uranium/low potassium signatures (Churchill et al. 2012).

# 7. Geological Setting and Mineralization

## 7.1 Regional Geology

Regionally, the TREO property occurs within the Foreland Belt near the eastern edge of the Omineca Belt (Figure 7). The Foreland Belt (FB), mainly consisting of Proterozoic rocks, was the last orogenic belt to form in the British Columbia Cordillera, spanning the late Jurassic to Paleocene. It is a northwest-trending morpho-geological feature, marked by the Rocky Mountain Trench (RMT) on its western edge, comprising an assemblage of imbricated and miogeoclinal rocks forming the most easternmost ranges of the Cordillera (Gabrielse et al., 1991). The RMT, which follows the Parsnip River valley east of the Property, can be traced from the northern edge to the southeastern corner of British Columbia. Several major northwest-trending faults transect the region, including the TREO Property area.

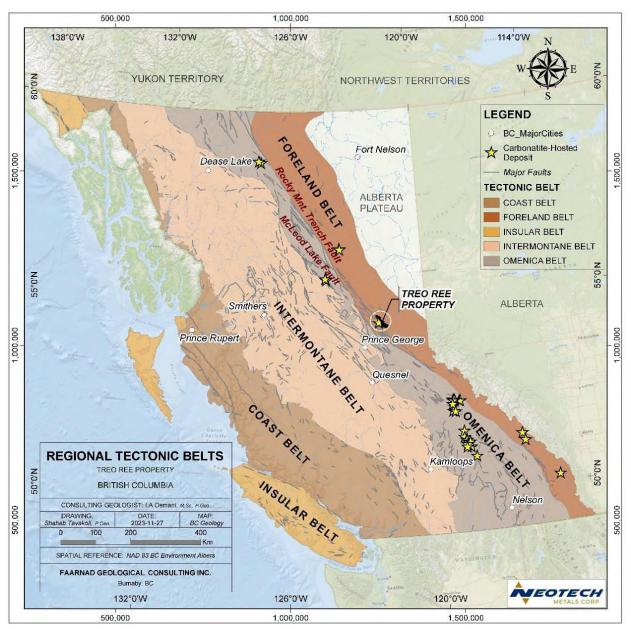


Figure 7. Regional setting of TREO Project.

The Carbonatite-alkaline complexes and dike-diatreme swarms forming the Alkali Province of British Columbia (APBC) occur mainly within the FB on either side and parallel to the trend of RMT. These rare earth and rare metal-bearing intrusions include the Wicheeda, Aley, Kechika River, Virgil, Lonnie, Mount Bisson, Bearpaw Ridge, Ice River, Trident Mountain, Mount Grace, and Rock Canyon occurrences (Figure 8) (Pell, 1994).

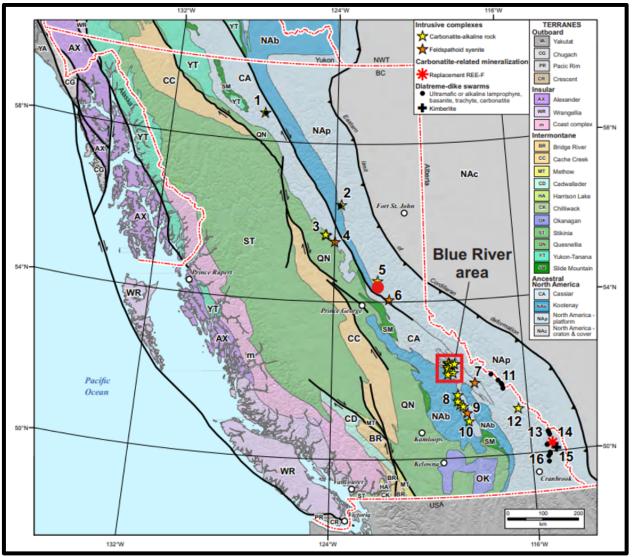


Figure 8. Carbonatite-alkaline complexes and dike-diatreme swarms define British Columbia's Alkaline Province (After Rukhlov et al., 2018).

The Terrane geology is after Nelson et al. (2013). The TREO Project location is indicated on the Map by a red dot beside the Wicheeda Carbonatite complex (5). 1 – Kechika River; 2 – Aley (~344 Ma); 3 – Vergil (~357 Ma) and Lonnie; 4 – Mount Bisson; 5 – Wicheeda Lake; 6 – Bearpaw Ridge; 7 – Trident Mountain (~359 Ma); 8 – Mount Grace (~359 Ma), Perry River (~798 Ma), and REN/Ratchford Creek (~698 Ma); 9 – Mount Copeland (~740 Ma); 10 – Three Valley Gap; 11 – Bush River (~410 Ma), Lens Mountain, Mons Creek (~469 Ma), Valenciennes River, and HP (~400 Ma) diatreme-dike swarms; 12 – Ice River (~362 Ma); 13 – Shatch Mountain and Russell Peak diatreme-dike swarms; 14 – Rock Canyon Creek; 15 – Cross diatreme (~245 Ma); 16 – Blackfoot Creek (~400 ), Swanson Peak (~400 Ma), Quinn Creek, and Summer Creek diatreme-dike swarms.

The carbonatite-alkali dike/sill-like intrusions occurring on the TREO property are part of this alkali province. They are located immediately southeast of the rare earth-bearing Wicheeda carbonatite complex, host to significant REE resources. These intrusions often follow the trend of the RMT and occur on either side and parallel to it. The carbonatite complexes-alkali intrusions have been dated to show three distinct age ranges: Neoproterozoic (~800-700 Ma), Late Cambrian (~500 Ma), and Upper Devonian to Lower Carboniferous (~360-340 Ma)

(Millonig et al., 2012). The first age range corresponds to the postulated initial break-up of Rodinia extensional tectonics that affected the western continental margin of North America, and the latter two correspond to renewed extensional tectonics. The Carbonatite-alkaline complexes are typically sub-circular to elongate in plan and commonly have well-developed metasomatic alteration haloes. According to Pell (1987), the carbonatite-alkali complexes following the RMT are Devonian-Mississippian age and were subjected to sub-greenschist facies metamorphism during the Columbian orogeny but behaved as inflexible and cohesive bodies during orogenesis and were rotated, tilted and or transported eastwards in thrust panels.

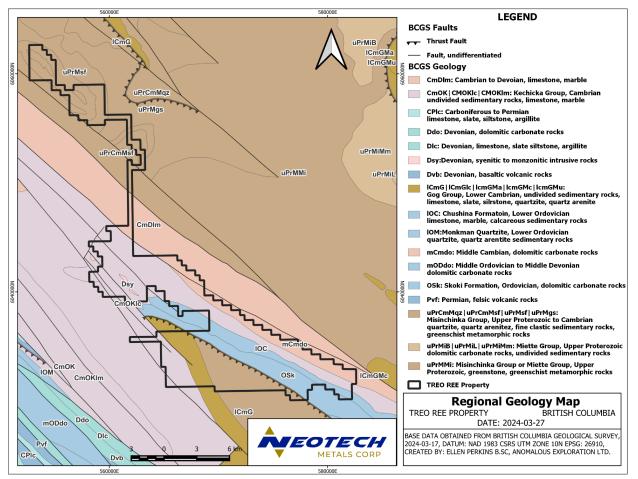


Figure 9. Regional geology map.

The regional geology was described by Armstrong et al. (1969) and Taylor and Stott (1979). The regional bedrock comprises mainly limestone, marble siltstone, argillite, and calcareous sedimentary rocks of the Upper Cambrian to Lower Ordovician Kechika Group (Figure 9). To the east of the Property, the rocks of the Kechika Group are in fault contact with unassigned carbonates, slates, and siltstones of the Cambrian to Devonian age. The Kechika Group's western rocks are in fault contact with quartzitic rocks of the Upper Proterozoic to Permian Gog Group and unassigned Devonian to Permian felsic volcanic rocks (Gadd, 1995; Lane, 2009). The Kechika Group lies on top of an erosional surface of uplifted Atan Group beds (Gadd, 1995). The complex is located within the McGregor Plateau and is defined by two dominant faults. The first is the McLeod Lake Fault (~160°) to the west, and the east is the northwest-trending (~140°)

Rocky Mountain Trench Fault System (Armstrong et al., 1969). The latter likely follows the Parsnip River valley dominating the region's structural and geographical setting. The movement on the McLeod Lake Fault is interpreted as mid-Tertiary. Several other major northwest-trending faults also occur in the area.

#### 7.2 Property Geology

The TREO Property is at an early exploration stage, and the claim group has been covered by regional bedrock mapping but not property-scale mapping. As a result, the Property geology is poorly understood—the bedrock exposure is scarce, and only limited geological mapping has been conducted in the past. The following Property geology and adjacent areas are summarized mainly from the historical works (e.g., bedrock mapping, geophysics, and drilling data) of Teck Resources (Betmanis, 1987), Spectrum Mining Corporation (Lane, 2010), Canadian International Minerals (Bruland, 2011), Bolero Resources (Turner, 2011), Arctic Star Exploration (Kluczny and McCallum, 2012; Kluczny, 2018), and Dalsin (2013).

The TREO Property and adjacent areas are underlain predominantly by rocks ranging in age from Neoproterozoic to Ordovician. The most dominant rocks on the Property belong to the Kechika Group rocks of the Cambrian to Ordovician, followed by Gog (Upper Proterozoic to Lower Cambrian), Misinchinka (Proterozoic to Cambrian), and Miette (Proterozoic) groups (Figure 10). A description of these groups from the Monkman Pass area is summarized in Table 6.

Age	Group	Formation	Lithogic Units
Ordovician Lower Ordovician Cambrian-Ordovician	Kechika	Skoki Chushina unnamed	grey dolostone with limestone, ±sandstone limestone, argillaceous limestone, shale siltstone, sandstone, limestone dolostone
Upper Proterozoic to Lower Cambrian	Gog*	Mahto Mural McNaughton	quartzite limestone, dolomite, shale quartzite with minor shale
Proterozoic-Cambrian	Misinchinka	unnamed	metamorphosed equivalents of Miette and/or Gog Gpquartzite, slate, schist, and phyllite
Upper Proterozoic Miette Middle Lower		Middle	black argillite, slate conglomerate, slate dolomite and limestone, slate

Table 6. A description of the rock groups from the Monkman Pass area.

*Source:* Stott and Taylor (1979) and Lickorish and Simony (1995)

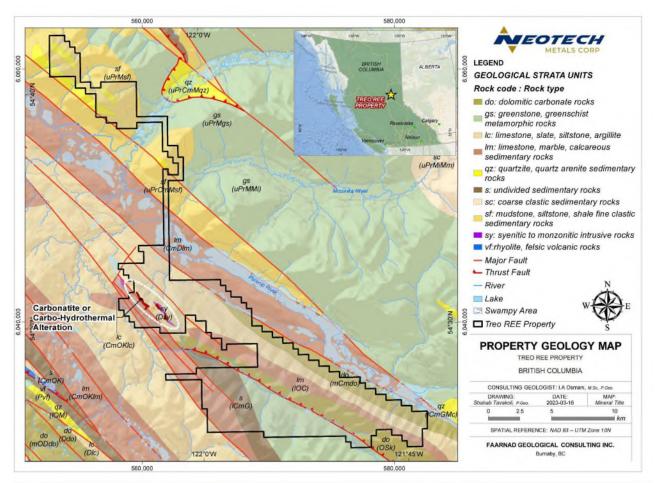


Figure 10. Property and adjacent area geology.

The historic Prince grid area in the west-central part of the Property mapped by Dalsin (2013) and Betmanis (1987) in relative detail (Figure 11) shows the area is predominantly underlain by interbedded limestones with calcareous argillites and phyllite and their altered equivalents (e.g., altered phyllite) of the Kechika Group. The northeastern edge of the grid is underlain mainly by fairly massive white limestone interbedded with least massive, thinly bedded medium to dark grey limestone. The unit is interbedded to the southwest from the main limestone with light grey calcareous argillites and weakly calcareous phyllites, with few thick light to medium grey limestone beds. The limestone beds appear more silty to the southwest with increasing pseudo-nodular and sedimentary boudinage structures. The argillites and phyllites are locally ferruginous. The argillite-phyllite-limestone sequence probably correlates with either the Lower Ordovician Chushina Formation or the upper Cambrian Kechika Group of the McLeod Lake map sheet (Betmanis, 1987).

The Carbo Carbonatite, a dike/sill-like intrusive complex of varying composition and thickness along its strike, intrudes the sediments subparallel to a central limestone unit mapped by

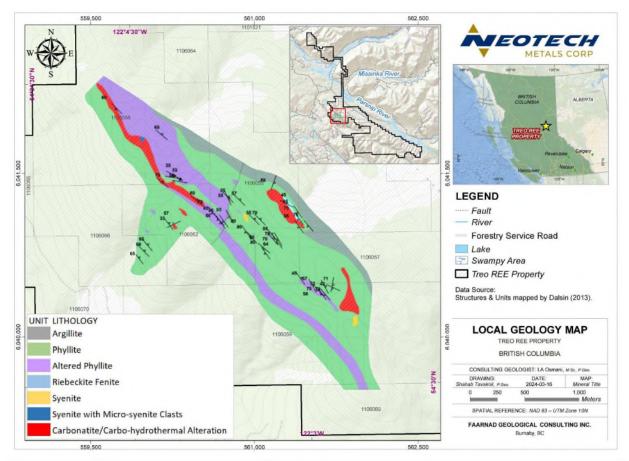


Figure 11. The central TREO Property's geology map shows the Carbo Carbonatite/Carbo

Betmanis (1987) and Dalsin (2013), located roughly 1.3 km southeast of the Wicheeda Carbonatite Complex, occur in the central TREO Property. It has been traced intermittently by float and outcrop for a distance of 2.70 km. Geochemical soil surveys indicate that it is continuous except where displaced by faulting. The carbonatite is medium to coarse-grained, generally quartz-free, and contains feldspar, carbonate, pyroxene, and micas intergrowths. Pyrite is a common accessory mineral.

The central peak of the ridge on the Prince Grid was mapped as a moderately massive, weakly calcareous argillite or very silty dolomite with limy nodules. The unit is distinctly different from the interbedded limestones and argillites. Its eastern margin is fault-controlled, or it could be a thrust plate remnant belonging to the Upper Cambrian Lynx Formation (Betmanis,1987). If the fault is overthrust, the carbonatite could extend beneath it (Betmanis,1987).

Several faults have been interpreted from the displacement of limestone beds and the carbonatite—location and direction of faulting indicated by drainage patterns and local depressions. Dips of inferred faults are presumed to be moderately steep.

Dalsin (2013) mapping identified two outcrops of riebeckite fenite and a small zone of pyroxene fenite close to and within the historical Teck trenches on the historic Prince grid. Carbonatite outcrops ranged from very fine-grained to medium-grained. The fine-grained outcrops mapped in

the field were considered a carbo-hydrothermal alteration and were also logged during the 2010 and 2011 programs (Bruland, 2011). Two types of syenite dykes were identified on the west-central part of the Property. One is white to grey and fine- to medium-grained, while the second is grey with a very fine-grained matrix and sodalite phenocrysts in the northwest area of the ridge. Both syenite types show strong radiometric anomalies identified with a scintillometer.

Rock outcrops on the George grid, situated mostly west on the adjoining claims south of Wicheeda Lake, are very sparse, and the geology mapped by Betmanis (1987). According to Betmanis (1987), the area is underlain by interbedded calcareous argillites and limestones striking northwest and dipping subvertically to the northeast. Several dykes, generally less than 5 metres wide, intrude the sediments sub-parallel1 to bedding. The majority of dykes are weakly to moderately calcareous, quartz deficient, and of intermediate composition. The dikes are variably mineralized with accessory magnetite, pyrite, and rarely galena and fluorite. A syenite and

syenite shatter breccia with a ferruginous carbonate and partly oxidized pyrite matrix intrudes limestones and possibly argillite at the western corner of the grid on the adjoining claims.

Carbonatite and syenite outcrops in the Prince grid area that Dalsin (2013) mapped are generally undeformed. Foliation in phyllite and altered sedimentary rocks generally trends 140° with varying degrees of dip (Figure 11). Most carbonatite and syenite outcrops also trend 140°. A northerly trending fault separates the northwest and southeast carbonatite/syenite sill, which explains the thickening of the altered sedimentary unit to the northeast. Two large-scale folds in the southeastern part of Dalsin's mapped area are based on observed microfolding in outcrops.

The carbonatite occurrences observed by Dalsin (2013) in the Wicheeda area vary in size, alteration, and abundance depending on their proximity to the plug and their local relationship with the syenites. The carbonatite closest to the Wicheeda plug on the adjoining claims is generally less altered, and the sills and dykes appear to be wider, and lack alteration minerals, including sodic-pyroxene, sodic-amphibole, and biotite, and the lack of recrystallization of the carbonate minerals. The carbonatites further away from the plug are commonly smaller and more altered occurrences. The alteration results in the formation of new minerals, such as aegirine(-augite) and biotite, but also causes the recrystallization of finer grains that coalesce to form aggregates.

#### 7.3 Mineralization

Carbonatites are alkaline complexes' components or isolated plugs, pipes, sills, dikes, lava flows, and pyroclastic blankets. Where not severely deformed by post-emplacement tectonic activity, many carbonatites display circular, ring, or crescent-shaped electromagnetic and radiometric anomalies. The Wicheeda REE deposit complex on the Defense Metals Property, situated to the west on the adjacent claims, is a plug with an elongate, southeast-trending tail, north-to-northeast dipping composite layered syenite-carbonatite sill complex, having syenite at its base. It is approximately 400 m north-south by 100-250 m east-west. It is overlain by hybrid matrix to clast-supported limestone or mafic intrusive xenolithic carbonatite (fenite), as well as significantly REE-bearing dolomite-carbonatite rocks, which form the main body of the Wicheeda REE Deposit outcropping at surface. This layered sill complex has been emplaced within an unmineralized limestone country rock.

Of the 14 REE-bearing minerals discovered in the rocks from the Wicheeda Lake area, all but euxenite-(Y) are dominantly light REE (LREE)-enriched, with the majority having zero to minor amounts of elements heavier than Sm. The LREE-bearing minerals at the Wicheeda Carbonatite Complex \*on Defense Metals and Carbo Carbonatite Complex (Betmanis, 1987; Dalsin, 2013; Knox, 2022) on the TREO Property include a combination of bastnasite-parasite, pyrochlore, ancylite, allanite, and monazite (Figures 12, 13, and 14) (Dalsin, 2013). These REE minerals and other rare metals-bearing minerals, such as columbite and sphene-rutile, occur as disseminations, aggregates, clots, and patches in veins and vugs. A high-grade mineralization has also been reported from unidentified minerals in strongly gouged black or whitish clay in fractured intrusive rocks (Betmanis, 1987), suggesting remobilization may be caused by post-emplacement tectonic activity. Vein-type mineralization is commonly amorphous to coarse-grained dolomitecarbonate intersecting earlier fine-grained, dolomite carbonatite with disseminated fine-grained REE mineralization and proximal to strongly altered-brecciated mafic dike xenoliths. This type of mineralization ranges from a few centimeters to over a meter in width. The vuggy and disseminated REE-mineralization occurs in all lithologies except the fresh limestone and calcareous sedimentary rocks. \*The qualified person has not been able to verify the information on the adjacent properties, and the information is not necessarily indicative of the mineralization present on the TREO Property.

At the Wicheeda deposit\*\*, higher REE mineralization is associated with dolomite-carbonatite unit and xenolithic country rocks. Moderate mineralization is related to dolomite carbonatite, fenitized limestone, and syenite mixed zones. Low REE mineralization typically occurs in fresh and fenitized limestone, calcareous sedimentary rocks, syenite, and fresh, weakly brecciated mafic xenoliths. \*\**The qualified person has not been able to verify the information on the adjacent properties, and the information is not necessarily indicative of the mineralization present on the TREO Property.* 



Figure 12. REE mineral-rich cumulate within carbonatite from the CIM drilling (Dalsin, 2011; Dalsin and Groat, 2012).



Figure 13. Syenite core with sodalite in calcite vein from CIM drilling (Dalsin 2011; Dalsin and Groat, 2012).

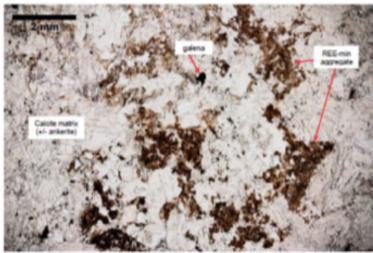


Figure 14. Photomicrograph (in transmitted light) of carbonate matrix and REE mineral aggregates from CIM drilling (Brand, 2010 in Dalsin, 2011).

# 8. Deposit Types

The target host rocks on the TREO Property are carbonatites and associated alkaline intrusive rocks similar to those at the Wicheeda carbonatite complex, located south of Wicheeda Lake on the adjacent Defense Metals Corporation's property\*. Historical works on the TREO Property have delineated several dikes and sill-like intrusions of carbonatite-syenite and associated altered (fenitized) rocks emplaced in the sedimentary host rocks of the Kechika Group.

# \* The qualified person has not been able to verify the adjoining property's information, which is not necessarily indicative of the REE-bearing carbonatite host present on the TREO Property.

According to the International Union of Geological Sciences (IUGS), carbonatites are igneous rocks containing more than 50% modal primary carbonates and less than 20 percent silica weight. Depending on the predominant carbonate mineral, carbonatite is referred to as a "calcite-carbonatite, "dolomite-carbonatite," or "ankerite-carbonatite" of igneous origin. If more than one

carbonate mineral is present, carbonatites are named in order of increasing modal mineral concentration. For example, a "calcite-dolomite carbonatite" is called where dolomite is a predominant mineral. The chemical classification of carbonatites is named according to their chemical composition, such as calcio-carbonatites, magnesio-carbonatites, ferro-carbonatites, etc.

Most carbonatites trace their origin to melting the enriched mantle (type-1, EM1; type-2, EM2; and HIMU-type) (Figure 15) (Anenburg et al., 2021). The apparent variety of mantle sources and tectonic settings suggests that no single carbonatite source for carbonatites and REE-enriched melts can form in any CO2-enriched mantle, regardless of how the enrichment occurred. Carbonatite melts are most commonly emplaced in continental extensional settings along large-scale, intra-plate fracture zones or rifts, and some are in orogenic belts. They may have been emplaced during a post-orogenic extensional collapse or before the transition from rift to the compressional tectonic regime. The carbonatite melts are formed either by direct mantle melting or from carbonate-bearing alkaline silicate melts by immiscibility or fractionation (Figure 15). All these processes potentially lead to REE-enrichment. Carbonatites formed by very low degrees of melting of the carbonated mantle will concentrate LREEs relative to siliceous higher-degree melts generated from the same source.

Carbonatites are fully endowed with REEs during their initial short-lived magmatic intrusion event and do not accumulate additional REEs over time via metamorphic or hydrothermal processes (Anenburg et al., 2021). However, these processes can modify mineral assemblages or chemical signatures, redistributing local REE. An example is the Bayan Obo deposit in China, where post-emplacement of fluids caused recrystallization and locally limited remobilization of REEs (Song et al., 2018).

Carbonatite-related deposits are classified as primary/magmatic (e.g., Mountain Pass, USA) or metasomatic/hydrothermal (e.g., Bayan Obo, China), and, in some cases, associated fenite zones and overlying regoliths (including supergene enrichment) are favourable hosts of metallic and industrial minerals. They are either components of alkaline complexes or isolated plugs, pipes, sills, dikes, lava flows, and pyroclastic blankets. Deformation, metamorphism, hydrothermal, and supergene alteration can change the shape or apparent shape of carbonatite, the mineralogical, chemical, and textural characteristics of the ore and gangue minerals, and the shape and grade of the mineralized zone. **Figure 16** is a vertical section of a hypothetical carbonatite mineralizing system showing carbonatite-related ore deposits.

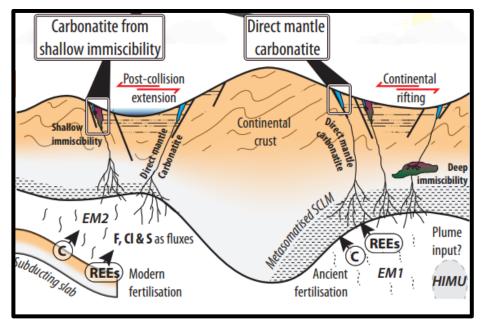


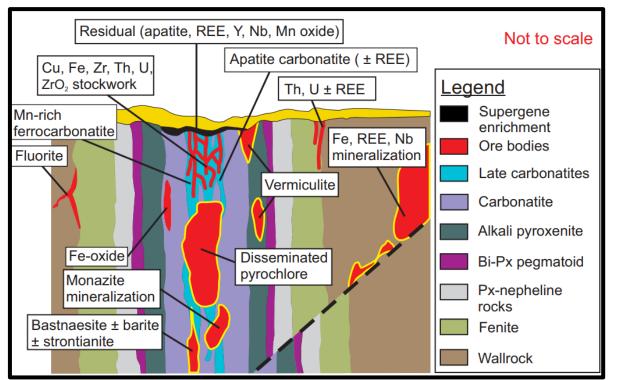
Figure 15. A tectonic model shows the key steps in the emplacement of REE-enriched carbonatite magmas into the continental crust. Source: Anenburg et al. (2021)

The model by Anenburg et al. (2021) also shows the process of how "modern or ancient metasomatism transfers carbon, REEs, and other large ion lithophile elements (LILEs), high-field strength (HFSEs) elements, and volatile elements into the subcontinental lithospheric mantle (SCLM), with a contribution from a range of mantle reservoirs depending on the tectonic setting. EM1 and EM2 denote enriched mantle type-1 and type-2, representing ancient and modern metasomatized lithosphere—the HIMU-like source (i.e., high *238*U/204Pb) reflects deeper source from recycled oceanic crust. Elevated F, Cl, and S act as fluxes and promote melting and the transfer of REEs into carbonatite or carbonated silicate melts, which coalesce and rise to the crust during extension. Shallow immiscibility promotes the transfer of REEs from a carbonatite melt" (Anenburg et al., 2021).

Carbonatite complexes and carbonatite-related deposits are currently the primary sources and represent considerable resources of LREEs (e.g., Bayan Obo, China; Mountain Pass, USA; Mount Weld, Australia) and Niobium (e.g., Catalao, Brazil; St. Honore, Oka, Quebec and Aley, BC, Canada; Lueshe, South Africa). Regarding REE, the deposit may consist of unweathered carbonatite (primary) at Mountain Pass, USA, St.-Honore, Canada, and overlying regolith at Mount Weld, Australia. The REE mineralization tends to be concentrated in late carbonatite phases such as ferro-carbonatites or calcio-carbonatites, forming central breccia zones, ring dikes, or cone sheets. However, they can also be distal to the carbonatite (e.g., Bayan Obo, China), fenitized zones, and overlying regolith (e.g., Araxa and Catalao, Brazil; Mount Weld, Australia) (*see* Figure 16).

In eastern British Columbia, carbonatites, typically associated with the alkalic complexes, occur in a roughly NW-SW-trending alkaline belt, stretching from the north to south end of the province in the Foreland Belt following the trend of the Rocky Mountain Trench (RMT). They occur both parallel to and on either side of the RMT and include the Wicheeda, Aley, Kechika,

Virgil, Lonnie, Mount Bisson, Bearpaw Ridge, Ice River, Trident Mountain, Mount Grace, Blue River, and Rock Canyon occurrences (*see Figure 8*) (Pell, 1994).



*Figure 16. Vertical section of a hypothetical carbonatite-related mineralizing system (Simandl 2015).* 

# 9. Exploration

As of the date of this Technical Report, the only exploration work conducted by Neotech was geochemical sampling work in the Fall of 2023 on the TREO Property. Caravan Energy Corporation ("Caravan"), the predecessor company before its name change to Neotech, contracted Anomalous Exploration Ltd. ("AE") to conduct a field program from September 28 to October 17 and consisted of soil and stream silt sampling and prospecting (Hunter-Perkins and Tamburri, 2023). The 2023 Fall program collected 1,353 soil, 71 stream silt, and 34 rock grabs/chips for geochemical analysis. Mr. Reagan Glazier, the Company's geologist and CEO, collected additional soil (140), stream sediment (4), and rock (8) samples in August 2023. A combined total of 1493 soil, 75 stream sediment, and 42 rock samples were collected during the summer-fall sampling program. **Figure 17** shows the locations of all samples collected by Neotech.

#### 9.1 Field Sample Collection

The following provides a brief summary of the sample collection methodologies and presents the sample location figures.

#### 9.1.1 Soil Samples

The soil samples were collected using soil augers and placed into kraft bags. Soil sampling traverses varied and were dependent on terrain and access constraints. They were executed in grids with approximate spacing of 50 m by 200 m or as contours. Areas of interest were accessed with trucks and ATV's when possible and some areas, especially the higher elevation traverses, were accessed with a helicopter. Data collection was completed on a field phone using the QField application.

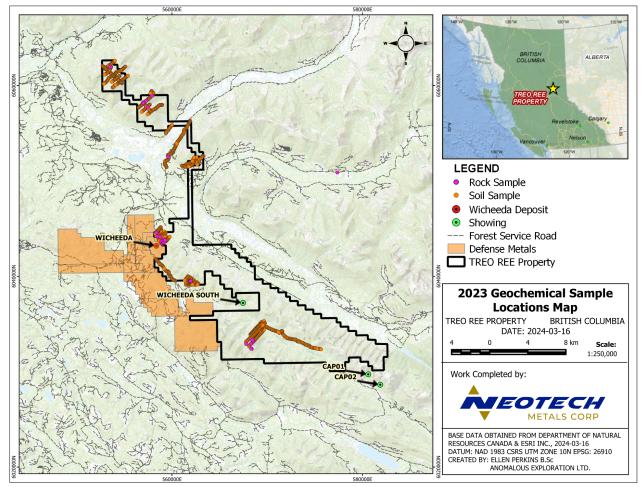


Figure 17. The 2023 Soil and Rock sampling areas - TREO Property.

#### 9.1.2 Stream Sediment Samples

The stream sediment samples were collected with small plastic trowels and placed into kraft bags. Regional stream sediment sampling was performed along many of the streams that flow into the Parsnip River tributaries to the northeast of the main TREO claims. These were accessible along the FSR network. Additional streams were sampled with helicopter access while soil sample grids or contours were completed. Data collection was completed on a field phone using the QField application.

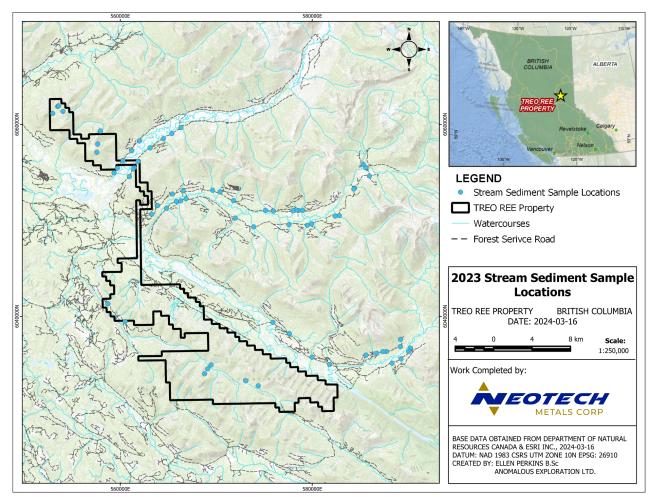


Figure 18. The 2023 stream sediment (silt) sampling areas, both on and adjacent areas of the TREO Property.

#### 9.1.3 Rock Grab/Chip Samples

Opportunistic rock sampling was completed during soil and stream sediment traverses (**Figure 18**). Field observations and rock sample data entry were completed on a field phone using the QField application.

For quality assurance (QA) and quality control (QC), rare earth element certified reference materials (CRMs) were purchased from the Canadian Laboratories by Neotech, including CDN-RE-1201 and CDN-RE-1202. The blank samples were barren coarse quartz samples obtained from a nearby quarry (Email communication with CEO of the Company, Mr. Glazier - November 19, 2023). Before shipping to the lab, the blanks and standards were randomly inserted into the sample stream for sediment and rock samples. All samples were securely stored in rice bags at camp before being driven to Revelstoke, where a local shipping company transported them to Actlabs in Kamloops. The sediment and rock sample assay results are discussed in Section 9.2. Certain soil samples are to be assayed with an XRF, and results are pending due to technical issues with the NeoTech XRF.

#### 9.2 Field Sample Results

#### 9.2.1 Stream Sediment Samples

The stream sediment sampling program helped to locate areas with high REE mineralization potential and add to the extensive historic stream sediment data on and surrounding the TREO claims. The best pathfinder for carbonatite-hosted REE mineralization recognized in stream sediment samples is Cerium, as it provides the greatest spread in total concentration between host rocks and mineralized carbonatite and is an ore element itself. Typical background values range from 70-150 ppm Ce, while elevated values were above 250 ppm.

The stream sediment sample results are plotted in **Figure 18**, and geochemistry statistics are summarized in **Table 7**. The majority of the 2023 stream sediment samples were not on the TREO claims. One stream sediment sample with anomalous Ce was collected within the main section of the TREO claims (**Figure 19**). Additional elevated Ce results from the regional samples indicate thatfollow-up is required to explore rare earth element mineralization on the northeast side of the Parsnip River.

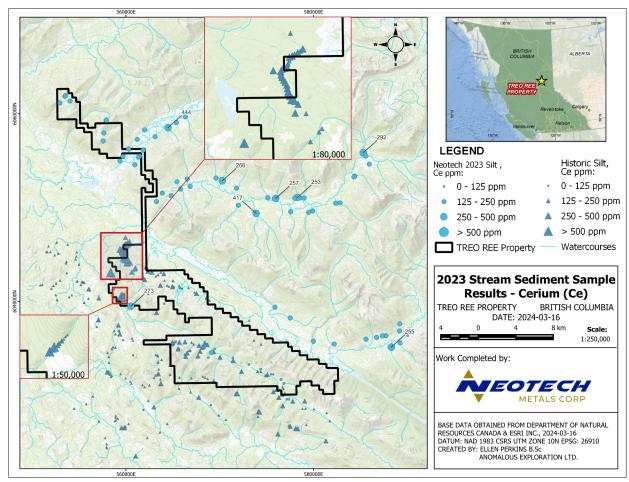


Figure 19. The 2023 stream sediment (silt) sampling results, both on and adjacent areas of the TREO Property. Historic samples results from Canadian International Minerals and Bolero Resources. All samples plotted by Cerium values. Neotech 2023 TREO Stream Samples labeled above 250 Ce ppm.

Element, Analysis	Mean	Median	SD	Skewness	Minimum	Maximum
Ag ppm FUS-MS	0.5	0.5	0.1	6.4	0.5	1.6
As ppm FUS-MS	7.6	6	4.0	2.8	5	27
Ba ppm FUS-ICP	595.1	576	138.7	1.2	333	1026
Be ppm FUS-ICP	1.9	2	0.5	-0.3	1	3
Bi ppm FUS-MS	0.4	0.4	0.0	5.8	0.4	0.6
Ce ppm FUS-MS	185.6	180	65.4	1.2		444
Co ppm FUS-MS	17.7	17	6.7	1.0	5	37
Cr ppm FUS-MS	67.9	70	12.8	0.5		110
Cs ppm FUS-MS	3.4	3.3	1.2	0.7		7.9
Cu ppm FUS-MS	24.5	20	10.4	1.4	10	70
Dy ppm FUS-MS	10.2	10.4	3.4	0.5	3.8	23.5
Er ppm FUS-MS	5.8	5.6	2.1	0.5	2	13.7
Eu ppm FUS-MS	2.6	2.58	0.8	0.6		
Ga ppm FUS-MS	18.3	18	4.6	0.4		29
Gd ppm FUS-MS	11.0	10.8	3.6	0.6	3.9	24.8
Ge ppm FUS-MS	1.4	1	0.5	0.4		2
Hf ppm FUS-MS	18.2	17.7	10.2	1.6	6.1	65.2
Ho ppm FUS-MS	2.0	1.9	0.7	0.6	0.7	4.8
In ppm FUS-MS	0.2	0.2	0.0	1.0	0.2	0.2
La ppm FUS-MS	93.5	91.4	33.8	1.4	37.4	235
Lu ppm FUS-MS	0.9	0.88	0.4	0.8		2.37
Mo ppm FUS-MS	2.0	2	0.2	6.0	2	3
Nb ppm FUS-MS	15.0	15	5.8	2.6		49
Nd ppm FUS-MS	79.3	79.3	27.5	1.0		182
Ni ppm FUS-MS	34.3	30	9.5	0.9		70
Pb ppm FUS-MS	16.5	17	8.1	0.1		35
Pr ppm FUS-MS	21.8	22	7.6	1.0		50.9
Rb ppm FUS-MS	98.9	98	25.3	0.8	55	177
Sb ppm FUS-MS	0.6	0.5	0.2	3.5		1.2
Sc ppm FUS-ICP	12.4	13	2.7	0.0	7	18
Sm ppm FUS-MS	14.2	14	4.9	0.9	4.8	32
Sn ppm FUS-MS	3.1	2	10.0	8.4		88
Sr ppm FUS-ICP	117.7	112	30.6	1.5		
Ta ppm FUS-MS	1.2	1.2	0.3	0.4		2.3
Tb ppm FUS-MS	1.7	1.7	0.6	0.6	0.6	
Th ppm FUS-MS	26.6					
TI ppm FUS-MS	0.4	0.4	0.1	0.7		
Tm ppm FUS-MS	0.8		0.3			
U ppm FUS-MS	7.2		2.8			
V ppm FUS-ICP	75.6		16.7			
W ppm FUS-MS	1.6		0.9			
Y ppm FUS-ICP	55.3		19.6			
Yb ppm FUS-MS	5.7		2.2			
Zn ppm FUS-MS	76.5					
Zr ppm FUS-ICP	721.9		397.8			

Table 7. Stream Sediment Geochemistry Statistics from the 2023 Field Program.

#### 9.2.2 Rock Samples

Prospecting was conducted opportunistically during stream and soil sampling during the 2023 TREO geochemical program. Outcrops across the property and below treeline were sparse. Lithologies encountered followed the regional mapping published by Struik (1994) and were dominantly composed of limestone, dolomite, shale, phyllite, and quartzite.

Highest elemental results for grab rock samples were found on the TREO claims within the red box highlighted in **Figure 20** below. One localized float sample, 69233, reached analytical maximums for Ce (>3000ppm), La (>2000pm), Nd (>2000ppm), Sr (10,000 ppm), and Ba (23,880 ppm), Sm (170 ppm), Pr (975 ppm) and Th (229 ppm) were strongly elevated. The sample is currently being re-assayed to determine values that were over-limit from the standard analytical method. Sample 73828 in bedrock returned a cerium value of 1570 ppm with elevated values of La (1120 ppm), Nd (326 ppm), and Sr (825 ppm). Multiple samples in this area were elevated in LREEs (**Figures 21 and 22**). This area was previously diamond drilled and soil sampled (425 Grid) by Canadian International and warrants further exploration and follow-up.

The 2023 collected rock samples are plotted in **Figure 20**, and geochemistry statistics are summarized in **Table 8**.

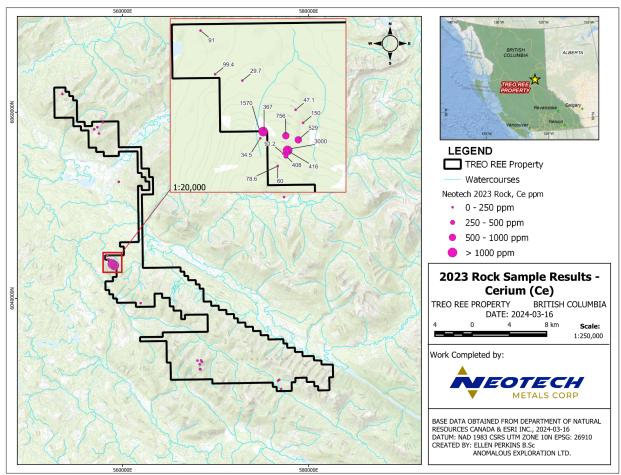


Figure 20. The 2023 rock sampling results, both on and adjacent areas of the TREO Property.



Figure 21. Rock Sample 73828 1,570ppm Ce Bedrock showing an intrusive dyke outcropping under tree root. 1% Galena in average 1 mm thick veins, and disseminated sphalerite, up to 2mm subhedall crystals. Mild ankerite/iron oxide disseminated alteration. 1mm magnetic veins, 1% of rock. Dyke size unknown. Exposed over .5m



**Figure 22** showing rock 69233 returned over-limit results that are today being re-assayed. It shows finely bedded limestone with beds of secondary biotite. Calcite veins up to 1 mm and 10% of rock. 3% fine-grained disseminated iron oxide alteration. Pervasive fine-grained biotite through layers. Minor chlorite alteration. Float likely localized. Found on top of an outcrop under tree, exposed over 10m.

Mean	Median	SD	Skewness	Minimum	Maximum
0.6	0.5	0.5	6.1	0.5	3.7
5.7	5	2.3	3.5	5	15
1739.5	730	4053.2	4.9	18	23880
2.2	1	2.0	3.6	1	12
1.1	0.4	2.8	5.6	0.4	17.3
247.5	76.3	546.0	4.2	9.6	3000
6.1	5	4.6	0.6	1	15
48.9	40	28.7	0.8	20	120
1.7	0.9	1.4	1.2	0.5	5.7
11.6	10	4.4	2.9	10	30
4.3	3.7	3.7	3.6	0.9	22.4
2.1	2	1.4	2.6	0.4	8.5
2.5	1.26	5.4	5.2	0.27	32.7
15.3	14	10.5	0.4	1	38
6.8	4.2	10.9	4.9	1	66.7
1.3	1	0.5	0.8		2
5.2	4.3		1.2	0.2	18.6
0.8	0.7	0.5	2.8		3.2
0.2	0.2	0.0	-1.0	0.2	0.2
155.7	35.2	371.4	4.1	4.1	2000
0.3	0.31	0.2	1.1	0.05	0.91
3.2	2	4.4	3.9	2	23
					549
102.5	29.2	326.2	5.8		2000
25.1	20	8.4	1.5	20	50
	12	206.6		5	1260
41.9	7.95	159.3	5.9	1.02	975
	64	54.3	0.6	3	190
0.6	0.5	0.3	2.9	0.5	1.6
8.7	7	7.1	1.6		34
11.8	5.3	27.6	5.5	0.9	170
3.0		4.7	3.9	1	26
669.8	227	1616.1	5.6	15	10000
1.2	0.7	1.9	3.4	0.1	9.6
	0.6	1.0	4.3	0.2	5.8
27.4			3.7		229
0.3			0.9		0.9
0.3		0.2	2.3		1.19
3.0					17.1
			1.5		192
2.6		2.4	2.7		13
					81
			1.7		6.8
					2490
				5	
	0.6 5.7 1739.5 2.2 1.1 247.5 6.1 48.9 1.7 11.6 4.3 2.1 2.5 15.3 6.8 1.3 5.2 0.8 0.2 155.7 0.3 3.2 64.9 102.5 25.1 61.5 61.5 61.5 61.5 61.5 61.5 61.5 6	0.6         0.5           5.7         5           1739.5         730           2.2         1           1.1         0.4           247.5         76.3           6.1         5           48.9         40           1.7         0.9           11.6         10           4.3         3.7           2.1         2           2.5         1.26           15.3         14           6.8         4.2           1.3         1           5.2         4.3           0.8         0.7           0.2         0.2           15.7         35.2           0.3         0.31           3.2         2           64.9         13           102.5         29.2           25.1         20           61.5         12           41.9         7.95           71.4         64           0.6         0.5           8.7         7           11.8         5.3           3.0         1           669.8         227           1.2	0.6         0.5         0.5           5.7         5         2.3           1739.5         730         4053.2           2.2         1         2.0           1.1         0.4         2.8           247.5         76.3         546.0           6.1         5         4.6           48.9         40         28.7           1.7         0.9         1.4           11.6         10         4.4           4.3         3.7         3.7           2.1         2         1.4           2.5         1.26         5.4           15.3         14         10.5           6.8         4.2         10.9           1.3         1         0.5           5.2         4.3         4.7           0.8         0.7         0.5           0.2         0.2         0.0           155.7         35.2         371.4           0.3         0.31         0.2           3.2         2         4.4           64.9         13         129.8           102.5         29.2         326.2           25.1         20         <	0.6         0.5         0.5         6.1           5.7         5         2.3         3.5           1739.5         730         4053.2         4.9           2.2         1         2.0         3.6           1.1         0.4         2.8         5.6           247.5         76.3         546.0         4.2           6.1         5         4.6         0.6           48.9         40         28.7         0.8           1.7         0.9         1.4         1.2           11.6         10         4.4         2.9           4.3         3.7         3.7         3.6           2.1         2         1.4         2.6           2.5         1.26         5.4         5.2           15.3         14         10.5         0.4           6.8         4.2         10.9         4.9           1.3         1         0.5         2.8           0.2         0.2         0.0         -1.0           155.7         35.2         371.4         4.1           0.3         0.31         0.2         1.1           3.2         2         4.4	0.6 $0.5$ $0.5$ $6.1$ $0.5$ $5.7$ $5$ $2.3$ $3.5$ $5$ $1739.5$ $730$ $4053.2$ $4.9$ $18$ $2.2$ $1$ $2.0$ $3.6$ $11$ $1.1$ $0.4$ $2.8$ $5.6$ $0.4$ $247.5$ $76.3$ $546.0$ $4.2$ $9.6$ $6.1$ $5$ $4.6$ $0.6$ $11$ $48.9$ $40$ $28.7$ $0.8$ $20$ $1.7$ $0.9$ $1.4$ $1.2$ $0.5$ $11.6$ $10$ $4.4$ $2.9$ $10$ $4.3$ $3.7$ $3.7$ $3.6$ $0.9$ $2.1$ $2$ $1.4$ $2.6$ $0.4$ $2.5$ $1.26$ $5.4$ $5.2$ $0.27$ $15.3$ $14$ $10.5$ $0.4$ $11$ $6.8$ $4.2$ $10.9$ $4.9$ $11$ $1.3$ $1$ $0.5$ $0.8$ $11$ $1.3$ $1$ $0.5$ $0.8$ $11$ $5.2$ $4.3$ $4.7$ $1.2$ $0.2$ $0.6$ $0.7$ $0.5$ $2.8$ $0.2$ $0.6$ $0.7$ $0.5$ $2.8$ $0.2$ $0.6$ $0.7$ $0.5$ $2.8$ $0.2$ $0.6$ $0.3$ $0.2$ $0.2$ $1.1$ $0.5$ $29.2$ $326.2$ $5.8$ $4$ $25.1$ $20$ $8.4$ $1.5$ $200$ $64.9$ $13$ $129.8$ $2.7$ $11$ $102.5$ $29.2$ $326.2$ $5.8$ <t< td=""></t<>

#### Table 8. Rock Geochemistry Summary Statistics from the 2023 Field Program.

## **10. Drilling**

As of the date of this Technical Report, Neotech has not conducted any drilling on the Property. CIM conducted drilling in 2010 and 2011 in the northwestern and southeastern parts of the central TREO Property, as shown in **Figures 5 and 6**, and the drill hole summaries are listed in **Tables 9 and 10**. In 2010, More Core Diamond Services Ltd. of Prince George was contracted to drill a minimum of 1000 metres of NQ-2 size (50.6 mm) core in several holes on the 425 grid of the Carbo Property. A total of 1,938.9 m was drilled in nine holes from October 16 to November 19, 2010 (Bruland, 2011). In 2011, Titan Drilling was contracted to drill three thousand ninety (3,090) metres in 11 holes from August 17 to September 21, 2011. The drill crews in 2010 were shuttled to drill daily from Prince George by Pacific Western Helicopter. The drill core was transported from drill sites to a gravel pit on the Chunchika-Wichcika forestry road, from where it was picked up daily and driven to the Company's warehouse in Prince George. Issac Blackburn sawed and sampled the drill cores, and Albert Isadore of McLeod Indian Band transported the core to Prince George. Mr. Tor Borland, M.Sc., P.Geo. and B. Maciag supervised the drilling programs.

Geotechnical data was collected in conjunction with the logging of the core (**Table 10**). The drillers only marked the hole depth when adding rods. Bruland (2011) describes recovery generally over 90%, with individual or multiple rod intervals (3.05 m) below 90%. The lowest rod interval recovery is reportedly 47.1% for the first 3.05 m coring of hole CA-10-004, and the longest continuous interval with recovery below 90% was 21.3 m in hole CA-10- 005 (79.7% recovery) (Bruland, 2011). Some cores may have been lost in fault gouges; however, no major faults were identified from the collection of geotechnical information, and only three faults were identified in the drill logs. Two of these were logged in hole CA-10-003 (Bruland, 2011).

On average, fracture density is reportedly 5 per m, ranging between 4.0 and 6.3 (**Table 10**). The highest fracture density for the -45° holes is approximately 50° to CA, while it is approximately 80° to CA for the -65° holes. It would be expected that an average of 50° to CA in the -45° would result in an average for the -65° holes of approximately 30° to CA or an average of 80° to CA in the -65° would result in an average for the -45° holes of approximately 70° to CA (Bruland, 2011). No change was noted in fracture density with a change in the drill hole's azimuth compared to the sedimentary units' overall strike. Hole CA-10-007, drilled sub-parallel to the strike of the sedimentary units, has an average fracture density of 5.7. In contrast, CA-10-008 was drilled almost perpendicular to the strike and had an average fracture density of 4.6. Both these holes were drilled at the same dip (-65°).

Geologists Allison Brand and Mallory Dalsin logged the core in 2010, and Leo Millonig and Mallory Dalsin in 2011. The drill core's logging included identifying rock type, alteration, mineralization, and structure. HCl acid was used for the identification of calcite and other carbonate minerals. Scintillometer core readings were taken systematically to detect elevated levels of Th generally associated with REE-bearing minerals monazite and aeschynite.

Thorite (Th-silicate) is often associated with REE-bearing minerals. Ultraviolet (UV) light was used to identify fluorite and other fluorescent minerals associated with REE minerals, including calcite, Ce-bearing, dolomite, sodalite, and strontianite.

The following geological description is summarized from an assessment drill report (ARIS #32497) by Bruland (2011). The 2011 drilling data, including all eleven drill hole logs, table of drill hole summaries, drill core photographs and photomicrographs, geotechnical data, and geochemical analysis certificates, were provided by Mallory Dalsin of Hummingbird Geological Services (HGS) to the author via email on January 25, 2024. The raw drilling data and reports are not filed on the BC Government's Assessment Report Indexing System (ARIS).

All drill holes intersected bedded black argillite and siltstone sequence, which are locally openfolded and offset by minor faults. The bedding angle to the core axis (CA) is generally  $45^{\circ}$  in the  $-45^{\circ}$  holes and  $25^{\circ}$  in the  $-65^{\circ}$  holes, which means the bedding is close to vertical, hence consistent with bedding measured in outcrops in the area (Bruland, 2011). The host sedimentary rocks are cut by at least four generations of calcite veins (<1 mm to 3 mm) and intruded by relatively thicker dikes/sills of carbonatite, feldspar-sodalite, and other felsic intrusions. The carbonatite is by far the most volumetric intrusions intersected in the drill holes, with 172.3 m combined samples of dikes and veins with various amounts of host rocks. The veins and dikes range from 2 cm to 30.3 m in drill hole CA-10-006 (Bruland, 2011). The carbonatites in this hole were intersected at an oblique angle, and the estimated true width of the 30.3 m intersection from cross-section interpretation suggested it is <10 m (Figures 21 and 22) (Bruland, 2011). Most dikes and veins are <1 m to 1 to 5 m, and a few >5m, and the majority were classified as veins (<10 cm) by Bruland (2011).

HOLE #	EASTING	NORTHING	ELEVATION - M	LENGTH - M	AZIMUTH	DIP
CA-10-001	559,130	6,043,572	1,188	154.5	180	-45
CA-10-002	559,130	6,043,572	1,188	185.3	180	-65
CA-10-003	559,319	6,043,592	1,145	183.5	180	-45
CA-10-004	559,319	6,043,592	1,145	209.4	180	-65
CA-10-005	559,056	6,043,744	1,130	178.9	180	-45
CA-10-006	559,056	6,043,744	1,130	279.5	180	-65
CA-10-007	559,057	6,043,744	1,130	124.1	144	-65
CA-10-008	559,055	6,043,744	1,130	300.8	231	-65
CA-10-009	559,038	6,043,475	1,245	322.8	180	-45
		TOTAL		1,938.9		

Table 9. CIM 2010 drill hole summary.

Hole #	Easting	Northing	Elev M	Length -M	Azimuth	Dip
CA-11-10	561,336	6,041,339	1,344	314	232	-45
CA-11-11	561,464	6,041,122	1,376	269	232	-45
CA-11-12	561,464	6,041,122	1,376	160	052	-63
CA-11-13	562,112	6,040,317	1,443	399	250	-45
CA-11-14	561,978	6,040,523	1,439	402	223	-45
CA-11-15	560,049	6,041,485	1,415	297	N/A	-90
CA-11-16	560,049	6,041,485	1,415	192	230	-65
CA-11-17	560,049	6,041,485	1,415	399	050	-45
CA-11-18	559,940	6,041,778	1,481	300	050	-45
CA-11-19	559,940	6,041,778	1,481	233	050	-65
CA-11-20	559,940	6,041,778	1,481	125	230	-45
		TOTAL		3,090		

#### Table 10. CIM 2011 drill hole summary.

 Table 11. 2010 drill hole technical summary.

Recovery in %				Fractures - Angle to Core Axis (CA)				Average fracture	
Drill Hole	From	То	Average	RQD	90 to 70	69 to 50	49 to 30	29 to 0	per m
CA-10-001	79.0	100.0	98.7	65.0	39	106	440	37	4.0
CA-10-002	75.3	101.7	97.5	75.1	475	407	242	39	6.3
CA-10-003	69.8	100.3	92.5	54.3	71	251	377	43	4.0
CA-10-004	47.1	101.6	90.6	42.5	523	365	121	19	4.9
CA-10-005	48.9	104.7	92.2	59.2	364	487	138	16	5.6
CA-10-006	72.4	103.6	95.9	68.2	516	245	224	50	3.7
CA-10-007	71.0	107.9	97.2	59.8	345	228	112	22	5.7
CA-10-008	47.3	101.0	94.7	64.9	656	475	220	38	4.6
CA-10-009	78.0	102.3	94.6	61.7	719	767	342	45	5.8
Average			94.9	61.2					5.0

Extensive carbonatite and calcite veined occur throughout the sediments and are related to the feldspar-sodalite dikes. The veining is locally pervasive in the sediments. The carbonatite is

generally white to beige, locally pink, and massive to crystalline with a local trace of textural banding or brecciation. It is fine to coarse-grained and carries a variety of minerals, including chlorite, biotite epidote, Nb-rutile, fluorite, REE minerals (parisite of variable composition, bastnaesite, burbankite, monazite, and aeschynite (Bruland, 2011). The REE minerals are fine to very fine-grained pink to brown and locally as aggregates. The carbonatite carries sulphides in varying quantities ranging from trace to 7% locally, but the total sulphide content is rarely > 1%. The sulphides are pyrite and sphalerite with lesser galena and pyrrhotite and traces of arsenopyrite. Black Nb-rutile and REE carbonates are as common as sphalerite. Fluorite is rare.

The REE mineralization occurs in carbonatite dikes and a network of carbonatite/calcite veins that have intruded the sedimentary host rocks. As stated above, the carbonatite dikes are narrow (up to 10 m), and their contacts with host rocks locally form breccias with carbonatite matrices. The sampling procedures, handling/security, and geochemical analysis are described below in sections 11.3 and 11.6.

## **11. Sample Preparation, Analyses, and Security**

#### 11.1 1987 Field Samples – Teck Exploration Ltd.

For geochemical analyses, soil, silt, and rock samples collected by field crews under the supervision of professional geologist A.I. Betmanis, P.Eng. from George and Prince grids were sent to Acme Analytical Laboratories Ltd., Vancouver (BC). The soil samples were placed in kraft bags in the field and shipped to the lab, where they were screened to 80 mesh and analyzed by ICP for Ba, Co, Cu, Ni, Sr, Zn, Ce, Nb, Ta, Y, and Zr. Some soil samples overlying the intrusive rocks and the rock samples (grabs) collected from outcrops and trenches were sent to X-ray Assay Laboratories Ltd. (Ontario) for the REE analysis. The report by Betmanis (1987) does not describe the protocols and procedures for collecting samples in detail, nor do the assay certificates attached to the report provide much information for sample preparation and analytical methods.

#### 11.2 2006-2007 Field Samples – Commerce Resources Corp.

The field crews of Commerce Resources collected samples under the supervision of professional geologists M. Guo (P.Geol) and J. Dahrouge (P.Geo.).

Soil samples were collected from B-horizon at 50 m stations on the 150 m interval grid lines and were sent to Acme Laboratories ("Acme") in Vancouver, British Columbia. All samples were analyzed using Group 4B (Full Suite): rare earth and refractory elements were determined by ICP mass spectrometer following a lithium metaborate/tetraborate fusion and nitric acid digestion of a 0.2 g sample. In addition, a separate 0.5 g split is digested in aqua regia and analyzed by an ICP-Mass spectrometer to report precious and base metals. Repeat analyses were completed for random samples and the periodic analyses of a standard. Rock samples of intrusive rocks collected from outcrops were analyzed using Group 4B (Full suite) and Group 4A. The Group 4A analysis method is the same as Group 4B for analyzing soil samples. For Group 4A, a 0.2 g sample was analyzed by ICP-emission spectrometry following a lithium metaborate tetraborate fusion and dilute nitric digestion.

# 11.3 2010-2011 Field and Drill Core Samples – *Canadian International Minerals Inc.*

In 2010, 418 soil samples were taken on grids, and 21 rock and 10 silt samples were collected during a reconnaissance survey by the field crew under professional geologist David Turner's (P. Geo.) supervision. All collected samples were brought to Prince George by the field crew and shipped directly from there for analysis to ALS Global Laboratories ("ALS") in Vancouver, British Columbia. The analytical details of the samples analyzed by the lab described below are taken mainly from Bruland (2011).

Soil samples were analyzed using ICP-MS through their ME-MS81 package for REEs and other trace elements with lithium borate fusion. Rock samples were analyzed using their MEMS-81 method (ICP-MS). A 0.2 g powdered sample was heated with 2.6 g sodium peroxide flux at 670°C until entirely molten. Upon cooling, the sample was dissolved in 30% HCL, and the resulting solution was analyzed using Agilent 700 Series ICP-AES. Stream samples were collected by hand, placed in kraft paper bags, labeled with permanent marker, and secured closed with flagging tape. Hand jewelry and watches were removed during sampling to prevent contamination during collection. All samples were taken upstream of known culverts, cut block road crossings, and recorded GPS locations. Samples were analyzed by ALS using ICP-MS and ME-MS81 packages to include REEs and other trace elements with lithium borate fusion to ensure the dissolution of refractory phases.

In August 2011, ninety-nine (99) soil and 48 rock samples were collected every 50 m, 150 m apart on northeast-southwest grid lines (Dalsin, 2011). Samples were collected using a hand-held auger at an average depth of 30 cm (B horizon) and dried at camp. These samples were packaged into kraft bags from each site. They were then analyzed within the kraft soil sample bag using a Niton XRF. Each sample was analyzed three times: once on each side of the bag and in a third random spot. These three analyses were then averaged. Values that were below detection were set to 0. These samples were not analyzed by geochemical labs. Soil sampling was accompanied by a handheld GPS-paired RS-125 Gamma Ray spectrometer capable of discriminating K, U, and Th from total counts. Thorium can be used for honing in on anomalous areas of radioactivity possibly related to REE mineralization when compared against the background of the bedrock. Overall, radioactivity was not high; however, the signal of prospective rocks was distinct from non-mineralized areas. A total of 1744 georeferenced points were collected with the RS-125 Super-Spec portable spectrometer.

During the company's 2010 and 2011 drill programs, the drill cores were transported from drill sites to a gravel pit on the Chunchika-Wichcika forestry road, where they were picked up daily and driven to the company's warehouse in Prince George. Geologists Allan Brand and Mallory Dalsin logged the core, which was sawed and sampled by Issac Blackburn, and Albert Isadore of McLeod Indian Band transported the core to Prince George. Because of initial exploratory drilling campaigns, CIM decided not to do any downhole surveys of the holes. Mr. Tor Borland, M.Sc., P.Geo. supervised the drilling program. The 2010 drilling data is from a drill report by Bruland (2011).

One thousand two hundred seventy-five (1,275) half-core core samples (2010) and 649 half-core samples (2011) were collected for geochemical analysis. The core logging and sawing was done in Prince George, British Columbia. A laboratory security tag with a unique identifier number was stapled to the core boxes. Quarter core sample duplicates were taken every 20 samples. In 2010, seventy-six (76) duplicate quarter pair core samples were collected, totaling 152 quarter core samples. Twenty (20) core duplicates were collected in 2011. The 1,275 half-core, 152 quarter-core (76 duplicate pairs), and 76 blank samples in 2010 were shipped by DHL to the ALS in North Vancouver, British Columbia. Samples were weighed and fine-crushed to more than 70%, passing a 2 mm (9 mesh) screen. A split of 250 g was pulverized to more than 85%, passing a 75µm (200 mesh) screen.

All core samples were analyzed for gold by fusing a prepared sample with a mixture of lead oxide, sodium carbonate, borax, silica, and other reagents as required, in quartered with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested in 0.5 mL diluted nitric acid in the microwave oven, 0.5 mL concentrated HCL is then added, and the head is further digested in the microwave at a lower power setting. The digested solution was cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by ICP-AES methods. The analytical results are corrected for inter-element spectral interferences.

The fusion/ICP-MS (ME-MS81d) method was used for the REE analysis of core samples. A 0.100 g prepared sample was added to a 0.90 g lithium metaborate flux, mixed well, and fused in a furnace at 1,000°C. The resulting melt was cooled and dissolved in 250 mL of 4% nitric acid, and subsequently, this solution was analyzed by ICP-MS.

Samples returning lead (Pb) and zinc (Zn) values above the detection limit (>10,000 ppm) for ME-MS81d, a prepared sample (0.4 g) is digested with concentrated nitric acid for one-half hour. Once it cooled, HCL was added to produce aqua regia, and the mixture was then digested for an additional hour and a half. The resulting solution was diluted to volume (100 or 200 mL) with de-mineralized water, mixed, and then analyzed by ICP-AES. The analytical results are corrected for inter-element spectral interferences.

Of the 1,275 core samples, 672 were analyzed at ALS before the company changed the laboratory due to sample switches and unexplained discrepancies. The company retained the Actlabs, which re-crushed the coarse reject with mild steel (100 g) for minimum sample contamination to 90% passing 2 mm (10 mesh) screen. A new sub-sample split of 250 g was collected from the re-crushed samples with sufficient coarse rejects. There were 1,469 samples with sufficient coarse rejects following the re-crushing. Actlabs analyzed an additional one-sample pulp. The 250 g samples were pulverized to more than 95%, passing a 75  $\mu$ m (200 mesh) screen. The pulverized samples were analyzed using the REE assay package with lithium metaborate/tetraborate fusion to ensure the complete fusion of the resistate minerals, followed by ICP and ICP-MS analysis. For higher Nb grades, 22 samples were analyzed for Nb2O5 by fusion and XRF analysis.

The company continued to use Actlabs for the 2011 drill core sample analysis. The 669 core samples, comprising half and quartered and 11 blanks, were weighted and crushed with mild steel (100 g) to minimize sample contamination to 90%, passing the 2 mm (10 mesh) screen. A sub-sample split of 250 g was collected from the crushed samples and pulverized to more than

95%, passing a 75  $\mu$ m (200 mesh) screen. The analytical package used for the REE was the same as for the 2010 drill core samples. Seventy-four (74) samples were analyzed for Nb2O5 by fusion and XRF analysis when higher Nb grades were expected from the core logging.

#### 11.4 2010 Field Samples – Bolero Resources Corp.

Bolero Resources sent all samples to ALS in North Vancouver, British Columbia, for sample preparation and analysis. The silt samples were analyzed for 38 elements using lithium borate fusion with an ICP-MS finish, package ME-MS81, and fire assay package Au-ICP21. No record of sample preparation or security procedures is available in their reports for review.

#### 11.5 2023 Field Samples – Neotech Metals Corp.

Neotech, in its summer-fall field program, collected 1493 soil, 75 stream sediment, and 42 rock samples for geochemical analysis. For QA/QC purposes, Certified Reference Materials (CRMs or Standards) CDN-RE—1201 and CDN-RE-1202 were bought from Canadian Laboratories Ltd., and the blank samples of barren coarse quartz were obtained from a nearby quarry.

The blanks and standards were randomly inserted into the sample stream for soil, stream sediments, and rock samples, placed in rice bags, and brought from the field camp to Revelstoke for secure storage at Mr. Glazier's house before shipping to the lab. In Revelstoke, a local shipping company transported them to Actlabs in Kamloops for the sample preparation and analysis with a 4-Litho package. An analysis of the 2023 blank and standard sample results is presented in Section 12.1.

The Actlabs's 4-Litho package includes whole rock (Major Oxides), REEs, and other trace elements. It combines 4B and 4B2 litho packages that require a sample weight of 5 g for the analysis. The 4-Litho package uses the most aggressive fusion technique employing a lithium metaborate/tetraborate fusion. The fusion is performed by a robot, providing a fast fusion of the highest quality. The resulting molten bead is rapidly digested in a weak nitric acid solution. The fusion ensures that the entire sample is dissolved. With this attack, major oxides (e.g., SiO2), refractory minerals (e.g., zircon, sphene, monazite, chromite, etc.), REE, and other high-field strength elements are put into the solution. The ICP-OES and ICP-MS methods are used for the analysis.

#### 11.6 Quality Assurance and Quality Control (QA/QC)

No Commercial REE standards were inserted in the CIM's 2010 drilling sample stream, but blanks (limestone) and quarter core duplicates were used for initial QA/QC. After the drilling program, mineralized samples were submitted to Canadian Resource Laboratories Ltd. ("CDN") in Langley (British Columbia) for the preparation of three project standards (low, medium, and high grades). The samples were mixed and blended at CDN before submitting ten (10) Round Robin ("RR") samples to four laboratories for analysis for Ce, La, Nb, Nd, Pr, and Th. The RR analytical results informed part of the subsequent drilling on their property.

In 2011 drilling, the QA/QC program inserted control samples in the sample stream every 20 samples. The insertion was done with an irregular mix of one of the three LREE standards,

blanks (coarse limestone), and quarter core duplicate samples. The inserted LREE standards were 5-CIM-A, 5-CIM-B, and 4-CIM-C.

The QA/QC protocols implemented in the 2010-2011 drill core sample preparation and analysis represent the industry's best practices available at the time. Blank samples (limestone) were inserted, but no commercial REE standards were placed into the sample stream before shipping them to the laboratory for analysis. The data verification is adequate, considering the measures implemented by CIM were in the early stage of the exploration undertaken 13 years ago, and QA/QC internal controls were in place.

### 12. Data Verification

The site inspection by the author was carried out on February 10, 2024, to confirm the regional setting of the project. Access to the property was by road in a pickup truck from Prince George, and weather conditions permitted only certain activities. The general physiography of the area was observed, including access roads and locations suitable for temporary exploration camps and the nature of topography as it pertains to drilling locations. Drill pads from previous drill programs (~13 years ago) were sought but not definitively located. The outcrop was inspected at two locations, and the rock types and general attitudes recorded in previous works were confirmed.

Historical data presented in this report are taken from reports filed for assessment credit by companies that worked on the property in the past and from government geological reports and data compilations. In the 2023 fall exploration program, intentions were to confirm some of the historical soil anomalies, rock outcrops, and drill pads throughout the property (**Figures 17, 18, and 19**). All sources have been appropriately cited, and the reports represent normal course exploration activities. It is the author's opinion that the historical geological descriptions, geochemical programs, geophysical results, and exploration activities are suitable for planning future exploration activities. However, the author notes that no drill core from previous programs exists. Therefore, the author was not able to investigate or sample the drill core nor to verify the data collected from the historical drilling program.

The author conducted random checks of assay certificates for the more recent work (~2010). This check involved randomly selecting the assay results indicated in Bruland (2011) against laboratory assay certificates. The author noted consistency between the figures in the assay certificates and those in Bruland (2011), which were spot-checked against values plotted on historical maps and for the compiled data held by Neotech with an emphasis on the zones showing higher REE. No errors were observed. The author evaluated the blanks inserted during the CIM drill programs. Though generally adequate, the author did observe certain instances of cross-contamination consistent with that reported in Bruland (2011). In particular, Bruland (2011) observed some sample preparation errors at ALS and switched to Actlabs. Bruland (2011) noted that some contamination in the Actlabs blanks was also observed for the REE, and it was determined that while there was some contamination, it was low levels and would not affect the broader results from the drilling. Bruland (2011) noted that pulp duplicates were submitted to multiple laboratories and showed good consistency between labs. Core duplicates were also submitted and showed adequate consistency, with some errors expected due to sample

heterogeneity. No third-party REE Standards were used in the first drill program in 2010, while the 2011 drill program used project-specific internally developed uncertified standards (Bruland (2011)).

Geophysical surveys were available to the author as digital products and PDF maps in assessment reports and were created by professional independent airborne geophysical companies. Georeferencing of that historical raw data into current GIS systems is consistent with previously published maps, and certain geophysical patterns can be reconciled with existing topographic features. The author considers that geological mapping from the different eras is generally consistent with one another, with some differences expected in interpreted geology. The author considers the steps taken by the companies to be representative of the best practices of that time. The author considers those procedures adequate for the survey to which they were applied.

The QP considers the steps taken by the companies to be representative of the best practices of that time. The author considers those procedures adequate for the survey to which they were applied.

#### 12.1 2023 Quality Assurance and Quality Control Sample Analysis

The blank and standard analytical results from Actlabs have been reviewed by plotting fifteen of the rare earth elements. The analysis of the blank results does not raise any cross-sample contamination concerns (**Figure 23**). All plotted rare earth elements returned values less than 10 ppm, which represent the lowest values within the entire 2023 silt and rock dataset. The blank material is barren quartz taken from a quarry in the project area and has not been certified as an actual REE blank. However, given that the blank samples were approximately 96 percent silicon dioxide and the REE values were lower than the minimums of the 2023 silt and rock dataset, there is no concern that this material contained any significant REE mineralization.

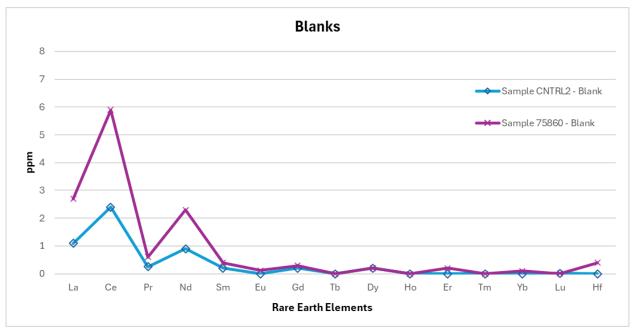


Figure 22. Actlabs Blank Analytical Results

The analysis of the standard results does not raise any concerns with these analytical results (**Figure 24**). Three medium-grade standard samples were tested and plotted, which returned very similar results across the rare earth elements, with the most variability being the Ce results +/- 40 ppm from the average. Furthermore, there were no obvious elevated REE values in the sample sequence following the medium and high-grade standards.

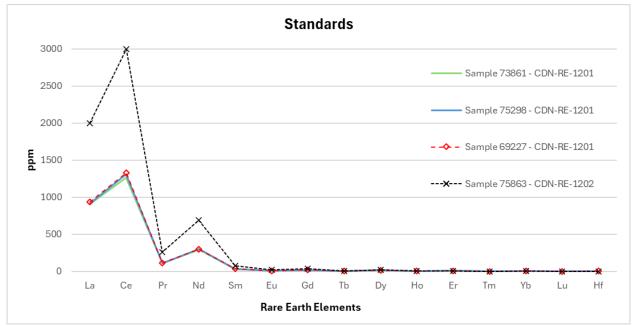


Figure 23. Actlabs Standard Analytical Results

Based on the QAQC sample analysis, the QP concludes that there is no concern about the validity of the 2023 sample analytical results.

# 13. Mineral Processing And Metallurgical Testing

The TREO property is an early-stage exploration prospect. No mineral processing or metallurgical testing has been performed, or none would be possible at the present exploration stage on the Property.

## **14. Mineral Resource Estimates**

The TREO property is an early-stage exploration prospect. No mineral resource estimate has been performed, or none would be possible at the present exploration stage on the Property.

# **15. Mineral Reserve Estimates**

At this stage, no mineral reserve estimations exist on the TREO Property.

# **16. Mining Methods**

There is no mining on the TREO Property at this stage.

## **17. Recovery Methods**

Not applicable at this stage.

# **18. Project Infrastructure**

There is no project infrastructure on the TREO Property at this stage.

## **19. Market Studies and Contracts**

There have been no market studies or contracts on the TREO Property.

# **20. Environmental Studies, Permitting, and Social or Community Impact**

Not applicable at this early stage.

# 21. Capital and Operating Costs

No capital and operating cost studies have been done at this stage.

# 22. Economic Analysis

No economic analysis has been done at this stage.

### 23. Adjacent Properties

Historical properties held by previous operators both on and adjacent to the TREO Property referred to in this report include Teck Corporation, Commerce Resources, Canadian International Minerals Inc., and Bolero Resources Corporation. This historical work has been intermittent over the last >40 years, and claim boundaries for the respective exploration properties have not always been in the same locations. Notably, Defense Metals Corp currently holds the claims to the west, and Eagle Bay Resources holds claims to the south (*see* Figure 4). Exploration work carried out on these properties by relevant companies is briefly discussed above under the headings of "History" and "Geological Setting and Mineralization".

Defense Metals describes the Wicheeda carbonatite plug hosting predominantly LREEs deposit as an elongate, southeast-trending tail and a north-to-northeast dipping composite layered syenite-carbonatite sill complex, with syenite at its base. The carbonatite complex is approximately 400 m north-south by 100-250 m east-west. It is overlain by a hybrid matrix to clast-supported limestone or mafic intrusive xenolithic carbonatite (fenite), as well as significantly REE-bearing dolomite-carbonatite rocks, which form the main body of the Wicheeda REE deposit outcropping at surface. This layered complex has been emplaced within an unmineralized limestone country rock. The LREE-bearing minerals at the Wicheeda complex include significant quantities of disseminated bastnaesite-parasite and monazite.

Defense Metals Corp. (formerly First Mining Corp.) has completed its option agreement with Spectrum Mining Corp. ("Spectrum") and now owns the Wicheeda project 100%.

\*The qualified person has not been able to verify the information on the adjacent properties, and the information is not necessarily indicative of the mineralization present on the TREO Property

#### 24. Other Relevant Data and Information

The author is unaware of any other relevant data or information required to make this technical report more understandable and not misleading.

# 25. Interpretation and Conclusions

The interpretation and conclusions here are mainly based on the historical works and results, with limited analytical data available from the 2023 fieldwork. The REE-bearing Carbo Carbonatite-syenite Complex ("Carbo Complex") comprising three dike/sill-like intrusions occur within the central TREO Property (*see* Figure 11). The three intrusions combined, as defined to date, extend intermittently over an approximately 2.7 km strike length. All three intrusions trend northwest-southeast and are emplaced in Kechika Group's sedimentary rocks of the Cambrian to Ordovician age. The Carbo Complex, along with the Cap Carbonatite in the southeast on the

Eagle Bay Property (Knox, 2022) and the Wicheeda Carbonatite Complex on the Defense Metals Property in the northwest, form, albeit discontinuously, an approximately 25 km-long northwest-southeast trending corridor that has potential to host additional significant REE deposits.

The Carbo Complex within the central TREO Property has returned significant REEs and Nb from the surface (rock and soil) and diamond drill core samples.

Samples from Teck's trenches returned anomalous mineralization from a suspected layered intrusion consisting of carbonatite and syenite (Betmanis, 1987). The soil sampling conducted on the Prince Grid by Teck reported a peak value of 2,017 ppm Ce and 4,597 ppm Nb. These surface samples yield significant Ce values, similar to the 425 Grid, which were considerably high and enriched in other LREEs such as La, Nd, and Sm. The Ce anomalies in the soil seem to correspond well with the buried carbonatite in the central TREO Property, suggesting an excellent element to be used as a pathfinder to extend the strike length of the known Carbo Complex and find new REE-bearing buried intrusions in other parts of the Property. The soil anomalies of significant Ce anomalies in the 425 and Prince Grid areas prompted the 2010-2011 drilling by CIM, which returned excellent REE values, as discussed below. However, caution must be taken when interpreting soil anomalies in glacially transported heavy drifted areas, which, if not careful, can give false anomalies, leading to misinterpretation of the bedrock sources. This was the case of Bolero's 911 Grid area, which boasts significant Ce in soil and silt anomalies, which led to the company's 2011 drilling campaign (see Figures 5 and 6). Despite the excellent surface sampling results, the eight-hole drilling program, totaling 1,678 m, failed to intersect carbonatite, syenite, or related alkaline rocks and any REE or Nb mineralization within this grid area.

Drilling by CIM in 2010 and 2011 intersected the Carbo Complex in almost all holes in the central TREO Property. Of the 20 holes drilled, eighteen (18) holes intersected carbonatite-syenite intrusions with anomalous to highly anomalous REE mineralization. Diamond drilling in 2010 (CA-1-001 to CA-10-009) was conducted on the 425 Grid, and in 2011, it was on Teck's old Prince Grid and areas to the southeast. Significant Ce in soil anomalies underlies both areas of drilling.

Geophysical surveys (magnetic and radiometric), especially radiometric ones, are helpful in locating carbonatite-alkaline intrusions in the Wicheeda region. Radiometric (Th) anomalies correspond generally, but not always, with magnetic lows flanking the magnetic highs commonly associated with these intrusions indicated by mapped and drilled areas. The author interpreted some magnetic lows flanking the linear magnetic highs as possible shear/fault zones (Figure 25). These structures are situated at or near the lithologic contacts, in which the rare earth and rare metal-bearing carbonatite-alkaline intrusions were probably initially emplaced. The subsequent destruction of mafic/magnetic minerals in the intrusive and country rocks was perhaps caused by syn-to post-emplacement hydrothermal fluids. However, a detailed litho-structural mapping with litho-geochemical and petrographic studies is needed to support this interpretation. An example of the interpreted scenario drawn from the historical data is suggested as follows: the magnetic highs with flanking lows over the Prince and George Grids are noted to correspond reasonably well with the mapped and drilled Carbo Complex on the TREO and Wicheeda Carbonatite Complex on the adjacent Defense Metals claims, respectively. The strong radiometric anomalies correspond well generally with flanking magnetic lows in both instances (Figure 26). A similar

correlation is witnessed in other areas. For example, the Cap Carbonatite Complex on the Eagle Bay Resources Property, situated immediately south of the southeasternmost claims of the TREO, was drilled by Arctic Star in 2017, targeting mainly magnetic highs. Three drilled holes in the magnetic high did not intersect carbonatite, syenite, or REE mineralization. However, hole CAP17-004 that targeted geochemically anomalous areas with magnetic lows intersected significant Nb and REE-bearing intrusions (Knox, 2022). The explanation was that the mafic intrusive rocks probably caused the magnetic high as two small (<1m wide) mafic dikes were intersected in CAP17-002 drilled in the area. An alternate explanation could be that the magnetic low possibly represents shear/faults or lithologic contacts acting as conduits for hydrothermal solutions, the best sites for altered intrusives causing a magnetic low.

The most northerly TREO claims are underexplored, and very little is known about the geologic setting or mineralization. On the regional geology map, the Property is predominantly underlain by fault-bounded fine to coarse clastic sedimentary rocks and metamorphic schist of the Neoprotozoic age. The sedimentary rocks consist of quartzite intercalated with mudstone, siltstone, and shale. In the fall of 2023, Neotech conducted a reconnaissance of a soil geochemical survey within selected parts of the northern property claims. The collected samples have been submitted to Actlabs; certain results are still pending. A regional historical airborne radiometric survey covering the claims of the north shows some subtle northwest-southeast trending anomalies that are probably a good target for ground follow-up radiometric and magnetic surveys, followed by prospecting in the areas of significant radiometric anomalies.

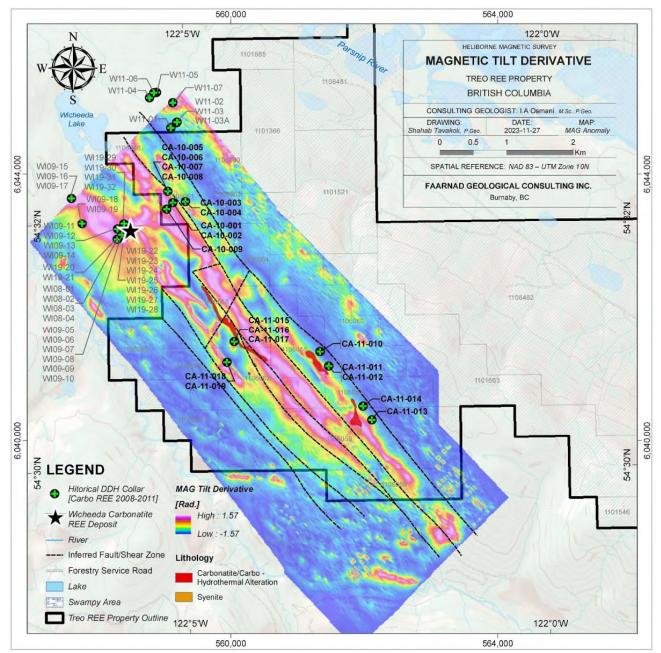


Figure 24. Magnetic tilt derivative map of the Central TREO Property – derived from CIM's 2010 airborne magnetic survey. An ovoid magnetic high expresses the Wicheeda Carbonatite Complex, and NW-SE trending, long, linear magnetic highs indicate the presence of various dikes and sills. The author interpreted some magnetic lows flanking the magnetic highs as fault/shears.

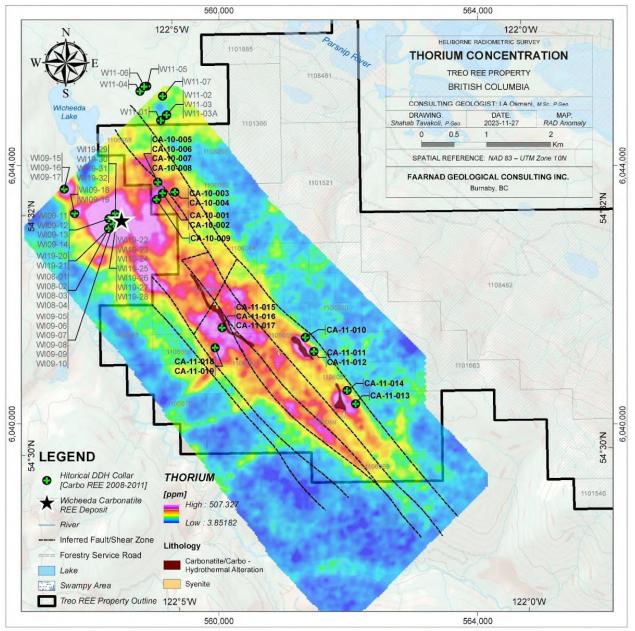


Figure 25. The 2010 airborne radiometric survey of Th concentration. The known REEbearing carbonatite-syenite intrusions correspond well with strong to medium-strength thorium anomalies.

### 26. Recommendations

The QP has recommended that Neotech complete a two-phase exploration program for its TREO Property. Recommendations made here for future work on the Property are derived primarily from the results of historical exploration activities.

The author believes the most effective exploration work at this stage of the TREO Property would be a combination of geophysical (radiometric and magnetic), soil geochemical surveys, litho-structural mapping, and rock sampling programs in the selected areas of the Property. Based on the historical work, soil sampling is helpful for detailed mapping instead of reconnaissance work. A detailed ground radiometric survey can be used to identify the target first, followed by soil and detailed magnetic surveys. Four target areas are identified for future exploration programs on the TREO Property:

**1. Target A:** An approximately 2.0 km long and 1.1 km wide area (Figure 27) extending southeast from the Property boundary near the Wicheeda deposit to the 2011 drilling area is recommended for re-evaluation by detailed ground radiometric surveying, prospecting, lithostructural mapping, and rock sampling. Teck and CIM geochemical surveys (soil and rocks) show moderate to highly anomalous Ce anomalies underlying the area that have not been followed up on since Dalsin's work in 2011. The mapped carbonatite dike/sill-like body in the centre of the target is subparallel to interpreted fault/shear. It is flanked on either side by strong radiometric (Th) anomalies. Another prominent but short wavelength Th anomaly extending southeast from the adjacent claims has yet to be drill-tested. It is bounded by faults (magnetic lows) immediately west of the radiometric anomaly.

**2. Target B and B':** The northwest and southeast areas of the historical 425 Grid are prospective based on the airborne radiometric and magnetic signatures extending in both directions from the 2010 drilling area (Figure 27). The 2010 drilling conducted by CIM on the 425 Grid is underlain by a moderate radiometric signature and supported by significant Ce in soil and rock anomalies. The drilling intersected anomalous to highly anomalous REE values from the 425 Grid in hole CA-10-006. A follow-up by soil geochemical survey, prospecting, and rock sampling is recommended to evaluate the potential of the targets B and B'.

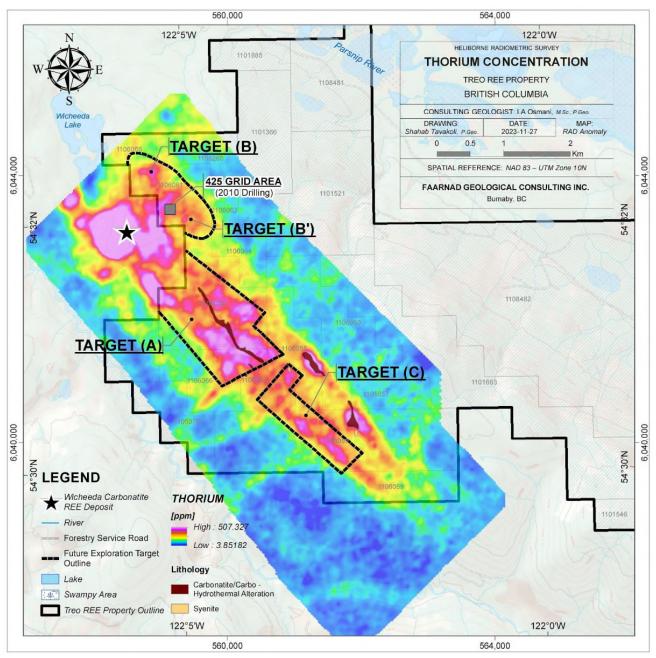


Figure 26. Recommended exploration areas – west-central TREO Property.

**3. Target C:** Detailed radiometric and soil geochemical surveys are recommended to evaluate this 1.72 km x 0.5 km area south and west of CIM's 2011 drilling area (Figure 27 and Figures 6 and 7). The target area, represented by a moderate to strong airborne radiometrically anomalous zone, is bounded on either side by magnetic highs with flanking lows interpreted as faults/shears. The strongest but narrow, long linear radiometric anomaly coinciding with a linear magnetic high with flanking low along the west-central edge of the recommended area seems more prospective. The recommended area is partially covered to the northeast by soil survey, but to the author's knowledge, there is no immediate coverage to the southwest. This gap should be filled by geochemical surveying.

**4.** A large area northeast of the 425 Grid, explored by Bolero Resources in 2010-2011, warrants re-evaluation for its potential prospectivity. Bolero conducted an extensive geochemical (soil, silt, and rock) sampling covering six grids ('103,' '911,' '924,' '711,' '749,' and '749T') extending in a northwest-southeast direction (*see* Figures 5 and 6). Based on robust historical surface geochemical and airborne radiometric anomalies, the 911 Grid area was tested in 2011 by eight diamond drill holes, but they all failed to intersect mineralization. The conclusion was that a heavily overburdened area had given the false soil and radiometric anomalies. In the author's opinion, Grids 749 and 749T combined, an area of roughly 2.2 km by 1.7 km, located immediately southeast of the 911 Grid, should be evaluated by a detailed radiometric survey and interpreted in conjunction with historical soil anomalies.

In addition to ground litho-structural mapping and traditional geochemical sampling, highresolution airborne magnetic and radiometric surveys covering the TREO Property are highly desirable. New surveys with cutting-edge technology, such as low-altitude drone-based surveys, may enable the identification of new targets and help refine historically known mineralization areas on the Property to support drill targeting. An MMI soil orientation survey in a known area of mineralization, defined by the conventional B horizon soil sampling method, is recommended for comparison and wider deployment if successful.

The above target areas and wider approaches comprise Phase 1 of a two-phase exploration program for the Property. Phase 2, which mainly involves refining targets and drilling, will depend strongly upon the positive outcome of the Phase 1 exploration results. Therefore, a budget estimate for only the Phase 1 program is below.

## **Proposed Budget: Phase-1**

Items	Estimated Cost (CDN\$)
Desktop Research, Planning, and Logistics	3,500.00
Mob/demob	5,000.00
Helicopter Cost (3 hrs./day for 30 days)	135,000.00
Airborne magnetic and Radiometric surveys	180,400.00
(451 lines 100 m apart, total ~800 km @\$200/line-km)	
Personnel (2 Senior geologists, 2 Assistants)	
2 Senior geos, \$900/d each for 30 days @\$1800/day	54,000.00
2 Assistants, \$600/d each for 30 days @\$1200/day	36,000.00
Accommodation and Meals (Field Camp)	15,000.00
Transportation	6,500.00
(Truck Rental and fuel)	
Field equipments	5,600.00
(scintillometer, GPS, radios)	
Field and office supplies	1,200.00
Geochemical Analysis	
Soil samples (1000 @\$55/sample)	55,000.00
Rock Samples (150 @75/sample)	11,250.00
Data Compilation (GIS)	5,000.00
Report	9,000.00
Subtotal	522,450.00
Contingency (15%)	78,367.50
TOTAL	600,817.50

### 27. References

Aeroquest, 2010. Report on Helicopter-borne AeroTEM, electromagnetic and radiometric survey, Aeroquest job #10043; prepared for Canadian International Minerals Inc.
 -2011. Report on Helicopter-born magnetic gradiometer and radiometric survey, Aeroquest job #11038, prepared for Bolero Resources Corp.

- Anenburg, M., Broom-Fendley, S., and Chen, W., 2021. Formation of rare earth deposits in Carbonatites; Elements, vol. 17, pp. 327-332.
- Armstrong, J.E., Hoadley, J.W., Muller, J.E. and Tipper, H.W., 1969. Geology, McLeod Lake Map Area (93J); Geological Survey of Canada, Map 1204A.

Betmanis, A.I., 1987. Report on geological, geochemical, and magnetometer surveys on the Prince and George Groups, Cariboo Mining Division, BC; submitted by Teck Explorations Limited, BC Ministry of Energy, Mines and Petroleum Resources, AR15944, 14p.

-1988a. Geochemical soil and spectrometer surveys on the Fluorite Grid and Ole 4 Claim, P.G. Niobium Property, Cariboo Mining Division, BC; unpublished company report, Teck Explorations Limited, 3p.

-1988b. Sampling evaluation, P.G. Niobium Project (Prince and George Groups), Cariboo Mining Division (NTS 93J/8, 9; 93I/5); unpublished company report, Teck Explorations Limited, 15p.

- Brand, A., 2010, Carbo Project Drill Core Research Samples Preliminary Mineralogical Summary Report: Internal report for Canadian International Minerals.
- Bruland, T., 2011. 2010 Helicopter-borne AeroTEM System: electromagnetic, magnetic, and radiometric survey, Cariboo property; Cariboo Mining Division, ARIS #32439, 8p. 2 Appendices.

-2011. 2010 Diamond drilling on Carbo rare earth element property, Cariboo Mining Division, British Columbia; prepared for Canadian International Minerals Inc., B.C. Ministry of Energy, Mines, ARIS #32497, 37p. 4 Appendices.

- Churchill, J., Koffyberg, A., and Gilmour, W.R., 2012. Assessment report on soil and rock geochemical surveys, prospecting, ground magnetic survey, and diamond drilling program on Carbonatite Syndicate Property, Wicheeda Lake area; Cariboo Mining Division, British Columbia, prepared for Bolero Resources Corp., ARIS #33169, 51p., 9 Appendices.
- Dalsin, M.L., 2011. Report on geochemical sampling on the TREO claim block of the Carbo Property, Cariboo Mining Division, British Columbia; prepared for Canadian International Minerals Inc., BC Ministry of Energy and Mines, ARIS #33231, 44p.
  -2011 Diamond drilling on Carbo Rare Earth Element property, Cariboo Mining Division, British Columbia; prepared for Canadian International Minerals Inc. unpublished internal report.

-2012. Wicheeda Carbonatite Complex: Mineralogical Summary Report; Internal report for Canadian International Minerals Ltd., 18p.

-2013. The mineralogy, geochemistry, and geochronology of the Wicheeda Carbonatite Complex, British Columbia; unpublished M.Sc. thesis, 118p., 4 Appendices.

Dalsin, M.L., and Groat, L.A., 2012. The Geology and Mineralogy of the Carbo Property, Wicheeda Carbonatite Complex, BC: Poster presentation at Exploration Roundup 2012.

- Gabrielse, H., Monger, J.W.H., Wheeler, J.O. and Yorath, C.J., 1991. Part A. Morpho-geological Belts, Tectonic Assemblages and Terranes; *In* Geology of the Cordilleran Orogen in Canada, H. Gabrielse and C.J. Yorath (ed.); Geological Survey of Canada, Geology of Canada, no. 4, p.15-28
- Gadd, B., 1995. Handbook of the Canadian Rockies, Second Edition. Corax Press, Canmore, Canada.
- Geological Survey of Canada (GSC), 1964. Geophysics paper 1546; Aeromagnetic Series, Hominka River, BC

-1969. Map 1204A, McLeod Lake, British Columbia.

- Guo, M., and Dahrouge, J., 2006. 2006 exploration at the Carbo Property, east of Bear Lake, Cariboo Mining Division, British Columbia; Ministry of Energy, Mines, and Petroleum Resources, prepared for Commerce Resources Corp., ARIS #28528, 7p. 5 Appendices.
- Hunter-Perkins, E. and Tamburri, T., 2023. Logistics report: TREO geochemical field program; internal report was prepared for Caravan Energy Corporation (predecessor to Neotech Metals Corp.), 6p., 1 Appendix.
- Kluczny, P., and McCallum, N., 2012. Technical report on the Cap property; prepared for the Arctic Star Exploration Corp.
- Kluczny, P., 2018. 2017 Drill program on the Cap property northeast of Prince George, British Columbia; British Columbia of Energy, Mines and Petroleum Resources, prepared for Arctic Star Exploration Ltd., ARIS #37480, 22p. 7 Appendices.
- Knox, A., 2022. Technical report (NI 43-101) on the Cap Property, northeast of Prince George, prepared for Eagle Bay Resources by AWK Geological Consulting Ltd., 71p.
- Koffyberg, A. and Gilmour, W.R., 2012. Helicopter-borne magnetic gradiometer and radiometric Surveys, Carbonatite Syndicate Property; British Columbia Ministry of Energy, Mines, and Petroleum Resources, prepared for Bolero Resources, ARIS #32982, 28p., 2 Appendices.
- Lane, B., 2010. Geochemical report on the Wicheeda South Property; Cariboo Mining Division, British Columbia, 18p. Accompanied with 3 Appendices, Prepared for Spectrum Mining Corporation, ARIS #31477.
- Lickorish, W.H., and Simony, P.S., 1995. Evidence for late rifting of the Cordilleran margin outlined by stratigraphic division of the Lower Cambrian Gog Group, Rocky Mountain Main Ranges, British Columbia, and Alberta; Canadian Journal of Earth Sciences, vol. 32, pp. 860-874.
- Linnen, R.L., Samson, I.M., Williams-Jones, A.E. and Chakhmourdian, A.R., 2014. Geochemistry of the rare-earth element, Nb, Ta, Hf, and Zr deposits; *In* Treatise on Geochemistry, Second Edition, Elsevier Ltd., pp. 543-568.
- Lovang, G. And Meyer, W., 1987. Report on trenching, stream silt concentrate, and soil sampling on the George Group, Cariboo Mining Division, BC, for Teck Exploration Limited, ARIS #16246, 9p., 1 Appendix.
- Millonig, L.J., Gerdes, A., Groat, L. A., 2012. U-Th-Pb geochronology of meta-carbonatites and meta-alkaline rocks in the southern Canadian Cordillera: A geodynamic perspective; Lithos 152, pp. 202-217.
- Nelson, J.L., Colpron, M., and Israel, S., 2013. The Cordillera of British Columbia, Yukon, and Alaska: tectonics and metallogeny; *In* Colpron, M., Bissig, T., Rusk, B.G., and Thompson, F.H., (Eds.), Tectonics, Metallogeny, and Discovery: The North American

Cordillera and Similar Accretionary Settings. Society of Economic Geologists, Inc. Special Publication 17, pp. 53-109.

- Pell, J., 1994. Carbonatites, Nepheline Syenites, Kimberlites, and related rocks in British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 88, pp. 11-14.
- Raffle, K., and Dufresne, M., 2023. Technical report on the Wicheeda Property, British Columbia, Canada. Prepared for Defense Metals. 167 p.
- Rukhlov, A.S., Chudy, T.C., Arnold, H., and Miller, D., 2018. Field trip guidebook to the Upper Fir carbonatite-hosted Ta-Nb deposit, Blue River area, east-central British Columbia; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey GeoFile 2018-6, 67 p.
- Simandl, G.J., 2015. Carbonatites and related exploration targets; *In* Simandl, G.J., and Neetz, M., (Eds.), Symposium on Strategic and Critical Materials Proceedings, November 13-14, 2015, Victoria, British Columbia Ministry of Energy and Mines, British Columbia Geological Survey Paper 2015-3, pp. 31-37.
- Sinton, C.W., 2005. Study of the rare earth resources and market for the Mt. Weld Complex; BBC Research, 33p.
- Song, W., and nine coauthors, 2018. Genesis of the world's largest rare earth element Deposit, Bayan Obo, China: protracted mineralization evolution over ~1 b.y.; Geology 46, 323, doi: 10.1130/G3980.1.
- SRK, 2022. Independent Preliminary Economic Assessment for the Wicheeda Rare Earth Element Project, British Columbia, Canada. Prepared for Defense Metals Corporation. 270 p.
- Taylor, G.C. and Stott, D.F. (1979): Geology, Monkman Pass Map Area, British Columbia (93I); Geological Survey of Canada, Open File Map 630.
- Turner, D. 2010. Geological Report on the Carbo South West Property (TREO Claim Block), Cariboo Mining Division, BC; BC Ministry of Energy, Mines and Petroleum Resources, Assessment Report 32210. 126 p.
- Turner, D. 2011. Report on Geochemical Sampling and Prospecting on the Carbonatite Syndicate Claim Groups, Cariboo Mining Division, BC; BC Ministry of Energy, Mines and Petroleum Resources, Assessment Report 32107. 408 p.
- Turner, D., Brand, A., and Quist, B., 2011. Report on geochemical sampling and prospecting on Carbo property, Cariboo Mining Division, British Columbia; British Columbia Ministry of Mineral Resources and Energy, prepared for Canadian International Minerals Inc., ARIS #32252, 138p.

## 28. Certificate of Qualifications

I, Ike A. Osmani, P. Geo., as an author of this report entitled "NI 43-101 Technical Report on the TREO Rare Earth Element Property, Cariboo Mining Division, East-central British Columbia, dated March 19, 2024, do certify that:

**1.** I operate under the business name of Faarnad Geological Consulting Inc. ("FGC Inc."), a company independent of Neotech Metals Corp. The business address of FGC Inc. is:

832 Delestre Avenue Coquitlam, British Columbia V3K 2G5

**2.** I hold a Master of Science in Geology with a major in Geophysics from the University of Windsor, Ontario, Canada (1982).

3. I hold a Master of Science in Geology from Aligarh Muslim University, Aligarh, India (1973).

**4.** I graduated from Lucknow University, Lucknow, India, with a Bachelor of Science in Geology (1971).

**5.** I am a practicing member of the Association of Professional Engineers and Geoscientists of British Columbia (#32050) and a non-practicing member of the Association of Professional Geoscientists of Ontario (#0609)

**6.** I have over thirty-six years of geological mapping, geoscientific research, and mineral exploration (precious and base metals, and rare earth and rare metals) experience in the Precambrian Shield of Canada, India, and Saudi Arabia and the Cordillera of Argentina and northeastern British Columbia (Canada). For four years in the Saudi Arabian Shield I explored and developed eight rare earth and rare metal deposits for the Saudi Geological Survey. In Ontario (Canada), I have worked on several rare metal projects. I have acted (2009-2011) as QP to two TSXV-listed junior resource companies on their rare metal projects. My extensive experience with diverse commodities, including my direct involvement with the REE and rare metal projects in Saudi Arabia and Canada, provided adequate knowledge and understanding of the geology, deposit types, and mineralization styles to review and critically assess technical data and make recommendations on the subject Property.

7. I take responsibility for all sections of the Technical Report.

**8.** I have read the definition of "qualified person" set out in NI 43-101 and certify that because of my education, affiliation with professional associations (as defined by NI43-101), and past relevant work experience, I fulfill the requirements to be a qualified person for NI 43-101.

9. I have visited the property, the subject of this Technical Report, on February 10, 2024.

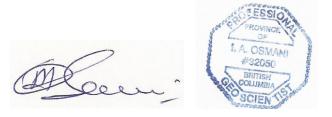
**10.** I had no prior involvement with the TREO Property, which is the subject of the Technical Report.

**11.** I have read National Instrument 43-101 and Form 43-101FI, and this Technical Report has been prepared in compliance with that instrument and that form.

**12.** At the effective date of this Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that must be disclosed to ensure the Technical Report is not misleading.

**13.** I am not independent, as defined by Section 8.1 (2) (f) of NI 43-101 Standards of Disclosure for Mineral Projects, of Neotech Metals Corp. as I am a Consulting Geologist for and act Qualified Person for the Company's mineral projects.

Dated this 19th day of March 2024, at Coquitlam, British Columbia



Ike A. Osmani, M.Sc., P.Geo.