

# 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 Corporation



Effective date: December 10, 2023

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#### DATE AND SIGNATURE PAGE

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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 Corporation ("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 has reviewed the data provided by the issuer and by its agents. FGC has also consulted other information sources, such as government databases that handle assessment work and mining title status. The authors are Qualified and Independent Persons as defined by Regulation NI 43-101.

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 only 50 km east of provincial Highway 97, the CN rail mainline, a natural gas pipeline, and a power transmission line that, if needed, could be used for the project development. 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 40 unpatented mining claims of irregular shapes and sizes extending northwest-southeast direction, aggregating approximately 16,286.30 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 British Columbia Cordilerra, 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's property.

Like the adjacent Wicheeda deposit, the Carbo Carbonatite complex on the TREO Property contains predominantly LREE-bearing minerals, which include a combination of bastnasite-parasite, pyrochlore, ancylite, allanite, and monazite. These REE minerals and other rare metals-bearing minerals, such as niobium, 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 these samples are pending. Historic exploration in the region started in the 1960s. Exploration on 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 values ranging from 4.7% TREO over 0.9 m to 1.39% TREO over 37.3 m. Other significant intercepts from drilling include 4.07% TREO over 2.1 m, 2.73% TREO over 3.2 m, 3.35% TREO over 1.3 m, and 3.0% TREO over 3.0 m. Drilling in 2011 returned up to 0.33% TREO over 60.3 m.

The TREO Property extends roughly 43 km northwest to southeast and its central claims to the west straddle the Wicheeda Carbonatite deposit (34.2 million tonnes at 2.02% TREO in *Measured+Indicated* and 11.1 million tonnes at 1.02%TREO in *Inferred* categories) on the Defense Metals Property. The TREO is an early-stage exploration project hosting a REE-bearing Carbo Carbonatite Complex that has seen minimal exploration in the past. Considering the proximity to the significant Wicheeda REE deposit and its potential known from historical surface and drilling results, the TREO remained an under-explored Property that requires a robust exploration campaign, employing modern geological and geophysical techniques to evaluate its full economic potential. "*The author has not verified the resource data and mineralization on the adjacent Wicheeda deposit; therefore, the reader is cautioned that it does not necessarily indicate that mineralization will extend from the adjoining deposit to the southeast on TREO Property".* 

A two-phase exploration program is recommended further to advance the economic potential of the TREO Property. Phase 2, which mainly involves refining targets and drilling, will depend upon the positive outcome of the Phase 1 exploration results, which is not discussed in the report. 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.

# **2. Introduction**

## 2.1 General

Faarnad Geological Consulting Inc. ("FGC") was commissioned by Mr. Reagan Glazier, the CEO and Director of Neotech Metals Corporation ("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 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 resource properties in Canada. It holds options over the EBB nickel-cobalt property and owns 40 rare earth mineral claims (16,286.30 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; mineplanning 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, and, in part, by Khalid J. Zaka, M.Sc., P.Geo., an associate consultant with FGC, both qualified persons 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 Qualified Persons responsible for this technical report is in the "Certificates of Qualifications" section of this Report.

Under the terms of FGC's proposal to Caravan Energy Corporation ("Caravan"), Mr. Zaka visited the Property on October 17, 2023. After he visited the Property, Caravan changed its

name to Neotech Metals Corp. on October 26, 2023. Mr. Glazier (CEO) of Neotech accompanied Mr. Zaka in the field and was given a guided tour of the Property. The areas covered during the visit are shown in **Figure 2**.

Mr. Osmani, who completed and is responsible for all chapters in this report, reviewed the results of the most recent exploration work carried out by Neotech and the publicly available historical exploration work conducted 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.



Figure 1. Property Location Map – TREO Property.

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FGC 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 Scope of Site Inspection

Mr. Zaka, accompanied by Mr. Glazier, conducted the site visit on October 17, 2023, which comprised a geological inspection of several outcrops to verify the geological setting of the TREO property and also to observe and have an understanding of the 2023 Fall exploration program conducted by the Company's contractor "Anomalous Exploration Ltd. (AE)" and Mr. Glazier himself on the Property. Mr. Glazier informed Mr. Zaka that the AE had completed the intended work and left a day before he visited the Property. During the field visit, in addition to the discussion of the general layout (Photo 1) and geological setting of the Property, Mr. Zaka also queried Mr. Glazier about the sampling procedures used in collecting soil, stream sediments, and rock sampling that AE had followed, to which Mr. Glazier verbally answered and demonstrated the sampling protocols and practices himself. Mr. Zaka took notes and determined that they align with the best industry practices. FGC later received the logistical report of the fieldwork completed by the AE. The sampling protocol and procedures reported in the report are acceptable to FGC's consultants and are similar to what Mr. Glazier had described to Mr. Zaka during his field visit.

Mr. Zaka also visited the sample storage facility in Mr. Reagan's family barn in Prince George's suburb. He photographed the stored samples (**Photo 2**) and took notes of security procedures for storing and shipping them to Actlabs in Kamloops (BC) for analysis, which he found satisfactory.



Photo 1: Looking north across the valley part of the Neotech's claims in the northside.



Photo 2: Soil and rock samples collected during Neotech's 2023 sampling program.

## 2.4 Sources of Information

The Consultants sourced the information from reference documents cited in the text and summarized in Section 27 – "*References*" of this Report.

The principal sources of information for this report are:

- Assessment reports, maps, and drill hole database 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.sedar.com</u>).
- Observations were made during the site visit by Mr. Zaka, an associate consultant of FGC.
- Review of the Company's internal reports and maps produced by staff and or consultants,
- Review of technical papers produced in various journals.
- Discussions with Mr. Glazier (CEO) of Neotech and Company's consultants (e.g., Ellen Hunter-Perkins and Chris Delrome) familiar with the property.
- Personal knowledge of the lead author, Ike Osmani, P.Geo., about rare earth elements and rare metal deposits in similar geological environments.

In preparing this report, FGC 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.

## **2.5 Qualifications and Experience**

This technical report on the TREO Property was prepared by Ike A. Osmani, M.Sc., P. Geo., the qualified person as defined under NI 43-101 regulations, and co-author Khalid J. Zaka, M.Sc., P.Geo.

Ike A. Osmani, OP: Ike A. 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 APEGBC, 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 Technical Advisor to the Saudi Geological Survey and lead geologist, he spent four years in the Saudi Arabian Shield exploring and developing eight rare earth and rare metal deposits. As lead author, Osmani helped prepare and complete NI 43-101/JORC-compliant resource estimate reports on all eight projects. Mr. Osmani is also credited with developing an NI 43-101 compliant gold resource of almost one million ounces (Indicated and Inferred categories) 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.

Khalid J. Zaka: Khalid J. Zaka has 30+ years of Canadian and international experience in surface and underground geotechnical, geological mapping, ground support design, designing site investigations, ground characterization, construction inspection, and monitoring. He also has some experience in managing mineral prospecting projects in Canada. Mr. Zaka developed laboratory test programs, scoping, project management, and quality assurance. He is also experienced in identifying slope instability issues, performing design analyses, and overseeing field investigation programs.

## 2.6 Disclaimer

This technical report represents the professional opinions of Ike A. Osmani, M.Sc., P.Geo. and, Khalid Zaka, P.Geo. as to the interpretations to be made and conclusions drawn in light of information made available to, inspections performed by, and assumptions made by the authors using their professional judgment and reasonable care. This document has been prepared based on a scope of work agreed upon with Neotech Metals Corp. and is subject to inherent limitations in light of the scope of work and information provided by the company.

## 2.7 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 3). 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).

Rare Earth Elements	H					P	ERIC	DIC	TA	BLE								2 He	Rare Elen	nents
Lanthanum (La) Cerium (Ce)	LI	4 Be											5 8	6 C	7 N	8 0	9 F	10 Ne	Beryllium	(Be)
Praseodymium (Pr)	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	Gallum	(Ge)
Neodymium (Nd) Samarium (Sm)	19 K	20 Ca	21 Sc	22 Ti	28 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	11 Ga	32 Ge	33 As	3i Se	35 Br	36 Kr	Germanium Hafnium	(Ga) (Hf)
Europium (Eu) Gadolinium (Gd)	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	19 In	50 Sn	51 Sb	52 Te	53	54 Xe	Indium Lithium	(In) (Li)
Terbium (Tb)	55 Cs	55 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 <b>TI</b>	82 Pb	83 Bi	84 Po	85 At	% Rn	Niobium Rubidium	(Nb) (Rb)
Dysprosium (Dy) Holmium (Ho)	87 Fr	88 Ra	89 Ac	104 Rf	105 Db	136 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Сп	113 Uut	114 Uuq	315 Uup	115 Uuh	117 Uus	118 Uluo	Tin Tantalum	(Sn) (Ta)
Erbium (Er)			-																Zirconium	(Zr)
Thulium (Th) Ytterbium (Yb)	lantha	nides	67 La	58 Ce	50 Pr	50 Nd	61 Pm	Sm Sm	EU EU	61 Gd	EE Tb	85 Dy	57 Ho	58 Ef	段 Tm	Υb Yb	71 Lu			
Lutetium (Lu) Yttrium (Y)			89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	% Am	96 Cm	97 Bk	98 C1	99 Es	100 Fm	101 Md	102 No	103 Lr	ĺ		

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

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	Εu	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

Table 2. Key Features of REEs.

na = not applicable



Figure 3. Distribution of rare earth elements (REEs) and some rare metals in the continental crust and mantle. *Source:* Linen et al. (2014).

## **2.8 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 used 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>3,4,5,8</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 Neodymium 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. Reliance on Other Experts**

FGC assumed and relied on all information in existing technical documents listed in Section 27 – "References" of this report are accurate and complete in all material aspects. While the authors carefully reviewed all the available information, FGC cannot guarantee its accuracy and completeness.

Additionally, the authors have relied upon recent exploration work (e.g., prospecting, mapping, soil, and stream sediment geochemical surveys) completed in 2023 by Neotech's contractor AE on the TREO Property. The authors have not validated these recent data to confirm the results of such work. However, since these works were carried out under the supervision of AEL's professional geologist and reported by Trever Tamburri (P.Geo., P.Eng.), the authors have no reason to doubt the correctness of such work and reports.

The authors have not independently verified the legal title to the Property, nor have they verified or are qualified to comment on legal issues related to the Neotech Property agreement, royalties, permitting, and environmental matters. They rely on public documents and information provided by Neotech for the descriptions of the title and status of the Property agreements, and they have 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 4) 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 40 contiguous mineral claims covering approximately 16,286.30 hectares (ha) within the Cariboo Mining Division. These claims are shown in **Figure 4**, and full details are given in **Table 4**.

The TREO Property straddles, respectively, to the west with Defense Metals and the west and south with Eagle Bay Resources properties (Figure 5). Other properties close by but not adjacent to TREO are held by Power One and Marvel.

## 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.

December 2023

#### NI 43-101 Technical Report – TREO Property



Figure 4. Claim map – TREO Property.

December 2023

NI 43-101 Technical Report – TREO Property



Figure 5. TREO Property and adjacent claims.

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 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 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 1258713 BC (the "Numbered Company") on September 22, 2023, wherein the royalty payor agrees to pay the numbered company or the person designated by the royalty holder 2% Net Smelter Royalty

Claim		Area	
Number	Ownership	(ha)	<b>Expiry Date</b>
1101539	NEOTECH METALS/JACK HARRIS	226	2024-01-29
1101655	NEOTECH METALS/JACK HARRIS	113	2024-01-29
1101950	NEOTECH METALS/JACK HARRIS	188	2024-02-03
1106069	NEOTECH METALS/JACK HARRIS	94	2024-07-16
1106059	NEOTECH METALS/JACK HARRIS	338	2024-07-16
1106057	NEOTECH METALS/JACK HARRIS	75	2024-07-16
1106060	NEOTECH METALS/JACK HARRIS	169	2024-07-16
1101521	NEOTECH METALS/JACK HARRIS	281	2024-01-28
1106070	NEOTECH METALS/JACK HARRIS	94	2024-07-16
1106064	NEOTECH METALS/JACK HARRIS	56	2024-07-16
1106065	NEOTECH METALS/JACK HARRIS	75	2024-07-16
1106063	NEOTECH METALS/JACK HARRIS	19	2024-07-16
1106061	NEOTECH METALS/JACK HARRIS	113	2024-07-16

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

1106068	NEOTECH METALS/JACK HARRIS	38	2024-07-16
1101366	NEOTECH METALS/JACK HARRIS	150	2024-01-27
1101885	NEOTECH METALS/JACK HARRIS	56	2024-02-02
1101231	NEOTECH METALS/JACK HARRIS	206	2024-01-24
1101230	NEOTECH METALS/JACK HARRIS	543	2024-01-24
1101901	NEOTECH METALS/JACK HARRIS	187	2024-02-02
1106251	NEOTECH METALS/JACK HARRIS	243	2024-07-24
1101327	NEOTECH METALS/JACK HARRIS	94	2024-01-27
1101174	NEOTECH METALS/JACK HARRIS	112	2024-01-25
1101228	NEOTECH METALS/JACK HARRIS	505	2024-01-24
1106250	NEOTECH METALS/JACK HARRIS	168	2024-07-24
1101679	Neotech Metals	1881	2024-01-29
1101652	Neotech Metals	1072	2024-01-29
1101612	Neotech Metals	1166	2024-01-29
1101546	Neotech Metals	1635	2024-01-29
1101663	Neotech Metals	695	2024-01-29
1106055	Neotech Metals	113	2024-07-16
1106062	Neotech Metals	75	2024-07-16
1106066	Neotech Metals	75	2024-07-16
1106058	Neotech Metals	206	2024-07-16
1108484	Neotech Metals	1712	2024-10-22
1108483	Neotech Metals	1260	2024-10-22
1108482	Neotech Metals	1352	2024-10-22
1108481	Neotech Metals	413	2024-10-22
1108480	Neotech Metals	150	2024-10-22
1108260	Neotech Metals	56.29	2014-10-19
1109251	Neotech Metals	282.01	2024-11-24
Total = 40		16286.3	

("NSR") upon the commencement of commercial production from 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 (Company News Release – December 01, 2023). 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 Act* ("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 before 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 labours.

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 20°C but can reach as high as 35°C. Winter temperature averages around -10 °C and can be as low as -30°C. Precipitation historically averaged 914 mm per year, with approximately 368 mm falling as snow from September through April (Wang et al., 2016) and the rest as rainfall. Climate change can potentially increase precipitation rates year-round, with more precipitation falling as rain than historically observed. Potential evaporation rates in the region have historically averaged 505 mm annually (Wang et al., 2016). Climate change can potentially increase evaporation rates in the summer months.

## **5.4 Physiography**

The physiography of the TREO Property area, as described by Hunter-Perkins and Tamburri (2023) in their Logistics Report for Neotech, is located within the Northern Hart Ranges, a subdivision of the Central Rocky Mountains of British Columbia. This rounded mountainous area has a relatively low profile composed of limestone sedimentary rocks 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 westward 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 by exploration/mining companies and individuals. The assessment work reports are accessed on their website: <u>https://apps.nrs.gov.bc.ca/pub/aris</u>.

## 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). The highest values of 319 ppm and 883 ppm occurred on the TREO and adjacent properties, respectively. Cerium (Ce) and barium (Ba) anomalous values were also associated with Nb, suggesting the presence of buried carbonatite/alkaline intrusions. The highest Ce values of 2061 ppm and 25,905 ppm were also reported on the Neotech and adjacent Defense Metals claims, respectively. These Ce values 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. *However, it is an interpretation of the authors, but it is not* 

# necessarily that similar mineralization will extend from the adjoining claims onto the current *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. 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 4.11% total REEs ("TREE"). At GT-2, a 42 m wide composite of eight rock samples (#10871 to 10878, inclusive) returned values exceeding the upper detection limits for some elements (e.g., La >10,000 ppm, Ce >1,000 ppm, and Nd >1,000 ppm) 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). The reanalyzed values of these samples are unavailable to the authors. However, Eagle Bay Resources reported 1.11% REE over 42 m (samples 10871 to 10878, inclusive), including 1.36% REE over 5 m (sample #10873) for the GT-2 sample composite (Knox, 2022).

A rock sample (#10739) taken from an adjacent claim (currently Defense metals) has returned 1.23% TREE (Betmanis, 1987). Also, anomalous Nb (0.04%) is reported from a dioritic to granodioritic dike sample on the adjacent claim (Knox, 2022).

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.

The soil sampling results from Betmanis (1987) are summarized as follows. Soil samples yielded anomalous niobium (up to 4,597 ppm), which correlates closely with the location of the underlying carbonatite in bedrock. Anomalous barium (Ba) in soils correlates moderately with niobium and helps support the niobium anomaly. Cerium correlates only partially with niobium and the known carbonatite. Zinc (Zn) and strontium (Sr) correlate moderately well with cerium. Zn and Sr correlate moderately to well with Ce.

Seven trenches (PT-1 to PT-7) for 79.5 metres were blasted to expose bedrock. The best values of Nb (0.95% Nb2O5) and REEs (0.43%) were returned from the trenches PT-5 to PT-7. The better grades correlate with fine-grained and black gouge or whitish clay on fractures in the carbonatite intrusion (Betmanis (1987). The full width of the intrusion is not exposed in trenches, but apparently, it is layered (Betmanis (1987). No description of compositional layering is indicated in the report by Betmanis (1987).

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 show 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. The scintillometer survey identified a small >100 CPS anomaly that was considered an

over-burden cover carbonatite, which in soils, anomalous Nb, La, molybdenum, and arsenic support this interpretation. Teck never mapped the prospect area.

## 6.2 Commerce Resources Corporation ("CRC")

Jody Dahrouge acquired most of the property claims in 2005 and 2006 on behalf of Commerce Resource Corp., which comprised six groups of claims, namely, Carbo1, Carbo2, Carbo3, Carbo West, Carbo Extension, and Wichcika, covering a total area of 1953 hectares.

In 2006, Jody 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.

From the soil geochemical survey, anomalous Nb in soil suggested potential carbonatitic or syenitic intrusions in the anomalous area. Ba moderately correlates with Nb but is generally more widely dispersed than Nb. Cerium and Sr only partially correlate with Nb. One sample shows a highly anomalous Au value (1,740 ppb), while thorium (Th) and Ba also give high values (Guo and Dahrouge, 2006).

Forty (40) rock samples were collected from intrusive outcrops, bedrock, and float. All rock samples were analyzed at Acme Laboratories, Vancouver. Thirty-six alkaline intrusive rocks contained highly anomalous REE and Nb values. Total REE+Y reportedly yielded values between 111.3 ppm and 4673 ppm, averaging 1742 ppm, and Nb concentrations range from 3.0 to 3258 ppm, averaging 709 ppm (Guo and Dahrouge, 2006).

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 are indicated, with the highest readings up to 833 cps. The elevated radioactivity moderately correlates with Nb, which may have been caused due to the presence of pyrochlore. Magnetic anomalies do not correlate with the Nb in soils.

Further work, including trenching or drilling, was recommended to asses the areas with high Nb and REEs in soils. One soil sample with 1740 ppb Au was also recommended for further investigation.

## 6.3 Spectrum Mining Corporation

In 2009, Spectrum conducted a one-day fieldwork 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. Find previously identified as anomalous in Nb, F and with high background to anomalous scintillometer readings, map any outcrops, and sample carbonatite lithologies and related mineralization. Also, conduct a closely-spaced silt sampling on east and west tributary creeks that form a confluence around 36+15E and 11+25N. To run 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 assayed 7064 ppm Ce, 4461 ppm La, and 1387 ppm Nd (sample #W109-KM02), approximately 1.29% Ce, La and Nd combined (Lane, 2010). This result is consistent with scintillometer readings as high as 870 cps from this sample site.

Two other samples returned highly anomalous light rare earth element values. Sample WI09-04 collected 30 m upstream, assayed 1434 ppm Ce, 785 ppm La and 448 ppm Nd (or approximately 0.27% combined Ce+La+Nd) and WI09-03 collected more than 150 m upslope, assayed 1282 ppm Ce, 726 ppm La and 336 ppm Nd (or about 0.23% combined Ce+La+Nd).

## 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. This sampling program generated promising results. 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 10 silts. The sampling results were encouraging, particularly with soil samples from the '425' grid returning up to 7620 ppm Ce, 2670 ppm La, 688 ppm Nd, and 9564 ppm TREE+Y (Turner et al., 2011). Rock samples from the historic Prince grid area returned up to 4875 ppm TREE+Y values (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 a heli-borne AeroTEM electromagnetic and magnetic surveys over 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.



**Figure 6.** Commerce Resources and Canadian International Minerals work summary (2006-2011).

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 6 and Figure 6A). 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



**Figure 6A.** Historical drill holes both on and adjacent claims. The 2010-2011 holes drilled by CIM on the Property are only discussed in the text.

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. **Table 6** shows the REE mineralization intersected in 2010 drill holes.

Hole #	From(m)	To (m)	Interval (m)	Geology	% TREO
CA-10-001	37.8	43.1	5.3	Carbonatite w/ minor sediments	2.51
Including	39.6	41.8	2.1	Carbonatite w/ minor sediments	4.07
	44.5	46.3	1.8	Carbonatite w/ minor sediments	1.24
CA-10-002	16	19.2	3.2	Carbonatite w/ minor sediments	2.73
	54.7	56	1.3	Carbonatite w/ minor sediments	2.25
	60.6	61.7	1.2	Carbonatite w/ minor sediments	3.7
	123.7	124.9	1.2	Carbonatite w/ feldspar-sodalite	1.33
CA-10-003	79.6	83.2	3.7	Carbonatite-feldspar-sodalite breccia	1.44
	104.2	106.5	2.3	Carbonatite w/ minor sediments	1.20
	175.6	176.9	1.4	Carbonatite	1.53
CA-10-004	138.2	153.4	15.2	Carbonatite w/ minor sediments	0.6
Including	147.8	149.1	1.3	Carbonatite w/ minor sediments	3.35
	182.9	190.2	7.3	Feldspar-sodalite w/minor sediments	0.96
	184.5	188	3.5	Feldspar-sodalite	1.23
CA-10-005	67.9	70.7	2.8	Carbonatite & feldspar-sodalite	1.26
	100.4	102.7	2.2	Carbonatite-feldspar-sodalite w/sediments	1.18
	146.5	148.9	2.4	Feldspar-sodalite w/sediments	1.54
CA-10-006	129.5	166.7	37.3	Carbonatite w/feldspar-sodalite & sediments	1.43
Including	137	164.7	27.7	Carbonatite	1.72
	171	172.5	1.5	Carbonatite & feldspar-sodalite	2.64
	200.3	206.9	6.6	Carbonatite-feldspar-sodalite w/sediments	1.77
Including	201.9	206.3	4.3	Carbonatite & feldspar-sodalite	1.97
	214.1	215.6	1.4	Carbonatite & feldspar-sodalite	1.76
	240.7	242.4	1.6	Carbonatite	2.24
	250.5	262.1	11.6	Carbonatite	1.33
Including	253.3	259.3	6	Carbonatite	2.07
CA-10-007	64	66.8	2.8	Sediments w/carbonatite	2.75
CA-10-008	89.3	92.3	3	Carbonatite	3.00
	97	99.7	2.7	Sediments w/carbonatite	1.03
	116.4	117.5	1	Carbonatite w/ minor sediments	3.71
	161.8	164.1	2.4	Carbonatite-feldspar-sodalite w/sediments	1.4
	178.4	179.5	1.1	Carbonatite w/ minor sediments	1.39
	242.3	243.6	1.3	Carbonatite & feldspar-sodalite	1.48
CA-10-009	246.2	248.6	2.4	Carbonatite	2.82
	297	313.9	16.9	Feldspar-sodalite-carbonatite w/sediments	0.62
Including	297.6	298.6	0.9	Carbonatite	4.68

Table 6. REE Mineralization intersected in 2010 drill holes (Bruland, 2011; Knox, 2022).

Drill core samples returned REE values ranging from 4.68% total rare earth element oxides (TREO) over 0.9 m (CA-10-009 to 1.43% TREO over 37.3 m (CA-10-006) in carbonatite dikes. Other examples of significant intercepts include 4.07% TREO over 2.1 m (CA-10-001), 2.73% TREO over 3.2 m (CA-10-002), 3.35% TREO over 1.3 m (CA-10-004), and 3.0% TREO over 3.0 m (CA-10-008). Some of these and other narrow higher grades of REE intercepts occur within relatively wider but low-grade mineralization envelopes (*see* **Table 6**). REE-bearing minerals include parasite, bastnaesite, burbankite, monazite, and aeschnite. 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-thousandninety (3,090) metres in 11 holes were drilled (Figure 6 and Figure 6A), and 647 core samples were collected for geochemical analysis (Bruland, 2012). Core logging 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. The bestmineralized intercept in terms of core length was intersected in drill hole CA-11-011. It intersected a 60.3 m core length of carbonatite grading 0.33% TREO, including 0.49% TREO over 4.4 m and 0.94% TREEO over 3.0 m. The REE mineralization from selected drill holes is listed below in **Table 7**.

Hole #	Target	From (m)	To (m)	Interval (m)	Geology	% TREO
CA-11-010	2	128.4	131.3	2.9	Seds w/ 20% carbonatite	0.34
		170.6	175.7	5.2	Carbonatite; w/seds+ fsp-sodalite	0.28
Including		172.8	174.6	1.8	Carbonatite	0.41
		177.7	179.5	1.8	Carbonatite w/ 10% seds + fsp-sodalite	0.29
CA-11-011	2	126	186.3	60.3	Carbonatite	0.33
Including		146.7	151	4.4	Carbonatite	0.49
Including		163.4	166.4	3	Carbonatite	0.94
CA-11-013	3	53.7	58.9	5.2	Shear, Carbonatite & Seds	0.23
		63.4	86	22.6	Carbonatite w/ minor fsp-sodalite	0.21
Including		70	74.8	4.9	Carbonatite	0.36
		130.2	133.7	3.5	Carbonatite	0.29
CA-11-014	3	93.7	99	5.3	Carbonatite	0.16
		116.2	143.9	27.7	Carbonatite w/lower contact syenite	0.25
Including		116.2	129.9	13.7	Carbonatite	0.3
		147.2	172.6	25.3	Carbonatite	0.26
Including		149.1	153	3.9	Carbonatite	0.32
		236	238.7	2.7	Carbonatite	0.30
CA-11-015	4	28.2	32.8	4.5	Syenite w/ minor seds	0.22
		62.2	72.3	10.1	Syenite w/ minor carbonatite	0.14
CA-11-017	4	230	231	1	Seds w/ carbonate veins	0.52
CA-11-018	4	60	63.7	3.7	Syenite	0.18
		192.2	195.5	3.3	Seds w/ minor carbonatite	0.14

Table 7. REE Mineralization intersected in 2011 drill holes (Bruland, 2012; Knox, 2022).

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-GPSpaired 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 87571 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-magnetic-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, 2156 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 7). 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 7. Geochemical sampling grids – Bolero Resources.

Results from soil sampling were encouraging, particularly from the 911 grid, returning maximum concentrations of >10,000 ppm Ce, >10,000 ppm La, and >27,000 ppm TREE+Y. , and rock samples returned values up to 4875 ppm TREO+Y (Turner, 2011). Based on these results, this area was considered most promising. 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.



Figure 8. Bolero Resources work summary. *Source:* Turner, 2011; Churchill et al. (2012); and Knox, 2022).

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 (Figure 8). 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 Wichida 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 (Assessment Report 33169).

## 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 9). The Foreland Belt (FB), mainly consisting of Proterozoic rocks, was the last orogenic belt to form in British Columbia Cordilerra, 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.

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 10) (Pell, 1994). 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.

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 11). 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, 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.



Figure 9. Regional setting of TREO Project.



**Figure 10**. 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.

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Figure 11. Regional geology map.

#### 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 (Belmantis, 1987), Dalsin (2013), Canadian International Minerals (Bruland, 2011), Arctic Star Exploration (Kluczny and McCallum, 2012; Kluczny, 2018), Spectrum Mining Corporation (Lane, 2010), and Bolero Resources (Turner, 2011).

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 12.). A description of these groups from the Monkman Pass area is summarized in the table below.

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
Proterozoic	Miette	Upper Middle Lower	black argillite, slate conglomerate, slate dolomite and limestone, slate

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



Figure 12. Property and adjacent area geology.

The historic Prince grid area in the west-central part of the Property mapped by Dalsin (2013) and Belmantis (1987) in relative detail (Figure 13) 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 Betmanis (1987) and Dalsin (2013), located roughly 1.3 km southeast of Wicheeda Carbonatite Complex, occurs in the central TREO Property. It has been traced intermittently by float and



**Figure 13.** The central TREO Property's geology map shows the Carbo Carbonatite/Carbo hydrothermal alteration, main rock units, and structures mapped by Dalsin (2013).

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 considered a carbo-hydrothermal alteration 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 13). 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 the Dalsins' 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 Whicheeda 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 (34.2 million tonnes at 2.02% TREO in *Measured+Indicated* and 11.1 million tonnes at 1.02% TREO in *Inferred* categories at a cut-off grade of 0.5% TREO – Defense Metals News Release October 30, 2023) situated west on the adjacent claims, is a plug with 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.

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 Cap Carbonatite Complex (Carb-01 and 02 occurrences) in the southeast on Eagle Bay Resources's property (*see* Figure 8). This mineralized corridor is interpreted and based on historical surface showings, such as Wicheeda South and Carb-01 and 02 occurrences, and surface and historical drilling on the TREO Property. Drilling in 2010 on the TREO returned values ranging from 4.7% TREO over 0.9 m to 1.39% TREO over 37.3 m.

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 (Dalsin, 2013). These REE minerals and other rare metalsbearing 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 caused by post-emplacement tectonic activity. Vein-type mineralization is commonly amorphous to coarse-grained dolomite-carbonate 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.

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.

## 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.

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 14) (Annenburg 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 14). 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., 2017). 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 15** is a vertical section of a hypothetical carbonatite mineralizing system showing carbonatite-related ore deposits.

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 15).

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,



Figure 14. 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 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 238U/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 carbonated silicate melt into a carbonatite melt" (Anenburg et al., 2021).

Virgil, Lonnie, Mount Bisson, Bearpaw Ridge, Ice River, Trident Mountain, Mount Grace, Blue River, and Rock Canyon occurrences (*see Figure 10*) (Pell, 1994).



**Figure 15.** Vertical section of a hypothetical carbonatite-related mineralizing system. *Source:* 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 Neoetech Metals Corporation ("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. 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 summerfall sampling program. **Figures 16** and **17** show the locations of all samples collected by Neotech.

#### 9.1 Field Sample Collection

The following sample collection methodologies are summarized from the logistics report prepared by Anomalous Exploration Ltd. (Hunter-Perkins and Tamburri, 2023) for Caravan Energy Corp. (now Neotech Metals Corp.).

#### 9.1.0 Soil Samples

The soil samples were collected using soil augers and placed into kraft bags. The steps or methodology used in the collection of soil samples are summarized below:

• Navigate to the proposed sample site using QField maps and the most efficient transportation method (hiking, driving, ATV, etc.).

• Assess the sample site based on local conditions and select an area to attempt an auger hole. The actual sample sites were moved from the target site to allow for a high-quality sample if necessary. The site was abandoned if no material was available or a safety concern existed.

• A hand auger was used to drill down as deep as possible. Ideally, C horizon soil was collected, but if this was not possible, B horizon soil was chosen for sample collection. Only as a last resort was A/B horizon material collected.



Figure 16. The 2023 geochemical sampling areas - TREO Property.



**Figure 17.** The 2023 stream sediment (silt) sampling areas, both on and adjacent areas of the TREO Property.

• The date and sample UTM was recorded in the tag booklet, labeled the kraft bag with the sample ID, and insert the sample tag into the bag.

• A kraft bag was filled with soil collected out of the auger.

• Completed the sample's digital data entry form using the QField application on a field phone. The recorded data was saved in the offline editable form and backup data to the laptop when back in camp after the day traverse.

- Closed the bag by folding the top along the scored lines and tied it closed with flagging taps.
- Stored the sample bag in a poly bag and field backpack for the remainder of the day's traverse.

#### 9.1.1 Stream Sediment Samples

The steps or methodology used in collecting the stream sediment (silts) samples is summarized below:

• Navigate to the proposed sample site using QField maps and the most efficient transportation method (hiking, driving, ATV, etc.).

• Assess the sample site based on local conditions and select an area along the stream edge to search for sediment. Make sure that material is collected from either above or below specific tributaries if determined to be important from a catchment perspective based on the proposed sample site.

• Pre-contaminate the material collection device by washing it in the stream with local sediment.

• Travel upstream from the sample site, collecting a small amount of material from various deposition areas over at least 50 meters of the stream.

• Write the date and sample UTM in the tag booklet, label the kraft bag with the sample ID, and insert the sample tag into the bag.

• Complete the sample's digital data entry form using the QField application on a field phone. Save the recorded data in the offline editable form and backup data to the laptop when back in camp after the day traverse.

- Close the bag by folding the top along the scored lines and tie closed with flagging taps.
- Store the sample bag in a poly bag and field backpack for the remainder of the day's traverse.

• Samples were kept in the field camp to be partially dried and then placed in rice bags for shipping to the lab.

#### 9.1.2 Rock Grab/Chip Samples

The rock samples were collected from float or outcrop as grab or composite/chip samples. The following methodology was used for collecting rock samples on the Project:

• While on traverse for other sample type collection or dedicated prospecting, continuously observe rock characteristics in the area.

• If altered or mineralized rocks are suspected based on visual observation, break the rock open with a rock hammer.

• Determine if the rock should be sampled based on closer observation and if alteration or mineralization is suspected.

• The date and sample UTM were recorded in the tag booklet, labeled a small-size poly bag with the sample ID, and inserted the sample tag into the bag.

• A representative sample was collected, if necessary.

• Completed the sample's digital data entry form using the QField application on a field phone. Recorded data were saved in the offline editable form and backup data to the laptop when back in camp after the day traverse.

• Closed the bag with a flagging or zap strap.

• Stored the bag in a field backpack for the remainder of the day's traverse.

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 soil, 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 samples will be prepared and analyzed at the lab with a 4-LITHO package.

As of the date of writing this report, no results have been provided to FGC or Neotech by the lab. Therefore, the results of the summer-fall samples cannot be included in the Technical Report at this time.

## **10. Drilling**

As of the date of this Technical Report, Neotech has not conducted any drilling on the Property.

#### 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 Metmanis (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.

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.

The field crews of Commerce Resources collected samples under the supervision of professional geologists M. Guo (P.Geol) and J. Dahrouge (P.Geo.). In the authors' opinion, they followed the best industry practices in collecting field and delivering samples to the lab for analysis. The authors have no reason to doubt that the protocols and procedures have not followed the best industry practices.

## 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. Since sampling and handing in the field was conducted under the supervision of a professional geologist, the authors have no doubts and believe that all protocols/procedures were implemented in collecting and handling samples from the field to shipping to the lab in Vancouver. The analytical details of the samples analyzed by the lab described below are taken mostly from Bruland (2011) and an NI 43-101 report that Knox (2022) prepared for Eagle Bay Resources.

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, with the resulting solution 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, a soil grid covering roughly 0.8 km<sup>2</sup> was evaluated using a Niton handheld XRF unit. However, samples were not analyzed by the lab.

During the company's 2010 and 2011 drill programs, 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  $75\mu$ m (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 by 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 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 (Email communication with the CEO of the Company, Mr. Glazier - November 19, 2023) and both were placed into sample sequence.

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.

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 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 were certified by Barry W. Smee and formed 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 authors consider the QA/QC protocols implemented in the 2010 drill core sample preparation and analysis to fall short of the industry's best practices. Blank samples (limestone) were inserted, but no commercial REE standards were placed into the sample stream before shipping them to the laboratory for analysis. However, the authors think they are sufficient considering the early-stage exploration and drilling instead of advanced-stage project evaluation or resource estimation. For the best industry practices, a geologist must use blanks, certified reference material, core and pulp duplicates in the sample stream, and a secondary laboratory for check analysis.

The authors considered collecting and handling samples (soil, stream sediment, and rocks) satisfactory during Neotech's 2023 field program. However, the random insertion of blanks and standards was at odds with the common practice of inserting every 20 samples into the sample stream. However, considering the early exploration stage of the Project, the authors found it sufficiently satisfactory. The authors suggest that blanks and standards must be inserted consistently over every 20 samples into the sample stream in future exploration programs.

All samples sent to Actlabs in Kamloops will be prepared and analyzed with their 4-LITHO package. Results are pending.

#### 12. Data Verification

The co-author, K.J. Zaka, P.Geo., visited the TREO Property on October 17, 2023. Mr. Glazier, a geologist and the CEO of Neotech, accompanied Mr. Zaka and gave a tour of the general layout of the Property (*see* **Photo 1**), visited several outcrops, and demonstrated how he and the company's contractors conducted the Fall 2023 exploration program that consisted of soil, stream sediments, and rock sampling. Due to time limitations, Mr. Zaka's visit was confined to one day and only to road-accessible areas, as Mr. Glazier informed the region's inclement weather was in the forecast. Historical exploration work areas with significant reported mineralization showings or carbonatite outcrops were visited as they were not readily available due to time constraints. No drill cores from 2010 and 2011 drilling were available for examination as previous operators removed them from sites.

Mr. Zaka visited the sample storage facility in a barn in Prince George's suburb, where samples collected in the Fall of 2023 were securely stored. He photographed the stored samples (*see* **Photo 2**) and took notes of security procedures for storing and shipping them to Actlabs in Kamloops (BC) for geochemical analysis.

Mr. Zaka is satisfied with the sampling method and techniques demonstrated by Mr. Glazier in the field and the handling and security of samples, which are deemed in line with the current industry practices.

A logistical report describing the Fall 2023 sampling program by the Company's contractor, Anomalous Exploration Limited (AE), was available to the lead author. Geologist Ellen HunterPerkin and staff completed the geochemical sampling under the supervision of a professional geologist, Trever Tamburri (P.Geo, P.Eng.). The author found the report satisfactory and meeting the best industry practices.

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. All sources have been appropriately cited in Section 27 of this report. The assessment reports all appear to represent normal course exploration activities, and there is no reason to anticipate any misrepresentation. The authors have taken no procedures to verify any of the data.

## 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 Resources, Canadian International Minerals Inc., and Bolero Resources Corporation. Currently, to the west and south, part of these properties are held by Defense Metals Corp. and Eagle Bay Resources (*see* Figure 5). Exploration work carried out on these properties by relevant companies is briefly discussed above under the headings of "History" and "Geological Setting and Mineralization".

The only advanced Project in the area is the Wicheeda Project ("Wicheeda") of Defense Metals Corporation, situated immediately to the west of the west-central part of the TREO Property.

Defense Metals recently reported resource estimates from its Wicheeda REE deposit in an NI 43-101 technical report: a 6 million tonnes Mineral Resource, averaging 2.86% TREO in *Measured*, 27.8 million tonnes Mineral Resource, averaging 1.84% TREO in *Indicated* (34.2 million tonnes, averaging 2.02% TREO combined *Measure&Indicated*), and 11.1 million tonnes averaging 1.02%TREO in *Inferred* categories at a cut-off grade of 0.5% TREO (Defense Metals News Release October 30, 2023).

The Whiheeda carbonatite plug hosting predominantly LREEs deposit has 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 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%. In October 2009, Spectrum reported drill intercepts of 3.55% TREE over 48.64 m, 2.92% TREE over 72.0 m, and 2.20% TREE over 144.0 m in three widely spaced drill holes.

On April 21, 2022, Defense Metals announced drill results, including 3.81% TREO over 116.8 m, 4.33% TREO over 38.0 m, and 4.87% TREO over 37.5 m. On January 24, 2023, Defense Metals announced the best results of the last two drill holes drilled in all of 2022 intersected a well-mineralized dolomite carbonatite that assayed 2.63% TREO over 97 m within a broader mineralized zone, returning 2.03% TREO over 168 m (hole #W122-78) (Figure 18). The second final drill hole (WI22-79), drilled within the central area of the Wicheeda Deposit and into the east pit wall, intersected an upper high-grade mineralized dolomite carbonatite interval from surface assaying 3.66% TREO over 138 m, including 5.47% TREO over 14.3 m, and lower interval grading 0.50% TREO over 43 m.

Another property of merit of an early-stage exploration hosting the REE-bearing Cap Carbonatite Complex on the Eagle Bay claims is immediately south of the southeasternmost TREO Property (see Figure 5). Historical works including rock grab/chip sampling, mostly taken from boulders, vielded elevated TREEs+Y (e.g., 0.05%, 0.08%, 0.20%, and 0.33% from samples 75479 and 79831, 120957, and 120961, respectively), Nb2O5 (0.27%, sample 79831), P2O5 (over 4.0%, sample 79831) values have been reported (Knox, 2022). The Nb-bearing sample 7983 has been identified as pyrochlore in a syenite unit (Knox, 2022). In 2017, four historic diamond drill holes (CAP17-001 to CAP17-004) were bored in the rock sampling area with elevated REE and Nb vales and magnetic highs. Drill holes CAP17-02 and CAP17-03 targeted the magnetic high, which failed to intersect carbonatite and syenite intrusions, suggesting the magnetic anomaly does not reflect these intrusions. It may be related to mafic dikes which were intersected by these holes. Only CAP17-004 intersected the carbonatite-syenite with REE and Nb mineralization. It intersected 0.35% Nb2O5 and 0.11% TREE+Y over 10.42 m, 0.19% Nb2O5 and 0.17% TREE+Y over 5.93 m, and 0.26% Nb2O5 and 0.14% TREE+Y over 3.13m within a 34.22 m interval (85.24m-119.46m). Also, a 2.4 m intercept with 0.20% Nb2O5 and 0.69% TREE+Y was intersected within a 17.59 interval (120.91m-138.50m).

**NOTE:** When the authors referred to adjacent properties or areas outside the TREO Property, they made every attempt to distinguish that information from information on the TREO Property itself. Again, It is emphasized that the adjacent properties listed above are separate from the TREO Property. *It is further stressed that the presence of mineralization on adjacent properties does not imply the existence of mineralization on the TREO Property.* The authors did not directly verify any information on adjacent properties.



**Figure 18.** Wicheeda main REE deposit cross-section looking north (Defense Metals News Release January 24, 2023). The cross-section shows the best drill hole intercepts in 2022 from the main resource area.

## 24. Other Relevant Data and Information

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

## **25. Interpretation and Conclusions**

The REE-bearing Carbo Carbonatite-syenite Complex ("Carbo Complex") comprising three dike/sill-like intrusions occur within the central TREO Property (*see* Figure 13). 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. Rock samples collected by Canadian International Minerals (CIM) from 425 Grid, the 2010 diamond drilling area, returned up to 0.26% LREEs.

Samples from Teck's trenches (PT-5 to PT-7) in the Prince Grid area yielded up to 0.43% LREE and 0.95% Nb2O5 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 6A, 7, and 8). Despite the excellent surface sampling results, the eighthole 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. The best mineralization was intersected in drill hole CA-10-006, returning a 37.4 m intercept with 1.43% TREO, including 27.7 m at 1.72% TREO and 6.6 m at 1.77% TREO. Other examples of significant intercepts from these two drilling campaigns include 4.07% TREO over 2.1 m (CA-10-001), 2.73% TREO over 3.2 m (CA-10-002), 3.35% TREO over 1.3 m (CA-10-004), and 3.0% TREO over 3.0 m (CA-10-008). The hole CA-11-011 was bored southeast of the Prince Grid and returned 0.33% TREO over 60.3 m (*see* **Tables 6 and 7**).

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 authors interpreted some magnetic lows flanking the linear magnetic highs as possible shear/fault zones (Figure 19). 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



**Figure 19.** 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 authors interpreted some magnetic lows flanking the magnetic highs as fault/shears.

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 20). 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 (e.g., 0.35% Nb2O5 and 0.11% TREE+Y over 10.42 m) (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 soil geochemical survey within selected parts of the northern property claims. The collected samples have been submitted to Actlabs; the results are 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.

#### 26. Recommendations

FGC Inc. has recommended that Neotech complete a two-phase exploration program further to advance the economic potential of its TREO Property. Since Neotech conducted no work other than the 2023 reconnaissance geochemical sampling survey, of which the results are pending, all recommendations made here for future work on the Property are derived from the results of historical exploration activities.

The authors believe 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.



**Figure 20.** The 2010 airborne radiometric survey of Th concentration. The known REE-bearing carbonatite-syenite intrusions correspond well with strong to medium-strength thorium anomalies on and adjacent claims.

The following selected 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 21) extending southeast from the Property boundary near the Wicheeda deposit to the 2011 drilling area is recommended for reevaluation 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 425 Grid are potentially prospective based on the airborne radiometric and magnetic signatures extending in both directions from the 2010 drilling area (Figure 21). 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. For example, hole CA-10-006 intersected three distinct intercepts of 1.43% TREO over 37.3 m, 1.77% TREO over 6.6 m, and 1.33% TREO over 11.6 m. A follow-up by soil geochemical survey, prospecting, and rock sampling is recommended to evaluate the potential of the targets B and B'.

**3. Target C:** Detailed radiometric and soil geochemical surveys are recommended to evaluate this 1.72 km m x 0.5 km m area south and west of CIM's 2011 drilling area (Figure 21 and Figures 6 and 6A). 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 authors' knowledge, there is no immediate coverage to the southwest. This gap should be filled by geochemical surveying. The flanking magnetic lows with moderate to strong radiometric anomalies considered by the author are potentially prospective; therefore, they compel an evaluation for mineralization in the recommended and elsewhere on the Property.

**4.** A large area northeast of the 425 Grid, explored by Bolero Resources ("Bolero") in 2010-2011, warrants reevaluation 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 7 and 8). 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 authors' 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.

**5.** High-resolution airborne magnetic and radiometric surveys covering the TREO Property are highly desirable since the historical surveys are 10-15 years old. New surveys with cutting-edge technology will enable the identification of new targets and help refine historically known mineralization areas on the Property. Neotech should follow up on significant targets defined by



Figure 21. Recommended exploration areas – west-central TREO Property.

new surveys with detailed ground radiometric and magnetic surveys to provide more precise drill targets for potential mineralization.

**6.** An MMI soil orientation survey in a known area of mineralization, defined by the conventional B horizon soil sampling method, is recommended for comparison. Suppose the results from the orientation survey show higher-precision anomalies than the traditional B horizon soil survey results: in such case, it should be utilized widely on the Property in potential areas of mineralization identified by the new geophysical surveys.

No recommendations can be made for the areas covered by 2023 geochemical surveying since results were pending as of the writing of the Technical Report.

Based on the above recommendations, a two-phase exploration program is recommended for the Property. Phase 2, which mainly involves refining targets and drilling, will depend upon the positive outcome of the Phase 1 exploration results. Therefore, a budget estimate for only the Phase 1 program is below.

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 (451 lines 100 m apart, total ~800 km @\$200/line-km)	180,400.00	
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 (Truck Rental and fuel)	6,500.00	
Field equipments (scintillometer, GPS, radios)	5,600.00	
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	

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

Data Compilation (GIS)	5,000.00
Report	9,000.00
Subtotal	522,450.00
Contingency (15%)	78,367.50
TOTAL	600,817.50

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## 28. Certificates of Qualifications

## 28.1 Ike A. Osmani

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 December 5, 2023, do certify that:

**1.** I operate under the business name of Faarnad Geological Consulting Inc. ("FGC Inc."), a company independent of Neotech Metals Corporation. 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). My extensive experience 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 not visited the property subject of this Technical Report.

**10.** 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.

**11.** 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.

**12.** I am independent, as defined by Section 8.1 (2) (f) of NI 43-101, of Neotech Metals Corporation and all other parties related to the subject property, and do not expect to become an insider, associate, or employee of any of the parties.

A. OSMANI #32050 BRITISH SOLUMBIA

Dated this 5<sup>th</sup> day of December 2023, at Coquitlam, British Columbia

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

## 28.2 Khalid J. Zaka

I, Khalid J. Zaka, P. Geo., as a co-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 December 5, 2023, do certify that:

1. I am an associate of Faarnad Geological Consulting Inc. ("FGC Inc."), a company independent of Neotech Metals Corporation. 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 structural geology from the University of Punjab, Lahore, Pakistan (1981).

**3.** I graduated from Punjab University, Lahore, Pakistan, with a Bachelor of Science in Geology (1978).

**4.** I am a practicing member of the Association of Professional Engineers and Geoscientists of British Columbia (#31780).

5. I have over thirty-six years of geological mapping, geoscientific research, and engineering geological experience in North America, South America, and South East Asia. My extensive experience provided adequate knowledge and understanding of the surface and sub-surface stratigraphy's geological and rock mechanical characteristics and properties, and I made recommendations on the subject Property.

6. I have visited the property subject of this Technical Report.

7. I am independent, as defined by Section 8.1 (2) (f) of NI 43-101, of Neotech Metals Corporation and all other parties related to the subject property, and do not expect to become an insider, associate, or employee of any of the parties.

Dated this 5th day of December 2023, at Coquitlam, British Columbia



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