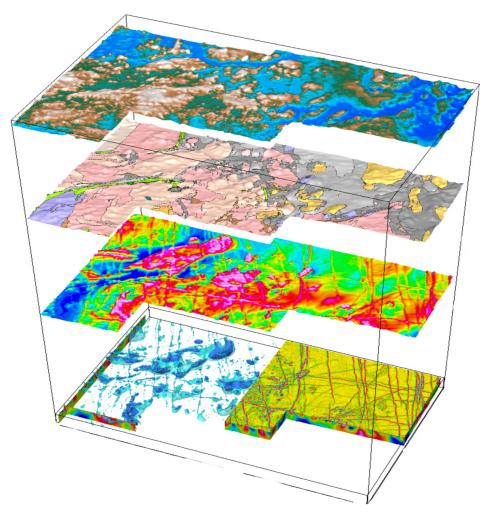


# **2023 Northwest Territories Exploration and Mining Overview**

# **Territoires du Nord-Ouest 2023** Aperçu des activités d'exploration minérale



Barrett Elliott, Gideon Lambiv Dzemua, Merilie A. Reynolds, Charlene Squibb, and Landen Powell



Northwest Territories Commission Géologique des Geological Survey Territoiries du Nord-Quest





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#### Reference:

Elliott, B., Lambiv Dzemua, G., Reynolds, M.A., Squibb, C., and Powell, L., 2024. 2023 Northwest Territories Exploration and Mining Overview; Northwest Territories Geological Survey, Yellowknife, Northwest Territories, 30 pages.

# **Executive summary**

In 2023, mineral exploration in the Northwest Territories was characterised by a renewed interest in lithium and other critical metals along with a continued interest in gold. According to the revised spending intentions published by Natural Resources Canada, mineral exploration and deposit appraisal expenditures for the Northwest Territories were CA\$118.8 million in 2023 (2.8% of the Canadian total), up from CA\$107.0 million in 2022. During 2023, 212 claims were recorded or are pending, and 55 claims were cancelled, resulting in a total of 1,210 claims in good standing. Four leases were issued, 257 leases were renewed, and 148 leases were cancelled, resulting in a total of 1,274 leases in good standing. Six prospecting permits were cancelled, resulting in a total 15 permits in good standing. A summary of Northwest Territories' mineral exploration activities is presented in Table 1.

This past year, the Northwest Territories experienced record temperatures and severe drought conditions in the Dehcho, South Slave, North Slave, and Sahtu regions. This set the stage for a historic wildfire season, which caused numerous challenges for exploration and mining projects. Several communities were evacuated over the course of the summer, and helicopters were often in short supply for field work due to a focus on firefighting efforts. As a result, many exploration programs were modified, reduced, delayed, or cancelled.

Diamonds, gold, and base metals have had a long history of exploration and mining in the Northwest Territories, but the increased demand for critical and strategic metals is driving the numerous lithium exploration projects in the Slave craton and across the Northwest Territories. This includes mining and advanced exploration projects such as Nechalacho (REEs), NICO (Co-Au-Bi-Cu), Pine Point (Zn-Pb), and Prairie Creek (Zn-Pb-Ag). Advanced stage gold exploration continued with Gold Terra Resource Corp. focusing on the Con Mine option in the Yellowknife greenstone belt and Nighthawk Gold Corp. focusing on resource drilling for the Indin Lake Project.

The Ekati diamond mine was acquired by Burgundy Diamond Mines Ltd., which has begun exploring options to extend the life of mine towards 2040. Although the Diavik diamond mine is scheduled to close in 2026, it was announced in February 2023 that Rio Tinto approved a CA\$40 million investment in the underground mining of the A21 pipe. Exploration at Gahcho Kué continued with a drill program confirming an extension at depth of the Tuzo pipe. Recent kimberlite discoveries at the Ekati and Gacho Kué mines, and by Mountain Province Diamonds Inc. through the subsidiary Kennady Diamonds Inc., North Arrow Minerals Inc., and Arctic Star Exploration Corp. indicate that there is still plenty of potential for diamond discoveries at and near the mines. Olivut Resources Ltd. and Talmora Diamond Inc. recovered diamonds from the Seahorse project, demonstrating that diamond potential could exist in other under explored areas in the Northwest Territories.

The Mining Incentive Program was launched in 2014 to help increase mineral exploration in the Northwest Territories. From 2014 to 2022, the Mining Incentive Program provided over \$7 million in government support to Northwest Territories' mineral exploration projects. This CA\$7 million investment resulted in additional project spending of over CA\$38 million from the Mining Incentive Program recipients. The Mining Incentive Program budget was increased from CA\$1.3 million in 2022–2023 to CA\$1.5 million in 2023–2024. This funding was awarded to 11 corporate exploration projects and 6 prospector-driven exploration projects.

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#### Résumé

En 2023, l'exploration minière aux Territoires du Nord-Ouest (TNO)a été caractérisée par un regain d'intérêt pour le lithium et d'autres métaux critiques, parallèlement à un intérêt soutenu pour l'or. Selon les intentions de dépenses révisées publiées par Ressources naturelles Canada, les montants consacrés à l'exploration minière et à la mise en valeur des gisements aux TNO s'élevaient à 118,8 millions de dollars en 2023 (2,8 % du total canadien), comparativement à 107 millions de dollars en 2022. En 2023, 212 claims ont été enregistrés ou sont en attente, et 55 ont été annulés, ce qui donne un total de 1 210 claims en règle. Quatre baux ont été délivrés, 257 baux ont été renouvelés et 148 baux ont été annulés, ce qui représente un total de 1 274 baux en règle. Six permis de prospection ont été annulés, ce qui porte à 15 le nombre de permis en règle. Le tableau 1 présente un résumé des activités d'exploration minière aux TNO.

Au cours de l'année écoulée, les TNO ont connu des températures record et une sécheresse intense dans les régions du Dehcho, du Slave Sud, du Slave Nord et du Sahtu. Ces conditions ont donné lieu à une saison des feux de forêt historique, ce qui a posé de nombreux défis pour les projets d'exploration et d'exploitation minière. Plusieurs collectivités ont été évacuées au cours de l'été, et le nombre d'hélicoptères a souvent été insuffisant pour permettre l'exécution de travaux sur le terrain en raison de la priorité accordée à la lutte contre les feux de forêt. En conséquence, de nombreux programmes d'exploration ont été modifiés, réduits, retardés ou annulés.

Les diamants, l'or et les métaux de base font depuis longtemps l'objet d'activités d'exploration et d'exploitation aux TNO, mais la demande accrue pour les métaux critiques et stratégiques est à l'origine des nombreux projets d'exploration ciblant le lithium dans le craton des Esclaves et dans l'ensemble des TNO. Parmi ces projets figurent des projets d'exploitation minière et d'exploration avancée tels que Nechalacho (terres rares), NICO (Co-Au-Bi-Cu), Pine Point (Zn-Pb) et Prairie Creek (Zn-Pb-Ag). L'exploration aurifère à un stade avancé s'est poursuivie, Gold Terra Resource Corp. se concentrant sur l'option de la mine Con dans la ceinture de roches vertes de Yellowknife et Nighthawk Gold Corp. ciblant ses efforts sur le forage des ressources dans le cadre du projet du lac Indin.

La mine de diamants Ekati a été acquise par Burgundy Diamond Mines Ltd., qui a commencé à étudier les possibilités de prolonger la durée de vie de la mine jusqu'en 2040. Bien que la fermeture de la mine de diamants Diavik soit prévue pour 2026, la société Rio Tinto a annoncé en février 2023 qu'elle avait approuvé un investissement de 40 millions de dollars dans l'exploitation souterraine de la cheminée A21. L'exploration à Gahcho Kué s'est poursuivie avec un programme de forage confirmant le prolongement en profondeur de la cheminée Tuzo. Les récentes découvertes de kimberlite dans les mines Ekati et Gacho Kué, ainsi que celles réalisées par Mountain Province Diamonds Inc. par l'intermédiaire de sa filiale Kennady Diamonds Inc, North Arrow Minerals Inc. et Arctic Star Exploration Corp., indiquent qu'il existe encore un grand potentiel de découvertes de diamants dans les mines et à proximité de celles-ci. Olivut Resources Ltd. et Talmora Diamond Inc. ont récupéré des diamants dans le cadre du projet Seahorse, ce qui prouve qu'il existe un potentiel diamantifère dans d'autres régions sous-explorées des TNO.

Le Programme d'encouragement aux activités minières (PEAM) a été lancé en 2014 pour stimuler l'exploration minière aux TNO. De 2014 à 2022, le PEAM a accordé plus de sept millions de dollars en aide gouvernementale à des projets d'exploration minérale aux TNO. Cet investissement s'est traduit par des dépenses supplémentaires de plus de 38 millions de dollars de la part des bénéficiaires du PEAM. Le budget du PEAM est passé de 1,3 million de dollars en 2022-2023 à 1,5 million de dollars en 2023-2024. Ce financement a été réparti entre onze projets d'exploration menés par des entreprises et six projets d'exploration réalisés par des prospecteurs.

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Table 1. Summary of exploration activities in the Northwest Territories.

Operator/Partners	Property	Commodity	Description	Updates
Burgundy Diamond	Ekati	Diamonds	Canada's first diamond mine is now owned	·
Mines Ltd.		Signonus	100% by Burgundy Diamond Mines Ltd. Currently mining Sable open pit and Misery underground. Mineral Reserves - 26.1 Mct in 48.5 Mt at 0.5 ct/t as of June 2023.	recovered from Misery Pipe. Five anomalies were tested, and one kimberlite intersected. Underwater Remote Mining crawler anticipated trial mining operation in 2025. Point Lake open pit operations are scheduled to commence in 2024.
Rio Tinto	Diavik	Diamonds	Canada's largest producer of diamonds. It opened in 2003 and is currently 100% owned by Rio Tinto. Slated to cease commercial production in early 2026.	The approved first phase of A21 UG with 1.4 Mct projected production. Planning to construct the largest solar power plant in Northern Canada.
JV with De Beers Canada Inc. & Mountain Province Diamonds Inc.	Gahcho Kué	Diamonds	De Beers Canada Inc. (51%) and Mountain Province Diamonds Inc. (49%). Gahcho Kué commenced production in March 2017, open pit operation, mining three kimberlite pipes in sequence: 5034, Hearne and Tuzo.	The second phase of Hearn Extension drilling – 13 holes, 5,580 m planned, intercepts up to 287 m. A new kimberlite was discovered 40 m northeast of Tuzo.
JV with Olivut Resources Ltd. & Talmora Diamond Inc.	Seahorse Project	Diamonds	Greenfields diamond exploration. Favourable diamond stability indicator minerals (including diamonds) are found regionally and locally.	The recovery of a macro-diamond, micro-diamonds, and two G9 pyropes from one beach sample on the property.
JV with Arctic Star Exploration Corp. & Margaret Lake Diamonds Inc.	Diagras	Diamonds	Located close to existing Lac de Gras diamond mines. Discovered 5 new diamondiferous kimberlites in 2021. An inclusion study indicates the presence of type IIa diamonds.	Six-hole delineation drilling into Sequoia kimberlite, an average of 69 stones per 100 kg. Encountered coherent, volcaniclastic and transitional kimberlite types.
Mountain Province Diamonds Inc.	Kennady North	Diamonds	Kennady North project is immediately to the north and west of the Gahcho Kué.	Kelvin and Faraday 1, 2 kimberlites have a combined indicated and inferred resource of 12.44 Mt containing 12.97 Mcts.
Sixty North Gold Mining Ltd.	Mon Mine	Au	Historic gold mine in the Yellowknife Volcanic Belt with 15,000 oz Au production between 1989 and 1997. Permits to mine and mill at 100 tpd are in place.	Planned underground mining activities were not completed due to wildfires.
Nighthawk Gold Corp.	Indin Lake	Au	This project hosts the past producing Colomac mine. PEA - CA\$1.2 billion after tax NPV of 5% and tax rate of 35% at US\$1600/oz gold. Has an estimated 290,000 oz Au, 11.2-year mine life.	Drilled 41 holes (10,268 m) at Cass, Albatross, and 24/27. Updated MRE and first PEA. Merged with STLLR Gold Inc.
Gold Terra Resource Corp.	Yellowknife City Gold Project (+Con Mine)	Au	Includes a shear system with over 14 Moz of historical gold production. Close to allseason roads, air transportation, service providers, hydro-electric power. Inferred mineral resource of 1.2 Moz (2021).	Drilled 10 holes (5,769 m) and 1 deep drill hole (>2,000 m) to extend mineralisation on the Campbell Shear on the Con Mine Option.
Seabridge Gold Inc.	Courageous Lake	Au	Located in the Courageous Lake Greenstone Belt, this project has reserves of 6.5 Moz Au at 2.2 g/t Au. Close to winter road infrastructure.	Plans to commence a preliminary feasibility study to determine the best path forward for the project.
Golden Pursuit Resources Ltd.	South Gordon Lake	Au	Past production of high-grade gold from quartz veins 80 km northeast of Yellowknife with winter road access.	Completed geological mapping, soil sampling, and IP survey.

Operator/Partners	Property	Commodity	Description	Updates
Rover Metals Corp.	Cabin Lake	Au	Gold hosted in quartz veins in shears in	Announced NI 43-101 technical report is
			iron formation. Located 80 km north of	nearing completion.
			Behchokò, with permitted winter road.	
Rackla Metals Inc.	Astro Project	Au	Tombstone Gold Belt, 280 km west of Wrigley. Targeting Reduced Intrusion-Related Gold Systems (RIRGS).	Drilled 12 holes (3,039 metres), as well as stream sediment, rock, and soil sampling; mapping; ground magnetic and EM; and airborne geophysical surveys. Exercised options for 100% interest in Astro Project properties.
Vital Metals	Nechalacho	REE	Commenced production in 2021, first REE	Conducted a 74-hole 6,667 m drilling
(Cheetah Resources)			producer in Canada, second in North America. Updated Tardiff zone MRE of 1.65 Mt TREO in 119.0 Mt at 1.4% TREO.	program to increase confidence of the Tardiff zone 1 and 3 resource.
NorZinc Ltd.	Prairie Creek	Zn, Pb, Ag	Proposed underground mine. Permits in place for mine construction and operation. 2022 PEA with 9.8 Mt total measured and indicated at 22.7% Zn equivalent, 6.4 Mt total inferred resources at 24.1% Zn equivalent.	Completed construction of first phase Pioneer all-season access road to Highway 7 and preparing for second phase. Now privately held by RCF VI CAD.
Rover Metals Corp	Indian Mountain Lake	Zn, Pb, Cu, Au, Ag	Kennedy Lake zone 43,000 t at 7.3% Zn, 1.1% Pb and 4.0 oz/t Ag. Kennedy Lake	2023-2024 Mining Incentive Program funding was provided for mapping and ground geophysical surveys targeting the BB Lake deposit airborne EM survey over the Susu Lake area.
Fireweed Metals Corp.	Gayna Project	Zn-Pb	Historical Zn-Pb-Ag mineralisation with +28,000 m of drilling. The new deposit model suggests an alternate model for mineralisation.	A 40 line-km ground gravity survey generated new targets on paleo reef margins, proximal to known showings.
Slave Lake Zinc Corp.	O'Conner Lake	Pb, Zn, Ag, Cu, Li	Historical Pb-Zn mineralisation 60 km from infrastructure.	Reported pegmatites were documented in historic drill hole logs, but no field work was carried out due to wildfires. Acquired additional historical data.
Redbed Resources Corp.	Redstone Property	Cu	parts of the deposit and to depth. Current drilling to infill and extend known mineralisation.	Mapping, surface sampling, channel sampling, and drilling targeting stratiform copper at the Coates Lake copper deposit.
Fortune Minerals Limited.	NICO	Co, Ag, Bi, Cu	, , , , ,	Secured government funding of up to CA\$714,500 from the Federal and CA\$172,670 from the Alberta governments to support metallurgical test work.
JV with Osisko Metals Inc. & Appian Capital Advisory LLP	Pine Point	Pb, Zn	Past-producing MVT-style Zn-Pb deposit with road, rail, and power access. 15.7 Mt at 5.55% Zn equivalent indicated, 47.2 Mt	Drilled over 400 holes to upgrade inferred to indicated resources. Updated MRE in progress with feasibility study planned. IP surveys in progress.
Northern Critical Mineral Corp.	Allende	REE		Mining Incentive Program funding was allocated to support a drone-based magnetics survey and a reconnaissance till survey targeting the Leith Lake Alkaline Complex.

Operator/Partners	Property	Commodity	Description	Updates
Voyageur Exploration Ltd.	Tharsis	REE, Nb	Squalus Lake Alkaline Complex (SLAC) – a concentric syenite intrusion that hosts carbonatite which is elevated in REE and high field-strength elements.	Mining Incentive Program funding was allocated to support a 2,000 m drill program targeting the Squalus Lake Alkaline Complex.
Fireweed Metals Corp.	Mactung	Tungsten	Mineral resources of 41.5 Mt Indicated (OP+UG) at 0.73% WO <sub>3</sub> and 12.2 Mt Inferred (OP+UG) at 0.59% WO <sub>3</sub> .	Updated MRE and initiated a PEA, metallurgical testing, environmental, and socio-economic work.
Li-Ft Power Ltd.	Yellowknife Lithium Project	Li	13 pegmatite systems with historic Li assays. Strike lengths up to 1,800 m and 40 m in width.	Filed a NI 43-101 in late 2022; MOU with the Yellowknives Dene First Nation. Released results for 184 drill holes (30,482 m) from 8 pegmatite systems; results include 60 m at 1.26% and 39 m at 1.38% Li <sub>2</sub> O.
	Cali Project	Li	The Cali project comprises a swarm of spodumene pegmatite dykes in the Mackenzie Mountains.	Completed a reconnaissance mapping and sampling in 2023; Land Use Permit secured for exploration.
North Arrow Minerals Inc.	DeStaffany	Li, Ta, Nb	Historic minor producer (1940s) of Li, Ta, and Nb. Comprises 4 Li-Ta-Nb bearing pegmatites, three have significant Li <sub>2</sub> O assays (up to 2.73%) and strike lengths up to 450 m.	Collected 68 samples from 20 channels, including 1.81% Li <sub>2</sub> O over 4 m. Drilling is planned for 2024.
Loyal Lithium Ltd. & Patriot Battery Metals Inc.	Hidden Lake Li	Li	14 mapped spodumene bearing dykes, four drill tested, with cumulative strike of 2,250 m. Approximately 45 km from Yellowknife. Preliminary metallurgy test work confirmed the amenability of the ore to DMS processing; produced a concentrate with 6.11% Li <sub>2</sub> O and 50% Li recovery.	Lidar, orthophotos, 300+ samples taken, extended cumulative pegmatite strike lengths to 3,250 m. Plans for winter drilling.
Lake Winn Resources Corp.	Little Nahanni Pegmatite Group	Li, Ta, Sn	A 7 km long pegmatite swarm, historic samples of over 1% Li over 16.65 m. 40 km from Cantung infrastructure.	Conducted a 512 line-km SQUID survey. Rock and chip sampling, soil sampling, and detailed geological mapping. Samples up to 3.52% Li <sub>2</sub> O, 10 m composite samples returned 1.77% Li <sub>2</sub> O.
Gama Explorations Inc.	Muskox Lithium Project	Li	Pegmatites with previous assays of 1.34% Li <sub>2</sub> O over 5 m and 1.26% Li <sub>2</sub> O over 11 m. The CM1 pegmatite has a strike length of over 700 m and is 100 m from an all-season road.	2023 sampling of the CM1 pegmatite yielded 0.72% Li <sub>2</sub> O over 5 m and 1.23% Li <sub>2</sub> O over 3.8 m in a section previously considered barren. Secured a Land Use Permit.
Midas Minerals Ltd.	Yellowknife Project area	Li, REE	Made an agreement with Gold Terra Resource Corp. to look for LCT, REE on the Qutya-Bell and Eastbelt blocks, with 10 known spodumene bearing pegmatites.	Collected 567 samples with assays up to 4.65% Li <sub>2</sub> O. A combined strike length of 58 km was defined.
Midas Minerals Ltd.	Reid-Aylmer Lithium Project	Li	A recently staked project with numerous pegmatite swarms in the area geologically	A 3 km by 1.5 km prospective pegmatite corridor. Collected 39 samples, 22 were from a newly discovered 450 m by 30 m Argus pegmatite, assay results up to 7.25% Li <sub>2</sub> O
North Arrow Minerals Inc.	Lac de Gras	Li	Historic spodumene bearing pegmatites close to Lac de Gras infrastructure. The project area includes underexplored rocks similar to the Yellowknife Pegmatite Province.	Confirmation of existing and new spodumene bearing pegmatites, 50+ grab and channel samples with assays from 0.4 to 5.57% Li <sub>2</sub> O.

Operator/Partners	Property	Commodity	Description	Updates
KAV Resources Ltd.	Prelude Lake Li		pegmatites and many prospective targets.	Mining Incentive Program funding was provided for mapping and prospecting in the Prelude Lake area.
Prestige Lithium Explorations Inc.	Prestige Lithium	Li	Dozens of confirmed pegmatites with additional potential targets. The lithium content of pegmatites on the property is yet to be determined.	Mining Incentive Program funding was allocated for mapping and sampling of the pegmatites in the Graham Lake area between the Prestige Granite and the Duncan Lake Granite.
North Arrow Minerals Inc.	Mackay Project	Li	Historic Ta bearing pegmatites hosted in rocks similar in age and setting as the Yellowknife Pegmatite Province. Close to Lac de Gras infrastructure.	Reported 14 of 17 samples from the new MK3 pegmatite returned over 1% $\text{Li}_2\text{O}$ , with values up to 5.25% $\text{Li}_2\text{O}$ .
Ant Lithium Corp.	Aylmer Lithium Project	Li	Hosts abundant spodumene pegmatites exposed surrounding a pegmatitic leucogranite.	The Mining Incentive Program was awarded to complete prospecting and mapping of the pegmatites in the Aylmer Lake and Nebish Lake area. Identified coarse white spodumene with up to 7.5% Li <sub>2</sub> O.
Dixie Gold Inc.	Phoenix Lithium	Li	Hosts the Big Bird and Curlew Li-bearing pegmatites, mapped to a combined strike length of over 1,600 m. Previous drilling reported 1.72% Li <sub>2</sub> O over 14.87 m.	
Trinex Lithium Ltd.	Mac	Li	Located 80 km north of Yellowknife near winter road infrastructure. Historic work identified numerous pegmatites, some with tantalite.	Summer 2023 sampling confirmed the presence of a large LCT and spodumene pegmatite.
Trinex Lithium Ltd.	Ross Lake	Li	The property is 70 km east-northeast of Yellowknife. Spodumen-bearing pegmatites were studied by the GSC in the 1940s and 1950s.	Summer 2023 sampling reported spodumene and returned up to 2.27% Li <sub>2</sub> O from Dyke 75.
Trinex Lithium Ltd.	Halo-Yuri	Li	37 claims located 250 km northeast of Yellowknife near winter road infrastructure. Previously documented spodumene-bearing pegmatites.	
Lithium ION Energy Ltd.	Bliss Lake Lithium Pegmatite	Li	Numerous pegmatite occurrences were interpreted from Landsat images.	
North By Northwest Lithium Inc.	Ron, Dorothy, Dede, and Southern	Li	Newly stake claims in prospective areas with known spodumene pegmatites within the areas	

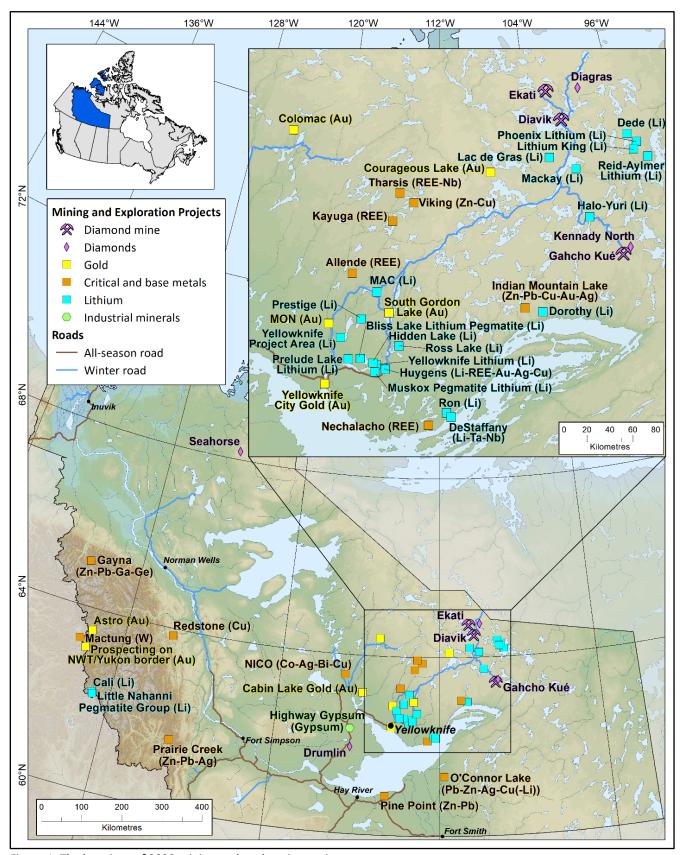


Figure 1. The locations of 2023 mining and exploration projects.

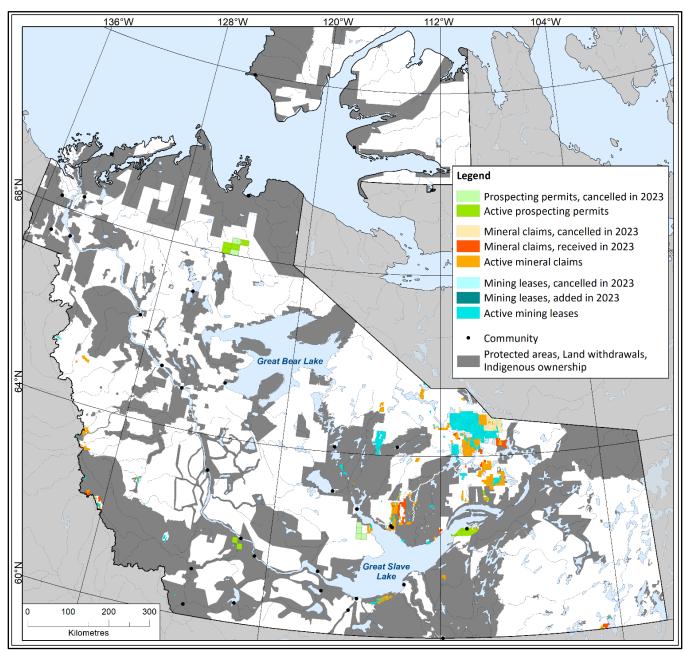


Figure 2. Mineral tenures in the Northwest Territories as of February 2024.

# **Mining**

# **Ekati – Burgundy Diamond Mines Ltd.**

Ekati comprises 122 mining leases totalling about 113,485 hectares and is in the Lac de Gras region, approximately 350 kilometres northeast of Yellowknife. On July 4, 2023, Burgundy Diamond Mines Ltd. announced acquiring 100% of Arctic Canadian Diamond Company Ltd. shares, including Ekati, as a primary mining asset.

As of June 2023, the mineral reserves for the Ekati property totalled 26.1 million carats in 48.5 million dry metric tonnes at a grade of 0.5 carats per tonne with an indicated mineral resource of 137.8 million tonnes at a grade of 1.1 carats per tonne and an inferred mineral resource of 81.7 million tonnes at 0.6 carats per tonne. Refer to Tables 2, 3, and 4 for more information on ore reserves, mineral resources, and diamond value. Current active mining operations include the Sable open pit and Misery underground mine.

Table 2. Ore reserves for Ekati as of December 31, 2022 (reported March 2023).

Project / Operation	Tonnes (Mt)	Grade (Ct/t)	Carats (Mct)
Sable open pit	6.1	0.8	4.7
Point Lake open pit	9.7	0.6	5.6
Misery underground	1.6	3.3	5.4
Fox underground	31	0.3	10.3
Run of mine stockpiles	0.2	0.8	0.1
Total ore reserves	48.5	0.5	26.1

Table 3. Mineral resource estimate for Ekati as of December 31, 2022 (reported March 2023).

Kimberlit	e pipes	Me	asured res	sources	Inc	dicated res	ources	Ir	ferred reso	ources
Pipe name	Туре	Mt	Ct/t	Mct	Mt	Ct/t	Mct	Mt	Ct/t	Mct
Sable	OP	-	-	-	10.2	1.0	9.9	0.3	1.0	0.3
Point Lake	OP	-	-	-	31.8	0.8	24.0	9.1	0.8	6.9
Phoenix	OP	-	-	-	-	-	-	1.8	1.4	2.5
Challenge	OP	-	-	-	-	-	-	2.4	1.3	3.1
Leslie	OP	-	-	-	-	-	-	50.8	0.3	16.3
Misery Main	UG	-	-	-	1.3	5.0	6.8	1.0	5.6	5.8
Fox	UG	-	-	-	45.6	0.4	16.5	5.1	0.4	2.2
Stockpile	OP	-	-	-	0.2	1.2	0.2	6.7	0.2	1.0
Jay	OP	-	-	-	48.1	1.9	89.8	4.2	2.1	8.7
Lynx	OP	-	-	-	0.5	0.8	0.4	0.2	0.8	0.2
Total mineral r	resources	-	-	-	137.7	1.1	147.6	81.7	0.6	47.0

Table 4. United States dollar (US\$) per carat for ore reserves and mineral resources as reported on March 14, 2023, calculated using a 0.5 mm (de-grit slotted screen) lower cut-off size.

Kimberlite pipe	Parcel carats	US\$/Ct	US\$/dry metric tonne (Dmt)
Ore reserves			
Sable	48,947	206	165
Point Lake	1,280	121	73
Misery Main	248,943	91	300
Fox	2,603	340	102
Mineral resources			
Sable	48,947	178	
Point Lake	1,280	112	
Phoenix	372	89	
Challenge	390	68	
Leslie	215	83	
Misery Main	248,943	77	
Fox	2,603	305	
Jay	4,137	70	
Lynx	288,196	195	

#### **Current operations**

The current operations at Ekati include the Sable open pit, Misery underground mine, and Point Lake, which will support mining operations into 2028. During the fourth quarter of 2023, the open pit operation at Sable generated approximately 75% of the ore mined, with a smaller contribution from the underground operation at Misery. The total tonnes mined in the fourth quarter was lower in 2023 than in 2022 due to less stripping required at the Sable open pit. Ore processed in the fourth quarter was 6% higher than in the third quarter, and process-plant-throughput for the year (ending in December 2023) was the highest achieved during a twelve-month period since 2013. In the fourth quarter of 2023, 1.2 million carats were recovered, up 19% compared to the same period in 2022 (Table 5).

*Table 5. Ekati production statistics for the fourth quarter of 2023.* 

Ekati fourth quarter production	Units*	Fourth quarter 2023	Fourth quarter 2022	% Variance
Total tonnes mined	MWmt	4.25	6.38	-33%
Ore tonnes mined	MWmt	1.1	0.87	26%
Tonnes processed	MDmt	1.05	0.99	6%
Carats recovered	MCt	1.23	1.03	19%
Carats sold	MCt	1.79	1.27	41%
Rough diamond inventories	MCt	1.33	0.93	43%
Carats recovered by tonne processed	Ct/t	1.17	1.05	12%

<sup>\*</sup>Million wet metric tonnes (MWmt); Million dry metric tonnes (MDmt).

The Point Lake open pit received ministerial approval in 2022, and by the end of October 2023, approximately 7.2 million cubic metres of lake water had been pumped out of Point Lake. Development of the Point Lake open pit is expected to start late in the first quarter of 2024, with full production anticipated in the fourth quarter of 2024.

#### **Recent exploration work**

A property-wide exploration review was completed in early 2023. Anomalies were prioritised using electromagnetic inversions and detailed geophysical analysis. Five anomalies were drill-tested during the summer of 2023, and one

intersected kimberlite. The drill core from the new discovery (Bear North) was submitted to the Saskatchewan Research Council for microdiamond and mineral chemistry testing.

#### **Future plans**

Burgundy Diamond Mines Ltd. has developed a conceptual plan to extend the mine life towards 2040. The concept involves extending the Misery underground operations, underground mining at Sable, underground mining and stockpile processing at Fox, optimising the Point Lake project, and implementing underwater remote mining. These are conceptual and subject to additional engineering studies, feasibility reviews, and regulatory approvals before entering the mine plan.

While the current Misery underground mining operations are scheduled to conclude in 2025, drilling activities indicate the kimberlite is thicker at depth than previously modelled. As a result, Burgundy Diamond Mines Ltd. is examining the viability of additional underground mining operations. A geotechnical drill program will be completed in early 2024 to inform engineering plans, mine design studies, and an application to extend the current permits.

The open pit at Point Lake is scheduled to begin production in 2025. Burgundy Diamond Mines Ltd. is evaluating the viability of a larger open pit footprint and associated waste storage facility and the feasibility of underground mining operations at the Sable open pit and the Fox kimberlite using a sub-level retreat method. Preliminary studies suggest underground operations at Sable and Fox could commence in late 2026 and 2028, respectively.

Progress on the underwater remote mining crawler by Royal IHC during 2023 has included fabrication of the chassis, drum cutter, and track components, followed by partial assembly of the crawler. Flooding of the Lynx pit to the dry dock elevation was carried out during the summer of 2023 as part of the Point Lake dewatering program.

#### Diavik - Rio Tinto

Diavik is 100% owned and operated by Rio Tinto and is situated on a 133,638-hectare property of 153 leases. Diavik produces 3.5 to 4.5 million carats of rough diamonds per year. Since mining began in 2003, Diavik has produced over 100 million carats of diamonds.

In 2023, Diavik produced 3.340 million carats from processing 1.688 million tonnes of ore, down from 4.651 million carats from 2.158 million tonnes of ore in 2022 (Table 6). Based on the updated mine plan and production schedule, including the A154N and A154S pipes and subject to the approval of the second phase of the A21 underground project, Diavik is expected to end commercial production in the first quarter of 2026.

Construction of the A21 open pit commenced in 2015 and achieved commercial production in 2018. In February 2023, Rio Tinto approved a CA\$40 million investment to proceed with the first phase of underground mining of the A21 pipe, which is expected to deliver an additional 1.4 million carats of rough diamonds. Rio Tinto expects to seek approval for the second phase of the A21 underground project in the first half of 2024. This second phase is anticipated to generate an additional 0.8 million carats of rough diamonds.

Rio Tinto has stated they will significantly increase their renewable power generation capacity by installing the largest solar power plant in northern Canada.

Table 6. Diavik productions statistics for 2023.

	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	Full year	Full year
Diavik production	2022	2023	2023	2023	2023	2022	2023
Ore processed (kt)	535	427	446	427	388	2,158	1,688
Diamonds recovered (MCt)	1,319	954	970	757	659	4,651	3,340

#### Gahcho Kué – De Beers Canada Inc. & Mountain Province Diamonds Inc.

Gahcho Kué is a joint venture between Mountain Province Diamonds Inc. (49%) and De Beers Canada Inc. (51%), comprising eight leases covering 5,216 hectares, located near Kennady Lake, approximately 280 kilometres northeast of Yellowknife. De Beers Canada Inc. operates the mine and associated exploration activities. Gahcho Kué hosts several kimberlites that are currently being mined, developed, and explored for future development.

Mountain Province Diamonds Inc. also controls more than 113,000 hectares of mineral claims and leases surrounding Gahcho Kué including the Kelvin kimberlite, estimated to contain 13.62 million carats in 8.50 million tonnes at a grade of 1.60 carats per tonne with a value of US\$63 per carat, the Faraday 2 kimberlite, estimated to contain 5.45 million carats in 2.07 million tonnes at a grade of 2.63 carats per tonne with a value of US\$140 per carat, and the Faraday 1-3 kimberlite estimated to contain 1.90 million carats in 1.87 million tonnes at a grade of 1.04 carats per tonne with a value of US\$75 per carat. All resource estimations are based on a one-millimetre diamond size bottom cut-off.

During the 2023 fiscal year, approximately 3.8 million tonnes of ore was produces from 37.1 million tonnes mined, and 3.25 million tonnes of ore was processed (Table 7). A total of 5.6 million carats was recovered against a guidance of 5.6 to 6.1 million carats at an average grade of 1.71 carats per tonne, 1% higher than the comparable period in 2022 (5,519,309 carats at an average grade of 1.78 carats per tonne).

Table 7. Gacho Kué Productions Statistics for 2023.

2023 / 2022 Gacho Kué Production	Full year 2023	Full year 2022
Total tonnes mined (kt)	37,147	33,947
Ore tonnes mined (kt)	3,807	4,114
Ore tonnes treated (kt)	3,250	3,102
Carats recovered ('000 carats)	5,558	5,519
Recovered grade (Ct/t)	1.71	1.78

Building on the previous discovery and delineation of the Hearne Northwest Extension, a drill program was undertaken to test for a similar extension at the Tuzo kimberlite. Previous drilling intercepted the Tuzo kimberlite at depths over 700 metres. In 2023, drill hole MPV-23-632C intersected kimberlite from 669.77 to 710.00 metres, approximately 40 metres northeast of the Tuzo kimberlite. Analysis of the core was undertaken.

# **Diamond Exploration**

#### Seahorse Project – Olivut Resources Ltd. & Talmora Diamond Inc.

The Seahorse project is a 50/50 joint venture between Olivut Resources Ltd. and Talmora Diamond Inc., located approximately 130 kilometres northeast of Colville Lake or approximately 775 kilometres northeast of Yellowknife.

Clay samples from the 2019 drill program were sent to the Saskatchewan Research Council for a detailed investigation of the rare earth elements (REE) content. The results showed REE concentrations generally higher than, or consistent with, concentrations of REE in clays found over the top of known kimberlites in other jurisdictions (*e.g.*, western Australia and Namibia).

On July 17, 2023, Olivut Resources Ltd. reported a 1.8-kilogram sample of beach sand from the Seahorse project contained a macro-diamond (1.9 by 1.4 millimetres), a micro-diamond, two G9 pyropes, and a picroilmenite. On February 5, 2024, Olivut Resources Ltd. and Talmora Diamond Inc. reported a 323.35-kilogram sample of beach sand with heavy mineral concentrate was taken proximal to the main Seahorse target and returned 18 micro-diamonds. Olivut Resources Ltd. and Talmora Diamond Inc. reported the beach sand concentrate was taken from material that was naturally concentrated by wave action and was fine grained, with 95% of the analysed material being less than 0.5 millimetres, which would limit the potential recovery of any macro-diamonds.

# **Gold Exploration**

#### Yellowknife City Gold Project – Gold Terra Resource Corp.

The Yellowknife City Gold (YCG) project (100% Gold Terra Resource Corp.), exclusive of the Con Mine option, comprises 137 mining leases and 161 claims covering 77,605 hectares. The Con Mine option property (100% Miramar Northern Mining Ltd.) comprises 19 mining leases and 15 claims covering 2,483 hectares.

The YCG project overlays the Archean Yellowknife greenstone belt, covering nearly 70 kilometres of strike length along the main mineralised shear system that hosts the past-producing high-grade Con and Giant gold mines. The Con Mine produced over six million ounces of gold between 1938 and 2003, and Giant Mine produced over seven million ounces of gold between 1948 and 2004. Gold Terra Resource Corp. started exploring the area in 2013 and, in 2021, entered into an option agreement with subsidiaries of Newmont Corporation that would allow Gold Terra Resource Corp. to acquire the Con Mine property. Gold Terra Resource Corp. is primarily focused on drilling the Campbell shear on the Con Mine option property immediately south of the Con Mine.

In January 2023, Gold Terra Resource Corp. carried out a 10-hole, 5,769-metre drill program on the Yellorex North zone of the Con Mine option property, south of the existing Con Mine underground workings. The focus of the program was to expand the September 2022 mineral resource estimate of 109,000 indicated and 432,000 inferred ounces of gold near-surface (<400 metres) along a 2-kilometre corridor of the Campbell Shear. The drilling results indicate a well-developed gold system in the Yellorex North zone and the expansion of the zone at depth, which is open in all directions. Highlighted results include:

- GTCM23-045: 1.7 grams per tonne of gold over 4.34 metres, including 3.96 grams per tonne of gold over 1.36 metres
- GTCM23-048: 4.31 grams per tonne of gold over 2 metres and 3.06 grams per tonne of gold over 6 metres

In April 2023, Gold Terra Resource Corp. began drilling a deep drill hole (GTCM23-055) to target the Campbell Shear zone approximately 200 metres below the historical workings of Con Mine. Drilling was paused for approximately one month starting mid-August due to the wildfire evacuation order in effect for Yellowknife. The hole was eventually completed at 2,228 metres depth in October, intersecting a 60-metre interval of the Campbell Shear zone. Half of the shear zone was moderate to strongly sheared and contained intermittent zones of prominent smoky quartz veining and pyrite, pyrrhotite, sphalerite, arsenopyrite, stibnite mineralisation, and high-grade gold. Assay results included 12.70 grams per tonne of gold over 1.7 metres, with visible gold observed in a quartz vein.

Following the completion of GTCM23-055, Gold Terra Resources Corp. had planned to drill lateral wedges to generate more deep intersections of the Campbell Shear zone. However, in February 2023, Gold Terra Resource Corp. announced that GTCM23-055 had to be abandoned and the drilling of a second deep hole (GTCM23-056) had begun at that time and had been designed to target the Campbell Shear zone approximately 600 metres below the historical underground workings, which will allow for a bigger area to add wedges.

Also, in 2023, Gold Terra Resource Corp. entered into a definitive option agreement with Midas Mineral Ltd. to provide that Midas Minerals Ltd. can earn up to an 80% participating interest for pegmatite-hosted lithium, tantalum, tin, cesium, tantalum, and rare earths or other rare earth deposits contained within the Quyta-Bell and Eastbelt blocks on the YCP project property owned by Gold Terra Resource Corp., and an additional 17 recent applications comprising the Quyta-Bell East property. These holdings exclude the potential gold belt area where Gold Terra Resource Corp. has focused the current drilling and exploration program. Gold Terra Resource Corp. and Midas Minerals Ltd. will form a Critical Minerals joint venture if Midas Minerals Ltd. exercises their option to acquire the 51% participating interest.

Gold Terra Resource Corp. received the 2023 Mining and Exploration (MAX) Award for Environmental, Social & Governance in the Northwest Territories for their contributions to support emergency efforts during the wildfire season this year.

# Indin Lake Gold Property – Nighthawk Gold Corp.

The Indin Lake Gold property (100% Nighthawk Gold Corp.) is in the Archean Indin Lake greenstone belt, approximately 200 kilometres north of Yellowknife, and comprises 68 leases and 81 claims totalling 90,645 hectares. The property contains the past-producing Colomac Mine and numerous satellite showings. The Colomac Mine produced more than 500,000 ounces of gold as an open pit mine in the 1990s. Gold mineralisation is primarily hosted in quartz veins within diorite and felsic volcanic porphyry settings but is also found in banded iron formation and other settings. Nighthawk Gold Corp. acquired the property in 2012.

In February 2023, Nighthawk Gold Corp. announced the results of an updated mineral resource estimate for the Indin Lake Gold property. An additional 39,065 metres of drilling from 2020 and 2021 and all drilling results from 2022 were incorporated. The 2023 estimate (Table 8) has increased the pit-constrained gold ounces in the indicated category to 2,804,000 ounces at 1.45 grams per tonne of gold and in the inferred category to 802,000 ounces at 2.32 grams per tonne of gold.

Table 8. The 2023 Indin Lake Gold property mineral resource estimate.

		Indicated resource		Ir	ferred res	ource	
		Tonnage	Gold	Ounces	Tonnage	Gold	Ounces
Deposit	Mining method	(kt)	(g/t)	(oz)	(kt)	(g/t)	(oz)
Colomac Main	Open pit	54,504	1.45	2,548,000	2,625	1.97	166,000
	Underground	8,750	1.77	498,000	10,017	1.97	634,000
24/27	Open pit	1,451	1.75	82,000	15	1.51	700
	Underground	514	1.55	26,000	305	1.97	19,000
Goldcrest	Open pit	2,849	1.36	125,000	104	1.52	5,000
	Underground	659	1.49	32,000	225	1.29	9,000
Grizzly Bear	Open pit	1,142	1.34	49,000	11	0.69	250
	Underground	563	1.54	28,000	156	1.43	7,000
Cass	Open pit	-	-	-	3,983	2.36	302,000
	Underground	-	-	-	702	2.05	46,000
Kim	Open pit	-	-	-	2,568	1.72	142,000
	Underground	-	-	-	662	1.88	40,000
Treasure Island	Open pit	-	-	-	962	3.86	119,000
	Underground	-	-	-	857	3.01	83,000
Damoti	Open pit	-	-	-	505	4.13	67,000
	Underground	-	-	-	601	2.6	50,000
Total		70,432	1.5	3,388,000	24,299	2.17	1,691,000

In the 2023 mineral resource estimate, the Colomac Main deposit was expanded to the south and north, and a significant portion of underground mineralisation was converted to open pit mining. At the 24/27 deposit, mineralisation was expanded along strike and depth with a meaningful conversion of the pit-constrained mineralisation from the inferred to the indicated category. At the Cass deposit, the resource was expanded along strike and at depth, adding an auxiliary pit to the west and increasing the pit-constrained inferred ounces by 67%.

In April 2023, Nighthawk Gold Corp. reported the results of its first preliminary economic assessment on the Colomac Gold project. The preliminary economic assessment indicates a CA\$1.2 billion after-tax net present value at a 5% discount rate and a 35% after-tax internal rate of return at US\$1,600 per ounce price of gold. The estimated annual potential gold production is 290,000 ounces over 11.2 years of mine life. The estimated initial capital expenditure is CA\$654 million, resulting in a ratio of 1.8 of the after-tax net present value at a 5% discount rate to the initial capital expenditures.

Nighthawk Gold Corp. reported initiating environmental baseline studies in 2023 and drilling 41 holes (10,268 metres). Nineteen holes (5,442 metres) were completed at the Cass deposit, 15 kilometres southwest of the Colomac Centre area. Drill targets were designed to test potential extensions to known mineralisation and confirmed that mineralisation and host geology continue across structural boundaries identified in a new structural model. Highlighted results include:

- CM23-14: 0.50 metres at 125 grams (4 ounces) per tonne gold
- CM23-09: 13.00 metres at 2.48 grams per tonne gold
- CM23-11: 17.50 metres at 1.90 grams per tonne gold

Ten holes (1,974 metres) were completed at the Albatross zone, a grassroots exploration target west of the Cass Deposit. Drilling confirmed the presence of the gabbro lithological package with veining and some coarse gold showings. Highlighted results include:

- A23-02: 0.75 metres at 1.69 grams per tonne gold, including 0.50 metres at 6.34 grams per tonne gold
- A23-09: 1.00 metres at 1.68 grams per tonne gold

Twelve holes (2,852 metres) were completed at the 24/27 deposit in the Colomac Centre area, 2 kilometres northeast of the Colomac Main deposit. This drill program focused on extending the strike and depth of the deposit, particularly in the area outside and between the two pit shells. Highlighted results include:

- TFS23-06: 0.50 metres at 502 grams (16.14 ounces) per tonne gold
- TFS23-08: 0.40 metres at 318 grams (10.22 ounces) per tonne gold

On February 6, 2024, Nighthawk Gold Corp. announced the completion of an at-market merger with STLLR Gold Inc. (formerly Moneta Gold Inc.). As a result, Nighthawk Gold Corp. became a wholly-owned subsidiary of STLLR and will be delisted from the Toronto Stock Exchange and cease to be a reporting issuer under applicable Canadian securities laws.

#### Cabin Lake Gold Property – Rover Metals Corp.

The Cabin Lake Gold property (100% Rover Metals Corp.) comprises five claims in three blocks covering 1,522 hectares and is 40 kilometres north of Behchokò, with a permitted winter road connection to Highway 3. The property was first prospected in 1939 and has been the subject of various exploration efforts since then. An NI 43-101 non-compliant resource calculated in 1987 for the Arrow zone estimates 91,000 tonnes at 0.30 ounces per tonne of gold (average grade of 8.5 grams per tonne of gold). Gold mineralisation primarily occurs in quartz veins in shears and is hosted in the iron formation of the Archean Yellowknife Supergroup. Since acquiring the project in 2018, Rover Metals Corp. has carried out diamond drilling and airborne magnetic and ground induced polarization surveys, with some accompanying work on their nearby Slemon and Camp Gold projects.

In December 2023, Rover Metals Corp. announced that an NI 43-101 technical report for the Cabin Lake Gold property was nearing completion. The report will incorporate new data collected between 2020 and 2022 and is expected to be available in the first quarter of 2024.

# South Gordon Lake Project – Golden Pursuit Resources Ltd.

The South Gordon Lake project (100% Golden Pursuit Resources Ltd.) comprises 18 territorial and 13 federal claims and four historical mining leases. The property is approximately 80 kilometres north-northeast of Yellowknife and contains ten historical high-grade gold occurrences, including the past-producing Camlaren underground gold mine. Camlaren reportedly produced over 992 kilograms of gold from ore with an average grade of 19.54 grams per tonne in the 1960s and 1980s. A historical NI 43-101 non-compliant resource estimates that 9,979 tonnes at 19.8 grams per tonne of gold remain at Camlaren, presumably near the bottom of the old mine workings. Gold mineralisation is free-milling and is hosted by quartz veins in metamorphosed Archean turbidites. In 2021, Golden Pursuit Resources

Ltd. completed the assembly of the current land package. Since 2021, Golden Pursuit Resources Ltd. has conducted sampling and geophysical surveys to confirm historical gold grades.

In August 2023, Golden Pursuit Resources Ltd. announced the completion of a 20-day geological mapping and soil sampling program at the Gordon Lake Property. Work was focused on the Lynk and Kidney Pond areas, where a total of 194 soil samples and 14 rock samples were collected. No assay results had been reported at the time of writing. A follow-up induced polarization survey over the Lynk area was also completed. The survey result will be integrated with the 2023 geological mapping and compiled data from previous exploration work to assist in 3D geological modelling. The aim is to delineate targets for drill testing during a winter program, focusing on the larger tonnage style breccia mineralisation zones at Kidney Pond.

#### Mon Gold Property - Sixty North Gold Mining Ltd.

The Mon Gold property (100% Sixty North Gold Mining Ltd.), located 40 kilometres north of Yellowknife, comprises 14 contiguous mining leases and one claim covering 821 hectares. It hosts the past producing Mon Mine. Gold mineralisation in the deposit is associated with quartz veins and shearing in metamorphosed Archean turbidites. The mine produced 15,000 ounces of gold from 15,000 tonnes of ore between 1989 and 1997. Sixty North Gold Mining Ltd. restarted exploration activities on the property in 2016. In addition to gold mineralisation, Sixty North Gold Mining Ltd. has reported some showings with anomalous silver, zinc, and lead, considered to be volcanogenic massive sulfide-style mineralisation, and others with anomalous nickel and cobalt, considered to be prospective for iron oxide-copper-gold-style mineralisation.

Underground mining activities planned for 2023 were not completed due to wildfires, which were in close proximity for much of the summer and passed through the property in August. Although the wildfires damaged the camp accommodations and some ancillary pieces of equipment, the mining equipment, shops, generators, compressors, fuel tanks, and explosives magazines were not affected. On October 3, Sixty North Gold Mining Ltd. reported that the site was being prepared for the installation of a temporary camp and that future work would include a drill program testing volcanogenic massive sulfide targets.

# Astro Project – Rackla Metals Inc.

The Astro project straddles the Northwest Territories-Yukon border north of the Canol road. The property had previously been explored for Carlin-style gold mineralisation. Due to the recent discoveries in Yukon by Snowline Gold Corp., the property has received renewed attention for its potential to host Reduced Intrusion-Related Gold System (RIRGS) deposits as an extension of the Tombstone Gold Belt in the Tintina gold province. These gold systems are characterised by sheeted, auriferous quartz veins forming in the carapace zones of reduced felsic plutons. The Astro intrusive complex includes the Astro, HIT, and SER properties and covers approximately 22,500 hectares. Each property is associated with an intrusive body transected by the territorial boundary. In 2023, Rackla Metals Inc. exercised its option to acquire a 100% interest in the properties after conducting a summer field program.

In 2023, Rackla Metals Inc. carried out 3,039 metres of diamond drilling in 17 holes at the Astro project, along with stream sediment, soil and rock geochemical sampling, prospecting, mapping, and ground magnetic and

electromagnetic surveys. Precision GeoSurveys Inc. conducted airborne geophysical surveys with their magnetic, radiometric, and VLF-EM systems. Twelve drill holes (2,041.3 metres) were drilled in the Northwest Territories on the Astro property, with the remainder drilled in Yukon on the HIT property.

At the Astro property, the best results from drilling were at the Radio and Ultraviolet targets and include:

- AST-004: 34.12 metres at 0.261 grams per tonne of gold
- AST-007: 3.05 metres at 3.465 grams per tonne of gold with 4174 parts per million arsenic

Results from soils and rock sampling in the Radio-Ultraviolet valley returned a large area with significantly anomalous gold, which Rackla Metals Inc. does not believe is fully explained by the drilling results and warrants further exploration. Results from drilling at the Radio skarn target include:

- AST-005: 12.44 metres at 0.492 grams per tonne of gold with 551 parts per million bismuth and 534 parts per million copper
- AST-011: 1.50 metres at 0.530 grams per tonne of gold with 21 parts per million bismuth

At the HIT property, Rackla Metals Inc. completed stream sediment, soil, talus and rock sampling, prospecting, geological mapping, and airborne geophysics before drilling. Highlighted results from drilling include:

- HIT-003: 129.79 metres at 0.248 grams per tonne of gold
- HIT-004: 45.46 metres at 0.516 grams per tonne of gold

At the SER property, prospecting and rock sampling returned a considerable number (over 22%) of samples with greater than 0.5 grams per tonne of gold and a maximum value of 27.5 grams per tonne of gold. The chemistry of the anomalous gold-in-rock samples shows a strong correlation to arsenic and bismuth. A minor fraction of these samples were collected on the Northwest Territories side of the border.

In June 2023, Rackla Metals Inc. staked approximately 10,000 hectares in two new blocks of claims in the Northwest Territories, one just south of the past-producing Cantung mine and another to the north. The company reports that previous work in the area indicates that the intrusive stocks have the potential to host RIRGS deposits. Rackla Metals Inc. has 100% ownership of several other blocks of claims in the Northwest Territories (JOS, RAK, and Cinnabar) south of the Astro project and in the Northwest Territories.

No work was reported in these areas in 2023.

#### Critical and base metals exploration

# **Mactung Tungsten Project – Fireweed Metals Corp.**

The Mactung tungsten project (100% Fireweed Metals Corp.) straddles the Northwest Territories-Yukon border and comprises 8 mining leases covering 1644.23 hectares in the Northwest Territories. The property is accessible from Yukon via the Canol Road and an 11-kilometre public access road. The Mactung Tungsten project is a skarn deposit with tungsten mineralisation occurring predominantly as scheelite, hosted in Cambrian to Silurian limestone units intruded by Late Cretaceous quartz-monzonite stocks. After its discovery in 1962, extensive drilling, engineering, metallurgy, geotechnical, and environmental studies were completed. This supported a feasibility study released in

2009 and a positive Yukon-based mine project assessment released in 2014. Soon after, the property was put under the control of a creditor monitor and then purchased by the Government of Northwest Territories. Fireweed Metals Corp. acquired the property in 2023 after completing some work in 2022 under a binding letter of intent.

In June 2023, Fireweed Metals Corp. announced the results of a new mineral resource estimate. The Mactung Tungsten project deposit contains 41.5 million tonnes of indicated resource at 0.73% tungsten trioxide (WO<sub>3</sub>) and 12.2 million tonnes of inferred resource at 0.59% WO<sub>3</sub> (Table 9). This confirms that the Mactung Tungsten project is the world's largest known high-grade tungsten deposit.

Table 9. Mineral resource estimate for the Mactung tungsten project.

	Cut-off Grade WO₃	Tonnage	WO₃ Grade	Contained WO₃
Classification	(%)	(tonnes)	(%)	(mtu*)
Indicated (underground)	0.50	12,168,000	1.05	12,789,000
Indicated (open pit)	0.25	29,319,000	0.59	17,367,000
Total Indicated (OP+UG)	0.25/0.50	41,487,000	0.73	30,156,000
Inferred (underground)	0.50	2,817,000	0.73	2,066,000
Inferred (open pit)	0.25	9,430,000	0.55	5,139,000
Total Inferred (OP+UG)	0.25/0.50	12,247,000	0.59	7,205,000

<sup>\*</sup>A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO<sub>3</sub>)

In the same month, Fireweed Metals Corp. announced it was initiating a preliminary economic assessment and conducting a metallurgical test program. In addition to validating and optimising tungsten recovery, the metallurgical program will assess the recovery of by-products gold and copper. The company is also planning some additional environmental studies and field investigations.

#### Nechalacho Project – Vital Metals Ltd.

The Nechalacho project (100% Vitals Metals Ltd.) comprises eight leases covering 5,786 hectares and commenced REE production in 2021. Vital Metals Ltd. is the first REE producer in Canada and the second in North America.

Despite the wildfires and associated evacuation disruptions, Vital Metals Ltd. and its subsidiary, Cheetah Resources Corp., had a busy year on both the corporate and technical fronts; the summary below focuses on geology-related technical activities.

Early in 2023, Vital Metals Ltd. updated the Mineral Resource Estimate (MRE) for the Tardiff Upper zone to 119.0 million tonnes at 1.4% total rare earth oxide (TREO) for 1.67 million tonnes of TREO containing 416 kilotonnes of neodymium and praseodymium (NdPr). The new estimate represented a 26% increase in mineral resource and 19% increase in NdPr over the previous (December 2019) MRE. The increase comes from the re-interpretation of the cutoff grades, including the Tardiff zone 2 area, and the resources from the 4,483 metres drilled in the 2021 and 2022 campaigns. The new cut-off grade uses a percentage of the full suite of TREO instead of the previous one, which was based only on  $Nd_2O_3$  (neodymium oxide).

During 2023, Vital Metals Ltd. completed an infill resource definition drilling program consisting 74 holes with a cumulative depth of 6,664 metres. The holes were drilled on a nominal 50-metre by 50-metre grid to infill areas previously drilled on the nominal 100-metres to 200-metres drill spacing. Drilling was undertaken to better

understand the geology of the Tardiff zone and to increase the measured and indicated categories of the current MRE of the Tardiff Upper zone (above the 150-metre elevation level). At the time of writing, assay results had been received for 50 of the 74 drill holes, with 46 holes intersecting significant mineralisation. These results confirm the presence of extensive high-grade shallow mineralisation, which remains open to the west, east, and southern margins. Highlights of the results include:

- 81.85 metres at 1.6% TREO from 8.15 metres, including 10.45 metres at 2.3% TREO from 26.00 metres and 4.45 metres at 2.9% TREO from 32.00 metres (L23-636);
- 85.40 metres at 1.6% TREO from 4.60 metres, including 23.85 metres at 2.0% TREO from 9.15 metres (L23-669);
- 73.18 metres at 1.7% TREO from 15.58 metres, including 31.76 metres at 2.1% TREO from 34.24 metres (L23-634);
- 79.70 metres at 1.5% TREO from 13.30 metres, including 9.00 metres at 2.2% TREO from 17.50 metres (L23-657);
- 33.33 metres at 1.8% TREO from 44.00 metres; 10.70 metres at 2.8% TREO from 65.85 metres and 1.88 metres at 3.8% TREO from 67.62 metres (L23-630);
- 35.55 metres at 1.7 metres TREO from 7.3 metres (L23-615);
- 20.45 metres at 2.2% TREO from 6.25 metres (L23-621).

During 2023, Vital Metals Ltd. conducted a strategic review of its rare earth processing facility in Saskatoon, Saskatchewan, and decided to assign Vital Metals Canada Ltd., a wholly-owned subsidiary of Vital Metals Ltd. and the owner of the Saskatoon Facility, into bankruptcy. The facility was designed to process rare earth concentrates produced from the demonstration mine at the North T zone of the Nechelacho project. No mining or processing occurred in 2023.

In December 2023, Dr. Natalie Pietrzak-Renaud, a Professional Geologist with more than 20 years of mineral exploration and research experience in various deposit types, including REE systems, was appointed vice president of Exploration.

Nechalacho project 2024 plan includes:

- Updating the Mineral Resource Estimate;
- Conducting a scoping study for the Tardiff Upper zone with a focus on potential processing scale and scalability together with product saleability; and
- Reinterpreting historical lithium exploration results and testing known occurrences of pegmatite outcrops across the Nechalacho project area.

#### NICO Cobalt-Gold-Bismuth-Copper Project – Fortune Minerals Limited

The NICO Cobalt-Gold-Bismuth-Copper project (100% Fortune Minerals Limited) comprises 10 leases covering 5,138 hectares and is approximately 160 kilometres northwest of Yellowknife. The recent completion of the Tłıçho All-Season Highway will bring significant logistical benefits to this project.

The NICO project is an advanced development stage critical minerals asset that has received environmental assessment approval and the major mine permits for the facilities in the Northwest Territories. The project includes a planned open pit and underground mine, a concentrator in the Northwest Territories, and a proposed refinery

facility in Alberta. The mineral reserves for NICO comprise 33.1 million tonnes containing 37.3 million kilograms of cobalt, 1.1 million troy ounces of gold, 46.3 million kilograms of bismuth, and 12.3 million kilograms of copper.

In March 2023, Fortune Minerals Limited secured a five-year Land Use Permit for exploration activities from the Wek'èezhìı Land and Water Board. In July 2023, Fortune Minerals Limited secured an additional extension to the option to purchase the JFSL Field Services ULC (JFSL) brownfield industrial site in Lamont County, Alberta, where the company plans to construct a hydrometallurgical refinery facility to process concentrates from the mine to value-added metals and chemicals. The JFSL site comprises 76.78 acres of land in a designated industrial zone northeast of Edmonton, Alberta.

In September 2023, Fortune Minerals Limited signed a Memorandum of Understanding with Rio Tinto to develop a technology that will improve the recovery of cobalt and bismuth from ores. The testing will be done at Rio Tinto's Kennecott integrated copper mining and smelting operations in Utah and Fortune Minerals Limited's planned refinery in Alberta.

In December 2023, Fortune Minerals Limited secured CA\$887,170 in government funding to support metallurgical test work for its vertically integrated NICO project. The funding comprises CA\$714,500 from the Government of Canada against the costs of Fortune Minerals Limited's planned cobalt sulphate process pilot and other metallurgical test work through the federal government's Critical Minerals Research, Development and Demonstration Program and CA\$172,670 from the Government of Alberta, through Alberta Innovates, toward the budgeted program costs pursuant to its Clean Resources Continuous Intake Program. The funds will support a mini-pilot project at SGS Canada Ltd. to confirm process design criteria and improvements to the NICO Project metallurgical processes.

#### **Gayna River Project – Fireweed Metals Corp.**

The Gayna River project (100% Fireweed Metals Corp.) is a carbonate-hosted zinc-lead-silver prospect in the northern Mackenzie Mountains, comprising 11 claims covering 12,875 hectares approximately 150 kilometres southwest of the winter road between Fort Good Hope and Norman Wells. Mineralisation was discovered in the 1970s and Rio Tinto had drilled over 28,000 metres by the late 1970s. Based on the results of this drilling, a historical estimate of 2,436,798 tonnes of 4.58% zinc and 0.52% lead was calculated. Fireweed Metals Corp. announced that it had acquired the Gayna River project in May 2022, with an aim to test a new deposit model in which high-grade mineralisation occurs on the steeply dipping sides of Neoproterozoic carbonate reefs. In 2022, Fireweed Metals Corp. carried out ground gravity, airborne LiDAR, and orthophoto surveys and limited rock and soil sampling, confirming historical assay results. Fireweed Metals Corp. has expanded the focus to include the critical metals gallium and germanium, which they report to be present at concentrations as high as 42 parts per million and 99 parts per million, respectively.

In 2023, Fireweed Metal Corp. completed a 40 line-kilometre ground gravity survey at Gayna River. This survey provided infill coverage of the 2022 grid and expanded the grid to cover more reef-margin targets. Preliminary, unconstrained inversions of the 2022 and 2023 gravity data have delineated 12 targets ready to be tested by 2,000 to 3,000 metres of diamond drilling. Geological mapping and the interpretation of historical drill logs constrained the location of gravity anomalies to both the reef-margin positions and associated with northwest-southeast-trending fault structures. A close spatial relationship exists between mineralisation around the discovery "A" showing at Gayna and a gravity anomaly, which supports the new exploration model. Additional modelling of the gravity data is underway to better constrain the targets and identify more subtle anomalies.

#### O'Connor Lake Project – Slave Lake Zinc Corp.

The O'Connor Lake project (100% Slave Lake Zinc Corp.) comprises 10 claims covering 7,624 hectares and is south of Great Slave Lake, approximately 100 kilometres east of Fort Resolution. Zinc-lead mineralisation is hosted in quartz-carbonate veins in sheared gneissic rocks. Historical exploration in the area took place prior to 1952; most work was concentrated in the Shaft zone and included bulk sampling from trenches, drilling, and underground development. After more than 70 years of no exploration activity, Slave Lake Zinc Corp. acquired the property in 2016. Since then, the company has conducted ground and airborne geophysical surveys and a small reconnaissance sampling program targeting geophysical anomalies indicating possible zinc-lead mineralisation.

In 2023, Slave Lake Zinc Corp. shifted focus to exploration for lithium-bearing pegmatites. They report that pegmatites and pegmatitic granites are documented in historic drill hole logs but have never been tested for lithium content. However, no work was carried out on the property in 2023 due to the disruptions caused by wildfires in the Northwest Territories.

In December 2023, Slave Lake Zinc Corp. reported that they recently acquired additional historical information dating from the 1950s for O'Connor Lake. New historical results include a trenched sample with 0.97 ounces of gold per ton, 21% lead, 6.7% zinc, and 1.2 ounces of silver per ton. One historical sample contained 11.6 ounces of silver per ton, 0.40% lead, and 1.1% zinc and a second historical sample contained 0.88 ounces of gold per ton 4.2% lead and 19.4% zinc.

#### Pine Point Project – Osisko Metals Inc.

Osisko Metals Inc.'s Pine Point project (100% Pine Point Mining Limited) covers 46,884 hectares with 40 leases and 106 claims. The property hosts a past-producing zinc-lead mine near the south shore of Great Slave Lake between Hay River and Fort Resolution. Mississippi Valley-type base metal mineralisation is hosted in early Devonian carbonates. Open pit mining began in 1964 and continued for over 20 years, producing 68.8 million tonnes at 6.7% zinc and 2.9% lead. Osisko Metals Inc. acquired the project in 2018 and has focused exploration efforts on upgrading the historical database, carrying out an infill drilling program, and developing geological and hydrogeological models for the property. In a 2022 preliminary economic assessment, Osisko Metals Inc. estimated that the deposit contains 15.7 million tonnes grading 5.55% zinc equivalent of indicated mineral resources and 47.2 million tonnes grading 5.94% zinc equivalent of inferred mineral resources. Osisko Metals Inc. announced the formation of a joint venture with a subsidiary of Appian Natural Resources Fund III LP in September 2023.

In 2023, Osisko Metals Inc. conducted a definition drilling program of over 400 holes. The program was designed to achieve an average drill spacing of approximately 30 metres within the currently modelled mineral resource estimate reported in the 2022 preliminary economic assessment. This spacing is intended to upgrade the resource presently classified as inferred to the indicated category. Drill holes were completed in the X25, P499, O556, M67, L65, M62, J68, and K68 deposits, and in the C2, N1, NE1, and the NE2 zones. Highlighted results include:

- X25-23-PP-004: 33.00 metres, grading 11.26% Zn and 2.71% Pb (13.97% Zn+Pb)
- P499-23-PP-004: 25.00 metres, grading 5.62% Zn and 4.57% Pb (10.19% Zn+Pb)
- O556-23-PP-005: 28.00 metres, grading 10.91% Zn and 8.03% Pb (18.94% Zn+Pb)
- M67-23-PP-015: 12.00 metres, grading 11.92% Zn and 4.91% Pb (16.83% Zn+Pb)
- L65-23-PP-051: 11.00 metres, grading 3.64% Zn and 2.44% Pb (6.07% Zn+Pb)

- M62-23-PP-015: 8.00 metres, grading 7.44% Zn and 0.01% Pb (7.46% Zn+Pb)
- K68-23-PP-064B: 7.00 metres grading, 9.97% Zn and 4.49% Pb (14.45 Zn+Pb)
- K51-23-PP-004: 11.00 metres grading 12.48% Zn and 2.23% Pb (14.71% Zn+Pb)

Results from the 2023 drill program will be incorporated into a new mineral resource estimate to be released in the first quarter of 2024 and integrated into a feasibility study that is planned to start around the same time. In January 2024, Osisko Metals Inc. reported conducting induced polarization surveys to generate new targets for follow up with a CA\$3 million drill program.

#### **Prairie Creek Project - NorZinc Ltd.**

The Prairie Creek project (100% NorZinc Ltd.) comprises 12 leases covering 7,354 hectares and is in a zinc-lead-silver district in the southern Mackenzie Mountains. Here, Silurian to Devonian sedimentary rocks host three styles of zinc-lead mineralisation including quartz-carbonate-sulfide veins, stratabound replacement sulfides, and classic Mississippi Valley-type sulfides. The vein-style mineralisation is the most enriched in silver and has been the primary focus of exploration efforts. In the 1970s and early 1980s, the Prairie Creek mine site was developed with extensive surface facilities and underground workings but never saw production due to the collapse of the price of silver in the early 1980s. NorZinc Ltd. first acquired an interest in the Prairie Creek property in 1991 and secured a 100% interest in 2004. Since becoming involved in the project, NorZinc Ltd. has completed more than 78,000 metres of diamond drilling and the 2021 mineral resource estimate included 9.8 million tonnes of total measured and indicated resources at 22.7% zinc equivalent and 6.4 million tonnes of total inferred resources at 24.1% zinc equivalent. Results from a 2021 preliminary economic assessment for a 2,400 tonne per day mine plan with a mine life of 20.3 years predicts an average annual payable zinc equivalent production of 261 million pounds. NorZinc Ltd. expects to commence concentrate production by the end of 2025.

NorZinc Ltd. was acquired by RCF VI CAD in December 2022 and subsequent to becoming privately held, has released very little information about the project's progress. In April 2023, NorZinc Ltd. reported that it had completed construction of phase 1 of the Pioneer Winter Road, a 170-kilometre all-season access road connecting Prairie Creek to Highway 7. Phase 2 is expected to commence in 2024 and will include the installation of bridges and culverts and other road construction activities to complete the road. No updates have been provided regarding the feasibility-study-level metallurgical test program initiated in 2022, nor the feasibility study NorZinc Ltd. had previously announced would be issued mid-2023.

#### **Lithium Exploration**

# Yellowknife Lithium Project – Li-Ft Power Ltd.

The Yellowknife Lithium project (100% Li-Ft Power Ltd.) comprises 13 mineral leases with 13 different lithium pegmatite systems, acquired from a private company in 2022. The leases contain pegmatites exposed at the surface and visible from satellite imagery. Some of the pegmatites can be traced for over 2 kilometres on the surface, with an average thickness of about 10 to 30 metres.

In June 2023, Li-FT Power Ltd. initiated a 34,000-metre drill program. On February 15, 2024, results were released for 30,482 metres from 184 drill holes from 8 pegmatite systems: Nite, Ki, Fi Main, Fi SW, Nite, Big East, Big West, and Echo. Spodumene mineralisation has been intersected in all the drilled pegmatites, with average grades of 1 to 2.2% Li<sub>2</sub>O. Highlights of the drill results include:

Fi SW: 79 metres @ 1.13% Li<sub>2</sub>Oincluding 56 metres @ 1.42% Li<sub>2</sub>O

Fi Main: 27 metres at 1.26% Li<sub>2</sub>O
 Nite: 11 metres at 1.52% Li<sub>2</sub>O
 Big East: 28 metres @ 1.7% Li<sub>2</sub>O
 Big West: 13 metres @ 1.27% Li<sub>2</sub>O

Shorty: 17 metres @ 1.28% Li<sub>2</sub>O including 16 metres @ 1.76% Li<sub>2</sub>O

Ki: 14 metres @ 1.5% Li<sub>2</sub>O
 Echo: 13 metres @ 1.24% Li<sub>2</sub>O

#### Cali Project – Li-FT Power Ltd.

The Cali project (100% Li-Ft Power Ltd.) comprises 4 claims and 1 lease, covering 2,340.91 hectares in the Little Nahanni Pegmatite Group (LNPG) along the Northwest Territories-Yukon border, 50 kilometres north of the Cantung mine and 6 kilometres from the Howards Pass Access Road.

Li-FT Power Ltd. conducted a field visit to the site in June 2023, during which the presence of a swarm of spodumene-bearing pegmatite dykes was confirmed. In August 2023, Li-Ft Power Ltd. carried out mapping and sampling designed to understand the average grade of mineralisation across the dyke. In November 2023, Li-Ft Power Ltd. secured a five-year Land Use Permit for exploration activities.

# **DeStaffany – North Arrow Minerals Inc.**

The DeStaffany project (100% North Arrow Minerals Inc.) is 1,843 hectares on the north central shore of Great Slave Lake, approximately 115 kilometres east of Yellowknife and 18 kilometres southwest of the Nechalacho rare earth mine. The property contains four lithium-tantalum-niobium bearing pegmatites: Moose 1, 2, 3, and 4. Moose 1 and 2 were evaluated for tantalum and niobium in the 1940s; Moose 2 was briefly mined in 1940s.

The Moose 1 pegmatite traces over 370 metres of strike and has a maximum width of approximately 11 metres. Channel sampling in 2009 returned 1.5%  $\text{Li}_2\text{O}$  over 7.5 metres. Moose 2 has been mapped over 450 metres of strike and is up to 30 metres wide. Spodumene mineralisation is common throughout both pegmatites, with up to 2.73%  $\text{Li}_2\text{O}$  concentrations.

North Arrow Minerals Inc. conducted a preliminary exploration program in June 2023, collecting 68 channel samples from Moose 1, 2, 3, and 4. Moose 3 and 4 were discovered during the 2023 exploration program. Significant lithium mineralisation was reported in 54 samples, including 1.81% Li<sub>2</sub>O over 4 metres and 1.42% Li<sub>2</sub>O over 4 metres. A sample from an area previously mapped as lacking spodumene mineralisation in Moose 2 returned 0.84% Li<sub>2</sub>O over 4 metres. A sample from the newly discovered Moose 3 pegmatite returned 1.10% Li<sub>2</sub>O over 2 metres, which supported an observation of abundant spodumene.

#### Hidden Lake Lithium Project - Loyal Lithium & Patriot Battery Metals Inc.

The Hidden Lake project comprises 6 contiguous mineral claims covering 2,500 hectares and is approximately 45 kilometres east of Yellowknife in the prolific Yellowknife lithium belt around Hidden Lake. The project is owned by Loyal Lithium and Patriot Battery Metals Inc. through a joint venture arrangement, with Loyal Lithium having a majority interest.

The claims contain mapped spodumene pegmatite dykes with a cumulative strike length of 3,250 metres. Four of the pegmatite dykes were drill-tested over a strike length of 2,250 metres using 10 drill holes to a vertical depth of 30 to 50 metres. The 10 drill holes intersected mineralisation with grades of up to 1.81% Li<sub>2</sub>O, and mineralisation remains open along the strike.

Preliminary metallurgical test work was completed on a 400-kilogram bulk sample. Dense Media Separation (DMS) produced a concentrate with 6.11% Li<sub>2</sub>O, 50% lithium recovery, and <0.25% FeO. The results also indicate a consistent mineralogy characterised by spodumene, quartz, feldspars, muscovite, and montebrasite.

In 2023, despite the wildfires and the ensuing evacuation, the company completed its planned field program targeting 315 outcrops that had been identified through an assessment of satellite imagery. A total of 303 samples were collected during the field program and are currently being analysed.

#### **Muskox Lithium Project – Gama Explorations Inc.**

The Muskox Lithium project is 45 km east of Yellowknife in the Yellowknife Pegmatite Province. The project comprises 10 mineral claims covering 50 square kilometres. The claims contain the CM-1 pegmatite dyke, traced over a strike length of approximately 730 metres and widths up to 11 metres. The pegmatite contains coarsegrained spodumene with historical channel samples that returned 1.34% Li<sub>2</sub>O over 5 metres and 1.26% Li<sub>2</sub>O over 11 metres.

In February 2023, one month after announcing their acquisition of the project Gama Explorations Inc. identified over 30 new potential pegmatites in the tenement using remote sensing, with one of the targets being over 600 metres in length. Gama Explorations Inc. conducted XRD analysis and confirmed spodumene as the dominant lithium-bearing mineral, comprising 8.0 to 13.8% of the samples by weight.

Several exploration activities, including LiDAR and orthophoto surveys, mapping, sampling, and drilling, were planned for 2023 but were not completed due to the wildfires and evacuation. The company received its drilling Land Use Permit in May of 2023.

# Little Nahanni Pegmatite – Lake Winn Resources Corp.

The Little Nahanni Pegmatite project (100% Lake Winn Resources Corp.) is situated along the Northwest Territories-Yukon border, about 39 kilometres north of the Cantung tungsten mine. The project covers 9682.5 hectares of ground containing a system of branching dykes swarms extending over 7 kilometres of exposed strike length and up to 500 metres in width. Individual dykes within these swarms are 1 to 10 metres thick. Natural exposures and drilling

demonstrate a vertical extent of 300 metres. To date, over 200 lithium-bearing pegmatite dykes have been identified within the swarm. Some of the dykes were traced for over 7 kilometres.

In 2023, the property area expanded by over 380% from staking 10 new mineral claims with a total area of 7,182.5 hectares. Lake Winn Resources Corp. conducted a multi-faceted exploration program to aid in the discovery of additional lithium-bearing pegmatite dykes and advance the property to a drill-ready stage. Field activities focused on the less explored central and northern parts of the property. Highlighted activities include:

- Collection of 67 rock and chip samples from mapped spodumene- and lepidolite-bearing pegmatite dykes; nearly all the samples contained elevated lithium values including a sample with 3.5% Li<sub>2</sub>O, 10 metres with 1.77% Li<sub>2</sub>O; over 1.70 metres with 2.11% Li<sub>2</sub>O; 3.1 metres with 1.62% Li<sub>2</sub>O; 3.0 metres with 1.52% Li<sub>2</sub>O; and 1.62 metres with 1.90% Li<sub>2</sub>O.
- Collection of 944 soil samples from along the edges of the dyke swarms to expand and delineate the extensions of the dykes into areas of cover. The soil sampling successfully delineated the extension of dyke swarms under cover and into previously unexplored areas. The soil samples returned values as high as 730 parts per million Li, with 565 samples returning values greater than 100 parts per million.
- An airborne geophysical survey of 468 line-kilometres identified a new 7-kilometre-long, 100-metrewide, linear geophysical anomaly, which coincides with elevated lithium-in-soil anomalies and is considered a high-priority follow up target.
- Detailed geological mapping in parts of the property was carried out to refine geometries of known pegmatite dykes and evaluate drill targets.
- Field surveying to ground truth the location of historical drill pads and evaluate future drill sites.
- Scanning of historical drill core by GeologicAI to obtain high-resolution drill core photos and hyperspectral and XRF data.

# Yellowknife Project Area – Midas Minerals Ltd.

Midas Minerals Ltd. has entered into an earn-in agreement with Gold Terra Resource Corp. Midas Minerals Ltd. has the right to earn up to 80% interest in the critical mineral rights including lithium, associated pegmatite minerals, and rare earth deposits within the 718 square kilometre land package of the Yellowknife project.

Initial field work by Midas Minerals Ltd. included pegmatite mapping and sampling aimed at understanding the variability in pegmatite fractionation within the land package. The field work resulted in the identification of at least 8 pegmatites with high levels of fractionation, with some of the pegmatites containing visible spodumene and/or apparent tantalum minerals. Midas Minerals Ltd. has defined an initial target totalling 70 square kilometres and has engaged GeoVector Management Inc. to commence more detailed follow up mapping.

#### Reid-Aylmer Lithium Project – Midas Minerals Ltd.

The Reid-Aylmer Lithium project (100% Midas Minerals Ltd.) comprises 15 mineral claims staked in 2023 with a combined area of 157 square kilometres, enclosing swarms of pegmatite dykes prospective for lithium.

During the initial regional reconnaissance field work, Midas Minerals Ltd. collected 39 samples, of which 22 were from the newly discovered Argus pegmatite. The Argus pegmatite is up to 30 metres wide and at least 450 metres long and is interpreted from satellite imagery to form part of a 3 kilometre by 1.5 kilometre swarm of pegmatites. Samples from the Argus pegmatite returned values up to 7.25% Li<sub>2</sub>O. Other pegmatites within the Argus swarm and the property are yet to be assessed.

#### Lac de Gras Lithium Project – North Arrow Minerals Inc.

The Lac de Gras (LDG) property (100% North Arrow Minerals Inc.) comprises 149,000 hectares of mineral leases and claims within 5 km of the winter road infrastructure connecting Yellowknife with the Lac de Gras region. The property covers an 18-kilometre corridor of underexplored metasedimentary rocks adjacent to two-mica granite, similar in age and setting of the rocks hosting spodumene pegmatites of the Yellowknife Pegmatite Province.

During the summer of 2023, North Arrow Minerals Inc. conducted two exploration programs involving prospecting, ground magnetics, high-resolution drone orthophoto imagery, mapping, and sampling. The programs resulted in the identification of new spodumene pegmatites, including SD2 and SD4, estimated at 10 to 20 metres wide and over 400 metres in strike length. Five of seven representative grab samples from the SD4 spodumene pegmatite returned 1.10% to 2.17% Li<sub>2</sub>O, and seven of eight channel samples from SD2 returned 0.40% to 1.70% Li<sub>2</sub>O. Spodumene in both pegmatites is coarse grained and locally abundant, reaching 15 to 20% in some outcrops.

Less than 7 kilometres of the prospective corridor is prospected and, in addition to SD2 and SD4, at least five other pegmatites, up to 50 metres wide, have been identified and require further mapping and sampling to understand their potential to host significant lithium mineralisation. A prospecting sample from the southern end of a newly mapped 200 metres long subcropping spodumene pegmatite, approximately 120 metres west of the main SD2 pegmatite returned 5.57% Li<sub>2</sub>O.

# Mackay Lithium (MK1) Project - North Arrow Minerals Inc.

The 8,661-hectare Mackay property (100% North Arrow Minerals Inc.) was staked by North Arrow Minerals Inc. in 2023 following their confirmation of spodumene pegmatites in the area. The property is within a 14-kilometre prospective corridor with metasediments and two-mica granite around MacKay Lake. The Geological Survey of Canada documented tantalite mineralisation in tourmaline-muscovite pegmatites in the area in the 1940s.

North Arrow Minerals Inc. collected 4 grab samples during initial prospection. The samples returned lithium values of 2.45% to 3.74% Li<sub>2</sub>O. The samples contained visible spodumene crystals 2 to 4 centimetres long and were collected from an area over 120 metres strike length of the pegmatite.

Follow up mapping confirmed the presence of a series of irregular sub-parallel 0.5 metres to greater than 10 metres wide pegmatite dykes with a combined width up to 150 metres and traced over an interpreted strike extent of greater than 400 metres. Six of eight rock 1-metre channel samples collected during the mapping returned  $\text{Li}_2\text{O}$  values between 1.16% and 2.30%.

#### Phoenix Lithium - Dixie Gold Inc.

The Phoenix Lithium project is about 70 kilometres southeast of Diavik, and hosts the Big Bird and Curlew lithium pegmatites. The Big Bird pegmatite has been mapped over 1,280 metres of strike length, and the Curlew over 400 metres. Limited historical drilling returned 1.24% Li<sub>2</sub>O over 34.3 metres in Big Bird and 1.72% Li<sub>2</sub>O over 14.87 metres in Curlew.

No work was reported on the property in 2023.

#### Ross Lake, MAC, and Halo-Yuri Lithium Projects – Trinex Minerals Ltd.

The Ross Lake, MAC, and Halo-Yuri Lithium projects are owned by Trinex Minerals Ltd. (formerly Todd River Resources Limited). The Ross Lake property is near Ross Lake and comprises one claim covering 394 hectares. The MAC property is near Thistlethwaite Lake. It comprises four claims covering 4,299 hectares, and the Halo-Yuri property is in the Margaret and Munn lakes area and comprises 37 claims covering 45,062 hectares.

A reconnaissance field visit to the Ross Lake and MAC projects in 2023 confirmed the presence of fractionated and spodumene-mineralised pegmatites. One of the pegmatites in the Ross Lake area, Dyke 75, contains visible spodumene and has been mapped over 180 metres of strike length and 25 metres of width, and is interpreted to extend under cover for up to 300 metres. The pegmatite is located along the contact of a granite and a package of metasedimentary and mafic volcanic rocks. Chip samples collected from the pegmatite returned significant lithium values up to 3.31% Li<sub>2</sub>O.

The pegmatites at the Ross Lake and MAC project areas contain fractionation indicators, including beryl and enrichment in rare elements (e.g., Be, Ta, Cs, and Sn).

Following the encouraging field observations and assay results, the company is planning additional field work including field mapping, surface sampling, and drilling at the Ross Lake property in 2024.

No work was reported on the Halo-Yuri project area.

#### Prelude Lake Lithium – KAV Resources Ltd

The portfolio for Kav Resources Ltd. includes two blocks of claims. The first block comprises 8 claims adjacent to the BIG mineral lease area (Li-Ft Power Ltd.) at Bighill Lake. The second block comprises 3 claims at the northwest end of Prelude Lake. Mining Incentive Program funding was provided for mapping and prospecting in the Prelude Lake area. Results from the work have not yet been fully reported.

#### Prestige Lithium - Prestige Lithium Inc.

Prestige Lithium Inc. is a private company formed to explore for lithium-cesium-tantalum (LCT) pegmatites and other lithium resources in the Yellowknife Pegmatite Field. Prestige Lithium Inc. acquired 100% royalty-free interest in 15 mineral claims (16,064 hectares) by staking north of Duncan Lake, 55 kilometres north-northeast of Yellowknife. Prospecting utilised WorldView2 satellite imagery to identify potential pegmatites. Rock grab samples show enrichment trends in Rb/K, Be, Ta, Ce, Li, and Sn. Grab samples returned Li<sub>2</sub>O concentrations up to 2.25%, Nb<sub>2</sub>O<sub>5</sub> up to 0.02%, SnO<sub>2</sub> up to 1.60%, Ta up to 185 parts per million. The series of pegmatite exposures are up to 5.5 metres wide (open) and are generally continuous along strike for over 600 metres. Permits for more advanced exploration, including drilling, have been obtained.

#### **Aylmer Lithium Project – ANT Lithium Corp.**

The Aylmer Lithium project (100% ANT Lithium Corp.) comprises 33 mineral claims covering 33,849 hectares in the Aylmer and Nebbish lakes area. Reconnaissance field visits in the summer of 2023 identified more than 20 pegmatite outcrops with abundant large spodumene crystals. Grab samples of the spodumene returned up to  $7.59\%~\text{Li}_2\text{O}$ .

#### **Allende Project – Northern Critical Mineral Corp.**

The Allende project (100% Northern Critical Mineral Corp.) comprises 615 hectares around the Leith Lake alkaline complex. The Allende project is focused on REEs and high-field strength elements mineralisation associated with alkaline-carbonatite systems. Rare earth mineralisation at the property was confirmed during the 2022 field season.

# Tharsis - Voyageur Exploration Ltd.

The Tharsis project (100% Voyageur Exploration Ltd.) comprises 8,750 hectares in the Squalus Lake area, about 170 kilometres north-northeast of Yellowknife. The Tharsis project is focused on REEs and high-field strength elements mineralisation associated with alkaline and carbonatite complexes.

# Dede, Dorothy, and Ron Projects - North by Northwest Lithium Inc.

The Dede, Dorothy, and Ron projects comprise newly staked claims with no significant work reported. The Dede project comprises two newly staked claims in the Afridi Lake area with apparent lithium pegmatite. The Ron claims surround the DeStaffany and Best Bet claims, both former short-term producers of niobium, tantalum, and lithium. The Dorothy project comprises a single claim approximately 200 kilometres north-northeast of Yellowknife.

#### Bliss Lake and Little Nahanni Projects – Lithium ION Energy Ltd.

The Bliss Lake project (100% Lithium ION Energy Ltd.) comprises 5 contiguous claims covering 5,798 hectares west of Bliss Lake and east of Prelude Lake. Lithium ION Energy Ltd. has interpreted numerous pegmatite occurrences from Landsat satellite imagery, with one estimated to be over 300 metres in strike length.

The Little Nahanni Claims were acquired in 2023 and cover approximately 900 hectares along the Sahtu/Dehcho boundary in the Cordilleran mountains.

No significant exploration work has been reported on any of the project areas for 2023.

# **Mining Incentive Program**

The Mining Incentive Program was launched in 2014 to help increase levels of mineral exploration in the Northwest Territories. The Northwest Territories Geological Survey administers the program, which provides funding to prospectors and exploration companies to conduct mineral exploration in the Northwest Territories. From 2014–2015 to 2022–2023, the Mining Incentive Program provided over CA\$7 million in government support to Northwest Territories' mineral exploration projects. This CA\$7 million investment resulted in additional project spending of over CA\$38 million from Mining Incentive Program recipients.

In 2022–2023, the Government of Northwest Territories awarded CA\$1.3 million through the Mining Incentive Program to 14 successful applicants (9 corporate and 5 prospector projects), primarily for early-stage mineral exploration. Mining Incentive Program support in 2022–2023 leveraged more than CA\$9 million in additional investment from the funded projects.

2023–2024 saw the Mining Incentive Program budget increase to CA\$1.5 million. This funding was awarded to 11 corporate exploration projects and 6 prospector-driven exploration projects. See Table 10a and b for the initial funding awarded.

Table 10a. The prospector 2023–2024 Mining Incentive Program (MIP) recipients. Funding is in Canadian dollars.

				MIP Funding
Prospector	Project Name	Region	Commodity	Awarded
Danny Yakeleya	Summer 2023 Prospecting on the NWT/Yukon Border	Sahtu	Au	\$16,250
Dave Nickerson	Highway Gypsum Project	North Slave	Gypsum	\$3,910
Dave Smith	Drumlin Project	North Slave	Barite, Au, Diamonds	\$16,250
Jared Suchan	Kaguya Project	North Slave	REE	\$19,548
Jared Suchan	Viking Project	North Slave	Zn, Cu	\$20,000
Ryan Bachynski	Huygens	North Slave	Li, REE, Au, Ag, Cu	\$18,212
			Total Prospector Funding:	\$94,170

Table 10b. The corporate 2023–2024 Mining Incentive Program recipients.

				MIP Funding
Corporate	Project Name	Region	Commodity	Awarded
Prestige Lithium Inc.	Prestige Project	North Slave	Li	\$37,555
Ant Lithium Corp.	Lithium King Project	North Slave	Li	\$23,203
Erex International Ltd.	Yellowknife Lithium Project	North Slave	Li	\$204,000
KAV Resources Ltd.	Prelude Lake Li Project	North Slave	Li	\$48,943
Lake Winn Resources Corp.	Little Nahanni Pegmatite	Dehcho	Li, Ta	\$192,000
	Group project			
Night Hawk Gold Corp.	Colomac	North Slave	Au	\$192,000
North Arrow Minerals Inc.	DeStaffany Project	North Slave	Li	\$192,000
Northern Critical Minerals Corp.	Allende Project	North Slave	REE	\$21,887
Redbed Resources Ltd.	Redstone Property	Dehcho	Cu	\$156,000
Rover Metals Corp.	Indian Mountain Lake	North Slave	Zn, Pb, Cu, Au, Ag	\$153,749
	Property			
Voyageur Exploration Ltd.	Tharsis	North Slave	REE	\$180,000
			Total Corporate Funding:	\$1,401,339

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