

P.O Box 2529 New Liskeard, ON POJ 1PO Tel: (705) 676-6476 www.northstargoldcorp.com

For Immediate Release

# NORTHSTAR SAMPLES HIGH-GRADE COPPER AT HISTORIC CAM COPPER MINE MILLER GOLD PROPERTY

Vancouver, B.C., July 5, 2023. Northstar Gold Corp. (CSE:NSG, OTCQB:NSGCF) ("Northstar" or the "Company"), is pleased to announce results of a recent surface sampling program at the historic Cam Copper Mine site on the Company's 100%-owned, flagship Miller Property, situated 18 km southeast of the town of Kirkland Lake, Ontario. The Cam Copper Mine is a road accessible satellite high-grade copper system situated 2.4 km southwest of the Allied Gold Zone, the advanced, near-surface bulk-tonnage alkalic gold-telluride exploration target being actively explored by Northstar (Figure 1).

**High-Grade copper assays ranging between 0.99% and 31.8% copper** were returned from 19 select surface grab samples containing massive to semi-massive sulphides (including massive chalcopyrite and bornite) and collectively weighing 43.39 kg, recently collected near the historic Cam Copper Mine site on the Miller Property in Pacaud Township. The weighted average grade of the 19 select samples collected from the historic muck pile and bedrock exposure near the historic shaft was 14.0% copper (Table 1).

In addition to high-grade copper, one select sample that assayed 31.8% copper also returned 452 g/t silver, suggesting silver can also be a significant mineralization component.

The Cam Copper Mine reportedly hosts two separate lenses (Zone 1 and Zone 2 – Figure 2) of massive copper sulphides about 40 metres apart striking and plunging southeast along the contact with the Round Lake Granite Batholith. Underground development took place between 1929 and 1953 which includes sinking of a 220' (66.7m) vertical shaft with 213' (64.5m) of cross cutting and 267' (80.9m) of drifting. The recent surface sampling results verify historic reporting of a 1955 shipment of 346 tons of hoisted underground ore which produced 43,411 lbs. of Cu<sup>1</sup> at a Noranda smelter for a recovered grade of **6.3% Cu**. The ore was shipped directly from the mine site to the smelter without requiring further concentration in a mill. A previous 1948 shipment of 22 tons of ore to Noranda reportedly graded **12.72% Cu**, 0.84 oz/t Ag and 0.03 oz/t Au<sup>2</sup>, presumably from Zone 1.

### Management Commentary

"Northstar's limited Cam Copper Mine sampling program substantiates a high-grade Critical Minerals copper component to the spectrum of alkalic gold-telluride-copper zones at the Miller Gold

Property", states Brian P. Fowler, P.Geo., Northstar's President, CEO and Director. "Northstar is fully permitted to drill test the down plunge extension of the Cam Copper massive sulphide zones and, in addition to expansion drilling at the Allied Gold Zone, is formulating exploration plans targeting similar high-grade massive sulphide copper zones along strike southeast of the Cam Copper Mine site."



Figure 1. Miller Property Geology Highlighting Former Producing Mines along the Boston **Creek Copper Trend** 

Table 1 (below) illustrates weighted average grades of 19 samples collected from the Cam Copper muck pile and bedrock:

Ag(g/t)

0.31

**452** 

Sample No.	UTM Location NAD 83	Sample Description	Total Sample Weight (kg)	Cu (%)	Zn (%)	
E455291	580594	Laminated felsic tuff w/disseminated cpy_~5% cpy	1.83	0.993		

Tahle 1	Muck	Pile and	Redrock	Assave	from the	Cam	Conner	Mine Ar	•09
Table 1.	WIUCK	r ne anu	Deurock	нээауэ 1	ii om me	Cam	Copper	while Al	ea

w/disseminated cpy. ~5% cpy

Massive cpy w/abundant

malachite staining in qtz with

open space filling ~70% cpy

5316806

580600

5316807

E455292

1.45

31.8

0.53

Sample No.	UTM Location NAD 83	Sample Description	Total Sample Weight (kg)	Cu (%)	Zn (%)	Ag (g/t)
E455293	580605 5316805	Banded iron formation with disseminated cpy ~10% cpy	1.28	2.38		4.24
E455294	580605 5316833	Banded iron formation with laminated cpy+bornite ~25% cpy,	1.45	8.57		78
E455295	580599 5316831	Silicified mafic tuff with ~15% cpy in laminations with malachite staining	2.18	1.18		1.33
E455296	580609 5316792	Semi-massive cpy in silicified tuff ~40% cpy	1.91	11.6		11.85
E455297	580603 5316797	Massive cpy ~90% cpy	2.41	27.8		5.32
E455298	580615 5316786	Semi-massive cpy with bornite and chalcocite	2.24	20.4		10.45
E455299	580609 5316781	Semi-massive cpy banding in silicified mafic tuff ~30% cpy	2.38	9.65		6.64
E455301	580614 5316788	Semi-massive cpy in mafic tuff ~ 30% cpy	2.08	13		9.86
E455302	580605 5316785	Semi-massive cpy and bornite in silicified mafic tuff	2.55	11.45		9.15
E455303	580603 5316787	Semi-massive cpy in silicified mafic tuff ~50% cpy	2.48	17.85		12
E455304	580605 5316791	Massive cpy and bornite in mafic tuff	3.14	22.2		3.02
E455305	580604 5316802	Massive cpy ~90% cpy	2.71	26.1		13.5
E455306	580624 5316792	Semi-massive cpy in silicified mafic tuff ~30% cpy	3.05	7.72		9.88
E455307	580635 5316797	Semi-massive cpy in mafic tuff ~ 45% cpy	2.95	12.45		13.8
E455308	580629 5316802	Semi-massive cpy in mafic tuff ~25% cpy	3.33	4.18		8.57
E455309	580613 5316825	Broken and oxidized in-situ bedrock sample w/10% cpy and malachite stain in banded iron formation	2.13	13.65		7.2
E455311	580601 5316827	Semi-massive cpy and minor bornite in banded iron formation	1.84	21.2		13.2
	Total Sample Weight	Weighted Average Grades	43.39 kg	14.0%		25.6 g/t



Figure 2. Cam Copper Mine Site – 2023 Copper Assay Results

# Northstar 2023 Cam Copper Surface Exploration Program

Northstar carried out a brief surface exploration program consisting of prospecting and sampling of Cam Copper Mine between May 19 and 25th, 2023. A total of 19 representative surface samples were collected from the muck pile and bedrock surface near the historic shaft. Three samples were collected from a historic trench along the surface expression of Zone 2 (Table 1. - Figure 2). Assay results of the 19 samples ranged from 0.99% - 31.8% Cu, and 0.31 g/t Ag - 452 g/t Ag. Copper grades from the Cam Copper muck pile and bedrock were consistent with historically reported grades from both drilling intercepts, underground sampling and former mine production data.

One muck sample (E455292) of massive chalcopyrite with bornite assayed 31.8% Cu, 0.53% Zn, and 452 g/t Ag. A bedrock sample (E455309) collected from mineralized banded iron formation near the historic shaft assayed 13.65% Cu (Table 1. – Figure 2).

Three samples collected from a trench representing the surface expression of Zone 2 included one sample (E455315) that assayed 0.54% Cu, indicating a possible extension of Zone 2 towards the southeast of the old workings.

Follow up work is required in the Cam Copper area to fully investigate the down plunge extension of the historic deposit.

# Southeast Extension – Geophysical Targets

Iron formation hosting massive sulphides is known to extend for hundreds of metres along strike southeast of the Cam Copper Mine site. The trend includes multiple ground EM and IP targets<sup>3</sup> along with strong airborne EM and magnetic anomalies.

## Future Plans

Northstar will undertake a ground truthing and sampling program of surficial geophysical anomalies along strike to the southeast of the Cam Copper Mine searching for analogous targets that could potentially host massive copper sulphides.

Follow-up drilling is now being planned to test the down plunge extension of the bornite-rich pods of massive sulphide in Zones 1 and 2.

## The Historic Cam Copper Mine

The Cam Copper Mine reportedly hosts two separate lenses (Zone 1 and Zone 2 – Figure 2) of massive copper sulphides about 40 metres apart striking and plunging southeast along the contact with the Round Lake Granite Batholith. Laminated sulphides hosted in tuff with lower grade copper values are reported to occur on either side of the massive copper sulphide bands. The copper mineralization is focused along the steeply plunging intersection of northeast striking silicified tectonic breccias with southeast striking, vertically dipping bands of silicious sulphide facies iron formation within felsic and mafic tuffaceous units. The copper zones remain open down plunge to the southeast. The former producing Amity and Patterson copper mines occur within the same geologic formation along strike to the northwest.

### **Underground Development and Historic Production**

Underground development took place between 1929 and 1953 which includes sinking of a 220' (66.7m) vertical shaft with 213' (64.5m) of cross cutting and 267' (80.9m) of drifting. The recent surface sampling results verify historic reporting of a 1955 shipment of 346 tons of hoisted underground ore which produced 43,411 lbs. of Cu<sup>1</sup> at a Noranda smelter for a recovered grade of **6.3% copper**. The ore was shipped directly from the mine site to the smelter without requiring further concentration in a mill. A previous 1948 shipment of 22 tons of ore to Noranda reportedly graded 12.72% Cu, 0.84 oz/t Ag and 0.03 oz/t Au<sup>2</sup>, presumably from Zone 1.

# Historic Drilling

Historic drilling intercepts in Zone 1 by Consolidated Golden Arrow Mines Ltd. at the Cam Copper Mine include:  $^3$ 

- 1.6% Cu over 6.6' (2.0m) in DDH 1
- 9.8% Cu over 4' (1.21m) in DDH 1A
- 12.4 % Cu over 7.8' (2.36m) in DDH 3
- 7.0% Cu over 6' (1.82m) in DDH 4

Average sampling grade reported in Zone 1 was 8.5% Cu over a true width of 4.4' (1.33m) indicated over 100' (30.3m) along strike.

Historic drilling intercepts by Consolidated Golden Arrow Mines Ltd. in Zone 2 include: <sup>3</sup>

- 10.5% Cu over 0.5' (0.15m) in DDH 2
- 19.9% Cu over 3.1' (0.94M) in DDH 3
- 23.1% Cu over 4.6' (1.39m) in DDH 4 ---> down plunge extension below workings
- 12.4% Cu over 3.3' (1.0m) in DDH 7 ---> down plunge extension below workings

Average sampling grade reported in Zone 2 was 10% Cu over a true width of 2.8' (0.85m) indicated over 140' (42.4m) along strike.

Bornite was reported to be common in Zone 2 with the bornite rich pods of massive sulphides remaining open down plunge to the southeast.<sup>3</sup>

<sup>1</sup> Ontario Ministry of Energy, Northern Development and Mines Mineral Deposit Inventory Record MDI31M13NW000154: Tretheway-Ossian- 1981, Ch.H. Cameron-1981.

<sup>2</sup> Ontario Ministry of Energy, Northern Development and Mines and Mines Assessment File #KL-0259, Tretheway-Ossian (Cam Copper Mine). 1961

<sup>3</sup> Ontario Ministry of Energy, Northern Development and Mines and Mines Assessment File #KL-0843, Prospectus of Fidelity Mining Investments Ltd. 1962

### Quality Control

Samples collected in the 2023 Miller surface exploration program were delivered to ALS Global in Timmins, Ontario for preparation and assayed for gold by ALS Global in Vancouver, British Columbia.

Northstar has implemented a quality control program for Cam Copper Mine to ensure best practice in the sampling and analysis of surface samples, which includes the insertion of blanks, and certified standards into the sample stream.

Surface samples were submitted to ALS Global at their Timmins, Ontario facility for sample preparation where the entire sample was crushed to better than 90% passing 2mm, 1000g riffle split and pulverized to 85% passing 75 microns. Pulps are forwarded to ALS Global in Vancouver, British Columbia for analyses. Gold analyses is obtained via industry standard fire assay with ICP finish using 15 g to 30 g aliquots. For samples returning greater than 10 g/t gold follow-up fire assay analysis with a gravimetric finish is completed. Based on initial fire assay gold indications as well as visual indication of mineralization and alteration, samples are selected for re-assay by the screen metallic fire assay method. Samples are also analyzed for 48 trace and major elements by ICP-MS following a four-acid digestion. For samples returning greater than 10,000 ppm Cu, follow-up four acid digestion and ICP finish utilizing a 0.4 g sample is utilized. ALS Global are ISO/IEC 17025:2017 accredited (Lab No. 579) for the preparation and analyses performed on the Milestone samples.

# Qualified Person

Brian P. Fowler, P.Geo., a 'Qualified Person' (Q.P.) as defined under Canadian National Instrument NI 43-101, has reviewed technical aspects of this news release.

## About the Miller Property

Northstar's flagship property is the 100% owned Miller Gold Property ("Miller"), situated 18 km southeast of Kirkland Lake and Agnico Eagle Mines' Macassa SMC gold mine. The Miller Gold Property is highly prospective for the discovery of a large-scale, higher grade gold system similar to the deposits of the Kirkland Lake camps that produced over 24 M oz. of gold from 7 mines (Clark 2013). Geologically, Miller is believed to be a close analog to Agnico Eagle Mines' Macassa SMC gold mine, given the numerous geological similarities. Both Miller and the newly discovered lower SMC at Macassa share the similar formation, age and mineralization style (gold-telluride vein system with calaverite the main gold mineral). Both deposits are also located next to a First Order fault structure (Catharine Fault Zone at Miller Property and the Larder Break at Kirkland Lake) potentially sharing a gold enriched magmatic reservoir at depth.

The Kirkland District is being explored by major and junior gold companies alike with some significant consolidation transactions recently announced and completed. Since going public by IPO in late 2020, Northstar has spent over \$4.7 million in exploration at Miller, resulting in the discovery of a series of broad, near-surface, shallow dipping sheeted quartz-gold-telluride vein structures in the Allied Syenite (Allied Gold Zone) and Planet Syenites and numerous 70 – 750 gold gram/metre drill hole intercepts. Drilling to date at the AGZ has returned near-surface gold intercepts that include 6.6 g/t Au over 117.0 metres, 4.0 g/t Au over 50.6 metres, 1.4 g/t Au over 118.5 metres, and 1.2 g/t Au over 107.3 metres. Step out AGZ drilling in 2021 intersected peripheral steeply dipping copper-gold bearing structures (CG1 and CG2 Zones) returning intercepts that include 9.41 g/t Au, 1.03% Cu over 3.0m. The AGZ shares numerous compelling similarities to Agnico Eagle's nearby Upper Beaver Deposit, currently in the pre-development stage.

In April, 2022, as a precursor to a Mineral Resource Estimate and for reporting purposes, the Company commissioned Ronacher Mackenzie Geoscience and SRK Consulting (Canada) to conduct an Exploration Target Study of the Miller Property Allied Gold Zone and No. 1 Vein. An upper range exceeding 500,000 ounces of gold averaging 2.04 g/t Au has been referenced in this study. Results were reported July 26, 2022, (Click <u>here</u> to view Northstar News Release dated July 26, 2022) verifying the significance, size and gold grade potential of the Allied gold mineralizing system. Results provide the Company and investors a fact-based conceptual tonnage and gold grade range for the Allied Syenite Gold Zone, and basis for continued expansion drilling and mineral resource development.

In April, 2023 Northstar reported results of a high resolution UAV airborne magnetic survey completed over the Miller Gold Property that identified a volumetrically large positive magnetic anomaly (SM-01) partially underplating the near-surface Allied Gold Zone and syenite stock. (Click <u>here</u> to view Northstar News Release dated April 19, 2023) The SM-01 Anomaly displays a high magnetic susceptibility signature, possibly reflecting a deeper large, discrete mafic intrusion and source area for higher, recently discovered steeply dipping Au-Cu sulphide mineralization discovered in 2021 drill holes MG21-64 (4.71 g/t Au, 0.51% Cu over 6.4m – CG1 Zone) and MG21-65 (9.41 g/t Au, 1.03% Cu over 3.0m – CG2 Zone). Eleven additional anomalies consistent with possible syenite intrusions have also been identified.

Northstar is positioning to conduct a Phase IIIA Allied Gold Zone lateral and depth expansion drill program on the Miller Gold Property.

## About Northstar Gold Corp.

Northstar's primary exploration focus is the advancement of the Company's flagship, 100%-owned Miller Gold Property, situated 18 km southeast of Kirkland Lake and Agnico Eagle Mine's Macassa SMC gold mine. The Company's strategy is to develop either a minimum material (+1 million ounce) high-grade gold mineral resource to potentially supplement a nearby mining operation or a standalone mining operation at the Miller Gold Property.

Northstar has 3 additional 100%-owned exploration projects in northern Ontario, including the recently acquired 1,200 ha Rosegrove Property situated 0.5 km from the Miller Gold Property, the 4,650 ha Bryce Gold Property (includes the recently optioned Britcanna Lease), an intrusive-gold / PME VMS project located along the projected east extension of the Ridout Break, and the recently expanded Temagami-Milestone Cu-Ni-Co Property located in Strathcona Township. Northstar recently filed a NI43-101 Technical Report on the Bryce Gold Property and is advancing all 3 properties to enhance monetization opportunities.

### On behalf of the Board of Directors,

Mr. Brian P. Fowler, P.Geo.

President, CEO and Director (604) 617-8191 bfowler@northstargoldcorp.com

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### Cautionary Note Regarding Forward-Looking Statements

This news release contains certain forward looking statements which involve known and unknown risks, delays, and uncertainties not under the control of Northstar Goldcorp. which may cause actual results, performance or achievements of Northstar Gold Corp to be materially different from the results, performance or expectation implied by these forward looking statements. By their nature, forward looking statements involve risk and uncertainties because they relate to events and depend on factors that will or may occur in the future. Actual results may vary depending upon exploration activities, industry production, commodity demand and pricing, currency exchange rates, and, but not limited to, general economic factors.

Forward-looking statements in this news release are made as of the date hereof and the Company assume no obligation to update any forward-looking statements, except as required by applicable laws.