

Nickel Creek Platinum Announces Positive PFS for its Nickel Shāw Project

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TORONTO, Aug. 24, 2023 - [Nickel Creek Platinum Corp.](#) (TSX: NCP) (OTCQB: NCPCF) ("Nickel Creek" or the "Company") is pleased to announce the results of a positive pre-feasibility study ("PFS") at its 100%-owned Nickel Shāw Project (the "Project") located in the Yukon, Canada. The PFS has been prepared by AGP Consultants Inc. ("AGP"). The estimated Project after-tax net present value ("NPV") at a 5% discount rate is \$143 million with an after-tax internal rate of return ("IRR") of 5.8%. All dollar amounts are expressed in Canadian dollars unless otherwise stated.

Stuart Harshaw, President and CEO of Nickel Creek commented: "The PFS is an important milestone in realizing the potential of the Nickel Shāw Project represents in the critical mineral space where it can provide nickel and copper to take advantage of the strong nickel market for EV batteries. The sensitivity to energy costs illustrates how working with the different levels of government can lead to a significant improvement in value, especially when combined with the previously announced intention of the federal government to provide a tax incentive for critical mineral projects such as Nickel Shāw. Moving forward, our focus will be to continue to add value to the project through work on identified key economic areas of opportunity and continued mineral exploration success while advancing towards a feasibility study."

Project PFS Highlights

- \$143 million after-tax NPV using a 5% discount rate and an IRR of 5.8% at the following commodity prices: nickel - US\$11.00/pound ("lb"); copper - US\$4.00/lb; palladium - US\$2,100/troy ounce ("troy oz"); platinum - US\$1,000/troy oz; silver - US\$23/lb; and gold - US\$1,800/troy oz, each using a 0.75 Canadian to US exchange rate.
- Life of mine ("LOM") after-tax cash flow of approximately \$1.7 billion with an after-tax payback period of 12.7 years.
- Pre-production capital cost of approximately \$1.7 billion, with a construction period of 3.0 years.

Project Opportunities

- If paying Yukon grid rates of \$0.11/kWhr, the after-tax NPV at a 5% discount rate increases by \$324 million to \$467 million (see NPV sensitivities section below for additional information).
- The Company's after-tax NPV at a 5% discount rate increases from \$143 million to \$336 million if the Canadian tax credit for critical mineral companies is enacted (see Investment Tax Credit for Clean Technology Manufacturing section below for additional information).
- The Company plans to further investigate the opportunity of carbon tax offsets associated with carbon sequestration at the tailings facility with ongoing testwork and analysis.

Mineral Resource

On June 1, 2023, the Company announced an updated mineral resource estimate with an effective date of April 3, 2023.

Metal Grades

	Ni	Cu	Co	Pd	Pt	Au	Mg	S
Class	Ktonnes %	%	%	g/t	g/t	g/t	%	%
Measured	122,363	0.25	0.15	0.014	0.23	0.24	0.05	16.03
Indicated	314,332	0.26	0.13	0.014	0.24	0.22	0.04	17.26
Total M+I	436,695	0.26	0.13	0.014	0.23	0.22	0.04	16.92
Inferred	114,016	0.27	0.13	0.015	0.25	0.20	0.04	17.46

Contained Metal

	Ni	Cu	Co	Pd	Pt	Au
Class	Ktonnes M	Lbs M	Lbs M	Lbs k	Ozs k	Ozs k
Measured	122,363	679	411	38	905	944
Indicated	314,332	1,792	871	99	2,385	2,197
Total M+I	436,695	2,471	1,281	137	3,290	3,141
Inferred	114,016	668	339	37	916	733

Notes:

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Summation errors may occur due to rounding.

Effective Date is April 3, 2023.

Mineral Resources amenable to open pit extraction are reported within an optimized containing shell.

Average grade calculations on this table are impacted by rounding.

Tonnages are reported in units of 1,000 metric tonnes (Ktonnes).

Contained Base Metal reported in units of 1,000,000 lbs, M Lbs.

Contained Precious Metal reported in units of 1,000 troy ounces, K Ozs.

Metal Prices for Resource Determination in US\$

Nickel: \$12.10/lb; Copper: \$4.45/lb; Cobalt: \$25.30/lb; Palladium: \$2,415/troy oz; Platinum: \$1,150/troy oz; Gold: \$2,015/troy oz.

Net Smelter Return (NSR) cut-off grades range from \$17.30 to \$17.61 Canadian dollars depending on Bulk Con and Split Con

Mining costs, vary by bench, separately for ore and waste:

Base waste mining cost @1330m = C\$2.26/t, 10 m bench incremental cost above = C\$0.004/t, 10 m bench incremental cost below = C\$0.02/t

Base ore mining cost @1330m = C\$1.99/t, 10 m bench incremental cost above = C\$0.019/t, 10 m bench incremental cost below = C\$0.015/t

Process and G&A costs: Bulk con - C\$17.30/t; Split con = C\$17.61/t

Calculated process recoveries by concentrate type:

	Ni	Cu	Co	Pd	Pt	Au
Bulk con:	Eq1	Eq2	57.0 %	54.0 %	47.8 %	74.4 %
Cu con:	Eq3	Eq4	3.36 %	3.19 %	0.91 %	23.58 %
Ni con:	Eq5	Eq6	53.64 %	50.81 %	46.89 %	50.82 %

where: Eq1 = Ni recovery to Bulk Con = MIN (23.21*LN(X)+30.362,88)

where $X = (\%S - \%Cu) / \%Ni$ Capped at 12.0%

Eq2 = Cu recovery to Bulk Con = $((Cu - 0.06) / Cu) * 100$, Constant tail at 0.06% Cu

Eq3 = Ni recovery to Cu Con = Ni recovery to achieve 25.6% Cu and 1.1% Ni grades in Cu Con

Eq4 = Cu recovery to Cu Con = Cu recovery to Bulk Con * 0.623

Eq5 = Ni recovery to Bulk Con - Ni recovery to Cu Con

Eq6 = Cu recovery to Bulk Con - Cu recovery to Cu Con

Capping of grades varies based on lithology for each metal.

The density is assigned based on lithology and varies between 2.76 g/cm³ and 3.38 g/cm³.

Project Description

The Company's flagship asset is its 100%-owned Nickel Shāw Ni-Cu-Co-PGM Project, located in southwestern Yukon, Canada. The Nickel Shāw Project contains the Company's core Ni-Cu-Co-PGM Wellgreen deposit, as well as the Arch, Burwash, Formula, Musk and Quill claims. The Wellgreen deposit is a polymetallic deposit with mineralization that includes the significant co-occurrence of nickel, copper, cobalt, platinum group metals ("PGMs") and gold.

The Nickel Shāw property contains an extensive Ni-Cu-Co-PGM mineralized system hosted by mafic/ultramafic intrusions related to Triassic-age flood basalts. With over 2.4 billion pounds of nickel, 1.2 billion pounds of copper, 6.9 million ounces of PGMs and 137 million pounds of cobalt in the measured and indicated mineral resource categories, Nickel Shāw is one of the largest undeveloped nickel projects in North America not controlled by a major mining company.

The PFS contemplates that the Nickel Shāw open pit would be mined using conventional open pit methods, with a LOM of over 19 years. From the open pit the ore would be trucked to a primary crusher located adjacent to the pit and conveyed out of the valley to a concentrator designed to process 45,000 tonnes per day ("tpd") of ore. The ore would be fed into a conventional Ni-Cu-PGM flotation concentrator designed to produce a bulk Ni-Cu-PGM concentrate "Bulk conc" or alternatively into split concentrates. The split concentrates would be a Ni concentrate "Ni conc" and a Cu concentrate "Cu conc", as economics dictate. Average annual LOM concentrates production ("dmt") is expected to be 103,100 dmt of Bulk conc, 95,000 dmt of Ni conc and 19,600 of dmt Cu conc. Total LOM payable metal production includes the following:

- 614.3M lbs nickel;
- 281.5M lbs copper;
- 21.5 M lbs cobalt;
- 626,500 troy ounces platinum;
- 743,400 troy ounces palladium; and
- 174,400 troy ounces gold.

The tailings would be stored in a tailings storage facility adjacent to the concentrator. Concentrate would be transported by truck 480 km to the Port of Skagway Ore Terminal. Power will be primarily sourced from a liquified natural gas ("LNG") power plant.

Social & Environmental

The Nickel Shāw Project lies within the Kluane First Nation ("KFN") core area as defined under the Umbrella Final Agreement between the Government of Canada, Government of Yukon and the Council of Yukon First Nations. Effective August 1, 2012, an Exploration Cooperation Agreement was signed between the KFN and the Company. The KFN and the government of the Yukon Territory have provided very good support for the Nickel Shāw Project.

Ultramafic rocks from the project (in the form of tailings and waste rock) are being assessed for their ability to capture and store carbon. Test work conducted in 2022 confirmed the presence of brucite (a magnesium-rich mineral known to react quickly with CO₂ in air) in a subset of samples. On a mass basis, from the achieved reactivity in the testwork, this may enable maximum sequestration of 2.1 kt CO₂ per Mt tailings. The Company is evaluating further work which will include the creation of a mineralogy model based on the project's geochemical database to assess the spatial distribution of rocks within the Wellgreen deposit that have high potential to sequester carbon (see news release dated December 15, 2022 for additional details).

Summary of PFS Results

Pre-Tax NPV (5%), IRR	\$547 million, 7.7%
After-Tax NPV (5%), IRR	\$143 million, 5.8%
Undiscounted After-Tax Cash Flow (LOM)	\$1.65 billion
After-Tax Payback Period	12.7 years
Life of Mine (LOM)	19.1 years
Capital Cost	
- Initial	\$1.7 billion
- Sustaining	\$0.6 billion
- Total LOM	\$2.3 billion
Operating Cost	\$30.22 /mt milled
Mill Throughput	45,000 tpd
Initial 5 Year Annual Average Metal Production	
- Nickel	29.1 M lbs
- Copper	9.1 M lbs
- Cobalt	1.1 M lbs
- Platinum	27,400 troy oz
- Palladium	36,200 troy oz
- Gold	7,700 troy oz
Life of Mine Strip Ratio (W:O)	1.93

Based on the assumed commodity prices noted above, the LOM revenue by metal is as follows: nickel - 62%; palladium - 14%; copper - 10%; platinum 6%; cobalt - 5% and gold - 3%.

NPV Sensitivities

The discount rate sensitivity is as follows:

Discount Rate	After-tax NPV
0 %	\$1.7 billion
5% - base case	\$143 million
10 %	(\$459) million

Sensitivity to Nickel and Copper Prices

The after-tax NPV (\$Million's) at a 5% discount rate:

Nickel Price (US\$)							
Copper (US\$)	\$8.00	\$9.00	\$10.00	\$11.00	\$12.00	\$13.00	\$14.00
\$ 3.00	(1,003)	(633)	(306)	14	325	628	925
\$ 3.25	(961)	(599)	(273)	47	357	658	955
\$ 3.50	(918)	(566)	(240)	79	388	689	985
\$ 3.75	(876)	(532)	(207)	111	419	720	1,015
\$ 4.00	(834)	(498)	(174)	143	450	751	1,045
\$ 4.25	(796)	(465)	(141)	175	481	781	1,075
\$ 4.50	(762)	(431)	(108)	207	512	811	1,105

Sensitivity to Energy Power Costs

The pre-tax and after-tax NPV (\$Million's) at a 5% discount rate:

Power Cost (\$kWhr)								
		Base case						
		\$0.09	\$0.11	\$0.13	\$0.15	\$0.17	\$0.194	\$0.21
Pre-tax NPV (\$Million's)	1,106	998	891	784	676	547	461	
After-tax NPV (\$Million's)	543	467	391	314	237	143	80	
Pre-tax IRR	10.4 %	9.9 %	9.4 %	8.9 %	8.4 %	7.7 %	7.3 %	
After-tax IRR	8.2 %	7.7 %	7.3 %	6.8 %	6.4 %	5.8 %	5.5 %	
Investment Tax Credit for Clean Technology Manufacturing								

The Canadian 2023 federal budget proposed the introduction of a 30% refundable investment tax credit for investments in eligible property associated with eligible activities for clean technology manufacturing and processing, as well as critical mineral extraction and processing (the "Clean ITC"). The Clean ITC would apply to investments in certain depreciable property that is used all or substantially all for eligible activities. This would generally include machinery and equipment, including certain industrial vehicles and related control systems used in manufacturing, processing or critical mineral extraction. A portion of the Clean ITC would be recovered if eligible property is subject to a change in use or sold within a certain period of time.

As of this date, there are no specific details regarding the proposed Clean ITC and has not been legislated. Based on assumptions on the capital that could be eligible for the ITC, if the Company was able to utilize the 30% Clean ITC, the Company estimates that the after-tax NPV for the Project at a 5% discount rate would improve from \$143 million to \$336 million and the after-tax IRR would improve from 5.8% to 7.2%.

CAPEX and OPEX

The initial capital expenditure contemplated in the PFS, to be incurred over the three-year pre-production period of the Project, amounts to approximately \$1.7 billion, with the sustaining capital over the remainder of LOM amounts to approximately \$0.6 billion. The LOM capital expenditure is summarized as follows:

Capital (\$Million's)

	Pre-Production	Sustaining	Total LOM
Open Pit	399	205	604
Processing	510	5	515
Infrastructure	353	258	611
Indirects	245	58	303
Environmental	-	52	52
Contingency	180	60	240
Total	1,687	638	2,325

Operating Costs

The LOM operating costs are summarized as follows:

	\$/mt Milled
Processing	17.32
Mining	7.30
G&A	2.43
Sub-total	27.05
Concentrate Trucking	2.34
Carbon Tax	0.83
Total	30.22

Future Opportunities and Value Enhancements

The PFS also identified a number of potential optimizations to the Project. These include:

- Working with energy providers and Yukon government and other stakeholders on an energy strategy to reduce the project;
- Additional metallurgical testwork to improve overall recoveries of all payable metals where a 1% recovery improvement represents approximately an after-tax \$111 M improvement to the NPV at a 5% discount rate; and
- Continue drilling on the Arch target to define the potential resource which could provide the opportunity for an early higher grade feed that may improve overall financial results.

About Nickel Creek Platinum Corp.

[Nickel Creek Platinum Corp.](#) (TSX: NCP; OTCQB: NCPCF) is a Canadian mining exploration and development company advancing its 100%-owned Nickel Shāw Project ("Project"). The Project has exceptional access to infrastructure, located three hours west of Whitehorse via the paved Alaska Highway, which further offers year-round access to deep-sea shipping ports in southern Alaska.

The Company is led by a management team with a proven track record of successful discovery,

development, financing and operation of large-scale projects. Our vision is to create value for our shareholders by becoming a leading North American nickel, copper, cobalt and PGM producer.

Qualified Persons

The PFS was overseen by AGP and the technical information disclosed in this news release was reviewed and approved by Gordon Zurowski of AGP. Mr. Zurowski is a "qualified person" as defined in NI 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and an independent consultant to the Company. The scientific and technical information disclosed in this news release in relation to metallurgical testing, including with respect to 2022-23 variability testwork, was reviewed and approved by Gordon Marrs, P. Eng., of XPS who is a "qualified person" as defined in NI 43-101 and an independent consultant to the Company.

All other scientific and technical information disclosed in this news release was reviewed and approved by Cameron Bell, Nickel Creek's Geological Consultant and a "qualified person" as defined in NI 43-101. Please see the technical report (September 2018) filed under the Company's profile at www.sedar.com, for a description of the Company's data verification and QA/QC procedures.

Cautionary Note Regarding Forward-Looking Information

This news release includes certain information that may be deemed "forward-looking information". Forward-looking information can generally be identified by the use of forward-looking terminology such as "may", "will", "expect", "intend", "believe", "continue", "plans" or similar terminology, or negative connotations thereof. All information in this release, other than information of historical facts, including, without limitation, regarding the results of technical test work, the estimated mineral resource, the prospect of any future potential economic viability of the Project, future commodity prices and the potential for them to improve, that a feasibility study will ever be commenced and completed, the potential to identify additional mineralization beyond the known resource, timing of further work on the Project, future demand for nickel and copper concentrates, future demand for battery products, statements concerning the availability and impact of the Clean ITC, the ability of the Company to identify additional opportunities to create shareholder value, and general future plans and objectives for the Company and the Project, are forward-looking information that involve various risks and uncertainties. Although the Company believes that the expectations expressed in such forward-looking information are based on reasonable assumptions, such expectations are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking information.

This news release also contains references to estimates of mineral resources. The estimation of mineral resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral resource estimates may have to be re-estimated based on, among other things: (i) fluctuations in nickel, copper or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive or maintain required permits, approvals and licences.

For more information on the Company and the key assumptions, risks and challenges with respect to the forward-looking information discussed herein, and about our business in general, investors should review the Company's most recently filed annual information form, and other continuous disclosure filings which are available at www.sedar.com. Readers are cautioned not to place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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