# Spruce Ridge Resources Ltd.

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# Spruce Ridge Receives Positive PEA at Great Burnt Copper-Gold Property

Spruce Ridge Resources Ltd. (TSX-V: SHL) ("Spruce Ridge" or the "Company") is pleased to announce that it has received the results of a Preliminary Economic Assessment ("PEA") on the Company's wholly-owned Great Burnt Copper-Gold Project in Central Newfoundland. The PEA is incorporated in a Technical Report, with an updated Mineral Resource Estimate that has an Effective Date of January 17<sup>th</sup>, 2022, prepared by P&E Mining Consultants Inc. (the "Technical Report").

John Ryan, CEO of Spruce Ridge, stated "We are very encouraged to have received this PEA, which illustrates the robust economics of a copper-gold mine at Great Burnt. Although the Mineral Resource is just over a million tonnes, the high copper grade provides a strong revenue stream, and we look forward to proceeding towards possible mine development and production in the near term. The PEA uses a copper price of US\$4.00 per pound, and the spot price of copper has been higher than that since last April. The sensitivity analysis in the PEA indicates a base-case IRR of 23.3%, and if the financial model were to use the current NYMEX spot price of US\$4.55 a pound, the IRR would rise to 81.5%. With industrialized countries moving towards near-total electrification of their economies in response to climate change, we envisage an increasingly strong demand for copper to continue for the foreseeable future".

The PEA is based on an underground mine, with 20-metre deep "starter pits" to provide rapid cash flow, on both the Great Burnt Copper Deposit and the South Pond "A" Copper-Gold Zone. Following are some highlights of the PEA:

Mine Life 4.0 years

Production rate 1,000 tonnes per day

Mining methods "Starter" open pits and underground mining with ramp access

Average grades over life-of-mine (LOM) 2.13% Cu, 0.08 g/t Au after estimated dilution and losses (blended

average of open pit & underground, Great Burnt & South Pond)

Processing Custom (toll) processing is contemplated

Projected process plant recoveries Copper 96% (25% Cu concentrate), gold 55% overall LOM average

Total tonnage mined & processed 1,068,300 tonnes

Following are some of the salient points of the cash flow analysis and financial model included in the PEA (all figures are in Canadian dollars unless indicated otherwise):

Commodity prices used Copper US\$4.00/pound, gold US\$1,675/ounce, Cdn\$ = US\$0.77

IRR after tax 23.3%

Payout 2.9 years

After tax cash flow over LOM \$14.7 million

After tax NPV @ 6% \$9.3 million

Revenue over LOM \$215.7 million

Cash operating cost \$125.71 per tonne processed

Cash cost of product US\$2.18 per pound of copper (net of by-product credits)

AISC US\$3.15 per pound of copper (net of by-product credits)

Total CAPEX \$59.0 million

Table 1 shows the results of sensitivity analysis included in the PEA, using the price of copper as the dependent variable. The line using a current NYMEX spot price has been added for illustration purposes.

TABLE 1: Sensitivity analysis - copper price							
Cu Price	After-tax NPV at 6%	After-tax IRR					
US\$/lb	\$millions	Percent					
\$3.20	-\$26.3	-31.6%					
\$3.60	-\$8.5	-7.7%					
Base case \$4.00	\$9.3	23.3%					
\$4.40	\$27.2	64.9%					
\$4.55*	\$32.9	81.5%					
\$4.80	\$42.6	114.2%					
* - NYMEX spot price Feb 18th, 2022							

**Access:** The PEA assumes that a new all-weather road will be constructed to link with existing forestry roads at Atlantic Lake, 27 km from the Great Burnt Copper Deposit and 17.5 km northeast of the South Pond "A" Copper-Gold Zone. This would reduce road distance from Great Burnt to Grand Falls-Windsor, the commercial hub of Central Newfoundland, from its current 250 km to less than 90 km.

**Mining Methods:** The PEA envisages initial mining to take place in open pits to a depth of 20 metres at the Great Burnt and South Pond "A" Zone, which will partially finance the underground development phase. Underground access will be by decline ramp, with trackless transport of mineralized material and waste rock. Mining will be by longitudinal-retreat longhole stoping. The Great Burnt Lower Zone, which has a relatively low dip, will be mined by a combination of cut-and-fill and drift-and-fill methods.

**Metallurgical Testwork:** The Technical Report presents the results of preliminary metallurgical testwork carried out by SGS Lakefield. A composite sample was made up of quartered drill core from the 2020 drilling program on the Great Burnt Main Zone, with an average grade of 2.82% Cu and 0.03 g/t Au, to approximate the run-of-mine grade. It responded well to preliminary flotation tests. A locked-cycle test run on material ground to 80% minus 55μm produced a concentrate grading 25.1% Cu and 0.23 g/t Au, with copper recovery of 98.5% and gold recovery of 58.6%. The PEA used a grind to 80% minus 50μm, a copper recovery of 96%, a concentrate grade of 25% Cu and a gold recovery of 55%.

Preliminary tests were run on sorting using X-Ray atomic density, with a view to upgrading the run-of-mine material to reduce shipping and processing costs. Copper recovery was 80%, and the grade was increased to 5.35% Cu. It was considered that the loss was excessive, and the PEA was completed on the assumption that run-of-mine would be trucked to a toll process plant. Further tests, possibly using different sensing equipment, are being considered for the future.

The Technical Report includes an updated Mineral Resource Estimate that incorporated the results of the 2020 diamond drilling program on the Great Burnt Main Zone, which was summarized in news release 2021-12 on July 8<sup>th</sup>, 2021. It is repeated in Table 2 below.

TABLE 2: Great Burnt Underground Mineral Resource Estimate at 0.90% CuEq Cut-Off								
Classification	Tonnes (k)	Cu %	Au g/t	CuEq %	Cu Mibs	Au koz	CuEq Mibs	
Great Burnt Main Zone								
Indicated	667	3.21	Nil	3.21	47.2	Nil	47.2	
Inferred	482	2.35	Nil	2.35	25.0	Nil	25.0	
South Pond "A" Deposit								
Indicated	214	1.26	1.21	2.10	6.0	8.3	9.9	
Inferred	145	1.07	1.02	1.78	3.4	4.8	5.7	
Total								
Indicated	881	2.74	0.29	2.94	53.2	8.3	57.1	
Inferred	627	2.05	0.24	2.22	28.4	4.8	30.7	

John Ryan, CEO, added "We are awaiting assay results from last fall's 3,000 metre drill program on the South Pond "B" Gold Zone, and anticipating that this may give us a possible addition to the Mineral Resource. Furthermore, we will be doing infill and step-out drilling at the South Pond "A" Copper-Gold Zone, which will firm up - and possibly add to - that Mineral Resource. We will also be following the recommendations of the Technical Report to do additional drilling on the Great Burnt Copper Deposit, with a view to converting some of the Inferred Mineral Resource into the Indicated classification."

Colin Bowdidge, Ph.D., P.Geo. and Eugene Puritch, P.Eng., Fec, CET, Qualified Persons as defined in NI43-101, have reviewed and approved the technical information in this news release. Mr. Bowdidge is a director and VP Exploration of Spruce Ridge and Mr. Puritch is independent of Spruce Ridge.

#### About Spruce Ridge Resources Ltd.

Spruce Ridge holds a 100% interest in 26,640 hectares in Central Newfoundland, including:

- the 2,890-hectare Great Burnt VMS copper-gold property;
- the 4,575-hectare Pipestone nickel prospect and;
- the 19,175-hectare Foggy Pond property

In addition to its mineral assets, Spruce Ridge acquired leases with petroleum and natural gas rights, plus shut-in oil and gas wells, pipelines, and facilities, in the Unity area of southwestern Saskatchewan and is in the process of putting these assets back into production.

Spruce Ridge currently holds 5,594,955 shares of Canada Nickel Company Inc. and 10,000,000 shares of Noble Mineral Exploration Inc.

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