

Pre-Feasibility Study supports long-life, high-value Cascabel project

20.04.2022 | [GlobeNewswire](#)

OTTAWA, April 20, 2022 - [Cornerstone Capital Resources Inc.](#) ("Cornerstone" or "the Company") (TSXV:CGP) (OTC:CTNXF) (FWB:GWN1) is pleased to announce the results of the Pre-Feasibility Study ("PFS") for the Cascabel copper-gold porphyry joint venture project in northern Ecuador in which Cornerstone has a 15% interest financed through to completion of a feasibility study and repayable out of Cornerstone's share of project earnings, plus 6.85% of the shares of joint venture partner and Project operator SolGold Plc ("SolGold"), for a total direct and indirect interest in Cascabel of 20.8%.

The PFS confirms the Cascabel project's potential to be a large, low-cost, and long-life mining operation that is based on achievable, proven, and tested mining and processing assumptions. Once constructed, Cascabel is expected to be a top 20¹ South American copper & gold mine benefiting from a high-grade core, advantageous infrastructure and an increasingly investor friendly government. The mine is expected to produce a clean copper-gold-silver concentrate expected to be sold to Asian and European smelters.

Figures referenced in this news release can be viewed through the following link:
<https://cornerstoneresources.com/site/assets/files/5846/nr22-09figures.pdf>.

HIGHLIGHTS

- Estimated US\$5.2bn pre-tax Net Present Value ("NPV") and 25.3% Internal Rate of Return ("IRR")
- Estimated US\$2.9bn after-tax NPV, 19.3% IRR and 4.7 year payback period from start of processing^{2, 3, 4, 5}
- After-tax NPV would be US\$4.1bn (US\$7.9bn pre-tax) and IRR 23.4% (30.5% pre-tax) at current spot commodity prices⁶
- Estimated average production⁷ of 132ktpa of copper, 358kozpa of gold and 1Mozpa of silver - 212ktpa copper equivalent ("CuEq")⁸ - with peak⁹ copper production of 210ktpa (391ktpa CuEq⁸)
- Initial project Life-of-Mine ("LOM") All-In-Sustaining Cost ("AISC") of US\$0.06/lb of copper, placing Cascabel well within the first decile of the copper industry cost curve¹
- On achieving nameplate capacity, average of approximately 190ktpa of copper, 680kozpa of gold and 1.3Mozpa of silver (>330ktpa CuEq⁸) over initial 5 years at an average negative AISC of US\$(1.38)/lb
- Estimated pre-production capital expenditure of US\$2.7bn for the initial cave development, first process plant module and infrastructure
- Initial Mineral Reserve of 558Mt containing 3.3Mt Cu @ 0.58%, 9.4Moz Au @ 0.52g/t and 30Moz Ag @ 1.65g/t over an initial 26-year mine life
- Potential mine life upside in excess of 50 years following initial LOM¹⁰
- Annual after-tax free cash flow ("FCF") to average US\$740m^{5, 7}, peaking at over US\$1.6bn^{5, 9}
- Average annual EBITDA¹¹ of nearly US\$1.2bn^{5, 7}, peaking at over US\$2.4bn^{5, 9}
- Additional optimizations being progressed for a PFS Addendum planned for completion in H2 CY22
- Cascabel project Definitive Feasibility Study ("DFS") planned for completion in H2 CY23
- SolGold will host a PFS presentation on 20 April 2022 at 9:30am London time. Please register at: <https://www.investormeetcompany.com/solgold-plc/register-investor>

Cornerstone CEO, Brooke Macdonald, commented:

"The PFS confirms the great potential of the Alpala deposit which we view as a step towards daylighting value across the entire Cascabel concession. We undoubtedly believe that Cascabel is a multi-generational asset with strong cash flow generation potential. The PFS supports our view that Cornerstone's 20.8% strategic direct and indirect stake in Cascabel is extremely valuable."

SolGold's MD & CEO, Darryl Cuzzubbo, commented on the PFS:

"I am extremely pleased to announce the results of the pre-feasibility study for the proposed Cascabel mine in Ecuador. In essence, it supports what we have believed all along - that this project is no ordinary mining asset. Cascabel will be a significant, multi-decade and very low cost producer of copper that can help enable Ecuador's emergence as the next copper frontier at a time when the world needs copper the most as we transition to a net zero carbon emissions future.

This project is economically attractive and based upon assumptions that we believe can be delivered upon. There is further upside that will be explored over the coming months and the next phase of the project as we seek the necessary Government approvals to move into early works and execution.

Such a project will create over 6,000 indirect and direct jobs, and bring significant royalty and tax revenue benefiting all Ecuadorians."

SolGold's Chair of the Cascabel Project Steering Committee, Keith Marshall, commented on the PFS:

"I am very encouraged with the pre-feasibility study. It offers, what I consider to be, a robust but flexible solution for the development of the underground mine at Cascabel. The study focused on the "right sizing" of the project, with the objective of reducing the technical and execution risk. It also provides a straightforward approach to mining the deposit that optimizes selectivity, without compromising any of the resource and maintaining optionality.

I am confident that the study lays the solid groundwork for the next steps in the Cascabel project. I am particularly looking forward to progressing the study work and being able to expand our operational activities in Ecuador."

SolGold's Director and former CEO, Nick Mather, commented on the PFS:

"The various upsides at Cascabel offered by additional mineralized porphyry systems still being outlined and assessed, potential for additional production and treatment plant capacity, refinements to the mine plan, continued low cost of capital and what I see as the opportunity for long run higher copper prices as the world electrifies, suggest that this project indeed has considerable further upside to be evaluated."

SUMMARY OF CASCABEL PFS RESULTS

Economic Evaluation

The PFS investigated multiple scenarios to identify an initial base case to take forward, with additional resources and upside to be investigated, supporting the next phase optimizations, and confirming the application of block cave mining to the Alpala underground resource.

Attractive initial cave project, potentially delivering:

- Initial 26-year operating life and 25Mtpa process plant throughput
- Total ore production of 558Mt, containing 3.3Mt Cu, 9.4Moz Au and 30Moz Ag
- Process plant producing 2.8Mt Cu, 7.6Moz Au and 21.7Moz Ag over the initial 26 year life of the project
- Average annual production in five years following initial cave ramp up of 190ktpa Cu, 680kozpa Au and 1.3Mozpa Ag
- Average annual production⁷ for initial cave of 132ktpa Cu, 358kozpa Au and 1.0Mozpa Ag
- AISC of US\$0.06/lb Cu over the initial 26 year mine project
- Estimated initial capital expenditure of US\$2.7bn for the initial cave development, first process plant module and infrastructure
- Payback of 4.7 years from start of operations
- After-tax NPV and IRR of US\$2.9bn and 19.3%, respectively

An initial Mineral Reserve estimate for the Cascabel project of 558Mt, with 0.58% Cu, 0.52 g/t Au and 1.65 g/t Ag for 3.3Mt Cu, 9.4Moz Au and 30Moz Ag.

Exploration success and future potential with unexplored areas identified for future drilling and extension of additional reported resources.

The PFS underpins the Mineral Reserve estimate and further optimizations of the mine and process plant are expected to deliver additional value.

The availability of low-cost hydropower, on site water resources, the use of targeted underground mining, process plant configuration, the potential use of an electric mining fleet, concentrate transport via a pipeline are expected to deliver a lower carbon footprint compared to projects which do not have these benefits.

The Cascabel project DFS is planned for completion in H2 CY23, with additional optimizations including:

- Further investigations into process plant feed rates, including additional resources such as the Tandayama-Amer?ca resource
- Capital cost reduction opportunities
- Alpala underground mine design optimization, mine sequence and scheduling, application of macro blocks
- Process plant design optimization, following additional test work
- Hydropower project development

See Table 1 on next page for an economic and operating summary of the PFS.

<i>Key PFS outcomes</i> (100% project basis; US\$ million unless otherwise noted)		<i>Base Case</i>	<i>AET - 2¹²</i>	<i>Spot Prices⁶</i>
Economic assumptions	Copper (US\$/lb)	3.60	4.20	4.74
	Gold (US\$/oz)	1,700	1,933	1,933
	Silver (US\$/oz)	19.9	24.5	24.5
	Government royalty rate	3% (base & precious metals)		
	Ecuador tax rates ¹³	15% profit share / 25% corporate		
Production	Throughput	25 Mtpa		
	Initial project LOM	26 years		
	Total ore mined	558 Mt		
	Average copper grade / recovery	0.58% / 87.1%		
	Average gold grade / recovery	0.52 g/t / 72.1%		
	Average silver grade / recovery	1.65 g/t / 65.7%		
	Total CuEq produced ⁸	4.5 Mt		
	Total copper produced	2.8 Mt		
	Total gold produced	7.6 Moz		
	Total silver produced	21.7 Moz		
	Annual CuEq production (peak/average) ^{7, 8, 9, 14}	391 kt / 212 kt		
	Annual copper production (peak/average) ^{7, 9, 14}	210 kt / 132 kt		
	Annual gold production (peak/average) ^{7, 9, 14}	829 koz / 358 koz		
	Annual silver production (peak/average) ^{7, 9, 14}	1.4 Moz / 1.0 Moz		
Capital	Pre-production	\$2,746		
	Post-production	\$2,136		
Operating	Average net cash cost (US\$/lb Cu)	(0.40)	(0.66)	(0.63)
	Average AISC (US\$/lb Cu)	0.06	(0.20)	(0.17)
Financials	Pre-tax NPV (8%)	\$5,241	\$6,915	\$7,862
	Pre-tax IRR	25.3%	28.8%	30.5%
	After-tax NPV (8%)	\$2,907	\$3,781	\$4,083
	After-tax IRR	19.3%	22.2%	23.4%
	Capital payback period	4.7 years	4.3 years	4.2 years
	Total FCF generation	\$14,413	\$16,080	\$16,278

Average annual FCF	\$740	\$856	\$863
Average annual FCF (first 5yrs post ramp-up)	\$1,345	\$1,575	\$1,699
Total EBITDA	\$24,003	\$29,178	\$32,249
Average annual EBITDA	\$1,156	\$1,396	\$1,540
Average annual EBITDA (first 5yrs post ramp-up)	\$2,040	\$2,419	\$2,622

Table 1: Economic and operating summary

An accelerated energy transition ("AET") would increase copper demand growth with a faster uptake of electric vehicles and renewable energy generation, both industries having high copper intensities. The Cascabel project concentrate is expected to be a clean high value concentrate, with low levels of deleterious elements, sought after by smelters globally. Wood Mackenzie's AET-2 long-term copper price forecast is US\$4.20/lb and is based on projections that conform to a 2-degree or lower global warming scenario. At this price, and assuming current spot prices for gold and silver, SolGold estimates an after-tax project NPV of US\$3.8bn and 22% IRR.

Project Description

Cascabel is located in northern Ecuador approximately three hours' drive north of Quito, the capital city of Ecuador. Access is via sealed highways through the closest major centre of Ibarra, located approximately 80 km south of the property. Infrastructure in the region and throughout Ecuador is generally of a high standard, with excellent road access, power, and water sources readily available in the local area.

The PFS process commenced in 2020 with a revision to scope in 2021 to investigate the 'right' capacity block cave for the Alpala underground, and corresponding right sizing and expansion of the process plant to suit. Extension opportunities, alternate mine access methods and tailings storage facility options were also considered during the PFS.

The block cave will be mined with Load Haul and Dump equipment to one of two primary crushing stations on the trucking level. Both diesel and battery electric vehicles ("BEV") were assessed during the PFS, including the potential benefits for mine ventilation requirements. For the PFS the block cave design was based on diesel vehicles in all applications except BEV for the production trucking loop. Further investigations for electrification are proposed in the DFS.

Mineral Resource Estimate ("MRE")¹⁵

The Alpala porphyry copper-gold-silver deposit, at a cut-off grade of 0.21% CuEq, comprises 2,663 Mt at 0.53% CuEq¹⁶ in the Measured plus Indicated categories, which includes 1,192 Mt at 0.72% CuEq in the Measured category and 1,470 Mt at 0.37% CuEq in the Indicated category. The Inferred category contains an additional 544 Mt at 0.31% CuEq.

The MRE comprises a contained metal content of 9.9 Mt Cu and 21.7 Moz Au in the Measured plus Indicated categories, which includes 5.7 Mt Cu and 15.0 Moz Au in the Measured category, and 4.2 Mt Cu and 6.6 Moz Au in the Indicated category. The Inferred category contains an additional 1.3 Mt Cu and 1.9 Moz Au.

Mineral Resource category	Mt	Grade				Contained metal			
		CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)	CuEq (Mt)	Cu (Mt)	Au (Moz)	Ag (Moz)
Measured	1,192	0.72	0.48	0.39	1.37	8.6	5.7	15.0	52.4
Indicated	1,470	0.37	0.28	0.14	0.84	5.5	4.2	6.6	39.8
Measured + Indicated	2,663	0.53	0.37	0.25	1.08	14.0	9.9	21.7	92.2
Inferred	544	0.31	0.24	0.11	0.61	1.7	1.3	1.9	10.6
<i>Planned dilution</i>	<i>5</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>

Table 2: Cascabel project Alpala underground mineral resource estimate.

Notes:

1. Mrs. Cecilia Artica, SME Registered Member, Principal Geology Consultant of Mining Plus, is responsible for this Mineral Resource statement and is an "independent Qualified Person" as such term is defined in NI 43-101.
2. The Mineral Resource is reported using a cut-off grade of 0.21% CuEq calculated using [copper grade (%)] + [gold grade (g/t) x 0.613].
3. The Mineral Resource is considered to have reasonable prospects for eventual economic extraction by underground mass mining such as block caving.
4. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
5. The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.
6. MRE is reported on a 100 percent basis within an optimized shape.
7. Figures may not compute due to rounding.

Mineral Reserve Estimate

The Mineral Reserves have been estimated for a block caving method and take into account the effect of mixing of indicated material with dilution from low grade or barren material originating from within the caved zone and the overlying cave backs. The initial Mineral Reserve represents only 21% of Measured and Indicated Resources tonnes and approximately 38% of contained metal.¹⁷

Mineral Reserve category	Mt	Grade			Contained metal		
		Cu (%)	Au (g/t)	Ag (g/t)	Cu (Mt)	Au (Moz)	Ag (Moz)
Probable	558	0.58	0.52	1.65	3.26	9.37	30
Total	558	0.58	0.52	1.65	3.26	9.37	30

Table 3: Cascabel project Alpala underground mineral reserve estimate.

Notes:

1. Effective date of the Mineral Reserves is 31 March 2022.
2. Only Measured and Indicated Mineral Resources were used to report Probable Mineral Reserves.
3. Mineral Reserve reported above were not additive to the Mineral Resource and are quoted on a 100% project basis.
4. The Mineral Reserve is based on the 18 March 2020 Mineral Resource.
5. Totals may not match due to rounding.
6. The statement uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.
7. The Mineral Reserve Estimate as of 31 March 2022 for Alpala was independently verified by Aaron Spong FAusIMM CP (Min) who is a full-time employee of Mining Plus. Mr Spong fulfils the requirements to be a "Qualified Person" for the purposes of NI 43-101 and is the Qualified Person under NI 43-101 for the Mineral Reserve.

Mining

Access to the Alpala underground mine is expected to be via twin declines commencing from a boxcut located near the surface and the first lift near the 300mRL. Mining is planned to be a Block Caving mining method, whilst all horizontal development will be undertaken utilising conventional drill and blast practices. The vertical development for the main ventilation rises will be excavated using blind sinking methods.

Mine production design for the block cave incorporated findings from detailed geotechnical and hydrogeological assessments, to determine the height of draw based on recommended draw bell spacing. Lower grade draw points on the west of the footprint were included in preference to those in the east to generate a smaller span option. Current geotechnical guidelines inform to commencing the cave on the eastern side, expanding to the west, causing a small delay in higher grade draw points in the centre.

Initial access to the footprint will be via an early access blind sunk shaft to the southwest of the deposit. This

will link to a twin decline mined from the north of the deposit with a portal adjacent to the process plant. In the longer term the decline will be the main access path.

The shaft is used to gain early access to the footprint, where it is used to mine long lead time excavations on the footprint, primarily the crusher chamber and access to the collection chamber under the crusher chamber.

The declines are accessed from two separate portals. The second portal location is for the conveyor only, located in proximity to the process plant location. The first portal is located further to the south to reduce the critical path distance to the footprint. An overview concept of the lateral and vertical accesses is shown in Figure 1.

The portals are located in a boxcut approximately 3,000m from the orebody. They have been positioned in close proximity to major surface infrastructure including the processing plant due to the nature of the surrounding terrain. It allows a direct route for the ore to the processing plant without the requirement to build surface haulage routes in mountainous terrain. This eliminates material handling issues that would be apparent if the portals were located elsewhere.

The mine design has been developed to enable all infrastructure including the primary crushers to be off set from the cave abutment zone in accordance with geotechnical recommendations. The infrastructure design in this PFS has assumed loader tramming from drawpoint to ore pass, to loadout stations for a truck haulage loop, terminating at the tip points for the crusher feed bin/s, located outside the caving zone (Figure 2).

In addition to the initial access shaft and the access and conveyor declines, the PFS design includes shafts for ventilation. Each of these shafts is designed to suit the ventilation requirements for the steady-state operating mine. The early access shaft will also become a source of fresh air intake once all early access requirements are completed, and the decline development reaches the footprint.

Sufficient refuge chambers will be located in disused stockpiles and cuddies to accommodate the number of personnel working underground (expected to be highest during the construction phase when mechanical/civil works are being undertaken to install the materials handling system in addition to underground miners).

The twin decline provides a second means of egress, with the early access shaft another potential egress method. During the development of the footprint, small boxholed escapeway rises may be required between the undercut and extraction levels depending on the schedule.

Process Plant (Figures 3 & 4)

The crushed ore from the underground primary crushers will be conveyed to the surface and fed to the secondary crushing circuit. The product from the secondary crushing area will be conveyed to the fine ore stockpile, and subsequently reclaimed to the high-pressure grinding rolls ("HPGR") circuit. The product from the HPGR circuit will report to a grinding circuit consisting of ball mills, each operating in closed circuit with a hydrocyclone cluster.

The ground product will report to conventional rougher flotation. The rougher concentrate will be reground using stirred mills and will be subsequently upgraded within the cleaner flotation circuit to produce a saleable flotation concentrate. Cleaner flotation tailings are further processed through conventional flotation cells to recover gold and silver contained within pyrite. Pyrite concentrate is thickened and subjected to a conventional cyanide leach/carbon in pulp ("CIP") extraction followed by an Anglo American Research Laboratory ("AARL") gold recovery circuit. Sludge electrowinning cells recover gold and silver from eluate for smelting to dor? bars in the gold room.

The flotation concentrate will be thickened using a high-rate thickener and then pumped via a pipeline to the Esmeraldas port facility. Two tailings streams will be produced from the flotation circuit, namely the rougher tailings and the cleaner scavenger (or pyrite) tailings, requiring disposal within the tailings storage facility ("TSF"). These tailings streams will be thickened separately using high-rate thickeners prior to independent pumping to, and disposal to at the TSF. The TSF design is based on regulatory and best practice standards

and guidelines, including ANCOLD 2019 and the Global Industry Standard on Tailings Management established by The International Council on Mining and Metals ("ICMM"), the United Nations Environment Programme ("UNEP") and the Principles for Responsible Investment ("PRI").

The concentrate slurry will be received by an additional thickening stage at the Port facility. The concentrate will then be dewatered using Larox continuous cloth vertical tower filters. The resulting filter cake will be stockpiled within a covered facility until reclaimed for seaborne transportation.

Process water will be recycled from the thickener overflows and supplemented with treated water from the underground mine. Additional make-up water to the process water system will be provided from the raw water supply drawn from the on-site catchment dam. Raw water will be also used for potable water production, gland seal service for the slurry pumps, cooling water make-up, reagent preparation, and fire water supply.

Indicative Production Profile (Figure 5 & 6)

Following mining optimization studies, the production profile for the Cascabel project is based on a process plant nameplate capacity of 25Mtpa from the underground block cave at the Alpala deposit. The project is expected to reach nameplate capacity in the fourth year from the start of process plant operations with first ore expected in mid-2029.

Initial process plant production totalling 2.8Mt of copper, 7.6Moz of gold and 21.7Moz of silver.

The PFS mine plan targets the Alpala high grade core with copper grades expected to average over 0.75% (~1.35% copper equivalent) over the first 10 years of production.

Metal recoveries to the copper gold flotation concentrate are based on equations fitted to the locked cycle test work ("LCT") results and in general indicate good to very good fits of the data.

Copper concentrate grade is based on mass recovery to concentrate and copper recovery to concentrate.

Metal recoveries to dor? are estimated based on limited test work results. Whilst the pyrite concentrate is amenable to cyanidation, but further test work is required to further define the metal recovery to the pyrite concentrate and the metal recoveries to dor?.

Capital Cost Estimate

The capital cost estimate meets the requirements for a pre-feasibility Study consistent with the Association for the Advancement of Cost Engineering ("AACE International") cost estimating guidelines for a Class 4 estimate. The estimate accuracy range of ±25% is defined by the level of project definition, the time available to prepare the estimate and the amount of project cost data available.

The total capital cost estimate for the Cascabel project is summarized in Table 4.

Area	Pre-Production US\$M	Post-Production US\$M
Mine	900	748
Process plant	465	219
Tailings storage facility	309	695
Port facility	39	15
Surface infrastructure	175	42
Indirect costs	467	113
Contingency	391	304

Total	2,746	2,136
-------	-------	-------

Table 4: Cascabel project capital cost estimate

Pre-production capital totals US\$2.7bn and includes all costs up to first ore to the process plant. Post-production costs required to achieve production ramp-up to design capacity and sustaining capital are estimated to total US\$2.1bn.

Operating Cost Estimate (Figure 7)

The Cascabel block cave operation is estimated to have a low unit mining cost (operating and sustaining) of US\$6.51/t. Total average gross unit cash costs inclusive of treatment charges and government royalties are US\$1.72/lb of payable copper. AISC costs inclusive of gold and silver by-product credits are estimated at US\$0.06/lb Cu over the 26-year mine life and averaging US\$(1.38)/lb in the first five years from achieving nameplate capacity, positioning Cascabel well within the first decile of the global copper industry cost curve. Net cash costs are estimated at US\$(0.40)/lb Cu. Negative cash costs reflect significant precious metals by-product contributions, primarily gold, providing downside protection to lenders.

Cash Flow Generation (Figure 8)

Cascabel's indicative production profile and low operating costs are expected to support strong after-tax free cash flow generation totalling nearly US\$14.5bn over the 26-year initial mine life and averaging US\$740m annually.

Environmental, Social and Governance ("ESG")

Project operator SolGold has stated it is committed to the social and environmental sustainability of its projects and being a leader in this space within Ecuador. As SolGold advances the Cascabel project, clearly defined criteria will be reported as studies advance into development and operations.

As a minimum, SolGold considers the following criteria immediately applicable not only from a corporate perspective but also to its activities within countries where SolGold has interests:

- Environment: managing carbon footprint and use of renewable resources
- Social: encourages diversity and pays fair wages
- Governance: Committed to complying with UK Corporate Governance Code from mid-2022

SolGold has built strong community partnerships over the last decade in the country and has an extensive engagement process that will be continued through the Environmental Impact Assessment ("EIA") stage.

Ecuadorian law requires that an EIA be conducted prior to authorisation of construction and operations. In addition to Ecuadorian requirements, SolGold will ensure that the EIA is compliant with appropriate international standards. At minimum, these would include consideration to the applicable Equator Principles, the International Finance Corporation ("IFC") Performance Standards and Environmental, Health, and Safety Guidelines, as well as Sustainable Development Goals ("SDG") which align with the development of the Cascabel project and the effected regions.

In anticipation of advancing the permitting processes within Ecuador, environmental baseline studies within the Cascabel tenement are well advanced.

SolGold will be evaluating several options as part of the DFS to manage and minimise the project's overall carbon footprint. These include maximising power from hydro generation sources, further investigations on electrification, assessing process integration to optimize operational efficiency, among other initiatives.

SolGold is continuing on its journey toward compliance with the UK Corporate Governance Code and intends

to be compliant with all aspects of the code from mid-2022.

Sensitivity Analysis

A sensitivity analysis was performed on the base case after-tax NPV to examine the sensitivity to commodity prices, capital costs and operating costs.

The Cascabel project is most sensitive to changes in the copper and gold prices as well as capital costs; less sensitive to changes in operating costs, and least sensitive to changes to silver prices. Figure 9 and Table 5 show the results of the after-tax analysis.

After-tax NPV of project (US\$M)	Copper Price (base US\$3.60/lb)						
	-30%	-20%	-10%	0%	+10%	+20%	+30%
Discount Rate 5%	3,177	3,795	4,308	4,907	5,615	6,400	7,263
Discount Rate 10%	1,924	2,223	2,615	3,070	3,600	4,200	4,874
After-tax NPV of project (US\$M)	Gold Price (base US\$1,700/oz)						
	-30%	-20%	-10%	0%	+10%	+20%	+30%
Discount Rate 5%	3,829	4,223	4,615	5,007	5,399	5,790	6,182
Discount Rate 10%	2,294	2,460	2,626	2,792	2,958	3,124	3,290

Table 5: Metal price and discount rate sensitivity analysis

Outstanding Opportunities and Upside Options

The Cascabel project optimizations which will be progressed include:

- Further investigations into process plant feed rates, including additional resources such as the Tandayama-Amer?ca resource
- Capital cost reduction opportunities
- Alpala underground mine design optimization, mine sequence and scheduling, application of macro blocks
- Process plant design optimization, following additional test work
- Hydropower project development

Next Steps

The Cascabel project DFS is planned for completion in H2 CY23. SolGold plc is currently progressing additional optimizations in preparation for the DFS that will be included in a PFS Addendum planned for completion in H2 CY22.

SolGold plans to engage with the relevant government departments from Q2 CY22 to commence fiscal

discussions and the permitting process.

SolGold intends to release a National Instrument 43-101 ("NI 43-101") technical report on Cascabel within 45 days of this release (the "Technical Report").

Qualified Persons

The Qualified Persons for the "Cascabel Project, Ecuador, NI43-101 Technical Report on Pre-Feasibility Study", that has an effective date of 31 March 2022, are detailed in the table below.

Category	Name	Company
Mineral Resource Estimate	Cecilia Artica, BSc MSc RMSME	(formerly) Mining Plus
Mineral Reserve Estimate	Aaron Spong, BEng FAusIMM CP (Min)	Mining Plus
Environment, Social, Tailings & Water	Tim Rowles, BSc MSc FAusIMM CP RPEQ	Knight Pi?sold Pty Ltd
Metallurgy	Peter Gron, BSc FAusIMM	Wood plc
Process Plant & Infrastructure	Steve Klose, BEng MSc FAusIMM	Wood plc
Financial Evaluation	Kirk Hanson, MBA PE	Wood plc
Marketing	Christopher Heath, BSc Hons PhD FAusIMM	Wood Mackenzie

Yvan Crepeau, MBA, P.Geo., Cornerstone's Vice President, Exploration and a qualified person in accordance with National Instrument 43-101, is responsible for supervising the exploration program at the Cascabel project for Cornerstone and has reviewed and approved the information contained in this news release.

About Cornerstone

[Cornerstone Capital Resources Inc.](#) is a mineral exploration company with a diversified portfolio of projects in Ecuador and Chile, including the Cascabel gold-enriched copper porphyry joint venture in northwest Ecuador. Cornerstone has a 20.8% direct and indirect interest in Cascabel comprised of (i) a direct 15% interest in the project financed through to completion of a feasibility study and repayable at Libor plus 2% out of 90% of its share of the earnings or dividends from an operation at Cascabel, plus (ii) an indirect interest comprised of 6.85% of the shares of joint venture partner and project operator [SolGold plc](#) Exploraciones Novomining S.A. ("ENSA"), an Ecuadoran company owned by SolGold and Cornerstone, holds 100% of the Cascabel concession. Subject to the satisfaction of certain conditions, including SolGold's fully funding the project through to feasibility, [SolGold plc](#) will own 85% of the equity of ENSA and Cornerstone will own the remaining 15% of ENSA.

Further information is available on Cornerstone's website: www.cornerstoneresources.com and on Twitter. For investor, corporate or media inquiries, please contact:

Investor Relations:

Mario Drolet; Email: Mario@mi3.ca; Tel. (514) 904-1333

Due to anti-spam laws, many shareholders and others who were previously signed up to receive email updates and who are no longer receiving them may need to re-subscribe at <http://www.cornerstoneresources.com>

Cautionary Notice:

News releases, presentations and public commentary made by Cornerstone and its Officers (or by Cascabel project joint venture partner and project operator [SolGold plc](#) and reproduced in this news release) may contain certain statements and expressions of belief, expectation or opinion that are forward looking statements, and that relate, among other things, to interpretations of exploration results to date and the proposed strategy, plans and objectives or to the expectations or intentions of the Company's Directors, including the plan for developing the Cascabel Project currently being studied as well as the expectations of

the Company as to the future price of copper, gold and silver, and as to the reasonableness of assumptions in the PFS about royalty rates payable to the Government of Ecuador which are subject to negotiation in a final binding development agreement. Such forward-looking and interpretative statements involve known and unknown risks, uncertainties and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such interpretations and forward-looking statements.

Accordingly, the reader should not rely on any interpretations or forward-looking statements; and save as required by the exchange rules of the TSXV or by applicable laws, the Company does not accept any obligation to disseminate any updates or revisions to such interpretations or forward-looking statements. The Company may reinterpret results to date as the status of its assets and projects changes with time expenditure, metals prices and other affecting circumstances.

This release may contain "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, statements regarding the Company's plans for developing its properties. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved".

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: transaction risks; general business, economic, competitive, political and social uncertainties; future prices of mineral prices; accidents, labour disputes and shortages, including those of anti-mining sentiment in certain regions of Ecuador, and other risks of the mining industry. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Factors that could cause actual results to differ materially from such forward-looking information include, but are not limited to, risks relating to the ability of exploration activities (including assay results) to accurately predict mineralization; errors in management's geological modelling and/or mine development plan; capital and operating costs varying significantly from estimates; the preliminary nature of visual assessments; delays in obtaining or failures to obtain required governmental, environmental or other required approvals; uncertainties relating to the availability and costs of financing needed in the future; changes in equity markets; inflation; the global economic climate; fluctuations in commodity prices; the ability of the Company to complete further exploration activities, including drilling; delays in the development of projects; environmental risks; community and non-governmental actions; other risks involved in the mineral exploration and development industry; the ability of the Company to retain its key management employees and skilled and experienced personnel; and those risks set out in the Company's public documents filed on SEDAR at www.sedar.com. Accordingly, readers should not 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.

The Company and its officers do not endorse, or reject or otherwise comment on the conclusions, interpretations or views expressed in press articles or third-party analysis, and where possible aims to circulate all available material on its website.

The Company cautions that the Cascabel project remains an early-stage project at this time and there is inherent uncertainty relating to any project at prior to the determination of pre-feasibility study and/or defined feasibility study.

On Behalf of the Board,
Brooke Macdonald
President and CEO

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

- 1 Wood Mackenzie Q4 2021 Outlook, 2032 forecast.
The PFS is subject to an accuracy range of ±25% in accordance with AACE class 4 estimates. The findings in the PFS and the implementation of the Cascabel project are subject to all the necessary approvals, permits, internal and regulatory requirements and further works. The estimates are indicative only and are
- 2 subject to market and operating conditions. They should not be interpreted as guidance. The information contained herein is a summary only and is qualified in its entirety by reference to the Technical Report (as defined below).
- 3 100% project basis.
- 4 Based on a discount rate of 8% (real).
- 5 Based on long-term commodity price assumptions of US\$3.60/lb for copper, US\$1,700/oz for gold and US\$19.9/oz for silver.
- 6 Spot prices on 4 April 2022 of US\$4.74/lb for copper, US\$1,933/oz for gold and US\$24.5/oz for silver.
- 7 Average based on years 4 - 22 at full nameplate capacity.
Assumptions for copper equivalent calculations as provided in Table 1 for commodity prices, grades and recoveries. Copper equivalent production (by-product basis) = Recovered Cu tonnes + (Au Price US\$/oz) / (Cu Price US\$/t) x (Recovered + dor? gold ounces) + (Ag Price US\$/oz) / (Cu Price US\$/t) x (Recovered + dor? silver ounces).
- 8
- 9 Peak production, free cash flow and EBITDA in year 5 from start of production.
- 10 As the Mineral Reserve represents only 21% of the M&I Resource tonnes SolGold believes there is potential further mine life upside in excess of 50 years.
- 11 EBITDA is a Non IFRS Financial Measure and refers to Earnings Before Interest, Tax, Depreciation and Amortization.
- 12 Wood Mackenzie Accelerated Energy Transition (2 degrees) long-term copper price forecast of US\$4.20/lb. Assuming spot price for gold and silver.
- 13 Profit share: 12% to state, 3% to employees. Corporate tax applied to EBT (Earnings Before Tax) after deduction of profit share.
- 14 Peak production in year 5 from start of production.
See "Cascabel Property NI 43-101 Technical Report, Alpala Porphyry Copper-Gold-Silver Deposit - Mineral
- 15 Resource Estimation, January 2021" with an Effective date: 18 March 2020 and Amended Date: 15 January 2021 (the "Amended Technical Report"), filed at www.Sedar.com on January 29, 2021.
Alpala MRE was reported at a cut-off grade of 0.21% copper equivalent (CuEq) using a copper equivalency factor of 0.613 (whereby CuEq = Cu + Au x 0.613). Cut-off grades and copper equivalency used for reporting were based on third party metal price research, forecasting of Cu and Au prices, and a cost structure from
- 16 mining studies data available at the time. Costs include mining, processing and general and administration (G&A). Net Smelter Return (NSR) includes metallurgical recoveries and off-site realisation (TCRC) including royalties and utilising metal prices of Cu at US\$3.40/lb and Au at US\$1,400/oz.
As the Mineral Reserve represents only 21% of the Measured and Indicated Resource tonnes the SolGold
- 17 believes there is potential further mine life upside in excess of 50 years. Mineral Reserve contained metal estimated at base case long-term prices of US\$3.60/lb for copper, US\$1,700/oz for gold and US\$19.9/oz for silver.

Dieser Artikel stammt von Rohstoff-Welt.de

Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/412935--Pre-Feasibility-Study-supports-long-life-high-value-Cascabel-project.html>

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).