SolGold PLC Announces Alpala Update - Phase 2 Metallurgical Report

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Further Metallurgical Test Work Continues to Add Improvements and Modelled Revenue Increases at Alpala

BISHOPSGATE, April 29, 2020 - The Board of Directors of SolGold (LSE:SOLG)(TSX:SOLG) is pleased to provide an update on the ongoing comprehensive metallurgical test work programme underway at the Company's flagship Alpala copper-gold porphyry Project in northern Ecuador.

Following the completion of further metallurgical test work at Alpala, the Company has received the Phase 2 Test Work Report by ALS Metallurgical Laboratories, Canada. Phase 1 and 2 together represent an evaluation of the metallurgy for the whole planned mine life of the Alpala deposit.

Improved recoveries in metallurgical tests across all valuable minerals indicate a potential increase in the revenues from the Alpala project. Results from these metallurgical test programmes form important elements of the Pre-Feasibility Study ("PFS") currently underway. Phase 2 allowed SolGold to conduct flowsheet optimisation testing followed by flowsheet development.

Highlights of the Phase 2 metallurgical test-work:

·Life of mine increase in gold recovery by 7% compared to results of the Preliminary Economic Assessment ("PEA") filed on 19 November 2019

·Ability to produce 26%-30% copper concentrate (plus gold and silver) for modelled life of mine

·Low deleterious elements in concentrate for life of mine, such as arsenic, bismuth, cadmium, fluorine and others (see glossary)

·All composite samples from Phase 2 (as in Phase 1) responded well to conventional froth floatation with high valuable metal recovery rates overall

·Mineralogical testing confirmed that the copper sulphide mineral was substantially chalcopyrite

The Phase 2 test work programme following the PEA, builds on initial previously reported Phase 1 test work (PEA) and includes:

·Confirmatory tests on samples representative of the initial ten years of the mine life

·Expansion of tests with a focus on years ten to twenty of the mine life

·Tests to evaluate performance on lower grade material in the later mine life (after year 20)

The Phase 2 test work programme was based upon further composite samples from 785 metres (1,437kg) of core from previous diamond drilling at the Alpala project. This generated a total of 33 variability composites (each comprising 24 metres of core) as well as four master composites. The master composites represent low, medium (x2) and high grade feed material. To date, a total of 1,265 metres (2,417kgs) of core has been analysed and metallurgically assessed as part of both Phase 1 and Phase 2 of the metallurgical programme,

comprising 53 variability samples and seven master composites.

Table 1 below shows the full spectrum of project feed grades covered in both Phase 1 and Phase 2.

Please click on the PDF to view the full announcement:
http://www.rns-pdf.londonstockexchange.com/rns/2405L_1-2020-4-28.pdf

Figure 1: Composite feed grades for Phase 1 (PH1) and Phase 2 (PII) test programmes.

		Feed Grade		
Mine Years	Composite	Cu	Ag	Au
		%	g/t	g/t
Phase 1 Report (Years 1-10)	PH1-HG	2.02	4.2	3.12
	PH1-IG	1.18	2.2	2.61
	PH1-LG	0.79	1.6	0.47
Phase 2 Report (Years 1-49)	PII-LG	0.21	1.0	0.12
	PII-MG1	0.42	1.0	0.18
	PII-MG2	0.63	1.5	0.36
	PII-HG	1.53	5.5	1.13

Note: indicated sample position in the 50Mt/a fast ramp up case as per PEA

Figure 2: Graph showing metallurgical samples over modelled mine life

Commenting on the results, Nicholas Mather, SolGold's Chief Executive Officer commented:

"Despite current disruptions due to COVID-19, the SolGold team continues to progress large scale metallurgical test work at Alpala. The results of this are being used to assess potential refinements to the flowsheet and our operating and capital cost estimates as well as improvements in revenues generated by upgraded recoveries. In addition, these results continue to demonstrate the high-quality of Alpala concentrate and form an important part of our current offtake negotiations with leading traders and smelters."

Greg Harbort, General Manager of Process and Metallurgy said:

"The comprehensive test programme completed thus far has once again produced encouraging results. The flotation tests have demonstrated the ability to produce a high grade dominantly chalcopyrite concentrate throughout the modelled mine life and confirms the Alpala project to be a very low deleterious content deposit. Variability test work conducted so far has shown that production can occur effectively at any point on the grade-recovery curve, positioning the modelled mine robustly in terms of possible concentrate market changes."

Background to Phase 2 Metallurgical Test Work

In Phase 2, efforts were focused on optimising the process flowsheet using the test results of the four master composites, prepared from the 33 variability samples. The developed flowsheet was then applied to the 33

individual variability samples. Locked cycle tests were initially run with water sourced from site, and no water recycle. Locked cycle tests have for several decades, been the industry standard method used to simulate plant operation (with regard to recirculating loads, water quality and reagent usage) and optimal metallurgical recovery circuit design.

The tests were then repeated with recycled water to simulate process water use on site. This produced eight sets of locked cycle results, with feed grades varying from 0.21% Cu to 1.53% Cu. Recovered copper concentrate grades ranged from 25.7% to 30.1% copper content. Gold in the concentrate varied from 10.3 g/t to 16.7 g/t, and silver from 45 g/t to 93 g/t. Extended analysis showed very low deleterious elements in the concentrate (Figure 6), well below any applicable penalty limits.

SolGold considers that following suitable regrind and cleaning stages, it may be possible to produce a saleable magnetite concentrate. Tailings from each of the rougher flotation variability tests were subjected to Davis Tube Recovery tests to evaluate the potential for magnetite recovery. The tests were conducted at the 'as received' grind size (typically 150 µm) at a magnetic intensity of 4,000 Gauss. Magnetite recoveries were calculated based on the flotation feed mineralogy. The results indicate that at a feed grade of greater than 2.5% magnetite, a concentrate grading >40% magnetite can be produced. Magnetite recoveries (to concentrate) averaged 85%. SolGold is continuing to evaluate by-product magnetite recovery.

Figure 3: Composite recoveries and concentrate grades (based on test work mass balance) for Phase 1 and Phase 2 test programmes.

Phase	Sample	Recovery			Concentrate Grade		
		Cu	Au	Ag	Cu	Au	Ag
		%	%	%	%	g/t	g/t
1	Low Copper Master Composite	86.0	78.7	56.3	30.4	28.3	45.0
1	Intermediate Copper Master Composite	92.5	81.2	74.2	28.4	46.2	39.0
1	High Copper Master Composite	93.1	85.8	78.8	30.7	41.0	58.0
2 (Fresh site water)	Low Grade Master Composite	78.2	50.1	26.8	28.5	10.3	48.0
	Medium Grade Master Composite No 1	83.3	68.7	62.3	29.5	10.4	52.0
	Medium Grade Master Composite No 2	87.7	63.6	62.4	27.2	10.7	46.0
	High Grade Master Composite	94.9	70.0	56.4	29.7	16.1	93.0
2 (Fresh water/ no water recycle)	Low Grade Master Composite	81.8	46.5	19.3	27.9	10.5	47.0
	Medium Grade Master Composite No 1	83.3	67.1	26.6	28.0	10.8	53.0
	Medium Grade Master Composite No 2	86.0	65.7	60.5	25.7	10.9	45.0
	High Grade Master Composite	94.8	75.9	79.3	30.1	16.7	91.0

Flotation Recovery

A substantial focus of SolGold's Phase 2 test work centred on adjustments to the flotation circuit design and reagent regime in order to increase gold recovery.

Phase 2 locked cycle testing of the Alpala ores indicates a 7% increase in life of mine gold recovery compared to the PEA. As indicated in Figure 4, substantial improvements in recovery are expected to be

achieved from year twenty onwards.

Predicted copper recoveries were consistent with the Phase 1 (PEA) predictions for years 1 to 10, but approximately 1% lower over years 10-30. Overall this represents a 0.51% decrease in copper recovery compared to modelled recoveries referred to in the PEA.

Tailings from the cleaner cells were collected into ten composites and subjected to bottle roll cyanidation test work to evaluate the extraction of copper, gold and silver in an effort to further enhance recoveries of these metals.

An additional two composites were used to evaluate recoveries from biological and thiosulphate leaching. The grade of the cyanidation composites varied from 0.29 g/t Au to 2.68 g/t Au, with gold extraction from the cleaner tailing, based on a 72-hour residence time, varying from 46% to 88% from cleaner cell tailings.

Leach enhancement via an acid wash increased gold extraction to between 58% and 89% from the cleaner cell tailings. Twenty-one days biological oxidation followed by cyanidation increased the gold extraction to 93%. Cyanide consumption ranged between 0.8 kg/t and 6.2 kg/t.

Figure 4: Flotation gold recovery showing improved benefit in the mid-late life period of the mine.

Figure 5: Flotation copper recovery consistent with predicted performance to PEA.

Figure 6: Extended Analysis - Locked Cycle Test Copper Concentrate Quality (Phase 2 Report)

Element	Symbol	Units	Sample			
			LG	MG1	MG2	HG
			T54 Cycle V+VI Copper Con	T50/55 V+VI Copper Con	T52/56 V+VI Copper Con	T53/57 V+VI Copper Con
Antimony	Sb	g/tonne	7.1	2.4	4	15
Arsenic	As	g/tonne	18	21	92	70.5
Bismuth	Bi	g/tonne	5.3	6.3	8.0	9.4
Cadmium	Cd	g/tonne	12.6	4.6	9.1	16.3
Chlorine	Cl	g/tonne	<50	<50	<50	<50
Copper*	Cu	%	27.9	28.8	26.4	29.9
Fluorine	F	g/tonne	60	55	60	<20
Gold*	Au	g/tonne	10.3	10.6	10.8	16.4
Iron*	Fe	%	28.0	28.9	30.7	30.5
Lead	Pb	g/tonne	533	83	88	148
Magnesium	Mg	%	0.30	0.18	0.21	0.05
Mercury	Hg	g/tonne	<1	<1	<1	<1

Organic Carbon	TOC	%	0.11	0.08	0.06	0.04
Selenium	Se	g/tonne	110	135	140	180
Silver*	Ag	g/tonne	47	53	46	92
Sulphur(S)*	S	%	32.8	33.9	35.4	36.0
Tellurium	Te	g/tonne	7.8	5.35	7.9	10.1
Zinc	Zn	g/tonne	1260	260	785	2420

Source: ALS Phase 2 Report 2020
Notes: a) *Cu, Fe, Au, Ag and S assays were taken from locked cycle test assays completed at ALS Metallurgy Kamloops, Canada; results for other metals were sourced from assays completed at ALS Geochemistry in North Vancouver, Canada.
b) Values indicate averages of determinations completed on individual concentrates from each locked-cycle test.
c) Complete multi-element ICP analyses along with other external concentrate assays can be located in Appendix V - Special Data in the full ALS Phase 2 Report
d) Details of extended analysis as included in the full ALS Phase 2 Report

Further Planned Test Work

As part of the PFS (and ultimate DFS), SolGold continues to advance its metallurgical test work programme. This includes plans for a bulk sampling programme to generate 20 to 30 tonnes of material for pilot plant evaluation. This will include vendor thickening and filtration tests, transportable moisture limits (TML) for shipment, rheology tests for concentrate and tailing pipelines and further tailing characterisation work. In addition, selected sample will be used for crushing tests and pyrite concentrate will be produced for further leach evaluation. If warranted, tailings will be evaluated for more detailed magnetite recovery. The Company will provide a further update on this in due course.

SolGold's on site operations in Ecuador are currently halted in an effort to reduce the potential transmission of COVID-19. SolGold continues to actively monitor all its employees. Health and safety are top priorities for the Company and SolGold will continue supporting its employees and local communities where possible in their efforts to curtail the spread of the virus.

By order of the Board
Karl Schlobohm
Company Secretary

Glossary

Chalcopyrite: $CuFeS_2$ and the main copper ore mineral accounting for approximately half of all copper production

Cleaner: final section of flotation recovery circuit, focussing on increasing concentrate grades

Comminution: section of the mineral processing circuit that reduces the size of the ore fragments to a suitable size for flotation

Deleterious elements: elements that reduce product saleability such as arsenic, bismuth, cadmium, chlorine, fluorine, mercury, selenium, tellurium and uranium

Locked cycle: a repetitive batch used to simulate a continuous metal recovery circuit

Rougher: initial section of a flotation recovery circuit, focusing on maximising metal recovery at variable concentrate grades.

Qualified Person:

Information in this report relating to the exploration results is based on data reviewed by Mr Jason Ward ((CP) B.Sc. Geol.), the Chief Geologist of the Company. Mr Ward is a Fellow of the Australasian Institute of Mining and Metallurgy, holds the designation FAusIMM (CP), and has in excess of 20 years' experience in mineral exploration and is a Qualified Person for the purposes of the relevant LSE and TSX Rules. Mr Ward consents to the inclusion of the information in the form and context in which it appears.

Market Abuse Regulation (MAR) Disclosure

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of the Regulation (EU) No 596/2014 until the release of this announcement.

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ABOUT SOLGOLD

SolGold is a leading resources company focussed on the discovery, definition and development of world-class copper and gold deposits. In 2018, SolGold's management team was recognised by the "Mines and Money" Forum as an example of excellence in the industry and continues to strive to deliver objectives efficiently and in the interests of shareholders. SolGold is the largest and most active concession holder in Ecuador and is aggressively exploring the length and breadth of this highly prospective and gold-rich section of the Andean Copper Belt.

The Company operates with transparency and in accordance with international best practices. SolGold is committed to delivering value to its shareholders, while simultaneously providing economic and social benefits to impacted communities, fostering a healthy and safe workplace and minimizing the environmental impact.

Dedicated stakeholders

SolGold employs a staff of 737 employees of whom 98% are Ecuadorean. This is expected to grow as the operations expand at Alpala, and in Ecuador generally. SolGold focusses its operations to be safe, reliable and environmentally responsible and maintains close relationships with its local communities. SolGold has engaged an increasingly skilled, refined and experienced team of geoscientists using state of the art geophysical and geochemical modelling applied to an extensive database to enable the delivery of ore grade intersections from nearly every drill hole at Alpala. SolGold has 86 geologists, of whom 30% are female, on the ground in Ecuador exploring for economic copper and gold deposits.

About Cascabel and Alpala

The Alpala deposit is the main target in the Cascabel concession, located on the northern section of the heavily endowed Andean Copper Belt, the entirety of which is renowned as the base for nearly half of the world's copper production. The project area hosts mineralisation of Eocene age, the same age as numerous Tier 1 deposits along the Andean Copper Belt in Chile and Peru to the south. The project base is located at Rocafuerte within the Cascabel concession in northern Ecuador, an approximately three-hour drive on sealed highway north of the capital Quito, close to water, power supply and Pacific ports.

Having fulfilled its earn-in requirements, SolGold is a registered shareholder with an unencumbered legal and beneficial 85% interest in ENSA (Exploraciones Novomining S.A.) which holds 100% of the Cascabel concession covering approximately 50km^2. The junior equity owner in ENSA is required to repay 15% of costs since SolGold's earn in was completed, from 90% of its share of distribution of earnings or dividends from ENSA or the Cascabel concession. It is also required to contribute to development or be diluted, and if its interest falls below 10%, it shall reduce to a 0.5% NSR royalty which SolGold may acquire for US$3.5m.

Advancing Alpala towards development

The resource at the Alpala deposit boasts a high-grade core which is targeted to facilitate early cashflows and an accelerated payback of initial capital. SolGold is currently assessing financing options available to the Company for the development of the Alpala mine following completion of the Definitive Feasibility Study.

Mineral Resource Estimate #3:

·Mineral Resource of 2,663 Mt @ 0.53% CuEq for 9.9 Mt Cu, 21.7 Moz Au and 92.2 Moz Ag in the Measured plus Indicated categories.

·Mineral Resource of 544 Mt @ 0.31% CuEq for 1.3 Mt Cu, 1.9 Moz Au and 10.6 Moz Ag in the Inferred category

SolGold's Regional Exploration Drive

SolGold is using its successful and cost-efficient blueprint established at Alpala, and Cascabel generally, to explore for additional world class copper and gold projects across Ecuador. SolGold is the largest and most active concessionaire in Ecuador.

The Company wholly owns four other subsidiaries active throughout the country that are now focussed on thirteen high priority gold and copper resource targets, several of which the Company believes have the potential, subject to resource definition and feasibility, to be developed in close succession or even on a more accelerated basis compared to Alpala.

SolGold is listed on the London Stock Exchange and Toronto Stock Exchange (LSE/TSX: SOLG). The Company has on issue a total of 1,923,321,033 fully-paid ordinary shares and 185,162,000 unlisted options exercisable at various prices ranging from 25p to 60p and expiring between July 2020 and November 2024.

Quality Assurance / Quality Control on Sample Collection, Security and Assaying

SolGold operates according to its rigorous Quality Assurance and Quality Control (QA/QC) protocol, which is consistent with industry best practices.

Primary sample collection involves secure transport from SolGold's concessions in Ecuador, to the ALS certified sample preparation facility in Quito, Ecuador. Samples are then air freighted from Quito to the ALS certified laboratory in Lima, Peru where the assaying of drill core, channel samples, rock chips and soil samples is undertaken. SolGold utilises ALS certified laboratories in Canada and Australia for the analysis of metallurgical samples.

Samples are prepared and analysed using 100g 4-Acid digest ICP with MS finish for 48 elements on a 0.25g aliquot (ME-MS61). Laboratory performance is routinely monitored using umpire assays, check batches and inter-laboratory comparisons between ALS certified laboratory in Lima and the ACME certified laboratory in Cuenca, Ecuador.

In order to monitor the ongoing quality of its analytical database, SolGold's QA/QC protocol encompasses standard sampling methodologies, including the insertion of certified powder blanks, coarse chip blanks, standards, pulp duplicates and field duplicates. The blanks and standards are Certified Reference Materials supplied by Ore Research and Exploration, Australia.

SolGold's QA/QC protocol also monitors the ongoing quality of its analytical database. The Company's protocol involves Independent data validation of the digital analytical database including search for sample overlaps, duplicate or absent samples as well as anomalous assay and survey results. These are routinely performed ahead of Mineral Resource Estimates and Feasibility Studies. No material QA/QC issues have been identified with respect to sample collection, security and assaying.

Reviews of the sample preparation, chain of custody, data security procedures and assaying methods used by SolGold confirm that they are consistent with industry best practices and all results stated in this announcement have passed SolGold's QA/QC protocol.

See www.solgold.com.au for more information. Follow us on twitter @SolGold_plc

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