

# Discovery Reports Optimized Results from its Feasibility Study Metallurgical Test Program

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TORONTO, Oct. 26, 2023 - [Discovery Silver Corp.](#) (TSX: DSV, OTCQX: DSVSF) ("Discovery" or the "Company") is pleased to announce results from its Feasibility Study ("FS") metallurgical test program from its Cordero project ("Cordero" or "the Project") located in Chihuahua State, Mexico. Highlights from the test work include:

- Increased silver recoveries of up to 7% to the precious metals concentrate where higher payabilities are received.
- Significant reductions in reagent consumption while achieving improved metallurgical performance than outlined in the Preliminary Feasibility Study ("PFS")
- Excellent metallurgical performance achievable for oxide-sulphide blending of up to 15% oxides (the PFS assumed a cap of up to 10% oxides).
- Primary grind sensitivity confirmed a coarse grind size of 200 micron passing p80 is the optimal grind size (unchanged from the PFS).
- Blasting study showed run-of-mine material to be smaller than previously estimated allowing for a smaller primary crusher.

Tony Makuch, CEO, states: *"Our Feasibility Study test work demonstrates the exceptional metallurgical characteristics of our Cordero deposit. Previous test work established excellent recoveries for different mining phases and variable grade profiles to generate clean, saleable concentrates. This current program was focused on optimization and was successful in significantly increasing silver recoveries to the precious metals concentrate, where higher payabilities are received, and significantly reducing reagent consumption. The program also established that co-processing of oxides can be increased to up to 15% oxides allowing for flexibility for mine planning and potentially extending the 18-year mine life that was outlined in the PFS. Meanwhile, our other feasibility study work programs continue to advance well and we remain on track for delivering our study in the first quarter of next year."*

## PFS METALLURGICAL TEST PROGRAM

Summary: the Company's two previous metallurgical test programs were primarily focused on variability testwork. Results from these programs established excellent recoveries for all major rock types, rock type blends, different mining phases, variable grade profiles and for oxide-sulphide blending of up to 10% oxides. The FS metallurgical test program was focused on optimizing metallurgical performance for a run-of-mine composite with process variables such as reagent dosage and type, grind size and the testing of oxide-sulphide blends with oxides above 10%.

In total 12 locked cycles test were completed. Optimization testwork was completed on a master composite representing a blend of rock types consistent with the life-of-mine average and an oxide-sulphide blend of 10% oxides and 90% sulphides. The grade of this composite was approximately 35 g/t Ag, 0.5% Pb and 0.7% Zn. Local treated water and well water were also used in select locked cycle tests to confirm that local water quality would not impact metal recoveries. The testwork was conducted by Blue Coast Research Ltd. ("Blue Coast"), an independent third party, with oversight from Libertas Metallurgy Ltd. ("Libertas"), Chris Martin (Independent Consulting Metallurgist) and Ausenco Engineering Canada Inc. ("Ausenco").

Recoveries: silver recoveries to the precious metals ("PM") concentrate increased by up to 7% in comparison to the PFS testwork through reagent optimization. Payabilities for silver in the PM concentrate of 95% are significantly higher than payabilities for silver in the zinc concentrate of 70% after a deduction of three silver ounces per tonne. Silver recoveries into the zinc concentrate were approximately 4% lower resulting in an increase in overall silver recoveries of up to 3%. Recoveries for lead were slightly higher than the PFS testwork while zinc recoveries were slightly lower. A comparison of the FS and PFS test results, which were based on the same composite sample, are summarized in the table below.

Sample	Recoveries			Concentrate Grades					
	Ag		Total	Pb	Zn	PM con		Zn con	
	PM con	Zn con				Ag	Pb	Ag	Zn
	(%)	(%)	(%)	(%)	(%)	(g/t)	(%)	(g/t)	(%)
FS composite - ground water	79	6	85	86	84	2,717	47	183	52
FS composite - treated water	81	6	87	86	83	3,033	47	170	53
PFS master composite	74	10	84	84	86	3,522	56	328	52

Reagents: the FS testwork was successful in achieving improved recoveries as outlined above at significantly reduced consumption of key reagents. Consumption of MIBC and CuSO<sub>4</sub>, the two most expensive reagents as per the PFS, was lowered by 88% and 16% respectively. Material reductions were also achieved for NaCN and Aero 5100. Test results including the costs that each reagent represented in the PFS are summarized in the table below.

Reagent	Consumption (g/t)			% change	PFS Cost	
	FS testwork	PFS testwork			\$/t processed	US\$M (LOM)
CuSO <sub>4</sub>	130	155	-16	%	\$ 0.33	\$ 103
MIBC	16	133	-88	%	\$ 0.23	\$ 71
Lime	1,907	1,597	19	%	\$ 0.22	\$ 68
ZnSO <sub>4</sub>	150	150	0	%	\$ 0.20	\$ 61
X5000	17	17	0	%	\$ 0.14	\$ 42
NaCN	30	50	-40	%	\$ 0.13	\$ 38
Aero 5100	16	14	-13	%	\$ 0.09	\$ 27

Comminution: an additional 10 bond work index ("BWI") tests and 15 SAG mill comminution ("SMC") tests were completed to increase the previous data set and increase confidence in the process design assumptions for the comminution circuit. Locked cycle flotation tests were completed on the run-of-mine composite with primary grind sizes of 150 µm, 200 µm and 230 µm. Re grind sensitivity testing and energy input per tonne assessment work was also completed. Results from this testwork were consistent with the process design assumptions for the PFS, including confirmation that a coarse grind size of 200 µm is the optimal primary grind size for the Project.

Oxide-sulphide blends: locked cycle tests were completed on blends of 15% oxides / 85% sulphides and 20% oxides / 80% sulphides. Results demonstrate that excellent metallurgical performance can be achieved with blending of up to 15% oxides (the PFS assumed a cap of 10% oxides). At a blend of up to 20% oxides, recoveries for lead and zinc start to become less economic.

Increasing the blend to up to 15% oxides offers more flexibility for mine planning purposes and has the potential to increase the mine life given there was approximately 30 million tonnes of unprocessed stockpiled oxide material above cut-off in the PFS mine plan.

Sample	Recoveries			Concentrate Grades					
	Ag		Total	Pb	Zn	PM con		Zn con	
	PM con	Zn con				Ag	Pb	Ag	Zn
	(%)	(%)	(%)	(%)	(%)	(g/t)	(%)	(g/t)	(%)
FS - 15% Ox / 85% Sx	77	6	83	82	85	3,231	50	198	53
FS - 20% Ox / 80% Sx	75	6	81	78	81	2,948	43	209	50
PFS - 10% Ox / 90% Sx	74	10	84	84	86	3,522	56	328	52

## PROCESS DESIGN

The process design for the FS will consist of conventional flotation with staged expansions, consistent with the PFS approach. The first phase consists of a conventional grinding circuit made up of a primary crusher,

SAG mill and ball mill, followed by a flotation circuit. The planned throughput rate of this initial phase is expected to be approximately 25,500 tonnes per day ("tpd").

The second phase of the plant expansion will include the addition of a parallel circuit consisting of a SAG mill and a ball mill and a duplicate flotation circuit. The planned throughput rate of this expanded phase is expected to be approximately 51,000 tpd.

The proposed process design for the FS is a conventional, well-proven flowsheet that is capital-efficient, robust and delivers comparatively reasonable operating costs with reliability of operations. The design is effectively the same as what was assumed for the PFS with the main change being the incorporation of a smaller primary crusher. This change was based on results from an ore blasting study that demonstrated run-of-mine material to be delivered to the plant is smaller than what was assumed in the PFS.

#### About Discovery

Discovery's flagship project is its 100%-owned Cordero project, one of the world's largest silver deposits. The PFS completed in January 2023 demonstrates that Cordero has the potential to be developed into a highly capital efficient mine that offers the combination of margin, size and scalability. Cordero is located close to infrastructure in a prolific mining belt in Chihuahua State, Mexico.

On Behalf of the Board of Directors,

Tony Makuch, P.Eng  
President, CEO & Director

*For further information contact:*

Forbes Gemmill, CFA  
VP Corporate Development  
Phone: 416-613-9410  
Email: forbes.gemmell@discoverysilver.com  
Website: www.discoverysilver.com

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These forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business. Management believes that these assumptions are reasonable. Forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others: risks related to the speculative nature of the Company's business; the Company's formative stage of development; the impact of COVID19 on the timing of exploration and development work; the Company's financial position; possible variations in mineralization, grade or recovery rates; actual results of current exploration activities; conclusions of future economic evaluations; fluctuations in general macroeconomic conditions; fluctuations in securities markets; fluctuations in spot and forward prices of gold, precious and base metals or certain other commodities; fluctuations in currency markets; change in national and local government, legislation, taxation, controls regulations and political or economic developments; risks and hazards associated with the business of mineral exploration, development and mining (including environmental hazards, industrial accidents, unusual or unexpected formation pressures, cave-ins and flooding); inability to obtain adequate insurance to cover risks and hazards; the presence of laws and regulations that may impose restrictions on mining; employee relations; relationships with and claims by local communities and indigenous populations; availability of increasing costs associated with mining inputs and labour; the speculative nature of mineral exploration and development (including the risks of obtaining necessary licenses, permits and approvals from government authorities); and title to properties. Such factors are described in detail in the Prospectus Supplement and the documents incorporated by reference therein.

Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results, except as may be required by applicable securities laws. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements and there may be other factors that cause results not to be anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking information.

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