

**Rise Gold Achieves 99% Gold Recovery from Idaho-Maryland Mine Test Work** 

- 98.7 gold recovery to concentrates averaging 117 gpt gold
- Coarse grind of 80% passing 180 microns
- Simple flotation reagent which is biodegradable and has no odor
- Inert sand tailings with negligible metal content and no acid generation potential

**February 22, 2022 – Grass Valley, California** – Rise Gold Corp. (CSE: RISE, OTCQX: RYES) (the "**Company**") reports excellent metallurgical gold recoveries using a simple and environmentally friendly reagent scheme.

The Company provided a drill core sample from Drillhole I-19-13A to McClelland Laboratories, Inc. located in Reno, Nevada. The sample composite, taken over a 15.7 m core length was calculated to have a head grade of 8.5 gpt gold. The composite was ground to 80% passing 180 microns and subjected to gravity concentration followed by one stage rougher flotation. Total gold recovery was 98.7% to concentrate averaging 117 gpt gold. Gravity concentration recovered 65.8% of the gold to a concentrate grading 5,180 gpt gold and flotation recovered 32.9% of the gold to a concentrate grading 40 gpt gold. The Company believes that the flotation concentrate grade may be substantially improved with additional test work as the historic mine achieved average flotation concentrate grades of 134 gpt gold.

Gold at the Idaho-Maryland Mine is liberated at a coarse grind size relative to a number of other gold deposits. The historic grind size from the operating mine is believed to have been approximately 190 microns. The current test work has shown excellent gold recoveries at a grind of 80% passing 180 microns. A comparison shows the grind size at Idaho-Maryland to be approximately 3x coarser than a number of other deposits as shown in Table 1. A coarse grind provides benefits including a reduction in power applied per ton of feed to the grinding unit and more efficient dewatering of sand tailings. Important environmental benefits are achieved with a coarser grind due to the sand tailings have improved drainage, less dust generation due to lower silt content, higher geotechnical stability, and less erosion and siltation concerns.

McClelland conducted flotation test work with a variety of reagents and achieved excellent recoveries using only a frother and Aerophine 3418A. Aerophine 3418 promoter is a unique, phosphine-based collector, which has no odor, is biodegradable and is not harmful to fish, aquatic

invertebrates or plants. Mineral processing at the Idaho-Maryland is designed as a closed circuit to prevent the possibility of reagents entering local waterbodies and the use of environmentally friendly reagents offers additional environmental protection. The cost of using this reagent would be insignificant at approximately \$1.20 per ton processed, based on budgetary quotes and dosages used during test work.

| Property         | Owner                   | Grind Size<br>(micron) | <b>Gold Recovery</b> |
|------------------|-------------------------|------------------------|----------------------|
| Island Gold Mine | Alamos Gold             | 64                     | 96.5%                |
| Kiena Mine       | Wesdome Gold Mines      | 80                     | 98.0%                |
| Lemaque Mine     | Eldorado Gold           | 50                     | 94.5%                |
| Macassa Mine     | Kirkland Lake Gold      | 45                     | 97.7%                |
| Madsen Mine      | Pure Gold Mining        | 75                     | 96.6%                |
| Red Lake Mine    | <b>Evolution Mining</b> | 65                     | 96.5%                |
| Windfall Project | Osisko Mining           | 37                     | 94.8%                |
| Average of Group |                         | 59                     | 96.4%                |

Table 1 – Grind Size and Gold Recoveries of Select Gold Deposits<sup>1</sup>

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The mineral processing method proposed for the Idaho-Maryland Mine project uses flotation to separate sulphide minerals into a saleable gold concentrate. Consequently, the majority of sulphide minerals (~96%) are removed from the sand tailings, thereby eliminating environmental concerns from trace metals or acid generation. No naturally occurring asbestos is present in historic mine tailings<sup>2</sup>. Previous test work conducted for the preparation of the Draft Environmental Impact Report (DEIR) has demonstrated that the sand tailings derived from processing of the Idaho-Maryland mineralization have very low metal content and no concerns of metal leaching or acid generation. Arsenic content in the sand tailings is less than 2 parts per million which is the average of earth's crustal abundance and less than one fifth of typical background values in the local area.

<sup>1</sup> 

Alamos Gold Inc. (2020). NI 43-101 Technical Report for the Island Gold Mine, Dubreuilville, Ontario, Canada Wesdome Gold Mines (2021). NI 43-101 Technical Report Prefeasibility Study for the Kiena Mine Complex Project, Val-d'Or Quebec, Canada

Eldorado Gold. (2018). Technical Report Lemaque Project Quebec Canada

Kirkland Lake Gold Ltd. (2019). Macassa Property, Ontario, Canada Updated NI 43-101 Technical Report

JDS Energy & Mining Inc. (2019). Madsen Gold Project Technical Report Feasibility Study for the Madsen Deposit Red Lake Ontario, Canada

Goldcorp (2015). Red Lake Operations Ontario, Canada NI 43-101 Technical Report

Osisko Mining (2021). NI 43-101 Technical Report Preliminary Economic Assessment Update for the Windfall Project

<sup>&</sup>lt;sup>2</sup> The Company's consultant, <u>NV5</u>, recently collected seven samples from the historic tailings of the Idaho-Maryland Mine, derived from the processing of millions of tons, which were tested by EMSL Analytical in San Leandro, California for naturally occurring asbestos. Testing using Polarized Light Microscopy (PLM) and by Transmission Electron Microscopy (TEM) detected no asbestos whatsoever.

## About Rise Gold Corp.

Rise Gold is an exploration-stage mining company incorporated in Nevada, USA. The Company's principal asset is the historic past-producing Idaho-Maryland Gold Mine located in Nevada County, California, USA. To learn more about the company, visit <u>www.risegoldcorp.com</u>.

## About Rise Grass Valley Inc.

Rise Grass Valley, a subsidiary of Rise Gold Corp., proposes to reinitiate underground mining and gold mineralization processing at the Idaho-Maryland Mine in unincorporated Nevada County. State-of-the-art facilities utilizing environmentally friendly technology will be located on the Brunswick Industrial Site. To learn more about the project and community, visit www.risegrassvalley.com.

On behalf of the Board of Directors:

Benjamin Mossman President, CEO and Director Rise Gold Corp.

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The CSE has not reviewed, approved or disapproved the contents of this news release. **Forward-Looking Statements** 

This press release contains certain forward-looking statements within the meaning of applicable securities laws. Forward-looking statements are frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words or statements that certain events or conditions "may" or "will" occur.

Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Such

forward-looking statements are subject to risks, uncertainties and assumptions related to certain factors including, without limitation, obtaining all necessary approvals, meeting expenditure and financing requirements, compliance with environmental regulations, title matters, operating hazards, metal prices, political and economic factors, competitive factors, general economic conditions, relationships with vendors and strategic partners, governmental regulation and supervision, seasonality, technological change, industry practices, and one-time events that may cause actual results, performance or developments to differ materially from those contained in the forward-looking statements. Accordingly, readers should not place undue reliance on forward-looking statements and information contained in this release. Rise undertakes no obligation to update forward-looking statements or information except as required by law.