



17 June 2025

Scoping Study Underway for Near Surface Mineral Resource

Study to assess low capex, near term development of near surface oxide gold resource at Independence Project, leading the pathway for high-grade skarn mineralisation.

Highlights:

- **Scoping Study underway to assess development of near surface oxide gold Mineral Resource Estimate (“MRE”) at Independence Project**
- **Kappes, Cassiday & Associates appointed to lead study, focused on open pit, heap leach development**
- **Significant upside for future studies remains with mineralisation remaining outside the Scoping Study, including near surface oxide extensions along 370m strike and below the current MRE, plus the high-grade skarn**
- **Nevada Advantage: Nevada’s mining infrastructure and low operating costs enable profitable development of even low-grade resources, positioning projects like Independence for success.**

James Bay Minerals (ASX: **JBY**) (“**James Bay Minerals**” or “**the Company**”) is pleased to announce that it has engaged Kappes, Cassiday & Associates to lead a Scoping Study on the Company’s Independence Project (“**Project**”), located in Lander County, Nevada.

The study will evaluate a potential near-term development scenario focused on the near-surface oxide gold MRE, comprising an Indicated Resource of 294,395 ounces Au at 0.40 g/t Au and an Inferred Resource of 90,702 ounces Au at 0.32 g/t Au¹, which forms the first stage of a dual-style mineral system. This low-capex development pathway targets a simple open-pit, heap leach operation.

In addition to the oxide MRE, the project hosts a significant high-grade skarn-hosted sulphide gold system, comprising a separate MRE of 984,412 ounces at 6.67 g/t Au¹. This system presents a compelling growth opportunity beyond the initial development concept and will be the focus of future studies aimed at expanding the project’s scale and mine life.

James Bay Managing Director, Matthew Hayes, commented:

“The Independence Project presents a rare dual-asset profile: a near-surface oxide MRE with low development risk, alongside a substantial high-grade skarn system containing approximately one million ounces at 6.67 g/t Au. Engaging Kappes, Cassiday & Associates to lead the Scoping Study marks a key milestone as we advance the development case for the oxide zone. Nevada’s strong infrastructure, supportive regulatory environment, and proximity to major operations like NGM’s Phoenix Mine provide a clear strategic advantage.”

¹ Refer to ASX Announcement dated 5 March 2025

Scoping Study Overview

The Scoping Study will focus on the oxide portion of the MRE, using the Indicated Resource as the primary mineral input. The study will be led by Kappes, Cassiday & Associates, a highly respected Nevada based engineering firm with extensive expertise in heap leach and open-pit gold project design. Results are expected to be received in Q3 2025.

Key components of the study include:

- Preliminary pit optimisation and mine scheduling
- Heap leach process modelling and metallurgical assumptions
- Capex and Opex estimates to inform economic analysis
- Permitting, infrastructure, and staged development options

Growth Beyond the Initial Scoping Study

Significant expansion opportunity exists at the Project as the current MRE is progressively revised and upgraded to Indicated status. These updates will feed into planned future expanded studies beyond the current Scoping Study.

Key areas of focus for future near-surface expansion include:

- Upgrade of Inferred MRE into the Indicated category
- Increase MRE to include historically defined mineralisation outside the current model
- Recent drilling has defined a 370m mineralisation extension not yet included in the current JORC MRE²

These zones will be incorporated into future resource updates and expanded studies offering increased scale and extensions to the defined mine life.

² Refer to ASX Announcement dated 10 June 2025

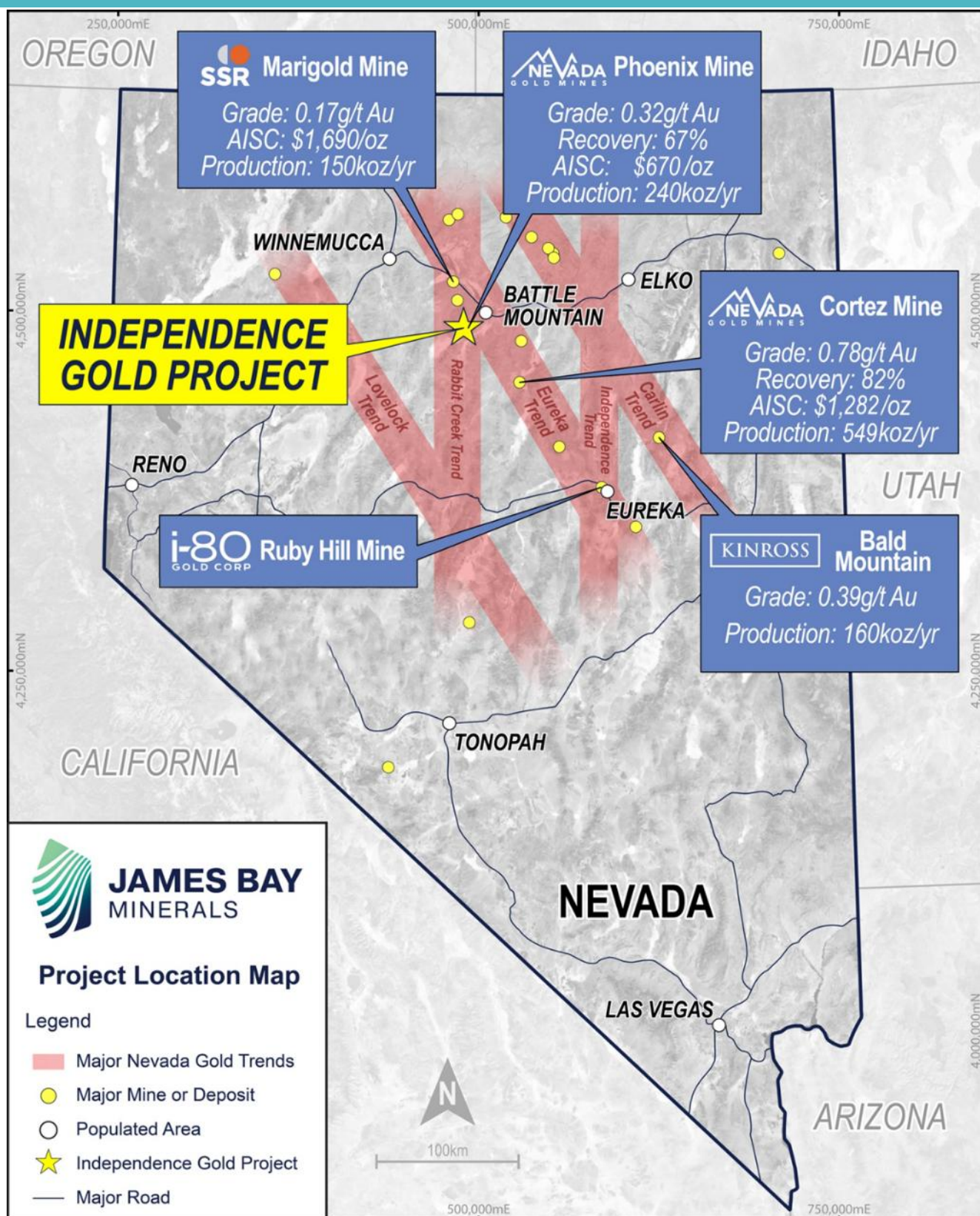


Figure 1: Independence Gold Project in relation to major infrastructure, mining operations and significant Gold Trends in Nevada.

Background on James Bay Minerals

Independence Gold Project – Nevada.

Project Overview

The Independence Project consists of 80 unpatented mining claims and 84 unpatented mill sites, situated in Lander County, Nevada, and spans approximately 1,861 acres of Bureau of Land Management (**BLM**) administered lands. It is adjacent to the Nevada Gold Mine's Phoenix Project and about 16km south of Battle Mountain. In addition, the Project encompasses Section 17, 470 acres of private fee surface land in the Battle Mountain Mining District where the company holds the exclusive water rights and where it will locate any future production water wells.

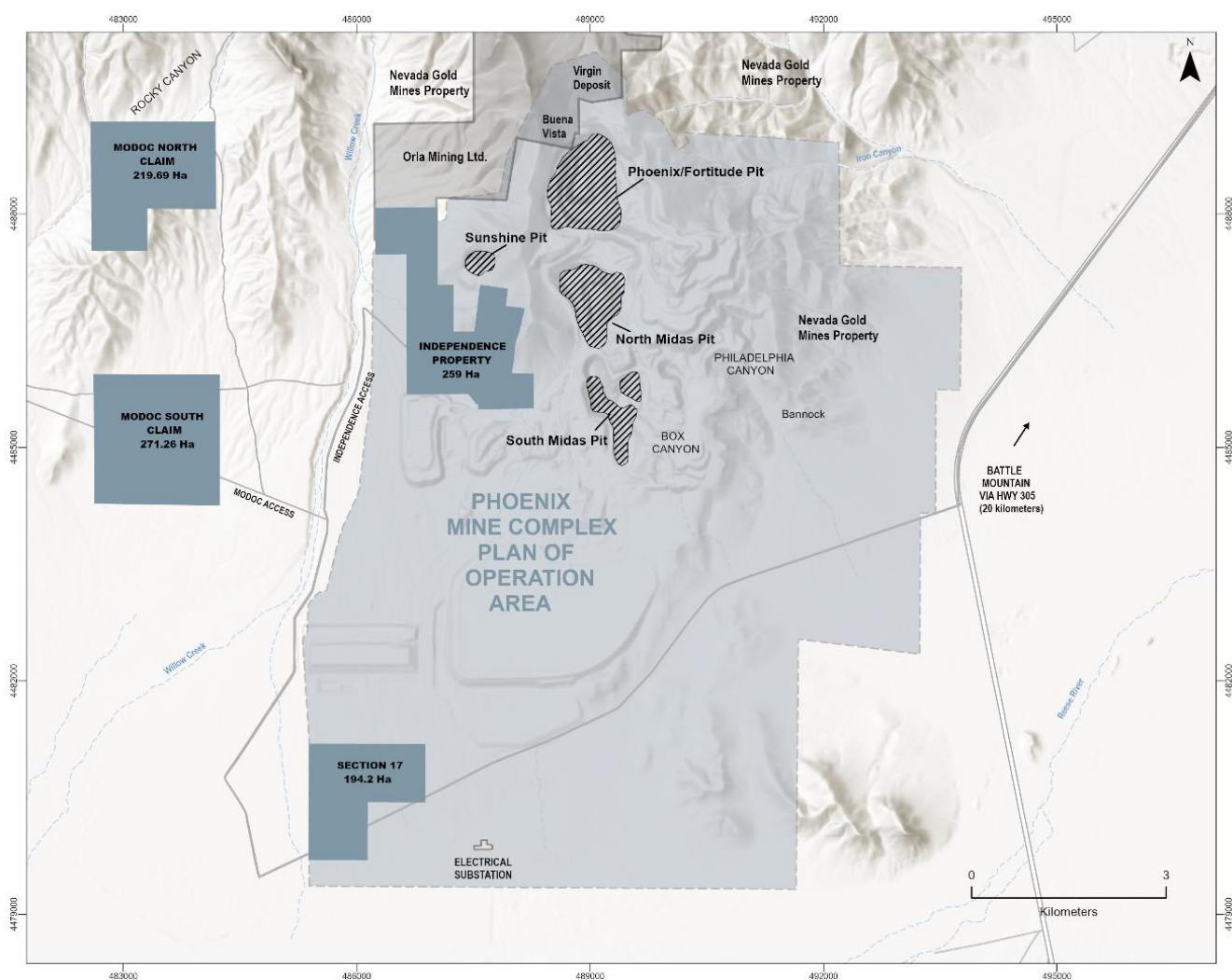


Figure 2: Independence Property overlaid with active Nevada Gold Mines (Newmont Barrick JV) Phoenix Mine Complex, Plan of Operations.

Nevada – Tier 1 Jurisdiction

Nevada is widely regarded as one of the premier mining jurisdictions in the world, known for its rich mineral resources and supportive regulatory environment. Nevada consistently ranks within the top countries of the Fraser Institutes best mining jurisdictions. Key features include:

1. **Rich Mineral Deposits:** Nevada is a leading producer of gold and silver, with numerous active mines and significant exploration potential.
2. **Stable Regulatory Framework:** The state offers a predictable and transparent regulatory process, which fosters investor confidence and encourages mining activities.
3. **Infrastructure:** Well-developed infrastructure, including roads, power, and water supply, supports mining operations and logistics.
4. **Skilled Workforce:** A robust labour market with experienced professionals in the mining sector enhances operational efficiency.
5. **Proximity to Markets:** Its location in the western United States provides easy access to major markets and transportation networks.
6. **Pro-mining Policies:** State policies generally favour mining development, with efforts to streamline permitting and reduce bureaucratic hurdles.

These factors collectively make Nevada a highly attractive destination for mining investment and exploration.

The Project contains a JORC 2012 Mineral Resource as outlined below:

Table 1: JORC Mineral Resource Estimate³.

Description	Tonnes	Gold (Au) g/t	Gold (Au) g/t Equivalent	Gold (Au) Oz	Gold (Au) Equivalent Oz ⁴
Skarn – Mineral Resource					
Inferred	4,592,370	6.67	-	984,412	-
Near-Surface – Mineral Resource					
Indicated	23,176,458	0.40	0.43	294,395	321,584
Inferred	8,716,172	0.32	0.35	90,702	98,015

Quebec Lithium Assets

James Bay has 100% interest in one of the largest lithium exploration portfolios in the James Bay region, covering an area of 41,572Ha or 416km². The Joule, Aero, Aqua and La Grande East Properties are located in the La Grande sub-province along-trend from the Shaakichiuwaanaan deposit, where Patriot Battery Metals (ASX: PMT) reported an updated Indicated and Inferred Mineral Resource Estimate⁵ and completed

³ Refer to ASX Announcement dated 5 March 2025.

⁴ Gold Equivalent of the near-surface estimate has been calculated per block in resource estimation and is a function of metal prices, based on a Gold Price of US\$2,412.50/oz and Silver Price of US\$28.40/oz, and metal recoveries for both gold and silver. The recovery of gold is stated as 79% in the oxide, 50% in transitional and 22% in fresh (**AU Recovery**). Silver averages 27% across all material. Resultantly, the AuEq calculation is = g Au/t + (g Ag/t * (28.4 x 0.27) / (2,412.5 x Au Recovery)). The Company believes that all metals included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

⁵ Refer to PMT ASX Announcement dated 6 August 2024.

a Preliminary Economic Assessment outlining the potential for a competitive and globally significant high-grade lithium project targeting production of up to ~800ktpa spodumene concentrate⁶.

This announcement is authorised for release by the Board of Directors of James Bay Minerals Ltd.

ENDS

For more information:

Investors:

Matthew Hayes
Executive Director
James Bay Minerals
info@jamesbayminerals.com.au

Media:

Nicholas Read
Read Corporate
Phone: (08) 9388 1474
E: nicholas@readcorporate.com.au

Forward-looking statements

This announcement may contain certain forward-looking statements, guidance, forecasts, estimates or projections in relation to future matters (Forward Statements) that involve risks and uncertainties, and which are provided as a general guide only. Forward Statements can generally be identified by the use of forward-looking words such as “anticipate”, “estimate”, “will”, “should”, “could”, “may”, “expects”, “plans”, “forecast”, “target” or similar expressions and include, but are not limited to, indications of, or guidance or outlook on, future earnings or financial position or performance of the Company. The Company can give no assurance that these expectations will prove to be correct. You are cautioned not to place undue reliance on any forward-looking statements. None of the Company, its directors, employees, agents or advisers represent or warrant that such Forward Statements will be achieved or prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this announcement. Actual results may differ materially from those anticipated in these forward-looking statements due to many important factors, risks and uncertainties. The Company does not undertake any obligation to release publicly any revisions to any “forward- looking statement” to reflect events or circumstances after the date of this announcement, except as may be required under applicable laws.

Competent Person Statement

*The information in this announcement that relates to previously reported Exploration Results and Mineral Resource Estimates is extracted from the Company’s ASX announcements dated 5 March 2025 and 10 June 2025 (**Original Announcements**). The Company confirms that it is not aware of any new information or data that materially affects the information contained in the Original Announcements and, in respect of the Mineral Resource estimates, the Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimates continue to apply and have not materially changed.*

Gold equivalent values are a function of metal price and metal recoveries. Gold Equivalent of the near-surface estimate has been calculated per block in resource estimation and is a function of metal prices, based on a Gold Price of US\$1,800/oz and Silver Price of US\$24/oz, and metal recoveries for both gold and silver. The recovery of gold is stated as 79% in the oxide, 50% in transitional and 22% in fresh (Au Recovery). Silver averages 27% across all material. Resultantly, the AuEq calculation is = g Au/t + (g Ag/t / ((1,800 x Au Recovery) / (24 x 0.27)). The Company believes that all metals included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

⁶ Refer to PMT ASX Announcement dated 22 August 2024.