

9 September 2025



NI 43-101 Technical Reports for Costerfield and Björkdal

Alkane Resources Limited (ASX:ALK; TSX:ALK; OTCQX:ALKEF) ('Alkane' or 'the Company') is pleased to provide Technical Reports for its Costerfield and Björkdal operations (the 'Reports') previously prepared by Mandalay Resources Corporation ('Mandalay') pursuant to National Instrument 43-101 – Standards of Disclosure for Mineral Projects and released under Mandalay's profile on SEDAR+ (www.sedarplus.ca).

The Reports titled 'Costerfield NI 43-101 Technical Report' and 'NI 43-101 Technical Report, Björkdal Gold Mine, Sweden' and dated 28 March 2025, with an effective date of 31 December 2024, are attached as appendices to this announcement.

The Reports are not, and do not purport to be, compliant with the JORC Code. As a result, the mineral resources and mineral reserve estimates within the Reports ('NI 43-101 Estimates') are classified as 'foreign estimates' under the ASX Listing Rules. In accordance with ASX Listing Rule 5.12, Alkane provides additional information in relation to these foreign estimates in Schedule 1.

A Competent Person has not yet completed sufficient work to classify the NI 43-101 Estimates as JORC Code Mineral Resources or JORC Code Ore Reserves (as relevant) in accordance with the JORC Code 2012. It is uncertain that following evaluation or further exploration work that the NI 43-101 Estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code. Nothing has come to the attention of Alkane that causes it to question the accuracy or reliability of the NI 43-101 Estimates, but Alkane has not independently validated those estimates and therefore Alkane is not to be regarded as reporting, adopting or endorsing those estimates.

Alkane notes that it has commenced the process of converting the NI 43-101 Estimates to estimates prepared in accordance with the JORC Code.

This document has been authorised for release to the market by Nic Earner, Managing Director and CEO.

ABOUT ALKANE - www.alkane.com.au - ASX:ALK | TSX: ALK | OTCQX: ALKEF

Alkane Resources (ASX:ALK; TSX:ALK; OTCQX:ALKEF) is an Australia-based gold and antimony producer with a portfolio of three operating mines across Australia and Sweden. The Company has a strong balance sheet and is positioned for further growth.

Alkane's wholly owned producing assets are the **Tomingley** open pit and underground gold mine southwest of Dubbo in Central West New South Wales, the **Costerfield** gold and antimony underground mining operation northeast of Heathcote in Central Victoria, and the **Björkdal** underground gold mine northwest of Skellefteå in Sweden (approximately 750km north of Stockholm). Ongoing near-mine regional exploration continues to grow resources at all three operations.

Alkane also owns the very large gold-copper porphyry **Boda-Kaiser Project** in Central West New South Wales and has outlined an economic development pathway in a Scoping Study. The Company has ongoing exploration within the surrounding Northern Molong Porphyry Project and is confident of further enhancing eastern Australia's reputation as a significant gold, copper and antimony production region.

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Schedule 1 - Foreign Estimate Disclosures (as required by ASX Listing Rule 5.12)

Competent Person's Statement

Chris Davis, Alkane VP Exploration & Operational Geology is a Member of the Australasian Institute Mining and Metallurgy (MAusIMM) and a Member of the Australian Institute of Geoscientists (MAIG) and confirms that the information in this announcement that relates to the NI 43-101 Estimates provided under ASX Listing Rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies supplied to Alkane as a foreign estimate. Chris Davis has sufficient experience that is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012. Mr Davis consents to the inclusion in this announcement of the matters related to the NI 43-101 Estimates based on this information in the form and context in which it appears.

ASX Listing Rule	ASX Explanation	Commentary
5.12.1	The source and date of the historical estimates or foreign estimates.	The NI 43-101 Estimates were prepared under the supervision of Qualified Persons (as defined in the Canadian NI 43-101 Standards). The Qualified Persons were employees of SRK Consulting for Costerfield and associates of SLR for Björkdal at the date of the Reports. The Canadian NI 43-101 Standard is a national instrument for the Standards of Disclosure for Mineral Projects within Canada. These foreign estimates are the most recent Mineral Reserve and Mineral Resource estimates for Costerfield and Björkdal.
5.12.2	Whether the historical estimates or foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so, an explanation of the differences.	The NI 43-101 Estimates have been prepared using the Canadian NI 43-101 reporting guidelines. Alkane believes that the categories of mineralisation reported under Canadian NI 43-101 Standards are similar to the JORC Code 2012 categories. Alkane considers the foreign estimate to be NI 43-101 compliant. Alkane considers that the foreign estimates are sufficiently reliable and consistent with current industry standard estimation methodologies as generally appropriate for Mineral Resource and Ore Reserve estimation. The Mineral Resource estimate contains categories of NI 43-101 'Measured', 'Indicated' and 'Inferred', that are consistent with the terminology of the 'Measured', 'Indicated' and 'Inferred' under the JORC Code 2012. NI 43-101 Mineral Reserves are reported as Proven and Probable in the foreign estimate. These classifications are consistent with definitions of Proven and Probable Ore Reserves in the JORC Code 2012.
5.12.3	The relevance and materiality of the historical estimates or foreign estimates to the entity.	Alkane considers these foreign estimates to be material to Alkane given its intention to increase its annual rate of gold production, increase its Mineral Resources and Ore Reserves, and materially diversify gold production sources. This is consistent with Alkane's long-standing growth strategy focused on creating a leading mid-tier gold producer.



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5.12.4	The reliability of historical estimates or foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the historical estimates or foreign estimates.	<p>The NI 43-101 Estimates are considered to be reliable by Alkane for the following reasons:</p> <ul style="list-style-type: none"> • Key criteria, as defined in Table 1 of the JORC Code 2012, was addressed in the comprehensive due diligence completed by Alkane as part of its merger transaction with Mandalay Resources Corporation ('Mandalay'), the former owner of both projects. • The foreign estimate has been reported by Qualified Persons as defined in the Canadian NI 43-101 Standard, who reported that the 28 March 2025 Mineral Resource and Mineral Reserve Reports meets the due diligence and care requirements as set for in the guidelines for Canadian National Instrument 43-101. • Within the Reports it is stated that the methodology for preparing the Mineral Resources and Mineral Reserves have not changed significantly in comparison to previous reporting. <p>Based on the information received by Alkane to date in relation to Costerfield and Björkdal, discussions with Mandalay technical personnel, physical inspection of site operations and a review of the Mandalay production reconciliation history, Alkane believes that the assumptions, parameters and methodology are generally appropriate for Mineral Resource and Mineral Reserve estimates and are consistent with the style of mineralisation and mining methods, and that sampling protocols are consistent with industry best practice.</p>
5.12.5	To the extent known, a summary of work programs on which the historical estimates or foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the historical or foreign estimates	<p>Costerfield</p> <ul style="list-style-type: none"> • The Costerfield Property is located within the Costerfield mining district, approximately 10 km northeast of the town of Heathcote, Victoria. • The Property's Augusta Mine has been operational since 2006 and has been the sole ore source for the Brunswick Processing Plant, with multiple zones – Augusta (from 2006), Cuffley (from 2013), Brunswick (from 2018), Youle (from 2019), and Shepherd (from 2021) – constituting ore sources. <p>Costerfield Resource key assumptions</p> <ul style="list-style-type: none"> • The Mineral Resource is estimated as of 31 December 2024 with depletion through to this date. • The Mineral Resource is stated according to CIM guidelines and includes Mineral Reserves. • A two-dimensional accumulation estimation method was used for all models. This method is considered most applicable for the narrow veins of Costerfield. The Datamine™ Studio RM platform supports 2D accumulation estimation and was used to complete the Mineral Resource Estimation. Validated drilling and mine sampling data were imported into Datamine and composited to full intersection width. Gold accumulation, antimony accumulation (accumulation = vein true width x vein grade) and vein true width were estimated into a 2D block model for each lode using ordinary kriging interpolation in zones of high 4 data density, and inverse distance in a limited number of inferred, exploration areas. Gold and antimony grades were back-calculated using the estimated accumulated data and vein true width. • 4.3 g/t AuEq cut-off grade over a minimum mining width of 1.2 m is applied where AuEq is calculated using the formula: • $AuEq = Au \text{ g/t} + 2.39 \times Sb \%$ • The AuEq factor of 2.39 is calculated at a gold price of A\$2,500/oz, an antimony price of A\$19,000/t, and recoveries of 91% for Au and 92% for Sb. • Veins were diluted to a minimum mining width of 1.2 m before applying the cut-off grade and peripheral mineralisation far from current development was excluded to comply with the Reasonable Prospects for Eventual Economic Extraction (RPEEE) criteria. • The Stockpile Mineral Resource is estimated based upon surveyed volumes supplemented by production data. • The Mineral Resource Estimate was independently reviewed and verified by Cael Gniel, MAIG, RPGeo (Mineral Resource Estimation), an employee of SRK. Mr Gniel fulfills 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 Resource Estimate.



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		<p>Costerfield Reserve key assumptions</p> <ul style="list-style-type: none"> The Mineral Reserve is estimated as of 31 December 2024 and depleted for production through to 31 December 2024. Tonnes are rounded to the nearest thousand; contained gold (oz) is rounded to the nearest thousand; contained antimony (t) is rounded to nearest hundred. Totals may appear different from the sum of their components due to rounding. Lodes have been diluted to a minimum mining width of 1.5 m for stoping and 1.8 m for ore development. A sustaining cut-off grade of 5.6 g/t AuEq is applied. An incremental cut-off grade of 3.2 g/t AuEq is applied where mining rates do not meet mill capacity and the life of the mine is not extended. Commodity prices applied are a gold price of US\$2,100/oz, antimony price of US\$16,000/t and exchange rate US\$:A\$ of 0.68. AuEq is calculated using the formula: $AuEq = Au\ g/t + 1.58 \times Sb\ \%$. The Mineral Reserve is a subset, a Measured and Indicated only schedule, of a Life of Mine (LoM) plan that includes mining of Measured, Indicated and Inferred Resources. The Mineral Reserve Estimate was prepared by Vaughn Goyne, AAusIMM, who is a full-time employee of Mandalay. The Mineral Reserve Estimate was independently verified by Robert Urie, FAusIMM, who is a full-time employee of SRK. Robert Urie fulfills 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.
5.12.5	To the extent known, a summary of work programs on which the historical estimates or foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the historical or foreign estimates	<p>Björkdal</p> <ul style="list-style-type: none"> The Björkdal property is located in Västerbotten County in northern Sweden. The deposit was originally discovered in 1983 by Terra Mining AB. Open pit mining began in 1988 and underground development in 2008. <p>Björkdal Resource key assumptions</p> <ul style="list-style-type: none"> Björkdal Mineral Resources are estimated using drill hole and sample data as of 30 September 2024 and depleted for production through December 31, 2024. Norrberget Mineral Resources are based on a data cut-off date of 30 September 2024. CIM (2014) definitions and the 2019 CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines were followed for Mineral Resources. Interpolation was by inverse distance cubed utilizing diamond drill, reverse circulation, and chip channel samples. Mineral Resources are estimated using an average gold price of \$2,500/oz and an exchange rate of 10.35 SEK/US\$. Bulk density is 2.74 t/m³ for veins and host rock. Bulk density is 2.92 t/m³ for skarn ore bodies. High gold assays were capped to 30 g/t Au for the Björkdal open pit mine. High gold assays for the underground mine were capped at 60 g/t Au for the first search pass and 40 g/t Au for subsequent passes. High gold assays at Norrberget were capped at 24 g/t Au. Björkdal open pit Mineral Resources are estimated at a cut-off grade of 0.17 g/t Au and constrained by a resource pit shell. Norrberget open pit Mineral Resources are estimated at a cut-off grade of 0.27 g/t Au and constrained by a resource pit shell. Underground Mineral Resources are estimated at a block cut-off grade of 0.71 g/t Au for all veins. A nominal 2.5 m minimum mining width was used to interpret veins. Reported Mineral Resources are depleted for previously mined underground development and stopes and exclude remnant material.



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		<ul style="list-style-type: none"> • Stockpile Mineral Resources are based upon surveyed volumes supplemented by production data. • Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. <p>The Independent Qualified Person for the Björkdal and Norrberget Mineral Resource estimates is Reno Pressacco, M.Sc.(A), P.Geo., Associate Principal Geologist with SLR, who is a Qualified Person as defined by NI 43-101.</p> <p>Björkdal Reserve key assumptions</p> <ul style="list-style-type: none"> • Björkdal Mineral Reserves are estimated using drill hole and sample data as of September 30, 2024, and depleted for production through December 31, 2024. • Norrberget Mineral Reserves are based on a data cut-off date of September 30, 2024. • CIM (2014) definitions were followed for Mineral Reserves. • Open pit Mineral Reserves for Björkdal are based on mine designs carried out on an updated resource model, applying a block dilution of 100% at 0.0 g/t Au for blocks above 1.0 g/t and 100% at in-situ grade for blocks below 1.0 g/t, but above a cut-off grade of 0.20 g/t Au. The application of these block dilution factors is based on historical reconciliation data from 2018 and 2019. A marginal cut-off grade of 0.20 g/t Au was applied to estimate open pit Mineral Reserves. • Open pit Mineral Reserves for Norrberget are based on 25% dilution at 0.0 g/t Au and a cut-off grade of 0.32 g/t Au. • Underground Mineral Reserves are based on mine designs carried out on an updated resource model. Minimum mining widths of 3.1 m for stopes (after dilution) and 4.6 m for development (after dilution) were used. Stope dilution was applied by adding 0.25 m on each side of stopes as well as an additional 25% sidewall over break dilution. Dilution factors of 20% for ore drives and 10% for capital development were applied to the development design widths. Mining extraction was assessed at 95% for contained ounces within stopes and 100% for development. A cut-off grade of 0.85 g/t Au was applied to material mined within stopes. An incremental cut-off grade of 0.20 g/t Au was used for development material. • Stockpile Mineral Reserves are based upon surveyed volumes supplemented by production data as of December 31, 2024. • Mineral Reserves are estimated using an average long-term gold price of US\$2,100/oz for Björkdal and Norrberget, and an exchange rate of 10.35 SEK/US\$. <p>The Independent Qualified Person for the Björkdal Mineral Reserve estimate is Rick Taylor, MAusIMM (CP), Associate Principal Mining Engineer with SLR, who is a Qualified Person as defined by NI 43-101.</p>

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5.12.6	Any more recent estimates or data relevant to the reported mineralisation available to the entity	As at the date of this announcement, the foreign estimates reported in the 28 March 2025 Reports have not been superseded by any later estimates. No more recent estimates have been completed or provided to Alkane.
5.12.7	The evaluation and/or exploration work that needs to be completed to verify the historical estimates or foreign estimates as Mineral Resources or Ore Reserves in accordance with ASX Listing Rules Appendix 5A (JORC Code).	Alkane is currently undertaking an evaluation of the data available to seek to verify the foreign estimate as Mineral Resources or Ore Reserves in accordance with the JORC Code. This evaluation will involve the full verification of all information and applicable modifying factors used in estimates reported on March 28, 2025, together with the addition of information and results from ongoing drilling programs within the mine areas. External consultants will be used as required. Key works proposed to verify the foreign estimate as estimates in accordance with the JORC Code 2012 includes: <ul style="list-style-type: none"> Detailed verification and validation of information provided by Mandalay. Review of modifying factors used in the Mineral Resource and Mineral Reserve.
5.12.8	The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and a comment on how the entity intends to fund work.	The evaluation work is planned to be completed during FY2026. Funding for this work will be from internal cash flow.
5.12.9	A cautionary statement proximate to, and with equal prominence as, the reported historical estimates or foreign estimates stating that: <i>The estimates are historical estimates or foreign estimates and are not reported in accordance with the JORC Code</i>	Alkane cautions that the NI 43-101 Estimates are not reported in accordance with the JORC Code 2012. A Competent Person has not yet completed sufficient work to classify the NI 43-101 Estimates as JORC Code Mineral Resources or JORC Code Ore Reserves in accordance with the JORC Code 2012. It is uncertain that following evaluation and/or further exploration work that the NI 43-101 Estimates will be able to be reported as Mineral Resource or Ore Reserves in accordance with the JORC Code. Nothing has come to the attention of Alkane that causes it to question the accuracy or reliability of the NI 43- 101 Estimates, but Alkane has not independently validated those estimates and therefore Alkane is not to be regarded as reporting, adopting or endorsing those estimates.
5.12.10	A statement by a named competent person or persons that the information in the market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the material mining project. The statement must include the information referred to in rule 5.22(b) and (c).	See Competent Persons' statements above.