ASX and MEDIA RELEASE

27 February 2024

ALKANE RESOURCES LTD
ABN 35 000 689 216

Tomingley Gold Extension Project Reserves Lift to 664,000oz

- **The Tomingley Gold Extension Project (TGEP) is located 3km south of the Tomingley Gold Operations (TGO) and is linked to the mine via an underground decline.**
- **Grade control drilling from the underground development at the Roswell deposit has confirmed significant high grade gold mineralisation and lifted the initial underground Ore Reserves for Roswell to 237,000 ounces.**
- **Including the planned open cut, total Ore Reserves for Roswell now stand at 450,000 ounces.**
- **The Mineral Resource base for the TGEP was revised to 1.17 million ounces with internal Ore Reserves of 664,000 ounces.**
- **Further drilling at Roswell continues to refine and expand both the underground reserves and resources.**
- **First stoping from Roswell is scheduled to commence in April pending approval of the relevant mine management plans by the regulator.**

Alkane Resources Managing Director, Nic Earner, said:

"*The updated Roswell Reserve is the latest step in the development of the Roswell orebody as the new source of ore for Tomingley. The lift in Reserve is derived from the high-density drilling that has occurred underground at the deposit, which is ongoing. This has also enabled the optimisation of mine plans and stope designs. First stoping from Roswell is expected in April as soon as the regulator has given approval to the relevant Tomingley Management Plans. Overall project approval has been granted; approval of plans is a condition required to be met prior to operational commencement.*

"The higher grades expected to be mined at Roswell, together with the paste plant under construction should lift production to the run rate of 80,000 ounce per annum level. This is the first stage in the pathway to regularly producing over 100,000 ounces per year at Tomingley."

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Tomingley Gold Project

Alkane Resources Ltd 100%

The Tomingley Gold Project (TGP) covers an area of approximately 440km^2 stretching 60km north-south along the Newell Highway from Tomingley in the north, through Peak Hill and almost to Parkes in the south. The TGP contains Alkane's currently producing Tomingley Gold Operations (TGO), an open pit mine and underground operation with a 1Mtpa processing facility which has operated since 2014.

Since 2017 Alkane has conducted a series of extensive regional exploration programs which led to the definition of Resources at the Roswell and San Antonio prospect, centered about 3km south of TGO and referred to as the Tomingley Gold Extension Project (TGEP)

A number of Resource and Reserve estimations have been compiled as result of the detailed RC and diamond core drilling and reported in successive ASX Announcements*. These were also summarised in ASX Announcement 13 September 2023 'Resource and Reserve Statements FY23'.

To advance development of the Roswell deposit, approval from the NSW Government Resource Regulator was granted (ASX Announcement 11 May 2020) to excavate an exploration decline from the existing Wyoming One underground operations at TGO to the Roswell deposit 3km to the south. This development has assisted in bringing the Roswell deposit ready for stoping in a minimal time frame following approval of the Mining Lease and Development Consent from the NSW Minister for Planning (ASX Announcement 22 February 2023).

Mine development activities have progressed from the decline with establishment of two levels, 955 and 855, with the 955 level approximately 300m below the ground surface and approximately 100m below the proposed base of the open cut. The 955 and 855 levels have provided drill access for detailed grade control drilling which fans out to provide a 20m by 15m intersection pattern. This drilling has facilitated a revision of Mineral Resources and Ore Reserves which are tabled below.

First stoping from Roswell is anticipated to commence in April 2024 pending approval of the relevant mine management plans by the regulator. The Project Approval, Mining Lease and Environmental Protection License have already been granted.

Geology

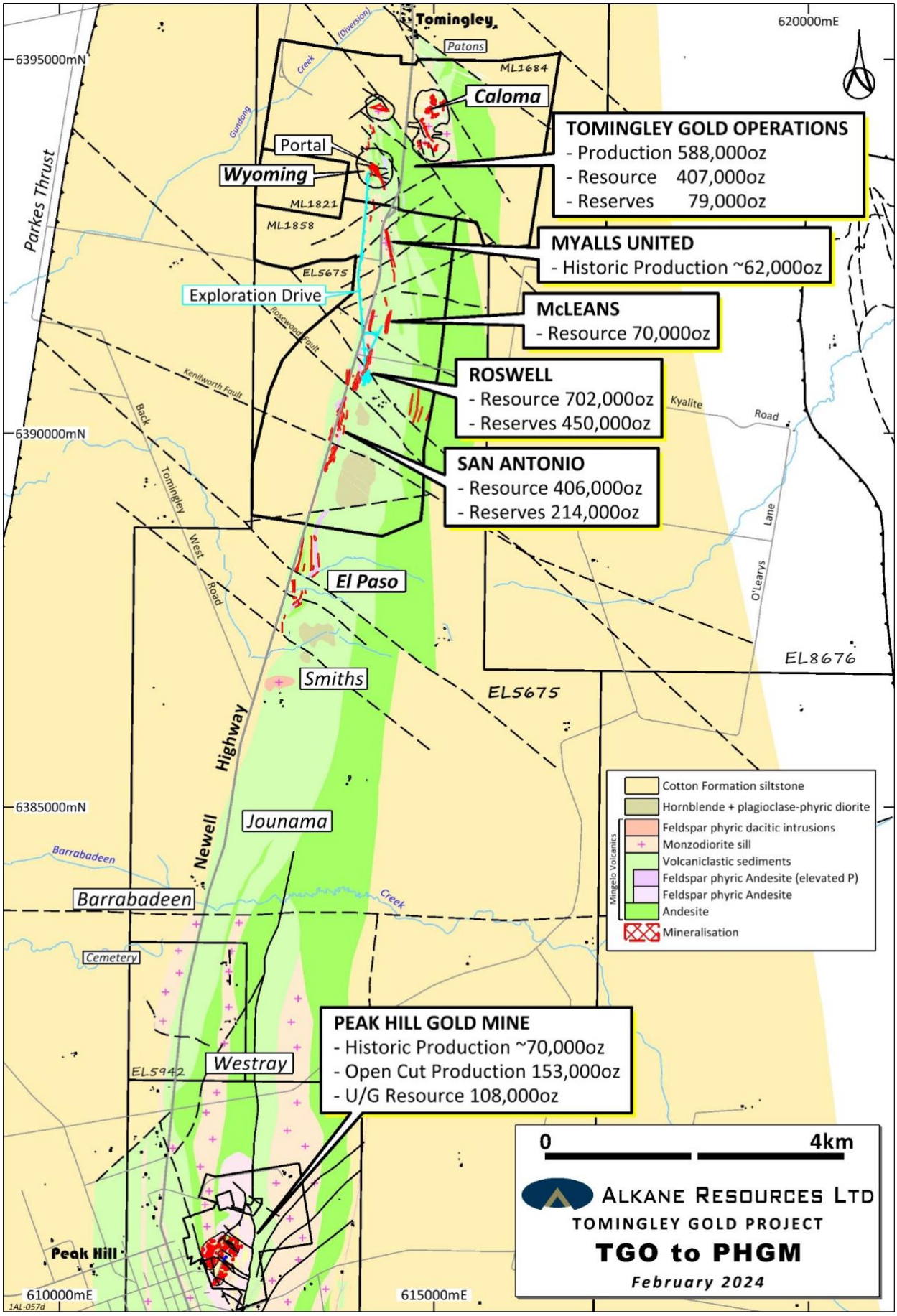
The Tomingley gold deposits are interpreted as orogenic gold systems located within a major structural zone. This style of deposit is well documented globally with the more significant examples in Australia being the Archean greenstone belts of the Yilgarn Craton in WA and the Paleozoic slate belts in Victoria.

The Roswell deposit is hosted in the Mingelo Volcanic Formation, a strongly deformed and hydrothermally altered Ordovician aged belt of volcanics that are predominantly andesitic volcaniclastic breccias, lesser sandstone/siltstone units, lavas and black mudstones. The volcanics are overlain by the younger Cotton Formation siltstones.

The drilling programs have defined a fault bounded section of volcanic stratigraphy that has been rotated 15^o east from striking approximately north-south. The mineralisation at Roswell is primarily hosted by two 'brittle' volcanic units (monzodiorite and andesite) as per the structural setting observed at the Tomingley gold deposits. These volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcaniclastic sediments.

*ASX Announcements 28 January 2020, 20 April 2020, 4 November 2020, 16 February 2021, 2 May 2022

Figure 1 Tomingley Gold Operations to Peak Hill Gold mine - Geology and Resources



Mineralisation at Roswell is similar to the Tomingley gold deposits, with quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. These sheeted quartz veins are generally orientated as steep to moderate east dipping, striking approximately 10° east of north, and are typically constrained within the volcanic units. The mineralisation has been defined by drilling over a strike length of approximately 600 metres and remains open to the south and at depth. The higher grade mineralisation occurs in the southern section of the deposit.

The mineralisation at Roswell is displaced by three, approximately 4 metre thick dolerite dykes dipping steeply to the NNE, striking WNW. The dolerites postdate the gold mineralisation. Weathering of the mineralised bedrock has developed a saprolitic clay profile extending approximately 35 metres from the base of alluvium to fresh rock. The mineralised bedrock lies beneath a Cainozoic alluvium overburden between 30-55 metres thick.

Mineral Resource

A revised Mineral Resource estimation has been prepared and reported on the Roswell deposit incorporating the original exploration drilling model using a 0.4g/t Au cut-off in accordance with JORC Code, 2012 edition. The San Antonio and McLeans deposits remain unchanged from the ASX Announcement on 13 September 2023.

The revised resource takes into account updated TGO site operating costs and gold price for a pit shell at A$2,200/oz. This resource also takes into account that the optimised pit shell eliminates peripheral ore lenses which are not accessible via the open pit (see previous resources for comparison in Table 2 below) and ore zones that will now be accessed from the underground operations. The Indicated Resource converts directly to a Probable Reserve.

Table 1 Current Mineral Resource

TOMINGLEY GOLD EXTENSION PROJECT MINERAL RESOURCES (as at 21 February 2024)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Total Resources (cut off 0.4g/t Au Roswell and 0.5g/t Au San Antonio)									
Roswell			3900	1.7	0.0	0.0	3900	1.7	213
San Antonio			5,930	1.82	1,389	1.32	7,319	1.73	406
Sub Total	**0**	**0.0**	**9,830**	**1.77**	**1,389**	**1.32**	**11,219**	**1.72**	**619**
Underground Resources (cut off 1.3g/t Au)									
McLeans			0	0.0	870	2.5	870	2.5	70
Roswell			3260	2.9	2290	2.5	5550	2.7	489
Sub Total			**3,260**	**2.88**	**3,160**	**2.53**	**6,420**	**2.71**	**560**
TOTAL			**13,090**	**2.05**	**4,549**	**1.68**	**17,639**	**1.95**	**1,179**

Full details are provided in the appended Appendix 1 and JORC Table.

The Mineral Resource will be subject to further infill and extensional drilling with a view to both define the continuity of the mineralisation to the south and high-grade zones at depth.

Table 2 Mineral Resource 2023

TOMINGLEY GOLD EXTENSION PROJECT MINERAL RESOURCES (30 June 2023)									
DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Total Resources (cut off 0.4g/t Au Roswell and 0.5g/t Au San Antonio)									
Roswell			5,615	1.78	791	0.96	6,406	1.68	346
San Antonio			5,930	1.82	1,389	1.32	7,319	1.73	406
Sub Total	**0**	**0.0**	**11,545**	**1.80**	**2,180**	**1.19**	**13,725**	**1.70**	**752**
Underground Resources (cut off 1.6g/t Au and 1.3g/t Au McLeans)									
Roswell			1,897	2.67	4,244	2.56	6,141	2.59	512
McLeans					870	2.51	870	2.51	70
Sub Total			**1,897**	**2.67**	**5,114**	**2.56**	**7,011**	**2.59**	**584**
TOTAL			**13,443**	**1.92**	**7,294**	**1.85**	**20,737**	**1.90**	**1,336**

Ore Reserves

Based upon the modified resource models, reserves have been defined within the pit shell and below the proposed open pit extraction, and the deposit was selected for immediate underground mining. The reported Ore Reserve is based on the Indicated Mineral Resources, TGO mine design parameters and incorporates the existing site costs and modifying factors at a 1.6g/t Au cut-off using a A$2,350oz gold price. Full details are provided in JORC Table 1 and the attached report (Appendix 2).

This revised estimate takes into account the 229 grade control holes totaling 33,028m drilled on the 955 and 855 levels as show in figures 3, 4, 5 and 6.

Table 3 Current Ore Reserves

TOMINGLEY GOLD EXTENSION PROJECT ORE RESERVES (as at 21 February 2024)							
DEPOSIT	PROVED		PROBABLE		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Reserves (cut off 0.40g/t Au)							
Roswell	0	0.0	3,900	1.7	3,900	1.7	213
San Antonio	0	0.0	4,100	1.6	4,100	1.6	214
Sub Total	**0**		**8,000**	**1.6**	**8,000**	**1.6**	**427**
Underground Reserves (cut off 1.6g/t Au)							
Roswell	0	0.0	3,209	2.3	3,209	2.3	237
San Antonio*	0	0.0	0	0.0	0	0.0	0
Sub Total	**0**	**0.0**	**3,209**	**2.6**	**3,209**	**2.6**	**237**
TOTAL	**0**	**0.0**	**11,209**	**1.9**	**11,209**	**1.9**	**664**

* San Antonio ore reserves not determined at this.

The open pit reserves remain unchanged since the 2023 report. The expanded Underground Probable Reserves in Roswell is due to the higher drilling density. The previous reserves are shown for comparison in Table 4 below. Ore Reserves reported are included within the Mineral Resources.

Table 4 Ore Reserves 2023

TOMINGLEY GOLD EXTENSION PROJECT ORE RESERVES (30 June 2023)							
DEPOSIT	PROVED		PROBABLE		TOTAL		Total Gold
	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	(Koz)
Open Pittable Reserves (cut off 0.40g/t Au)							
Roswell	0	0.0	3,900	1.7	3,900	1.7	213
San Antonio	0	0.0	4,100	1.6	4,100	1.6	214
Sub Total	**0**		**8,000**	**1.6**	**8,000**	**1.6**	**427**
Underground Reserves (cut off 1.6g/t Au)							
Roswell	0	0.0	1,456	2.6	1,456	2.6	119
San Antonio	0	0.0	0	0.0	0	0.0	0
Sub Total	**0**	**0.0**	**1,456**	**2.6**	**1,456**	**2.6**	**119**
TOTAL	**0**	**0.0**	**9,456**	**1.8**	**9,456**	**1.8**	**547**

Figure 2 3D Long Section TGEP

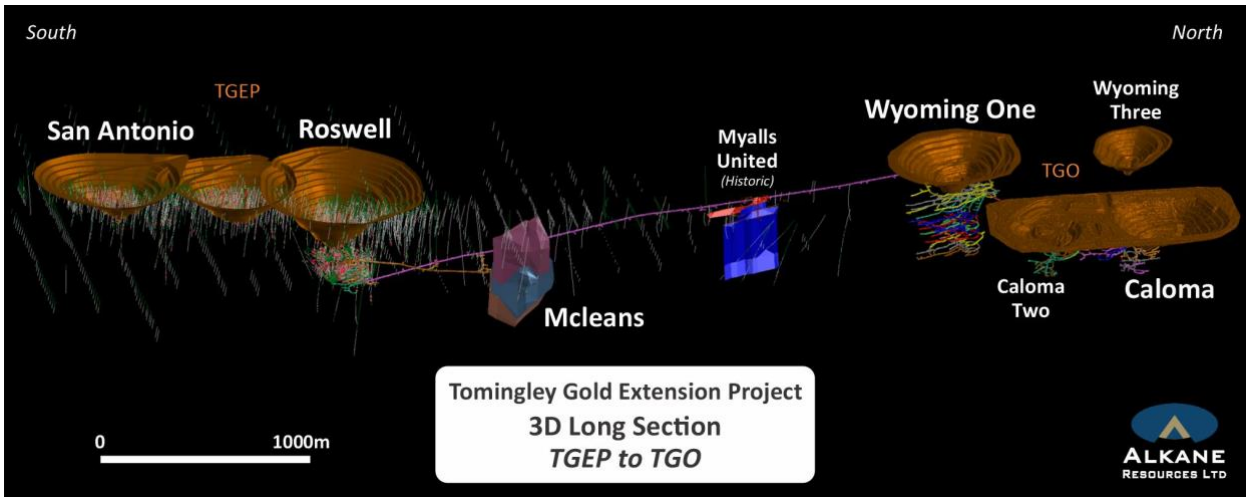


Figure 3 Roswell Underground Ore Block Grades

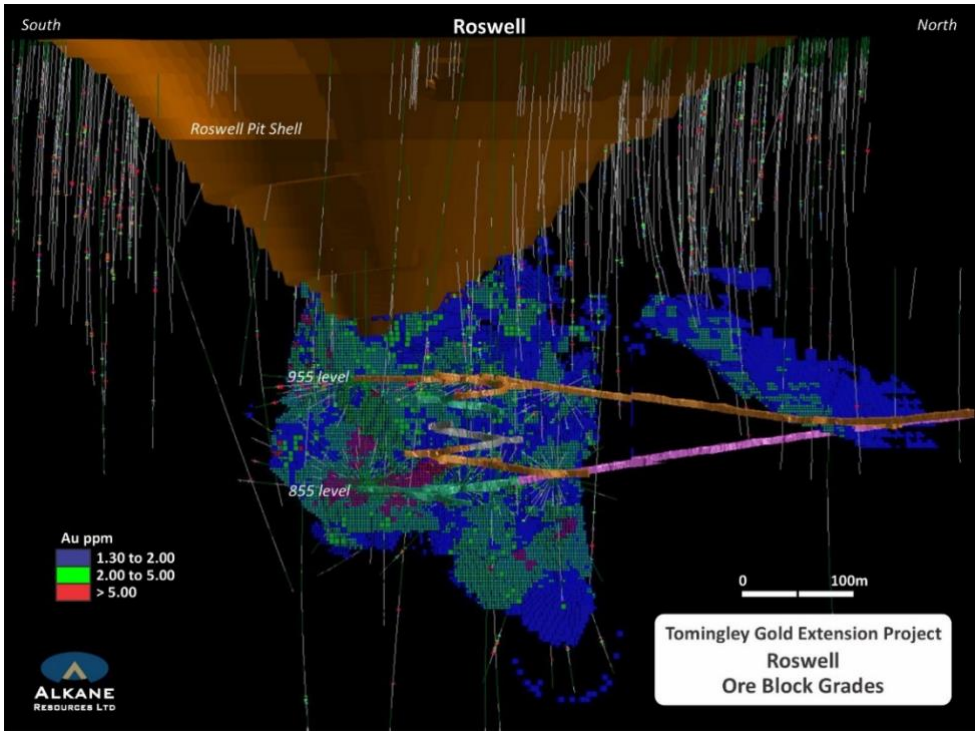


Figure 4 Roswell Underground – Grade Plan 855 Level

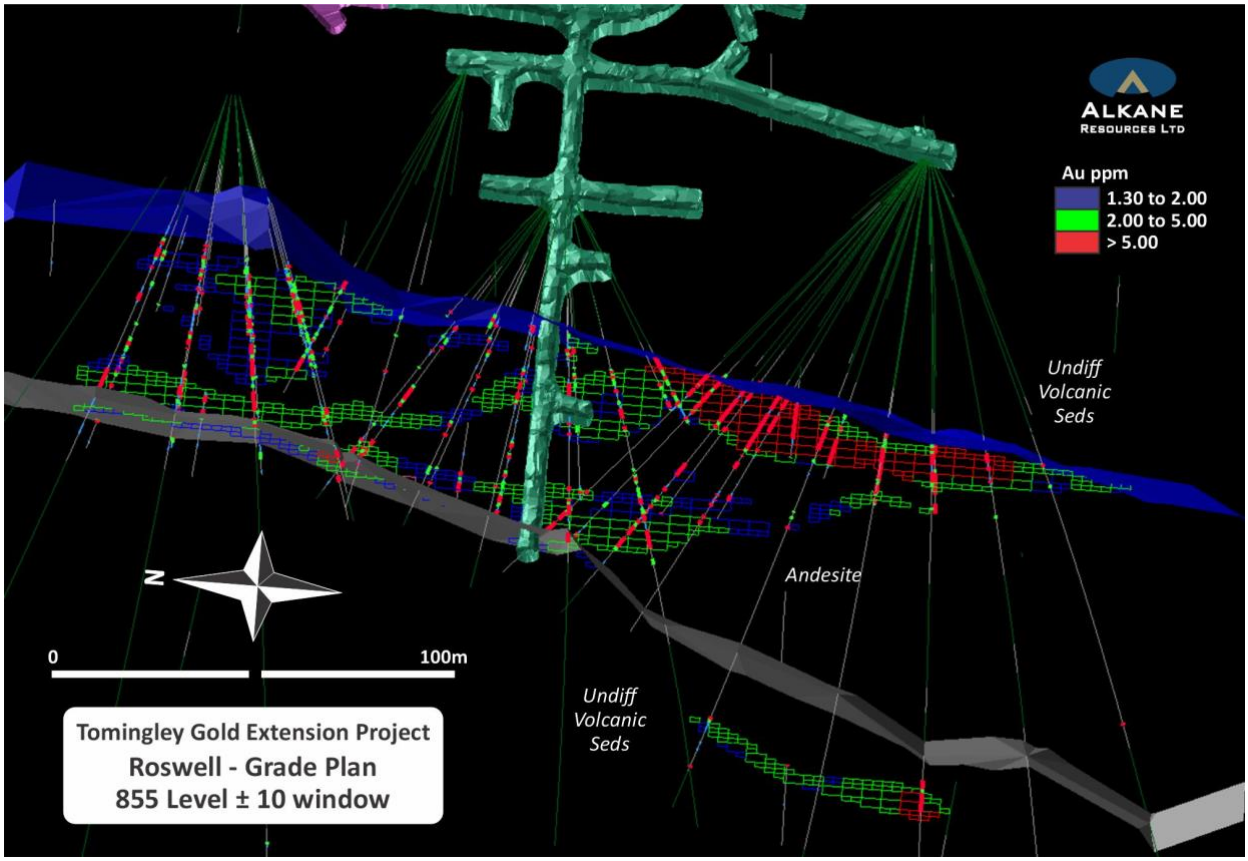
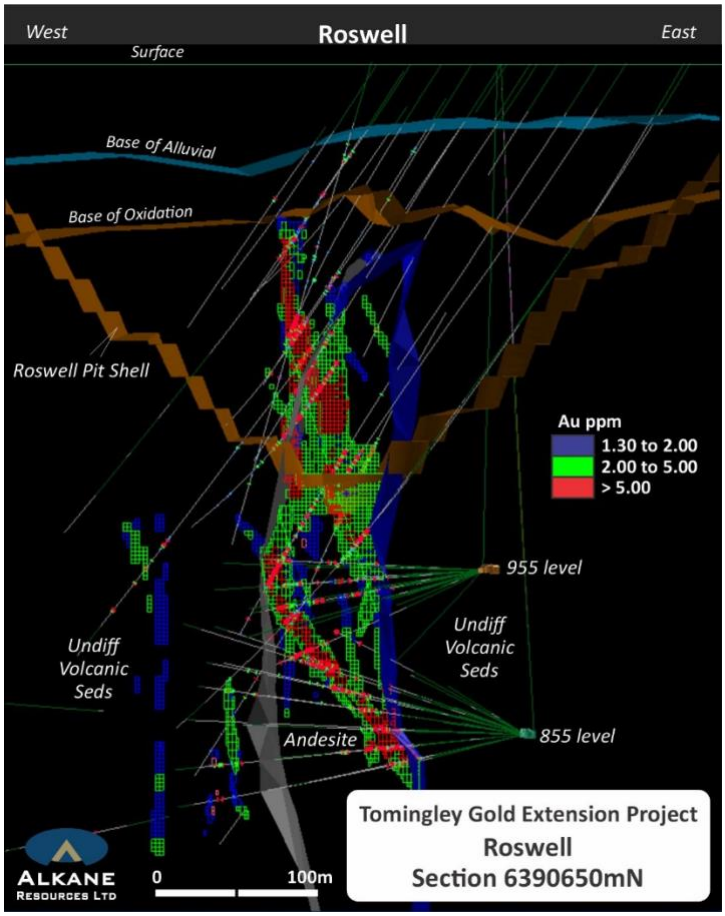


Figure 5 Roswell Section 6390650mN



MINERAL RESOURCE AND ORE RESERVES – Supporting information

The Mineral Resource Statement for the Roswell Mineral Resource Estimate (MRE) is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

In the opinion of Alkane, the resource estimation reported is a reasonable representation of the global gold mineral resource within the Roswell deposit, based on reverse circulation and diamond drilling sampling data available as of January 2023, and is detailed below:

Drilling Techniques

The Roswell deposit has been evaluated using all of Alkane's reverse circulation (RC) and diamond drilling (DD) holes within the prospect area. No previous companies' exploration drilling in the region (shallow air-core and RAB holes) was used in the assessment.

Exploration drilling at the Roswell deposit has been completed in six phased programs since January 2018 for a total of 198 RC and diamond core holes for 55,425.9 metres. Drillit Consulting Pty Ltd completed reconnaissance air-core drilling and the initial RC and diamond core drilling. Mitchells Services Ltd were used for the initial phase of resource definition RC drilling and 2 diamond core holes. Ophir Drilling Pty Ltd were used for the remainder of the diamond core drilling. Finally Strike Drilling Pty Ltd were contracted to complete the infill resource RC drilling. Underground diamond grade control drilling has commenced and have been used to update this resource estimation. Drilling statistics are summarised in Table 5.

Table 5 Summary Drilling Statistics

	Roswell Drilling Statistics (air-core drill holes excluded)					
Hole Type	**Air Core (diamond pre-collars)**	**Reverse Circulation (diamond pre-collars)**	**Reverse Circulation**	**HQ3 Diamond**	**UG NQ2 Diamond**	**Total**
No. Holes	2	31	165	33	**229**	**427(not including pre-collars)**
Metres	179.95	5,978.31	40,569.9	8,697.72	**33027.9**	**88,453.8**

Initial shallow reconnaissance drilling to fresh rock was completed using 90mm (3.5") air core. Gold and arsenic anomalism was followed up with deeper drilling completed by RC (usually 144mm or 5¾") and RC pre-collared HQ3 diamond core drilling. Resource definition drilling has been completed on east-west sections. Drill sections are spaced 20m apart with drill holes at 20m intervals along these sections. Air-core drilling was not included in the resource estimation. The underground diamond drilling is being undertaken on a nominal 20x15m drill spacing.

Sampling and Sub-Sampling Techniques

Sampling on all drilling techniques was conducted from the base of alluvium (the transported overburden contains no economic gold grades) to the bottom of hole. Sampling via the different drilling techniques used is described as follows:

RC Drilling

Samples from the RC drilling were collected at 1 metre intervals via a cyclone into large plastic bags. Spear samples were collected from each 1 metre sample and composited to 3 metre for initial analysis unless the geologist on site determined visually strong mineralisation, then 1 metre samples were collected via a splitter below the cyclone and sent for analysis.

All composites assaying ≥0.2g/t Au together with their upper and lower bounding composite samples were re-split as 1 metre samples collected at the time of drilling into a calico bag via a splitter below the cyclone.

Surface Diamond Core Drilling

Half core samples were collected from all geologically logged and potential mineralised zones from the diamond core drill holes. The core was sampled for assay in a range of 0.3 metre to 1.3 metre intervals as determined by the geologist based on lithological contacts, alteration zones and mineralisation zones. Geotechnical and bulk density measurements were collected as well as lithology logging and structural data. The remainder of the core was transferred to racking and stored at the decommissioned Peak Hill Gold Mine.

Underground Diamond Drilling

Full core samples were collected from all geologically logged and potential mineralised zones from the diamond core drill holes. The core was sampled for assay in a range of 0.3 metre to 1.3 metre intervals as determined by the geologist based on lithological contacts, alteration zones and mineralisation zones. Geotechnical information was collected as well as lithology logging and structural data where required.

Sample Analysis Method

All samples were submitted to ALS Chemex Laboratory in Orange. Samples were oven dried prior to crushing to <6mm using a jaw crusher (in the case of diamond core), split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples were discarded. A pulp packet (±100g) is stored for future reference.

For all samples used in the resource estimate, gold was determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill was dissolved in aqua regia and gold determined by flame AAS.

In addition to gold assay, RC samples were assayed for As, Cu, P, Sc and Ti by aqua regia digest AAS finish (ALS method code ME-ICP41). Diamond core analyses in addition to gold, were assayed for a full multi-element suite using a multi-acid complete digest, with an AES and MS finish.

Commercially prepared Certified Reference Materials (CRM) and blanks were inserted at approximately 1 in 40 samples. CRM's were not identifiable to the laboratory. Standards were deemed to be within tolerance if the result was within 3 standard deviations and 10% of the expected value. When a standard fell outside this tolerance, the standard along with a selection of samples from the batch were resubmitted. These "failed" samples are not included in the resource estimation. Overall, the CRM pass rate over 99.9%.

Field duplicate samples were inserted at 1 in 40 samples (alternate to CRM's). Field duplicate samples were collected by riffle splitting the RC sample. The correlation coefficient for gold is relatively high at 0.88 showing good repeatability for a gold deposit. A high correlation coefficient of 0.97 for arsenic

indicates that the lower correlation coefficient in gold is due to a low nugget effect rather than improper sampling procedures.

Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data was reported for each sample submission. Umpire laboratory check samples were forwarded to SGS Laboratory in West Wyalong for Au analyses over the course of the resource drilling campaign as a 1.4% proportion of total assays. In general, the results were repeatable between the laboratories with no statistically significant bias detected.

In the competent persons opinion, the laboratory has performed satisfactorily over the resource drilling campaign and any noted discrepancies are acceptable for the resource classification applied.

Geology and Geological Interpretation

The geology, structural setting, alteration and mineralisation is very similar to the deposits at the currently operating Tomingley Gold Operations. The total resource inventory of the four deposits at Tomingley totalled 14.29 million tonnes grading 2.0g/t gold at a 0.5 g/t cutoff for 921,000 ounces of gold before commencement of mining.

The Tomingley, San Antonio and Roswell deposits are located within a gold-arsenic structural zone termed the Tomingley Gold Corridor that is approximately 500 m wide and located immediately east of the Cotton Formation contact. The Tomingley Gold Corridor begins approximately 5km north of Tomingley, is approximately 30 km in length, and strikes south through Peak Hill. The individual prospects and deposits within the corridor all have their own structural nuances however mineralisation is dominantly hosted within brittle sub-volcanic sills or lavas or along their immediate contacts with volcaniclastic meta-sediments.

The alteration appears multiphase with repeated cracking, crushing, veining and sealing, leading to heterogeneous, patchy alteration and discontinuous narrow veinlets. It is characterised by a bleaching white mica (muscovite)-carbonate (ankerite)-albite-silica ± chlorite as pervasive replacement of the host rock around strong quartz-carbonate (ankerite)-pyrite-arsenopyrite ± albite veining.

Multiple phases and recrystallisation of pyrite and arsenopyrite occur early in the paragenesis. Late fractures in earlier pyrite and arsenopyrite have served as nucleation sites for the precipitation of gold which occurs within or disseminated near the selvages of the quartz-ankerite vein assemblage.

The drilling at Roswell has defined a fault bounded section of volcanic stratigraphy covered by 30 m to 55 m of alluvial clays and sands. The faulted sub-vertical volcanic stratigraphy is rotated from striking north to striking north-northeast. The mineralisation appears to be hosted by two different volcanic units - monzodiorite and andesite - within a coarse grained volcaniclastic package generating structural zones by a competency contrast between the ‘brittle’ volcanics and ‘ductile’ volcaniclastics.

The stratigraphy at Roswell comprises immature volcaniclastic sandstones and conglomerates with lesser siltstones/mudstones. More evolved, fine grained plagioclase phyric multi-phased andesite lavas, are slightly magnetic, and hosts a significant proportion of the gold mineralisation. In thin section, the andesite lavas have abundant tiny apatite needles within the plagioclase, accounting for the slightly elevated phosphorous concentration in comparison to the other volcaniclastics and lavas within the stratigraphic package.

Intruding into this volcanic package east of the andesite lavas, is a monzodiorite that appears to have the same petrographic qualities as the sub-volcanic sills that host the majority of the mineralisation at the Tomingley deposits, with the exception that it has a holocrystalline texture suggesting it is likely a deeper intrusive. A second, smaller and porphyritic, monzodiorite intrusive was identified west of the andesite

lavas at depth by the recent deeper drilling.

The mineralisation at Roswell is characterised as typical quartz-carbonate-pyrite-arsenopyrite veins hosted in phyllic altered volcanics. The mineralised zones range from 2 m to 30 m wide and as stacked tension veins, sometimes becoming more of a stockwork within the andesite host.

The mineralisation, as observed at Tomingley, is displaced by a swarm of post mineralisation dolerite dykes. The dolerite dykes have a similar orientation of dipping steeply to the north-northeast.

The andesites, monzodiorites and dolerites were modelled in 3D and formed the basis of wireframing the mineralisation in the estimation. The wireframes were built by Alkane employed geologists. This informed the estimates and along with grade guided the interpretation of the ore envelope wireframes at a nominal 0.2g/t Au lower cut-off. Where the intercept gold value was below the nominal cut-off, however mineralisation continuity was supported by veining and alteration, the intercept was included within the domain due to the commodity and the style of deposit.

Estimation Methodology

Grade estimation was completed using Ordinary Kriging (OK) with dynamic anisotropy to optimise search ellipse orientation within the lodes. All wireframing and estimation was completed with Surpac software.

Exploratory data analysis of the capped and declustered composited gold variable within each domain was undertaken by Cube Consulting with variograms being produced using Datamine/Snowden Supervisor software. Sample data was composited into one metre downhole lengths using a best fit methodology.

Cube conducted an estimation search neighbourhood analysis to determine optimal search parameters for Ordinary Kriging (OK) estimation of gold grade. This analysis was carried out on only the well informed domains. This determined an optimum block size to be 2.5mX x 5mY x 5mZ and sub-blocking down to 1.25mX x 2.5mY x 2.5mZ. Less well-informed domains utilised variogram model parameters substituted from other, better informed lodes based on statistical similarity. Blocks in very poorly informed domains (i.e. due to small volume and very few samples) were assigned the mean sample grade of that domain.

A top cut analysis was carried out by a visual inspection of the data using histograms, log-transformed probability plots, percentile analysis and sensitivity analysis for individual domains to identify population outliers. The spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for most of the well informed domains.

Estimation utilised a 2-way skin within 5 m either side of the modelled oxide surface between the oxide and fresh domains. All other domain boundaries are hard boundaries where only composite samples within that domain were used to estimate blocks coded as within that domain.

Validation of the modelling parameters and processes of estimation included visual inspections in section, plan and in 3D; swathe plot validation; and a comparison of an ID2 model vs the OK model. In the competent persons opinion, all methods of validation produced acceptable results.

Classification Criteria

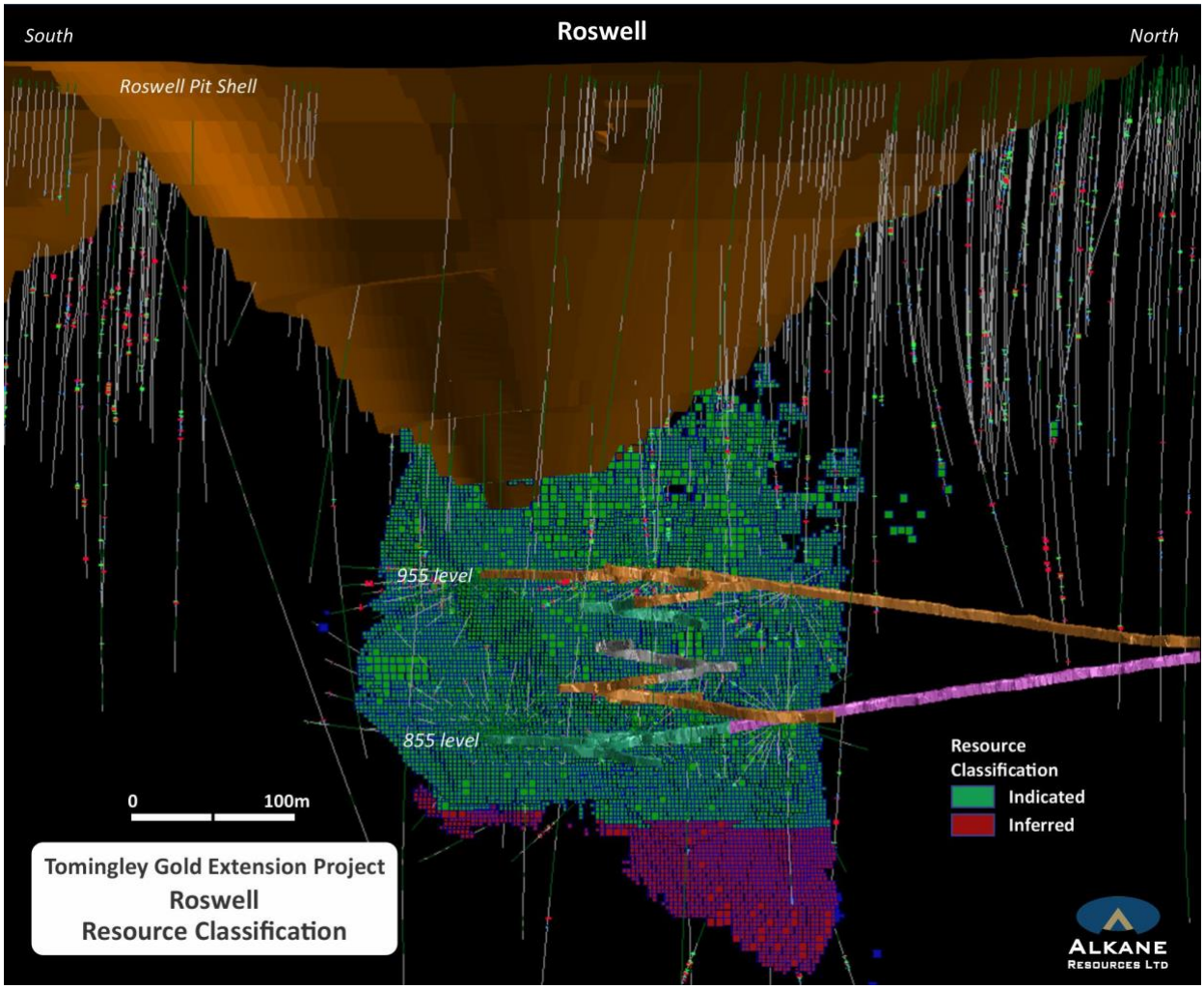
Mineral Resources were classified as Inferred or Indicated to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, as well as metal distribution. There is no material classified as Measured.

Indicated Mineral Resources were defined where a high level of geological confidence in geometry, continuity, and grade, was demonstrated, and were identified as areas where:

- Drill spacing was averaging a nominal 20m, or where drilling was within 20m of the block estimate;
- Estimation quality is considered to be of high confidence in respect to low kriging variance; and
- Higher number of samples used to estimate individual domains.

Remaining estimated blocks within the defined mineralisation domains were classified as Inferred Resources (this included most blocks in the less well-informed domains and all blocks in the very poorly-informed domains). The dimensions of the search ellipse were based on the recommended search neighbourhood parameters.

Figure 5 Roswell Underground Resource Classification



Cut-Off Grade

The Mineral Resource cut-off grade for reporting of global gold resources for the Roswell deposit was chosen as 0.4 g/t gold for open cut mining and 1.3g/t gold for underground operations. These estimations were based upon economic parameters utilised at Tomingley Gold Operations where deposits of the same style, commodity, comparable size and mining methodology are currently being extracted.

Ore Reserve cut-off grade was chosen as 0.4g/t gold for open cut mining and 1.6g/t gold for underground operations. These estimations were also based upon economic parameters utilised at Tomingley Gold Operations where deposits of the same style, commodity, comparable size and mining methodology are currently being extracted.

Mining

It was assumed that mineralisation at the Roswell deposit would be extracted using open cut and underground mining methods of a similar scale and size as per the Tomingley Gold Operations (TGO). Dilution and recovery factors derived from the TGO site were applied.

Metallurgy

The metallurgy of the Tomingley deposits is well studied. Tomingley Gold Operations has been processing ore since 2014 from its four deposits with high recoveries. During this time some carbonaceous ore has negatively impacted recoveries. The flotation and regrind extension currently under construction at the Tomingley process plant is designed to ensure that recoveries ranging between 85% - 93% will be achieved. Metallurgical work on Roswell ore suggests it has similar metallurgical qualities as per the previously mined Tomingley deposits.

Competent Person

*This **Mineral Resources and Ore Reserves Statement as a whole** has been approved by Mr D Ian Chalmers, FAusIMM, FAIG, (executive director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Chalmers has provided his prior written consent to the inclusion in this report of the Mineral Resources and Ore Reserves Statement in the form and context in which it appears.*

*The information in this report that relates to the **Roswell Mineral Resource** estimates is based on, and fairly represents, information and supporting documentation prepared by Mr Craig Pridmore, Geology Manager Tomingley Gold Operations, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Alkane Resources Ltd. Mr Pridmore has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Pridmore consents to the inclusion in this report of the matters based on his information in the form and context in which they appear. Mr Pridmore holds shares in Alkane Resources and participates in the Alkane Resources employee performance rights plans. Mr Pridmore confirms there is no other potential for a conflict of interest in acting as a Competent Person.*

*The information in this report that relates to the **Roswell Open Pit Ore Reserve** estimate is based on, and fairly represents, information and supporting documentation prepared by Mr John Millbank (Proactive Mining Solutions), an independent consultant, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Millbank has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Millbank consents to the inclusion in this report of the matters based on his information in the form and context in which they appear. Mr Millbank confirms there is no potential for a conflict of interest in acting as a Competent Person.*

*The information in this report that relates to the **Roswell Underground Ore Reserve** estimate is based on, and fairly represents, information and supporting documentation prepared by Mr Christopher Hiller (Hiller Enterprises Pty Ltd), an independent consultant, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hiller has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hiller consents to the inclusion in this report of the matters based on his information in the form and context in which they appear. Mr Hiller confirms there is no potential for a conflict of interest in acting as a Competent Person.*

Previous Information

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and, in the case of reporting of Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement.

Disclaimer

This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.

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

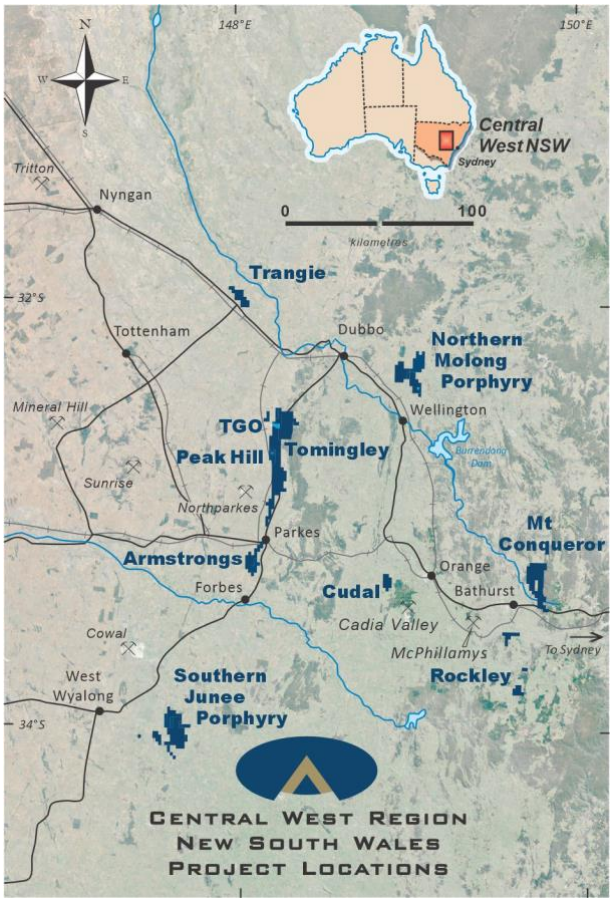
ABOUT ALKANE - www.alkane.com.au - ASX: ALK

Alkane Resources intends to grow to become one of Australia's multi-mine gold and copper producers.
The Company's current gold production is from the Tomingley Gold Operations in Central West New South Wales, where it has been operating since 2014 and is currently expediting a development pathway to extend the mine's life beyond 2030.

Alkane has an enviable exploration track record and controls several highly prospective gold and copper tenements. Its most advanced exploration projects are in the tenement area between Tomingley and Peak Hill, which have the potential to provide additional ore for Tomingley's operations.

Alkane's exploration success includes the landmark porphyry gold-copper mineralisation discovery at Boda in 2019. With drilling ongoing adjacent to the initial resource identified at Boda, Alkane is confident of further consolidating Central West New South Wales' reputation as a significant gold and copper production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~9.0% of Calidus Resources (ASX: CAI).



The following tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of exploration results.

APPENDIX 1

JORC Code, 2012 Edition – Table 1 report – Roswell February 2024

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The Roswell deposit has been evaluated using reverse circulation both surface and underfround diamond drilling techniques. Reverse Circulation (RC) samples are collected at one metre intervals via a cyclone and riffle or cone splitter. Intervals outside of visual ore zones are composited to 3 metres. Diamond Drilling (DD) sample intervals are defined by geologist during logging to honour geological boundaries.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	RC drilling completed to industry standards. Core is laid out in suitably labelled core trays. A core marker (core block) is placed at the end of each drilled run (nominally 3 or 6m) and labelled with the hole number, down hole depth, length of drill run. Core is aligned and measured by tape, comparing back to this down hole depth consistent with industry standards.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	RC Drilling - approximately 10% (3kg) of total sample is delivered via cone or riffle splitter into a calico bag with the remaining sample delivered into a large plastic bag and retained for future use if required. DD Drilling – sample intervals defined by geologist during logging to honour geological boundaries. All samples sent to laboratory are crushed and or pulverised to produce a ~100g pulp for assay process. All samples are fire assayed using 50g charge. Visible gold is occasionally observed in core.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	The resource is based on 165 RC drill holes totalling 46,728 metres (including diamond pre-collars), 33 surface diamond core (DD) drill holes totalling 8,698 metres and 229 underground diamond holes for 33027.9m . Conventional RC drilling using 100mm rods and 144mm face sampling hammer. The surface diamond drill holes were pre-collared using either air core or RC drilling through to competent material averaging 110 metres depth and cased down to triple tube HQ3 (61mm diameter) core tails. HQ3 core is oriented using the "Reflex" core orientation tool. All Underground diamond holes are drilled NQ2
	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	RC - sample recovery is visually estimated and generally very good (>90%) aided by the use of oversized shrouds through oxide material. Samples are even sized. Samples are

Criteria	JORC Code explanation	Commentary
Drill sample recovery		occasionally damp or wet in RC holes drilled below 250 metres. Sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet. Riffle and cone splitters were used to ensure a representative sample was achieved on all 1 metre samples. DD - core loss is identified by drillers and calculated by geologists when logging. Generally ≥99% was recovered.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	RC drilling completed using oversized shrouds to maintain sample return in oxide zone and all samples are split using riffle or cone splitters. Use of RC rigs with high air capacity assists in keeping samples dry. Triple tube coring for the surface holes wasused at all times to maximise core recovery.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	There is no known relationship between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	RC - each one metre interval is geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). DD - all core is laid out in core trays and geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). A detailed geotechnical log is also undertaken collecting parameters such as core recovery, RQD, fracture count, and fracture type and orientation.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	All logging is qualitative with visual estimates of the various characteristics. RC - A representative sample of each one metre interval is retained in chip trays for future reference. DD - Core is photographed and all unsampled core is retained for reference purposes.With the exclusion of the underground diamond core which was full core sampled.
	• *The total length and percentage of the relevant intersections logged.*	All DD core and RC chip samples have been geologically and geotechnically logged by qualified geologists.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	DD - zones of visual mineralisation and/or alteration are marked up by the geologist and cut in half using a Corewise automatic core cutting saw. The right half is sampled to sampling intervals that are generally based on geology but do not exceed 1.3 metres in length. The left half is archived. All mineralised zones are sampled, plus >5m of visibly barren wall rock. Laboratory Preparation – drill core is oven dried prior to crushing to <6mm using a jaw crusher, split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp packet (±100g) is stored for future reference.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	RC - for each one metre interval with visual mineralisation and/or alteration the calico sample bag is numbered and submitted to the laboratory for analysis. Intervals without visual mineralisation and/or alteration are spear sampled and composited over three

Criteria	JORC Code explanation	Commentary
		metres. Damp or wet samples are recorded by the sampler. For composited intervals returning grades >0.2g/t Au the calico bags are retrieved for assay. Laboratory Preparation – the entire RC sample (3kg) is dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp packet (±100g) is stored for future reference.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	ALK sampling techniques are of industry standard and considered adequate.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	RC – field duplicate samples collected at every stage of sampling to control procedures DD – external laboratory duplicates used.
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	RC - Duplicate samples are riffle split from the riffle/conical split calico from the drill rig. Duplicates show generally good repeatability, indicating a negligible "nugget" effect.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sample sizes are assumed to be within industry standard and considered appropriate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Gold is determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill is dissolved in aqua regia and gold determined by flame AAS. For other geochemical elements samples are digested in either aqua regia or a multi-acid digest with each element concentration determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. These additional elements are generally only used for geological interpretation purposes, are not of economic significance and are not routinely reported.
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Not applicable to this report or deposit.
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Commercially prepared Certified Reference Materials (CRM) are inserted at 1 in 40 samples. CRM's are not identifiable to the laboratory. Field duplicate samples are inserted at 1 in 40 samples (alternate to CRM's). Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data is reported for each sample submission. Failed standards result in re-assaying of portions of the affected sample batches. 1.4% of gold assay results from ALS Orange were checked using SGS West Wyalong as an external umpire laboratory.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	Drill data is compiled and collated, and reviewed by senior Alkane staff. Cube Consulting was used to verify exploration data to determine the resource estimation parameters.
	• *The use of twinned holes.*	Twinned holes have not been used at Roswell
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	Early drill hole logging and sampling data is hard keyed into excel spreadsheet for transfer and storage in an access database with verification protocols in place. More recent data is verified in the field and uploaded using Datashed.

Criteria	JORC Code explanation	Commentary
		All primary assay data is received from the laboratory as electronic data files which are imported into sampling database with verification procedures in place. QAQC analysis is undertaken for each laboratory report. Digital copies of Certificates of Analysis (COA) are stored in a central database with regular (daily) backup. Data is also verified on import into mining related software.
	• *Discuss any adjustment to assay data.*	No assay data was adjusted. In the case of assay checks the original assay is utilised as there was no statistical variability.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	All surface drill holes are laid out using hand held GPS (accuracy ± 2m) then surveyed accurately with DGPS_RTK (± 0.1m) by surveyors on completion. RC drill holes are surveyed using a single shot electronic camera at a nominal 30m down hole interval. DD are surveyed at nominal 30m down hole during drilling to maintain drilling direction and then at 6m intervals on retrieval of rod string using a multi shot electronic camera.
	• *Specification of the grid system used.*	MGA94 grid system was used.
	• *Quality and adequacy of topographic control.*	A site based digital terrain model was developed from accurate (± 0.1m) survey control by licenced surveyors.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	The surface drilling was drilled on a nominal drill hole spacing is 20m x 20m, moving out to variable spacing approaching 40m at depth. All underfround drilling is drilled on a nominal 20x15 spacing The data spacing is deemed to be sufficient in reporting a Mineral Resource.
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	The drill hole spacing has been shown to be appropriate by variography.
	• *Whether sample compositing has been applied.*	RC – samples with no visible mineralisation or alteration are composited to 3m with 1m resamples assayed if the composite returned a gold value of >0.2g/t gold. One metre samples override 3m composites in the database. DD – core is sampled to geology with sample sizes ranging from 0.3m to 1.3m.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Much care is given to attempt to intersect structure at an optimal angle but in complex ore bodies this can be difficult. Intersections are approximately 60% of true widths.
	• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	It is not thought that drilling direction will bias assay data at Roswell.
Sample security	• *The measures taken to ensure sample security.*	All samples are bagged in tied numbered calico bags, grouped into larger tied polyweave bags and transported 5 minutes away to Tomingley Gold Mine. The samples are placed in large sample cages with a sample submission sheet and couriered to ALS in Orange via

Criteria	JORC Code explanation	Commentary
		freight truck. All sample submissions are documented via ALS tracking system and all assays are reported via email. Sample pulps are returned to site and stored for an appropriate length of time (minimum 3 years). The Company has in place protocols to ensure data security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Company does not routinely have external consultants verify exploration sampling techniques. The Company has provided accurate resource estimations at Tomingley Gold Operations using these described sampling techniques. Cube Consulting was used to verify exploration data to determine the resource estimation parameters.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

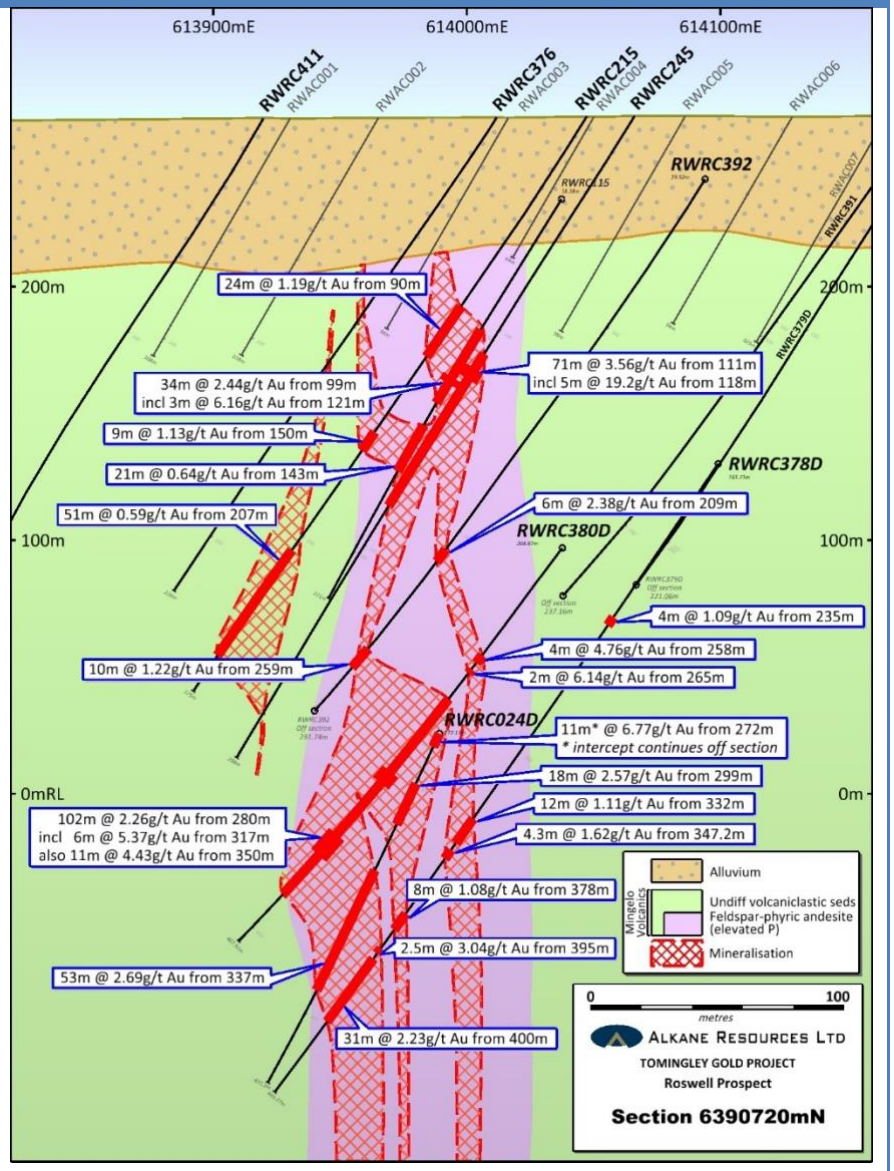
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	EL5675 wholly owned by Alkane Resources Ltd (ALK). Converted to ML1858
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	ML1858 is due to expire 19/7/2044.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	All reported drilling completed by ALK.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Mineralisation at Roswell is similar to the well documented Tomingley Gold Deposits. Roswell like Tomingley is associated with quartz veining and alteration focused within andesite volcanics and adjacent volcaniclastic sediments. The deposits appear to have formed as the result of a competency contrast between the volcanics and the surrounding volcaniclastic sediments, with the volcanics showing brittle fracture and the sediments ductile deformation, and have many similarities to well documented orogenic - lode-style gold deposits.

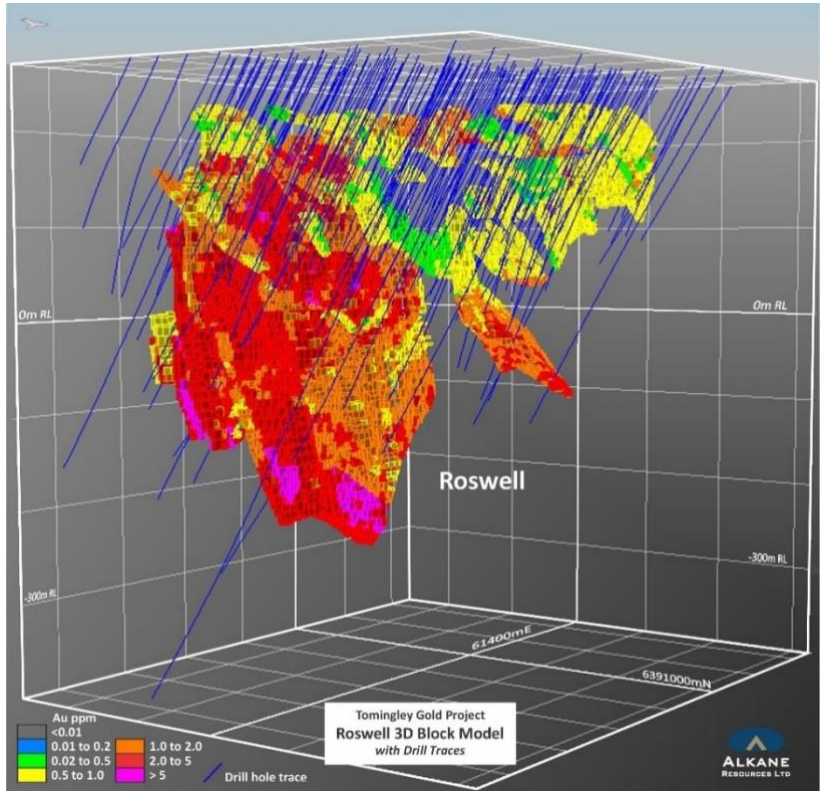
Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	Too many, not practical to summarise all drill hole data used. All material information has been previously reported in the following announcements: 11 July 2018, ASX Announcement; 19 October2018, ASX Announcement; 1 February 2019, ASX Announcement; 12 June 2019, ASX Announcement; 12 August 2019, ASX Announcement; 23 September 2019, ASX Announcement; 6 November 2019, ASX Announcement; 5 December 2019, ASX Announcement; 17 January 2020, ASX Announcement; 9 March 2020, ASX Announcement; 22 June 2020, ASX Announcement; 16 July 2020, ASX Announcement; 28 August 2020, ASX Announcement; 28 October 2020, ASX Announcement.
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Exclusion of drill hole data will not detract from the understanding of this report. All drill data has been previously reported, holes are close spaced and near a developed mining area.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	Exploration results previously reported – for uncut gold grades; Intercepts are defined (bounded) by 0.25g/t gold outer limit and may contain some internal waste; Only intervals grading ≥0.5 g/t gold are reported; Grades are calculated by length weighted average.
	• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	Exploration results previously reported as length weighted average grades with internal high grade intercepts reported separately.

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents are reported.

Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.*
	  ○ *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*
	  ○ *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*
		Previously reported exploration results include an estimate of true width. The mineralisation is structurally complex and true widths are variable depending on the ore zone intersected however range between 60% and 80% of drill intersection.

Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Cross sections and a plan showing geology with drill collars were included with previously reported exploration results detailing the unfolding significant discovery. Various plans and sections illustrating the modelled ore zones with all drill traces are attached.

Criteria	JORC Code explanation	Commentary
		

Criteria	JORC Code explanation	Commentary
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Data relating to all exploration drill holes has been reported in previous documentation of exploration results.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	No additional or new drilling results are being reported at this time.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Grade control drillingis planned into the the deposit to infill the drilling to 20m x 15m spacing to convert the inferred resources to Indicated.. Deep core drilling is also being planned to test the continuation high grade mineralised structures at depth and potential along strike.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	

Criteria	JORC Code explanation	Commentary
		The attached image above shows estimated blocks coloured showing different grades of mineralisation highlighting the high grade potential down dip for further exploration.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	In the early stages of the exploration at Roswell logging data is entered into Excel via drop down menus. All raw data is loaded directly to the Datashed database from the assay, logging and survey derived files.
	• *Data validation procedures used.*	There are validation checks to avoid duplications of data. The data are further validated for consistency when loaded into Datashed.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *(If no site visits have been undertaken indicate why this is the case.)*	All drilling since exploration has handed ove rth eproject to operations is undertaken and reviewed by onsite geologists
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The geological model is built on structural data from core and lithological logging. The lode strike orientations are similar to Tomingley which approximate the strike of the volcanic bodies. The domain wireframes were built by Alkane geologists.
	• *Nature of the data used and of any assumptions made.*	Structural measurements from oriented drill core was used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips. Lithogeochemistry was used to help define the different lithologies.
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	N/A
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	Geological (lithological) logging together with lithogeochemistry was used to develop a geological model. Alteration and mineralisation estimates along with grade guided the interpretation of the ore envelope wireframes. The majority of mineralisation is hosted by a quartz veined and altered andesite, however there is evidence along the western margin that mineralisation is also hosted within the volcaniclastics. A lesser portion of mineralisation is hosted within the monzodiorite positioned in the northeast of the Roswell deposit. A third volcanic body has been identified by recent deeper drilling west of the andesite that also hosts a small portion of mineralisation. Dolerite dykes post-date mineralisation and all mineralised lodes are truncated and stoped out by the modelled dolerites.

Criteria	JORC Code explanation	Commentary
	• *The factors affecting continuity both of grade and geology.*	Mineralisation is directly associated with alteration and veining.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	Strike length ~ 600m Width ~ 100m Depth ~ 30m from below surface to ~ 350m below surface from deepest drilling intercept.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	The resource model has used all the exploration drill data and underground grade control diamond drilling. 23 mineralisation wireframes (domains) and 3 dolerite wireframes were interpreted and used as constraints for the resource modelling. Three surfaces were also used to separate material types - topography, alluvium and base of oxidation surfaces. The material type classification was used to allocate density values. The drillhole data was flagged by the domain wireframes in priority order, to prevent double use of the data in any intersecting zones. The drill hole data was flagged by dolerite and mineralised domain wireframes in priority order, to prevent double use the data in the intersecting zones. The mineralised zones of greater than 0.20g/t gold were wireframed and the samples within their respective zones were flagged, in order to prevent any overestimation that could be caused by use of assays outside these boundaries. Top-cuts were selected for each domain based on a visual inspection of the data using histograms, log-transformed probability plots, percentile analysis and sensitivity analysis for individual domains. Spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for most of the domains. An estimation search neighbourhood analysis was used to determine optimal search parameters for Ordinary Kriging (OK) estimation of gold grade. This analysis was carried out on only the well informed domains. This determined an optimum block size to be 2.5mX x 5mY x 5mZ and a sub-blocking size of 1.25mX x 2.5mY x 2.5mZ. Grade estimation was completed using Ordinary Kriging (OK) with dynamic anisotropy. All wireframing and estimation was completed with Surpac and checked using ID2.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	The previous estimate was an Inferred and indicated Resource calculation based on shallower broadly spaced drilling. There is no previous production data to provide any validation.
	• *The assumptions made regarding recovery of by-products.*	No assumptions made - estimates were made only for gold.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	No deleterious elements identified for estimation.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	An optimum block size to be 2.5mX x 5mY x 5mZ and a sub-blocking size of 1.25mX x 2.5mY x 2.5mZ was determined as appropriate for a 20m x 20m drilled resource. The average drill hole spacing was 20m.

Criteria	JORC Code explanation	Commentary
		Variogram model parameters were determined for the majority of the domains. Where there were poorly informed domains and where variogram models were not produced recommended variogram substitution was based on statistical similarity.
	• *Any assumptions behind modelling of selective mining units.*	No assumptions made
	• *Any assumptions about correlation between variables.*	No assumptions made
	• *Description of how the geological interpretation was used to control the resource estimates.*	Only data form the same domain were used to make estimates.
	• *Discussion of basis for using or not using grade cutting or capping.*	Top-cuts were selected for each domain based on a visual inspection of the data using histograms, log-transformed probability plots, percentile analysis and sensitivity analysis for individual domains. Spatial location of the outliers was also taken into consideration for the application of the grade caps. The sensitivity analysis involved analysing varying cap values, to estimate the contribution of each sample to the overall metal content. Capping was deemed necessary for most of the domains.
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Validation of the modelling parameters and processes of estimation included visual inspections in section, plan and in 3D; swathe plot validation; and a comparison of an ID2 model vs the OK model.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated on a dry tonnage basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The cut-off grade 0.5 g/t gold is above the cut-off used for the low grade stockpiles calculated for the Tomingley deposits 3km to the north. This takes into account likely mining costs and metallurgical recovery for similar material.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	No mining factors were invoked into the Roswell Resource estimation process.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The metallurgy of the nearby other Tomingley deposits is well studied. A preliminary metallurgical study suggests Roswell has similar metallurgical characteristics.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential*	The Tomingley Gold Operations has been operating since 2013 with an approved EIS plan and environmental licences. Roswell deposit is positioned in highly modified agricultural land and a new mining development will have little potential environmental impacts.

Criteria	JORC Code explanation	Commentary
	environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Density determinations for the fresh rock were based on 540 measurements from 33 diamond core holes. A downhole density gamma probe which collects a density reading every 0.1m down hole was used to calculate an average density for the alluvium and oxide material. Surficial alluvium was given a density of 2.10t/m^3 (119 measurements), oxide material was calculated a density of 2.07 t/m^3 (1104 measurements), and fresh host rock was calculated a density of 2.75t/m^3 (540 measurements).
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	SG measurements completed on all material types – see above.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	No assumptions made – SG determined and individual values applied to each material type based on wireframed surfaces.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	*Resource Model* Mineral Resources were classified as Inferred or Indicated to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, as well as metal distribution. There is no material classified as Measured. Indicated Mineral Resources were defined where a high level of geological confidence in geometry, continuity, and grade, was demonstrated, and were identified as areas where: - Drill spacing was averaging a nominal 20m, or where drilling was within 20m of the block estimate; - Estimation quality is considered to be of high confidence in respect to low kriging variance; and - Number of samples used to estimate individual domains. Remaining estimated blocks made within the defined mineralisation domains in the first search pass were classified as Inferred Resources (this included most blocks in the less well-informed domains and all blocks in the very poorly-informed domains).
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	The use of RC drilling limits the amount of geological information that can be logged, and boundaries of mineralisation zones cannot be precisely located.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The classification reflects the Competent Persons view of the deposit and its supporting data.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	There have not been any audits or reviews.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	No statistical or geostatistical method (non-linear or simulation) was used to quantify the relative accuracy of the estimate within confidence limits. Accuracy of the estimate is dependent on: accuracy of the interpretation and geological domaining; accuracy of the drill hole data (location and values); orientation of search ellipses used; and estimation parameters which are reflected in the variogram model used.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The resources are Indicated and Inferred, being based on drill hole spacing and geological continuity. To ensure the resources have 'reasonable prospects of eventual economic extraction' the resources have been restricted to all material above a gold cutoff grade of +0.5g/t Au.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	There has not been any production from Roswell.

APPENDIX 2

ALKANE RESOURCES LTD SHORT FORM ORE RESERVE REPORT

ASX ALK Roswell Resource 27 February 2024

TENEMENT:	*ML1858*
OWNER:	Alkane Resources Ltd 100%
OPERATOR:	Alkane Resources Ltd (ABN 35 000 689 216) 89 Burswood Road, BURSWOOD, WA 6100
COMMODITIES:	Gold
COMPILED BY:	Christopher Hiller
REPORT BY:	Christopher Hiller
REPORTING DATE:	27 February 2024

Project Summary

The Tomingley Gold Extension Project (TGEP) is defined as the San Antonio and Roswell deposits 2.5kms south of the existing Tomingley Gold Operation (TGO). TGO is located on the Newell Highway, two kilometres south of the town of Tomingley, Tomingley is 54kms south west of Dubbo and 67kms North of Parkes, Central New South Wales. TGEP is currently at feasibility stage with an exploration decline being mined to the Roswell deposit from the TGO underground workings.

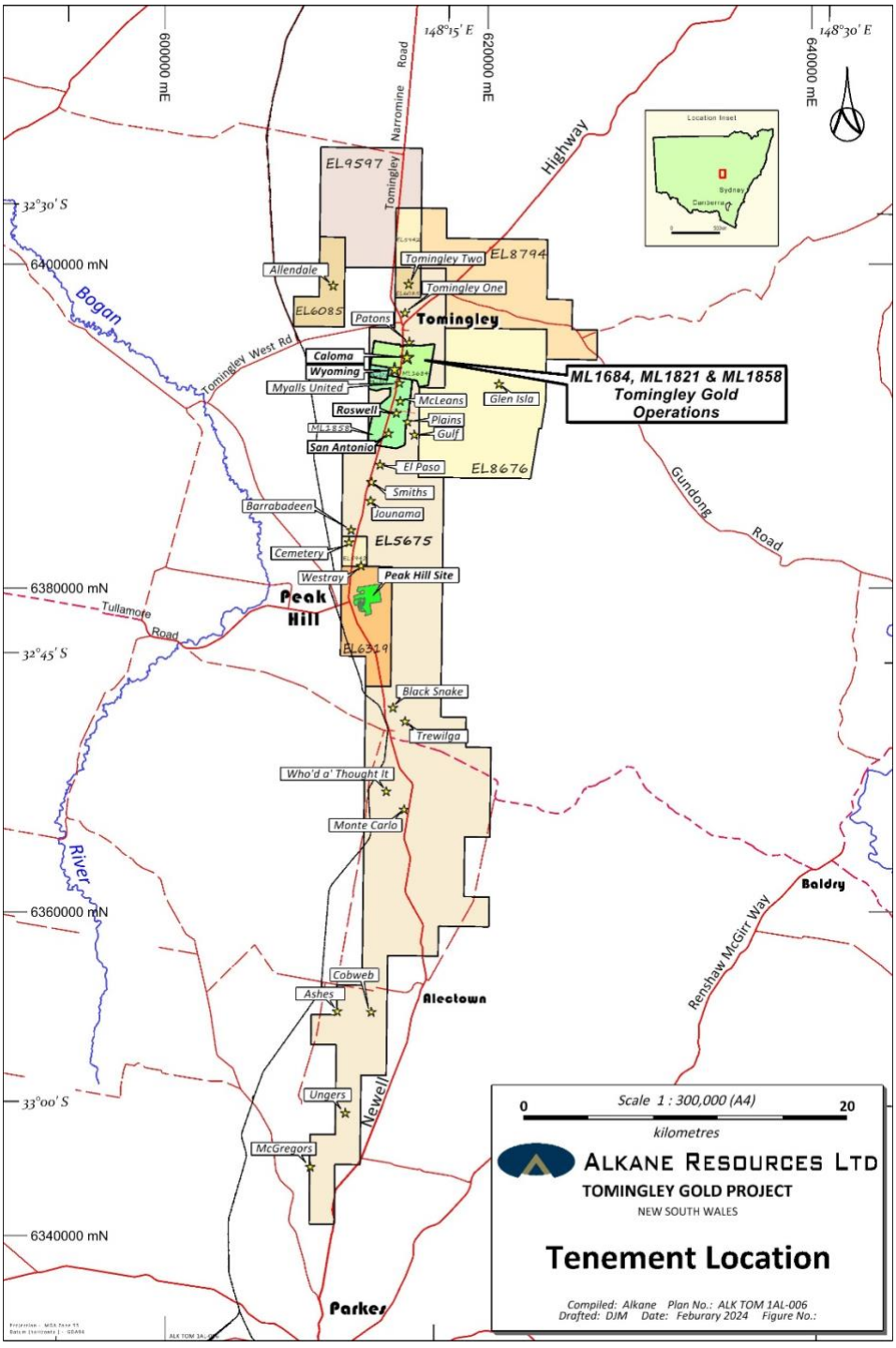


Figure 1: Tenement Location - TGEP

The Tomingley gold deposits are interpreted as orogenic gold systems positioned within a major structural zone. This style of deposit is well documented globally with the more significant examples in

Australia being the Archean greenstone belts of the Yilgarn Craton in WA and the Paleozoic slate belts in Victoria.

The Roswell deposit is hosted in the Mingelo Volcanic Formation, a strongly deformed and hydrothermally altered Ordovician aged belt of volcanics that are predominantly andesitic volcaniclastic breccias, lesser sandstone/siltstone units, lavas and black mudstones. The volcanics are overlain by the younger Cotton Formation siltstones.

The resource drilling program has defined a fault bounded section of volcanic stratigraphy that has been rotated 15 degrees east from striking approximately north-south. The mineralisation at Roswell is primarily hosted by two 'brittle' volcanic units (monzodiorite and andesite) as per the structural setting observed at the Tomingley gold deposits. These volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcaniclastic sediments.

Mineralisation is characterised as similar to the Tomingley gold mineralisation, as quartz-carbonatepyrite-arsenopyrite veins hosted in phyllic altered volcanics. These sheeted quartz veins are orientated as steep east dipping, striking approximately 10 degrees east of north, and are typically constrained within the volcanic units. The mineralisation has been defined by drilling over a strike length of approximately 600 metres and remains open to the north and at depth. The higher grading mineralisation occurs in the southern section, proximal to and truncated to the south by a regional NW trending structure named the Rosewood Fault. The San Antonio deposit is a continuation of the mineralised zone to the south of the fault. The Rosewood Fault is of a similar orientation to the structure that dextrally displaces the Caloma deposits from the Wyoming deposits, positioned in the centre of the Tomingley 'gold camp'.

The mineralisation at the Roswell Deposit is displaced by three significant, approximately 4 metres thick dolerite dykes dipping steeply to the NNE, striking WNW. The dolerites postdate the gold mineralisation. Weathering of the mineralised bedrock has developed a saprolitic clay profile extending approximately 35 metres from the base of alluvium to fresh rock. The mineralised bedrock lies beneath a Cainozoic alluvium overburden between 30-55 metres thick

Current mining activities comprise of underground mining of Wyoming One and the Caloma orebodies. An exploration decline has been driven from the Wyoming One underground workings to access the Roswell orebody. Resource definition drilling from underground commenced in May 2023. TGEP is planned to be operated from TGO. TGO is operated on a residential basis with personnel residing in Dubbo, Narromine and Parkes in the Central West of New South Wales.

The mining method proposed for mining the underground portion of the Roswell resource is Longhole Open Stoping (LHOS) with full paste fill. The choice of mining method is determined by value of the resource, orebody width and geotechnical factors.

Stoping configurations are predominantly single-lift stoping (25m vertical interval) with strike length of 20-25m. The stoping method (as illustrated in Figure 2) involves establishing a slot using conventional long-hole drill and blast techniques and then the stopes mined in a retreat sequence along strike to the central access. The stopes are paste filled prior to the adjacent stope is mined. The installation of brow cables and the use of a concurrent strike-retreat blasting sequence, and use of paste fill will assist in controlling ground stability.

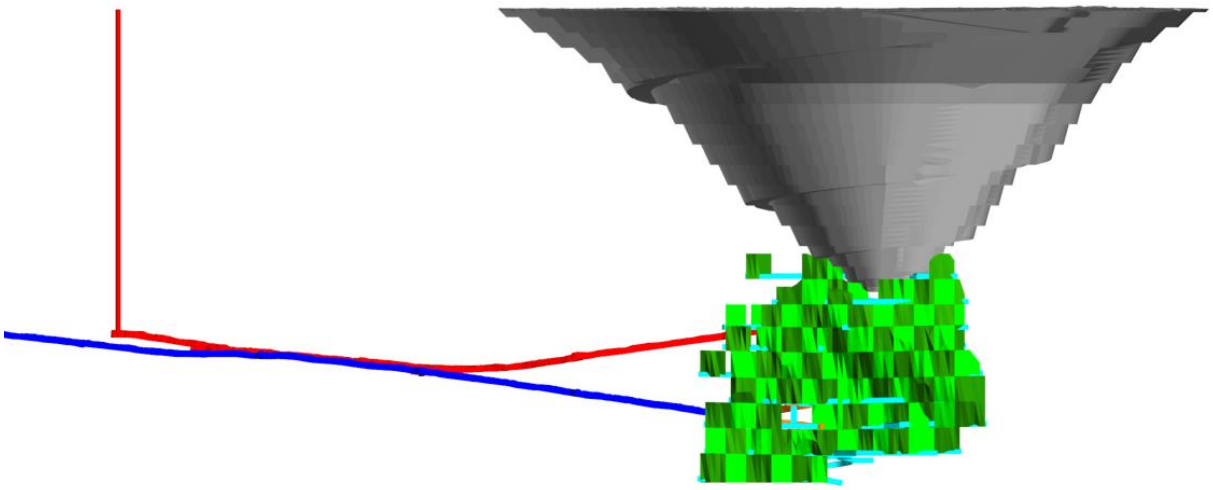


Figure 2: Isometric View of Proposed Roswell Pit and Underground Mine (Reserves Only)

Ore production is scheduled to be 1,100 ktpa which would be trucked to surface using a fleet of five to six underground trucks (MT65). The truck fleet is matched with four Caterpillar R2900 loaders operating on a combination of tele-remote and manual control. Normal drilling fleet includes two development jumbos (DD420/422i) and two production drills (DL431/432).

Primary ventilation for Roswell is planned to be supplied by two 550kw, 3.5m diameter, fans wall mounted underground. These fans will support mining down to the current extent of the Roswell ore deposit. The ventilation layout is illustrated in Figure 3.

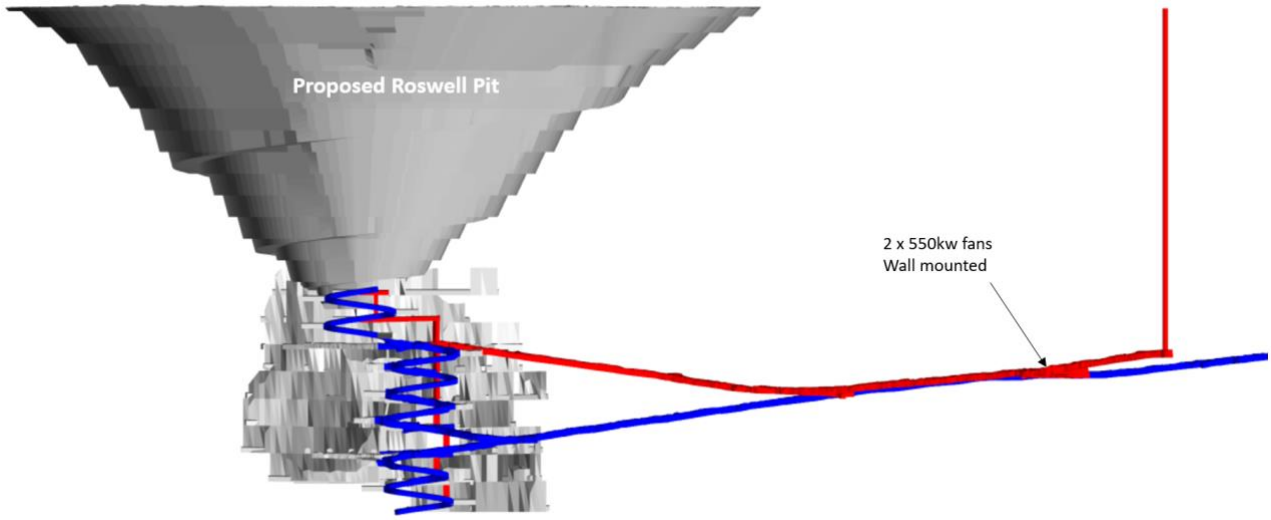


Figure 3: Primary Ventilation for Roswell (TGEP – Reserves Only)

Electrical infrastructure servicing TGO can deliver 10MW. The TGO site currently uses 7.5MW; this falls within the current 10.0MW peak allowance. Underground mining at TGO currently uses 3.0MW, this power will be redirected to Roswell (TGEP) as TGO underground ramps down and underground

production from Roswell commences. The power will be reticulated from TGO to Roswell (TGEP) using overhead power lines.

Tailings are begin deposited into stage one (of RFS2), at current production rates, the current approved tailings storage facility is adequate for processing until mid-2027. An additional 10.5Mt of capacity can be realised by raising the dam to its full design height.

All Roswell (TGEP) ore is trucked to the TGO processing plant which is located adjacent to the Wyoming Three pit. The plant consists of a crushing circuit, single-stage milling circuit and hybrid carbon-in-leach (CIL) circuit with one designated leach tank and numerous adsorption tanks. Gold is recovered from activated carbon into concentrated solution. Electrowinning and smelting are conducted in an adjacent secure gold room. The tailings from the process are thickened and pumped to a paddock-type tailings storage facility with multi-spigot distribution. Gold doré bars are transported to the Perth Mint for refining.

The reported Ore Reserve is based on the Measured and Indicated Mineral Resources from the current site based mine design. Figure 4 shows the Ore Reserve design, colour coded by Ore Reserve classification.

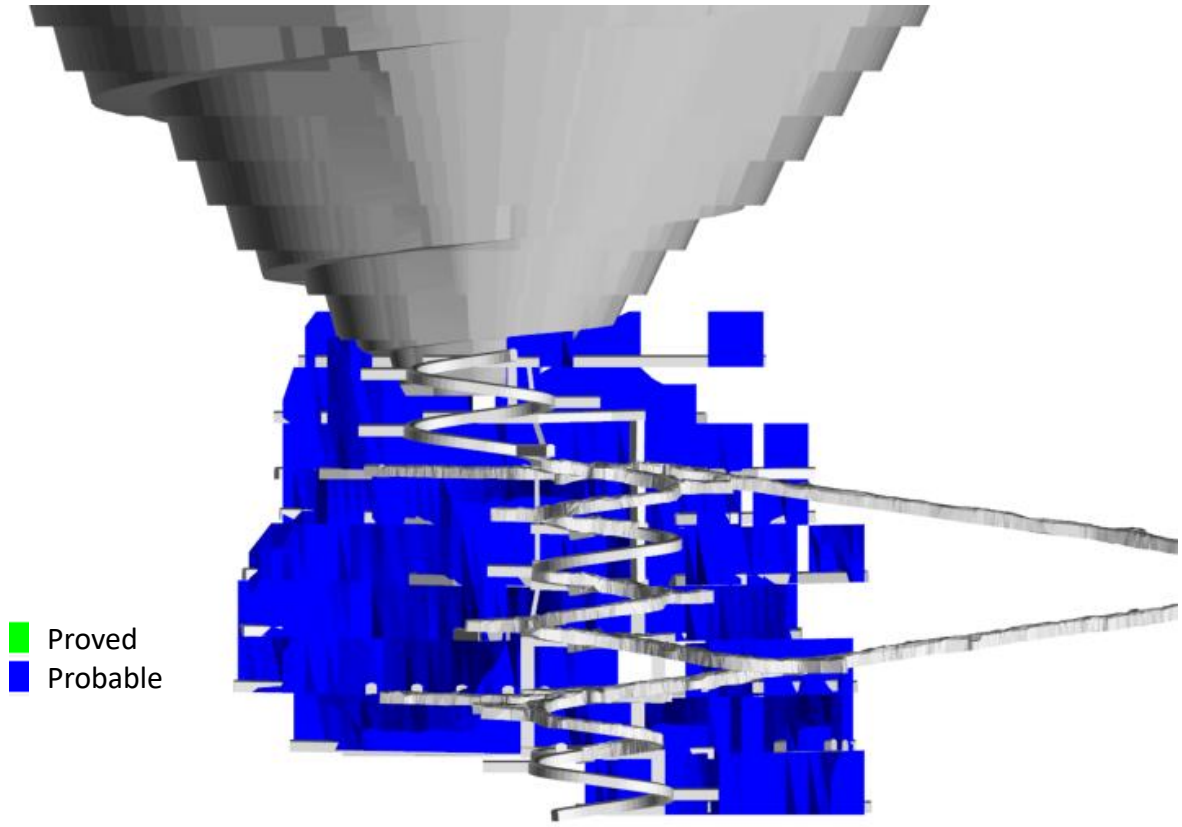


Figure 4: Isometric view of Roswell (TGEP – Reserves Only) by Ore Reserve classification

The Ore Reserve estimate for TGO is shown in Table 1 below. The Ore Reserve is reported in accordance with the requirements of the 2012 Edition of the JORC Code, “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”.

Classification	Cut-off	Tonnes (kt)	Grade (g/t)	Ounces (koz)
Roswell				
Proved	1.6g/t Au			
Probable		3,209	2.30	238
Subtotal		3,209	2.30	238
Total				
Proved	1.6g/t Au			
Probable		3,209	2.30	238
Total		3,209	2.30	238

Table 1: Roswell Underground Ore Reserve Summary – 16 February 2024

References

Jones, E., 2021, 'San Antonio-Roswell Geotechnical Review', Mine Geotech Pty Ltd

Pearce, R., McGrath, S., 2021, 'Tomingley Gold Extension Project Paste Backfill Pre-Feasibility Study', MineFill Services Pty Ltd.

Revell, M., McGrath, S., 2022, 'Tomingley Roswell Orebody Project Paste Feasibility Study', MineFill Services Pty Ltd.

Burrows, L. Cherry, A., 2020, 'Roswell Resource Estimation'

Meates, D., 2020, 'Updated Roswell Resource Estimation Lifts Contained Ounces by 50% to 660,000oz - 4 November 2020', *Alkane Resources Ltd, ASX Release.*

JORC 2012 Table 1 Checklist of Assessment and Reporting Criteria

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Comments
Mineral Resource estimate for conversion to Ore Reserves	• The underground Ore Reserve estimate is based on the Mineral Resource estimate carried out by Alkane Resources Ltd. Gold grade was estimated using ordinary kriging for Roswell. • The Mineral Resources are reported exclusive of the Ore Reserve. • The Mineral Resource model used to estimate this Reserve is described as; roswell_04022024.mdl.
Site visits	• The Competent Person is Christopher Hiller a full-time employee of Hiller Enterprises Pty Ltd. Christopher has been providing mining engineering support, since February 2020. Christopher is a member of the Australasian Institute of Mining and Metallurgy.
Study status	• Roswell underground is at a feasibility level of study, with final engineering and construction currently being completed for the paste plant and geotechnical review completed. • Development of a 2.7km long exploration decline and primary ventilation circuit has been completed. Capital decline / incline, level access, ore drive development and resource definition drilling is currently underway. The life of mine design is updated and reviewed on a quarterly basis. • TGO/TGEP has been in full production since 2014 and is achieving design objectives. • Any further studies undertaken are to extend the mine or optimise the current operating practices.

Cut-off parameters	• Two cut-off grades have been calculated and applied based on current costs and modifying factors for the Life-of-Mine plan. A gold price of AU$2,350/oz was provided by Alkane Resources Ltd and was used in this calculation.
	  ○ Fully Costed cut-off grade of 1.6 g/t and this includes all costs associated with the extraction and processing of ore material
	  ○ Incremental Development cut-off grade of 0.5 g/t applies to all development ore material.

Mining factors or assumptions	• The Roswell (TGEP) Ore Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied post-geological interrogation to generate the final diluted and recovered Ore Reserve. • The Life-of-Mine plan used for budgeting at Roswell Underground utilises long hole open stoping with pastefill. • Stope size, development placement and ground support strategies have been designed in line with preliminary geotechnical recommendations. • 35,000m of grade control drilling has been completed to date with a further 80,200m planned within Roswell. • The model used to estimate the Ore Reserve is consistent with that which forms the basis of the Mineral Resource estimate for the Roswell deposit. The model is internally known as roswell_04022024.mdl. • Planned dilution has been accounted for in the creation of the Stope Shapes. Unplanned mining dilution of 15% has been used for all stope shapes. This factor has been applied in Deswik Scheduler. • A 95% mining recovery factor has been applied for stoping. • Waste development excavations are given a 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore. • A global minimum mining width of 3m is used. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution. • All ore in the Ore Reserve estimate is classified as a Proved or Probable Ore Reserve. No Inferred Mineral Resources is included in the Ore Reserve. The Inferred Mineral Resources in the Life-of-Mine plan have been removed from the Ore Reserve estimate. • The infrastructure and infrastructure maintenance requirements for the underground mining of Roswell have been included in the economic evaluation, which demonstrates the economic viability of the Ore Reserve.
Metallurgical factors or assumptions	• All Roswell (TGEP) ore is trucked to the TGO processing plant which is located adjacent to the Wyoming Three pit. The plant consists of a crushing circuit, single-stage milling circuit and hybrid carbon-in-leach (CIL) circuit with one designated leach tank and numerous adsorption tanks. Gold is recovered from activated carbon into concentrated solution. Electrowinning and smelting are conducted in an adjacent secure gold room. The tailings from the process are thickened and pumped to a paddock type tailings storage facility with multi-spigot distribution.

	• The technology associated with processing of TGO/TGEP ore is currently in operation and is based on industry standard practices. • Mine production and cash flow estimates are based on a metallurgical recovery of 87%, which is consistent with current performance. • No deleterious elements extracted. • N/A – no minerals defined by a specification. • At current production rates, the current approved tailings storage facility is adequate for processing until mid-2027. An additional 10.5Mt of capacity can be realised by raising the dam to its full design height.
Environmental	• Project approval was received on 21 February 2023. EPL20169 was modified to include the SAR deposits on 22 June 2023. ML1858 was granted over the Site Access Road deposits on 19 July 2023. • All external reporting against the environmental licenses is recorded and reported in the Annual Review available on the Alkane Resources Ltd website.

Infrastructure	• Infrastructure has been constructed for the commencement of stoping from Roswell and processing. Works on site include access road, a water pipeline, a 66 KV power line, site drainage, topsoil stockpiling, waste dump construction, Residue Storage Dams, Process Water Dams, associated offices, workshops, fuel, and laydown areas. Sufficient site infrastructure has been constructed to process ore at 1.1Mtpa.
	• The underground specific infrastructure in place includes
	  ○ Primary ventilation fans and 5.0m diameter return air rise to the surface
	  ○ Secondary fans
	  ○ Portals
	  ○ Pump station
	  ○ Mobile equipment
	  ○ Compressors
	  ○ HV to portals and underground workings
	  ○ Substations
	  ○ Rescue equipment
	  ○ Civil work and foundations for the paste plant
	• Labour is sourced from Tomingley, Narromine, Dubbo, and Parkes region and as such the operation requires no accommodation or messing facilities.
	• Central NSW has many active mining operations within a short distance of TGEP and as such the ability to procure labour and infrastructure services for the operation does not pose any major challenges.

Costs	• All costs used in the estimation of Ore Reserves are based on the Ore Reserve plan. This plan excludes the Inferred Mineral Resources in the Life-of-Mine plan. • Mining capital estimates have been made using, wherever possible, budget pricing obtained from reputable suppliers. The few instances where costs could not be obtained from these sources, costs were obtained by benchmarking of similar sized Australian mines. • The operating cost estimates have been derived from the past years of operating costs at TGO. • No deleterious elements are modelled in the Mineral Resources Models nor has there been any concern with this during the period TGO/TGEP has been producing gold dorè. • Gold price is expressed in Australian dollars and no exchange rate is required. A gold price of AU$2,350/oz has been used in all calculations. • Transport charges for dorè to the Perth Mint are included in the refining charges and based on historical charges incurred by TGO. • Site treatment charges are well known due to the current processing of fresh rock ore material from underground. Refining charges have been assumed to be AU$1.50/oz in accordance with historical charges incurred by TGO by the Perth Mint. • A 4% New South Wales state royalty of revenue less processing and selling costs has been allowed for in the financial evaluation.
Revenue factors	• A gold price of AU$2,350/oz has been used in all revenue calculations for the Ore Reserve.
Market assessment	• All gold doré produced at the TGO processing plant is transported to the Perth Mint for refining. • The gold market is driven by several factors and fluctuates dependant on physical supply and demand, political tensions, and global instability. In times of uncertainty gold is seen to be a stable and safe "currency" and this has maintained its value for a significant period. • TGO currently sells gold at spot price and via forward sale contracts. 100,000 ounces at an average gold price of $2,825 per ounce is currently under sale contracts between March 2024 to December 2026. • The Underground mine would contribute only a small portion of the overall volume of output and is unlikely to have any impact on the market.
Economic	• The underground operation at TGO is an operating asset. • The financial analysis used the costs as well as the revenue from gold sales, together with the mine schedule to calculate a net cashflow per month for the duration of the project. This cashflow is then discounted

	to derive at the projects Net Present value (NPV). This NPV excludes depreciation, amortisation, and taxes. • No inflation of costs has been undertaken as there has been no forward speculation on gold price. It is the net cashflow that drives NPV and this is assumed to remain consistent (i.e. gold price and inflation move in the same direction). • Life-of-Mine plans are updated on a quarterly basis. These plans reflect current and projected performances for the Ore Reserve. • Sensitivities have been undertaken for both the entire mining inventory and the reserve version of the financial model.
Social	• Alkane Resources Ltd's social licence to operate is underpinned by the excellent relationship that the Company has built, over many years, with the local community of Tomingley. • TGO/TGEP has a set up a community consultation committee that meets quarterly to discuss the activities on the mine, interaction with the local community and any concerns from local residents, the committee includes: o Independent Chairperson, o TGO Environment and Community Manager, o TGO Operations Manager, o Narromine Shire Council Representative, o 3 x Community Representatives, o An Aboriginal Community Representative.
Other	• A company risk register is maintained to address and mitigate against all foreseeable risks that could impact the Ore Reserve. • Contracts are in place for all critical goods and services required to operate the mine.
Classification	• The Ore Reserve includes only Proved and Probable classifications. • The Ore Reserve is in line with expectations given the low capital cost associated with the project and due to the locality. The Competent Person is confident that it is an accurate estimation of the current TGO reserve. • The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve. • The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.
Audits or reviews	• The Ore Reserve has undergone internal reviews to ensure quality and consistency. No external reviews have been undertaken.

Discussion of relative accuracy/ confidence	• The Ore Reserve estimate has been prepared in accordance with the guidelines of the JORC Code (2012). The relative confidence of the estimates contained fall with the criteria of Proved and Probable Ore Reserves. • The Ore Reserve has been estimated in line with the Alkane Resources Ltd Ore Reserve process. • The main factors which could affect the confidence of the assessment include: o Stope stability, this has been assessed by a reputable geotechnical consultancy and remains relevant. o Modifying factors, these are in line with industry accepted norms o Costs, cost have been sourced from the past years of capital and operating costs at TGO. o Revenue, revenue assumptions used are in line with TGO expectations and gold price used below current spot prices.