

17 November 2022



Significant Gold Intercepts Outside Resource at Tomingley Extension Project

- **Near mine exploration has identified significant gold mineralisation at several prospect areas, all located within seven kilometres of the Tomingley Gold Operations (Tomingley) processing facility, including targets within the proposed extension of the Tomingley Mining Lease.**
- **Drilling at the McLeans Prospect, located between the Roswell Deposit and the Tomingley site and outside of the Roswell resource, intersected significant gold mineralisation. These include intercepts of:**

MCP095	41 metres grading 1.13g/t Au from 199 metres;
incl	9 metres grading 3.01g/t Au from 217 metres;
and	16 metres grading 0.49g/t Au from 342 metres.

MCP096D	0.9 metres grading 12.6g/t Au from 475.1 metres;
and	17 metres grading 1.10g/t Au from 537 metres;
incl	2 metres grading 5.25g/t Au from 539 metres;
and	27 metres grading 1.08g/t Au from 573 metres;
incl	9 metres grading 2.33g/t Au from 585 metres.

- **Drilling at McLeans has confirmed mineralisation over 200 metres strike and 500 metres down dip that remains open both along strike and down dip. Further drilling from both surface and underground from the newly developed exploration drive is planned in early 2023 to estimate a maiden gold resource for McLeans.**
- **Plains Prospect, located 1km southeast of the Roswell Deposit and within the proposed extension to the Mining Lease, was further drill tested. The drilling delineated mineralisation over a 500m strike length beneath shallow alluvium cover of 15m, with significant gold results of:**

RWRC463	4 metres grading 0.96g/t Au from 102 metres;
and	4 metres grading 3.15g/t Au from 276 metres.

RWRC465	6 metres grading 0.80g/t Au from 26 metres;
and	10 metres grading 1.59g/t Au from 61 metres;
incl	3 metres grading 4.18g/t Au from 64 metres;
and	4 metres grading 1.37g/t Au from 178 metres.

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RWAC352	13 metres grading 0.91g/t Au from 42 metres.
RWAC361	15 metres grading 0.60g/t Au from 43 metres.
RWAC362	3 metres grading 2.41g/t Au from 54 metres.

- **Drilling at El Paso was focused on the volcanics that can host economic gold mineralisation in the underexplored terrain. Mud-rotary diamond core and air-core drilling has mapped a Roswell-type andesite over 600 metres in length and 60 metres thick, hosting gold mineralisation including:**

EPD009	6 metres grading 1.36g/t Au from 88 metres;
incl	2.9 metres grading 2.40g/t Au from 88 metres.

- **Regional exploration drilling remains hampered by an extended period of sustained wet weather in the region. Exploration is expected to ramp up early in the new year.**
- **2D seismic survey was completed over the Tomingley extended mining area to investigate the regional structural setting of the Tomingley gold corridor. Interpretation of the survey results suggest a setting to the orogenic gold mineralisation that is a series of overlapping rock slices separated by steeply inclined subparallel reverse faults and bounded above and below by major low angle thrust surfaces (an imbricate thrust). This has highlighted several new target zones.**

Alkane Resources Limited (ASX: ALK) ('Alkane' or 'the Company') is pleased to announce the latest exploration results for drilling in the region around the Company's Tomingley Gold Operations (Tomingley) in Central New South Wales.

Alkane Managing Director, Nic Earner, said: *"It is pleasing to see the exploration targets around Tomingley yielding results. Of particular interest is the steadily growing McLeans prospect, as this is located adjacent to our existing exploration drive and could readily be added to our production schedule should it prove economic.*

"It gives us continued confidence in a mine life at Tomingley that could extend well beyond 2030, we look forward to receiving the Project Approval that will let this development become a reality."



Tomingley Gold Project (TGP)

Alkane Resources Ltd 100%

The Tomingley Gold Project (TGP) covers an area of approximately 440 km² stretching 60 km 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 operating Tomingley Gold Operations (Tomingley), an open pit mine and underground operation with a 1 Mtpa processing facility.

Over the past four years Alkane has conducted an extensive regional exploration program that led to the definition of Mineral Resources at the Roswell and San Antonio prospects. These are:

- Roswell Deposit: 14.1Mt @ 2.00g/t Au for 904koz (Mineral Resource – ASX Announcement 2 May 2022)
- San Antonio Deposit: 7.3Mt @ 1.72g/t Au for 406koz (Mineral Resource – ASX Announcement 16 February 2021)

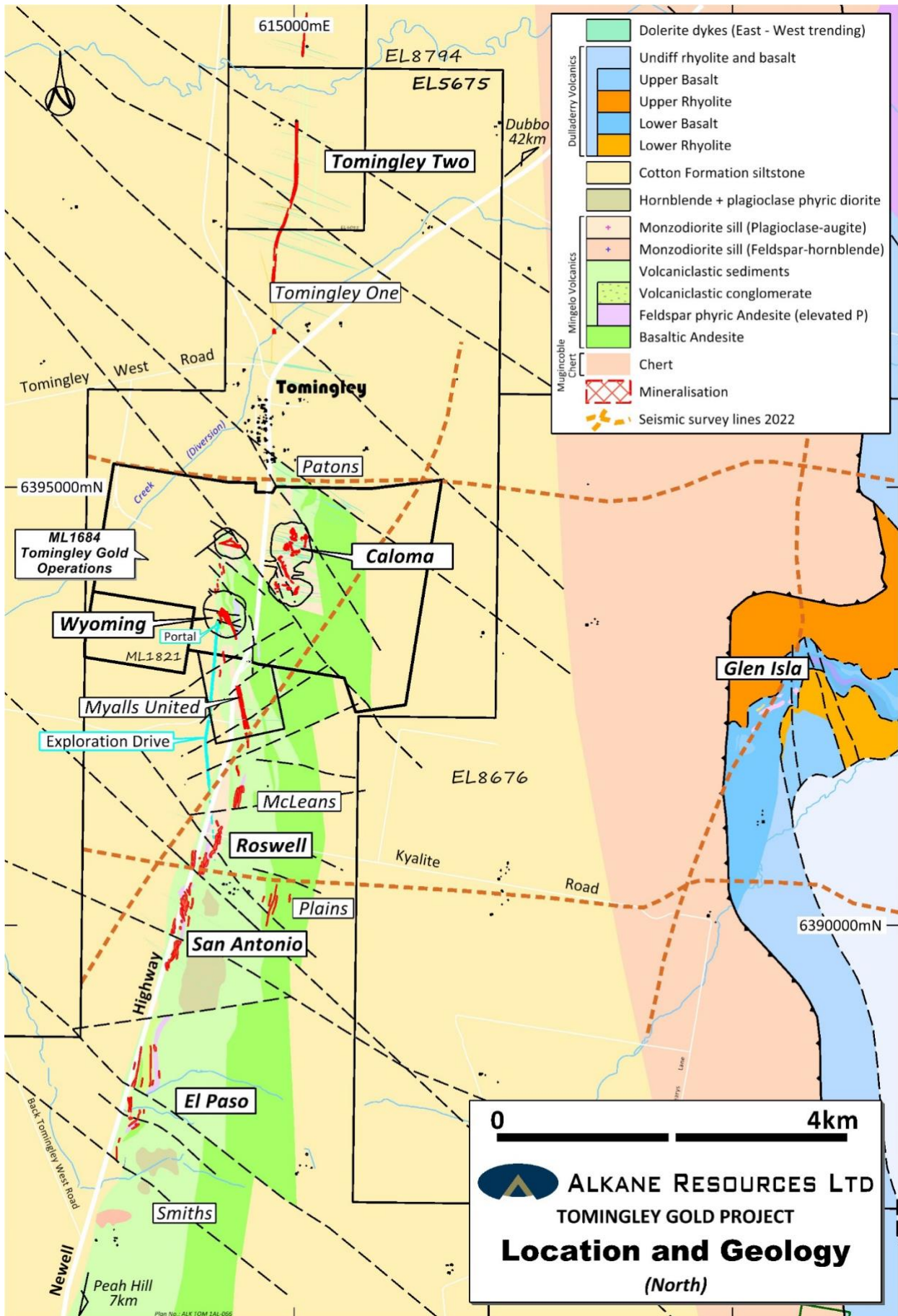
Alkane is developing an exploration drive from the Wyoming One deposit to Roswell, with the drive now approximately 350m north of the Roswell deposit. Alkane has prepared preliminary plans for both open-cut and underground mines beneath Roswell and San Antonio (ASX Announcement 3 June 2021). These plans formed the basis for the application for Project Approval that Alkane lodged with the NSW Government. The Environmental Impact Statement has been through public display with all submissions now responded to by Alkane with Project Approval expected before year end.

Regional exploration drilling has continued whenever possible between extended periods of sustained wet weather in the region. Exploration is expected to return to normal activity in early 2023 focusing on McLeans, Plains, and El Paso prospects that are all located within 7km of the TGO processing facility. Drilling will also commence from underground on the Roswell north extensions as the exploration drive approaches this area.

As part of the recent exploration drilling, assay results were received from 148 air-core (AC) drill holes for a total of 11,406 metres; 13 reverse circulation (RC) drill holes for a total of 3,696 metres; and 8 diamond core (DD) tails using mud-rotary and RC pre-collars were completed for a total of 3,262 metres of core.

The exploration undertaken:

- Targeted the strike of mineralisation at the McLeans Prospect positioned between the historic Myalls United underground workings and the Roswell Deposit with 8 AC holes, 2 RC holes and 2 DD holes;
- Tested the strike, width and depth of mineralisation at the Plains Prospect located 1 km southeast of the Roswell Deposit with 97 AC holes, 4 RC holes and 1 DD hole;
- Targeted extensions to the Roswell and San Antonio Deposits with 2 RC holes and 2 DD holes;
- Completed remaining sterilisation drilling as part of the mine development work for the Tomingley Extension Project totalling 32 AC holes for 2,963 metres;
- Targeted a Roswell-type andesite in the northern section of the El Paso prospect with 12 AC holes and 3 DD holes; and
- Completed a 2D seismic survey over the Tomingley region with 45-line km.





McLeans Prospect

McLeans Prospect is positioned 500 metres northeast of the Roswell Deposit and adjacent to the exploration drive from Wyoming One. The prospect area has been historically tested by nominal 100 metre spaced AC and RAB drilling traverses, and 17 RC drill holes, with shallow mineralisation and alteration evident over a 400-metre strike length masked by approximately 1 to 20 metres of alluvium. A deep RC drill hole (MCP092) intersected the McLeans andesite (correlates with the andesites that host the majority of the gold resources at the Roswell and San Antonio deposits) approximately 100m below surface, intercepting 34m @ 1.80g/t Au from 178m and 19m @ 1.25g/t Au from 242m (ASX Announcement 16 September 2021). The multiple gold zones are associated with either sheeted quartz veins or as pyrite-silica cemented breccias, hosted within and along the contacts of the andesite host.

McLeans Prospect was further drill tested by 8 AC drill holes, 2 RC drill holes and 2 DD drill holes for a total of 2,269 metres, targeting mineralisation along strike and down dip of previous drilling. Significant gold intercepts include:

MCP095	41 metres grading 1.13g/t Au from 199 metres;
incl	9 metres grading 3.01g/t Au from 217 metres;
and	16 metres grading 0.49g/t Au from 342 metres.
MCP096D	0.9 metres grading 12.6g/t Au from 475.1 metres;
and	17 metres grading 1.10g/t Au from 537 metres;
incl	2 metres grading 5.25g/t Au from 539 metres;
and	27 metres grading 1.08g/t Au from 573 metres;
incl	9 metres grading 2.33g/t Au from 585 metres.
MCP097D	14 metres grading 0.73g/t Au from 297 metres;
incl	2 metres grading 2.23g/t Au from 297 metres;
and	3.3 metres grading 1.14g/t Au from 395.7 metres.

RC drill hole MCP094 is interpreted to have drilled over the top of the andesite and intersected weak gold-arsenic anomalism in overlying volcanoclastic sediments. The recent drilling has confirmed significant gold mineralisation over 200 metres of strike, 500 metres down dip and remains open along strike and down dip. Drilling is planned from the surface and underground from the exploration drive in early 2023 for the purpose of extending the known strike of the mineralised andesite and to estimate a maiden underground Inferred Mineral Resource.

Plains Prospect

Further air-core drilling was conducted over the recently discovered mineralisation at the Plains Prospect. The program was conducted on nominal 100 metre spaced traverses with drill holes spaced 40 metres apart for a total of 7,136m, testing the strike and width of the Plains footprint. The drilling has mapped an approximate zone of anomalous gold-arsenic mineralisation of approximate dimensions of 500m x 200m, striking northeast, and associated with a magnetic low along the western margin of a thick basaltic-andesite lava. Significant gold results include:

RWAC352	13 metres grading 0.91g/t Au from 42 metres;
incl	1 metre grading 2.79g/t Au from 42 metres;
also	4 metres grading 1.82g/t Au from 49 metres.
RWAC361	15 metres grading 0.60g/t Au from 43 metres.
RWAC362	3 metres grading 2.41g/t Au from 54 metres.
RWAC385	6 metres grading 0.85g/t Au from 27 metres.



Four RC drill holes and one diamond core drill hole for a total of 1,487m tested the structural orientation of the mineralisation and its depth potential. The Plains mineralisation occurs as sheeted quartz-arsenopyrite-pyrite veins dipping moderately to the southeast and are hosted in phyllic altered basaltic-andesite. Significant gold mineralisation from the drilling includes:

RWRC463	4 metres grading 0.96g/t Au from 102 metres;
and	4 metres grading 3.15g/t Au from 276 metres.
RWRC465	6 metres grading 0.80g/t Au from 26 metres;
and	10 metres grading 1.59g/t Au from 61 metres;
incl	3 metres grading 4.18g/t Au from 64 metres;
and	4 metres grading 1.37g/t Au from 178 metres.
RWD059	6.7 metres grading 1.00g/t Au from 182.3 metres;
incl	1.3 metres grading 2.97g/t Au from 184 metres.

The Plains Prospect is located approximately 1km southeast of the Roswell Deposit and shares the same northwest trending structural zone that hosts the 904koz gold deposit. The Plains gold mineralisation is hosted within and along the western contact of a thick basaltic-andesite lava package. These lavas have been mapped over a 26km strike length from Tomingley to south of Peak Hill and have only been previously tested by sparsely spaced shallow drilling. Further AC and RC drilling is planned for early 2023 when access is possible.

Roswell and San Antonio Deposits

Two RC drill holes for a total of 476 metres were tested the southern extensions of a mineralised andesite at San Antonio. Anomalous gold and arsenic were intercepted in volcanoclastics however both drill holes failed to intersect the target andesite beneath the deep alluvium profile.

One diamond core drill hole was designed to test the northern extension to the San Antonio Deposit across the Rosewood Fault towards Roswell. While several weakly gold mineralised faults were intersected, encouragingly a thin high-grade gold zone was intersected along a brecciated andesite contact with significant results of:

RWD060	2 metres grading 3.38g/t Au from 440 metres.
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One deep diamond drill hole to 1,002m was completed to test for possible depth extensions to the Roswell andesite mineralisation a further 200m below previous drilling. RWD061 intersected the brecciated andesite further downhole than predicted, suggesting the host rock is thinning and possibly folded from steeply dipping east to steeply dipping west. Future drilling to improve the understanding of the deposit at these very deep levels will be delineated by the underground mine development. Significant gold results include:

RWD061	7.5 metres grading 0.83g/t Au from 933.6 metres;
incl	1.6 metres grading 2.28g/t Au from 934.4 metres.

El Paso Prospect

Exploration drilling focused on the northern and deepest covered (30 to 50 metres) section of the El Paso Prospect to test a magnetitic andesite previously tested by only shallow AC and one diamond core drill hole (EPD002 - 8m @ 0.60g/t Au from 225m ASX Announcement 1 August 2017) due to the difficult drilling conditions caused by the deep sandy overburden. The El Paso andesite is similar in nature to the San Antonio volcanics that host the gold resource 1km to the north.



Drilling comprised of a traverse of 12 AC drill holes totalling 1,098m, targeting an untested faulted offset section of stratigraphy for prospective volcanics. The drilling intercepted weak gold-arsenic anomalism hosted within volcanoclastics.

Three mud-rotary collared diamond core drill holes for a total of 956m, tested the strike length and gold mineralisation hosting potential of the magnetic andesite unit. Small zones of phyllic altered and quartz veined andesite were intersected by all three holes, with a significant gold zone intersected proximal to the andesite's eastern contact with:

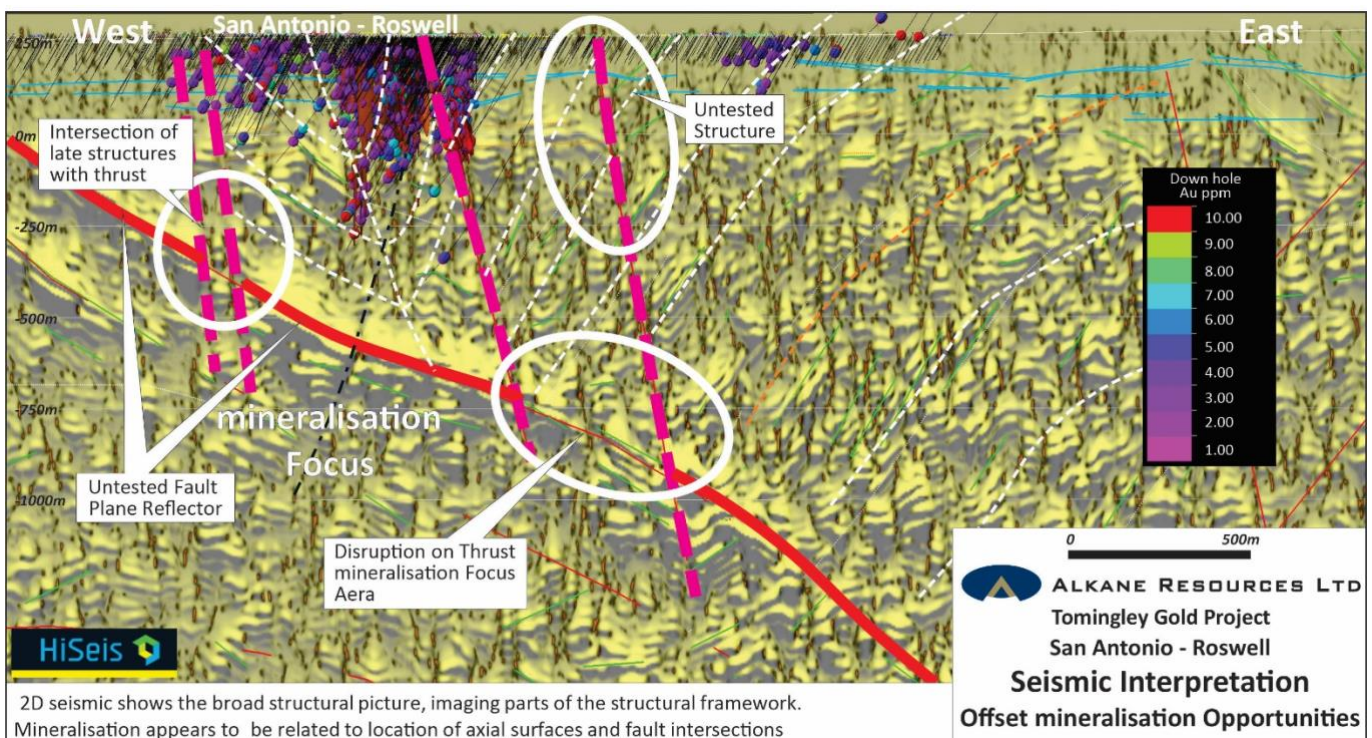
EPD009
incl **6 metres grading 1.36g/t Au from 88 metres;**
2.9 metres grading 2.40g/t Au from 88 metres.

Dependent on access, RC drilling is planned to target the southern section of El Paso, where significant gold mineralisation has been intersected previously (EPP012 – 12m @ 4.99g/t Au from 108 m, 21m @ 2.38g/t Au from 141m, and 6m @ 10.65g/t Au from 168m – ASX Announcement 17 May 2019) for early 2023.

2D Seismic Survey

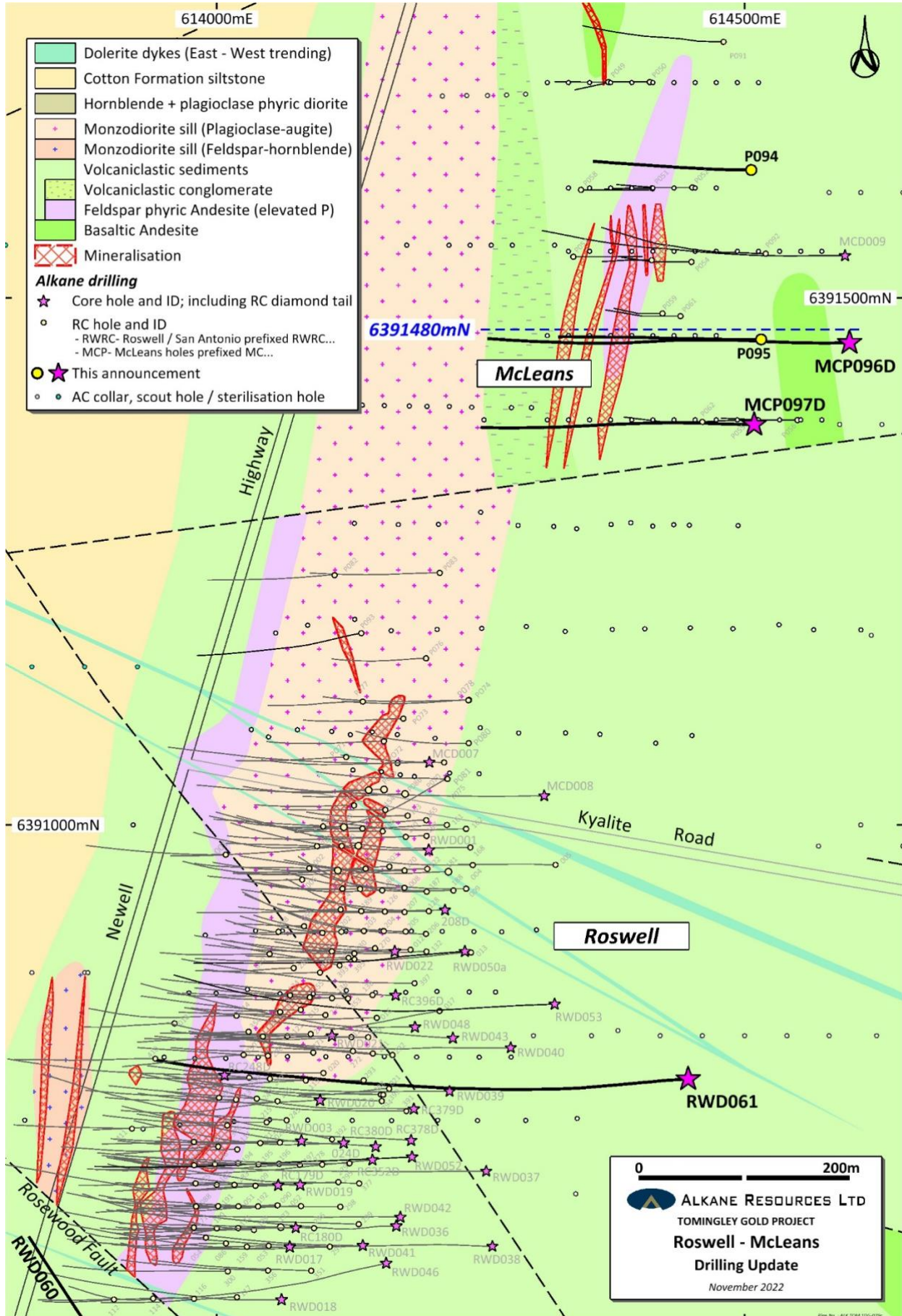
A 2D seismic survey was conducted by contractor HiSeis earlier this year with four lines totalling 45 line-km adjacent to the Tomingley mine site area, the San Antonio/Roswell deposits, and the Glen Isla Prospect. The objective of the survey was to provide new information on the litho-structural architecture at Tomingley to assist with generating new target zones and to provide context for the genesis of ore at the various occurrences.

The survey mapped the Parkes Thrust, a district sized structure that extends from Forbes to north of Tomingley for over approximately 120km, and a series of associated shallower imbricate thrust faults that appear to be a control on the mineralisation in the region. Disturbances/interferences forming along the imbricate thrust faults are interpreted as the result of hydrothermal alteration caused by upwelling of orogenic gold fluids. Several deep targets have been identified along the structure.



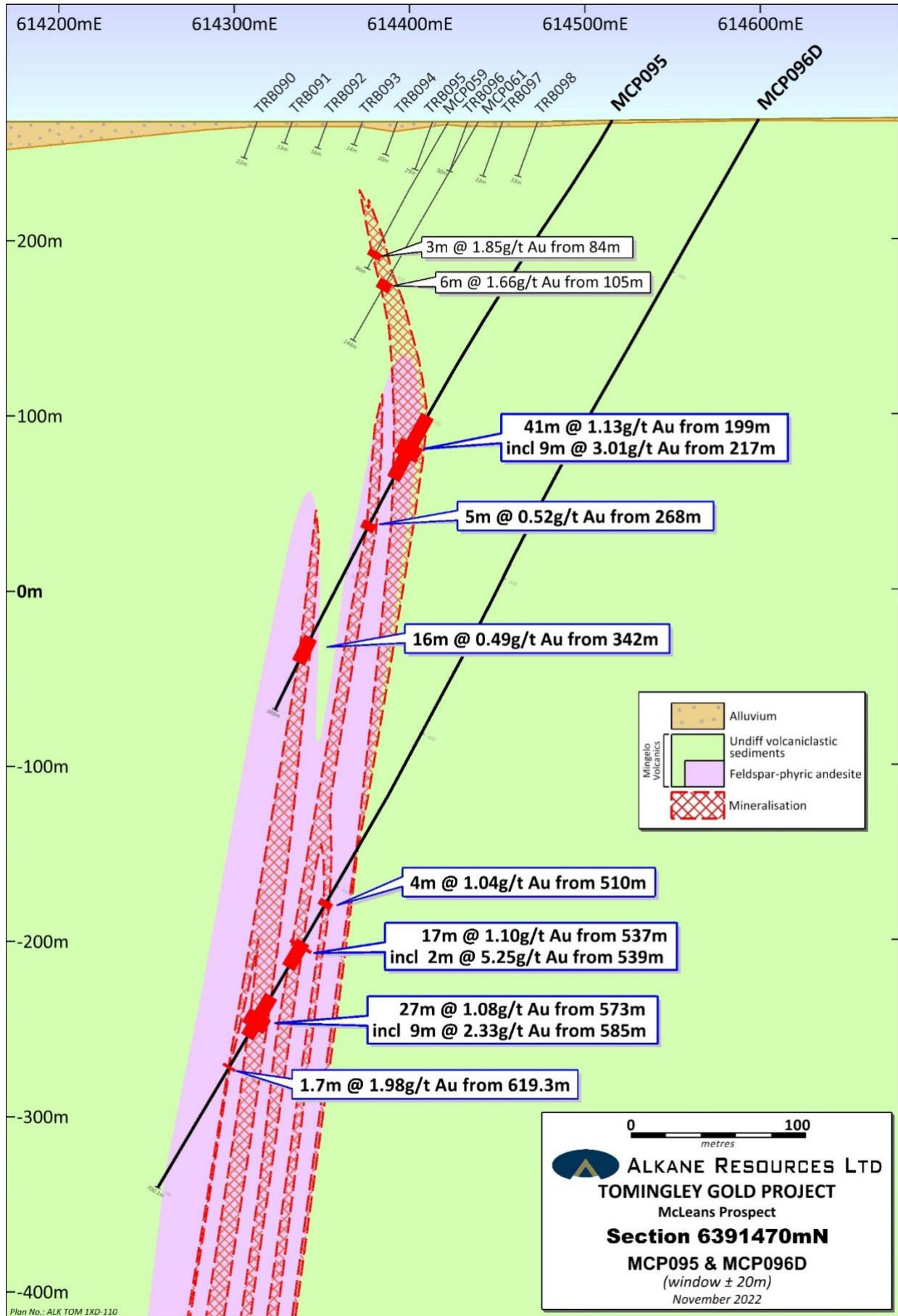


McLeans / Roswell Geology and Drill Hole Locations





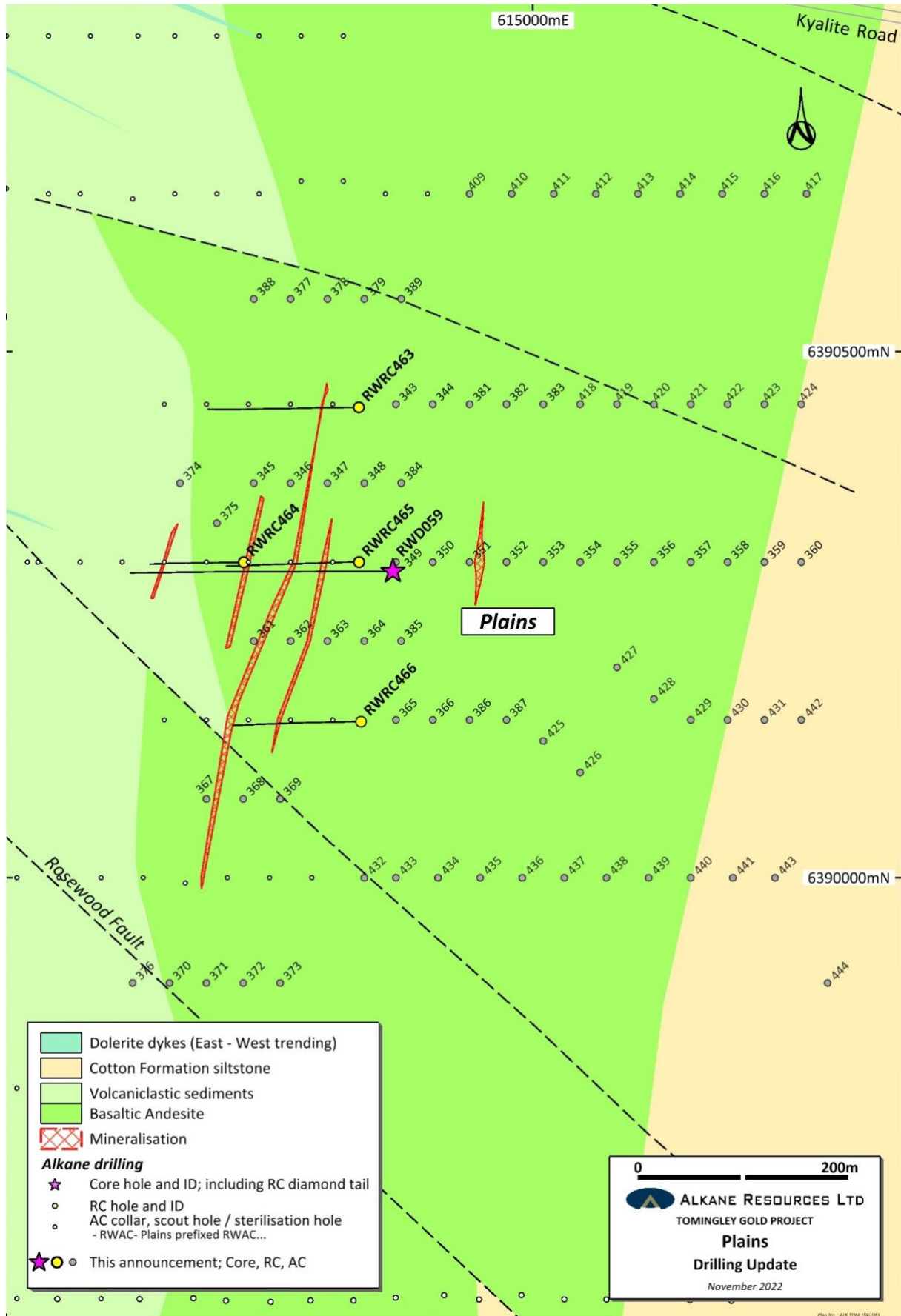
McLeans Section



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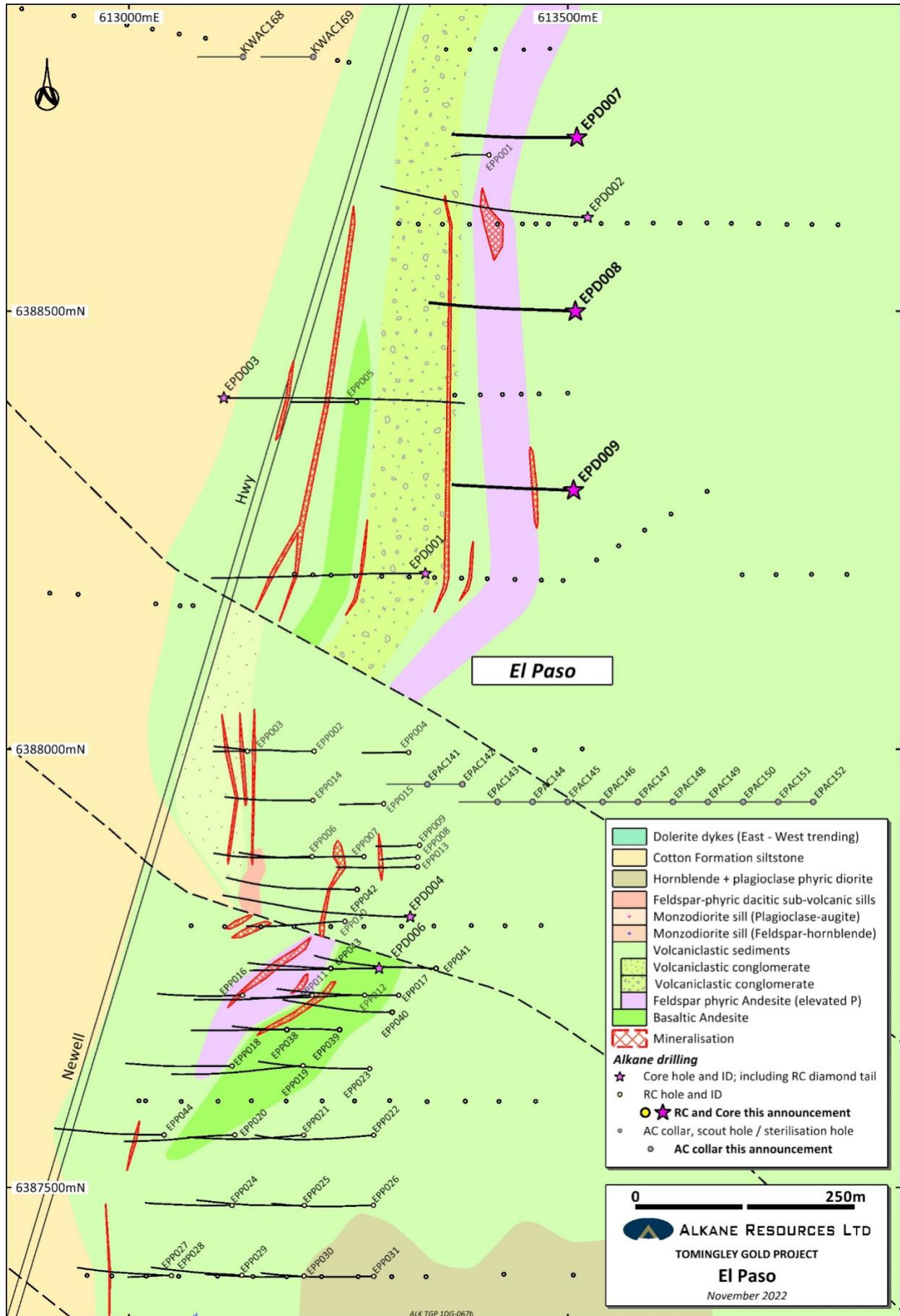


Plains Geology and Drill Hole Locations





El Paso Geology and Drill Hole Locations





TOMINGLEY GOLD PROJECT SIGNIFICANT DRILLING RESULTS – November 2022 (>0.25g/t Au)											
Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Prospect
MCP094	614506	6391621	268	-60	269	304	No significant Au results				McLeans
MCP095	614516	6391461	269	-60	269	388	199	240	41	1.13	
							217	226	9	3.01	
							268	273	5	0.52	
							342	358	16	0.49	
MCP096D	614599	6391457	270	-60	270	700.1	475.1	476	0.9	12.6	
							510	514	4	1.04	
							537	554	17	1.10	
							539	541	2	5.25	
							559	562	3	0.40	
							573	600	27	1.08	
							585	594	9	2.33	
							619.3	621	1.7	1.98	
MCP097D	614509	6391380	269	-61	271	597.9	232	235	3	0.44	
							297	311	14	0.73	
							297	299	2	2.23	
							356.3	358	1.7	0.63	
							378.7	379.7	1	1.4	
							395.7	399	3.3	1.14	
							411	412	1	1.2	
							503.8	506.1	2.3	0.93	
							529	532.3	3.3	0.48	
							550.2	553	2.8	0.89	
							557	565.5	8.5	0.49	
MCAC149	614320	6391550	269	-60	270	29	15	18	3	0.62	
RWD060	613954	6390423	267	-60	320	555.8	413	418	5	0.25	
							440	442	2	3.38	
RWRC472	613300	6389260	264	-60	93	214**	No significant Au results				
RWRC473	613328	6389370	264	-60	90	262	No significant Au results				
RWD061	613954	6390423	269	-64	269	1002.5	933.6	941.1	7.5	0.83	Roswell
							934.4	936	1.6	2.28	
RWD059	614867	6390291	272	-59	270	486.7	65	71	6	0.36	Plains
							79	82	3	0.36	
							182.3	189	6.7	1.00	
							184	185.3	1.3	2.97	
RWRC463	614835	6390447	272	-60	268	304	102	106	4	0.96	
							156	157	1	1.56	
							276	280	4	3.15	
RWRC464	614725	6390300	271	-60	270	184	34	41	7	0.29	
							77	85	8	0.47	
RWRC465	614837	6390297	272	-61	267	256	26	32	6	0.80	
							61	71	10	1.59	
							64	67	3	4.18	
							153	157	4	1.37	



TOMINGLEY GOLD PROJECT SIGNIFICANT DRILLING RESULTS – November 2022 (>0.25g/t Au)											
Hole ID	Easting (MGA)	Northing (MGA)	RL (m)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Prospect
<i>and</i>							178	180	2	0.66	Plains
RWRC466	614837	6390148	272	-59	269	256	No significant Au results				
RWAC345	614735	6390375	266	-60	270	72	46	48	2	0.33	
<i>and</i>							51	54	3	0.29	
RWAC351	614940	6390300	266	-60	270	50	44	49	5	0.26	
RWAC352	614975	6390300	266	-60	270	60*	42	55	13	0.91	
<i>incl</i>							42	43	1	2.79	
<i>also</i>							49	53	4	1.82	
<i>and</i>							59	60*	1	0.38	
RWAC361	614735	6390225	266	-60	270	78	43	58	15	0.60	
RWAC362	614770	6390225	266	-60	270	76	41	47	6	0.32	
<i>and</i>							54	57	3	2.41	
<i>incl</i>							54	55	1	5.62	
RWAC363	614805	6390225	266	-60	270	76	33	36	3	0.66	
RWAC364	614840	6390225	266	-60	270	84	20	24	4	0.26	
RWAC366	614905	6390150	266	-60	270	92	43	45	2	1.73	
RWAC368	614725	6390075	266	-60	270	78	45	51	6	0.26	
RWAC385	614875	6390225	266	-60	270	68	27	33	6	0.85	
RWAC387	614975	6390150	266	-60	270	90	42	45	3	0.29	
RWAC410	614980	6390650	266	-60	270	73*	69	73*	4	0.29	
EPD007	613510	6388698	266	-60	278	300.8	No significant Au results				El Paso
EPD008	613508	6388499	266	-60	275	358	191.3	192	0.7	1.04	
<i>and</i>							219	220.2	1.2	0.26	
EPD009	613507	6388295	266	-60	274	297.6	88	94	6	1.36	
<i>incl</i>							88	90.9	2.9	2.40	
EPAC141	613340	6387960	265	-60	270	94	93	94	1	0.31	
EPAC149	613660	6387940	265	-60	270	83	75	78	3	0.26	

* hole finished in mineralisation. ** hole abandoned early. True widths are approximately 60% of intercept width.



Competent Person

Unless otherwise advised above or in the Announcements referenced, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr David Meates, MAIG, (Exploration Manager NSW) 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 Meates consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Previous Information

The information in this report that relates to exploration results is extracted from the Company's ASX announcements noted in the text of the announcement and are available to view on the Company's website. 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 that the form and context in which the Competent Person's findings are presented have not been materially altered.

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

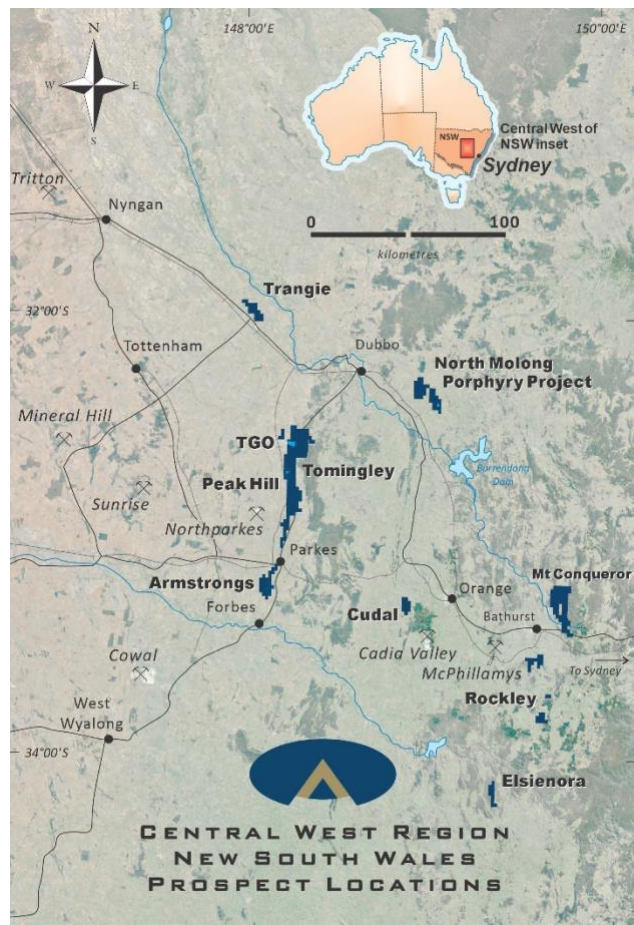
Alkane Resources is poised to become Australia's next multi-mine gold producer.

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 production region.

Alkane's gold interests extend throughout Australia, with strategic investments in other gold exploration and aspiring mining companies, including ~9.8% 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.

JORC Code, 2012 Edition – Table 1 TOMINGLEY GOLD PROJECT – Regional Exploration November 2022

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond core drilling (DD) was undertaken by Ophir Drilling Pty Ltd DD sample intervals were defined by geologist during logging to honour geological boundaries, cut in half by diamond saw, with half core sent to ALS Laboratories RC drilling was undertaken by Strike Drilling Pty Ltd Air-core (AC) drilling was undertaken by Drillit Pty Ltd RC and AC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Sampling and QAQC procedures are carried out using Alkane protocols as per industry best practice
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Core was laid out in suitably labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 3m) and labelled with the hole number, down hole depth, length of drill run. Core was aligned and measured by tape, comparing back to this down hole depth consistent with industry standards. Half core is sampled with a Corewise automatic core saw. RC and AC Drilling – the total sample (~20-30kg) is delivered via cyclone into a large plastic bag which is retained for future use if required. A sub-sample of approximately 1kg is spear sampled from each plastic bag and composited to make a 3 metres sample interval. If strong mineralisation is observed by the site geologist this is sampled as a final 1m interval instead. The 1m intervals forming composite samples assaying ≥ 0.20 g/t Au are resplit using a cone splitter on the RC rig or a riffle splitter for AC sample into a separate calico at the time of drilling and re-submitted to the laboratory for re-assay. Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish A multi-element suite was determined using either aqua regia or a multi-acid digest with a ICP Atomic Emission Spectrometry or ICP Mass Spectrometry analytical finish.



Criteria	JORC Code explanation	Commentary
<i>Drilling techniques</i>	<ul style="list-style-type: none"> • <i>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).</i> 	<ul style="list-style-type: none"> • Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer • Triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3) and 61.1mm diameter (HQ3) sized orientated core. • Air-core (AC) drilling using 89mm rods and bit to refusal.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> 	<ul style="list-style-type: none"> • DD - core loss was identified by drillers and calculated by geologists when logging. Generally $\geq 99\%$ was recovered with any loss usually in portions of the oxide zone. • Triple tube coring was used at all times to maximise core recovery with larger diameter (PQ3) core or RC precollars used in the oxide zones. • RC and AC sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet.
	<ul style="list-style-type: none"> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • Sample quality is qualitatively logged • Core drilling completed using HQ triple tube where possible to maximise core recovery. • A high capacity RC rig was used to enable dry samples collected. Drill cyclone is cleaned between rod changes and after each hole to minimise cross-hole contamination. • A high capacity AC rig was used to maximise penetration through the clays to refusal on fresh bedrock. Drill cyclone was cleaned after each hole to minimise cross-hole contamination.
	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • There is no known relationship between sample recovery and grade
<i>Logging</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • 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)
	<ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography</i> 	<ul style="list-style-type: none"> • Mostly logging was qualitative with visual estimates of the various characteristics. In addition, magnetic susceptibility data (quantitative) was collected as an aid for logging • All drill holes were geologically logged into Geobank Mobile, followed by validation before importing into Alkane's central Geobank database • All drill holes were logged by qualified and experienced geologists
	<ul style="list-style-type: none"> • <i>The total length and percentage of the relevant intersections logged</i> 	<ul style="list-style-type: none"> • All drill holes were logged in full



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> Core sawn with half core samples submitted for analysis
	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	<ul style="list-style-type: none"> Each one metre interval is spear sampled with 3m composite samples collected in a calico sample bag and forwarded to the laboratory. Where strong mineralisation is observed by the site geologist, instead of compositing, this is individually sampled from the cone splitter on the RC rig as a 1 metre interval into a calico bag and forwarded to the laboratory. The 1m intervals forming composite samples assaying ≥ 0.20 g/t Au are re-split using a cone splitter on the RC rig during the time of drilling or re-split using a riffle splitter for AC composites and re-submitted to the laboratory for re-assay. Laboratory Preparation – the entire sample (~3kg) is dried and pulverised in an LM5 (or equivalent) to $\geq 85\%$ passing $75\mu\text{m}$. Bulk rejects for all samples are discarded. A pulp sample ($\pm 100\text{g}$) is stored for future reference.
	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> Samples were delivered by Alkane personnel to ALS Minerals Laboratory, Orange NSW. Crushed with $70\% < 2\text{mm}$ (ALS code CRU-31), split by riffle splitter (ALS code SPL-21), and pulverised 1000g to $85\% < 75\mu\text{m}$ (ALS code PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS codes CRU-QC, PUL-QC).
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples 	<ul style="list-style-type: none"> Internal QAQC system in place to determine accuracy and precision of assays
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Non-biased core cutting using an orientation line marked on the core Duplicate RC samples are collected for both composite intervals and re-split intervals.
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sample are of appropriate size
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> All samples were analysed by ALS Minerals 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 with gold determined by flame AAS. Other geochemical elements, DD samples are digested by near-total mixed acid digest with each element determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. RC and AC samples are digested by aqua regia with a ICP Atomic Emission Spectrometry for As, Cu, Ni, P, Ti only



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No geophysical tools were used to determine any element concentrations
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Full QAQC system in place including certified standards and blanks of appropriate matrix and concentration levels
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> Drill data is compiled and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary
	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No twinned holes have been drilled
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> All drill hole logging and sampling data is entered directly into Geobank Mobile in the field for validation, transfer and storage into Geobank database with verification protocols in place 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
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No adjustments made
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillholes are laid out using hand-held GPS (accuracy $\pm 2\text{m}$) then all RC and DD collars are DGPS surveyed accurately ($\pm 0.1\text{m}$) by trained surveyors on completion.
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> GDA94, MGA (Zone 55)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> DD and RC drillhole collars DGPS surveyed accurately ($\pm 0.1\text{m}$) by trained surveyors on completion.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results.. 	<ul style="list-style-type: none"> At this exploration stage, data spacing is variable with the focus on identifying new zones of mineralisation.
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Majority of results are early stage, reconnaissance drilling. One deep DD drill hole at Roswell, and one DD and two RC drill holes at San Antonio are outside of the resource



Criteria	JORC Code explanation	Commentary
		areas and further infill drilling is necessary to establish grade continuity for the purposes of including these results into their respective resource estimations.
	<ul style="list-style-type: none"> Whether sample compositing has been applied 	<ul style="list-style-type: none"> No sampling compositing has been applied
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	<ul style="list-style-type: none"> Drilling suggests a broadly sub vertical geometry at most prospects and moderately SE at Plains.
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Estimated true intervals at this early stage of drilling are possibly ~60% of downhole lengths.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples are bagged into tied calico bags, before being grouped into polyweave bags and transported ~2hr to ALS Minerals Laboratory in Orange by Alkane personnel. All sample submissions are documented via ALS tracking system with results 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	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews have been conducted at this stage



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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All five licences (EL5675, EL5830, EL5942, EL6085, EL8676 and EL8794) in the Tomingley Gold Project are owned 100% by Alkane.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All exploration licences are in good standing. EL5675 expires on 17 January 2023. EL5830 expires on 4 April 2028. EL5942 expires on 3 May 2024. EL6085 expires on 19 May 2024. EL8676 expires on 27 November 2023. EL8794 expires on 20 September 2024.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Significant exploration has been completed in the area by Alkane since 2001 and the Tomingley Gold Mine was commissioned in 2014. Minor work was completed by previous companies in EL5675 area covered by this announcement but many holes did not penetrate the cover sequence. Work completed with EL8676 at the Glen Isla Prospect can be summarised as: North Mining Ltd (1986-1994) - Tenement-wide RAB, with a best result of 0.86g/t Au at Glen Isla. Follow up RC and diamond drilling at Glen Isla for 2,544m and 476m respectively. Cresus Mining NL (1996 – 2000) - IP survey and 8 RC holes for 1,242m Giralia Resources NL (2004 – 2014) – IP survey, 9 RC holes for 1,694m and 4 diamond hole for 644m
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Mineralisation at Tomingley is associated with quartz veining and alteration focused within porphyritic sub-volcanic andesite sills and adjacent volcanoclastic sediments. The deposits appear to have formed as the result of a competency contrast between the porphyritic sub-volcanic sills and the surrounding volcanoclastic sediments, with the sills showing brittle fracture and the sediments ductile deformation and have many similarities to well documented orogenic - lode-style gold deposits. Geological nature of the Tomingley Deposits is well documented elsewhere. Geological nature of Peak Hill is well documented elsewhere. Geological nature of Glen Isla is fine grained low-sulfidation epithermal Au mineralisation that was discovered in Middle Devonian continental felsic volcanic sequences (Dulladery Volcanics) in the Young Zone. The gold prospective Dulladery Volcanics host a number of low sulfidation epithermal occurrences including the Mt Aubrey gold deposit (120,000



Criteria	JORC Code explanation	Commentary
		t @ 3.3 g/t Au) and are broadly similar in age (~370Ma) to dates published (~350 - 360 Ma) for volcanic units that host well known Drummond Basin epithermal Au deposits in north Queensland. Dulladerry Volcanics include flow banded rhyolites and quartz feldspar porphyries and are locally bimodal, with amygdaloidal basalts identified at Glen Isla and Mt Aubrey.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> See body of announcement
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All RC and DD drill holes have been reported in this announcement. Only AC drill holes with samples assaying ≥ 0.25g/t Au have been reported. Impractical to list all holes completed.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Exploration results reported for uncut gold grades, grades calculated by length weighted average
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Reported intercepts (>0.25g/t Au) are calculated using a broad lower cut of 0.2g/t Au although grades lower than this may be present internally (internal dilution). No top cut has been used. Short intervals of high grades that have a material impact on overall intersection are reported as separate (included) intervals
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> The mineralisation is structurally complex and the majority of drilling is reconnaissance in nature. Down hole lengths reported – true widths estimated to be 60% of the down hole lengths at El Paso, Roswell, San Antonio and McLeans. At Plains Prospect it is early stage exploration but true width is estimated at 80%.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Plans showing geology with drill collars are included in the body of the announcement.



Criteria	JORC Code explanation	Commentary
<i>Balanced reporting</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Comprehensive reporting has been undertaken with all DD and RC holes listed in the included table.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 2D seismic survey was conducted earlier this year with four lines totalling 45 line-km over adjacent to the Tomingley mine site area, the San Antonio/Roswell area, and the Glen Isla Prospect area. The objective of the survey is to provide new information on the litho-structural architecture at Tomingley to assist with new target spaces and to provide context for the ore genesis of the various prospects <p>The survey highlighted a series of thrust structures with later structures crosscutting these fault planes and appear associated with known gold occurrences in the area. These mineralising structures are quite deep and will likely be tested in the future from underground drilling.</p>
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> It is recommended that further drilling is undertaken at these prospects to continue to define targets. McLeans will be more intensely drilled for the purpose of a maiden resource estimation in 2023.
	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive 	<ul style="list-style-type: none"> See figures included in the announcement.