

22 June 2020



## *Significant Thick High Grade Intercepts Confirmed by Infill Roswell and San Antonio Resource Drilling*

- **Drilling to infill the Inferred Resources at the Roswell and San Antonio deposits continues and 44 holes have been drilled for a total of 9,880 metres. The drilling has confirmed continuity to the defined resources.**
- **Alkane is currently preparing preliminary plans for both open-cut and underground mines at Roswell and San Antonio. These will enable finalisation of economic and environmental assessments to seek approvals to commence underground and open-cut mining.**
- **Significant intercepts from the Roswell Deposit include:**
  - RWRC180D 69.0 metres grading 9.12g/t Au from 218 metres;  
incl 6.7 metres grading 28.0g/t Au from 207.3 metres;  
incl 1.0 metre grading 104.0g/t Au from 274 metres.**
  - RWRC245 71.0 metres grading 3.56g/t Au from 111 metres;  
incl 5.0 metres grading 19.2g/t Au from 118 metres.**
  - RWRC246 10.0 metres grading 5.47g/t Au from 215 metres.**
  - RWRC248 72.0 metres grading 1.27g/t Au from 149 metres;  
and 5.0 metres grading 2.38g/t Au from 229 metres.**
  - RWRC249 12.0 metres grading 3.39g/t Au from 75 metres.**
  - RWRC271 42.0 metres grading 1.20g/t Au from 178 metres;  
incl 9.0 metres grading 3.13g/t Au from 208 metres.**
  - RWRC275 30.0 metres grading 1.27g/t Au from 240 metres;  
incl 6.0 metres grading 4.08g/t Au from 255 metres;  
and 40.0 metres grading 1.77g/t Au from 276 metres;  
incl 10.0 metres grading 3.33g/t Au from 276 metres.**
  - RWRC278 7.0 metres grading 2.87g/t Au from 195 metres;  
and 118.0 metres grading 2.58g/t Au from 234 metres;  
incl 5.0 metres grading 8.01g/t Au from 250 metres;  
and 4.0 metres grading 8.64g/t Au from 294 metres**
  - RWRC279 6.0 metres grading 2.07g/t Au from 222 metres;  
and 98.0 metres grading 2.43g/t Au from 270 metres;  
and 3.0 metres grading 10.4g/t Au from 277 metres;  
incl 2.0 metres grading 28.6g/t Au from 292 metres;  
and 6.0 metres grading 3.83g/t Au from 375 metres.**

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- **Significant intercepts from the San Antonio Deposit include:**
  - RWRC165D** 7.0 metres grading 7.67g/t Au from 186 metres;  
and 2.0 metres grading 10.9g/t Au from 217 metres.
  - RWRC251D** 5.0 metres grading 2.99g/t Au from 228 metres;  
incl 1.0 metres grading 10.4g/t Au from 228 metres.
  - RWRC254** 24.0 metres grading 1.23g/t Au from 27metres;  
incl 3.0 metres grading 4.06g/t Au from 30 metres;  
and 6.0 metres grading 3.70g/t Au from 102 metres.
  - RWRC255** 48.0 metres grading 1.48g/t Au from 24 metres;  
and 6.0 metres grading 2.02g/t Au from 114 metres.
  - RWRC256** 45.0 metres grading 1.62g/t Au from 45 metres;  
incl 3.0 metres grading 7.12g/t Au from 60 metres.
  - RWRC257D** 22.0 metres grading 2.25g/t Au from 205 metres;  
incl 4.0 metres grading 5.76g/t Au from 232 metres.
  - RWRC259** 5.0 metres grading 3.06g/t Au from 156 metres.
  - RWRC260** 14.0 metres grading 2.57g/t Au from 167 metres;  
incl 2.0 metres grading 14.1g/t Au from 175 metres.
  - RWRC285** 15.0 metres grading 2.31g/t Au from 39 metres;  
incl 3.0 metres grading 9.24g/t Au from 39 metres.
  
- **Regional exploration also tested the El Paso South, Smiths and Jounama targets with 37 holes drilled for a total of 8,981 metres.**



## Tomingley Gold Project

Alkane Resources Ltd 100%

The Tomingley Gold Project (TGP) covers an area of Central New South Wales of approximately 440sq.km, 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 Tomingley Gold Operations (TGO), an open pit mine and underground operation with a 1Mtpa processing facility.

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

- Roswell Deposit: 7.02 Mt @ 1.97 g/t Au for 445 koz (Inferred Mineral Resource – ASX Announcement 28 January 2020)
- San Antonio Deposit: 7.92 Mt @ 1.78 g/t Au for 453 koz (Inferred Mineral Resource – ASX Announcement 20 April 2020)

Alkane has continued consultation with its key stakeholders, including landholders and regulators, about its activities and future plans. The Company has approval to develop an exploration drive from the Wyoming One deposit to Roswell, and is currently preparing preliminary plans for both open-cut and underground mines beneath Roswell and San Antonio. These steps will enable an economic assessment of the viability of the prospect, which would be used to seek approval for both an underground and open cut mining development.

## Geology

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 Archaean greenstone belts of the Yilgarn Craton in WA and the Paleozoic slate belts in Victoria.

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

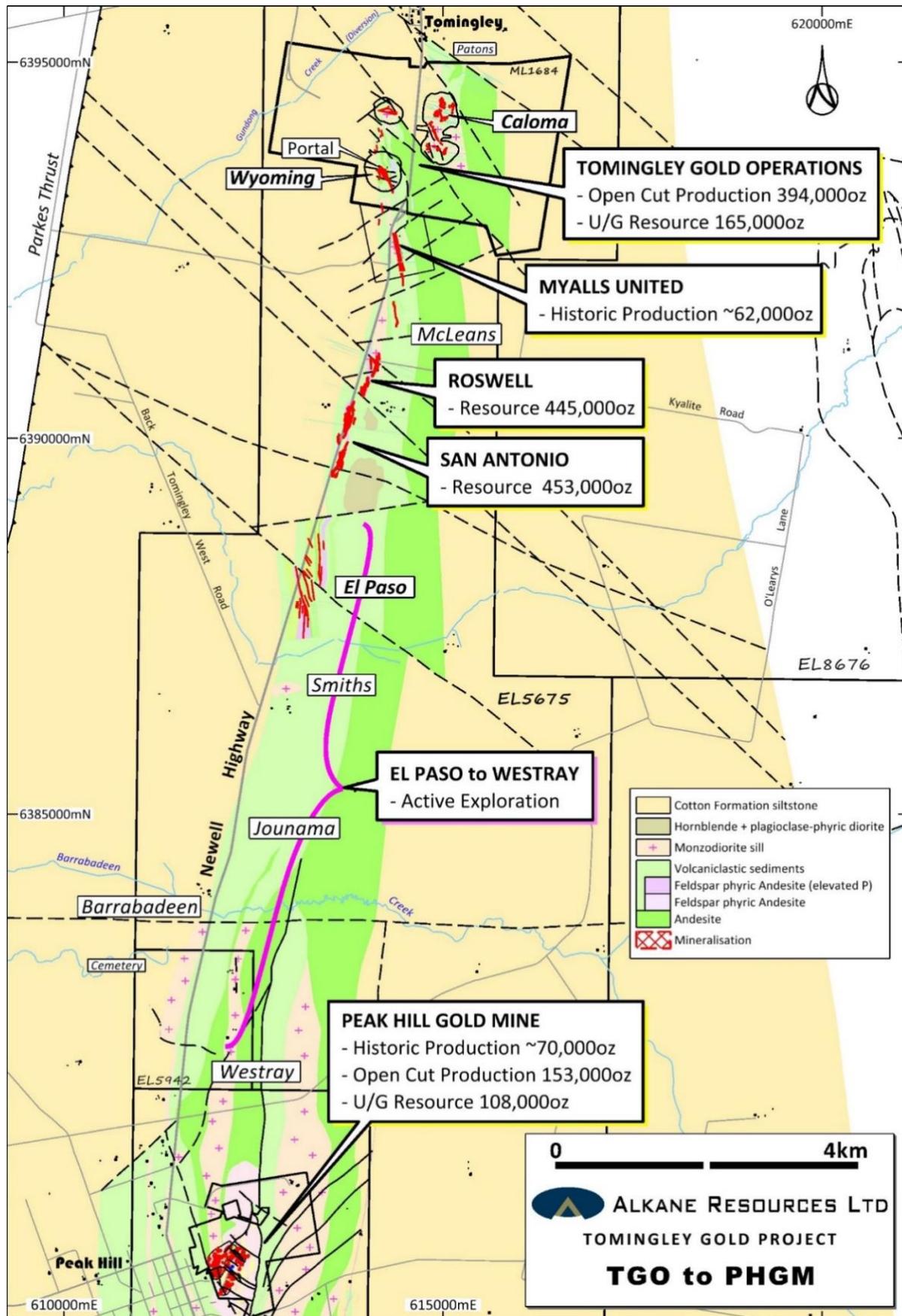
The mineralisation is primarily hosted by 'brittle' andesite units as per the structural setting observed at the Tomingley gold deposits. These volcanics host structural zones generated by a competency contrast between the 'brittle' volcanics and 'ductile' volcanoclastic meta-sediments. Mineralisation is characterised as shear hosted quartz-carbonate-pyrite-arsenopyrite veins primarily hosted within an andesite unit and/or along its brecciated margin and occasionally in coarse grained volcanoclastic meta-sediments.

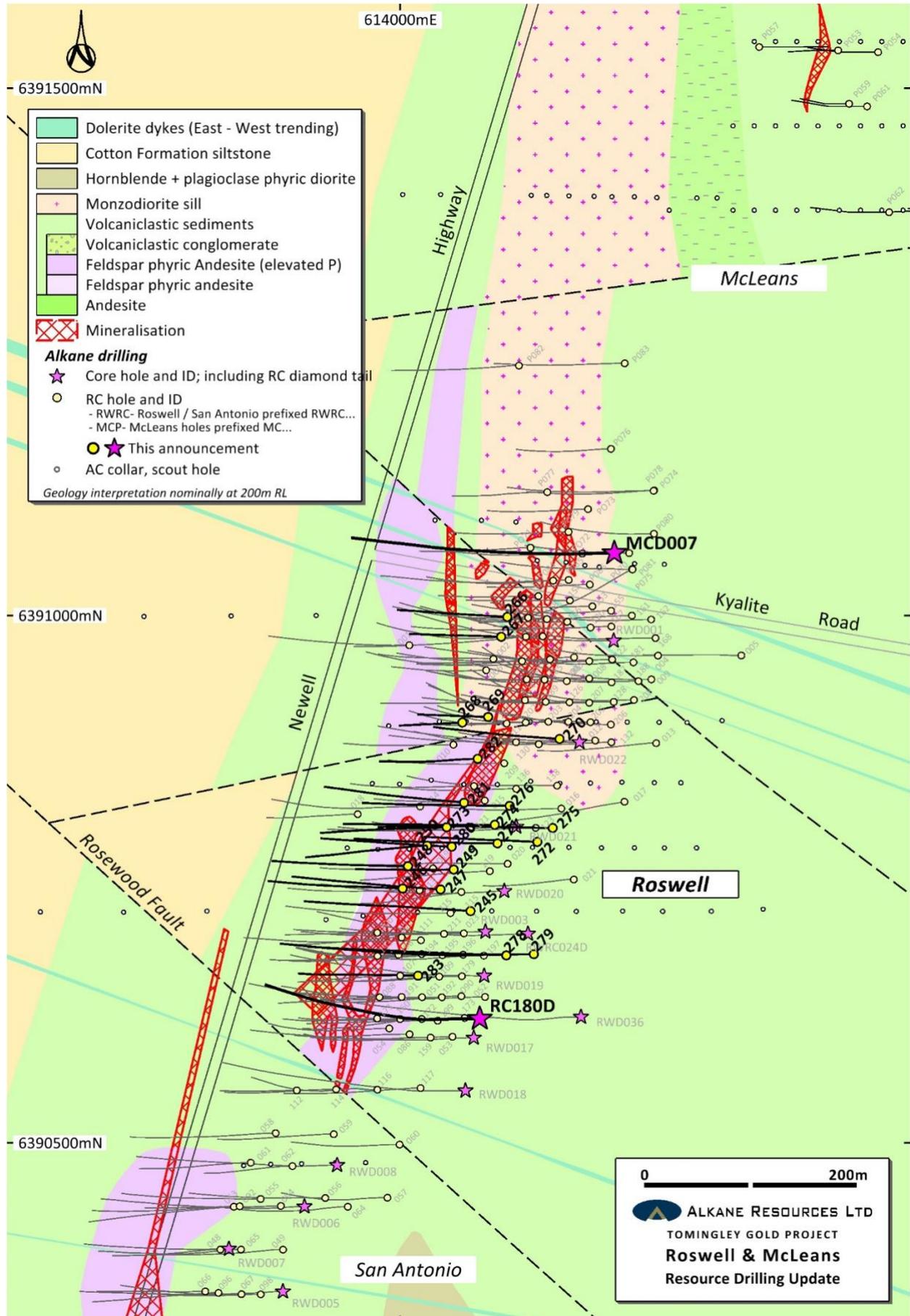
The recent drilling has been infilling the defined Inferred Resources at a nominal 20m line spacing to facilitate definition to Indicated and Measured Resources, and assist with the planning for future mining operations. Several RC holes that had previously not completed to target depth were extended by diamond core drilling. These holes retained the original RWRC number designator but had D added after the number. The results from the original sampling is designated in blue in the following tables.

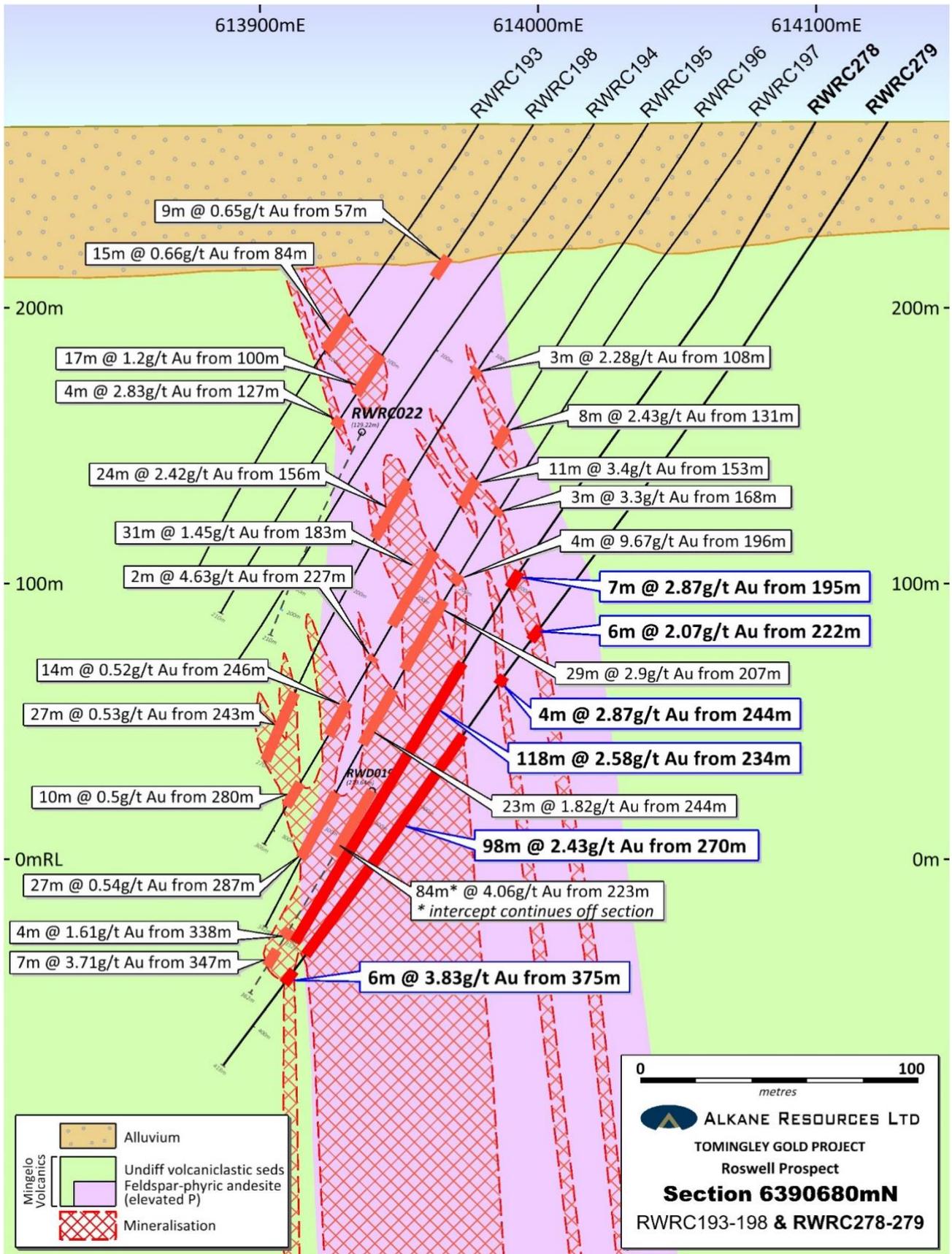
Regional drilling of the San Antonio to Peak Hill corridor focused on stratigraphy south of the El Paso target where earlier exploration had returned encouraging results. Extensive veining, alteration and anomalous arsenic were recorded in the majority of the drilling and significant gold values of greater than 0.25g/t Au were intersected in 10 of the drill holes. A detailed geological compilation suggests that the

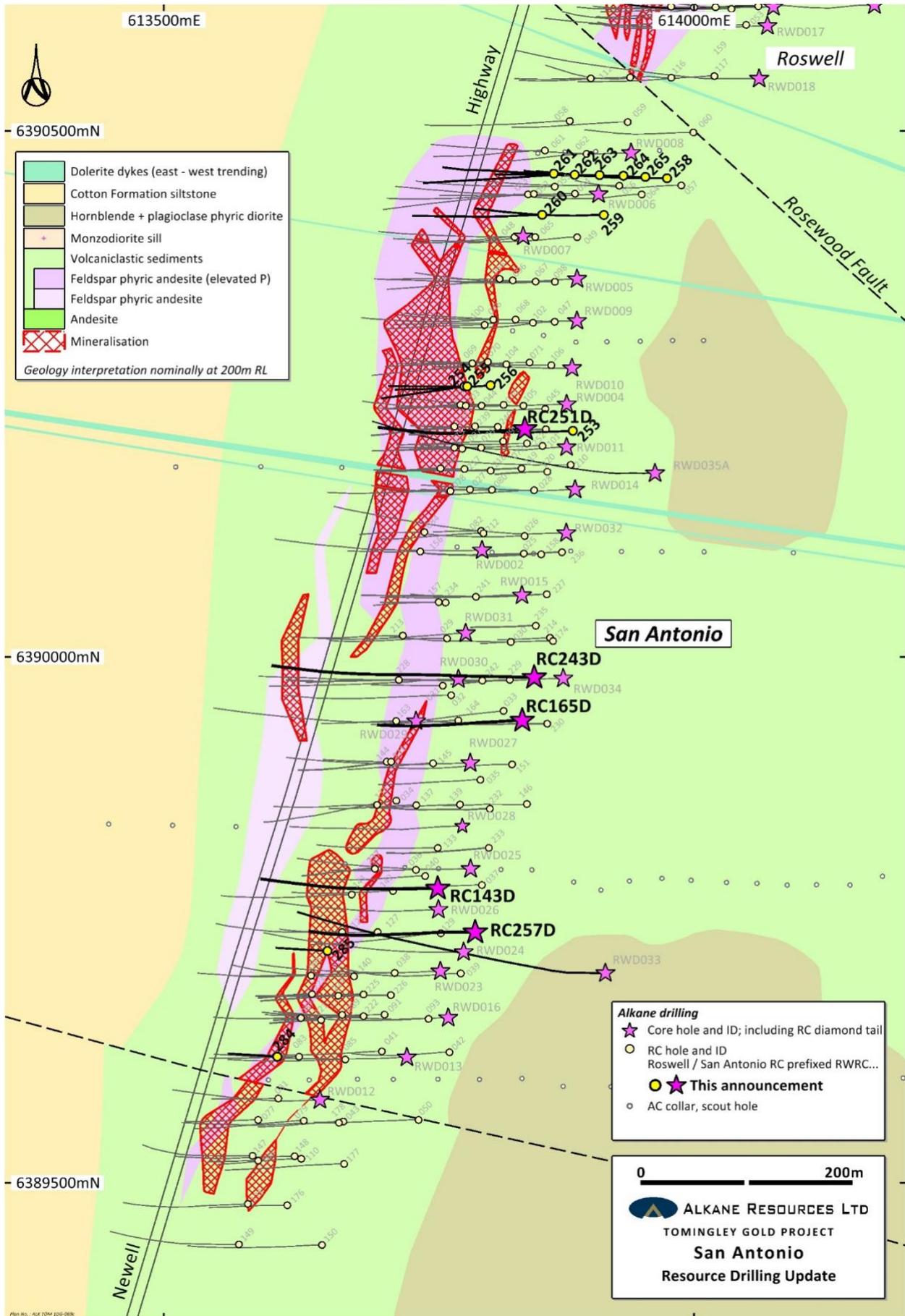


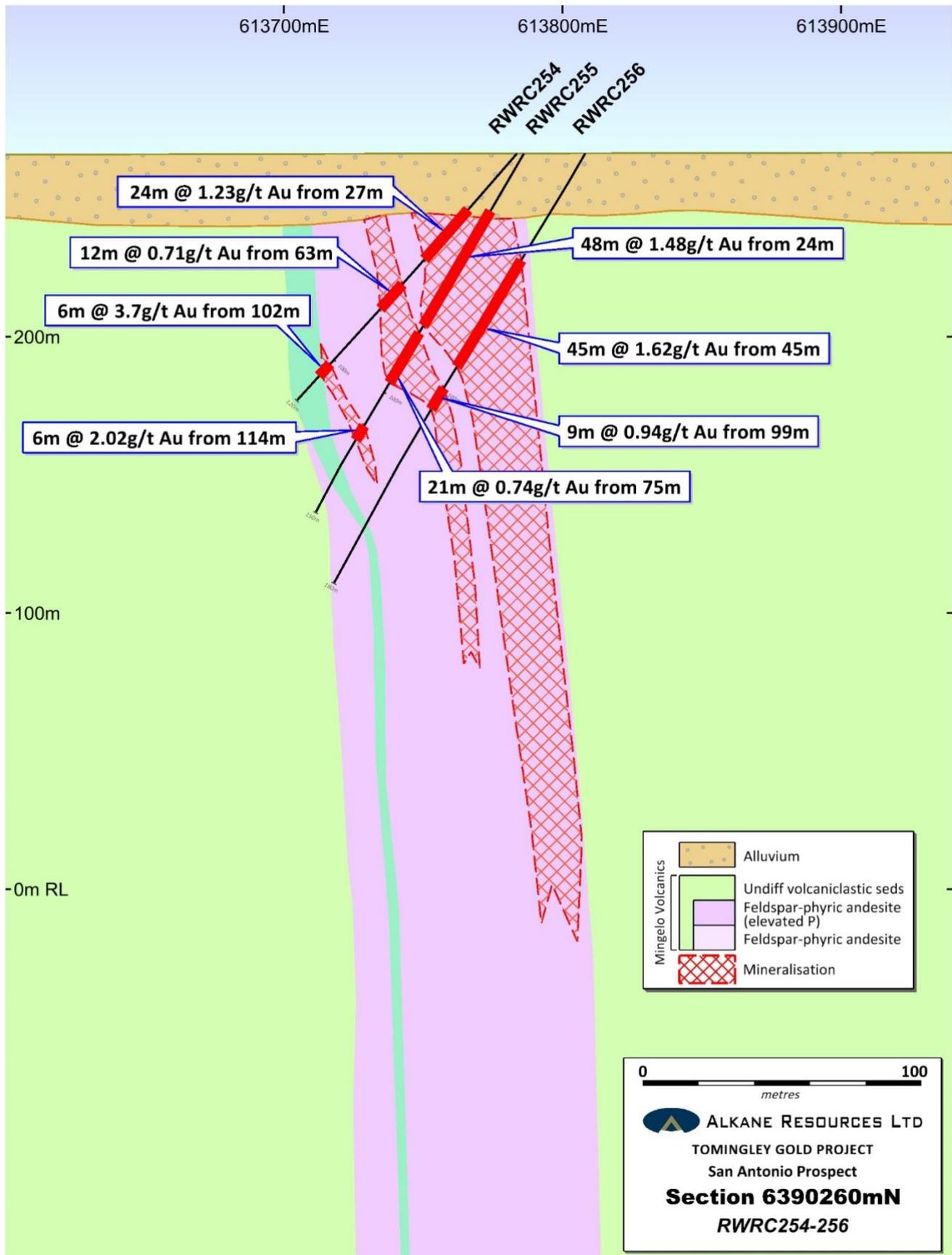
target andesite south of El Paso may be located further west of the drilling than originally interpreted, dislocated dextrally by a significant northwest striking fault. Additional reconnaissance drilling at El Paso will be required to test the known mineralisation previously intersected over a 1km strike length.













**Table 1 - TOMINGLEY GOLD PROJECT RC AND DIAMOND DRILLING – June 2020 (>0.5g/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
<b>MCD007</b>	614201	6391059	268	-60	270	474.3	33	36	3	0.70	
<i>and</i>							75	81	6	0.65	
<i>and</i>							104	107	3	1.95	
<i>and</i>							163	166	3	0.56	
<i>and</i>							268	271	3	1.35	
<i>incl</i>							269	270	1	3.49	
<i>and</i>							333	345	12	1.01	
<i>incl</i>							338	340	2	2.67	
<i>and</i>							349	354	5	0.49	
<i>and</i>							362	363	1	0.93	
<b>RWRC180D</b>	614075	6390618	267	-58	270	356.7	218	287	69	9.12	
<i>incl</i>							218	267	49	8.71	
<i>incl</i>							229	230	1	42.8	
<i>also</i>							237	245	8	29.6	
<i>incl</i>							243	245	2	60.5	
<i>also</i>							258	259	1	22.4	
<i>also</i>							270.3	277	6.7	28.0	
<i>incl</i>							274	275	1	104	
<i>and</i>							295	304	9	0.50	
<i>and</i>							324	327	3	0.50	
<i>and</i>							335	336	1	0.65	
<b>RWRC245</b>	614066	6390720	267	-58	270	298	63	68	5	0.52	
<i>and</i>							78	81	3	0.64	
<i>and</i>							111	182	71	3.56	
<i>incl</i>							111	112	1	12.8	
<i>also</i>							118	123	5	19.2	
<i>also</i>							146	147	1	15.1	
<i>also</i>							158	159	1	13.0	
<i>and</i>							204	206	2	0.87	
<i>and</i>							277	279	2	1.25	
<b>RWRC246</b>	614002	6390741	267	-58	270	238	69	81	12	0.50	
<i>and</i>							108	109	1	1.20	
<i>and</i>							116	120	4	0.72	
<i>and</i>							123	124	1	0.97	
<i>and</i>							215	225	10	5.47	
<i>incl</i>							216	217	1	20.3	
<i>also</i>							221	222	1	25.2	
<b>RWRC247</b>	614038	6390740	267	-60	270	268	106	109	3	0.91	
<i>and</i>							113	116	3	0.62	
<i>and</i>							118	120	2	0.55	
<i>and</i>							128	129	1	0.54	
<i>and</i>							132	135	3	1.18	
<i>and</i>							224	228	4	0.59	



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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>							240	243	3	0.61	Roswell
<b>RWRC248</b>	614007	6390762	267	-58	270	244	60**	78	18	0.61	
<i>incl</i>							63	66	3	1.38	
<i>and</i>							131	134	3	0.89	
<i>and</i>							149	221	72	1.27	
<i>incl</i>							191	193	2	14.5	
<i>also</i>							214	215	1	11.2	
<i>and</i>							229	234	5	2.38	
<i>incl</i>							230	231	1	9.37	
<b>RWRC249</b>	614050	6390759	267	-58	270	172	57	60	3	0.51	
<i>and</i>							75	87	12	3.39	
<i>incl</i>							81	84	3	11.25	
<i>and</i>							109	111	2	0.89	
<i>and</i>							114	119	5	0.80	
<i>and</i>							122	144	22	1.88	
<i>incl</i>							138	142	4	4.63	
<b>RWRC250</b>	614025	6390782	267	-58	270	226	57	66	9	0.65	
<i>and</i>							204	212	8	0.53	
<b>RWRC266</b>	614101	6390999	268	-58	270	172	<i>No significant mineralisation</i>				
<b>RWRC267</b>	614095	6390980	267	-58	270	150	<i>No significant mineralisation</i>				
<b>RWRC268</b>	614059	6390899	267	-58	270	108	<i>No significant mineralisation</i>				
<b>RWRC269</b>	614083	6390904	268	-60	270	120	<i>No significant mineralisation</i>				
<b>RWRC270</b>	614150	6390883	268	-60	270	210	44	47	3	0.82	
<i>and</i>							186	187	1	0.65	
<b>RWRC271</b>	614092	6390784	267	-58	270	274	166	172	6	0.65	
<i>and</i>							178	220	42	1.20	
<i>incl</i>							208	217	9	3.13	
<i>and</i>							229	238	9	0.59	
<b>RWRC272</b>	614129	6390785	267	-58	270	192*	<i>Hole abandoned early</i>				
<b>RWRC273</b>	614044	6390799	268	-58	270	220*	56	74	18	1.25	
<i>and</i>							185	220*	35	0.56	
<b>RWRC274</b>	614089	6390802	267	-58	270	280	75	90	15	0.69	
<i>and</i>							102	105	3	0.50	
<i>and</i>							168	183	15	0.51	
<i>and</i>							201	204	3	0.88	
<i>and</i>							210	222	12	1.21	
<i>incl</i>							216	219	3	2.80	
<b>RWRC275</b>	614143	6390799	268	-58	270	328	240	270	30	1.27	
<i>incl</i>							255	261	6	4.08	
<i>and</i>							276	316	40	1.77	
<i>incl</i>							276	286	10	3.33	
<i>also</i>							293	295	2	3.81	
<b>RWRC276</b>	614103	6390820	268	-58	270	274	69	87	18	0.71	
<b>RWRC278</b>	614100	6390678	267	-60	270	352*	195	202	7	2.87	
<i>incl</i>							198	201	3	6.16	



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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>							208	213	5	0.84	Roswell
<i>and</i>							234	352*	118	2.58	
<i>incl</i>							239	241	2	8.30	
<i>also</i>							250	255	5	8.01	
<i>also</i>							276	278	2	7.30	
<i>also</i>							294	298	4	8.64	
<i>also</i>							308	310	2	9.58	
<b>RWRC279</b>	614126	6390679	268	-58	270	418	222	228	6	2.07	
<i>and</i>							244	248	4	2.87	
<i>and</i>							270	368	98	2.43	
<i>incl</i>							277	280	3	10.4	
<i>also</i>							292	294	2	28.6	
<i>and</i>							375	381	6	3.83	
<b>RWRC280</b>	614049	6390781	267	-58	270	250	64	76	12	0.61	
<i>and</i>							90	93	3	0.85	
<i>and</i>							122	126	4	2.20	
<i>and</i>							205	214	9	0.54	
<i>and</i>							217	219	2	0.50	
<b>RWRC281</b>	614060	6390823	268	-58	270	222	91	93	2	0.79	
<b>RWRC282</b>	614073	6390864	268	-58	270	162	99	100	1	2.89	
<i>and</i>							108	111	3	0.54	
<b>RWRC283</b>	614017	6390659	267	-57	270	181	<i>No significant mineralisation</i>				
<b>RWRC143D</b>	613758	6389780	266	-58	270	303.7	132	141	9	2.32	San Antonio
<i>incl</i>							135	138	3	4.72	
<i>and</i>							156	174	18	2.06	
<i>incl</i>							156	159	3	6.00	
<i>and</i>							204	206.1	2.1	4.20	
<b>RWRC165D</b>	613838	6389939	267	-58	270	258.7	178	181	3	0.81	
<i>and</i>							186	193	7	7.67	
<i>incl</i>							189	191	2	16.6	
<i>and</i>							200	202.8	2.8	0.63	
<i>and</i>							206	207	1	1.37	
<i>and</i>							217	219	2	10.9	
<b>RWRC243D</b>	613849	6389980	267	-58	270	479.8	123	126	3	4.07	
<i>and</i>							213	214	1	0.95	
<i>and</i>							226	234	8	0.60	
<i>and</i>							278	280	2	0.75	
<i>and</i>							288	289	1	0.76	
<i>and</i>							318	319	1	0.68	
<i>and</i>							333	335	2	0.73	
<i>and</i>							348	349	1	0.7	
<i>and</i>							420	425	5	0.77	
<i>and</i>							431	434	3	1.92	
<i>and</i>							462	466	4	2.92	
<i>and</i>							474	476	2	1.51	



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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
<b>RWRC251D</b>	613840	6390216	266	-60	267	264.6	87	90	3	1.57	San Antonio
<i>and</i>							127	140	13	2.77	
<i>incl</i>							130	132	2	11.1	
<i>and</i>							150	177	27	3.24	
<i>incl</i>							171	174	3	15.3	
<i>and</i>							181	182	1	1.04	
<i>and</i>							187	188	1	0.52	
<i>and</i>							228	233	5	2.99	
<i>and</i>							228	229	1	10.4	
<i>and</i>							250	252	2	2.14	
<b>RWRC253</b>	613886	6390215	267	-60	270	250	106	108	2	1.06	
<i>and</i>							199	206	7	1.05	
<i>and</i>							245	247	2	0.90	
<b>RWRC254</b>	613784	6390257	266	-49	270	120	27**	51	24	1.23	
<i>incl</i>							30	33	3	4.06	
<i>and</i>							63	75	12	0.71	
<i>and</i>							81	90	9	0.54	
<i>and</i>							96	99	3	0.82	
<i>and</i>							102	108	6	3.70	
<i>incl</i>							102	105	3	7.10	
<b>RWRC255</b>	613786	6390257	266	-60	270	150	24**	72	48	1.48	
<i>incl</i>							36	39	3	6.61	
<i>and</i>							75	96	21	0.74	
<i>and</i>							114	120	6	2.02	
<b>RWRC256</b>	613808	6390258	266	-60	270	180	45	90	45	1.62	
<i>incl</i>							60	63	3	7.12	
<i>and</i>							99	108	9	0.94	
<b>RWRC257D</b>	613794	6389738	266	-58	270	260.4	178	180	2	1.75	
<i>and</i>							205	227	22	2.25	
<i>incl</i>							213	217	4	5.76	
<i>and</i>							232	239	7	1.32	
<b>RWRC258</b>	613975	6390455	267	-60	270	264	138	141	3	2.01	
<b>RWRC259</b>	613915	6390420	266	-60	270	258	156	161	5	3.06	
<i>and</i>							225	228	3	0.59	
<i>and</i>							239	242	3	1.18	
<b>RWRC260</b>	613857	6390420	267	-60	270	270	45	48	3	0.52	
<i>and</i>							90	99	9	2.29	
<i>and</i>							149	155	6	1.17	
<i>incl</i>							151	152	1	4.22	
<i>and</i>							167	181	14	2.57	
<i>incl</i>							175	177	2	14.1	
<i>and</i>							228	230	2	0.64	
<b>RWRC261</b>	613868	6390459	267	-60	270	222	133	135	2	1.84	
<i>and</i>							168	176	8	0.59	
<i>and</i>							210	215	5	0.70	



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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
<b>RWRC262</b>	613888	6390458	267	-60	270	258*	103	105	2	0.81	San Antonio
<i>and</i>							161	168	7	0.51	
<i>and</i>							177	195	18	1.17	
<i>incl</i>							192	195	3	3.00	
<i>and</i>							249	258*	9	1.19	
<i>incl</i>							255	257	2	2.92	
<b>RWRC263</b>	613911	6390458	267	-60	270	210	145	146	1	3.24	
<i>and</i>							168	169	1	1.12	
<i>and</i>							176	186	10	1.22	
<i>incl</i>							179	180	1	4.09	
<i>and</i>							189	197	8	1.57	
<b>RWRC264</b>	613933	6390457	267	-60	270	251	214	216	2	0.50	
<i>and</i>							228	232	4	0.86	
<b>RWRC265</b>	613954	6390456	267	-60	270	252	112	114	2	0.77	
<b>RWRC284</b>	613607	6389620	265	-58	270	94	No significant mineralisation				
<b>RWRC285</b>	613654	6389720	266	-60	270	101	39	54	15	2.31	
<i>incl</i>							39	42	3	9.24	

\* hole abandoned early. \*\* From base of alluvium. [Intercepts in blue previously announced](#). Gold intercepts calculated using a lower cut of 0.25g/t. True widths are approximately 60%.

**Table 2 - TOMINGLEY GOLD PROJECT REGIONAL RC DRILLING – JUNE 2020 (>0.25g/t Au)**

Hole IDs	Easting Range	Northing Range	RL (m)	Dip	Azimuth (Grid)	Total Depth	Interval From (m)	Interval To (m)	Intercept (m)	Au (g/t)	Prospect
<b>EPP016</b>	613129	6387719	265	-60	270	210	45	47	2	0.41	El Paso South
<b>EPP018</b>	613117	6387639	265	-60	270	246	196	197	1	0.29	
<b>EPP020</b>	613121	6387560	266	-60	270	252	215	216	1	0.29	
<i>and</i>							223	224	1	1.31	
<i>and</i>							236	237	1	1.00	
<b>EPP021</b>	613199	6387560	266	-60	270	306	211	214	3	0.43	
<b>EPP028</b>	613048	6387399	265	-58	270	210	124	136	12	0.32	
<b>EPP029</b>	613129	6387400	266	-58	270	240	220	221	1	0.57	
<b>EPP031</b>	613279	6387399	266	-58	270	252	203	204	1	0.29	
<b>JNRC006</b>	612798	6384599	276	-60	270	227	102	105	3	0.26	Jounama
<b>JNRC008</b>	612737	6384199	262	-60	270	221	66	69	3	0.36	Smiths
<i>and</i>							156	159	3	0.61	
<b>SM070</b>	612952	6386182	267	-60	270	210	27	30	3	0.80	
<i>and</i>							158	160	2	0.68	

Gold intercepts calculated using a lower cut of 0.25g/t. True widths are approximately 60%.



### Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results being reported for the first time is based on and fairly represents information compiled by Mr David Meates MAIG, (Alkane Senior Exploration Geologist) 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 has provided his prior written consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to previously reported exploration results and mineral resources 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.

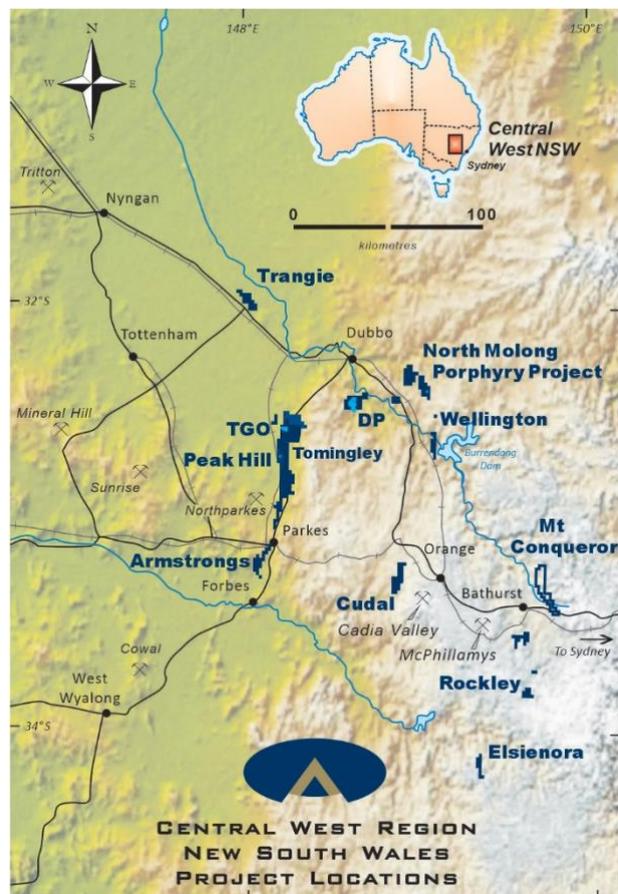
### ABOUT ALKANE - [www.alkane.com.au](http://www.alkane.com.au) - ASX: ALK and OTCQX: ANLKY

Alkane is a gold production company with a multi-commodity exploration and development portfolio. Alkane's projects are predominantly in the Central West region of NSW, but extend throughout Australia through investments in other gold exploration and mining companies.

Alkane's gold production is from the Tomingley Gold Operations (TGO) which has been operating since early 2014 and it's most advanced gold exploration projects are in the 100% Alkane owned tenement area between TGO and Peak Hill and have the potential for sourcing additional ore for TGO.

Alkane has other 100% owned exploration tenements in the Central West NSW prospective for gold and copper. The recently announced significant porphyry gold-copper mineralisation intersected at Boda is an example of this potential.

Alkane's largest non-gold project is the Dubbo Project (DP), a large in-ground resource of zirconium, hafnium, niobium, yttrium and rare earth elements. It is a potential strategic and independent supply of critical minerals for a range of sustainable technologies and future industries. The DP is development ready, subject to financing, with the mineral deposit and surrounding land acquired and all major State and Federal approvals in place. The DP is part of Alkane subsidiary Australian Strategic Materials, which will demerge with Alkane subject to shareholder approval.





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 & San Antonio

#### 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"> <li>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.</li> </ul>	<p>RC samples are collected at one metre intervals via a cyclone on the rig. The cyclone is cleaned regularly to minimise any contamination.</p> <p>Half core samples are collected at generally one metre intervals.</p>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<p>Drilling, sampling and QAQC procedures are carried out to industry standards.</p>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>RC 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 <math>\geq 0.20</math> g/t Au or with high As are resplit using a cone splitter on the rig into a separate calico at the time of drilling and re-submitted to the laboratory for re-assay.</p> <p>Core is cut in half using a Corewise automatic diamond cutting saw.</p> <p>All samples sent to laboratory are crushed and/or pulverised to produce a ~100g pulp for the assay process.</p> <p>Gold was determined by fire assay fusion of a 50g charge with an AAS analytical finish.</p> <p>A multi-element suite was determined using an aqua regia or multi-acid digest with an AES, MS analytical finish.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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 orientated and if so, by what method, etc).</li> </ul>	<p>Reverse circulation (RC) drilling using 110mm rods 144mm face sampling hammer.</p> <p>Core drilling completed as an HQ tail on RC precollar. Core orientated using a Reflex tool.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<p>RC - sample recovery is visually estimated and generally very good (&gt;90%) aided by the use of oversized shrouds through oxide material. Samples are even sized. Samples are 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.</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><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></li> </ul>	<p>DD - core loss is identified by drillers and calculated by geologists when logging. Generally ≥99% was recovered.</p> <p>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 is used at all times to maximise core recovery.</p> <p>There is no known relationship between sample recovery and grade.</p>
<b>Logging</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>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).</p> <p>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.</p> <p>All logging is qualitative with visual estimates of the various characteristics.</p> <p>RC - A representative sample of each one metre interval is retained in chip trays for future reference.</p> <p>DD - Core is photographed and all unsampled core is retained for reference purposes.</p> <p>All DD core and RC chip samples have been geologically and geotechnically logged by qualified geologists.</p>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation</i></li> </ul>	<p>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 &gt;5m of visibly barren wall rock.</p> <p>Laboratory Preparation – drill core is oven dried prior to crushing to &lt;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.</p> <p>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 metres. Damp or wet samples are recorded by the sampler. For composited intervals returning grades &gt;0.2g/t Au the calico bags are retrieved for assay.</p> <p>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.</p> <p>ALK sampling techniques are of industry standard and considered adequate.</p>



Criteria	JORC Code explanation	Commentary
	<p><i>technique.</i></p> <ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>RC - field duplicate samples collected at every stage of sampling to control procedures. DD - external laboratory duplicates used.</p> <p>RC - Duplicate samples are riffle split from the riffle/conical split calico from the drill rig. Duplicates show generally excellent repeatability, indicating a negligible “nugget” effect.</p> <p>Sample sizes are assumed to be within industry standard and considered appropriate.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<p>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.</p> <p>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.</p> <p>Not applicable to this report or deposit.</p> <p>Commercially prepared Certified Reference Materials (CRM) are inserted at 1 in 50 samples. CRM’s are not identifiable to the laboratory.</p> <p>Field duplicate samples are inserted at 1 in 50 samples (alternate to CRM’s).</p> <p>Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data is reported for each sample submission.</p> <p>Failed standards result in re-assaying of portions of the affected sample batches.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>Drill data is compiled and collated, and reviewed by senior exploration staff. Tomingley Gold Mine staff review resource estimation procedures.</p> <p>Twinned holes have not been drilled.</p> <p>All 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.</p> <p>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.</p> <p>Digital copies of Certificates of Analysis (COA) are stored in a central database with regular (daily) backup.</p> <p>Data is also verified on import into mining related software.</p> <p>No assay data was adjusted. In the case of assay checks the original assay is utilised as there was no statistical variability.</p>



Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>Drill holes are laid out using hand held GPS (accuracy <math>\pm 2m</math>) then surveyed accurately (<math>\pm 0.1m</math>) by Tomingley Gold Operations trained surveyors on completion.</p> <p>RC drill holes are surveyed using a single shot electronic camera at a nominal 30m down hole interval.</p> <p>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.</p>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	MGA94 grid system was used.
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	A site based digital terrain model was developed from accurate ( $\pm 0.1m$ ) survey control by licenced surveyors.
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<p>Nominal drill hole spacing is 20m x 20m for Roswell and San Antonio deposits.</p> <p>For regional exploration drilling the drill hole spacing is variable as the focus is on geological mapping and identifying new zones of mineralisation.</p>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	The drill hole spacing has been shown to be appropriate to demonstrate spatial and grade continuity of the mineralised domains to support the definition of Inferred Mineral Resources under the 2012 JORC code once all other modifying factors have been addressed.
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<p>RC – samples with no visible mineralisation or alteration are composited to 3m with 1m resamples assayed if the composite returned a gold value of <math>&gt;0.2g/t</math> gold. One metre samples override 3m composites in the database.</p> <p>DD – core is sampled to geology</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	Much care is given to attempt to intersect structure at an optimal angle but in complex ore bodies this can be difficult.
	<ul style="list-style-type: none"> <li>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.</li> </ul>	It is not thought that drilling direction will bias assay data significantly.
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>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 freight truck. All sample submissions are documented via ALS tracking system and all assays are reported via email.</p> <p>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.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	The Company does not routinely have external consultants verify exploration data until resource estimation procedures are deemed necessary.



## 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"> <li>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.</li> </ul>	EL5675 wholly owned by Alkane Resources Ltd (ALK).
	<ul style="list-style-type: none"> <li>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.</li> </ul>	EL5675 is due to expire 17 January 2023.
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	All reported drilling completed by ALK.
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Mineralisation is similar to the well documented Tomingley Gold Deposits. Tomingley is associated with quartz veining and alteration focused within andesite volcanics and adjacent volcanoclastic sediments. The deposits appear to have formed as the result of a competency contrast between the volcanics and the surrounding volcanoclastic sediments, with the volcanics showing brittle fracture and the sediments ductile deformation, and have many similarities to well documented orogenic - lode-style gold deposits.
Drill hole Information	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	See body of announcement and figures.
	<ul style="list-style-type: none"> <li>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.</li> </ul>	All drilling reported for the San Antonio and Roswell deposits. The regional exploration drilling program is reconnaissance in nature with 37 holes completed. Only drill holes with samples assaying $\geq 0.25\text{g/t Au}$ have been reported. Impractical to list all holes completed.
Data aggregation methods	<ul style="list-style-type: none"> <li>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.</li> </ul>	Exploration results reported – for uncut gold grades; grades are calculated by length weighted average.
	<ul style="list-style-type: none"> <li>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</li> </ul>	Reported intercepts are calculated using a lower cut of $0.25\text{g/t Au}$ . No top cut has been used.



Criteria	JORC Code explanation	Commentary
	<p><i>and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	No metal equivalents are reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i> <ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul> </li> </ul>	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 average 60% of the drill intersection.
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	Plans and sections are included in the body of the announcement.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	All completed drill holes are listed at the San Antonio and Roswell drilling with samples assaying significant gold of $\geq 0.5\text{g/t Au}$ have been reported. The regional exploration drilling program is reconnaissance in nature with 37 holes completed. Only drill holes with samples assaying $\geq 0.25\text{g/t Au}$ have been reported.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	No additional or new drilling results are being reported at this time.
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	Additional drilling is underway to infill the drilling to 20m x 20m spacing to convert the inferred resources to indicated and measured. Deep core drilling is also being planned to test the continuation high grade mineralised structures at depth. Additional regional exploration is being planned to test the El Paso prospect.  See figures included in the announcement.