

ASX: KIN

ASX Announcement

2 December 2022

MULTIPLE ANOMALOUS GOLD ZONES INTERSECTED IN INITIAL AIR-CORE DRILLING AT MURRIN PROJECT

Broad-spaced AC results indicate several zones of mineralisation below western soil geochemical anomaly.

<u>Highlights</u>

- 8,740m air-core drilling program completed at the Murrin Project, located 45km east of Leonora and 15km south of the Murrin Murrin nickel-cobalt mine. Significant results include:
 - o 4m at 0.95g/t Au from 20m (MM22AC037)
 - 4m at 1.52g/t Au from 12m (MM22AC039)
 - o 16m at 0.63g/t Au from 32m (MM22AC088)
- The AC drilling provided an initial test (400m line spacing) of auger anomalies delineated in 2021. Mineralisation detected up to 800m along strike from historic Reverse Circulation holes which returned significant results, including:
 - o 24m at 2.26g/t Au from 64m (MM13RC013)
 - o 32m at 1.29g/t Au from 4m (MM13RC017)
 - 7m at 1.42g/t Au from 13m (MM13RC006)
 - o 16m at 0.95g/t Au from 0m (MM13RC010)
- Stage 2 assessment (closing in to 200m line spacing) over the anomalous areas currently under review.

Other Exploration Efforts

- Follow-up drilling at Rangoon and Helens East has commenced with a combination of diamond and RC drilling. Previously reported significant intercepts include:
 - 32m at 2.98g/t Au from 129m (RN22RC161) including 12m at 5.62 g/t from 129m and 12m at 2.25g/t from 149m
 - o **15m at 3.03g/t Au from 162m** (RN22RC162)
 - o 7m at 2.77g/t Au from 76m (RN22RC166)
 - o 4m at 6.19g/t Au from 121m (RN22RC167)

Kin Mining NL (ASX: KIN or "the Company") is pleased to provide an update on exploration activities at its 100%-owned 1.41Moz Cardinia Gold Project (CGP), located near Leonora in Western Australia.

ASX Code: KIN Shares on issue: 1049 million Market Capitalisation: \$78 million Cash: \$12.7 million (30 September 2022) Kin Mining NL 342 Scarborough Beach Road Osborne Park WA 6017 P: +61 9 9242 2227 E info@kinmining.com.au kinmining.com.au



Murrin Air-core Drilling Program

As part of its regional exploration program surrounding the CGP, Kin Mining has completed an initial program of air-core drilling to evaluate the Murrin Project, located 45km east of Leonora, 80km west of Laverton and 15km south of Kin's satellite Mt Flora Project (Figure 1).

The Murrin Project leases are located adjacent to the historic Murrin Murrin gold mining centre, with mining dating back to the 1890's targeting rich, narrow quartz veins. Total gold production up to 1954 is reported to have been 97,199 oz from 136,512t of ore at an average grade of 22.1g/t Au.

A further 31,177oz of lower grade material was produced from open pit operations during 1988 to 1994, from the Hills Proprietary, Malcolm and Challenger Mines, which are situated to the west of Kin's Murrin leases.



Figure 1 – Regional Location Plan of the Murrin Project tenement group.

Geology and Mineralisation

The Murrin area covers a suite of NNE trending tholeiitic mafic volcanics, dolerites, gabbro and minor sedimentary units including BIF and chert. Stratigraphy dips to the west. HFSE granites in the area have formed due to tectonic events such as extension. See Figure 2.

Small, monzogranitic stocks and sills have intruded the greenstone sequence at several locations in the Murrin region and appear to have had an important influence in the introduction of gold-bearing fluids during the main phase of tectonic deformation and metamorphism of the layered greenstone sequence.

Outcrop is reasonably good south of Mt Nangeroo to the south-west of the tenement. Elsewhere, extensive lateritic cap rock and associated iron-rich gravels and soils obscure most of the Archaean lithologies. Limited outcrop and extensive laterite cover overlies much of the western side of the project. Several shallow old gold workings are contained within the tenements.



Despite its proximity to numerous abandoned mines and historic mining centres in the Murrin district, the tenements have not previously been subject to systematic, modern-day exploration and hence the potential has not been fully appraised.



Figure 2 – Location Plan of the Murrin Project tenement group, on the GSWA 1:500,000 Geological Plan.

Previous Exploration Results

Auger drilling was undertaken by Kin Mining at the Murrin Project in September 2021. A strong gold-in-soil anomaly was outlined on the western side of tenements, along strike to the north of historic RC drilling. Anomalous results were also encountered in the north central and southern block of tenements. See Figures 3 and 4.

Anomalous results often coincide with contact boundaries of lithological units where extension has occurred, in particular at the western side of tenements M39/279 and M39/1141. A total of 40 historic RC holes have been located within the main target tenement P39/5179, several of which returned significant assay results including:

- MM13RC013 24m @ 2.26 g/t Au from 64m
- MM13RC017 32m @ 1.29 g/t Au from 4m
- WMCRC004 9m @ 3.87 g/t Au from 25m
- MM13RC021 4m @ 4.81 g/t Au from 20m and 3m @ 2.46 g/t from 28m
- MM13RC023 3m @ 6.05 g/t Au from 85m
- MM13RC028 9m @ 1.91 g/t Au from 33m

Refer ASX announcement 19 December 2013 and 14 January 2014.



2022 Air-core Program

A total of 12 air-core (AC) lines were completed as part of the initial exploration program, totalling 8,740m.

The program tested the soil anomalies identified in the 2021 soil sampling program at a 400m line spacing as well as testing for strike extensions of areas where previous RC drilling adjacent to historical surface workings returned significant results. In this area, three mineralised trends have been identified from the AC results (Figure 4) which appear to be structural splays off the main N-S trending shear zone, identified from the regional magnetics.

The location of the 2022 AC drilling lines is shown in Figures 3 and 4 below.



Figure 3 – *Plan showing completed air-core lines at the Murrin prospect with the auger anomaly trends identified from earlier programs.*





Figure 4 – Map of western anomaly showing significant intercepts from the 2022 AC program at Murrin with historic RC results and interpreted mineralised trends. Italicised captions signify previously announced results.

RC and Diamond Drilling – Rangoon and Eastern Corridor

The Company continues to progress its other exploration activities as part of its ongoing 2022 exploration campaign within the CGP.

A combination of Reverse Circulation (RC) and diamond drilling has now commenced to further evaluate the under-explored Rangoon and Helens East area, located within the Eastern Corridor at the Cardinia Gold Camp.



This follows the completion of the initial five deeper diamond holes aimed at several significant IP targets within the Eastern Corridor.

Drilling results from Rangoon and other prospects within this corridor over the past 12 months have reinforced the substantial endowment of the Eastern Corridor as a priority focus for exploration at the CGP.

The Eastern Corridor contains a number of exciting exploration and development prospects including Cardinia Hill, Helens, Fiona and Rangoon. The Eastern Corridor deposits collectively host in excess of 338koz of Mineral Resources (refer to Table A1 for details) and are interpreted to be structurally linked as part of a significantly larger mineralised system located on the eastern side of the CGP.

The initial target for resource expansion drilling is the Rangoon prospect, where an Inferred Mineral Resource of 2.28Mt at 1.30g/t for 95Koz of gold was recently estimated.

Recent Rangoon RC drilling results, shown in Figure 5, which require follow-up include:

- 32m at 2.98g/t Au from 129m (RN22RC161) including 12m at 5.62 g/t from 129m and 12m at 2.25g/t from 149m
- 15m at 3.03g/t Au from 162m (RN22RC162)
- 7m at 2.77g/t Au from 76m (RN22RC166)
- 4m at 6.19g/t Au from 121m (RN22RC167)

Refer ASX announcement 27 June 2022 for details of Rangoon and other Eastern Corridor drilling results.



Figure 5. Kin Mining's Rangoon RC drilling and planned deepening of selected RC holes.



Hole ID	From	То	Length (m)	Au (g/t)
MM22AC005	0	4	4	0.70
MM22AC022	20	24	4	0.30
MM22AC036	0	4	4	0.31
MM22AC037	20	24	4	0.95
MM22AC039	12	16	4	1.52
MM22AC045	24	28	4	0.30
MM22AC071	8	12	4	0.24
MM22AC081	24	28	4	0.36
MM22AC082	16	20	4	0.56
MM22AC083	12	16	4	0.35
MM22AC084	28	36	8	0.47
MM22AC085	12	20	8	0.49
MM22AC086	20	24	4	0.38
MM22AC087	36	39	3	0.30
MM22AC088	32	48	16	0.63
MM22AC191	76	80	4	0.32

Table 1. List of significant intercepts from the Murrin AC program.

Table 2 – List of Murrin AC drill holes from 2022 program

Hole ID	Easting	Northing	RL	Depth	DIP	AZI
MM22AC001	387274.6	6802802	448.9	110	-60	89.93
MM22AC002	387332.8	6802792	448.82	82	-60	89.93
MM22AC003	387368	6802793	452.2	85	-60	89.93
MM22AC004	387419	6802794	453.13	77	-60	89.93
MM22AC005	387476.7	6802797	447.56	63	-60	89.93
MM22AC006	387506.2	6802803	448.83	40	-60	89.93
MM22AC007	387531.1	6802810	453.3	50	-60	89.93
MM22AC008	387556.9	6802815	454.75	43	-60	89.93
MM22AC009	387582.1	6802813	448.35	43	-60	89.93
MM22AC010	387603.1	6802805	452.54	62	-60	89.93
MM22AC011	387628.9	6802806	454.09	52	-60	89.93
MM22AC012	387769.9	6802800	452.41	44	-60	89.93
MM22AC013	387795.2	6802798	448.14	42	-60	89.93
MM22AC014	387815	6802799	447.42	42	-60	89.93
MM22AC015	387843.7	6802800	447.18	51	-60	89.93
MM22AC016	387862.9	6802802	444.22	61	-60	89.93
MM22AC017	387889.8	6802805	442.17	103	-60	89.93
MM22AC018	387923.9	6802803	456.01	75	-60	89.93
MM22AC019	387947.6	6802795	457.19	67	-60	89.93
MM22AC020	387977.7	6802798	455.12	58	-60	89.93



MM22AC021	388004.3	6802805	AEE 41	46	60	00.02
	000000	0002005	455.41	40	-00	89.93
MM22AC022	388028.8	6802804	451.22	46	-60	89.93
MM22AC023	388049	6802803	451.73	54	-60	89.93
MM22AC024	388069.7	6802799	459.9	51	-60	89.93
MM22AC025	385442.5	6800897	438.32	7	-60	89.93
MM22AC026	385451.1	6800899	437.94	7	-60	89.93
MM22AC027	385460.9	6800902	437.47	6	-60	89.93
MM22AC028	385473.5	6800908	428.87	8	-60	89.93
MM22AC029	385482.7	6800908	433.07	8	-60	89.93
MM22AC030	385496.5	6800909	432.25	10	-60	89.93
MM22AC031	385505.5	6800909	432.49	9	-60	89.93
MM22AC032	385516.1	6800912	426.37	12	-60	89.93
MM22AC033	385525.4	6800912	426.95	15	-60	89.93
MM22AC034	385533.5	6800912	428.16	17	-60	89.93
MM22AC035	385543.6	6800911	427.83	20	-60	89.93
MM22AC036	385553.2	6800913	427.62	19	-60	89.93
MM22AC037	385574.5	6800912	427.43	26	-60	89.93
MM22AC038	385581.8	6800911	430.16	22	-60	89.93
MM22AC039	385598.9	6800913	432.98	27	-60	89.93
MM22AC040	385612	6800915	432.17	23	-60	89.93
MM22AC041	385623.7	6800916	431.4	27	-60	89.93
MM22AC042	385637.9	6800912	436.18	24	-60	89.93
MM22AC043	385645.3	6800911	435.66	27	-60	89.93
MM22AC044	385652.9	6800912	435.65	30	-60	89.93
MM22AC045	385664.9	6800915	439.8	35	-60	89.93
MM22AC046	385675.5	6800919	435.45	41	-60	89.93
MM22AC047	385695.1	6800916	448.66	58	-60	89.93
MM22AC048	385716.5	6800912	444.95	62	-60	89.93
MM22AC049	385741.5	6800911	428.86	76	-60	89.93
MM22AC050	385771.7	6800909	430.03	80	-60	89.93
MM22AC051	385797.1	6800906	431.39	71	-60	89.93
MM22AC052	385826.7	6800903	432.49	60	-60	89.93
MM22AC053	385850	6800900	429.09	65	-60	89.93
MM22AC054	385874	6800900	430.18	70	-60	89.93
MM22AC055	385440.7	6800651	433.56	4	-60	89.93
MM22AC056	385451.6	6800653	433.09	6	-60	89.93
MM22AC057	385463.6	6800652	433.88	14	-60	89.93
MM22AC058	385479.1	6800652	432.89	13	-60	89.93
MM22AC059	385490.7	6800651	432.9	1	-60	89.93
MM22AC060	385497.6	6800648	433.92	2	-60	89.93
MM22AC061	385508.4	6800649	434.13	3	-60	89.93
MM22AC062	385516.5	6800649	430.47	2	-60	89.93
MM22AC063	385525.1	6800649	430.34	2	-60	89.93
MM22AC064	385530	6800652	431.9	3	-60	89.93
	MM22AC023 MM22AC024 MM22AC025 MM22AC025 MM22AC027 MM22AC028 MM22AC029 MM22AC029 MM22AC030 MM22AC031 MM22AC031 MM22AC033 MM22AC034 MM22AC035 MM22AC036 MM22AC037 MM22AC038 MM22AC036 MM22AC037 MM22AC038 MM22AC038 MM22AC039 MM22AC036 MM22AC041 MM22AC042 MM22AC043 MM22AC041 MM22AC043 MM22AC045 MM22AC045 MM22AC046 MM22AC047 MM22AC048 MM22AC049 MM22AC050 MM22AC051 MM22AC052 MM22AC054 MM22AC055 MM22AC057 MM22AC058 MM22AC059 MM22AC059 MM22AC051 MM22AC052 MM22AC054 MM22AC055 MM22AC057 MM22AC058 MM22AC059 MM22AC064 MM22AC064 MM22AC054	NMM22AC022388028.8MM22AC023388049MM22AC024388069.7MM22AC025385442.5MM22AC026385442.5MM22AC027385460.9MM22AC028385473.5MM22AC029385482.7MM22AC030385496.5MM22AC031385505.5MM22AC032385516.1MM22AC033385516.1MM22AC03438553.2MM22AC035385543.6MM22AC03638553.2MM22AC037385543.6MM22AC038385581.8MM22AC039385598.9MM22AC040385612MM22AC041385637.9MM22AC042385637.9MM22AC043385645.3MM22AC044385637.9MM22AC045385645.3MM22AC046385671.5MM22AC047385645.3MM22AC048385716.5MM22AC049385716.5MM22AC04938571.7MM22AC04938571.6MM22AC04938571.5MM22AC051385826.7MM22AC05238540.7MM22AC05338540.7MM22AC054385440.7MM22AC055385440.7MM22AC056385497.6MM22AC05738549.6MM22AC058385490.7MM22AC059385490.7MM22AC064385576.5MM22AC064385576.5MM22AC064385576.5MM22AC064385576.5MM22AC064385576.5MM22AC064385530	MM22AC021388024.36802803MM22AC0233880496802803MM22AC024388069.76802799MM22AC025385442.56800897MM22AC026385442.56800902MM22AC02738546.96800902MM22AC028385473.56800908MM22AC029385482.76800908MM22AC030385482.76800909MM22AC03138550.56800912MM22AC032385516.16800912MM22AC033385543.66800912MM22AC03438553.26800912MM22AC035385543.66800912MM22AC036385543.66800913MM22AC037385543.66800913MM22AC038385543.86800913MM22AC039385543.96800913MM22AC0403856126800913MM22AC041385637.96800913MM22AC042385645.36800913MM22AC043385645.36800913MM22AC044385645.36800913MM22AC045385645.46800913MM22AC04638571.56800913MM22AC047385645.56800913MM22AC04838571.56800913MM22AC04938574.56800913MM22AC04538574.56800913MM22AC04638574.56800913MM22AC04538574.56800913MM22AC04538574.56800913MM22AC05438574.56800913MM22AC05538546.76800913MM22AC	Mm22AC022388028.86802803451.22MM22AC0233880496802803451.73MM22AC024388069.76802799459.9MM22AC025385442.56800897438.32MM22AC026385441.56800890437.47MM22AC02738546.96800902437.47MM22AC02838547.56800908428.87MM22AC029385482.76800909432.45MM22AC03038549.56800909432.49MM22AC03138550.56800912426.37MM22AC03238551.46800912426.37MM22AC03338552.46800912426.95MM22AC03438553.56800912427.43MM22AC03538554.86800911427.83MM22AC03638554.86800911427.83MM22AC03738557.46800912427.43MM22AC03838558.86800913432.49MM22AC03938557.46800913432.49MM22AC0403856126800912436.16MM22AC04138562.96800912435.66MM22AC04238564.96800912435.65MM22AC04338571.56800911432.49MM22AC04438571.56800911432.49MM22AC04538571.56800912430.61MM22AC04638571.56800913432.49MM22AC04738571.56800913432.49MM22AC04838571.56800913432.49MM22AC04938571.5	MM122AC022 388028.8 6802804 451.22 46 MM22AC022 388028.8 6802803 451.73 54 MM22AC023 388049 6802799 459.9 51 MM22AC024 388049.7 6802799 438.32 7 MM22AC026 385451.1 6800899 437.47 6 MM22AC027 385460.9 6800902 437.47 6 MM22AC028 38547.5 6800908 433.07 8 MM22AC030 385485.5 6800909 432.49 9 MM22AC031 385505.5 6800912 426.37 12 MM22AC032 38553.2 6800911 427.43 20 MM22AC034 38553.2 6800912 427.43 26 MM22AC035 385543.6 6800912 427.43 26 MM22AC036 385533.2 6800913 432.98 27 MM22AC037 385543.6 6800912 436.18 24 MM22AC040 385612 6800912<	NM122AC022 383023.8 6802804 451.22 46 60 MM22AC023 388049 6802803 451.73 54 -60 MM22AC024 388069.7 6802799 459.9 51 -60 MM22AC025 38541.1 6800897 438.32 7 -60 MM22AC026 385473.5 6800908 437.47 6 -60 MM22AC029 385482.7 6800908 433.07 8 -60 MM22AC020 385495.5 6800909 432.49 9 -60 MM22AC031 385505.5 6800912 426.37 112 -60 MM22AC032 38551.6 6800911 427.62 19 -60 MM22AC035 38553.5 6800911 427.62 19 -60 MM22AC037 385543.6 6800911 427.62 19 -60 MM22AC038 385581.8 680911 430.16 22 -60 MM22AC038 385543.6 6800912 436.18



Hole ID	Easting	Northing	RL	Depth	DIP	AZI
MM22AC065	385540.6	6800653	431.75	5	-60	89.93
MM22AC066	385565.4	6800653	433.28	3	-60	89.93
MM22AC067	385573	6800654	432.98	3	-60	89.93
MM22AC068	385553.5	6800652	433.49	3	-60	89.93
MM22AC069	385585.4	6800653	431.8	2	-60	89.93
MM22AC070	385603.1	6800652	432.04	8	-60	89.93
MM22AC071	385615.2	6800650	431.67	14	-60	89.93
MM22AC072	385628.4	6800647	431.47	12	-60	89.93
MM22AC073	385637.3	6800647	424.76	20	-60	89.93
MM22AC074	385648.7	6800646	425.4	15	-60	89.93
MM22AC075	385662.1	6800646	425.54	14	-60	89.93
MM22AC076	385670.8	6800646	426.08	14	-60	89.93
MM22AC077	385682.9	6800645	425.22	13	-60	89.93
MM22AC078	385441	6800203	442.15	14	-60	89.93
MM22AC079	385450.5	6800202	441.53	16	-60	89.93
MM22AC080	385464.7	6800200	433.95	24	-60	89.93
MM22AC081	385475.8	6800199	433.52	33	-60	89.93
MM22AC082	385491.4	6800199	426.6	28	-60	89.93
MM22AC083	385508.4	6800200	426.28	31	-60	89.93
MM22AC084	385521.1	6800197	425.88	37	-60	89.93
MM22AC085	385538.7	6800194	426.75	52	-60	89.93
MM22AC086	385556.1	6800196	427.21	53	-60	89.93
MM22AC087	385574.8	6800198	427.16	39	-60	89.93
MM22AC088	385592.6	6800193	428.39	49	-60	89.93
MM22AC089	385612.9	6800193	428.2	70	-60	89.93
MM22AC090	385646.8	6800199	427.15	28	-60	89.93
MM22AC091	386203.1	6798801	438.13	9	-60	89.93
MM22AC092	386216.5	6798795	436.58	16	-60	89.93
MM22AC093	386241.3	6798791	436.93	10	-60	89.93
MM22AC094	386227.4	6798792	437.11	14	-60	89.93
MM22AC095	386252.4	6798792	437.87	5	-60	89.93
MM22AC096	386265.9	6798795	437.99	7	-60	89.93
MM22AC097	386279.5	6798805	433.98	6	-60	89.93
MM22AC098	386290.5	6798807	433.93	8	-60	89.93
MM22AC099	386301.6	6798807	433.89	2	-60	89.93
MM22AC100	386311.9	6798807	432.94	1	-60	89.93
MM22AC101	386321.5	6798803	432.39	2	-60	89.93
MM22AC102	386329	6798804	431.74	2	-60	89.93
MM22AC103	386339.7	6798806	430.64	6	-60	89.93
MM22AC104	386359.2	6798813	432.29	8	-60	89.93
MM22AC105	386380.3	6798813	429.97	11	-60	89.93
MM22AC106	386391	6798812	429.76	13	-60	89.93
MM22AC107	386401.1	6798808	430.56	4	-60	89.93
MM22AC108	386415.7	6798811	430.57	4	-60	89.93



Hole ID	Easting	Northing	RL	Depth	DIP	AZI
MM22AC109	386431.7	6798809	430.08	2	-60	89.93
MM22AC110	386448.9	6798805	427.59	11	-60	89.93
MM22AC111	386469.4	6798809	432.04	27	-60	89.93
MM22AC112	386483.2	6798807	432.7	23	-60	89.93
MM22AC113	386498.4	6798804	431.68	9	-60	89.93
MM22AC114	386516.9	6798805	432.09	10	-60	89.93
MM22AC115	386525.9	6798803	429.02	2	-60	89.93
MM22AC116	386058.4	6798401	423.21	48	-60	89.93
MM22AC117	386078.7	6798402	423.62	35	-60	89.93
MM22AC118	386095.4	6798403	422.57	31	-60	89.93
MM22AC119	386113.3	6798405	427.6	28	-60	89.93
MM22AC120	386127.7	6798406	426.81	45	-60	89.93
MM22AC121	386147.3	6798411	420.95	28	-60	89.93
MM22AC122	386166.4	6798409	419.75	27	-60	89.93
MM22AC123	386179.6	6798409	426.46	26	-60	89.93
MM22AC124	386197.5	6798411	426.57	25	-60	89.93
MM22AC125	386209.4	6798412	426.68	21	-60	89.93
MM22AC126	386228.6	6798410	430.11	28	-60	89.93
MM22AC127	386244.4	6798410	429.37	33	-60	89.93
MM22AC128	386259	6798406	429.42	22	-60	89.93
MM22AC129	386271.3	6798404	426.9	26	-60	89.93
MM22AC130	386287.5	6798402	427.68	14	-60	89.93
MM22AC131	386302.5	6798398	426.72	8	-60	89.93
MM22AC132	386314.8	6798398	427	6	-60	89.93
MM22AC133	386326.9	6798400	428.24	6	-60	89.93
MM22AC134	386339	6798399	428.04	14	-60	89.93
MM22AC135	386354	6798399	427.4	7	-60	89.93
MM22AC136	386368.7	6798399	425.03	9	-60	89.93
MM22AC137	386379.4	6798402	424.67	6	-60	89.93
MM22AC138	386391.8	6798403	425.61	1	-60	89.93
MM22AC139	386406	6798404	426.2	5	-60	89.93
MM22AC140	386421.1	6798401	426.09	1	-60	89.93
MM22AC141	387642.9	6802398	387.35	70	-60	89.93
MM22AC142	387668.9	6802406	422.3	69	-60	89.93
MM22AC143	387710.3	6802405	439.66	63	-60	89.93
MM22AC144	387740.1	6802405	438.22	82	-60	89.93
MM22AC145	387777.1	6802402	447.94	77	-60	89.93
MM22AC146	387819.7	6802400	451.7	65	-60	89.93
MM22AC147	387850	6802396	446.98	64	-60	89.93
MM22AC148	387893.4	6802381	448.02	68	-60	89.93
MM22AC149	387929.2	6802394	444.92	69	-60	89.93
MM22AC150	387958.7	6802390	386.61	58	-60	89.93
MM22AC151	387985.4	6802384	446.61	50	-60	89.93
MM22AC152	388013.6	6802385	462.42	42	-60	89.93



Hole ID	Easting	Northing	RL	Depth	DIP	AZI
MM22AC153	388035.6	6802387	453.32	58	-60	89.93
MM22AC154	388065.8	6802395	446.19	46	-60	89.93
MM22AC155	388084.3	6802399	447.22	45	-60	89.93
MM22AC156	388110.3	6802400	450.24	40	-60	89.93
MM22AC157	388131.6	6802399	448.12	51	-60	89.93
MM22AC158	388167.6	6802395	439.88	70	-60	89.93
MM22AC159	388206.9	6802393	439.33	72	-60	89.93
MM22AC160	388243.8	6802404	444.21	61	-60	89.93
MM22AC161	388279.2	6802404	445.91	59	-60	89.93
MM22AC162	388312.4	6802390	446.3	70	-60	89.93
MM22AC163	388351.5	6802396	455.85	86	-60	89.93
MM22AC164	388394.4	6802394	455.84	76	-60	89.93
MM22AC165	388430.3	6802405	444.3	57	-60	89.93
MM22AC166	388432.5	6802405	445.4	68	-60	89.93
MM22AC167	387574	6801999	441.22	62	-60	89.93
MM22AC168	387610.1	6801987	444.23	44	-60	89.93
MM22AC169	387631.7	6801993	448.07	42	-60	89.93
MM22AC170	387651.8	6801998	447.78	47	-60	89.93
MM22AC171	387675.9	6802001	453.91	63	-60	89.93
MM22AC172	387702.4	6802006	452.83	51	-60	89.93
MM22AC173	387732.6	6802004	453.18	49	-60	89.93
MM22AC174	387762.7	6802007	447.02	43	-60	89.93
MM22AC175	387780.7	6802004	447.4	44	-60	89.93
MM22AC176	387820.1	6802005	443.06	43	-60	89.93
MM22AC177	387837.7	6802002	443.58	34	-60	89.93
MM22AC178	387853.6	6801996	441.78	35	-60	89.93
MM22AC179	387874	6802001	447.29	46	-60	89.93
MM22AC180	387896.5	6802004	446.54	49	-60	89.93
MM22AC181	387918.7	6802005	416.75	78	-60	89.93
MM22AC182	387942.8	6802006	432.48	75	-60	89.93
MM22AC183	388355.3	6802039	468.61	57	-60	89.93
MM22AC184	388376.7	6802034	448.38	60	-60	89.93
MM22AC185	388406.1	6802042	447.13	65	-60	89.93
MM22AC186	388434.4	6802036	448.11	68	-60	89.93
MM22AC187	388466.3	6802038	453.02	60	-60	89.93
MM22AC188	388495	6802049	453.66	48	-60	89.93
MM22AC189	388525.1	6802043	439.34	53	-60	89.93
MM22AC190	388551.9	6802038	439.77	96	-60	89.93
MM22AC191	388595.5	6802041	446.14	83	-60	89.93
MM22AC192	388633.4	6802054	446.94	65	-60	89.93
MM22AC193	388663	6802055	455.25	62	-60	89.93
MM22AC194	388697.4	6802059	448.34	64	-60	89.93
MM22AC195	388730.6	6802051	442.53	65	-60	89.93
MM22AC196	388767.4	6802052	440.65	70	-60	89.93



Hole ID	Easting	Northing	RL	Depth	DIP	AZI
MM22AC197	388801.6	6802050	443.91	73	-60	89.93
MM22AC198	388835.8	6802029	446.02	62	-60	89.93
MM22AC199	388868.5	6802031	440.97	61	-60	89.93
MM22AC200	387362.7	6801600	448.47	40	-60	89.93
MM22AC201	387382.7	6801602	446.39	40	-60	89.93
MM22AC202	387399.8	6801604	433.63	50	-60	89.93
MM22AC203	387422.7	6801612	432.78	37	-60	89.93
MM22AC204	387445.2	6801616	446.78	56	-60	89.93
MM22AC205	387471.8	6801617	445.56	42	-60	89.93
MM22AC206	387498.4	6801620	449.61	49	-60	89.93
MM22AC207	387521.6	6801623	449.17	43	-60	89.93
MM22AC208	387559.6	6801625	437.7	66	-60	89.93
MM22AC209	387590.8	6801630	440.94	62	-60	89.93
MM22AC210	387628.9	6801638	441.02	48	-60	89.93
MM22AC211	387648	6801635	444.34	34	-60	89.93
MM22AC212	387669.8	6801630	444.97	20	-60	89.93
MM22AC213	387689.5	6801636	443.62	33	-60	89.93
MM22AC214	387711.5	6801634	442.8	31	-60	89.93
MM22AC215	387724.9	6801622	443.41	31	-60	89.93
MM22AC216	387741.2	6801621	442.76	30	-60	89.93
MM22AC217	387761.3	6801618	435.33	34	-60	89.93
MM22AC218	387777.5	6801613	434.82	34	-60	89.93
MM22AC219	387796.7	6801613	428.96	35	-60	89.93
MM22AC220	387816.5	6801608	428.56	41	-60	89.93
MM22AC221	387836.1	6801607	433.14	52	-60	89.93
MM22AC222	387865.4	6801604	432.14	39	-60	89.93
MM22AC223	387885.4	6801602	437	56	-60	89.93
MM22AC224	387914.4	6801599	441.78	54	-60	89.93
MM22AC225	387940.6	6801598	443.8	39	-60	89.93
MM22AC226	387962.6	6801594	443.73	24	-60	89.93
MM22AC227	388174	6801597	429.15	23	-60	89.93
MM22AC228	388192.9	6801601	425.46	23	-60	89.93
MM22AC229	388207.3	6801595	436.99	30	-60	89.93
MM22AC230	388222.6	6801599	437.18	41	-60	89.93
MM22AC231	388245.5	6801601	440.38	49	-60	89.93
MM22AC232	388273.6	6801593	450.1	65	-60	89.93
MM22AC233	388296.8	6801591	440.2	65	-60	89.93

-ENDS-

Authorised for release by the Board of Directors



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ABOUT KIN MINING NL

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Kin Mining NL (ASX: KIN) is a West Australian based gold development and exploration company. Kin's key focus is its 100% owned Cardinia Gold Project (CGP) located in the highly prospective North-Eastern Goldfields region of Western Australia. The CGP has a 1.41Moz gold Mineral Resource (see Table A1) defined in both oxide and deeper primary mineralisation with considerable potential to grow this resource with further drilling.

Kin's exploration effort is the systematic program of exploration across the Cardinia Mining Centre that seeks to advance a number of targets in parallel while developing a pipeline of exploration targets for ongoing Mineral Resource expansion.

Table A1. Mineral Resource Estimate Table September 2022¹

	Cardinia Gold Project: Open Pit Mineral Resources: September 2022														
	Resource	Lower Cut	Measu	ured Reso	ources	Indica	ated Reso	urces	Infer	red Resou	urces	Tot	al Resour	ces	Data
Project Area	Gold Price	off (g/t	Tonnes	Au	Au	Announced									
	(AUD)	Au)	(Kt)	(g/t Au)	(k Oz)										
Mertondale	Mertondale														
Mertons Reward	\$ 2,600	0.4				893	2.1	62	1,987	0.6	41	2,879	1.1	103	26-Nov-20
Mertondale 3-4	\$ 2,600	0.4				1,345	1.8	80	1,048	1.0	32	2,393	1.5	112	26-Nov-20
Tonto	\$ 2,600	0.4				1,850	1.1	68	1,145	1.2	45	2,996	1.2	113	26-Nov-20
Mertondale 5	\$ 2,600	0.4				536	1.6	27	892	1.2	34	1,428	1.3	62	26-Nov-20
Eclipse	\$ 2,600	0.4				-	0.0	0	765	1.0	24	765	1.0	24	26-Nov-20
Quicksilver	\$ 2,600	0.4				-	0.0	0	1,202	1.1	42	1,202	1.1	42	26-Nov-20
Subtotal Mertondale						4,625	1.6	237	7,039	1.0	219	11,664	1.2	456	
Cardinia															
Bruno/Lewis	\$ 2,600	0.4	769	1.2	31	7,699	1.0	257	3,594	0.9	100	12,063	1.0	388	17-May-21
Kyte	\$ 2,600	0.4				340	1.5	17	114	0.9	3	453	1.4	20	26-Nov-20
Helens	\$ 2,600	0.4				738	2.1	50	337	1.9	21	1,075	2.1	71	26-Nov-20
Fiona	\$ 2,600	0.4				588	1.3	25	215	1.2	8	803	1.3	34	26-Nov-20
Rangoon	\$ 2,600	0.4				1,121	1.1	40	1,153	1.4	53	2,274	1.3	94	26-Sep-22
Hobby	\$ 2,600	0.4				-	0.0	0	582	1.3	23	582	1.3	23	17-May-21
Cardinia Hill	\$ 2,600	0.4				533	2.2	38	1,702	1.1	62	2,235	1.4	100	22-Sep-21
Subtotal Cardinia			769	1.2	31	11,020	1.2	428	7,696	1.1	271	19,485	1.2	729	
Raeside															
Michaelangelo	\$ 2,600	0.4				1,163	2.0	74	449	2.1	31	1,612	2.0	105	26-Nov-20
Leonardo	\$ 2,600	0.4				404	2.4	31	212	1.9	13	615	2.2	44	26-Nov-20
Forgotten Four	\$ 2,600	0.4				111	2.1	7	148	2.1	10	259	2.1	17	26-Nov-20
Krang	\$ 2,600	0.4				383	1.6	20	57	1.8	3	440	1.7	23	26-Nov-20
Subtotal Raeside						2,059	2.0	133	866	2.0	57	2,925	2.0	189	
Open Pit TOTAL			769	1.2	31	17,704	1.4	797	15,601	1.1	547	34,074	1.3	1,374	

 Table 1: Cardinia Gold project Open Pit Mineral Resource estimate. Mineral Resources estimated by Jamie Logan, and reported in accordance with JORC 2012 using a 0.4g/t Au cut-off within AUD2,600 optimisation shells. Note * Cardinia Hill, Hobby and Bruno-Lewis Mineral Resource Estimates completed by Cube Consulting, and also reported in accordance with JORC 2012 using a 0.4g/t Au cut-off within AUD2,600 optimisation shells.



	Cardinia Gold Project: Underground Mineral Resources: September 2022													
	Lower Cut	Meas	ured Reso	ources	Indica	ated Reso	urces	Infer	red Resou	irces	To	tal Resou	rces	Date
Project Area	off (g/t	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au		Announced
	Au)	(Kt)	(g/t Au)	(k Oz)	, and a set									
Mertondale														
Mertons Reward	2.0				3.7	2.6	0.3	6.8	2.8	0.6	10.5	2.7	0.9	26-Sep-22
Mertondale 3-4	2.0				2.2	2.2	0.2				2.7	2.2	0.2	26-Sep-22
Quicksilver	2.0				1.5	2.2	0.1	1.9	2.3	0.1	3.5	2.2	0.2	26-Sep-22
Subtotal Mertondale					7.4	2.4	0.6	8.8	2.7	0.8	16.7	2.6	1.4	
Cardinia														
Bruno/Lewis	2.0	2.2	3.0	0.2	3.7	2.7	0.3	14.7	2.7	1.3	18.4	3.0	1.8	26-Sep-22
Helens	2.0				1.8	2.7	0.2	44.9	2.8	4.1	46.6	2.8	4.2	26-Sep-22
Fiona	2.0							10.0	2.4	0.8	10.0	2.4	0.8	26-Sep-22
Rangoon	2.0							10.6	2.8	1.0	10.9	2.8	1.0	26-Sep-22
Cardinia Hill	2.0							126.0	2.6	10.7	126.0	2.6	10.7	22-Sep-21
Subtotal Cardinia		2.2	3.0	0.2	5.5	2.7	0.5	206.1	2.7	17.8	212.0	2.7	18.5	
Raeside														
Michaelangelo	2.0				5.2	2.4	0.4	56.8	2.4	4.3	62.0	2.4	4.7	26-Sep-22
Leonardo	2.0				2.2	2.5	0.2	27.0	2.6	2.3	29.2	2.6	2.5	26-Sep-22
Forgotten Four	2.0				24.9	2.7	2.2				24.9	2.7	2.2	26-Sep-22
Krang	2.0				31.3	2.5	2.5	9.2	2.6	0.8	40.5	2.5	3.3	26-Sep-22
Subtotal Raeside					63.5	2.6	5.3	92.9	2.5	7.4	156.5	2.5	12.6	
Underground TOTAL		2	3.0	0.2	76	2.6	6.3	308	2.6	25.9	385	2.6	32.5	

 Table 2: Cardinia Gold Project Underground Mineral Resource estimate. Mineral Resources reported in accordance with JORC 2012 using a 2.0g/t Au cut-off grade outside AUD2,600 optimisation shells.

¹The company confirms that it is not aware of any new information or data that materially affects the information included in the ASX Announcement of 23 September 2022 "Cardinia Gold Project Mineral Resource Hits 1.4Moz.....", and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

COMPETENT PERSON'S STATEMENT

The information contained in this report relating to exploration results relates to information compiled or reviewed by Leah Moore. Ms Moore is a member of the Australian Institute of Geoscientists and is a full-time employee of the company. Ms Moore has sufficient experience of relevance to the styles of mineralisation and the types of deposit under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Ms Moore consents to the inclusion in this report of the matters based on information in the form and context in which it appears.



Appendix A

JORC 2012 TABLE 1 REPORT

Cardinia Gold Project - Section 1 & 2

Section 1 Sampling Techniques and Data

	JORC 2012 TABLE 1 REPORT									
	Cardinia Gold Project - Section 1 & 2									
Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)										
Criteria	• JORC Code explanation	Commentary								
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 30a charge for fire assay'). In other 	Diamond Historic (pre-2014) diamond core (DD) sampling utilised half core or quarter core sample intervals; typically varying from 0.3m to 1.4m in length. 1m sample intervals were favoured and sample boundaries principally coincided with geological contacts. Recent (2014-2018) diamond core (DD) samples, either HQ3 or NQ2 in size diameter, were either cut in half longitudinally or further cut into quarters, using a powered diamond core drop saw centered over a cradle holding core in place. Core sample intervals varied from 0.2 to 1.25m in length but were predominantly aligned to 1m intervals or with sample boundaries which respected geological contacts. 2019 diamond core samples, either HQ3 or NQ2 in size diameter, were either cut in half longitudinally or a third longitudinally, using an automated Corewise core saw Core was placed in boats, holding core in place. Core sample intervals varied from 0.3 to 1.3m in length but were predominantly aligned to 1m intervals or with sample boundaries which respected geological contacts. <u>RC</u> Historic reverse circulation (RC) drill samples were collected over 1m downhole intervals beneath a cyclone and typically riffle split to obtain a sub-sample (typically 3-4kg). 1m sub-samples were typically collected in pre-numbered calico bags and 1m sample rejects were commonly stored at the drill site. 3m or 4m composited interval samples were forten collected by using a scoop (dry samples) or spear (wet samples). If composite samples returned anomalous results once assayed, the single metre sub-samples of the anomalous composite intervals were retrieved and submitted for individual gold analysis. Recent reverse circulation (RC) drill samples were collected by passing through a cyclone, a collection box, and riffle or cone splitter. All RC sub-samples were collected by								



Criteria	JORC Code explanation	Commentary
\gg	cases more explanation may be required, such as where there is coarse	using a scoop (dry samples) or spear (wet samples). If composite samples returned anomalous results once assayed, the single metre sub-samples of the anomalous composite intervals were retrieved and submitted for individual gold analysis.
	gold that has inherent sampling	Assay Methodology
	problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Historic sample analysis typically included a number of commercial laboratories with preparation as per the following method, oven drying (90-110°C), crushing (<-2mm to <-6mm), pulverizing (<-75μm to <-105μm), and riffle split to obtain a 30, 40, or 50gram catchweight for gold analysis. Fire Assay fusion, with AAS finish was the common method of analysis however, on occasion, initial assaying may have been carried out via Aqua Regia digest and AAS/ICP finish. Anomalous samples were subsequently re-assayed by Fire Assay fusion and AAS/ICP finish.
		Recent sample analysis typically included oven drying (105-110°C), crushing (<-6mm & <-2mm), pulverising (P90% <-75μm) and sample splitting to a representative 50gram catchweight sample for gold only analysis using Fire Assay fusion with AAS finish.
		Multi element analysis was also conducted on approximately 10% of samples, predominantly through ore zones. This was conducted via a 4-acid digest with ICP-MS/OES determination for a 48 element suite.
		Rock Chips
		All rock chip samples are taken using a pick. The samples are taken from outcrop where possible. Samples are also taken from in situ float material or waste rock around historic workings, where outcrop is not present. Care is taken to ensure all samples are representative of the medium being sampled. For example, if a 1m sediment unit is being sampled, a channel sample will be taken across the entire unit.
		All recent drilling, sample collection and sample handling procedures were conducted and/or supervised by KIN geology personnel to high level industry standards. QA/QC procedures were implemented during each drilling program to industry standards.
Dritling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast,	Drilling carried out since 1986 and up to the most recent drill programs completed by KIN Mining was obtained from a combination of reverse circulation (RC), diamond core (DD), air core (AC), and rotary air blast (RAB) drilling.
715	auger, Bangka, sonic, etc) and details	Data prior to 1986 is limited due to lack of exploration.
	(eg core diameter, triple or standard	Diamond
	tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	Historic DD was carried out using industry standard 'Q' wireline techniques, with the core retrieved from the inner tubes and placed in core trays. Core sizes include NQ/NQ3 (Ø 45-48mm) and HQ/HQ3 (Ø 61-64mm). At the end of each core run, the driller placed core blocks in the tray, marked with hole number and depth. Core recovery was usually measured for each core run and recorded onto the geologist's drill logs.
		2017 – 2018 DD was carried out by contractor Orbit Drilling Pty Ltd ("Orbit Drilling") with a Mitsubishi truck-mounted Hydco 1200H 8x4 drill rig, using industry standard 'Q' wireline techniques. 2019 DD was carried out y Topdrill Pty Ltd. With a Sandvick DE840 mounted on a Mercedes Benz 4144 Actros 8x8 Carrier. The rig is fitted with Sandvik DA555 hands free diamond drilling rod handler and Austex hands free hydraulic breakout.
		Drill core is retrieved from the inner tubes and placed in plastic core trays and each core run depth recorded onto core marker blocks and placed at the end of each run in the tray. Core sizes include NQ2 (Ø 47mm) and HQ3 (Ø 64mm).
		Recent DD core recovery and orientation was obtained for each core run where possible, using electronic core orientation tools



Criteria	JORC Code explanation	Commentary
\searrow		(e.g. Reflex EZ-ACT) and the 'bottom of core' marked accordingly.
		2017 -18 drilling was measured at regular downhole intervals, typically at 10-15m from surface and then every 30m to bottom of hole, using electronic multi-shot downhole survey tools (i.e. Reflex EZ-TRAC or Camteq Proshot). Independent programs of downhole deviation surveying were also carried out to validate previous surveys. These programs utilised either electronic continuous logging survey tool (AusLog A698 deviation tool) or gyroscopic survey equipment.
\bigcirc		2019 DD was surveyed at regular downhole intervals (every 30m with an additional end-of-hole survey) using electronic gyroscopic survey equipment.
<u> </u>		<u>RC</u>
		Historic RC drilling used conventional reverse circulation drilling techniques, utilising a cross-over sub, or face-sampling hammers with bit shrouds. Drill bit sizes typically ranged between 110-140mm.
		2017-18 RC drilling was carried out by Orbit Drilling's truck-mounted Hydco 350RC 8x8 Actross drill rigs with 350psi/1250cfm air compressor, with auxiliary and booster air compressors (when required). Drilling utilised mostly downhole face-sampling hammer bits (Ø 140mm), with occasional use of blade bits for highly oxidized and soft formations. The majority of drilling retrieved dry samples, with the occasional use of the auxiliary and booster air compressors beneath the water table, to
		maintain dry sample return as much as possible. RC drillhole deviations were surveyed downhole, typically carried out inside a non-magnetic stainless steel (s/s) rod located above the hammer, using electronic multi-shot downhole tool (e.g. Reflex EZ-TRAC). In some instances, drillholes were surveyed later in open hole. Independent programs of downhole deviation surveying were also carried out to validate previous surveys. These programs utilised either electronic continuous logging survey tool
$\overline{\bigcirc}$		(AusLog A698 deviation tool) or gyroscopic survey equipment.
S]		2019 RC drilling was carried out by Swick Mining Services truck-mounted Swick version Schramm 685 RC Drill Rig (Rod Handler & Rotary Cone Splitter) with support air truck and dust suppression equipment. Drilling utilised downhole face-sampling hammer bits (Ø 140mm). The majority of drilling retrieved dry samples, with the occasional use of the auxiliary and booster air compressors beneath the water table, to maintain dry sample return as much as possible.
Ð		2019 RC was surveyed at regular downhole intervals (every 30m with an additional end-of-hole survey) using electronic gyroscopic survey equipment.
\square		<u>AC/RAB</u>
		Historic AC drilling was conducted utilising suitable rigs with appropriate compressors (eg 250psi/600cfm). AC holes were drilled using 'blade' or 'wing' bits, until the bit was unable to penetrate ('blade refusal'), often near the fresh rock interface. Hammer bits were used only when it was deemed necessary to penetrate further into the fresh rock profile or through notable "hard boundaries" in the regolith profile. No downhole surveying is noted to have been undertaken on AC drillholes.
		Historic RAB drilling was carried out using small air compressors (eg 250psi/600cfm) and drill rods fitted with a percussion hammer or blade bit, with the sample return collected at the drillhole collar using a stuffing box and cyclone collection techniques. Drillhole sizes generally range between 75-110mm. No downhole surveying is noted to have been undertaken on RAB drillholes.
Drill sample recovery	Method of recording and assessing core	Diamond
	and chip sample recoveries and results	Historic core recovery was recorded in drill logs for most of the diamond drilling programs since 1985. A review of historical

() () []



Criteria	JORC Code explanation	Commentary
	assessed.	reports indicates that core recovery was generally good (>80%) with lesser recoveries recorded in zones of broken ground and/or areas of mineralisation. Overall recoveries are considered acceptable for resource estimation.
onal use only	Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	Recent core recovery data was recorded for each run by measuring total length of core retrieved against the downhole interval actually drilled and stored in the database. KIN representatives continuously monitor core recovery and core presentation quality as drilling is conducted and issues or discrepancies are rectified promptly to maintain industry best standards. Core recoveries averaged >95%, even when difficult ground conditions were being encountered. When poor ground conditions were anticipated, a triple tube drilling configuration was utilised to maximize core recovery <u>RC/AC/RAB</u> Historic sample recovery information for RC, AC, and RAB drilling is limited. Recent RC drilling samples are preserved as best as possible during the drilling process. At the end of each 1 metre downhole interval, the driller stops advancing, retracts from the bottom of hole, and waits for the sample to clear from the bottom of the hole through to the sample collector box fitted beneath the cyclone. The sample is then released from the sample collector box and passed through either a 3-tiered riffle splitter or cone splitter fitted beneath the sample box. Drilling prior to 2018 utilised riffle split collection whereas sample collection via a cone splitter was conducted for drilling undertaken since March 2018; cyclone cleaning processes remained the same. Sample reject is collected in plastic bags, and a 3-4kg sub-sample is collected in pre-marked calico bags for analysis. Once the samples have been collected, the cyclone, sample collector box and riffle splitter are flushed with compressed air, and the splitter cleaned by the off-sider using a compressed air hose at both the end of each 6 metre drilling program to maximise drill sample recovery and to maintain a high level of representivity of the material being drilled.
		RC drill sample recoveries are not recorded in the database however a review by Carras Mining Pty Ltd (CM) in 2017, of RC drill samples stored in the field, and ongoing observations of RC drill rigs in operation by KIN representatives, suggests that RC sample recoveries were mostly consistent and typically very good (>90%).
		Collected samples are deemed reliable and representative of drilled material and no material discrepancy, that would impede a mineral resource estimate, exists between collected RC primary and sub-samples.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Logging data coded in the database, prior to 2014, illustrates at least four different lithological code systems, a legacy of numerous past operators (Hunter, MPI, Metana, CIM, MEGM, Pacmin, SOG, and Navigator). Correlation between codes is difficult to establish however, based on historical reports, drill hole logging procedures appear consistent with normal industry practices of the time. KIN has attempted to validate historical logging data and to standardize the logging code system by incorporating the SOG and Navigator logging codes into one. <u>Diamond</u>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Historical diamond core logging was recorded into drill logs for most of the diamond drilling programs since 1985. A review of historical reports indicates that logging noted core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features. Core was then marked up for cutting and sampling.

Navigator's procedure for logging of diamond core included firstly marking of the bottom of the core (for successful core



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	The total length and percentage of the relevant intersections logged.	orientations), then recording of core recovery, fractures per metre and RQD, lithology, alteration, texture, mineralisation, weathering, and other features. Core was then marked up for cutting and sampling. Navigator DD logging is predominantly to geological contacts.
		Navigator logging information was entered directly into hand held digital data loggers and transferred directly to the database, after validation, to minimize data entry errors.
\bigcirc		Drill core photographs, for drilling prior to 2014, are available only for diamond drillholes completed by Navigator.
		KIN DD logging is carried out on site once geology personnel retrieve core trays from the drill rig site. Core is collected from the rig daily. The entire length of every hole is logged. Recorded data includes lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded. KIN DD logging is to geological contacts.
		Qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes percentages of identified minerals, veining, and structural measurements (using a kenometer tool). In addition, logging of diamond drilling includes geotechnical data, RQD and core recoveries.
		Drill core is photographed at the Cardinia site, prior to any cutting and/or sampling, and then stored in this location. Photographs are available for every diamond drillhole completed by KIN and a selection of various RC chip trays. SG data is also collect
		All information collected is entered directly into laptop computers or tablets, validated in the field, and then transferred to the database.
\bigcirc		The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies, and metallurgical studies.
		Diamond drillholes completed for geotechnical purposes were independently logged for structural data by geotechnical consultants.
(D)		RC/AC/RAB
Õ		Historical RC, AC, and RAB logging (including Navigator) was entered on a metre by metre basis. Logging consisted of lithology, alteration, texture, mineralisation, weathering, and other features
		For the majority of historical drilling (pre-2004) the entire length of each drillhole have been logged from surface to 'end of hole'.
\bigcirc		KIN RC logging of was carried out in the field and logging has predominantly been undertaken on a metre by metre basis. KIN logging is inclusive of the entire length of each RC drillhole from surface to 'end of hole'.
		Recorded data includes lithology, alteration, structure, texture, mineralisation, sulphide content, weathering and other features. Drillhole collar coordinates, azimuth, dip, depth and sampling intervals are also recorded.
		Qualitative logging includes classification and description of lithology, weathering, oxidation, colour, texture and grain size. Quantitative logging includes identification and percentages of mineralogy, sulphides, mineralisation, and veining.
		Photographs are available for a selection of recent KIN RC drillholes.



Criteria	• JORC Code explanation	Commentary
\gg		All information collected is entered directly into laptop computers or tablets, validated in the field, and then transferred to the database.
		The level of logging detail is considered appropriate for exploration and to support appropriate mineral resource estimation, mining studies, and metallurgical studies.
		Rock Chips
		All rock chip samples are inspected by the sampling geologist and logged for lithology, alteration, mineralisation, veining, and structural fabric. This is a combination of qualitative and quantitative data.
Sub sampling techniques and	If core, whether cut or sawn and	Diamond
ample preparation	whether quarter, half or all core taken.	Historic diamond drill core (NQ/NQ3 or HQ/HQ3) samples collected for analysis were longitudinally cut in half, and occasionally
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	in quarters for the larger (HQ/HQ3) diameter holes, using a powered diamond core drop saw centered over a cradle holding the core in place. Half core or quarter core sample intervals typically varied from 0.3m to 1.4m in length. 1m sample intervals were favoured and are the most common method of sampling, however sample boundaries do principally coincide with geological contacts. The remaining core was retained in core trays.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	2017-18 diamond drill core samples collected for analysis were longitudinally cut in half, with some samples cut into quarters, using a powered diamond core drop saw blade centered over a cradle holding the core in place. Core sample intervals varied from 0.2 to 1.25m in length but were predominantly aligned to 1m intervals or with sample boundaries which respected geological contacts. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference.
	Quality control procedures adopted for	All KIN diamond drill core is securely stored at the KIN Leonora Yard.
\bigcirc	all sub-sampling stages to maximise representivity of samples.	2019 diamond drill core samples collected for analysis were longitudinally cut in half, with some samples cut into thirds, using an automated Corewise powered diamond core saw with the blade centered over a boat holding the core in place. Core sample
	Measures taken to ensure that the sampling is representative of the in situ	respected geological contacts. The remaining core was retained in their respective core trays and stored in KIN's yard for future reference. All KIN diamond drill core is securely stored at the Cardinia coreyard.
	results for field duplicate/second-half sampling.	All sub-sampling techniques and sample preparation procedures conducted and/or supervised by KIN geology personnel are to standard industry practice. Sub-sampling and sample preparation techniques used are considered to maximise representivity of drilled material. QA/QC procedures implemented during each drilling program are to industry standard practice.
	Whether sample sizes are appropriate to the grain size of the material being	Samples sizes are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia.
\bigcirc	sampled.	<u>RC/AC/RAB</u>
		Historic sampling was predominantly conducted by collecting 1m samples from beneath a cyclone and either retaining these primary samples or passing through a riffle splitter to obtain a 3-4kg sub-sample for analysis. First pass sampling often involved collecting composite samples by using a scoop (dry samples) or spear/tube (wet samples) to obtain 3m or 4m composited intervals, with the single metre split samples being retained at the drill site as spoil or in sample bags. If composite sample assays returned anomalous results, the single metre samples for this composite were retrieved and submitted for analysis. RC/AC/RAB sampling procedures are believed to be consistent with the normal industry practices at the time.
		Samples obtained from conventional RC drilling techniques with cross-over subs often suffered from down hole contamination,



Criteria	JORC Code explanation	Commentary
		especially beneath the water table. Samples obtained from RC drilling techniques using the face sampling hammer suffered less from down hole contamination and were more likely to be kept dry beneath the water table, particularly if auxiliary and booster air compressors were used. These samples are considered to be representative.
		The vast majority of Reverse Circulation (RC) drill samples were collected at 1m downhole intervals from beneath a cyclone and then riffle split to obtain a sub-sample (typically 3-4kg). After splitting, 1m sub-samples were typically collected in pre- numbered calico bags, and the 1m sample rejects were commonly stored at the drill site in marked plastic bags, for future reference. First pass sampling often involved collecting composite samples by using a scoop (dry samples) or spear/tube (wet samples) to obtain 3m or 4m composited intervals, with the single metre split sub-samples being retained at the drill site. If the composite sample assays returned anomalous results, single metre sub-samples for the anomalous composite intervals were retrieved and submitted for analysis.
		Navigator included standards, fields duplicate splits (since 2009), and blanks within each drill sample batch, at a ratio of 1 for every 20 samples, with the number of standards being inserted at a ratio of 1 for every 50 samples.
		Recent RC sub-samples were collected over 1 metre downhole intervals and retained in pre-marked calico bags, after passing through a cyclone and either a riffle splitter, prior to March 2018, or cone splitter, after March 2018. The majority of RC sub-samples consistently averaged 3-4kg. Sample reject from the riffle splitter were retained and stored in plastic bags, and located near each drillhole site. When drilling beneath the water table, the majority of sample returns were kept dry by the use of the auxiliary and booster air compressors. Very few wet samples were collected through the splitter, and the small number of wet or damp samples is not considered material for resource estimation work.
		KIN RC drill programs utilise field duplicates, at regular intervals at a ratio of 1:25, and assay results indicate that there is reasonable analytical repeatability; considering the presence of nuggety gold.
		All sub-sampling techniques and sample preparation procedures conducted and/or supervised by KIN geology personnel are to standard industry practice. Sub-sampling and sample preparation techniques used are considered to maximise representivity of drilled material. QA/QC procedures implemented during each drilling program are to industry standard practice.
Ð		Samples sizes are considered appropriate for this style of gold mineralisation and as an industry accepted method for evaluation of gold deposits in the Eastern Goldfields of Western Australia.
O_{\perp}		No duplicates are taken for rock chip sampling. Sample sizes are approximately 3kg, this is considered appropriate for the material being sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the	Numerous assay laboratories and various sample preparation and assay techniques have been used since 1981. Historical reporting and descriptions of laboratory sample preparation, assaying procedures, and quality control protocols for the samples from the various drilling programs are variable in their descriptions and completeness.
	technique is considered partial or total.	Assay data obtained prior to 2001 is incomplete and the nature of results could not be accurately quantified due to the combinations of various laboratories and analytical methodologies utilised.
	handheld XRF instruments, etc, the	Since 1993, the majority of samples submitted to the various laboratories were typically prepared for analysis firstly by oven drying, crushing and pulverizing to a nominal 85% passing 75μm.
	analysis including instrument make and	In the initial exploration stages, Aqua Regia digest with AAS/ICP finish, was generally used as a first pass detection method, with follow up analysis by Fire Assay fusion and AAS/ICP finish. This was a common practice at the time. Mineralised intervals were



Criteria	• JORC Code explanation	Commentary
	model, reading times, calibrations	subsequently Fire Assayed (using 30, 40 or 50 gram catchweights) with AAS/ICP finish.
	factors applied and their derivation, etc. Nature of quality control procedures	Approximately 15-20% of the sampled AC holes may have been subject to Aqua Regia digest methods only, however AC samples were predominantly within the oxide profile, where aqua regia results would not be significantly different to results from fire assay methods.
	adopted (eg standards, blanks, duplicates, external laboratory checks)	Limited information is available regarding check assays for drilling programs prior to 2004.
	and whether acceptable levels of accuracy (ie lack of bias) and precision have been established	During 2004-2014, Navigator utilised six different commercial laboratories during their drilling programs, however Kalgoorlie Assay Laboratories conducted the majority of assaying for diamond, RC, and AC samples using Fire Assay fusion on 40 gram catchweights with AAS/ICP finish.
9 S		Since 2009 Navigator regularly included field duplicates and Certified Reference Material (CRM), standards and blanks, with their sample batch submissions to laboratories at average ratio of 1 in 20 samples. Sample assay repeatability and blank and CRM standard assay results were typically within acceptable limits.
		KIN sample analysis from 2014 to 2018 was conducted by SGS Australia Pty Ltd's ("SGS") Kalgoorlie and Perth laboratories. Samp preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75µm) and riffle split to obtain a 50 gram catchweight. Analysis for gold only was carried out by Fire Assay fusion technique with AAS finish (SGS Lab Code FAA505).
U U U		• KIN regularly insert blanks and CRM standards in each sample batch at a ratio of 1:50. This allows for at least one blank ar one CRM standard to be included in each of the laboratory's fire assay batch of 50 samples. Field duplicates are typical collected at a ratio of 1:50 samples and test sample assay repeatability. Blanks and CRM standards assay result performance is predominantly within acceptable limits for this style of gold mineralisation.
\bigcirc		• KIN requests laboratory pulp grind and crush checks at a ratio of 1:50 or less since May 2018 in order to better qualify samp preparation and evaluate laboratory performance. Samples have generally illustrated appropriate crush and grind size percentages since the addition of this component to the sample analysis procedure.
		 SGS include laboratory blanks and CRM standards as part of their internal QA/QC for sample preparation and analysis, as we as regular assay repeats. Sample pulp assay repeatability, and internal blank and CRM standards assay results are typical within acceptable limits.
		From late 2018 samples have been analysed by Intertek Genalysis, with sample preparation either at their Kalgoorlie prep laboratory or the Perth Laboratory located in Maddington. Sample preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75µm) and split to obtain a 50 gram catchweight. Analysis for gold only was carried out by Fire Assay fusion technique with AAS finish.
		• KIN regularly insert blanks and CRM standards in each sample batch at a ratio of 1:25. Kin accepts that this ratio of QAQC industry standard. Field duplicates are typically collected at a ratio of 1:25 samples and test sample assay repeatability. Blan and CRM standards assay result performance is predominantly within acceptable limits for this style of gold mineralisation.
		• KIN requests laboratory pulp grind and crush checks at a ratio of 1:50 or less since May 2018 in order to better qualify samp

v checks)	Limited information is available regarding check assays for drilling programs prior to 2004.		
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	• SGS include laboratory blanks and CRM standards as part of their internal QA/QC for sample preparation and analysis, as well as regular assay repeats. Sample pulp assay repeatability, and internal blank and CRM standards assay results are typically within acceptable limits.		
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	• KIN regularly insert blanks and CRM standards in each sample batch at a ratio of 1:25. Kin accepts that this ratio of QAQC is industry standard. Field duplicates are typically collected at a ratio of 1:25 samples and test sample assay repeatability. Blanks and CRM standards assay result performance is predominantly within acceptable limits for this style of gold mineralisation.		
	 KIN requests laboratory pulp grind and crush checks at a ratio of 1:50 or less since May 2018 in order to better qualify sample preparation and evaluate laboratory performance. Samples have generally illustrated appropriate crush and grind size 		

- preparation and evaluate laboratory performance. Samples have generally percentages since the addition of this component to the sample analysis procedure.
- Genalysis include laboratory blanks and CRM standards as part of their internal QA/QC for sample preparation and analysis,



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\gg		as well as regular assay repeats. Sample pulp assay repeatability, and internal blank and CRM standards assay results are typically within acceptable limits.
		The nature and quality of the assaying and laboratory procedures used are considered to be satisfactory and appropriate for use in mineral resource estimations.
		Fire Assay fusion is considered to be a total extraction technique. The majority of assay data used for the mineral resource estimations were obtained by the Fire Assay technique with AAS or ICP finish. AAS and ICP methods of detection are both considered to be suitable and appropriate methods of detection for this style of mineralisation
D		Aqua Regia is considered a partial extraction technique, where gold encapsulated in refractory sulphides or some silicate minerals may not be fully dissolved, resulting in partial reporting of gold content.
		No other analysis techniques have been used to determine gold assays.
		Ongoing QAQC monitoring program identified one particular CRM returning spurious results. Further analysis demonstrated that the standard was compromised and was subsequently removed and destroyed. A replacement CRM of similar grade was substituted into the QAQC program.
		KIN continues to both develop and reinforce best practice QAQC methods for all drilling operations and the treatment and analysis of samples. Regular laboratory site visits and audits have been introduced since April 2018 and will be conducted on a quarterly basis. This measure will ensure that all aspects of KIN QAQC practices are adhered to and align with industry best practice.
		All rock chip samples have been submitted to Intertek Genalysis (Perth) for analysis by 50g Fire assay, with multi-element analysis via a 4-acid digest for a 48-element suite. Sample preparation included oven drying (105°C), crushing (<6mm), pulverising (P90% passing 75µm). Blanks and standards are inserted by the lab at a minimum rate of 1 in 50. Lab repeats are performed for samples with particularly high gold values. Due to the nature and intended uses of this data, this QAQC procedure is intentionally less rigorous than that used for drilling samples.
Verification of sampling and assaying	The verification of significant intersections by either independent or	Verification of sampling, assay techniques, and results prior to 2004 is limited due to the legacy of the involvement of various companies, personnel, drilling equipment, sampling protocols and analytical techniques at different laboratories.
<u>)</u>	alternative company personnel. The use of twinned holes. Documentation of primary data, data	During 2009, a selection of significant intersections had been verified by Navigator's company geologists and an independent consultant McDonald Speijers ("MS"). MS were able to validate 92% of the assay records in 50 randomly selected check holes, and only 6 assay discrepancies were detected (< 0.2%), only 2 of those were considered significant. MS concluded that the very small proportion of discrepancies indicated that the assay database was probably reliable at that time.
	entry procedures, data verification, data storage (physical and electronic) protocols.	In 2009, Runge Ltd ("Runge") completed a mineral resource estimate report for the Cardinia Project area, including the Helens, Rangoon, Kyte and Bruno_Lewis deposits. Runge's database verification included basic visual validation in Surpac and field verification of drillhole positions in February 2009. Runge did not report any significant issues with the database.
	Discuss any adjustment to assay data.	Since 2014, significant drill intersections have been verified by KIN company geologists during the course of the drilling programs.
		During 2017, Carras Mining Pty Ltd ("CM") carried out an independent data verification. 38,098 assay records for KIN 2014-2017 drilling programs were verified by comparing laboratory assay reports against the database. 6 errors were found, which are not considered material and which represented only 0.03% of all database records verified for KIN 2014-2017 drilling programs



Criteria	JORC Code explanation	Commentary
		No adjustments, averaging or calibrations are made to any of the assay data recorded in the database. QA/QC protocol is considered industry standard with standard reference material submitted on a routine basis.
		Recent (2014-2018) RC and diamond drilling by KIN included twinning of some historical holes within the Helens and Rangoon resource areas. There is no significant material difference between historical drilling information and KIN drilling information.
\bigcirc		Areas without twinned holes illustrate a drill density that is considered sufficient to enable comparison with surrounding historic information. No material difference of a negative nature exists between historical drilling information and KIN drilling information.
		KIN diamond holes drilled for metallurgical and geotechnical test work illustrate assay results with adequate correlation to both nearby historical and recent drilling results.
\bigcirc		No adjustment or calibration has been made to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole	Several local grids were established and used by previous project owners. During the 1990s, SOG transformed the surface survey data firstly to AMG and subsequently to MGA (GDA94 zone51).
(T)	surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control	Navigator recognised errors in the collar co-ordinates resulting from transformations and as a result, a significant number of holes were resurveyed and a new MGA grid transformation generated. Historical collars have been validated against the original local grid co-ordinates and independently transformed to MGA co-ordinates and checked against the database. Navigator's MGA co-ordinates were checked against the surveyor's reports.
Ц О		Drilling was carried out using these various local grids. Since 2004, All Navigators drill hole collars were surveyed on completion of drilling in the Australian MGA94, Zone51 grid using RTK-DGPS equipment by licensed surveyors, with more than 80% of the pickups carried out by independent contractors.
Ś		Almost all the diamond and at least 70% of Navigator RC holes were downhole surveyed. Pre-Navigator, single shot survey cameras were used, with typical survey intervals of 30-40 metres.
		Recent KIN drill hole collars are located and recorded in the field by a contract surveyor using RTK-DGPS (with a horizontal and vertical accuracy of ±50mm). Location data was collected in the GDA94 Zone51 grid coordinate system.
		Downhole surveying was predominantly carried out by the drilling contractor which, prior to late 2018, was Orbit Drilling Pty Ltd. This was conducted using a downhole electronic single shot magnetic tool. (Relfex EZ-shot), which is industry standard practice. This is considered sufficiently accurate except where significant magnetic interference is encountered. The magnetic field is recorded on every survey and flagged when likely to interfere with the reading. These surveys are downgraded in the database. In addition, if the downhole survey tool is located within 15 metres of the surface, there is risk of influence from the drill rig affecting the azimuth readings. This was observed for the survey readings, which include total magnetic intensity (TMI) measurements, where TMI is spurious for readings taken at downhole depths less than 20 metres. These spurious readings are included in the database, but are not used.
		Downhole surveying in 2019 has been conducted by the drilling contractors (Topdrill Pty Ltd and Swick Mining Services Pty Ltd) utilizing downhole electronic gyroscopic survey tools. These are considered very accurate and not susceptible to magnetic interference. No further surveying required to check drill hole deviation.
		A small selection of drillhole collars, which do not have DGPS collar surveys, were picked up with a handheld GPS and individually



Criteria	JORC Code explanation	Commentary
\gg		appraised in regards to their location prior to modelling; the position of these collars is deemed appropriate for the resource estimation work.
		Considering the history of grid transformations and surviving documentation, there might be some residual risk of error in the MGA co-ordinates for old drillholes, however this is not considered to be material for the resource estimation.
<u>)</u>		Azimuth data was historically recorded relative to magnetic north. Much of the historical drilling data was recorded relative to magnetic north. Variation in magnetic declination for the Cardinia Project area is calculated at +0.823° East (1985) to +1.301° East (2017), with a maximum variation of +1.575° in 2005. The difference between true north and magnetic north, and the annual variation in magnetic declination since 1985 is not significant, therefore magnetic north measurements have been used, where true north data is unavailable, for all survey data used in resource estimation processes.
		The accuracy of drill hole collars and downhole data are located with sufficient accuracy for use in resource estimation work.
\square		For rock chip samples, locations are recorded at the time of sampling using a handheld GPS in the GDA94 Zone51 grid coordinate system.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing patterns vary considerably throughout the Cardinia Gold Project area and are deposit specific, depending on the nature and style of mineralisation being tested.
	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.	Drill hole spacing within the resource areas is sufficient to establish an acceptable degree of geological and grade continuity and is appropriate for both the mineral resource estimation and the resource classifications applied.
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is	The Cardinia greenstone sequence displays a NNW to NW trend. Drilling and sampling programs were carried out to obtain unbiased locations of drill sample data, generally orthogonal to the strike of mineralisation. At Helens mineralisation is structurally controlled in sub-vertical shear zones, with supergene components of varying lateral
	known, considering the deposit type. If the relationship between the drilling	extensiveness present in the oxide profile. The vast majority of historical drilling, pre-Navigator (pre-2004), and KIN drilling is orientated at -60°/245° (WSW) and -60°/065° (ENE).
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if	At Bruno-Lewis and Kyte, mineralisaton is either stratigraphy parallel (trending NNW, steep to moderately W-dipping) or cross- cutting and dipping shallowly to the NE (striking NW). The vast majority of the drilling is therefore predominantly orientated at - 60°/225-250° or -60°/090°. Grade Control drillholes were drilled vertically. Since late 2018, Kin's drilling has been largely oriented to 070° to target contact lodes and 225-250° to target the NE-dipping potassic lodes.
	muteriai.	The chance of sample bias introduced by sample orientation is considered minimal. No orientation sampling bias has been identified in data thus far.



Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample	No sample security details are available for pre-Navigator (pre-2004) drill or field samples.
	security.	Navigator drill samples (2004-2014) were collected in pre-numbered calico bags at the drill rig site. Samples were then collected by company personnel from the field and transported to the secure Navigator yard in Leonora. Samples were then batch processed (drillhole and sample numbers logged into the database) and then packed into 'bulkabag sacks'. The bulkabags were tied off and stored securely in the Navigator yard until being transported to the selected laboratory. There was no perceived opportunity for the samples to be compromised from collection of samples at the drill site to delivery to the laboratory.
		2017 -18 KIN RC drill samples were collected in pre-numbered calico bags at the drill rig site. The samples were then batch processed (drillhole and sample numbers encoded onto a hardcopy sample register) in the field, and then transported and stacked into 'bulkabag sacks' at the secure KIN yard location in Leonora. Bulkabags were tied off and stored securely in the yard until being transported to the laboratory.
		2019 RC drill samples were collected in pre-numbered calico bags at the drill rig site. The samples were then batch processed (drillhole and sample numbers encoded onto a hardcopy sample register) in the field, and then transported and stacked into 'bulkabag sacks' at the Cardinia office.
		2017-18 KIN DD samples were obtained by KIN personnel in pre-numbered calico bags at the KIN yard location in Leonora. Samples were then stacked into 'bulkabag sacks' at the yard location and stored securely until being transported to the laboratory.
		2019 samples were obtained by KIN personnel in pre-numbered calico bags at the core yard located at the Cardinia office. Samples were then stacked into 'bulkabag sacks' at the yard location and stored securely until being transported to the laboratory.
O M		Transport contractors are utilised to transport samples to the laboratory. No perceived opportunity for samples to be compromised from collection of samples at the drill site, to delivery to the laboratory, where they were stored in their secure compound, and made ready for processing is deemed likely to have occurred.
Ð		On receipt of the samples, the laboratory independently checked the sample submission form to verify samples received and readied the samples for sample preparation. SGS and Genalysis sample security protocols are of industry standard and deemed acceptable for resource estimation work.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Historic drilling and sampling methods and QA/QC are regarded as not being as thoroughly documented compared to current standards. Inhouse reviews of various available historical company reports of drilling and sampling techniques indicates that these were most likely conducted to industry best practice and standards of the day.
		Independent geological consultants Runge Ltd completed a review of the Cardinia Project database, drilling and sampling protocols, and so forth in 2009. The Runge report highlighted issues with bulk density and QA/QC analysis within the supplied database. Identified issues were subsequently addressed by Navigator and KIN.
		Carras Mining Pty Ltd (CM), an independent geological consultant, reviewed and carried out an audit on the field operations and database in 2017. Drilling and sampling methodologies observed during the site visits were to industry standard. No issues were identified for the supplied databases which could be considered material to a mineral resource estimation. During the review, Carras Mining logged the oxidation profiles (base of complete oxidation and top of fresh rock) for each of the deposit areas, based on visual inspection of selected RC drill chips from KIN's recent drilling programs, and a combination of historical and KIN drillhole logging. Final adjustments were made with input from KIN geologists. The oxidation profiles were used to assign bulk densities



Criteria	JORC Code explanation	Commentary
		and metallurgical recoveries to the 2017 resource models.
		Past bulk density test work has been inconsistent with incorrect methods employed, to derive specific gravity or in-situ bulk density, rather than dry bulk density. Navigator (2009) and recent KIN (2017) bulk density test work was carried out using the water immersion method on oven dried, coated samples to derive dry bulk densities for different rock types and oxidation profiles. This information has been incorporated into the database for resource estimation work. CM conducted site visits during 2017 to the laboratory to validate the methodology.
		Drilling, sampling methodologies, and assay techniques used in these drilling programs are considered to be appropriate and to mineral exploration industry standards of the day.
\square		Laboratory site visits and audits were introduced in April 2018 and are conducted on a quarterly basis. This measure ensures that all aspects of KIN QAQC practices are adhered to and align with industry best practice.
02		
Section 2 Reporting of Exploration Results		

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title	The Cardinia Project, 35-40km NE of Leonora is managed, explored and maintained by KIN, and constitute a portion of KIN's Leonora Gold Project (LGP), which is located within the Shire of Leonora in the Mt Margaret Mineral Field of the North Eastern Goldfields.
Ŷ	interests, historical sites, wilderness or national park and environmental settings.	The Helens and Rangoon area includes granted mining tenements M37/316 and M37/317, The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN.
	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.	The Bruno-Lewis and Kyte areas includes granted mining tenements M37/86, M37/227, M37/277, M37/300, M37/428 and M37/646. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The following royalty payment may be applicable to the areas within the Cardinia Project's Bruno and Lewis areas that comprise the deposits being reported on:
		 Gloucester Coal Ltd (formerly CIM Resources Ltd and Centenary International Mining Ltd) in respect of M37/86 - 1% of the quarterly gross value of sales for gold ounces produced, in excess of 10,000 ounces.
		There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the outlined current resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	At Cardinia, from 1980-1985, Townson Holdings Pty Ltd ("Townson") mined a small open pit over selected historical workings at the Rangoon prospect. Localised instances of drilling relating to this mining event are not recorded and are considered insubstantial and immaterial for resource modelling Companies involved in the collection of the majority of the gold exploration data since 1985 and prior to 2014 include:



Criteria	JORC Code explanation	Commentary
		Thames Mining NL ("Thames") 1985; Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986-2003; Centenary International Mining Ltd ("CIM") 1986-1988, 1991-1992; Metana Minerals NL ("Metana") 1986-1989; Sons of Gwalia Ltd ("SOG") 1989, 1992-2004; Pacmin Mining Corporation ("Pacmin") 1998-2001, and Navigator Resources Ltd ("Navigator") 2004-2014.
		In 2009 Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Bruno, Lewis, Kyte, Helens and Rangoon deposits. Runge reported a JORC 2004 compliant Mineral Resource estimate, at a cut-off grade of 0.7g/t Au, totaling 1.45Mt @ 1.3 g/t au (61,700 oz Au) for Helens and Rangoon, and totaling 4.34Mt @ 1.2 g/t au (169,700 oz Au) for Bruno, Lewis and Kyte.
0 S		A trial pit (Bruno) was mined by Navigator in 2010, and a 'test parcel' of ore was extracted and transported firstly to Sons of Gwalia's processing plant in Leonora, and finally to Navigator's processing plant located at Bronzewing, where approximately 100,000 tonnes were processed at an average head grade of 2.33 g/t au (7,493 oz Au).
<u>Geo</u> logy	Deposit type, geological setting and style of mineralisation.	The Cardinia Project area is located in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600km on a NNW trend across the Archean Yilgarn Craton of Western Australia.
		The regional geology comprises a suite of NNE-North trending greenstones positioned within the Mertondale Shear Zone (MSZ) a splay limb of the Kilkenny Lineament. The MSZ denotes the contact between Archaean felsic volcanoclastics and sediment sequences in the west and Archaean mafic volcanics in the east. Proterozoic dolerite dykes and Archaean felsic porphyries have intruded the sheared mafic/felsic volcanoclastic/sedimentary sequence.
		Locally within the Cardinia Project area, the stratigraphy consists of intermediate, mafic and felsic volcanic and intrusive lithologies and locally derived epiclastic sediments, which strike NNW, dipping steep-to- moderately to the west. Structural foliation of the areas stratigraphy predominantly dips steeply to the east but localised inflections are common and structural orientation can vary between moderately (50-75°) easterly to moderately westerly dipping.
		Mineralisation at Helens is controlled by a cross-cutting fault, hosted predominantly in mafic rock units, adjacent to the felsic volcanic/sediment contacts. The ore zones are associated with increased shearing, intense alteration and disseminated sulphides. Minor supergene enrichment occurs locally within mineralised shears throughout the regolith profile.
		Mineralisation at Bruno-Lewis is largely controlled by the stratigraphic contact between basalt and felsic volcanics. Gold is associated with significant sulphide mineralisation in the sediments and volcaniclastics between the 2 volcanic units. Gold Is also hosted within shallowly NE-dipping lodes, associated with increased potassic-sericite alteration and quartz stockwork veining. These lodes also host the mineralisation at Kyte. Substantial supergene mineralisation sits above both styles of mineralisation.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Material drilling information for exploration results has previously been publicly reported in numerous announcements to the ASX by Navigator (2004-2014) and KIN since 2014.



Criteria	JORC Code explanation	Commentary
se only	 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. 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. 	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	When exploration results have been reported for the resource areas, the intercepts are reported as weighted average grades over intercept lengths defined by geology or lower cut-off grades, without high grade cuts applied. Where aggregate intercepts incorporated short lengths of high grade results, these results were included in the reports. Since 2014, KIN have reported RC drilling intersections with low cut off grades of >= 0.5 g/t Au and a maximum of 2m of internal dilution at a grade of <0.5g/t Au. There is no reporting of metal equivalent values.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported,	The orientation, true width, and geometry of mineralised zones have been primarily determined by interpretation of historical drilling and continued investigation and verification of KIN drilling. Drill intercepts are reported as downhole widths not true widths. Accompanying dialogue to reported intersections normally describes the attitude of mineralisation.
Diagrams	there should be a clear statement to this effect (eg 'down hole length, true width not known'). 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	Appropriate maps and sections are included in the main body of this report.



Criteria	JORC Code explanation	Commentary
\bigwedge	views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading	Public reporting of exploration results by KIN and past tenement holders and explorers for the resource areas are considered balanced. Representative widths typically included a combination of both low and high grade assay results.
\bigcirc	reporting of Exploration Results.	All meaningful and material information relating to this mineral resource estimate is or has been previously reported.
Other substantive exploration	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.	Since 2018, a campaign of determining Bulk Densities has been undertaken. The water displacement method is used on drill samples selected by the logging geologist. These measurements are entered into the logging software interface and loaded to the Datashed database.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	KIN intend to continue exploration and drilling activities at in the described area, with the intention to increase the project's resources.
0	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	