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37,335,750

# Regional exploration program generates new targets at LGP

# Highlights

- Regional targeting exercise being conducted in conjunction with resource expansion drilling and development studies at the Leonora Gold Project.
- Systematic approach utilising geology, geophysics and geochemistry in underexplored areas outside the LGP's three main mining centres.
- New geological mapping has identified new targets with no history of previous exploration.
- These new targets fit the geological models of large (+500koz) deposits in the Leonora-Laverton region (eg. Wallaby, Jupiter and Darlot).
- Work to advance new targets towards drill testing and reinterpretation of historic datasets to generate additional targets is underway.
- Series of historic workings within the Cardinia area largely untested below 30 metres depth present another important area for further work.

Kin Mining NL (ASX: KIN) (Kin or the Company) is pleased to provide an update on regional exploration activities at its Leonora Gold Project (LGP) in Western Australia. A project-wide targeting program is being undertaken in parallel with exploration and drilling at the main mining centres of the LGP – Cardinia, Mertondale and Raeside – along with the ongoing development studies to deliver the LGP to a lower risk development decision in 2019.

Gold exploration within the project area has been sporadically undertaken for more than 30 years, although activity outside the known orebodies has been limited, particularly in the past 20 years.

Kin has completed a comprehensive, detailed mapping and target generation work program over the core of the LGP tenure. It has identified a number of new targets in covered terrain and reinterpreted historical high grade mining areas with modern "mineralised system" thinking.

Commenting on the program, Managing Director Andrew Munckton said:

"Developing our understanding of the wider exploration potential of the LGP is an important pillar to generate more value for shareholders. The work completed to date has successfully identified prospective new areas which will be progressed towards drilling in 2019 as we remain focussed on our key objectives of expanding resources and delivering the LGP to a lower risk development decision point."

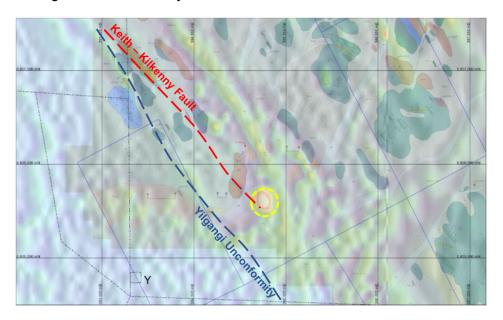
Further information on a number of the new target areas is outlined as follows.

# **Dingo Well**

Dingo Well is a circular magnetic high anomaly in close proximity to the unconformity of the Pig Well-Yilgangi Formation and chlorite-carbonate-chloritoid altered 'basement' rocks (Figure 1). This area coincides with a strand of the Keith-Kilkenny Fault, considered a major structure of regional significance, adjacent to the southern extension of the Mertondale Shear.

This anomaly is considered a potential Wallaby analogue: a syenite intrusive complex with a flanking halo of actinolite-magnetite alteration. At Wallaby, the footwall to the Wallaby Basin shows extensive chloritoid and chlorite-carbonate alteration in proximity to the unconformity. Circular magnetic anomalies proximal to such a setting should be of interest. There is no surface expression to this anomaly due to complete surficial cover.

Future work at Dingo Well will include assessment of the geochemical database and broad spaced geochemical sampling, detailed geophysical surveying and aircore drilling to test for dispersion in the weathered profile and signature alteration system



**Figure 1:** Outcrop geology map overlain on magnetic image showing the presence of a circular magnetic high beneath complete cover in close proximity to the unconformity with the Pig Well-Yilgangi Formation.

# Pig Well

This area is characterized by narrow vein, high-grade historic gold mines in the sediments of the Yalgangi Formation of the late conglomerate basin locally known as the Pig Well Graben. The basin is a steep sided, high energy basin interpreted to be >500m deep. The underlying structures are regionally significant as they are sub-parallel with the Keith-Kilkenny Shear Zone

The sedimentary sequence consists of polymictic granitoid pebble conglomerates and feldspathic sandstones and are approximate 30Ma younger than the underlying stratigraphy. Gold is associated with steep to moderately south-west dipping quartz veins in a major north-west trending shear zone.

Quartz veins are hosted within the sheared granitoid conglomerate, and related fault scarp material of quartz-sericite schist, and show intense but narrow sericite-carbonate alteration at the vein margins. The gold is associated with pyrite.

The vein systems either penetrate the entire depth of the overlying basin or eminate from an intrusive body emplaced within the conglomerate.

Limited soil geochemical sampling was conducted more than 20 years ago and inadequate regional geochemical drilling was completed. The soil programs completed did not show gold mineralisation over the historical workings.

Historic production from the area demonstrates the potential for high gold grades (Table 1).

Table 1: Historic production from the Pig Well region.

Mining Centre	Production (oz)	Grade (g/t)
Gambier Lass	8,146	28.1
Morning Star	687	19.5
Pig Well	1,579	52.1

<sup>\*</sup> Results compiled from published report "List of Cancelled Gold Mining Leases Which Have Produced Gold", 1 May 1954. By order of The Hon. Lionel F. Kelly, MLA.

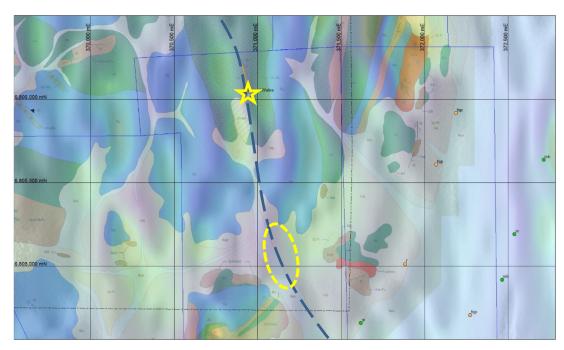
Planned activities at Pig Well include detailed geological mapping, broad spaced geochemical sampling with modern methods and targeted drill testing for extensions below the 30m where the water table existed during historic mining.

#### **Prince of Wales**

The historic Prince of Wales mine had a head grade of more than 90oz/t mined (1,107oz produced) from a 55° east dipping quartz reef hosted within plagioclase-porphyritic dolerite (cat rock). At the mine, the reef is parallel with the strike of the dolerite, however 700m along strike to the south in the hinge of the Benalla Anticline, the angular relationship with magnetic dolerite/gabbro is now orthogonal and the junction is beneath cover (Figure 2). This shows similarities to mineralised structures intersecting with magnetic dolerite as exists at the Darlot Gold Mine (Mt Pickering Dolerite).

Historic soil sampling was ineffective and no gold anomalism was encountered in areas where prospectors discovered large numbers of nuggets. No drilling has been conducted.

Detailed geological mapping, geochemical sampling and geophysical surveying is planned.

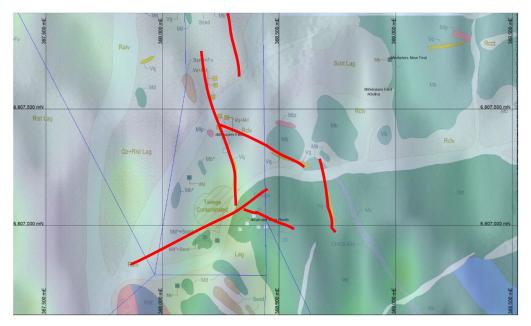


**Figure 2:** Outcrop map for the Prince of Wales area, overlain on magnetic image, showing the Southern extension of the Prince of Wales shear zone (blue dashed line) which is of interest where it cuts across magnetic dolerite (yellow oval) in the hinge of Benalla Anticline.

# **Websters Find**

Websters Find is located at the southern end of the LGP, near the hinge of the Benalla Anticline. Approximately 12,740 ounces was produced historically at a grade of 18.4g/t Au. The Websters workings extend north-south for over 2km strike however the bulk of the production comes from a gentle south-southeast dipping quartz reef developed in gabbroic dolerite (Figure 3). The strike continuation of this structure to the southwest needs to be assessed as much of this area is covered beneath a large creek with alluvial sheet wash.

No soil sampling has been conducted in the area although it has seen limited shallow drilling. Results from this work will be assessed along with detailed geochemical sampling and geophysical surveying. A targeted aircore drilling program will follow.



**Figure 3:** Outcrop geology map of the Websters Find mine camp showing a complex arrangement of quartz reefs. The Main Reef extends to the West-Southwest beneath a large creek drainage.

#### Cardinia Area

Located within 3km of the Cardinia processing plant site are numerous sets of historic workings that have received a variety of exploration efforts over several generations. Most have historical aircore or RAB drilling with numerous high grade intersections in the oxide and transitional zones to approximately 30 metres below surface. Limited RC drilling has tested beneath the old workings.

These prospects, along with the Helens, Bruno-Lewis and Kyte mineralisation (total Mineral Resource 330koz¹), represent a very considerable mineralised system with consistent orientations and overprinting relationships. Most deposits contain intense sericite-pyrite alteration accompanied by laminated, sheeted and stock-work arrays of quartz-pyrite veins. The host rocks are generally basalt and felsic with geological contacts providing an important fluid pathway during mineralisation. A strong structural control is apparent with northeast and north-south orientations dominant.

As with most historic mining in the region, earlier production from the Cardinia area exhibited high grades (Table 2).

Table 2: Historic production from the Cadinia area.

Mining Centre	Production (oz)	Grade (g/t)
Black Chief	523	19.9
Nevertire	1,503	236.1
East Lynne	1,744	43.7
Rangoon	275	3.7
Pride of the North	74.4	56.0

<sup>\*</sup> Results compiled from published report "List of Cancelled Gold Mining Leases Which Have Produced Gold", 1 May 1954. By order of The Hon. Lionel F. Kelly, MLA.

In addition to the historically mined and outcropping veining and alteration, there are a number of other targets in this area.

Planned work includes the detailed review of the geochemical data set and additional geochemistry where results may be unreliable. Aircore drilling for geochemical coverage will be undertaken as a next step.

# For further information, please contact:

# **Investor enquiries**

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# **About Kin Mining NL**

Kin Mining NL (ASX: KIN) is a West Australian based gold development and exploration company. Kin's focus is its 100% owned Leonora Gold Project (LGP) located in the highly prospective North-Eastern Goldfields region of Western Australia. The LGP has a +1Moz¹ gold Mineral Resource defined in both supergene and deeper primary mineralisation with considerable potential to grow this resource with further drilling.

#### **COMPETENT PERSONS STATEMENT**

The information contained in this report relating to exploration results relates to information compiled or reviewed by Glenn Grayson. Mr Grayson is a member of the Australasian Institute of Mining and Metallurgy and is a full time employee of the company. Mr Grayson 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".

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

#### FORWARD-LOOKING STATEMENTS

This release contains "forward-looking information" that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the feasibility and definitive feasibility studies, the Company's' business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and operational expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely',' believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information. Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to the risk factors set out in the Company's Prospectus dated October 2014.

This list is not exhausted of the factors that may affect our forward-looking information. These and other factors should be considered carefully and readers should not place undue reliance on such forward-looking information. The Company disclaims any intent or obligations to revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law. Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements in relation to future matters that can be only made where the Company has a reasonable basis for making those statements. This announcement has been prepared in compliance with the JORC Code 2012 Edition and the current ASX Listing Rules. The Company believes that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts.

# <sup>1</sup>LGP Mineral Resources (September 2018)

D	Cutoff		Indicated			Inferred			Total	
Deposit	g/t Au	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
		(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)	(Mt)	(g/t)	(k oz)
				MEDT	ONDALE					
Mantana Daviand	0.5	2.75	1.27			1 22	4.5	2.11	4.27	127
Mertons Reward	0.5	2.75	1.37	121	0.36	1.33	15	3.11	1.37	137
Mertondale 3-4	0.5	2.08	1.50	100	0.48	1.33	21	2.56	1.47	121
Tonto	0.5	2.67	1.18	101	0.18	1.30	8	2.85	1.18	109
Mertondale 5	0.5	0.81	1.83	48	0.22	1.71	12	1.03	1.80	60
*Eclipse	0.5				1.23	1.39	55	1.23	1.39	55
*Quicksilver	0.5				0.81	1.54	40	0.81	1.54	40
TOTAL		8.30	1.39	370	3.29	1.43	151	11.59	1.40	521
				245						
				CAF	RDINIA			T		
Bruno Lewis Link	0.5	1.09	1.30	45	0.72	1.55	36	1.81	1.40	81
Lewis	0.5	2.48	1.21	96	0.22	1.31	9	2.70	1.22	105
Kyte	0.5	0.51	1.28	21	0.02	1.60	1	0.53	1.30	22
**Helens	0.5	0.62	2.18	43	0.41	2.07	28	1.03	2.14	71
Fiona	0.5	0.33	1.90	20	0.11	1.30	5	0.44	1.70	24
Rangoon	0.5	0.41	1.37	18	0.19	1.18	7	0.60	1.31	25
TOTAL		5.44	1.39	243	1.67	1.59	86	7.11	1.44	330
				54	FOIDE					
		2 1-			ESIDE					122
Michelangelo	0.5	2.47	1.61	128	0.09	1.51	4	2.56	1.61	132
Leonardo	0.5	0.75	1.81	44	0.15	1.23	6	0.90	1.71	50
*Forgotten Four	0.5				0.21	2.12	14	0.21	2.12	14
*Krang	0.5				0.15	2.11	10	0.15	2.11	10
TOTAL		3.22	1.66	172	0.60	1.81	35	3.82	1.68	206
GRAND TO	ΓAL	16.96	1.44	785	5.56	1.52	272	22.52	1.46	1,057

#### NOTES

All resources other than Helens, Eclipse, Quicksilver, Forgotten Four and Krang have been estimated by CM in 2017 and reported @ 0.5g/t Au within Entech AUD2,200 pit shells. See ASX Announcement 30th August 2017 "Kin Defines +1 Million ounces of Gold at the Leonora Gold Project."

Totals may not tally due to rounding.

Other than the update to the Helens Resource the company confirms that it is not aware of any new information or data that materially affects the information included in the ASX Announcement of 30 August 2017 "Kin Defines +1 Million ounces of Gold at the Lenora Gold Project", and that all material assumptions and technical parameters underpinning the estimates in that announcements continue to apply and have not materially changed.

<sup>\*</sup> Mineral Resources estimated by McDonald Speijers in 2009, audited by Carras Mining Pty Ltd in 2017 and reported in accordance with JORC 2012 using a 0.5g/t Au cut-off within Entech AUD2,200 pit shells.

<sup>\*\*</sup> Mineral Resources estimated by Jamie Logan in 2018 and reported @ 0.5g/t AU within a KIN AUD2,000 pit shell. See ASX Announcement 10th September 2018 "Helens Mineral Resource Update."

# JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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 30g charge for fire assay'). In</li> </ul>	NA NA
	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.	
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	NA NA
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	NA

Criteria	JORC Code explanation	Commentary
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Rock chips were collected from outcrop and historic regional drilling for mapping.  Logging of the rock was qualitative.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <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>	NA NA
Quality of assay data and laboratory tests	<ul> <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,</li> </ul>	<ul> <li>No assay data was reported.</li> <li>Historical production results were from records compiled in the "List of Cancelled Gold Mining Leases Which Have Produced Gold" published by order of The Honorary Lionel F, Kelly M.L.A. Minister For Mines 1954.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	NA
	The use of twinned holes.	
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	
	Discuss any adjustment to assay data.	
Location of data points	<ul> <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>	Outcrop mapping was done using aerial photos with hand helpd GPS for location.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	NA NA
	<ul> <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> <li>Whether sample compositing has been</li> </ul>	
	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 known, considering	NA NA

Criteria	JORC Code explanation	Commentary
	<ul> <li>the deposit type.</li> <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>	
Sample security	The measures taken to ensure sample security.	NA NA
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	NA NA

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<ul> <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> <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>	Mertondale  The Mertondale Project area includes granted mining tenements M37/1284 (Mertons Reward), M37/81 and M37/82 (Mertondale 3-4) and M37/233 (Mertondale 5 and Tonto), centered some 40km NNE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. These tenements are 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 of Western Australia.  The following royalty and compensation payments may be applicable to the areas within the	
	<ul> <li>Mertondale Project that comprise the deposits being reported on:</li> <li>Aurora Gold (WA) Pty Ltd (subsidiary company of Harmony Gold Mining Company Ltd in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.25 production royalty per dry tonne of ore mined and processed.</li> </ul>	
		<ul> <li>Aurora Gold (WA) Pty Ltd in respect of M37/81 and M37/82 - \$1.00 production royalty per dry tonne of ore mined and processed.</li> </ul>
	<ul> <li>Technomin Australia Pty Ltd in respect of M37/82, M37/231, M37/232 and M37/233 - \$0.75 production royalty per dry tonne of ore mined and milled, and</li> </ul>	
	<ul> <li>Higherealm Pty Ltd (Mertondale Pastoral Leaseholder) in respect of M37/81, M37/82, M37/231, M37/232 and M37/233 - \$10,000 per annum, indexed to CPI, for the year(s) when extraction activities are being carried out.</li> </ul>	

Criteria	JORC Code explanation	Commentary
		Bruno – Lewis
		The Bruno Lewis Link, Lewis and Kyte areas includes granted mining tenements M37/86, M37/227, M37/277, M37/300, M37/428 and M37/646, centered some 35-40km NE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Cardinia Project 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.
		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.
		Helens and Rangoon
		The Cardinia Project's Helens and Rangoon areas includes granted mining tenements M37/316 and M37/317, centered some 35-40km NE of Leonora. The tenements are held in the name of Navigator Mining Pty Ltd, a wholly owned subsidiary of KIN. The Cardinia Project 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.
		There are no known native title interests, historical sites, wilderness areas, national park or environmental impediments over the resource areas, and there are no current impediments to obtaining a licence to operate in the area.
Exploration done by other	Acknowledgment and appraisal of exploration	Mertondale
parties	by other parties.	Gold was initially discovered in the Mertondale area in 1899 by Mr. Fred Merton. The Mertons Reward (MR) underground gold mine (M37/1284) was the direct result of his discovery. The main mining phase at MR was carried out from 1899 to 1911. Historic underground production records to 1942 totalled 88,890t @ 21.0g/t Au (60,520oz) which represents the only recorded mining conducted at Mertons Reward.
		Between 1981-1984 Telluride Mining NL, Nickel Ore NL, International Nickel (Aust) Ltd and Petroleum Securities Mining Co Pty Ltd conducted exploration programs in the Mertondale area. Hunter Resources Ltd began actively exploring the region 1984-1989, Hunter submitted a Notice of Intent (NOI) to mine in 1986 and established a JV with Harbour Lights to treat ore from the Mertondale 2 (M37/1284) and Mertondale 3 pits (M37/82). Between 1986 and 1993 the adjoining Mertondale 4 pit (M37/82 and 81) was mined. Harbour Lights acquired the project in 1989 from Hunter. Ashton Gold eventually gained control of Harbour Lights. Large scale mining in the region was completed in 1993 with the mining of the Mertondale 2 and Mertondale 3-4 pits (M37/81 and M37/82). In 1993 Ashton's interest was transferred to Aurora Gold who established a JV with MPI followed by Sons of Gwalia who entered into a JV with

Criteria	JORC Code explanation	Commentary
		Aurora.
		Historic gold production from the Mertondale Mining Centre. Sons of Gwalia (SOG) eventually obtained control of the project in 1997 but conducted limited exploration drilling. In 2004 Navigator Mining Pty Ltd (Navigator) acquired the entire existing tenement holding from the SOG administrator. Navigator conducted the majority of recent exploration drilling in the Mertondale area. KIN acquired the project from Navigator's administrator in late 2014. Historic production from the Mertondale Mining Centre totals 274,724 oz of gold.
		KIN's drilling is focused in areas comprising historical drilling conducted by the above mentioned previous operators.
		Bruno – Lewis
		There is limited exploration data available prior to 1985, where it is believed that exploration was more focused on base metals, and not gold. Companies involved in the collection of the majority of the gold exploration data since 1985 and prior to 2014 include: Thames Mining NL ("Thames") 1985; 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") 1999, and Navigator Resources Ltd ("Navigator") 2004-2014.
		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).
		In 2009, Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Cardinia deposits (Kyte, Lewis and Bruno). Runge reported a JORC 2004 compliant Mineral Resource estimate, at a low cutoff grade of 0.7g/t Au, totaling 4.34Mt @ 1.2 g/t au (169,700 oz Au), comprising total Indicated Resources of 1.69 Mt @ 1.2 g/t Au (64,500oz) and total Inferred Resources of 2.65Mt @ 1.2 g/t Au (105,200oz).
		KIN's drilling is focused along the mineralised structures that host the Bruno and Lewis Trial open pits and the Kyte deposit, and historical drilling conducted by the above mentioned previous operators.
		Helens and Rangoon
		There is limited exploration data available prior to 1986, where exploration for nickel was carried out in the late 1960s and for base metals in the 1970s. During 1980-1985, Townson Holdings Pty Ltd ("Townson") mined a small open pit over some old workings at the Rangoon prospect.
		Companies involved in the collection of the majority of the gold exploration data since 1986 and prior to 2014 include: Mt Eden Gold Mines (Aust) NL (also Tarmoola Aust Pty Ltd "MEGM") 1986-2003; Pacmin Mining Corporation Ltd ("Pacmin") 1998-2001; Sons of Gwalia

Criteria	JORC Code explanation	Commentary
		Ltd ("SOG") 2001-2004, and Navigator Resources Ltd ("Navigator") 2004-2014.
		In 2009, Navigator commissioned Runge Limited ("Runge") to complete a Mineral Resource estimate for the Helens and Rangoon deposits. Runge reported a JORC 2004 compliant Mineral Resource estimate, at a low cut-off grade of 0.7g/t Au, totaling 1.45Mt @ 1.3 g/t au (61,700 oz Au), comprising total Indicated Resources of 1.0Mt @ 1.4 g/t Au and total Inferred Resources of 0.446Mt @ 1.2 g/t Au.
		KIN's drilling is focused in areas hosting the Helens and Rangoon deposits together with the strike extensions and historical drilling conducted by the above mentioned operators.
Geology	Deposit type, geological setting and style of	Mertondale
	mineralisation.	The Mertondale Project area is located 35-45km NNE of Leonora in the central part of the Norseman-Wiluna Greenstone Belt, which extends for some 600 km on a NNW trend across the Archean Yilgarn Craton of Western Australia.
		In broad terms the stratigraphy consists of a central felsic volcanic sequence bounded by tholeiitic basalt, dolerite, and carbonaceous shale ± felsic porphyry sequences.
		The four recognised deposits and all the known mineralisation is located within the north trending Mertondale Shear Zone (MSZ).
		Two distinct north trending mineralised zones are recognized within the MSZ. The western zone includes Quicksilver, Tonto, Eclipse and Mertondale 5, while the eastern zone includes the Merton's Reward, Mertondale 2 and Mertondale 3-4 deposits.
		Within the Mertondale Project area, most of the known mineralisation is hosted in sheared mafics, with local porphyry bodies and sediment units. Some of the sediment units are graphitic, notably in the western mineralised zone.
		Eastern Mineralised Zone
		In the Mertons Reward - Mertondale 2 area, two distinct types of high grade lodes were historically recognized:
		Shear Lodes: Steeply dipping structures containing abundant quartz-carbonate veinlets accompanied by finely disseminated pyrite-arsenopyrite, and
		<ul> <li>Intershear Lodes: Narrow, flat to moderately dipping auriferous quartz veins up to about 40cm thick, enveloped in carbonate-altered zones up to +10m thick, which contain pyrite and arsenopyrite and lower grades of Au. These are usually truncated to the east and west by the steep dipping shear lodes.</li> </ul>
		Geological interpretation of Mertons Reward is largely based on historic mapping and mine plans of the historic workings, and thus there is a high level of confidence in the interpretation.

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		At Mertondale 3-4 gold mineralisation is associated with the intrusive porphyry contact, where the contact can be used as a mineralisation guide or 'marker' horizon.
		Western Mineralised Zone
		The western mineralised zone typically comprises dark mafic mylonites, sedimentary units including carbonaceous shales, mafic intrusives and mafic-intermediate and felsic volcanics. Felsic porphyry intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically contains anomalous gold values up to 0.5 g/t Au in the resource areas.
		Lithologies at Tonto are black mafic mylonite, a black shale, shale, quartz-dolerite, basalt, basaltic andersite and felsic volcanics. The steeply dipping high grade lode at Tonto is more than likely structurally controlled and appears to potentially have a shallow southerly plunge. Visually the grade still remains very difficult to pick with no obvious association with sulphide content, quartz veining or alteration of either graphite or sericite.
		The footwall consists of the massive quartz dolerite. This dolerite has a noticeable bleached or carbonated halo along its immediate contact with the mylonite but grades into a strongly chloritic massive barren quartz dolerite.
		The Western mineralised zone at Mertondale 5 typically comprises dark mafic mylonites, sedimentary units including carbonaceous shales, mafic intrusives and mafic-intermediate and felsic volcanics. Felsic porphyry intrusives occur irregularly within the shear zone. The black sulphide-rich mafic mylonite typically contains anomalous gold values in the resource areas.
		Bruno – Lewis
		The Project area is located 35-40km NE of Leonora 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 (MZN) 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 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 with a sub-vertical attitude. Structural foliation of the stratigraphy dips moderately to the east.
		At Bruno Lewis Link, Lewis and Kyte, primary gold mineralisation is typically characterised by finely disseminated sulphides (pyrite), and spatially associated with increased shearing and

Criteria	JORC Code explanation	Commentary
		lithological contacts between mafic and felsic lithologies. Secondary gold mineralisation occurs as supergene enrichment within the regolith, and characterized by iron oxides, after sulphides, in the bleached, carbonated felsic units near the footwall dolerite/felsic contact.
		The central Lewis area is dominated by sub-vertical, NW trending, highly altered, strongly weathered mafics and intercalated beds of carbonated felsic rocks and minor sediments (including shales).
		Mineralisation at Kyte is hosted within weathered, sheared and altered mafics, and is typified in the weathered zone, by iron-rich alteration, after sulphides.
		In some areas, gold mineralisation is highly variable in the regolith. In these areas, closer spaced drilling was carried out to provide a high level of confidence in the interpretations.
		Helens and Rangoon
		The Cardinia Project area is located 35km NE of Leonora 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 (MZN) 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 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 with a sub-vertical attitude. Structural foliation of the stratigraphy dips moderately to the east.
		At Helens and Rangoon, the stratigraphy comprises a sequence of intermediate-mafic and felsic volcanic lithologies and locally derived epiclastic sediments, intruded in places by narrow felsic porphyry dykes. Carbonaceous shales often mark the mafic/felsic contact. These lithologies are located on the western limb of the regionally faulted south plunging Benalla Anticline.
		Primary mineralised zones at the Helens and Rangoon areas are north-south trending with a sub-vertical attitude. Mineralisation is hosted predominantly in mafic rock units, adjacent to the felsic volcanic/sediment contacts, where it is associated with increased shearing, intense alteration and disseminated sulphides.
		Minor supergene enrichment occurs within the mineralised shears within the regolith profile.

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		In some areas, gold mineralisation is highly variable in the regolith. In these areas, closer spaced drilling was carried out by KIN to provide a high level of confidence in the interpretations.
Drill hole Information	<ul> <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> <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> <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>	Material drilling information used for the resource estimation has previously been publicly reported in numerous announcements to the ASX by previous operators of the Mertondale Project, including Navigator (2004-2014) and KIN since 2014.
Data aggregation methods	<ul> <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> <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 and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	NA NA
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	NA NA

Criteria	JORC Code explanation	Commentary
	• 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').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures 1, 2 and 3 in the body of the document
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	NA
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	NA NA
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Refer to Figures 1, 2 and 3 in the body of the document