

23 June 2022

ASX Market Announcements Via e-lodgment

Lucky Bay Garnet Project Update

Resource Development Group Limited (ASX: RDG) (RDG or the Company) is pleased to provide the following project update as the processing plant construction nears completion, commissioning is due to commence, and first production of garnet is fast approaching.

Further confirmatory drilling and Heavy Mineral (HM) analysis has also enabled an update to the project resource estimate to be completed.

Highlights

- Strong safety performance, with a Total Recordable Injury Frequency Rate (TRIFR) of zero
- Plant construction over 80% complete, commissioning commencing during July with plant start-up during August
- All key management employed, and majority of workforce engaged, all locally employed
- Topsoil removal commenced and stockpiling commenced during June, mining planned to commence during July
- Our owner mining fleet has arrived onsite during June and commenced work
- Capital expenditure increased from \$60m to \$70m, as a result proceeding with the design, procurement and construction of the non-magnetic concentrate plant and onsite covered storage facility
- 29% increase in Measured Resource tonnes to 41.6Mt
- 31% Increase in Measured Resource HM to 2.1Mt



Figure 1 Lucky Bay Processing Plant



RDG acquired the Lucky Bay Garnet Project (Lucky Bay) during January 2021 through its wholly owned subsidiary, Australian Garnet Pty Ltd (AGPL). Lucky Bay's tenements, located between the coastal towns of Kalbarri and Port Gregory, are contiguous with the world's largest supplier of high-quality alluvial garnet. High-quality alluvial garnet products are used in the abrasive blasting and waterjet cutting markets.

Since acquiring the project, RDG has undertaken the design, procurement and construction of a world-class processing facility with RDG's wholly owned subsidiary, Central Systems responsible for the overall construction of the project.

Resource Development Group Managing Director Andrew Ellison commented:

"We are pleased to see the project construction phase drawing to an end, with plant commissioning and mining commencing during July and production of garnet during August. We have encountered a number of supply issues resulting from COVID-19, nevertheless our management team have worked tirelessly to find solutions and I must recognise their hard work and commitment to the project. We are building a world-class project and successfully achieving this with a TRIFR of zero, an injury free project, which is most important to us. With our owner operated mining fleet commencing mining, we have received several enquiries from buyers wanting to purchase our high-quality garnet. We are looking forward to commencing production, which is not too far away.

Infill drilling at Menari has increased our confidence in the Resource and added further heavy minerals to the total resource at Lucky Bay."



Figure 2 Topsoil Removal and stockpiling for future rehabilitation



Market Update

Demand for high quality garnet abrasives have continued to grow in key markets around the world. Global market demand has been driven by increased investment in infrastructure, manufacturing, oil and gas projects and shipbuilding. In blast abrasive markets, customers are seeking high quality garnet products that deliver superior performance compared to slag abrasives. Demand for quality blast abrasives is forecast to continue to grow over the foreseeable future. AGPL has had very strong interest in its products from customers around the world looking for quality garnet abrasive.

The Company has invested in state-of-the-art mining and processing facilities at Lucky Bay, Western Australia, to ensure its garnet products meet the most stringent quality standards and deliver the performance customers require.

Non-magnetic concentrate (non-mag) demand from China is also forecast to remain high in the medium term. Indicative pricing received, based on the mineral content of our non-mag concentrate, has increased the expected revenue for these sales compared to our last market update. Demand for ilmenite is strong, with prices expected to hold at the current high levels level for the foreseeable future.

Distribution agreements have been established with customers in Asia Pacific, USA and Europe. These distributors are well established in their respective markets as reputable suppliers of garnet abrasives. They include Burwell Technologies, Kuhmichel in Australia, CESCO and Allredi in the USA and Meldgaard and Kuhmichel in Europe.

The CEO of Burwell Technologies, Damian Williams, on a recent visit to the Lucky Bay Mine said, "It is great that our loyal customers now have a choice when it comes to the supply of quality garnet abrasives from Australia. We look forward to providing our customers with a consistent, secure supply of Australian Garnet abrasives that will deliver superior performance. I'm sure our customers will appreciate the difference once they try Australian Garnet products".

The Company will work with all its distributors to establish and position the Australian Garnet brand as 'the garnet abrasive that delivers superior performance when it is launched during August 2022.

Logistics Update

The Company is experiencing cost increases from shipping lines to its key export markets. COVID-19 related events around the world have impacted shipping capacity, which has resulted in increases in shipping rates from Fremantle, Western Australia to destinations in USA and Europe. We are working with our distributors to ensure our planned regular shipments are not affected.



Project Construction and Capex Update

Although COVID-19 has affected many parts of the Western Australian economy and resources sector, construction of the Lucky Bay Garnet mine has not endured any significant delays of materials delivery or shortages of staff. At the date of this announcement, project design is 100% complete, procurement 100% complete and construction is 80% complete. Plant commissioning is scheduled to commence in early July 2022 and plant start up during August 2022, with first sales expected during September 2022.

As a result of feedback from customers, the Company undertook several plant improvements before completion of construction. This additional work will increase efficiency in the production of garnet as a result of doubling the 25kg bagging plant with robotic pallet stacker to a second such plant and stacker. This required building modifications and additional conveyors and an increase in the size of the bagging plant storage facility to allow increased storage of 1, 2 tonne and 25kg bags. Various modifications were also undertaken in the screening / bagging plant to allow flexibility to produce improved garnet blending capability.

As noted previously, non-mag concentrate demand is forecast to remain high, so a decision was also made to focus on optimising this product given the diversification it adds to the revenue stream as well as increased profitability. As a result, the Company invested in the design and procurement of a non-mag HM upgrade process plant together with a large, covered bulk storage facility on site.

Given all of the above factors, together with some cost escalations due to COVID-19 including freight charges, construction capex has therefore increased to approximately \$70m from the original Phase 1 capital expenditure forecast of \$60m (refer to the Company's ASX announcement titled "29 Year Mine Life for the Lucky Bay Garnet Project" dated 20 September 2021).

The Leadership Team have been on site for the past few months finalising the systems and procedures to operate the project safely and efficiently, and we are well advanced with the employment of our operational workforce. A multiskilled workforce of approximately 65 personnel will be employed, recruited from the Kalbarri/Geraldton region, providing a much-needed economic boost to the area.

The mining and mobile fleet maintenance personnel have been active this month with topsoil removal and stockpiling for future rehabilitation. Significant effort has been spent establishing the starting location for the mobile Mining Unit Plant (MUP). The MUP was delivered to site this month with final assembly and commissioning to be completed during July.





Figure 3 Mobile Mining Unit Plant Trommel



Figure 4 Mobile Mining Unit Plant Feeder



The Company is also extremely pleased to report that it has maintained a safe work environment at Lucky Bay with a Total Recordable Injury Frequency Rate (TRIFR) of zero for the duration of the construction period, a pleasing statistic enjoyed by the entire Company for the past twelve months.



Figure 5 Newly erected sign located at the Lucky Bay Garnet Mine



MINERAL RESOURCE ESTIMATE

Overview

Lucky Bay is located approximately 530km north of Perth and 35km south of Kalbarri. RDG's wholly owned subsidiary Australian Garnet Pty Ltd (AGPL) holds two granted mining leases covering 1,572 ha and two Exploration Licences totalling 7,394 ha, which combined make up the Lucky Bay Garnet Project area. Lucky Bay is comprised of the Menari and Menari North Heavy Minerals (**HM**) deposits, as shown in Figure 1 below.

The Lucky Bay project area is north of GMA Garnet Group's existing garnet operation, which is the world's largest supplier of high-quality alluvial garnet and have successfully been in operation for the past 40 years.

A recent program of edge-definition and infill drilling of the Menari Resource and the application of 86 QESCAN mineralogy composite results, subsequent to the 2021 estimate have been included in this updated Mineral Resource Estimate (MRE).

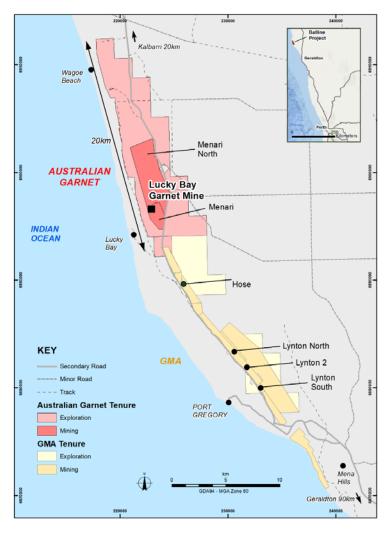


Figure 5: Lucky Bay Garnet Project location.



Mineral Resources

The resource statement for the Lucky Bay Resource, at a 2% HM bottom cut, is as follows:

"A combined Measured, Indicated and Inferred Resource of 442.5Mt of material containing 19Mt of Heavy Minerals at an average grade of 4.3% Heavy Minerals and 5.7% Slimes, which includes:

- a Measured Resource of 41.6Mt containing 2.1Mt of Heavy Minerals at an average grade of 5% Heavy Minerals and 4.9% Slimes,
- an Indicated Resource of 342.5Mt containing 14.7Mt of Heavy Minerals at an average grade of 4.3% Heavy Minerals and 5.8% Slimes and
- an Inferred Resource of 58.5Mt containing 2.2Mt of Heavy Minerals at an average grade of 3.8% Heavy Minerals and 5.2% Slimes."

The resource dimensions and methodology remain largely unchanged from the 2021 MRE and so a very similar model has been produced with only a volume-driven addition of 3.7 million tonnes of resource for 200,000 tonnes of HM. Improved confidence is achieved for mine planning purposes from the recent drilling and the Western Dune is extended incrementally in the north.

Table 1 outlines the previous Measured Mineral Resource for Menari and Menari North of 438.8Mt @ 4.3% HM (see ASX announcement dated 1st July 2021).

Table 2 details the updated Mineral Resource for both Menari and Menari North. The Measured Mineral Resource at Menari has increased by 9.3Mt (+29%), including a 0.5Mt (+31%) increase in contained HM. This update increases the total Mineral Resource to 442.5Mt (+3.7Mt) and the tonnage of contained HM to 19.0Mt (+0.2Mt).

Work completed in September 2021 for this MRE update includes 118 Aircore drill holes for 2,490 metres of infill and edge definition drilling at the Menari Deposit. Drilling was designed to assist in final mine design and to deliver additional mineral resources, unconstrained in the NW of the deposit. All samples (including QA samples) were subjected to assay by Heavy Liquid Separation (HLS) from which all heavy mineral sinks were scanned by mineralogist and then sieved for sizing analysis. Customarily, this work programme included a substantial QA component, which comprises field duplicate, field standard, twin drilling and laboratory QA sample analyses.

A series of 86, geologically-domained QEMSCAN composites inform the Menari South and Menari North regions. The peripheral regions of the Menari Measured Resource (post 2013 drilling) are domained mineralogically and informed by the QEMSCAN analysis. The additional drilling and updated mineralogy has resulted in a 0.3Mt (2%) decrease in contained garnet and a 0.5Mt (19%) increase in non-garnet HM.



Table 1: Previous Menari & Menari North Mineral Resource @ 2% HM cut-off (JORC2012) – July 2021

	Commodity: Mineral Sands								
Deposit	Resource	Туре	Tonnes	HM	НМ	Slimes	Garnet	Garnet	
	Category		(Mt)	(%)	(Mt)	(%)	(%)	(Mt)	
Menari	Measured	Dune	25.5	4.2	1.1	4.6	84.3	0.9	
	Measured	Strand	6.8	8.6	0.6	5.9	79.1	0.5	
Menari	Indicated	Dune	334.2	4.1	13.6	5.9	86.7	11.8	
North	Indicated	Strand	13.0	10.3	1.3	5.8	86.7	1.2	
	Inferred	Dune	59.2	3.8	2.2	5.2	85.0	1.9	
	Inferred	Strand	0.2	4.3	0.01	5.9	80.7	0.01	
TOTAL	Measured	All	32.3	5.1	1.6	4.9	83.2	1.4	
	Indicated	All	347.2	4.3	14.9	5.9	86.7	13.0	
	Inferred	All	59.3	3.8	2.2	5.2	85.0	1.9	
TOTAL	All	All	438.8	4.3	18.8	5.7	86.2	16.2	

Table 2: Updated Menari & Menari North Mineral Resource @ 2% HM cut-off (JORC2012) – June 2022.

	Commodity: Mineral Sands								
Deposit	Resource Category	Туре	Tonnes (Mt)	HM (%)	HM (Mt)	Slimes (%)	Garnet (%)	Garnet (Mt)	
Menari	Measured	Dune	31.3	4.0	1.2	5.0	85.5	1.1	
	Measured	Strand	10.3	7.9	0.8	5.8	80.7	0.7	
Menari	Indicated	Dune	328.2	4.1	13.4	5.9	83.5	11.2	
North	Indicated	Strand	14.2	9.3	1.3	6.6	85.5	1.1	
	Inferred	Dune	58.3	3.8	2.2	5.2	82.6	1.8	
	Inferred	Strand	0.2	4.2	0.0	6.6	89.2	0.0	
TOTAL	Measured	All	41.6	5.0	2.1	5.2	83.6	1.7	
	Indicated	All	342.5	4.3	14.7	5.9	83.6	12.3	
	Inferred	All	58.5	3.8	2.2	5.2	82.6	1.8	
TOTAL	All	All	442.5	4.3	19.0	5.7	83.5	15.9	

Note: Small discrepancies may occur due to rounding



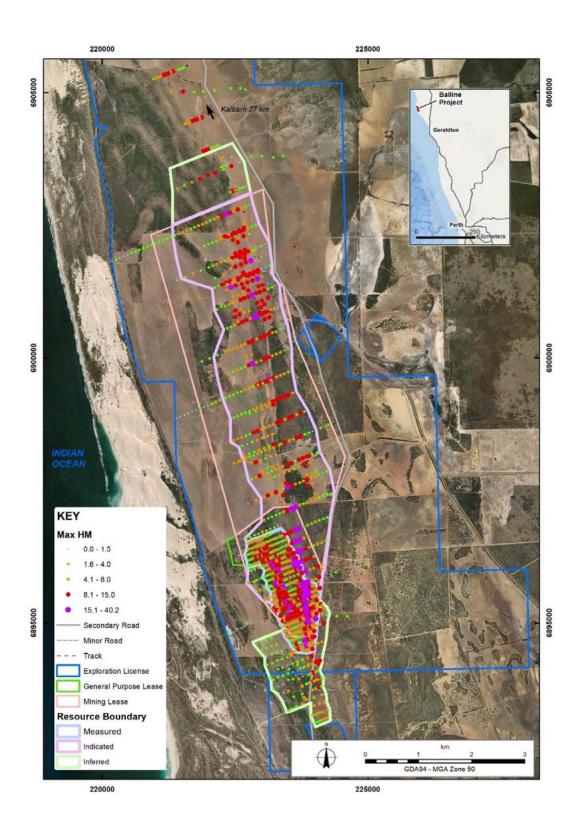


Figure 6 Plan of drill hole collars coloured by maximum heavy mineral assay intercept



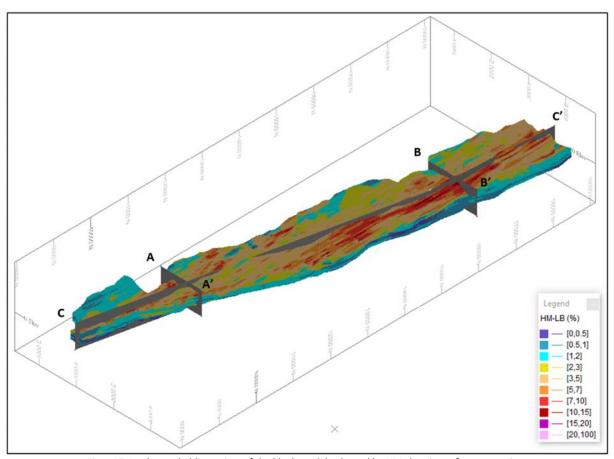


Figure 7 An elevated oblique view of the block model coloured by HM showing reference sections



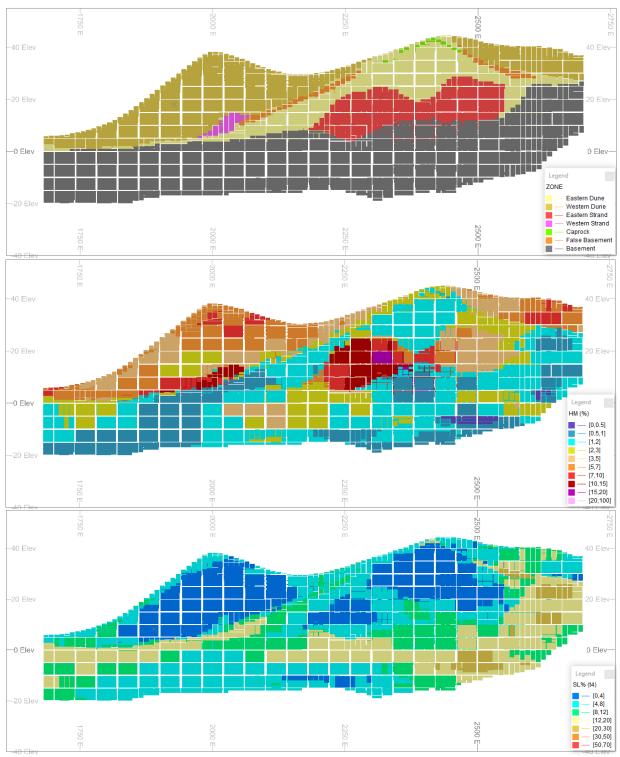


Figure 8 Stacked sections orientated A-A' showing ZONE, HM and SL (V.E. = 5:1).



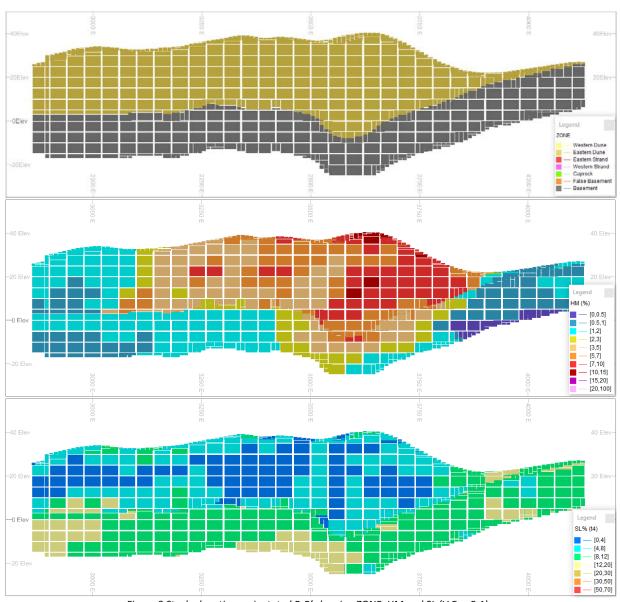


Figure 9 Stacked sections orientated B-B' showing ZONE, HM and SL (V.E. = 5:1)



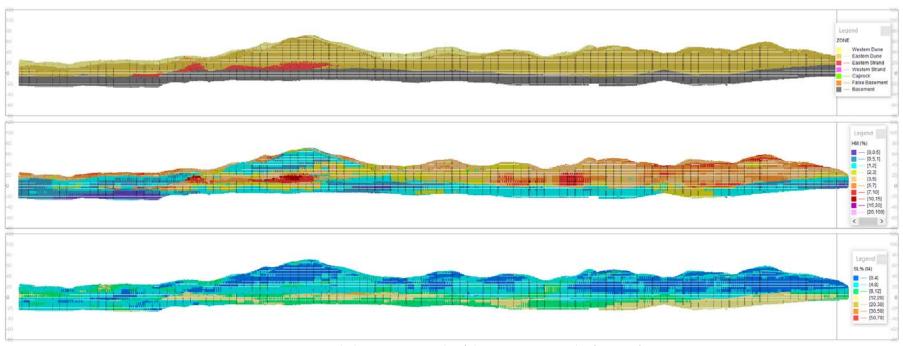


Figure 10 Stacked sections orientated C-C' showing ZONE, HM and SL (V.E. = 7:1).



Measured (Menari) MINERALOGIST	East Dune [1] West Dune [2] East Strand [10] West Strand [20] Caprock [30] Claypan [40]	1,928,270 8,937,476 2,743,600 782,200 8,752 268,200 14,668,497	1.76 1.73 1.75 1.71 1.81 1.78 1.73	3,398,385 15,420,786 4,793,030 1,339,744 15,850 476,804 25,444,599	92,346 696,103 412,955 127,715 377 15,059 1,344,555	2.72 4.51 8.62 9.53 2.38 3.16 5.28	5.96 3.51 5.56 3.49 8.55 9.49 4.34	89.80 92.43 92.00 94.17 73.27 84.12 91.92	4.05 3.99 2.29 2.34 18.18 6.63 3.65	3.04 4.92 9.41 10.14 3.23 3.65 5.77	20.52 14.68 21.30 21.39 22.33 20.21 17.81	78.70	73,398.99 593,929.74 324,995.98 100,398.03 12,015.54 1,105,031	GARN_QS	GARNTONNES_QS	GARNPCT_COMB	GARNTONNES_COMB	5.45 2.53 6.52 2.84 5.60 5.24 3.96	057-571 37.38 23.16 32.47 29.66 40.79 37.85 27.60	47.16 55.10 51.05 56.72 49.43 46.08 53.43	10.01 19.21 9.96 10.78 4.17 10.84 15.02
Measured	East Dune [1]	3,307,755	1.80	5,939,303	167.914	2.83	7.69	89.60	2.35	3.17	14.86			85.14	142,969			6.01	44.36	42.88	6.74
(Menari)	West Dune [2]	3,703,840	1.76	6,530,636	287,727	4.41	5.60	88.25	5.82	5.03	12.00			88.00	253,192			2.16	34.50	50.15	13.18
(QEMSCAN)	East Strand [10]	2,081,900	1.76	3,660,330	260,587	7.12	6.56	89.94	3.42	7.88	15.14			84.86	221,136			4.37	44.45	45.79	5.39
	West Strand [20]	200	1.79	357	34	9.52	7.30	87.92	4.77	10.76	15.04			84.96	29			2.01	31.16	57.69	9.15
	Caprock [30]	9,991	1.73	17,249	495	2.87	3.99	82.59	13.42	3.45	13.68			86.32	427			2.02	41.65	48.84	7.49
	Claypan [40]	6,200	1.80	11,132	298	2.67	10.50	82.55	7.37	3.19	12.08			87.92	262			3.76	41.88	47.02	7.33
		9,109,886	1.77	16,159,007	717,055	4.44	6.59	89.12	4.01	4.99	13.81			86.19	618,015			3.84	40.35	46.91	8.90
Indicated	East Dune [1]	159,774,412	1.77	282,207,197	11,676,046	4.14	5.81	91.47	2.81	4.49	17.00			83.00	9,690,890			4.55	47.53	43.26	4.66
(Menari North)	West Dune [2]	26,013,117	1.77	46.040.127	1.709.731	3.71	6.11	88.43	5.45	4.10	13.38			86.62	1,481,043			3.61	39.67	45.67	11.05
(QEMSCAN)	East Strand [10]	8,050,900	1.76	14,173,671	1,321,992	9.33	6.13	92.75	1.14	10.00	14.48			85.52	1,130,597			2.50	41.55	53.56	2.39
	Claypan [40]	17,700	2.02	35,755	926	2.59	21.66	81.79	3.41	3.24	9.55			90.45	837			3.67	43.28	49.05	4.00
		193,856,129	1.77	342,456,750	14,708,695	4.30	5.87	91.11	3.10	4.67	16.35			83.65	12,303,367			4.24	46.04	44.50	5.22
Inferred	East Dune [1]	24,120,310	1.75	42,174,135	1,591,174	3.77	4.95	91.81	2.22	3.98	19.37			80.63	1,282,971			4.80	54.10	35.82	5.28
(Menari Sth & Nth)	West Dune [2]	9,108,442	1.77	16,079,482	607,646	3.78	5.86	76.68	4.84	4.52	12.25			87.75	533,180			2.46	40.05	44.84	12.65
(QEMSCAN)	East Strand [10]	130,400	1.74	227,463	9,643	4.24	6.58	83.05	0.89	5.03	10.78			89.22	8,603			2.16	22.07	61.17	14.60
	Caprock [30]	1,600	1.72	2,760	82	2.98	3.88		11.75	3.54	15.63			84.37	69			1.96	41.50	48.70	7.83
	Claypan [40]	800	1.94	1,553	54	3.47	16.93	84.14	3.20	3.49	13.34			86.66	47			4.24	38.72	48.51	8.53
		33,361,552	1.75	58,485,392	2,208,600	3.78	5.21	87.62	2.93	4.13	17.37			82.63	1,824,870			4.10	49.85	38.57	7.48
REPORTED TOTALS A	ND GARNET																				
Measured	MAG	14,668,497	1.73	25,444,599	1,344,555	5.28	4.34	91.92	3.65	5.77	17.81	82.19	1,105,031			82.19	1,105,031	3.96	27.60	53.43	15.02
	QEMSCAN	-,,	1.77	16,159,007	717,055	4.44	6.59	89.12	4.01	4.99	13.81			86.20	618,771.21	86.19	618,015.00	3.84	40.35	46.91	8.90
	SUB TOTAL	23,778,383	1.75	41,603,606	2,061,610	4.96	5.21	90.83	3.79	5.46	16.26	82.19	1,105,031	86.20	618,771.21	83.58	1,723,046.25	3.92	32.17	51.09	12.82
Indicated	QEMSCAN		1.77	342,456,750	14,708,695	4.30	5.87	91.11	3.10	4.67	16.35			83.65	12,298,154	83.65	12,303,367	4.24	46.04	44.50	5.22
Inferred	QEMSCAN		1.75	58,485,392	2,208,600	3.78	5.21	87.62	2.93	4.13	17.37			82.62	1,822,679	82.63	1,824,870	4.10	49.85	38.57	7.48
TOTAL		250,996,064	1.76	442,545,748	18,978,906	4.29	5.72	90.62	3.14	4.67	16.48	82.19	1,105,031	83.81	14,739,604	83.52	15,851,283	4.19	44.97	44.53	6.31

Table 3 Garnet distribution by CLASSIFICATION, ZONE and COMPREF at a 2% HM bottom cut

Note: Small discrepancies may occur due to rounding

This announcement dated 23rd June 2022 is authorised for market release by the Board of Resource Development Group Ltd.

Michael Kenyon
Company Secretary

For further information, please contact Michael Kenyon on (08) 9443 2928 or at michael.kenyon@resdevgroup.com.au



Competent Person's Statement

The information in this report that relates to the Mineral Resources is based upon work compiled by Mr Richard Glen Stockwell. Mr Stockwell is a full-time employee of Placer Consulting Pty Ltd and a Fellow of The Australian Institute of Geoscientists. Mr Stockwell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he has undertaken to qualify as a Competent Person as defined in the JORC Code, 2012. Mr Stockwell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Forward Looking Statement

This ASX announcement may contain forward looking statements that are subject to risk factors associated with garnet exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, metallurgy, Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimate



Appendix 1 – Significant Drilling intercepts

HOLE_ID	EASTING MGA94-Z50 (m)	NORTHING MGA94-Z50 (m)	RL AHD (m)	AZI (°)	Dip (°)	INTERCEPT
BA563	223836.04	6895117.63	30.60	0.00	-90	3m @ 15.68% HM from 24m
BA562	223769.28	6895257.23	32.86	0.00	-90	3m @ 12.17% HM from 25.5m
BA536	223762.45	6896163.03	47.35	0.00	-90	19.5m @ 11.24% HM from 2.5m
BA561	223769.28	6895257.23	32.86	0.00	-90	4.5m @ 9.51% HM from 25.5m
BA502	223721.61	6896577.44	53.59	0.00	-90	22.5m @ 8.7% HM from 19.5m
BA501	223648.94	6896546.61	59.49	0.00	-90	27m @ 8.26% HM from 27m
BA537	223837.84	6896191.81	44.34	0.00	-90	16.5m @ 7.83% HM from 24m
BA526	223651.90	6896224.60	49.89	0.00	-90	30m @ 7.8% HM from 18m
BA534	223652.21	6896114.65	47.46	0.00	-90	25.5m @ 7.68% HM from 19.5m
BA533	223617.10	6896102.91	46.51	0.00	-90	19.5m @ 7.5% HM from 22.5m
BA562	223797.10	6895208.14	32.38	0.00	-90	7.5m @ 7.42% HM from 0m
BA553	223728.94	6895822.32	44.18	0.00	-90	13.5m @ 7.41% HM from 22.5m
BA538	223911.99	6896225.05	40.46	0.00	-90	4.5m @ 7.36% HM from 31.5m
BA522	223578.00	6896300.89	55.26	0.00	-90	10.5m @ 7.1% HM from 0m
BA534	223652.21	6896114.65	47.46	0.00	-90	9m @ 7.08% HM from 0m
BA535	223690.47	6896131.67	47.43	0.00	-90	28.5m @ 7.04% HM from 19.5m
BA527	223486.11	6896049.07	35.48	0.00	-90	4.5m @ 6.99% HM from 0m
BA559	223733.59	6895484.26	30.43	0.00	-90	13.5m @ 6.8% HM from 13.5m
BA554	223443.50	6895700.10	21.24	0.00	-90	10.5m @ 6.79% HM from 0m
BA516	223539.46	6896398.15	56.57	0.00	-90	7.5m @ 6.7% HM from 0m
BA525	223614.70	6896203.92	50.54	0.00	-90	28.5m @ 6.69% HM from 22.5m
BA514	223464.84	6896365.73	57.67	0.00	-90	7.5m @ 6.6% HM from 0m
BA546	223724.08	6896037.20	48.03	0.00	-90	13.5m @ 6.47% HM from 25.5m
BA555	223681.66	6895672.81	30.94	0.00	-90	10.5m @ 6.47% HM from 13.5m
BA494	222832.23	6896214.86	24.17	0.00	-90	3m @ 6.36% HM from 9m
BA525	223614.70	6896203.92	50.54	0.00	-90	10.5m @ 6.36% HM from 0m
BA526	223651.90	6896224.60	49.89	0.00	-90	10.5m @ 6.31% HM from 0m
BA533	223617.10	6896102.91	46.51	0.00	-90	7.5m @ 6.26% HM from 0m
BA560	223727.84	6895368.16	31.88	0.00	-90	9m @ 6.17% HM from 0m
BA561	223769.28	6895257.23	32.86	0.00	-90	9m @ 6.03% HM from 0m
BA563	223836.04	6895117.63	30.60	0.00	-90	9m @ 5.83% HM from 0m
BA541	223542.34	6895957.66	33.54	0.00	-90	6m @ 5.64% HM from 0m
BA515	223504.08	6896379.03	57.17	0.00	-90	15m @ 5.53% HM from 0m
BA500	223574.61	6896517.95	60.77	0.00	-90	21m @ 5.46% HM from 31.5m
BA522	223578.00	6896300.89	55.26	0.00	-90	19.5m @ 5.45% HM from 30m
BA524	223582.19	6896194.70	50.92	0.00	-90	10.5m @ 5.29% HM from 0m



HOLE_ID	EASTING MGA94-Z50 (m)	NORTHING MGA94-Z50 (m)	RL AHD (m)	AZI (°)	Dip (°)	INTERCEPT
BA557	223529.14	6895520.91	24.81	0.00	-90	15m @ 5.16% HM from 0m
BA546	223724.08	6896037.20	48.03	0.00	-90	7.5m @ 5.1% HM from 0m
BA484	223208.40	6896471.99	45.00	0.00	-90	9m @ 5.06% HM from 1.5m
BA461	222858.01	6896562.22	30.03	0.00	-90	7.5m @ 4.93% HM from 0m
BA462	222906.57	6896567.49	34.79	0.00	-90	12m @ 4.92% HM from 0m
BA459	222795.37	6896527.48	23.77	0.00	-90	4.5m @ 4.9% HM from 0m
BA540	223506.38	6895951.77	30.48	0.00	-90	7.5m @ 4.9% HM from 0m
BA509	222909.52	6896129.13	24.86	0.00	-90	10.5m @ 4.82% HM from 4.5m
BA521	223503.36	6896271.13	57.02	0.00	-90	12m @ 4.8% HM from 0m
BA510	222947.88	6896149.44	22.68	0.00	-90	12m @ 4.71% HM from 0m
BA460	222831.10	6896540.67	27.69	0.00	-90	7.5m @ 4.69% HM from 0m
BA523	223545.59	6896176.93	48.01	0.00	-90	1.5m @ 4.67% HM from 0m
BA542	223578.07	6895978.20	37.82	0.00	-90	6m @ 4.66% HM from 0m
BA479	223388.10	6896655.26	63.86	0.00	-90	1.5m @ 4.65% HM from 10.5m
BA475	222870.87	6896441.42	34.58	0.00	-90	12m @ 4.62% HM from 0m
BA545	223690.40	6896011.35	47.77	0.00	-90	9m @ 4.59% HM from 0m
BA558	223683.65	6895573.03	27.19	0.00	-90	9m @ 4.55% HM from 15m
BA544	223655.04	6895999.12	45.45	0.00	-90	16.5m @ 4.48% HM from 22.5m
BA474	222834.85	6896423.34	28.84	0.00	-90	12m @ 4.47% HM from 0m
BA545	223690.40	6896011.35	47.77	0.00	-90	18m @ 4.46% HM from 24m
BA458	222756.51	6896505.79	19.66	0.00	-90	3m @ 4.35% HM from 0m
BA532	223578.79	6896085.46	43.06	0.00	-90	1.5m @ 4.35% HM from 0m
BA473	222796.70	6896410.36	23.34	0.00	-90	9m @ 4.29% HM from 0m
BA553	223728.94	6895822.32	44.18	0.00	-90	6m @ 4.2% HM from 0m
BA503	223798.54	6896608.19	47.58	0.00	-90	10.5m @ 4.1% HM from 0m
BA549	223582.79	6895764.22	28.13	0.00	-90	4.5m @ 4.1% HM from 0m
BA550	223619.47	6895780.15	32.39	0.00	-90	7.5m @ 4.1% HM from 0m
BA465	223128.25	6896662.16	43.03	0.00	-90	3m @ 4.03% HM from 0m
BA528	222911.99	6895811.54	19.94	0.00	-90	1.5m @ 4% HM from 1.5m
BA483	222828.12	6896322.98	25.15	0.00	-90	13.5m @ 3.99% HM from 0m
BA558	223683.65	6895573.03	27.19	0.00	-90	7.5m @ 3.99% HM from 0m
BA548	223543.95	6895752.88	24.07	0.00	-90	3m @ 3.94% HM from 0m
BA485	223238.18	6896488.20	47.35	0.00	-90	7.5m @ 3.88% HM from 0m
BA519	222948.49	6896045.71	17.95	0.00	-90	6m @ 3.88% HM from 0m
BA512	223389.96	6896333.06	51.85	0.00	-90	3m @ 3.84% HM from 0m
BA559	223733.59	6895484.26	30.43	0.00	-90	7.5m @ 3.81% HM from 0m
BA476	223165.64	6896567.63	43.74	0.00	-90	7.5m @ 3.79% HM from 0m
BA508	222871.75	6896116.85	25.64	0.00	-90	3m @ 3.73% HM from 10.5m
BA552	223692.42	6895807.64	40.15	0.00	-90	15m @ 3.71% HM from 18m



HOLE_ID	EASTING MGA94-Z50 (m)	NORTHING MGA94-Z50 (m)	RL AHD (m)	AZI (°)	Dip (°)	INTERCEPT
BA472	222758.91	6896399.13	18.47	0.00	-90	6m @ 3.69% HM from 0m
BA486	223276.46	6896503.33	50.03	0.00	-90	6m @ 3.65% HM from 0m
BA535	223690.47	6896131.67	47.43	0.00	-90	6m @ 3.65% HM from 0m
BA499	223501.16	6896486.55	58.04	0.00	-90	15m @ 3.64% HM from 36m
BA552	223692.42	6895807.64	40.15	0.00	-90	6m @ 3.63% HM from 0m
BA531	223541.48	6896071.59	40.12	0.00	-90	6m @ 3.59% HM from 0m
BA556	223501.02	6895594.75	21.84	0.00	-90	10.5m @ 3.56% HM from 0m
BA551	223656.98	6895794.54	36.50	0.00	-90	9m @ 3.55% HM from 0m
BA453	223017.14	6896722.54	36.75	0.00	-90	4.5m @ 3.54% HM from 0m
BA516	223539.46	6896398.15	56.57	0.00	-90	15m @ 3.48% HM from 33m
BA543	223617.07	6895991.14	41.87	0.00	-90	6m @ 3.44% HM from 0m
BA538	223911.99	6896225.05	40.46	0.00	-90	9m @ 3.37% HM from 0m
BA503	223798.54	6896608.19	47.58	0.00	-90	10.5m @ 3.31% HM from 19.5m
BA477	223239.73	6896596.34	49.00	0.00	-90	3m @ 3.26% HM from 0m
BA555	223681.66	6895672.81	30.94	0.00	-90	10.5m @ 3.23% HM from 0m
BA537	223837.84	6896191.81	44.34	0.00	-90	16.5m @ 3.2% HM from 6m
BA551	223656.98	6895794.54	36.50	0.00	-90	4.5m @ 3.12% HM from 22.5m
BA524	223582.19	6896194.70	50.92	0.00	-90	21m @ 3.06% HM from 25.5m
BA560	223727.84	6895368.16	31.88	0.00	-90	4.5m @ 3.06% HM from 22.5m
BA511	223358.88	6896320.64	48.41	0.00	-90	9m @ 3.02% HM from 0m
BA464	223092.41	6896642.57	40.24	0.00	-90	6m @ 3.01% HM from 0m
BA482	222797.67	6896309.23	20.95	0.00	-90	9m @ 3% HM from 0m
BA491	223465.53	6896578.35	61.38	0.00	-90	18m @ 2.98% HM from 39m
BA544	223655.04	6895999.12	45.45	0.00	-90	15m @ 2.97% HM from 0m
BA496	223389.42	6896441.95	56.32	0.00	-90	6m @ 2.89% HM from 0m
BA504	223873.93	6896638.62	41.92	0.00	-90	7.5m @ 2.79% HM from 0m
BA454	223090.71	6896750.98	42.59	0.00	-90	19.5m @ 2.76% HM from 10.5m
BA498	223460.92	6896471.77	57.29	0.00	-90	1.5m @ 2.73% HM from 0m
BA513	223426.98	6896349.75	56.09	0.00	-90	4.5m @ 2.7% HM from 0m
BA455	223165.42	6896781.55	49.60	0.00	-90	12m @ 2.69% HM from 18m
BA536	223762.45	6896163.03	47.35	0.00	-90	12m @ 2.68% HM from 0m
BA550	223619.47	6895780.15	32.39	0.00	-90	1.5m @ 2.68% HM from 10.5m
BA495	222869.27	6896227.93	28.67	0.00	-90	6m @ 2.61% HM from 9m
BA481	222760.91	6896295.22	17.33	0.00	-90	4.5m @ 2.59% HM from 0m
BA463	223052.27	6896628.83	37.57	0.00	-90	1.5m @ 2.56% HM from 0m
BA539	223984.35	6896252.80	38.31	0.00	-90	0m @ 2.56% HM from 0m
BA493	222796.54	6896196.35	19.24	0.00	-90	6m @ 2.54% HM from 0m
BA537	223837.84	6896191.81	44.34	0.00	-90	1.5m @ 2.52% HM from 0m
BA520	223018.73	6896074.02	14.50	0.00	-90	3m @ 2.49% HM from 0m



HOLE_ID	EASTING MGA94-Z50 (m)	NORTHING MGA94-Z50 (m)	RL AHD (m)	AZI (°)	Dip (°)	INTERCEPT
BA520	223018.73	6896074.02	14.50	0.00	-90	1.5m @ 2.47% HM from 6m
BA563	223836.04	6895117.63	30.60	0.00	-90	1.5m @ 2.45% HM from 13.5m
BA451	222867.48	6896663.47	27.08	0.00	-90	1.5m @ 2.44% HM from 0m
BA466	223163.01	6896678.06	45.93	0.00	-90	1.5m @ 2.35% HM from 0m
BA492	222758.51	6896181.76	14.88	0.00	-90	1.5m @ 2.33% HM from 0m
BA551	223656.98	6895794.54	36.50	0.00	-90	7.5m @ 2.33% HM from 12m
BA449	222717.85	6896609.17	17.55	0.00	-90	1.5m @ 2.31% HM from 22.5m
BA518	222870.14	6896012.70	22.60	0.00	-90	1.5m @ 2.29% HM from 7.5m
BA538	223911.99	6896225.05	40.46	0.00	-90	9m @ 2.29% HM from 15m
BA523	223545.59	6896176.93	48.01	0.00	-90	1.5m @ 2.25% HM from 3m
BA528	222911.99	6895811.54	19.94	0.00	-90	1.5m @ 2.24% HM from 7.5m
BA547	223450.03	6895819.85	21.33	0.00	-90	3m @ 2.23% HM from 4.5m
BA507	222833.97	6896099.07	22.33	0.00	-90	1.5m @ 2.21% HM from 0m
BA530	223058.59	6895872.92	10.73	0.00	-90	6m @ 2.15% HM from 0m
BA518	222870.14	6896012.70	22.60	0.00	-90	1.5m @ 2.13% HM from 0m
BA506	222797.75	6896092.24	17.32	0.00	-90	3m @ 2.11% HM from 0m
BA517	222800.44	6895985.33	16.23	0.00	-90	1.5m @ 2.1% HM from 0m
BA480	222721.96	6896278.66	15.06	0.00	-90	3m @ 2.08% HM from 0m
BA525	223614.70	6896203.92	50.54	0.00	-90	6m @ 2.07% HM from 12m
BA452	222940.88	6896689.08	31.37	0.00	-90	1.5m @ 2.06% HM from 0m
BA562	223769.28	6895257.23	32.86	0.00	-90	1.5m @ 2% HM from 13.5m



Appendix A: JORC Table 1

Section 1: Sampling Techniques and Data

Criteria	Explanation	Comment			
Sampling techniques	Nature and quality of sampling (e.g. 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.	Sampling techniques are described in terms of historic works by Haddington and Westralian Sands prior to 2013 and modern techniques applied under the guidance of Placer Consulting Resource Geologists for Australian Garnet in subsequent years. The resource data set includes 84% modern and 16% historic samples. Historic samples inform Indicated and Inferred resource areas only. Historic Haddington samples were taken, in their entirety, at 1m down-hole intervals. These were then composited at 1 – 4m intervals for assay. Westralian Sands applied a 1-metre sampling interval for analysis. For the 2013 and 2016 drilling, sample sub-splits were collected at a 2m down-hole interval, using an on-board rotary splitter mounted beneath the Hornet Drilling rig cyclone. Sample gates are set at 12.5% of the splitter cycle, which delivers about 2kg of sample, dependant on ground conditions. The 2020 – 2021 drilling campaigns employed the same sampling regime with a sample interval of 1.5m.			
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All drilling was completed above the water table using a Reverse Circulation Aircore (RCAC) drilling rig. Consistency in split sample weights is monitored via intermittent testing in the field with spring scales and through recording of air-dried sample weights at the sample preparation stage. Weights are generally between one and three kilograms, and this is considered representative for the detrital material being sampled.			
	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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	RCAC drilling is used to obtain the sample as described above. Westralian Sands applied the Method A analysis technique whereby a 300g sub-sample split is attritioned by hand, slimes are estimated by drying and weighing the undersize and the sand fraction is dry-sieve sized at 500micron. A 35g sub-sample split of the minus 500-micron sample is then subjected to a heavy mineral (HM) float/sink technique using Tetra-bromo Ethane (TBE: SG=2.96g/cm³). Haddington samples were composited, riffle split at 50% and screened at +2mm to remove oversize. A 500g sub-sample was then generated by riffle splitter for de-sliming at -63 µm. All modern samples are dried and weighed. A rotary-split sub sample is then wet screened to determine slimes (-63 µm) and oversize material (+1mm). Approximately 100g of the resultant sample is then subjected to a heavy mineral (HM) float/sink technique using TBE. The resulting HM concentrate is then dried and weighed and reported as a percentage of the split and of the in-ground total sample weight. The in-ground HM analysis is then applied to the resource estimate.			
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	All samples are generated by RCAC drilling utilising ~71 mm diameter (NQ) air-core drill tooling. Drill holes are oriented vertically by spirit level.			
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Drilling of modern samples is conducted by Hornet Drilling with water injection to ensure fine material is retained. No record of drilling methodology could be determined for earlier programmes. There are no recorded intervals in the geology logs that indicate loss or contamination of samples. Sample weight analyses completed by Placer shows consistent sample weights are achieved by the drilling method employed. The configuration of drilling and nature of sediments encountered results in negligible sample loss.			



Criteria	Explanation	Comment			
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Sampling on the drill rig is observed to ensure that the cyclone and rotary splitter remain clean and in functional operation delivering $^{\sim}10-15$ splits per sample interval. Water flush and manual cleaning of the cyclone occurs at regular intervals to ensure contamination is minimised.			
		Drill penetration is halted at the end of each sample interval to allow time for the sample to return to surface and be collected. Drilling proceeds once sample delivery ceases. Applying a 2m sample interval (2013, 2016) required the splitter to be disengaged and diverted during the rod change (every 3m) to avoid additional sample being collected (sample can rill into the bit when air delivery is ceased for the rod change). Despite this practice, there is a minor sample size increase observed for every third sample (average less than 10% increase) from these generations of drilling. This is not considered material to the resource classifications as applied.			
	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.	No relationship is believed to exist between grade and sample recovery. The high percentage of silt and absence of hydraulic inflow from groundwater at this deposit results in a sample size that is well within the expected size range.			
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resources estimation, mining studies and metallurgical studies.	Qualitative digital logs of geological characteristics are collected to allow a comprehensive geological interpretation to be carried out for the resource estimation. Samples are panned in the field to determine dominant and secondary host materials characteristics and heavy mineral content. Logging of the historic samples was less detailed and captured dominant host characteristics only. Westralian Sands relied on the driller to record gross geological character of drilled intervals.			
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of RCAC samples is qualitative and includes description of sample colour, lithology, grainsize, sorting, induration type, hardness, estimated rock and estimated HM. A comments field is employed to allow further description or interpretation of materials/formation/sample quality.			
		Logging of HM sinks generated from modern samples is completed by a mineralogist using a binocular microscope. Leica digital image sizing analysis is used to produce Garnet grain size information for the 2013 drill samples to inform the geological interpretation and optimisation/product split. Subsequently, all HM sink samples are sized by sieve analysis.			
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full and all samples with observed HM (and designated for assay) are assayed.			
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All samples are unconsolidated and comprise sand, silt, clay and rock fragments.			
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Historic samples were taken, in their entirety, at 1m down-hole intervals. Modern samples are taken at a 2m down-hole interval (2013, 2016) and at a 1.5m down-hole interval (2020 onwards) using an on-board rotary splitter set at 12.5% of the splitter cycle, which delivers about 2kg of sample. Drill samples are dried and split for analysis.			
Sub-sampling techniques and sample preparation, cont'd.	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Little is known of the quality standards applied to historic samples. Modern sample preparation is recorded on a standard flow sheet and detailed QA/QC is undertaken on all samples. Sample preparation techniques and QA/QC protocols are appropriate for the heavy mineral determination and support the resource classifications as stated.			



Criteria	Explanation	Comment
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Includes the training of drill and field staff on managing the rotary splitter to ensure contamination or sample loss are avoided. Use of tightly-woven calico sample bags to remove the potential of sample loss from split samples. Review of laboratory techniques and flowsheet to ensure representative sample splitting. Inspection of laboratory procedure and equipment to ensure appropriate technique, good housekeeping and application of accurate sample handling and sample management procedures. Sample weight is recorded and monitored for outliers or spurious results. When these occur, they are investigated and re-assayed where fault is detected. Field Duplicate, laboratory replicate and standard sample geostatistical analysis is employed to manage sample precision and analysis accuracy.
Sub-sampling techniques and sample preparation, cont'd.	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.	Sample size analysis is completed as discussed above. Field duplicates are collected for precision analysis of the rotary splitting system on the rig. Results indicate a sufficient level of precision for the resource classifications. There was no field duplicate analysis completed during historic programmes. Twin drilling analysis of the Haddington programme indicate a sufficient level of precision was achieved and results support the resource classifications applied.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Given that the grain size of the material being sampled is sand and approximately 70 to 300 μ m, an approximate sample size of 2 kg is more than adequate.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Laboratory analysis was completed in-house by Westralian Sands using a technique (Method A) superseded by more accurate techniques in the mid-1990's. This data is used only to inform Inferred regions of the mineral resource estimate. Laboratory analysis of the Haddington drill samples included sample preparation at Nagrom Laboratory, followed by TBE separation at Western Geolabs and audit analysis by Diamantina laboratory. Laboratory replicates and audit assay procedures were used for QA/QC and results indicate sufficient precision and accuracy for the estimate. Sample preparation and analysis of modern drill samples is completed by Diamantina Laboratory. Laboratory replicates and laboratory standards are used for QA/QC and results indicate sufficient precision and accuracy for the estimate. All analysis is conducted according to a flow sheet that represents standard, best practice for the assessment of HM enrichment and is supported by robust QA/QC procedures (duplicates, replicates and standards).
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	None used.



Criteria	Explanation	Comment
Quality of assay data and laboratory tests, cont'd.	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	To maintain QA/QC in modern campaigns, a duplicate and standard assaying procedure was applied by Placer Resource geologists. Both standards and duplicates are submitted blind to the laboratory. A duplicate sample is collected at the rig at every 40th sample by the application of a second calico bag to the second, 12.5% splitter chute. Both samples are subjected to the complete sample preparation and assaying process. A certified standard sample is submitted in the field at a rate of 1:40, to monitor laboratory analysis accuracy. Diamantina laboratory submits an additional standard sample at a 1:40 frequency and analyse a laboratory replicate sample at a rate of 1:15 – 1:25.
		QEMSCAN analysis of mineral composites includes replicate analysis at a frequency of 1:10.
		For the Haddington drill sampling programme, a laboratory replicate (1:20) and audit analysis programme was employed. No quality control procedures are known to have been employed by Westralian Sands.
		Analysis of sample duplicates is undertaken by standard geostatistical methodologies (Scatter, Pair Difference and QQ Plots) to test for bias and to ensure that sample splitting is representative. Standards determine assay accuracy performance, monitored on control charts, where failure (beyond 3SD from the mean) triggers reassay of the affected batch.
		Acceptable levels of accuracy and precision are displayed in geostatistical analyses to support the resource classifications as applied to the estimate.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Results are reviewed in cross-section using Datamine software and any spurious results are investigated. The deposit type and consistency of mineralization leaves little room for unexplained variance.
	The use of twinned holes.	Twinned holes are drilled across a geographically-dispersed area to determine short-range geological and assay field variability for the resource estimation. Twin drilling data account for a total of 2 % of the modern drill database for the resource estimate.
		Further twin drill hole analysis was completed between the Haddington and Australian Garnet drilling datasets. The twin pairs are geographically dispersed within and through the deposit. The twin hole paired data shows low variability and only subtle bias is observed as an artefact of alternate sampling and sample compositing methodology.
		Acceptable levels of precision are displayed in the geostatistical analysis of twin drilling data to support the resource classifications as applied to the estimate.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Modern field logging data are entered digitally in the field using ruggedized computer with Micromine logging software (2013 – 2016) and Seequent logging software (2020 onwards). Data are automatically validated through reference to library tables on all fields entered. Field data are uploaded via quarantine tables to the Seequent database - MX Deposit. Population of the database with validated data tables is planned.
	Discuss any adjustment to assay data.	Assay data adjustments are made to convert laboratory collected weights to assay field percentages and to account for moisture.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.	AGPL engaged external surveyors for real time kinematic global positioning system ('RTK GPS') set out of drill collar locations until mid-2021. Survey set out of drill programmes prior to 2020 has been completed by the external surveyors and any adjustments required for setting up the drill rig were conveyed and drill sites were re-surveyed. Subsequent to 2020, drill collar set out has been via hand-held GPS with survey pick up of drill sites by external surveyors until mid-2021 and subsequently by the AGPL site surveyor upon establishment of site operations. Topographical surveys are completed by HTD (Geraldton) using a drone and RTK GPS.
		Surveys are completed using registered base stations referenced to local State Survey Markers.



Criteria	Explanation	Comment			
	Specification of the grid system used.	UTM 50J GDA94 is the global grid reference. The survey geoid model utilised in the survey set-out/pick-up is Ausgeoid98 in both the recorder and in the post-processing. All survey data used in the resource estimate has undergone a transformation to a local mine grid. This seven-parameter grid transformation aligns the average strike direction of the shoreline placers with local north, which is useful for grade interpolation and mining reference for production.			
Location of data points, cont'd.	Quality and adequacy of topographic control.	The digital terrane model (DTM)was generated by land-based survey conducted in 2008 at a 10*10m and 20*20m grid pattern using a RTK GPS unit. This was extended in 2018, and again in 2021 using an un-manned aerial vehicle (UAV) mounted with similar survey equipment. Check lines were flown by HTD to verify the previous land-based survey and results are comparable. The DTM is suitable for the classification of the resource as stated.			
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drill data spacing is nominally 100m North, 40m East, and 2m down hole to inform areas of the resource classified at a Measured level of confidence. Infill drilling of the Menari Measured Resource was conducted at a 10m east spacing. A maximum spacing of 400m North, 40m East and 1.5m down-hole inform areas of the resource classified at an Indicated level of confidence. Inferred areas of the resource include regions informed by historic data or at a 800m North, 80m East and 1.5m down-hole spacing by modern drilling.			
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resources and Ore Reserves estimation procedure(s) and classifications applied.	Variography and Kriging Neighbourhood Analysis completed using Supervisor software informs the optimal drill and sample spacing for the resource estimate. Based on these results and the experience of the competent person, the data spacing and distribution is considered adequate for the definition of mineralisation and adequate for mineral resource estimation.			
	Whether sample compositing has been applied.	All samples are regularised to a 2m interval for the interpolation based on drill hole analysis in Datamine Supervisor.			
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Sample orientation is vertical and approximately perpendicular to the dip and strike of the mineralization, which results in true thickness estimates. Drilling and sampling is carried out on a regular rectangular grid that is broadly aligned and in a ratio consistent with the anisotropy of the mineralisation.			
	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.	There is no apparent bias arising from the orientation of the drill holes with respect to the strike and dip of the deposit.			
Sample security	The measures taken to ensure sample security.	All samples are numbered, with sample splits, residues and HM sinks stored securely at AGPL property.			
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Field staff training and supervision is provided by Richard Stockwell (Director/Principal of Placer Consulting Pty Ltd). Drilling and sampling techniques are audited on a continual basis throughout the programme.			



Section 2: Reporting of Exploration Results

Criteria	Explanation	Comment
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The exploration results are coincident with the granted Mining Licences M70/1387, M70/1280 and granted Exploration Licences E70/2509 and E70/5117. All licences are wholly owned by Australian Garnet Pty Ltd. Upon mining, there is a customary 5%, state government royalty payable. An ongoing \$4/ tonne of HMC royalty payment is due to a third party and an annual payment of \$225,000 is due to the landowner occupying the land in the north of the Project.
	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.	There are no known impediments to the security of tenure over the area containing the reported exploration results.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous workers had identified the mineral resources but completed insufficient work to quantify the extent and volume or the resource. Sample assay and lithology information from historic explorers is used for the resource estimate as qualified in Section 1.
Geology	Deposit type, geological setting and style of mineralisation.	Exploration results are indicative of aeolian (dunal) overlying palaeo-beach placer, detrital heavy mineral sand deposits. Heavy minerals are derived originally from the metamorphic rocks of the Northampton Complex, which were delivered to the coast via the Hutt River and smaller tributaries. A dominant northward-moving long-shore drift current has spread this mineral along the coast into beach and dune sequences.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. 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.	An intercept table of all drilling relevant to the resource estimate is listed in the report and in previous releases. These can be viewed on the company website. There are no further drill hole results that are considered material to the understanding of the exploration results. Identification of the wide and thick zone of mineralisation is made via multiple intersections of drill holes and to list them all would not give the reader any further clarification of the distribution of mineralisation throughout the deposit.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	The Lucky Bay Resources are reported at a 2% HM bottom cut-off established by optimisation of the Lucky Bay resources during DFS. No top-cutting of data was required. Data distributions are normal with a positive skew and contain no observable spike or nugget effects.
	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.	No data aggregation was required. The drill hole file is regularised to a 2m interval for the interpolation.



Criteria	Explanation	Comment
Data aggregation methods, cont'd.	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were used for reporting of exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	All drill holes are vertical and perpendicular to the dip and strike of mineralisation and therefore all intercepts are approximately true thickness.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Dune deposits typically approximate a horizontal accumulation over a variable basement topography.
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 main body of the report.
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.	Reporting of results is restricted to Mineral Resources estimates generated from geological and grade block modelling. The grade and dimensions of the Resource and the extents of the exploration drilling results is outlined in the report. Intercepts are disclosed in an unambiguous way.



Criteria	Explanation	Comment
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.	The bulk density applied to the Lucky Bay Resource has been generated for each discrete geological domain. A component-based density algorithm, designed by Placer Resource Geologists, combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. Pore space is variable based on sample composition, hence the need to quantify the volume of the sample represented by saturated pores. A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is then applied and recorded, for all intervals based on their geological domain. Where informing data were absent in historic drilling, the zone average (FDENSITY) was applied. Garnet concentration is derived from mineralogical scanning of drill sample HM sinks for the bulk of the Menari Deposit (drilled in 2013). The southern region of the Menari Deposit and the Menari North region are classified mineralogically by QEMSCAN analysis. The two mineralogical regions are domained in the resource model and reported separately. The error on mineralogical scanning results (2013) is quoted at 5%. Garnet concentration results from QEMSCAN are, on average, ~3% lower, by Zone than the mineralogist estimates for the global resource figure. The QEMSCAN results are favoured for reporting of mineralogy herein. Grain size analysis is completed on all drill samples. HM sinks (including garnet) are physically sized by sieve (2016 – 2021) and digital image analysis using Leica software (2013) was conducted on the Garnet fraction alone. As the other HM species are included post 2013, there is expected to be a minor under-call in Garnet grainsize in the model. This will result in additional coarse garnet and less fine garnet (actually Ilmenite, Zircon, etc) in production figures. A duplicate analysis of 2013 and 2016 sizing results was completed and showed adequate precision was achieved by the Leica digital image analysis to support their incl



Criteria	Explanation	Comment
Further work	work The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Classification of the resource by garnet-only sizing and the alternative, HM sink sizing by sieve, is required. This will provide clarity on the potential influence of the dilution of coarse garnet by finer, non-garnet grains in the resource estimate. Additional garnet, in the coarser grades, is anticipated upon reconciling processed ore. Further infill drilling of the eastern mineral package at Menari and into Menari North can be considered as mining and mine planning activities progress. Sufficient time should be allowed to ensure the full geological, geo-metallurgical, resource and reserve optimisation processes to be completed well ahead of mine planning requirements. The drill and assay database is poorly populated and represents a data security risk to the project. Population of the MX Deposit database with validated drilling, assay and mineralogical data and the provision of database access to AGPL staff, is
		recommended. Further drilling and securing of known resource extensions to the north of M70/1387, under Retention or Mining Licence, is recommended. Substantial additional information is available in QEMSCAN results. Placer recommends further interrogation of mineralogy, sizing and image analysis to assist with characterisation of accessory minerals and in particular, the quantification of calcite coatings. The characterisation of accessory minerals (Ilmenite, Zircon, Rutile) remains outstanding. Placer recommends the completion of XRF analysis on mineral
		concentrates to determine the quality of these minerals and to place them in the market.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to main body of report.



Section 3: Estimation and Reporting of Mineral Resources

Criteria	Explanation	Comment
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Logging, survey and sample data is captured by industry-leading hardware and software equipped with on-board validation and quarantine capability.
	Data validation procedures used.	Look-up tables are employed at data capture stage on logging software equipped with on-board validation and quarantine capability. Cross-validation between related tables is also systematically performed by field logging software. Historic data were reviewed and manually entered into database tables. Sample weight analysis and cross section interrogation of assay fields is conducted in Datamine Studio RM software. Statistical, out-of-range, distribution, error and missing data validation is completed on data sets before being compiled into a de-surveyed drill hole file for resource estimation.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Placer Consulting Resource Geologists established procedures for data capture and storage and completed regular site visits during drilling and laboratory analysis. There were no issues observed that might be considered material to the Mineral Resource under consideration.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological interpretation is compiled from field geological observations during drill sample logging, microscope investigation of heavy mineral sinks and interpretation of sample assay and Garnet size data. A strong correlation between these three sources of information was observed and a high degree of confidence results.
	Nature of the data used and of any assumptions made.	Primary resource data comprises 84% generated by modern techniques and 16% by historic methods. Historic data inform the Indicated and Inferred resource areas only. No assumptions were made.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternative interpretations on mineral resource estimation are offered.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineral resource is constrained by the topographical surface, which is a lightly-consolidated, undulating dune field. The base to mineralisation comprises the Tamala Limestone and an abutting (to the west) clay-enriched, lagoonal lowland sequence.
		The deposit comprises two temporally-distinct, mineralised palaeo-beach placer deposits overlain by two, mineralised dune sequences. The mineral resource is controlled by these surfaces/solids and the interpolation is controlled by the physical properties within each horizon.
	The factors affecting continuity both of grade and geology.	Heavy mineral grade is broadly distributed in dune sequences and enriched in strand deposits. Both heavy mineral grade and deposit geology are consistent along strike and are expected to be reinforced by further infill and extensional drilling to the north and south.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The Lucky Bay Deposit is approximately 10.7km long, 1.0 - 1.9km wide and is 27m thick on average. Mineralisation occurs from surface over the majority of the deposit to a maximum of 63m depth.



Criteria	Explanation	Comment
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Datamine Studio RM and Supervisor software was used for the resource estimation with key fields being interpolated into the volume model using the Inverse Distance weighting (power 3) method. Qualitative induration variables such as hardness and HM coatings were interpolated using nearest neighbour. Appropriate and industry standard search ellipses, informed by variography and kriging neighbourhood analysis, were used to search for data during the interpolation and suitable limitations on the number of samples, and the impact of those samples, was maintained. Topsoil was flagged in the model at 0.3m thickness. It is excluded from the reportable resource. Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation. Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation and mineralogical domaining.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Pilot plant-scale test work was completed by AML in 2013 and by IHC Robbins in 2019. The current report considers variations from the previous resource estimate (Q2, 2021).
	The assumptions made regarding recovery of by- products.	No assumptions were made regarding the recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	Deleterious calcite coatings of garnet grains are logged qualitatively by a mineralogist for all drill sample HM sinks. Conditioning of garnet and removal of calcite coatings is the subject of on-going trials and has been considered in plant design.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The average parent cell size used was informed by Kriging Neighbourhood Analysis (KNA). It provides a statistically relevant spacing for all resource areas that are defined by a range of drill data spacings. This resulted in a parent cell size of 200m*50m*5m for the volume model. To provide for smooth transition of topography and geological domains between data points, parent sub-cells are used. Four cell splits are available in the X and Y orientations and five cell splits are available in the Z-orientation. Search orientation and range are guided by results of the KNA, augmented by the
	Any assumptions behind modelling of selective mining	experience of the Competent Person. No assumptions were made regarding the modelling of selective mining units. The cell
	units.	size and the sub cell splitting will allow for an appropriate ore reserve to be prepared.
	Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates.	No assumptions were made regarding the correlation between variables. Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation and mineralogical domaining.
	Discussion of basis for using or not using grade cutting or capping.	Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of grade interpolations was done visually In Datamine by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from both drill holes and the model to compare the effectiveness of the interpolation. Distributions of section line averages (swath plots) for drill holes and models were also prepared for each zone and orientation for comparison purposes. The resource model has effectively averaged informing drill hole data and is considered
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	suitable to support the resource classifications as applied to the estimate. Tonnages are estimated on a dry basis. No moisture content is factored.



Criteria	Explanation	Comment
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	A 2% HM bottom cut has been applied to the Resource Estimate in consultation with mining professionals working on plant design and optimisation of the Lucky Bay Project at projected operational cost and product price.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Conventional dry mining methods are to be employed and will include a combination of loader and dozer feed to a mobile, in-pit mining unit. Dilution is considered to be minimal as mineralisation commonly occurs from surface. Recovery parameters have not been factored into the estimate. However, the valuable minerals are readily separable due to their SG differential and are expected to have a high recovery through the proposed, conventional wet concentration plant.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The metallurgical recovery and separability factors are similar to other mineral sand operations. Conventional mining and processing techniques will be employed. Ore will be wet-slurried and pumped to a conventional wet concentration plant producing a heavy mineral concentrate for on-site, screening and magnetic separation into product lines. There are no fine grained lower shoreface, lagoonal or tidal sediments and HM grain size shows a normal distribution. The mineral separation plant has been designed to cater for anticipated calcite coatings on HM grains.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Wet processing typically uses no environmentally harmful chemicals. Sand and clay tailings are considered non-toxic. Thickened clay tailings will be pumped to solar drying dams and then blended upon return to pit voids. Sand tails will be returned to the pit void by pump and in-pit stacker. Overburden dumps are expected to be minimal as ore occurs at/near surface. Topsoil stockpiles are included in the mine plan and will reside off-path, proximal to the area of disturbance. The coincident land package is primarily open pastoral land with minor stands of acacia scrubland. Clearing for drilling purposes has been readily approved. Vegetation is well represented regionally and readily re-vegetated and no floral impediments to mining are anticipated. Water studies are on-going and include groundwater monitoring at a number of sites throughout the Lucky Bay Project area. A geographically-dispersed bore field is proposed to reduce individual site drawdown. Waste water recycling is integral in the processing and tails disposal plan.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	The bulk density applied to the Lucky Bay Resource is determined. It has been generated for each discrete geological domain. A component-based density algorithm, designed by Placer Resource Geologists, combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. Pore space is variable based on sample composition, hence the need to quantify the volume of the sample represented by saturated pores.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is then applied and recorded, for all intervals, based on their geological domain.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	No assumptions are made for bulk density.



Criteria	Explanation	Comment
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The resource classification for the Lucky Bay Project is based on the confidence in informing data and the resultant geological interpretation; grade and geological continuity, demonstrated by variography and twin drilling analysis; drill hole spacing and accuracy of the model to predict informing drill hole data. Input data are generally of a high quality and are supported by robust QA/QC protocols. Sample HLS results are supported by individual sample composition and Garnet sizing analyses and mineral assemblage and mineral chemistry analysis on geologically-domained HM composites. Post-depositional modification was insignificant and did not influence domaining of
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	geological units or resource classification. The classification of the Mineral Resource is supported by all of the criteria as noted above.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The results appropriately reflects the Competent Person's view of the deposit categorisation.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	An independent consultant (Gavin Helgeland) undertook an audit of the resource estimate, which was completed by the Competent Person, Richard Stockwell. Gavin found it to be suitable for reserve optimisation in the Indicated and Measured category areas.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The accuracy and confidence of the Lucky Bay Resource Estimate is conducive to reporting at a Measured, Indicated and Inferred Status. This is largely due to: The drilling and sampling density and the subsequent detailed geological interpretation, which offers good control and confidence for the mineralisation. The reconcilably high accuracy of the survey apparatus and methods applied to the drilling locations and the topographic surface. The demonstrable quality in the input assay and mineralogical data. The results of qualitative assessment of the Mineral Resources estimate and comparison with previous resource estimates indicates the robustness of this particular resource estimation exercise.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The estimates are global.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data are currently available.