Date: 6 July 2020

ASX Code: MAN

Capital Structure
Ordinary Shares: 266,466,510
Unlisted Options:
206,550,077 (3c exercise)
Current Share Price: 2.5c
Market Capitalisation: $6.7M
Cash: $3.45M (Mar 31 2020)
Debt: Nil

Directors

Patrick Burke
Non-Executive Chairman

James Allchurch
Managing Director

Ben Phillips
Non-Executive Director

Lloyd Flint
Company Secretary

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Surface PGEs confirmed at Newleyine

Highlights

- **First analysis for platinum group elements (PGEs) confirms Newleyine as another Ni-Cu-PGE enriched ultramafic intrusive, located 30km from Chalice's (ASX:CHN) exciting Julimar discovery**
- **Surface rock chip results up to 0.36g/t Pd, 0.27g/t Pt, 0.5% Ni and 0.19% Cu confirm Newleyine is highly fertile for Julimar-style mineralisation**
- **Historic drilling at Newleyine has already confirmed widespread Ni-Cu-Fe sulphide mineralisation grading 0.24% Ni and 172 ppm Cu over drill widths of up to 240m**
- **Newleyine had never previously been assessed for PGEs**
- **Results expected for a further 52 rock chip samples in coming fortnight**
- **Planned electromagnetic surveys to guide drill targeting**

Mandrake Managing Director James Allchurch commented:

"The Julimar discovery has uncovered a previously unrecognised Ni-Cu-PGE province on the doorstep of Perth and Mandrake's recent surface results demonstrate the potential for a similar mineralisation style at Newleyine.

"Our confidence in Newleyine has grown and given us added impetus to proceed to the next step in our exploration approach. We will now commence planning of electromagnetic geophysical surveys to identify drill targets within the ultramafic rocks hosting this distinctive Ni-Cu-PGE metal signature"

Mandrake Resources Limited (ASX: MAN) (Mandrake or the Company) is pleased to announce the results of the first batch of rock chip samples collected at the Company's Newleyine prospect in the Jimperding Metamorphic Belt located 70km north east of Perth, Western Australia.

The Newleyine prospect lies approximately 30km east of Chalice Gold Mines Limited's Julimar Ni-Cu-PGE discovery.

Mandrake has now completed a detailed mapping and rock chip sampling programme involving the collection of a total of 96 rock chip samples from the Newleyine prospect. Results from the first 44 rock chip samples collected are detailed below and in Table 1 and Figures 1, 2 and 3.

Platinum and Palladium Results

Concentrations of platinum and palladium in the first batch of rock chip samples (NRX1–NRX44) have exceeded expectations with rock chip samples up to 0.36g/t Pd and 0.27g/t Pt (NRX024) confirming the ultramafic intrusive at Newleyine is highly fertile for platinum group elements (PGEs).

Pt and/or Pd concentrations exceed 0.1g/t in seven rock chip samples across the area, with PGE mineralisation contained almost exclusively within weathered ultramafic rocks.

This is an exciting development for the Company and has elevated Newleyine's prospectivity for PGEs given it is hosted in the same geological setting as Chalice's Julimar.

The first field programme (NRX1 – NRX44) was designed to characterise the various rock and regolith types at Newleyine with the second programme focusing more on mapping and sampling of the prospective ultramafic rocks.

A further 52 rock chip samples were collected in the second programme at Newleyine with results to be released in the coming weeks.

Plate 1 – Exposed weathered ultramafic rocks in a costean at Newleyine – rock chip sample NRX024.

Nickel and Copper Results

Consistent with historic drill results and surface geochemistry previously announced, recent sampling has confirmed the Newleyine prospect has discernable nickel and copper at surface (note previous workers did not assay for PGEs).

Surface concentrations exceeding 0.1% nickel were recorded in 14 samples across Newleyine with grades up to 0.5% Ni (NRX009) in a serpentinised dunite.

Copper results were broadly anomalous across Newleyine with concentrations up to 0.19% Cu (NRX005).

The presence and relative concentrations of nickel and copper are consistent with expectations and further enhance the prospectivity of Newleyine.

It is important to note that historic drilling at Newleyine confirmed the presence of widespread Ni-Cu-Fe sulphide mineralisation of 0.24% Ni and 172 ppm Cu over drill widths of up to 240m. (see Mandrake ASX release 14 April 2020). Again, samples were not assayed for PGEs.

Plate 2 – Looking NW towards outcropping area in the west of the Newleyine prospect

Forthcoming Work

Surface concentrations of PGEs have elevated the prospectivity of Newleyine and provided impetus to fast-track exploration.

Rock chip samples from outcrop and sub-crop were primarily collected from the topographic high in the west of the Newleyine anomaly (see Figure 1, 2 and 3).

The eastern half of Newleyine comprises two paddocks with little to no outcrop however ultramafic float and sub-crop was observed. This lower lying area incorporates distinct magnetic highs that are not readily explained by the presence of BIF and may be related to deeply weathered "blind" ultramafic units, never previously tested.

Following receipt and interpretation of rock chip results from the second programme, Mandrake will likely undertake one or more electromagnetic surveys (EM) with a view to identifying EM conductors for drill testing.

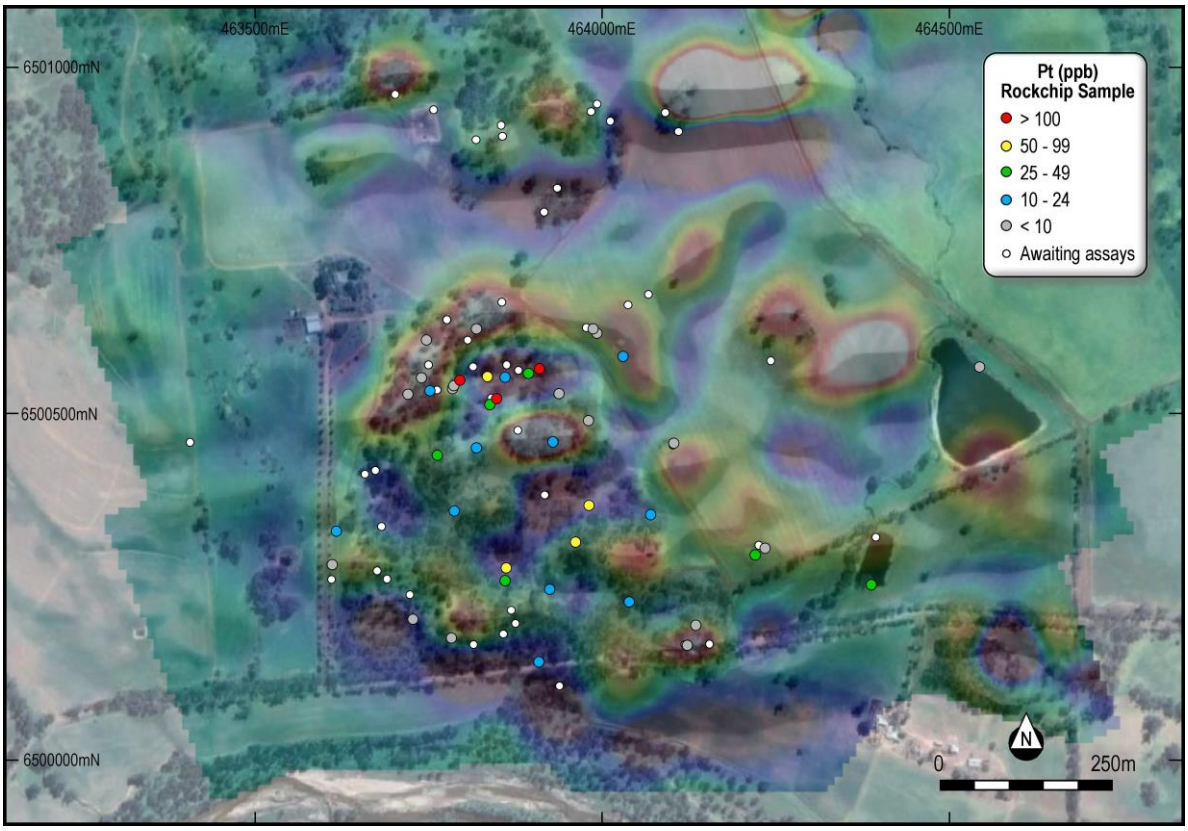

Figure 1 – Newleyine rock chip results on ground magnetics (RTP) - Platinum

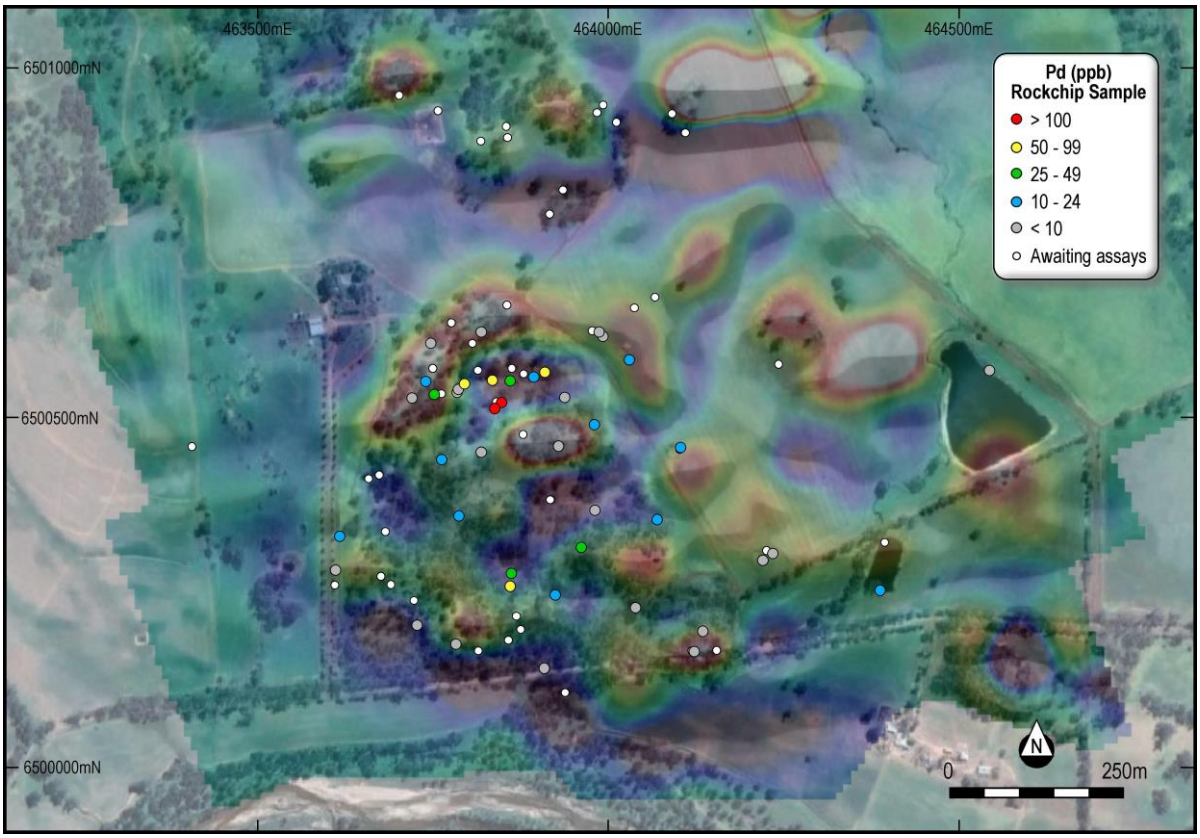

Figure 2 - Newleyine rock chip results on ground magnetics (RTP) – Palladium

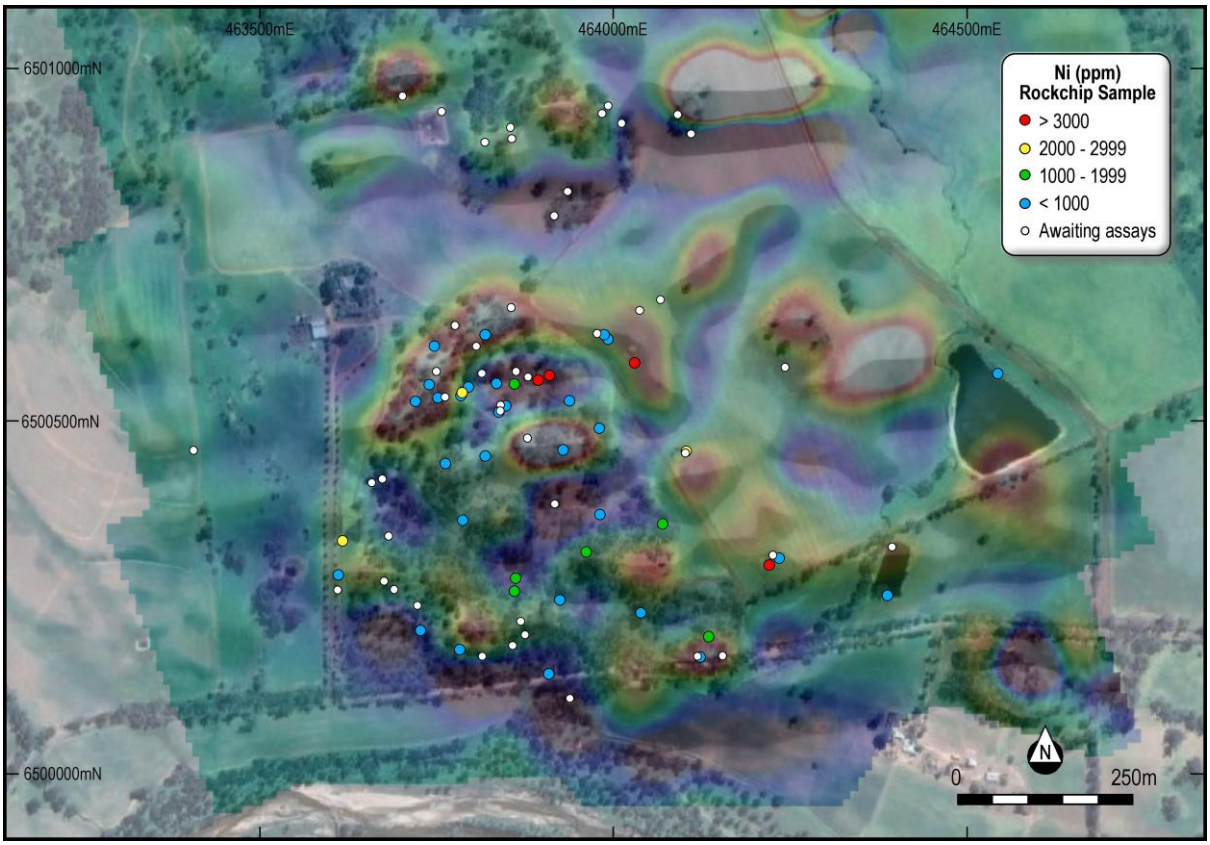

Figure 3 - Newleyine rock chip results on ground magnetics (RTP) – Nickel

This announcement has been authorized by the board of directors of Mandrake.

About Mandrake Resources

Mandrake is a junior exploration company established with the purpose of exploring and developing gold, nickel, copper and PGE opportunities. The Company recently entered into an agreement to earn-in to exploration tenure prospective for Ni/Cu/PGEs in the exciting Jimperding Metamorphic Belt, 70km NE of Perth.

Mandrake also owns a mineral exploration project located in the prolific Pine Creek Orogen of the Northern Territory prospective for gold, silver and base metals. Drilling of gold targets due to commence in July 2020.

For further information visit www.mandrakeresources.com.au

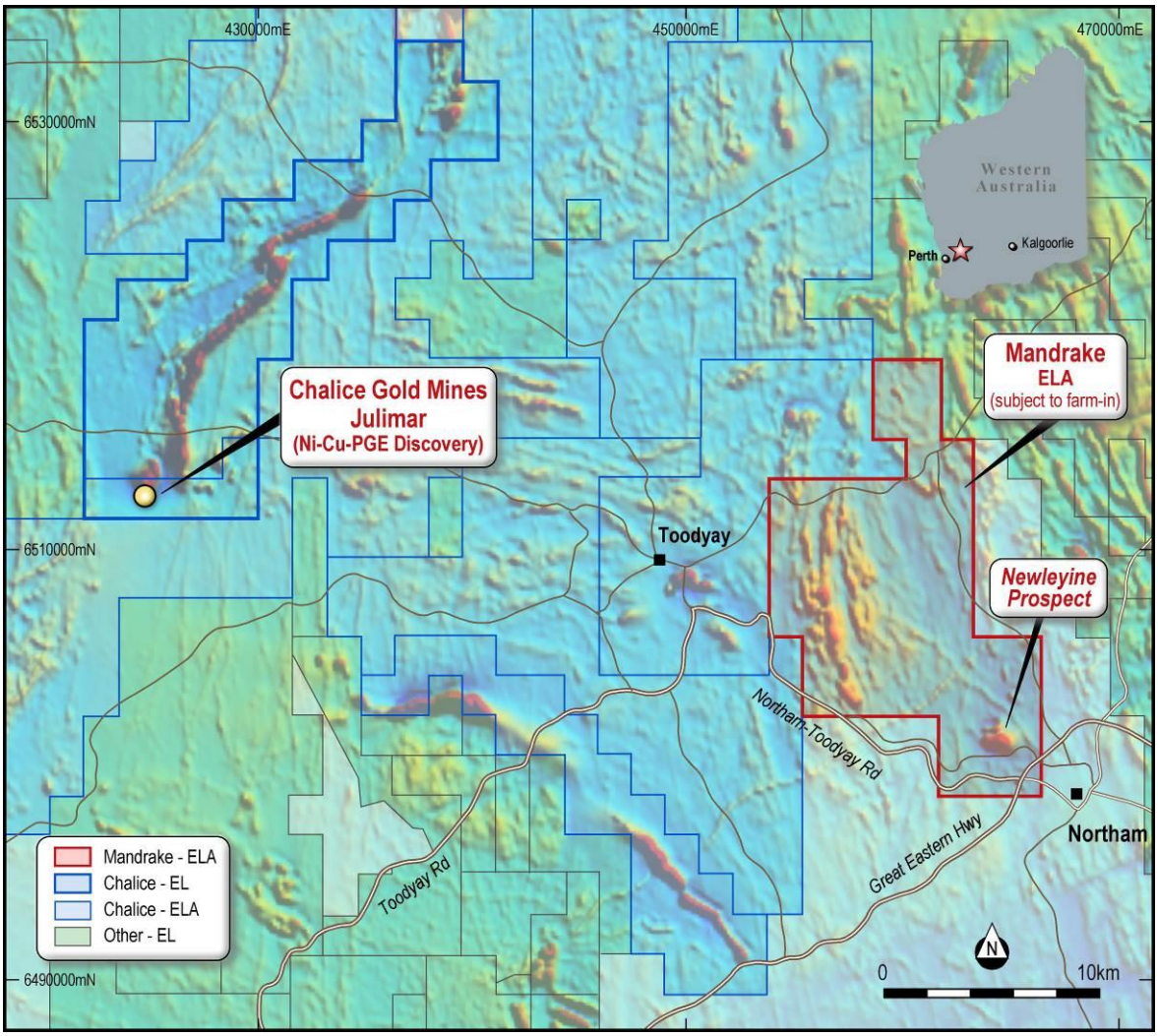

Figure 4 - Regional aeromagnetics – Jimperding Project

Competent Persons Statement

The technical information in this announcement complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Mr James Allchurch, Managing Director of Mandrake Resources. Mr Allchurch is a Member of the Australian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Allchurch consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Table 1: Newleyine prospect rock chip sample results – NRX1 – NRX44

Sample ID	Easting*	Northing*	Cu (ppm)	Ni (ppm)	Pt (ppb)	Pd (ppb)	Pt + Pd (ppb)	Outrcrop/ Float	Summary Description
NRX1	463794	6500550	218	145	**125.7**	**89.1**	**214.8**	outcrop	Indurated ferricrete, partially gossanous
NRX2	463835	6500554	435	684	**84.6**	**74.2**	**158.8**	outcrop	Saprolite, ferruginised (ultramafic)
NRX3	463860	6500553	136	**1013**	23.2	36.7	59.9	float	Weathered dunite, moderately serpentinised
NRX4	463895	6500559	940	**3656**	28.1	16	44.1	outcrop	Goethite-rich laterite, gossanous
NRX5	463909	6500566	1869	**3558**	**113.9**	**80.8**	**194.7**	float	Laterite, partially gossanous - hematite and goethite (ultramafic)
NRX6	463938	6500530	50	173	6.4	3.4	9.8	outcrop	Pisolitic laterite
NRX7	463979	6500490	239	399	25.3	10	35.3	outcrop	Pisolitic laterite
NRX8	464105	6500457	136	**2247**	41.2	20.4	61.6	float	Indurated ferricrete, partially gossanous
NRX9	464031	6500584	6	**5037**	11.4	18.2	29.6	float	Dunite, moderately serpentinised
NRX10	463991	6500620	10	35	1	0.6	1.6	outcrop	Banded smokey quartz – sheared vein.
NRX11	463989	6500623	27	124	6.1	4.3	10.4	outcrop	Felsic unit - sugary texture, hematite pitting
NRX12	463819	6500624	67	258	3.8	6.6	10.4	outcrop	Siliceous BIF
NRX13	463746	6500608	19	14	1.7	2	3.7	outcrop	Siliceous BIF
NRX14	463739	6500552	143	108	6.9	14	20.9	outcrop	Indurated ferricrete
NRX15	463721	6500529	26	33	2.2	1.6	3.8	outcrop	Siliceous BIF
NRX16	463762	6500439	207	792	27.5	10.6	38.1	outcrop	Indurated ferricrete
NRX17	463787	6500358	167	592	23.1	18.5	41.6	outcrop	Indurated ferricrete
NRX18	463729	6500201	27	84	1.2	1.2	2.4	outcrop	Siliceous BIF
NRX19	463782	6500172	72	130	2.6	3.8	6.4	outcrop	Siliceous BIF

Sample ID	Easting*	Northing*	Cu (ppm)	Ni (ppm)	Pt (ppb)	Pd (ppb)	Pt + Pd (ppb)	Outrcrop/ Float	Summary Description
NRX20	463862	6500274	82	298	45.4	**81.8**	**127.2**	outcrop	Sericite, kaolinite, hematite alt, micaceous
NRX21	463862	6500275	258	**1016**	**54.4**	43.5	97.9	outcrop	Saprolite, ferruginised (ultramafic)
NRX22	463860	6500256	485	**1458**	48.1	**77.1**	**125.2**	float	Saprolite, ferruginised (ultramafic)
NRX23	463838	6500514	188	258	36	**124.7**	**160.7**	outcrop - costean	Saprolite, ferruginised (ultramafic)
NRX24	463848	6500522	269	612	**265.3**	**362.6**	**627.9**	outcrop - costean	Saprolite, ferruginised (ultramafic)
NRX25	463818	6500449	279	525	12.2	16.2	28.4	outcrop	Indurated ferricrete
NRX26	463929	6500459	221	433	11.7	4	15.7	outcrop	Indurated ferricrete
NRX27	463981	6500366	707	774	**78.4**	8.9	87.3	outcrop	Pisolitic laterite
NRX28	464072	6500353	385	**1046**	12.6	10.3	22.9	outcrop	Indurated ferricrete
NRX29	464235	6500303	10	131	1.4	2.3	3.7	outcrop	Qtz vein, boxwork exsolution, open space
NRX30	464222	6500294	194	**3198**	33.2	5.4	38.6	outcrop	Indurated ferricrete
NRX31	464137	6500191	79	**1535**	9.2	2.3	11.5	outcrop	Indurated ferricrete
NRX32	464041	6500225	63	147	13.1	5.4	18.5	outcrop	Pisolitic laterite
NRX33	463963	6500313	159	**1848**	**50.8**	28.7	79.5	outcrop	Indurated ferricrete
NRX34	463752	6500534	104	161	14.8	43.4	58.2	outcrop	Saprolite, ferruginised (ultramafic)
NRX35	463787	6500543	9	**2571**	5.3	8.8	14.1	float	Dunite - serpentinised
NRX36	463786	6500540	109	66	2.2	1.7	3.9	float	Drill spoil (from 1968 percussion drill hole?)
NRX37	463610	6500280	29	579	4	2.2	6.2	outcrop	Dunite - serpentinised
NRX38	463617	6500330	653	**2253**	20	12.5	32.5	outcrop	Dunite - serpentinised
NRX39	463908	6500138	78	556	7.4	13.7	21.1	outcrop	Felsic unit - sugary texture, hematite pitting?
NRX40	463924	6500244	28	**3752**	13.5	8.2	21.7	outcrop	Dunite - serpentinised
NRX41	464124	6500161	12	801	1.4	6.1	7.5	outcrop	Felsic intrusive

Sample ID	Easting*	Northing*	Cu (ppm)	Ni (ppm)	Pt (ppb)	Pd (ppb)	Pt + Pd (ppb)	Outrcrop/ Float	Summary Description
NRX42	464389	6500266	151	431	21.1	7.3	28.4	float	Gabbro with qtz vein
NRX43	464389	6500264	22	127	1	0.6	1.6	float	Ultramafic - fine grained
NRX44	464531	6500553	8	13	0.5	0.7	1.2	float	Felsic intrusive

* - Coordinates are in GDA94 MGA Zone 50

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• 44 rock chips collected during field inspection. • Rock chips collected from outcrops with a geological hammer. Occasional float samples collected for rock characterization. • Outcrops represent resistant and exposed portions of local geology.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Not applicable – surface rock chip samples
Drill sample	• *Method of recording and assessing core and chip sample*	• Not applicable – surface rock chip samples

Criteria	JORC Code explanation	Commentary
recovery	*recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Short geological description recorded of each sample collected. • Dip, strike and geometry recorded for any stratigraphic, structural or vein feature associated with the sample location
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The samples were sent to an accredited laboratory for sample preparation and analysis. All samples were sorted, dried, crushed and pulverized to -75um to produce a homogeneous 50g subsample for analysis. A grind quality target of 85% passing -75um was established. • Quality control procedures included the collection of field duplicates every 30 samples. • Intertek Genalysis' internal QAQC procedures included insertion of certified standards, blanks, check replicates and testing for grind fineness of 85% passing -75um.
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.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading*	• The analytical technique used a 50g charge fire assay and is considered appropriate to detect gold, platinum and palladium mineralization. Fire assaying is considered a total assay. • The 4 acid digest 48 element analytical technique is considered a total assay for Ag, As, Bi, Ca, Cd, Ce ,Co,

Criteria	JORC Code explanation	Commentary
	times, calibrations factors applied and their derivation, etc. • *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.*	Cs, Cu, Ga, Ge, In, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Rb, Re, S, Se, Sr, Te, Tl, Zn. It is considered near total for Al, Ba, Be, Cr, Fe, Nb, Sb, Sc, Sn, Ta, Th, Ti, U, V, W, Y. It is a partial technique for Hf and Zr.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The company used industry standard techniques for sampling and used an independent laboratory. • Primary geological and sampling data were recorded digitally.
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 Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Rock chip samples were located using hand held GPS with accuracy of +-3m. • The grid system used is MGA GDA94 Zone 50
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Spacing is variable and based on outcrop location and degree of exposure. • Samples were collected at non-regular intervals according to observations at the time in the field. • No sample compositing has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Samples were collected according to geological observations at the time in the field
Sample security	• *The measures taken to ensure sample security.*	• Samples were placed in tied calico bags with unique sample numbers. Once delivered from the field the samples were housed in secure premises prior to

Criteria	JORC Code explanation	Commentary
		laboratory submission by Mandrake personnel. • The assay laboratory confirms that all samples have been received and that no damage has occurred during transport. • Results data was emailed to the Mandrake MD
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits/reviews have been undertaken to date.

• Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *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.*	• Rock chip samples collected from exploration licence application ELA 70/5345 which is held 100% by AER – Mandrake has a farm-in agreement with AER. • The tenure is in application – application lodged 4 March 2020. • Requisite landholder agreement negotiations underway.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Rock chip sampling undertaken by BHP in the mid-1990s. • Various geophysical surveys and sporadic surface sampling undertaken by junior mining companies.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Ultramafic intrusive associated with a banded iron formation. Ni-Cu-PGE mineralisation in ultramafics and various laterites. Archaean Jimperding Metamorphic Belt.

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*
		• Not applicable – surface rock chip samples.

Criteria	JORC Code explanation	Commentary
	○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No length weighting or cut-off grades have been applied. • No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not applicable – surface rock chips.
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 in announcement. A plan view of rock chip locations is provided.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and*	• All results reported in Table 1.

Criteria	JORC Code explanation	Commentary
	high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
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.*	• All meaningful information provided.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Awaiting results from a further 52 rock chip samples that are currently at the laboratory. Detailed geochemical review and EM surveys to follow ahead of drill testing.