Date: 29 September 2021

ASX Code: MAN

Capital Structure
Ordinary Shares: 477,450,570
Unlisted Options: 81,049,350
(3c exercise)
Current Share Price: 5.6c
Market Capitalisation: $27M
Debt: Nil

Directors
Patrick Burke
Non-Executive Chairman

James Allchurch
Managing Director

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Encouraging Results at Newleyine – Further Drilling Planned

Highlights

- **Assay results received for first three holes drilled at the Newleyine Prospect which include:**
  - **7.4m @ 0.29% Ni from 96m (MNEWDD002);**
  - **8m @ 0.21% Ni from 122m (MNEWDD002); and**
  - **6.6m @ 0.19% Ni and 853ppm Cu from 315.4m (MNEWDD003).**
- **Results provide impetus for further drilling targeting EM Conductor C – drilling scheduled for November 2021.**
- **Mandrake fully funded with approx $16.5M in cash**

Mandrake Resources Managing Director, James Allchurch, commented:

"Anomalous nickel values associated with ultramafics in Mandrake's second hole are encouraging, suggesting that further drilling is required at Newleyine. Our third and final FLEM conductor (plate C) will be drilled in November with additional holes dependent on further interpretation and drill results'.

'Mandrake will also be continuing investigations into virgin ultramafic bodies located at Tolarno North and Tolarno South. In parallel with the work underway at Jimperding, Mandrake will also be assessing further opportunities when they present'.

Mandrake Resources Limited (ASX: MAN) (**Mandrake** or **the Company**) advises that assay results have been received for the initial drilling programme completed at the Newleyine PGE-nickel-copper prospect.

The drilling programme tested two of three discrete, late-time electromagnetic (EM) bedrock anomalies that geophysical interpretation suggested could be the

response of massive sulphides consistent with Julimar-style PGE-Ni-Cu mineralisation.
DHEM surveys at completed holes provided further conductors that necessitated additional drill testing.

Core was sampled over selected intervals based on lithology and potential mineralisation. All assay results are provided in Table 1.

MNEWDD001

MNEWDD001, targeting the eastern-most conductor plate B, encountered almost exclusively ultramafic rock (serpentinite) with regular zones of disseminated and vein-filled sulphides (primarily pyrite and pyrrhotite) up to 4% by volume sulphides.

The down-hole electromagnetic (DHEM) survey at MNEWDD001 identified a very strong, late-time off-hole conductor plate with ~7,000 Siemens conductance. MNEWDD003 targeted this off-hole conductor.

MNEWDD001 returned 2.6m @ 0.21% Ni from 134.37m in an ultramafic serpentinite-dunite.

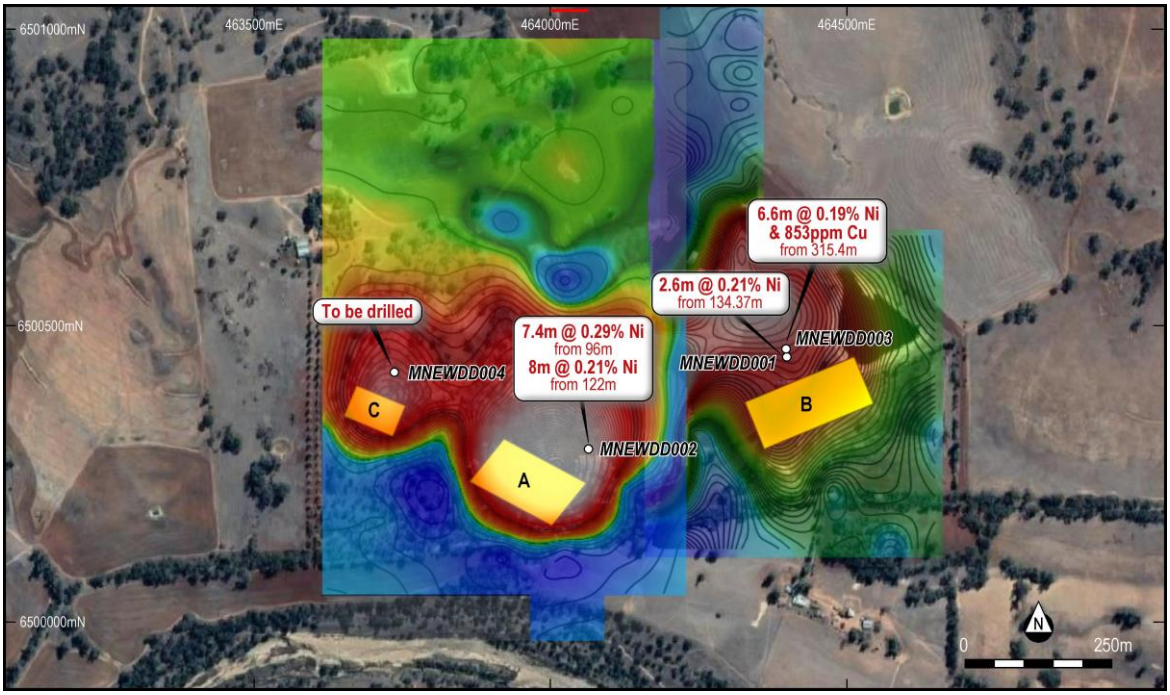

Figure 1 – Newleyine prospect showing FLEM EM conductors (A, B and C) and drill results

MNEWDD002

MNEWDD002 targeted fixed loop electromagnetic (FLEM) conductor plate A and returned zones of semi-massive sulphides with visible chalcopyrite (see ASX release dated 14 July 2021).

Two broad intervals of nickel mineralisation were identified within peridotite and serpentinite zones:

- **7.4m @ 0.29% Ni from 96m (MNEWDD002); and**
- **8m @ 0.21% Ni from 122m (MNEWDD002).**

The down-hole electromagnetic survey (DHEM) at MNEWDD002 identified a very strong, late-time off-hole conductor plate with ~5,000 Siemens conductance. The conductor is strongly confined and measures approximately of 40 x 30m. This conductor is yet to be drilled.

MNEWDD003

MNEWDD003 primarily comprised mafic-ultramafic rocks serpentinite and amphibolite with zones of disseminated and vein-filled sulphides (primarily pyrite and pyrrhotite) up to 2% sulphides by volume.

Semi massive and massive sulphide zones were observed from 286.2m downhole depth associated primarily with banded iron formation with minor ultramafic rocks and mafic metasediments. The sulphide zones appear proximal to the overlying ultramafic contact (with some ultramafic zones within the sulphidic zone) and are composed primarily of pyrrhotite and minor chalcopyrite.

The best results from within this zone include:

- **6.6m @ 0.19% Ni and 853ppm Cu from 315.4m**

Next Steps

Drilling is scheduled for November 2021, with MNEWDD004 (testing conductor plate C) the next hole to be drilled.

Mandrake will also be continuing investigations into the virgin ultramafic bodies located at Tolarno North and Tolarno South. In parallel with the work underway at Jimperding, Mandrake will also be assessing further opportunities when they present.

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 controls 100% of a 140km^2 exploration licence prospective for PGE-Ni-Cu 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.

For further information visit www.mandrakeresources.com.au

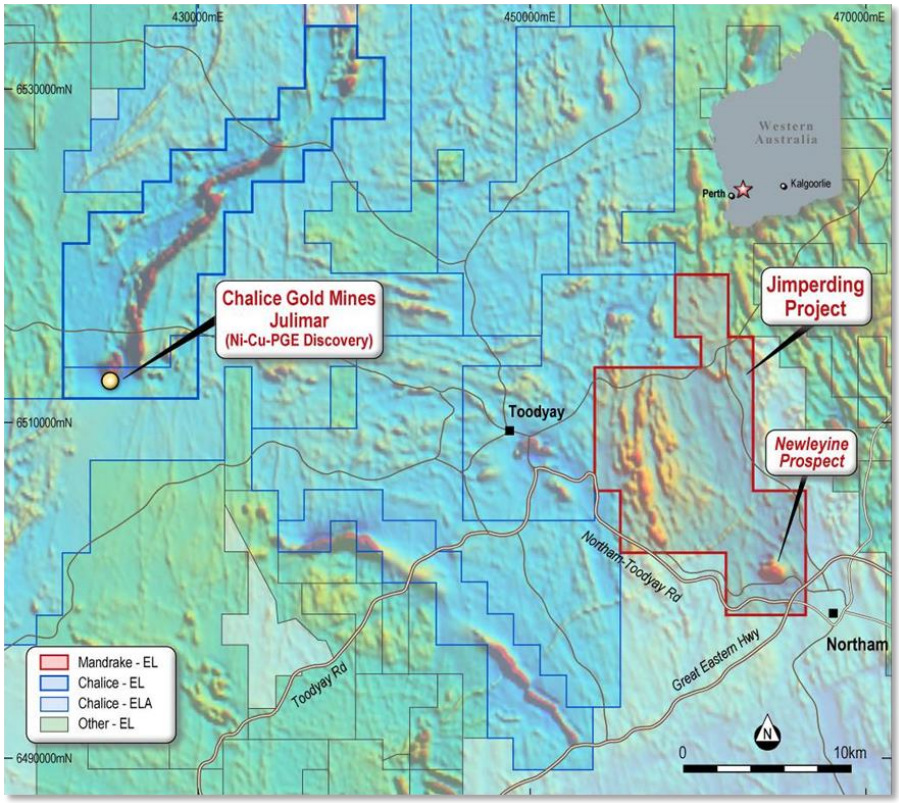

Figure 2 - Regional aeromagnetics – Jimperding Project

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: Drill Hole Details

Hole_ID	East*	North*	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)
MNEWDD001	**464397**	**6500470**	**146**	**65**	**160**	**320.2**
MNEWDD002	**464064**	**6500292**	**165**	**58**	**240**	**214.75**
MNEWDD003	**464395**	**6500464**	**148**	**58**	**164**	**362.9**

* - Coordinates are in GDA94 MGA Zone 52

Table 2: Assay Results

Sample ID	Drill hole	From	To	Interval	Ni (ppm)	Cu (ppm)	Pt (ppb)	Pd (ppb)
MN001	MNEWDD001	125.1	126	0.9	1280	168	10	25
MN002	MNEWDD001	126	127.3	1.3	1080	274	<LOR	25
MN003	MNEWDD001	127.3	127.68	0.38	814	243	<LOR	15
MN004	MNEWDD001	126.68	129	2.32	728	205	<LOR	15
MN005	MNEWDD001	129	130.06	1.06	724	161	<LOR	10
MN006	MNEWDD001	130.06	130.42	0.36	356	74	<LOR	<LOR
MN007	MNEWDD001	130.42	130.82	0.4	2170	363	10	35
MN008	MNEWDD001	131.82	131.3	1.48	148	55	<LOR	<LOR
MN009	MNEWDD001	131.3	132	0.7	280	126	<LOR	<LOR
MN011	MNEWDD001	132	133	1.0	516	237	<LOR	<LOR
MN012	MNEWDD001	133	133.75	0.75	822	241	<LOR	10
MN013	MNEWDD001	133.75	134.37	0.62	78	7	<LOR	<LOR
MN014	MNEWDD001	134.37	137	2.63	1390	74	<LOR	10
MN015	MNEWDD001	137	138	1.0	2230	68	10	<LOR
MN016	MNEWDD001	138	139	1.0	1980	82	35	45
MN017	MNEWDD002	95.5	96	0.5	2070	94	35	65
MN018	MNEWDD002	96	97	1.0	2550	117	45	50
MN019	MNEWDD002	97	98	1.0	2300	85	50	30
MN020	MNEWDD002	98	99	1.0	2540	92	30	30
MN021	MNEWDD002	99	100	1.0	2990	152	35	35
MN022	MNEWDD002	99	100	1.0	2780	136	25	25
MN023	MNEWDD002	100	101	1.0	3030	161	30	30
MN024	MNEWDD002	101	102	1.0	2760	164	35	35
MN025	MNEWDD002	102	102.4	0.4	2870	143	25	25

Sample ID	Drill hole	From	To	Interval	Ni (ppm)	Cu (ppm)	Pt (ppb)	Pd (ppb)
MN026	MNEWDD002	120.15	121	0.85	204	151	<LOR	10
MN027	MNEWDD002	121	122	1.0	494	385	10	15
MN028	MNEWDD002	122	123	1.0	1860	69	25	40
MN029	MNEWDD002	123	124	1.0	2650	41	25	55
MN030	MNEWDD002	124	125	1.0	1810	77	<LOR	15
MN031	MNEWDD002	125	126	1.0	2450	47	25	45
MN032	MNEWDD002	126	127	1.0	1910	35	25	50
MN033	MNEWDD002	127	128	1.0	2770	60	20	40
MN034	MNEWDD002	128	129	1.0	1690	79	10	30
MN035	MNEWDD002	129	130	1.0	2120	35	20	40
MN036	MNEWDD002	130	130.6	0.6	1310	123	20	35
MN037	MNEWDD002	130.6	131	0.4	1040	460	20	25
MN038	MNEWDD002	131	132	1.0	1160	527	10	35
MN039	MNEWDD002	132	133	1.0	804	176	10	25
MN040	MNEWDD002	133	134	1.0	712	202	10	25
MN041	MNEWDD002	134	135.09	1.09	1060	450	20	35
MN042	MNEWDD002	134	135.09	1.09	1000	424	10	35
MN043	MNEWDD002	138.42	138.72	0.3	520	203	10	10
MN044	MNEWDD002	138.72	139.2	0.48	1650	923	<LOR	<LOR
MN045	MNEWDD002	139.2	140.19	0.99	800	345	10	15
MN046	MNEWDD002	140.19	141.2	1.01	938	547	10	25
MN048	MNEWDD002	141.2	142	0.8	1150	419	10	15
MN049	MNEWDD002	142	143	1.0	686	179	10	15
MN050	MNEWDD002	143	144	1.0	428	154	<LOR	10
MN051	MNEWDD002	144	145	1.0	166	194	<LOR	<LOR
MN052	MNEWDD002	145	145.29	0.29	644	563	10	10
MN053	MNEWDD002	145.29	146.18	0.89	920	477	10	15
MN054	MNEWDD002	146.18	147.35	1.17	198	214	<LOR	<LOR
MN055	MNEWDD002	158.43	158.8	0.37	42	477	<LOR	<LOR
MN056	MNEWDD003	305	305.4	0.4	68	39	<LOR	<LOR
MN057	MNEWDD003	305.4	306	0.6	354	294	<LOR	<LOR
MN058	MNEWDD003	306	307.09	1.09	638	575	<LOR	25
MN059	MNEWDD003	307.09	307.65	0.56	2410	1060	<LOR	40
MN060	MNEWDD003	307.65	308.19	0.54	1050	800	5	45
MN061	MNEWDD003	313	314	1.0	666	277	5	15
MN062	MNEWDD003	314	315	1.0	588	292	5	15
MN063	MNEWDD003	315	315.4	0.4	588	299	5	35

Sample ID	Drill hole	From	To	Interval	Ni (ppm)	Cu (ppm)	Pt (ppb)	Pd (ppb)
MN064	MNEWDD003	315.4	316.42	1.02	604	297	10	25
MN065	MNEWDD003	315.4	316.42	1.02	2140	745	20	65
MN066	MNEWDD003	316.42	317	0.58	1420	430	20	35
MN067	MNEWDD003	317	318	1.0	1450	717	25	40
MN068	MNEWDD003	318	319	1.0	1730	1260	10	55
MN069	MNEWDD003	319	320	1.0	1090	563	5	15
MN070	MNEWDD003	320	320.8	0.8	1710	702	<LOR	35
MN071	MNEWDD003	320.8	321.32	0.52	582	286	<LOR	10
MN072	MNEWDD003	321.32	322.02	0.7	2760	946	<LOR	35
MN073	MNEWDD003	322.02	322.9	0.88	696	273	10	15
MN074	MNEWDD003	322.9	323.45	0.55	1990	967	10	35
MN076	MNEWDD003	323.45	325.5	2.05	660	137	10	15
MN077	MNEWDD003	325.5	326.55	1.05	526	16	<LOR	<LOR
MN078	MNEWDD003	326.55	327.05	0.5	1650	638	10	40
MN079	MNEWDD003	327.05	328	0.95	512	203	<LOR	<LOR
MN080	MNEWDD003	328	329	1.0	414	221	<LOR	<LOR
MN081	MNEWDD003	329	330	1.0	612	504	10	15
MN082	MNEWDD003	330	331	1.0	286	217	<LOR	<LOR
MN083	MNEWDD003	331	332	1.0	60	35	<LOR	<LOR

<LOR – Below laboratory limit of reporting
MN0010, MN047, MN075 are QA/QC standards and are not reported

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.*	• Diamond drill core samples were taken over selective intervals (dictated by lithology and potential mineralisation) ranging from 0.2m to 1.2m (typically 1.0m). Qualitative care taken when sampling diamond drill core to sample the same half of the drill core.
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).*	• Diamond core drilling from surface. • Un-oriented standard HQ core from surface to 50-100m followed by oriented NQ2 core to end of hole. • Core is orientated by Reflex electronic orientation tool. • Holes were cased with 40mm PVC for DHEM surveying.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Recoveries are physically measured by tape measure for each core run. Core is pieced together for measurement and

Criteria	JORC Code explanation	Commentary
	• *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.*	orientation. • Recoveries averaged over 93%. Most core loss is in the first 60m, with almost 100% recovery in competent un-weathered rock. • During drilling various additives are used to condition the hole to maximize core recoveries. • There is no significant core loss observed.
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.*	• Each hole was geologically and geotechnically logged over its entire drilled length. Holes were logged for lithology, mineralogy, structure and weathering. • Logging is both qualitative and quantitative, and captured downhole depth, colour, lithology, mineralogy, mineralization, texture and structure. • All core was photographed in core trays after mark-up and orientation.
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.*	• Diamond core was cut in half and sampled over 0.2-1.2m intervals (mostly 1m). • Diamond drill core sample duplicates from selected sulphide zones as ¼ core. • Sample preparation is industry standard; the samples were sorted and dried. Primary preparation by crushing the whole sample. The samples were split with a riffle splitter to obtain a sub-fraction which was then pulverised in a vibrating pulveriser. • Drill sample sizes are considered appropriate for the style of mineralisation sought and the nature of the drilling program.
Quality of	• *The nature, quality and appropriateness of the assaying and*	• Diamond drill core samples underwent sample preparation and

Criteria	JORC Code explanation	Commentary
assay data and laboratory tests	*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 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.*	geochemical analysis by Bureau Veritas Perth. Au-Pt-Pd was analysed by 40g fire assay fusion with an ICP-AES finish (BV Method code FA002). A 45 element suite was analysed by ICP-MS following a four-acid digest (BV method codes MA100/MA102) for 45 elements including Ag, As, Ba, Be, Bi, Cd, Ce, Co, Cs, Cu, Dy, Er, Eu, Ga, Gd, Hf, Ho, In, La, Lu, Mo, Nb, Nd, Ni, Pb, Pr, Rb, Re, Sb, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Tl, Tm, U, W, Y, Yb, Zn, Zr. • Certified analytical standards and blanks were inserted at appropriate intervals for diamond samples. All QA/QC samples display results within acceptable levels of accuracy.
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.*	• Core was logged by an independent geological contractor. Mandrake management visually verified the main mineralized zones reported. • Geological data was captured in the field in spreadsheets on a notebook computer.
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.*	• Drill collars were located using hand held GPS with accuracy of +-3m. Elevations are estimated with a +-10m accuracy from a DTM generated from airborne survey data. This is considered appropriate for exploration drill-holes. • The grid system used is MGA GDA94 Zone 50. • Diamond holes were downhole surveyed at 5m intervals using a north-seeking Reflex Sprint IQ Gyroscope, with a stated accuracy of +-1 ^{o} in azimuth and +-3^{o} in dip.
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*	• Drillhole spacing is variable, reflecting the targeting of separate conductive bodies. • Drilling is exploratory in nature.

Criteria	JORC Code explanation	Commentary
	classifications applied. • *Whether sample compositing has been applied.*	• 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.*	• Drilling is first pass in nature; there is significant uncertainty about the orientation of potentially mineralized structures (represented as EM conductor plates).
Sample security	• *The measures taken to ensure sample security.*	• Core is stored on private land with restricted access near the drill site. Core was taken directly to the laboratory in Canning Vale, Perth for cutting, sampling and submission in labelled calico bags.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No review has been carried out as yet.

• 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.*	• The drill-holes are located on E70/5345 which is 100% beneficially held by Mandrake Resources. • The tenement is in good standing with no known impediments. • Land access and purchase option agreement in place for Newleyine farm.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Nickel-copper mineralization at Newleyine was investigated by Australia Anglo American/North Flinders Mines during 1978. Three diamond core holes were drilled, but no individual assay values

Criteria	JORC Code explanation	Commentary
		were reported. It is unknown if PGE elements were assayed for.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Newleyine is located in the Jimperding Metamorphic belt. • Newleyine is considered prospective for magmatic sulphide Ni-Cu-PGE associated with a pipe like dunitic intrusive body.

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.*
		• The drill hole collar information is provided in Table 1 of this announcement

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.*	• Standard length weighting averages apply where applicable; no cut-off grades have been applied. • No metal equivalent values have been reported.

Criteria	JORC Code explanation	Commentary
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').*	• Only downhole lengths are reported, true widths are not yet known.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to figures in announcement.
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.*	• All data reported, see Table 2.
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.*	• Further diamond drilling and downhole EM planned for Newleyine as well as continued exploration at Tolarno North and Tolarno South.