ASX RELEASE
16 February 2022
ASX: JRL

JINDALEE PROGRESSING WA NICKEL SULPHIDE EXPLORATION

- **Jindalee has progressed nickel sulphide targets at its 100% owned Widgiemooltha Project (WA)**
- **Five priority targets generated from the application of the Kambalda nickel sulphide ore deposit model**
- **Soil sampling of target areas commencing in March with drill testing planned for second half of 2022**

Jindalee Resources Limited ("**Jindalee**") is pleased to provide an update on nickel sulphide target generation at its 100% owned Widgiemooltha Project in the Eastern Goldfields of Western Australia.

Assisted by a highly regarded komatiite nickel sulphide exploration specialist, Jindalee has completed historic data compilation and geological interpretation with a focus on identifying nickel mineralisation and the presence of basal ultramafic stratigraphy that is a vital component of the Kambalda nickel sulphide ore deposit model. The technical work to date has identified numerous occurrences of the prospective basal ultramafic stratigraphy and anomalous nickel results from historic drilling within the Widgiemooltha Project tenement package.

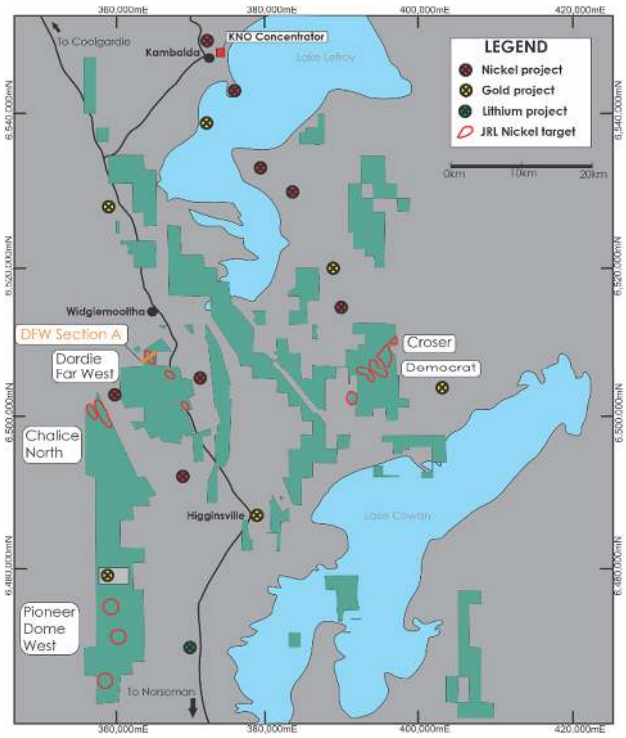

Figure 1. Plan overview of part of Jindalee's Widgiemooltha tenement package with nickel targets highlighted.

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Dordie Far West

Dordie Far West is located on the northwest margin of the Widgiemooltha Dome on granted E15/1680. Nickel mineralisation at Dordie Far West was established by drilling completed by Mincor Resources (ASX: MCR) in the late 2000s. Geological interpretation of the drilling data set interprets the mineralisation hosted within the keel of a synform in the ultramafic stratigraphy. The recognition of this structural position provides an excellent opportunity to drill test the area for further nickel mineralisation.

Historic drill intercepts at Dordie Far West include:

- MRC151 8m @ 1.3% Ni from 26m downhole
- MRC152 2m @ 1.7% Ni from 12m downhole
- MRC157 2m @ 1.9% Ni from 26m downhole
- MRC157 4m @ 1.2% Ni from 46m downhole
- MRC158 2m @ 1.1% Ni from 22m downhole
- MRC160 2m @ 1.4% Ni from 28m downhole
- MRC160 4m @ 1.4 % Ni from 36m downhole

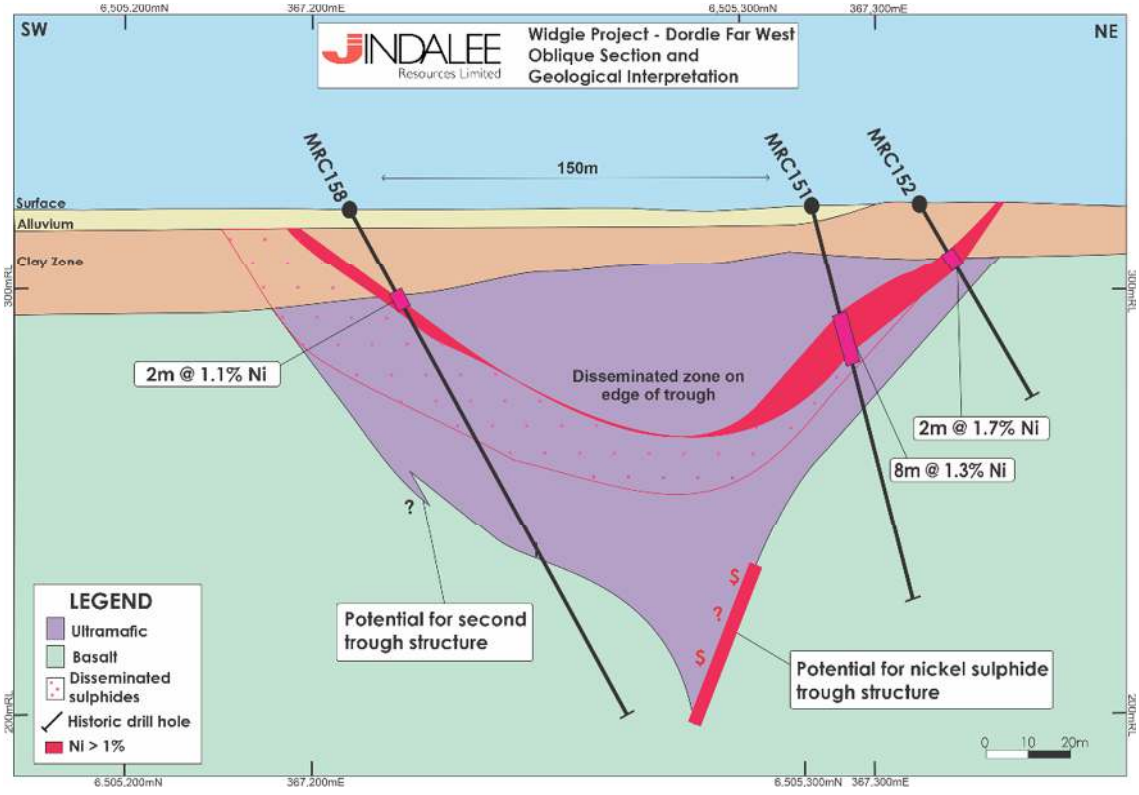

Figure 2. Oblique section through Dordie Far West (DFW A) with interpreted geological model using historic drill data.

Railway

The Railway target was subject to drilling by Mincor Resources in the same era as the Dordie Far West area. The presence of prospective basal ultramafic stratigraphy has been established by historic drilling and Jindalee's geological interpretation of the historic drilling results has identified further opportunities to drill test for nickel sulphide mineralisation.

Croser

The Croser target is located on E15/1753. Nickel mineralisation at the Croser target was identified during gold exploration in the 1990s. Two significant nickel results within ultramafic stratigraphy were returned from aircore drilling near a prominent magnetic feature that is interpreted to be a trough structure. The anomalous nickel results and their position in relation to the interpreted trough structure justify further nickel exploration efforts.

Democrat

The Democrat target is associated with a prominent magnetic feature that is manifested as a local topographic high that has scattered outcrop. Jindalee took samples across the magnetic feature and acquired multi element geochemistry and mineralogy from XRD analysis. Whilst no anomalous nickel results were confirmed from the sampling work, the geochemistry returned MgO values consistent with fertile basal ultramafic and mineralogy confirmed ultramafic dominated by antigorite.

Together the acquired geochemistry and mineralogy indicate that the prominent magnetic feature is probably a significant trough system, that is approximately 900m wide and 100m thick with the potential to host significant nickel sulphide mineralisation.

Pioneer Dome West

Pioneer Dome West is a broad target area on the western side of the Pioneer Dome on tenement E15/1721. The immediate area has been subject to significant gold exploration and Jindalee has identified an opportunity to test the ultramafic stratigraphy for nickel sulphide mineralisation. The primary focus is a series of prominent magnetic features along the western margin of the Pioneer Dome that appear broadly similar to magnetic features on either side of the Widgiemooltha Dome, which are known to host significant nickel mineralisation.

Next Steps

Jindalee has commissioned a soil sampling survey across the five target areas with sampling to commence in the current quarter. Jindalee expects to be in a position to prioritise drilling at each of the five target areas once the soil sampling results have been compiled, with drilling to commence in the second half of 2022.

Authorised for release by the Board of Jindalee Resources Limited.

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About Jindalee

Jindalee Resources Limited (ASX: JRL) is an exploration company with direct and indirect exposure to lithium, gold, base and strategic metals, iron ore, uranium and magnesite through projects generated by the Company's technical team. Jindalee has a track record of rewarding shareholders, including priority entitlements to several successful IPO's and payment of a special dividend.

Jindalee's strategy is to acquire prospective ground, add value through low-cost exploration and, where appropriate, either introduce partners to assist in funding further progress, or fund this activity via a dedicated company in which Jindalee retains a significant interest.

At 31 December 2021 Jindalee held cash and marketable securities worth approximately $12.8M[1], which combined with the Company's tight capital structure (only 54.1M shares on issue), provides a strong base for advancing projects currently held by Jindalee and leveraging into new opportunities.

References:

Additional details including JORC 2012 reporting tables, where applicable, can be found in the following releases lodged with ASX and referred to in this announcement:

1. Jindalee Resources ASX announcement 28/01/2022: "Quarterly Activities Report".

Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mrs Karen Wellman and Mr Lindsay Dudfield. Mrs Wellman is an employee of the Company and a Member of the Australasian Institute of Mining and Metallurgy. Mr Dudfield is consultant to the Company and a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Both Mrs Wellman and Mr Dudfield have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration, and to the activity being undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves.' Mrs Wellman and Mr Dudfield consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward-Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include but are not limited to statements concerning Jindalee Resources Limited's (Jindalee's) current expectations, estimates and projections about the industry in which Jindalee operates, and beliefs and assumptions regarding Jindalee's future performance. When used in this document, the words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Jindalee believes that its expectations reflected in these forward-looking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Jindalee and no assurance can be given that actual results will be consistent with these forward-looking statements.

Annexure A:

Drill hole summary table with significant intersections for historic surface RC completed at Dordie Far West in 2007 and 2008

Hole ID	Easting	Northing	RL	Dip/Azi	EoH	Metres From	Metres To	Width (m)	Ni (%)	Comments
MRC151	367291	6505297	320	-76/44	95	26	34	8	1.3	
MRC152	367310	6505314	320	-60/44	52	22	24	2	1.7	
MRC157	367340	6505060	320	-59/29	112	26	28	2	1.9	
						46	50	4	1.2	
MRC158	367210	6505230	318	-60/29	137	22	24	2	1.1	
MRC160	367170	6505300	317	-58/42	130	28	30	2	1.4	
						36	40	4	1.4	

Notes:

- All coordinates are GDA94 MGA Zone 51
- Intervals are reported on 1% Ni cut-off
- Intervals reported meet a minimum downhole width of 2m

Annexure B:
JORC Code, 2012 Edition – Table 1
Section 1 Sampling Techniques and Data

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.*	• **Reverse Circulation (RC)** • RC drilling was used to collect samples at 2m intervals. • Approximately 2-4kg was collected from each interval using a riffle splitter (for dry samples) and a rotary splitter (for wet samples). • All samples were placed into individually labelled, consecutively numbered sample bags. • The RC samples obtained are considered representative of the material drilled
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).*	• Drilling was completed using conventional RC drilling techniques
Drill sample recovery	• *Method of recording and assessing core and chip sample 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.*	• These results were originally reported under JORC 2004, and exact details for drill sample recovery are unknown. Jindalee plans to implement their own validation of drill data using appropriate methods which may include twinning drill holes
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*	• Qualitative lithological descriptions (colour, weathering, grain size, lithology, mineralogy, veining textures and other

Criteria	JORC Code explanation	Commentary
	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.*	significant features) were recorded by the field geologist
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.*	• RC samples were sampled by spearing and composited over 2m intervals • These results were originally reported under JORC 2004, and exact details for QAQC are unknown. Jindalee plans to implement their own validation of drill data using appropriate methods which may include twinning drill holes
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 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.*	• All samples were initially analysed for nickel using ME-ICP61 (aqua regia digest followed by analysis using inductively coupled plasma atomic emission spectrometry). Any samples showing >0.7% nickel were re-assayed using AA62 (3 acid digestion and analysis using atomic absorption spectrometry). • These results were originally reported under JORC 2004, and exact details for QAQC are unknown. Jindalee plans to implement their own validation of drill data using appropriate methods which may include twinning drill holes
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.*	• Assay results were verified by more than one Jindalee geologist. The results were reported in WAMEX report A75831 and A79779

Criteria	JORC Code explanation	Commentary
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.*	• Sample locations were surveyed using a handheld GPS positions were also checked against a Digital Elevation Model (DEM). • Locations are reported in metres GDA94 MGA Zone 51 • Singleshot surveys were used for some drillholes
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.*	• RC samples were combined into 2m composites • No Mineral Resources have been estimated
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.*	• Intervals reported are not considered true widths • There is not enough information to make assumptions regarding drillhole orientation
Sample security	• *The measures taken to ensure sample security.*	• Samples were subject to industry standard sample security methods
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Ground truthing of drill collar locations has been undertaken by Jindalee. No other audits have been completed at this stage.

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 Dordie Far West prospect and historic drilling are located on pending exploration licence E 15/1680 which is 100% owned by Jindalee Resources Limited. • No joint ventures or royalty interests are applicable
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Mincor Resources (ASX:MCR) conducted the drilling which is the subject of this disclosure in 2007 and 2008.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Reported nickel mineralisation if of the Kambalda komatiite nickel sulphide deposit ore type

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.*
		• Please see table and figures in main body of text

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.*	• Significant intercepts are presented as a simple average above a 1% Ni cut-off with no internal waste and a minimum thickness of 2m

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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').*	• Downhole lengths reported are true widths are not known
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See main body of 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 drilling results above a cut-off of 1% Ni are regarded as significant and have been reported
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.*	• No additional observations at this time
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.*	• Soils sampling surveys to guide drill program design • Further RC drilling to test targets generated • Twinning of historic drill holes if required