

ASX ANNOUNCEMENT

1st August 2024

Coincident Geophysical, Soil and Rock Chip Anomalies Define Drilling Targets

HIGHLIGHTS

- Significant targets defined by GAIP and Gravity survey completed over Doherty Project
- Extensive Elongate, sub-parallel chargeability anomalies defined
- GAIP and Gravity targets are supported by geochemical manganese in soil anomalism
- Newly discovered targets support drilling campaign planned to commence later this quarter
- Several geophysical anomalies associated with historic manganese mines and high grade rock chip trends

Great Dirt's Managing Director, Marty Helean commented.

"We are especially excited that the recently completed geophysical survey has further developed these large scale, linear features that are coincident with manganese in soil anomalies. This lends significant support to targets selected for the drilling campaign."

Great Dirt Resources Limited (ASX: GR8) ("Great Dirt" or "the Company") is pleased to announce discovery results of recently completed Gradient Array Induced Polarisation (GAIP) and Gravity geophysical surveys conducted by Fender Geophysics that defined targets at Great Dirt's Doherty project in NSW.

The targets of particular interest are the chargeability anomalies developed by the GAIP survey directly south of Junior, a known producer of high grade manganese mineralisation. Chargeability anomalies can indicate the presence of sulphide minerals or other conductive materials which are often associated with mineralisation. These elongate and sub-parallel chargeability and manganese in soil anomalies appear to truncate against a linear fault-like structure (Figure 3). Economic deposits of manganese elsewhere in Australia form in similar types of settings where manganese is concentrated by secondary remobilisation.

Further confirmation of the validity of these targets are corresponding gravity anomalies adjacent to these possible faults, coincident with GAIP response.

Chargeability anomalies around Neranghi (Figure 3), where high grade grab samples were recently taken during fieldwork operations supporting the GAIP survey, support drilling to test the sub surface mineralisation potential.

The Company is encouraged that the strike for the observed manganese mineralisation is broadly coincident with the chargeability.



Figure 1 (L) and 2 (R) : Laying cabling, the main cable with road protection (L), geophysicist recording dipole readings (R)

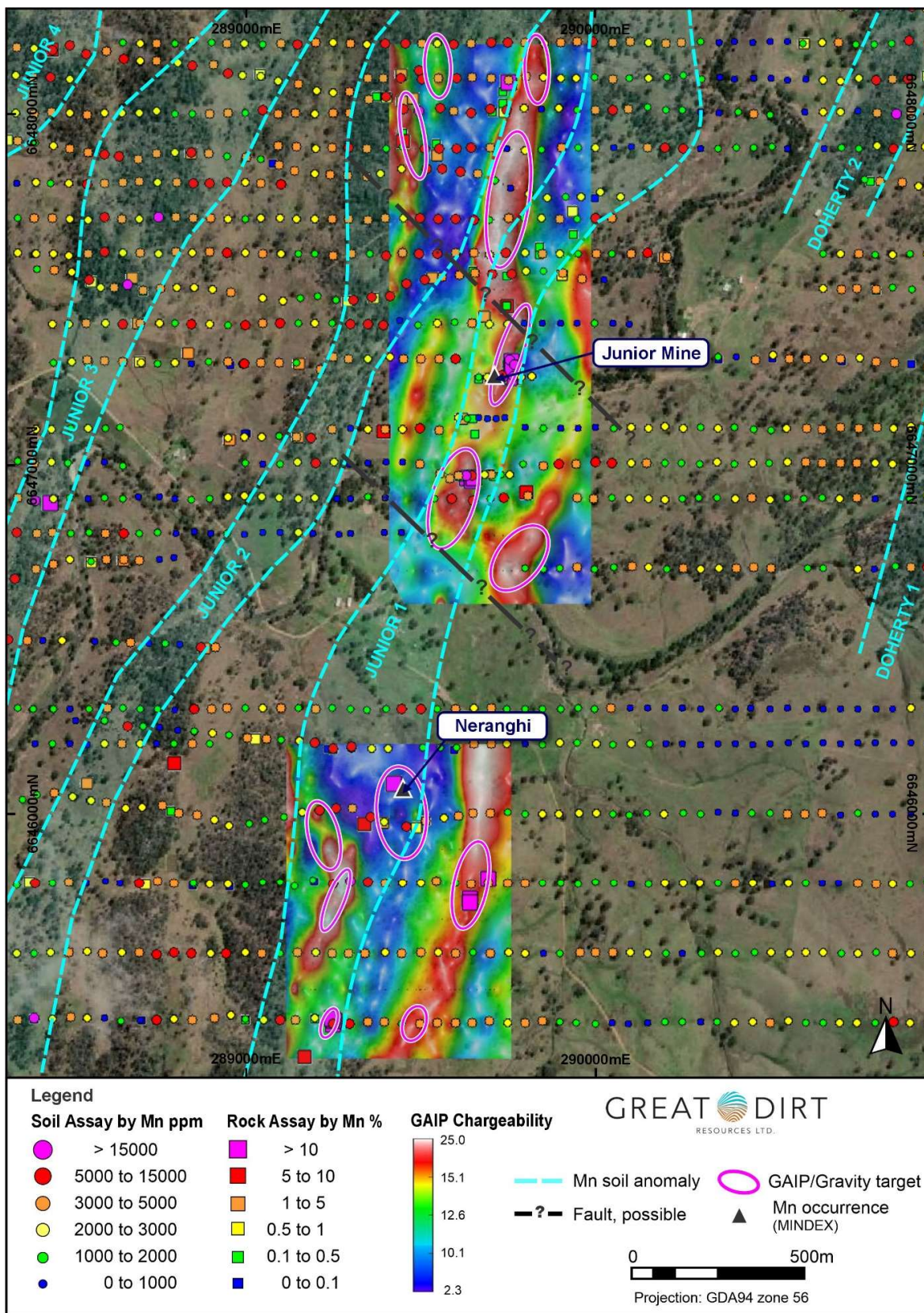


Figure 3: The chargeability survey image over satellite imagery, GAIP and Gravity Targets are shown with geochemical soil and rock chip samples. (hot colours red/white)

This survey data has been compiled with other data sets including the geochemical and aerial geophysical surveys to refine drill targets. These drill targets have been submitted to the Department of Regional NSW and drilling is currently envisaged for later this quarter.

Three areas were completed by GAIP and gravity (Figures 3 and 4). The GAIP surveys were completed over blocks 1, 2 and 3 which represent the north Junior, Junior and Neranghi areas. The gravity survey was conducted over the Doherty Mine area (block 4) and blocks 2 and 3.

Gradient Array Induced Polarisation (GAIP) measures the electrical properties of subsurface materials with the introduction of a current through a transmitter and measuring the response at receivers once the current has been switched off. It measures both the chargeability and conductivity/resistivity of the ground. Known manganese lenses (e.g, Junior Mine, Figure 3) show a strong chargeability and strong conductivity signature, both represented by hot colours (red/white) in the diagrams provided.

The GAIP survey produced excellent, repeatable data with numerous elongate chargeability anomalies. These GAIP anomalies are coincident with the manganese in soil geochemical anomalies defined by the geochemical surveys completed over the last few months. The data produced was clean with currents around 6.5A and a strong signal (>20mV) with highly repeatable decays. Three readings were taken at each station to ensure good data quality.

Gravity survey was then completed after the GAIP survey and gravity highs are often coincident with areas of geochemical and or chargeability anomalies.

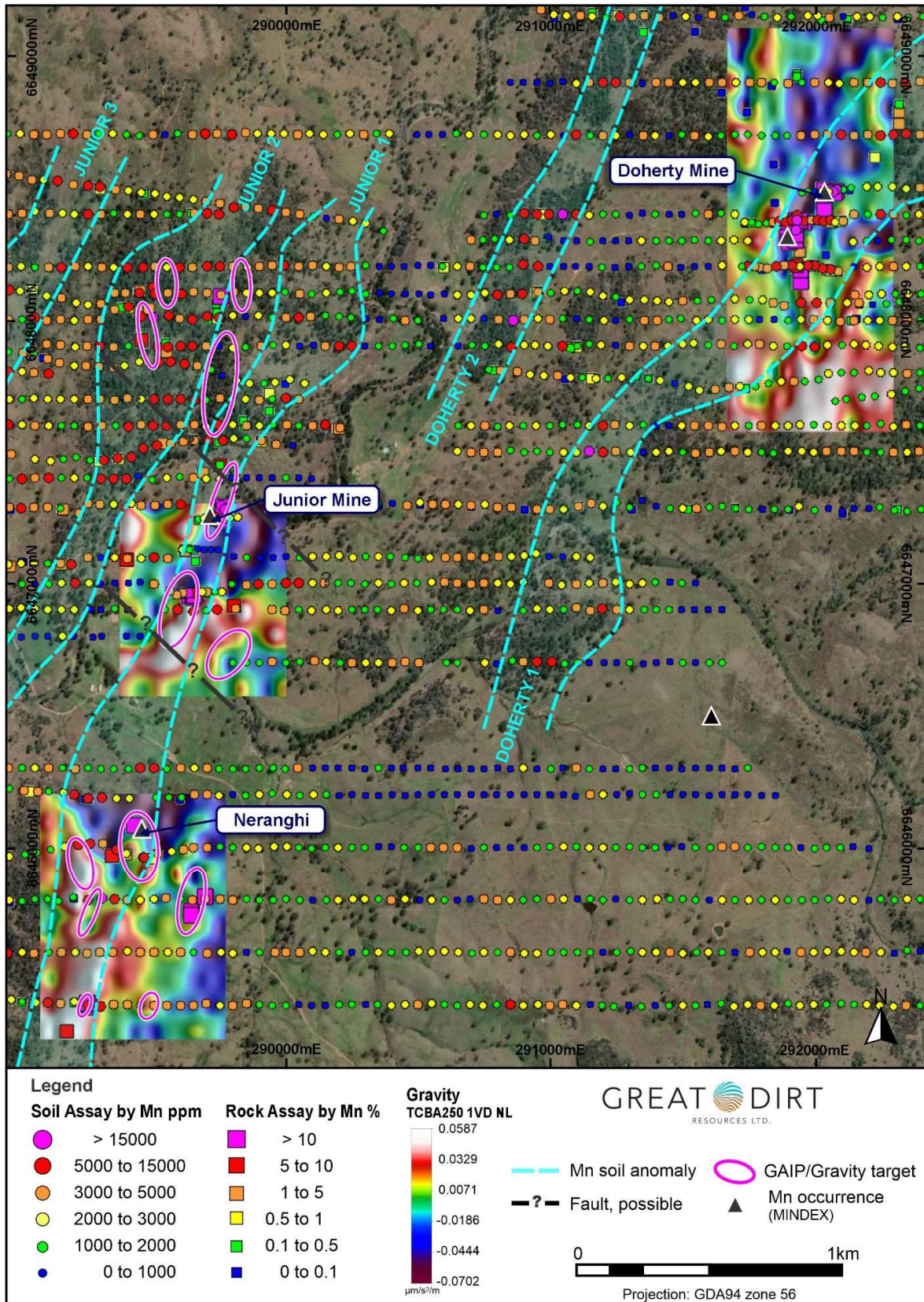


Figure 4: The gravity 1vd survey image over satellite imagery, GAIP and Gravity Targets are shown with geochemical soil and rock chip samples. (hot colours red/white)

Authorised for release to the ASX by the Board of Great Dirt Resources LTD.

For further information, please visit or contact:



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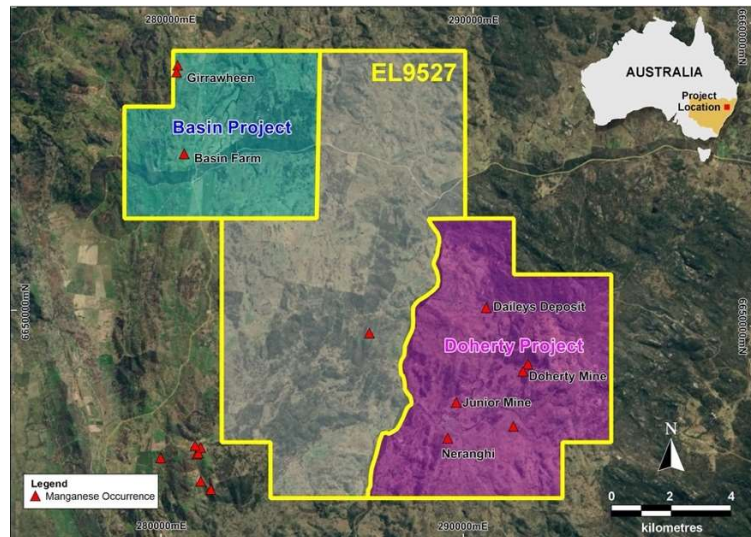
About Great Dirt Resources LTD

Great Dirt's Doherty and Basin Projects are contained within EL 9527, located near the Barraba township, in northern NSW. These projects are prospective for high-grade manganese, with both projects having produced metallurgical and battery grade manganese historically. The Doherty Project comprises the old Doherty and Junior Mines, plus other workings and occurrences of manganese. The Basin Project contains several smaller manganese workings.

From 1941, for two decades, mines of the Doherty Project produced around 9,000 tonnes of battery and metallurgical grade manganese, both from opencut and underground operations. The battery grade ore was delivered to Eveready in Sydney for use in dry cell batteries, the metallurgical grade ore was purchased by BHP for use in steel production.

Great Dirt believes that historical work, while having discovered manganese, is unlikely to have located all sources in the area. Floaters, large rock fragments in the soil profile, of high-grade manganese ore reported outside known mine areas are a direct indication of unidentified manganese mineralisation. Additionally, notes on the mineral occurrences of the area refer to extensions and deposits along strike that were not mined.

A program of modern, systematic, geochemical and geophysical surveys will test known targets and their extents and could locate previously unrecognised blind deposits. Subsurface geophysical methods and drilling is likely to yield further targets that could be developed into projects to produce metallurgical and battery grade manganese.



Great Dirt Resources Limited has significantly expanded its manganese exploration portfolio following the acquisition of two tenements (E45/6949 and E45/6950 – the 'Nullagine Project'), ~ 50km northeast of Consolidated Minerals Woodie Woodie manganese mine, in the Shire of East Pilbara, Western Australia.

Competent Person's Statement

Information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared and compiled by Mr Michael Leu, who is a Member of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy. Mr Leu is the geological consultant for Great Dirt Resources Limited. Mr Michael Leu has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Michael Leu consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

No New Information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

Forward Looking Statement

This report contains forward looking statements concerning the projects owned by Great Dirt Resources LTD. If applicable, statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements are based on management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary																																						
Sampling techniques	- 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. - 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 (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 (eg submarine nodules) may warrant disclosure of detailed information.	Gradient array induced polarisation (GAIP) survey was undertaken by Fender Geophysics utilising GDD RX-32-16 channel receiver and GDD TxII transmitter. <table><tr><td>Array</td><td>Gradient</td></tr><tr><td>Receiver Dipole Length</td><td>25m (or 50m with 50% overlap)</td></tr><tr><td>Domain and Cycle</td><td>Time domain – 2 seconds or 0.125 Hz</td></tr><tr><td>Line Length</td><td>500m</td></tr><tr><td>Line Separation</td><td>100m</td></tr><tr><td>Tx Dipole Length</td><td>1500m</td></tr><tr><td>Number of Lines</td><td>18 (including overlap lines)</td></tr><tr><td>Total Line km</td><td>9km</td></tr><tr><td>Number of Stations</td><td>378</td></tr><tr><td>Bearing</td><td>90°</td></tr></table> Gravity survey was undertaken by Fender Geophysics utilising Scintrex CG5 Gravity Meter and Trimble R8/3 GNSS system. <table><tr><td>Line Spacing</td><td>100m</td></tr><tr><td>Station Spacing</td><td>25m</td></tr><tr><td>Line Direction</td><td>East-West</td></tr><tr><td>Number of Stations</td><td>1105 initially, reduced to 876</td></tr><tr><td>Number of Repeats</td><td>44 (5%)</td></tr><tr><td>Surveying</td><td>Real Time Kinematic (RTK) GNSS</td></tr><tr><td>Gravity Datum</td><td>AAGD07</td></tr><tr><td>Survey/Positioning Datum</td><td>GDA94, MGA Zone 56</td></tr><tr><td>Elevation Datum</td><td>AHD (Australian Height Datum). GRS80 Ellipsoid heights for gravity reduction were determined using AUSGeoid09.</td></tr></table> All survey data is to be analysed and interpreted by Southern Geoscience.	Array	Gradient	Receiver Dipole Length	25m (or 50m with 50% overlap)	Domain and Cycle	Time domain – 2 seconds or 0.125 Hz	Line Length	500m	Line Separation	100m	Tx Dipole Length	1500m	Number of Lines	18 (including overlap lines)	Total Line km	9km	Number of Stations	378	Bearing	90°	Line Spacing	100m	Station Spacing	25m	Line Direction	East-West	Number of Stations	1105 initially, reduced to 876	Number of Repeats	44 (5%)	Surveying	Real Time Kinematic (RTK) GNSS	Gravity Datum	AAGD07	Survey/Positioning Datum	GDA94, MGA Zone 56	Elevation Datum	AHD (Australian Height Datum). GRS80 Ellipsoid heights for gravity reduction were determined using AUSGeoid09.
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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																																						
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	Not applicable																																						

Criteria	JORC Code explanation	Commentary
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.	Not applicable
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.	Not applicable
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 (i.e. lack of bias) and precision have been established.	Not applicable
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	Prior to commencing the gravity survey, a gravity base will be established where the survey team are staying. This gravity base will be connected to the Australian Fundamental Gravity Network (AFGN) established and maintained by Geoscience Australia. The AFGN provides the reference datum for all gravity surveys carried out in Australia. Connection to the AFGN allows the current survey to be integrated with existing data from previous

Criteria	JORC Code explanation	Commentary
	<i>data.</i>	works in the project area, and regional datasets held by Geoscience Australia and state equivalents.
<i>Location of data points</i>	<i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	For the gravity survey a project benchmark was established. This provided a highly accurate position with GDA2020 positions and AHD elevations. An 8 hour static observation was collected and processed to determine position. Stations positions and elevations will be surveyed using Real Time Kinematic (RTK) GNSS positioning allowing accurate positioning of the stations before observation. GAIP survey points determined by Garmin GPS62.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i>	Not applicable
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i>	Not applicable
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Not applicable
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	The GAIP and gravity survey data has been audited and reviewed by Southern Geoscience.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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,</i>	- The Doherty and Basin Manganese Projects are contained within EL 9527 held Great Dirt Pty. Ltd. that is a wholly-owned subsidiary of by Great Dirt Resources LTD. - The Great Dirt Resources LTD holds 100%

Criteria	JORC Code explanation	Commentary
	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.	interest and all rights in the Doherty and Basin Manganese Projects. - EL9527 lies within predominantly rural free-hold land requiring Great Dirt Pty. Ltd. to enter into formal land access agreements with individual landowners, prior to any field activity, as prescribed by New South Wales State Law including the Mining Act 1992. The Great Dirt Pty. Ltd. has rural land access agreements over the majority of EL 9527 - EL9527 is considered to be in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- All historical exploration records are publicly available via the Geological Survey of New South Wales's websites: DIGS®, Digital Imaging Geological System, (search.geoscience.nsw.gov.au) and Minview (minview.geoscience.nsw.gov.au). Key Sources of Exploration done by other parties include: - Brown R.E., Brownlow J.W. & Krynen J.P. 1992. Manilla– Narrabri 1:250 000 Metallogenic Map, Metallogenic study and Mineral Deposit Data sheets. Geological Survey of New South Wales, Department of Mineral Resources, Sydney. Mineral Deposit Data Sheet MAO186 Daileys Deposit page 177; Mineral Deposit Data Sheet MAO188 North Neranghi page 178; Mineral Deposit Data Sheet MAO189 Dougherty Mine (Hungerford and Spencer's Deposit) page 178; Mineral Deposit Data Sheet MAO190 Junior Mine page 179; Mineral Deposit Data Sheet MAO191 Neranghi page 179 - Fitzpatrick K.R. 1975. Woolomin–Texas Block: Woolomin beds and associated sediments. In: Markham N.L. & Basden H. eds. The mineral deposits of New South Wales, pp. 338–349. Geological Survey of New South Wales, Sydney. - Hall L.R. 1959. Manganese. Geological Survey of New South Wales, Mineral Industry 25 - Lloyd A. C., (GS1943/008) Mine Inspector's report 1951, 1954, 1956, 1957, 1958, 1959, 1960, 1961 and 1962 (MR02854, D004054500). Dougherty Mine - Hungerford and Spencer's Deposit; Manganese Deposits Barraba (MR02854, D004054499). Unpublished Report held by the Department of Regional New South Wales – Resources, Geological Survey of New South Wales - Lloyd, J. C., 1962. Mineral deposits of the Namoi Region, R00031183 (GS1962/136). Unpublished Report held by the Department of Regional New South Wales – Resources, Geological Survey of

Criteria	JORC Code explanation	Commentary
		New South Wales - Lusk, J. 1963. Copper ore and their distribution in Western New England. M.Sc. Thesis, University of New England - NSW Department of Primary Industries, Manganese - Several small-scale mines extracted battery and metallurgical grade manganese from the 1940's-1960's. These mines are recorded in the Metallic and Industrial Deposits records in Minview and Brown et al. 1992. The key Mine Records are reference as follows: 150081-Unnamed, 150082-Unnamed, 150083-Unnamed, 150188-Daileys Deposit, 150190-Unnamed, 150191-Dohery Mine (Hungerford and Spencers Deposit), 150192-Junior Mine (Spencers Manganese Mine), 150193-Unnamed, - Various parties have held different parts of the Exploration Licence (EL) 9527 in different periods and explored for different commodities. - No party has ever completed systematic exploration across the area for manganese. Key Research for Exploration Concepts: - Ashley P.M. 1986. An unusual manganese silicate occurrence at the Hoskins mine, Grenfell district, New South Wales. Australian Journal of Earth Sciences 33, 443–456 - Roy S. 1981. <i>Manganese Deposits</i>. 458pp. Academic Press, New York
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	- Volcanogenic-exhalative stratiform manganese deposits 1) The known previously exploited surficial supergene manganese oxides were very high-grade (46-74% MnO₂) and relatively discrete deposits that occur where either structural, surficial or hydrothermal processes have concentrated underlying mineralisation. These deposits were mined by artisanal miners because they were outcropping, deposits located between areas of outcrop or concealed by transported cover would have gone unrecognised. These blind deposits would contain similar high-grade mineralisation to that mined. - The proposed new exploration concept is these surficial deposits are not an expression of an underlying manganese silicate deposit but are actually formed from a primary exhalative stratiform manganese oxide deposit. This dramatically increases the size of the targets to district scale deposits. Historical rudimentary exploration would have been uninterested in manganese mineralisation below 45% as no

Criteria	JORC Code explanation	Commentary
		market existed for mineralisation sub-metallurgical grade with no beneficiation available. Evidence supporting this exploration concept is: Surficial high-grade supergene manganese oxide deposits are likely present regionally, outcropping, some identified, and probably also blind deposits, remaining undiscovered. EL9527 is prospective for these deposits, evidence is found in the numerous mineral occurrences highlight existing resources and extensions to historical mines. Multi-element assays of samples collected by field team and analysed by ALS confirm the high-grade ore has clear chemical affinities with submarine volcanic-sedimentary exhalative Mn deposits, especially the Mn/Fe ratio and anomalous concentrations of Ba, Sr, Co, Cu, As and W, signature characteristics of deep marine fumarolic modern day manganese deposits (Ashley 1986). Ashley states this strongly implies a submarine volcanic exhalative environment of deposition. He notes the high Mn/Fe accords with hydrothermal exhalative Mn deposits at submarine spreading ridges and in ophiolite terrains with exhalative Mn deposits generally (e.g., Roy 1981)
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.	Not applicable
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	Not applicable

Criteria	JORC Code explanation	Commentary
	<i>used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i>	Not applicable
<i>Diagrams</i>	<i>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.</i>	Pertinent maps for this stage of Project are included in the release coordinates in MGA94 Z55.
<i>Balanced reporting</i>	<i>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.</i>	All results described in this announcement have been reported.
<i>Other substantive exploration data</i>	<i>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.</i>	All substantive data has been disclosed.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Drilling programs will be designed following evaluation of the data discussed above.