

## **ASX ANNOUNCEMENT**

#### 12<sup>th</sup> Oct 2021

## 5 New Nickel / Copper anomalies located at the Grey Dam Nickel Sulphide Project

## <u>Highlights</u>

- \* 5 new anomalies identified along 10km of strike of mafic / ultramafic sequence
- Ultra-fine fraction (UFF) soil sampling program completed at Grey Dam
- \* Coincident copper and nickel anomalism centered over mafic / ultramafic package
- \* Mafic / ultramafic sequence prospective for Kambalda style nickel sulphide mineralisation
- \* Host rocks analogous to the nearby high-grade nickel sulphide Black Swan / Silver Swan mine
- <sup>\*\*</sup> UFF soil sampling is a new exploration technique being developed in conjunction with CSIRO as a method to explore for minerals including nickel, copper and gold under transported cover

Carnavale Resources Limited (ASX: CAV) is pleased to advise that the results of the UFF soil sampling program at Grey Dam Nickel Sulphide Project, 70km northeast of Kalgoorlie in the eastern Goldfields have been received and interpreted with 5 target anomalies identified. The Grey Dam Nickel Sulphide Project has analogous mafic / ultramafic geology to the high-grade Black Swan / Silver Swan nickel mine (ASX: POS) which is situated 50km to the west.

A program of 964 UFF soil samples was completed over the northern mafic / ultramafic sequence as a follow up to an initial pilot program off UFF soil sampling. The surface geology of the northern mafic / ultramafic sequence is dominated by transported surface wash. This has prevented previous explorers from targeting this area for nickel mineralisation.

Carnavale has adopted UFF soil sampling as a method that can detect anomalism beneath shallow transported cover. An initial pilot program of UFF soil sampling was undertaken in 2020 that confirmed the suitability of the technique to this terrain. The pilot program was followed up by this comprehensive program of UFF soil sampling on a 100m by 200m grid across the interpreted mafic / ultramafic sequence. The Company is excited to have delineated 5 coincident nickel / copper anomalies over the 10km long mafic / ultra-mafic package.

### **CEO Humphrey Hale commented:**

"We are pleased with the results that the UFF soil programs are delivering in the mafic / ultramafic terrain at Grey Dam. This technique has allowed us to economically progress the exploration of our tenements at a rapid rate. We have been able to verify the mafic / ultramafic geology under cover against the interpreted aeromagnetic imagery using UFF geochemistry. We are excited to have defined 5 nickel copper anomalies at Grey Dam with the aim of discovering nickel sulphide mineralisation analogous to the nearby Silver Swan mine under cover at depth." The Grey Dam tenement package lies within the Norseman-Wiluna greenstone belt, an Archaean sequence of ultramafic, mafic and felsic intrusive and extrusive volcanic rocks with associated sediments. The greenstone belt trends north-northwest and is flanked by major Archaean intrusive granitic bodies. Much of the northern part of the tenement package is under colluvium and sheetwash (Figure 3).

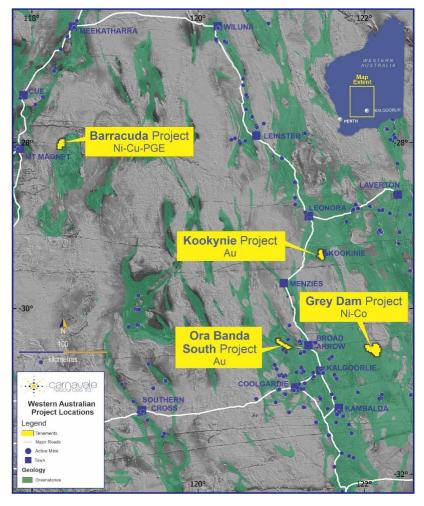


Figure 1: Location plan of Grey Dam Nickel Sulphide Project and other CAV projects

The tenement package contains two mafic / ultramafic sequences with the first southern sequence hosting the previously defined nickel-cobalt laterite resource and minor nickel sulphide mineralisation. The second mafic / ultramafic sequence has received very little past exploration and is considered prospective for Kambalda style nickel sulphide mineralisation, usually located close to the mafic-ultramafic-sediment contact. Carnavale is using aeromagnetic imagery (Figure 2), mapping and UFF soil sampling to define this stratigraphic position and any nickel geochemical targets along the 10km prospective mafic / ultramafic sequence that is analogous to the Black Swan / Silver Swan high grade nickel mine located 50km west of Grey Dam.

Carnavale has significantly progressed exploration at Grey Dam by identifying vectors to bedrock nickelsulphide mineralisation from the review of historic exploration and trialing Ultra Fine Fraction (UFF) soil sampling to target areas of possible nickel sulphide mineralisation under transported cover.

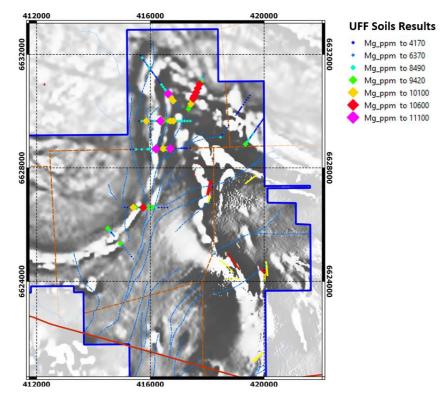


Figure 2: Aeromagnetic image with initial pilot UFF soil survey. Magnesium values correlating with Mafic / Ultramafic package.

A review of historic drilling at the Grey Dam Nickel Sulphide Project area targeting gold and nickel laterites, confirmed nickel sulphide mineralisation in limited deep drilling on the boundary of the ultramafic-sediment sequence similar to the Kambalda style setting. This limited deeper drilling was located adjacent to the previously reported surface lateritic nickel-cobalt resource.

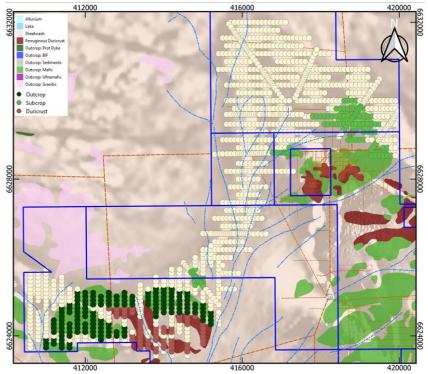


Figure 3: Surface geology dominated by sheetwash. Sample locations coloured by regolith domain.

Carnavale commenced a pilot program of UFF soil sampling that the Company has been trialing with the CSIRO to open new areas to exploration that were previously unable to be explored due to extensive transported cover. The pilot UFF soil sampling program at Grey Dam consisted of eight (8) traverses across the interpreted position of the mafic / ultramafic sequences in the northwest portion of the Grey Dam tenement package (Figure 2). The northern area is covered by sheetwash and alluvial material (Figure 3) that makes it difficult to explore using traditional soil sampling techniques. UFF soil sampling is a sensitive new exploration technique that is being evaluated by CSIRO and explorers to target mineralisation under areas of cover.

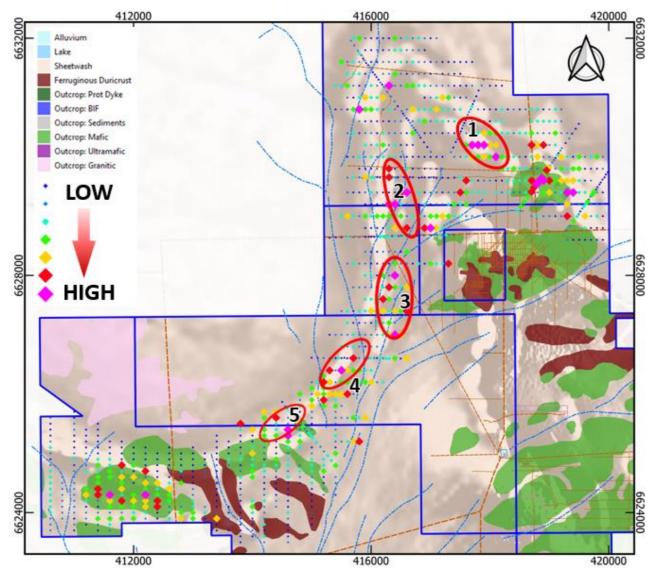


Figure 4: Log Additive Indices Ni+Cu (LAI\_NiCu) on domained UFF soils

### Five new targets associated with 10km of magnetic, ultramafic stratigraphy under sheetwash cover

The geochemical response from the pilot UFF soil program has identified the ultramafic sequence beneath the cover in the northern part of the tenement package. Due to the positive response from this pilot phase of UFF soil sampling, the Company expanded the soil sampling program over the majority of the interpreted mafic / ultramafic sequence (Figure 2 and 3) on a 100m by 200m grid. A total of 964 soil samples were collected.

The aim of the UFF soil sampling program was to define geochemical anomalism that can help Carnavale economically vector into target zones that could host Kambalda style nickel sulphides under cover.

The new detailed UFF soil sampling program has successfully delineated five discrete geochemical anomalies (Figure 4). The anomalies are defined by the log additive indices of nickel and copper assays that have been levelled with regard to the regolith domain. Levelling the data against the regolith domain has enabled Carnavale to rank the subsequent anomalies on a like by like basis, consequently subcrop / outcrop anomalies have a discounted priority ranking when compared to sample data from sheetwash areas.

Carnavale will follow up these prospective geochemical anomalies with a survey of passive seismic traverses, to determine the depth of transported cover, and subject to results of the passive seismic survey, an EM geophysical survey to explore for concealed conductive nickel sulphide mineralisation.

CSIRO continues to optimise the information produced by the UFF soil programs. Data analysis and reporting of the interpretation by CSIRO is ongoing and is expected to refine and improve the identification of anomalies and further information on the underlying geology.

### **Release from Escrow**

Carnavale hereby confirms, in accordance with Listing Rule 3.10A, that 50,000,000 ordinary shares will be released from voluntary escrow on 26 October 2021.

### This release is approved by the Board of Carnavale Resources Limited.

For further information contact:	
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### **Competent Persons Statement**

The information that relates to Exploration Results for the projects discussed in this announcement represents a fair and accurate representation of the available data and studies; and is based on, and fairly represents information and supporting documentation reviewed by Mr. Humphrey Hale, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr. Hale is the Chief Executive Officer of Carnavale Resources Limited and 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 "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Hale consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### **Forward Looking Statements**

Statements regarding Carnavale's plans with respect to the mineral properties, resource reviews, programs, economic studies and future development are forward-looking statements. There can be no assurance that Carnavale's plans for development of its mineral properties will proceed any time in the future. There can also be no assurance that Carnavale will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Carnavale's mineral properties.

### Information relating to Previous Disclosure

Previously reported material Information relating to the Grey Dam Project include:

#### Resource

Grey Dam Ni-Co Mineral Resource Update, 26 February 2019.

### Exploration

Carnavale expands Nickel-Cobalt footprint at Grey Dam, 28 June 2019 Carnavale expands Nickle Sulphide potential at Grey Dam, 11 November 2019 Strong EM Conductors defined at Grey Dam, 3 June 2020 Drilling to test strong Nickel EM targets at Grey Dam 29 July 2020 Grey Dam Nickel Project Soil sampling update 31 August 2020 Grey Dam Nickel Project - Drilling Commenced 11 September 2020 Grey Dam Exploration Update 6 November 2020

# Table JORC Code, 2012 Edition Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The Ultrafine Fraction (UFF) soils sampling was completed as part of a collaborative research study with CSIRO.</li> <li>Samples were collected in the field by removing any surface vegetation and topsoil and then digging down to a nominal depth of 20cm from which the sample was taken.</li> <li>Samples were sieved in the field to a nominal &lt;1mm size fraction.</li> <li>A nominal 1kg sample was taken in the field and sent to CSIRO for further processing and analysis.</li> <li>Sample depth (nominally 20cm below surface) and location of soil sample recorded at each site.</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	No drilling completed.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling completed.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of</li> </ul>	<ul> <li>No drilling completed.</li> <li>Sample depth (nominally 20cm below surface) and location of soil sample recorded at each site.</li> </ul>

Criteria	JORC Code explanation	Commentary
	the relevant intersections logged.	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>As part of the UFF soil sampling processing, the field samples are further processed at the laboratory to produce a &lt;2um size fraction subsample that is then analysed at LabWest.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Once received by CSIRO, the samples were submitted to LabWest for processing and analysis.</li> <li>CSIRO used and inserted in-house standards in the sample submitted for analysis.</li> <li>LabWest is a commercial independent laboratory in Perth, Western Australia.</li> <li>The &lt;2um fraction of the soil samples were analysed for Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Nb, Ni, Pb, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, TI, U, V, W, Y, Zn &amp; Zr via LabWest's Ultrafine+ microwave digest with an ICP-EOS/MS finish.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Sample results and standards were reviewed by the company's technical consultants.</li> <li>Results are uploaded into the company database, checked and verified.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Soil sample locations are located by handheld GPS to an accuracy of +/-5m.</li> <li>Locations are given in GDA94 Zone 50.</li> <li>Diagrams showing sample locations are provided in the report.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree</li> </ul>	• The soil samples were taken on north- south oriented lines spaced 200m apart, with individual samples taken on a nominal 100m sample spacing along the lines,

Criteria	JORC Code explanation	Commentary
	<ul> <li>of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	closing up to 50m spacing across interpreted prospective target zones.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Surface soil sampling on a grid basis. The grid was designed to sample across the interpreted target zones at a high angle.</li> </ul>
Sample security	• The measures taken to ensure sample security.	Samples are collected by on site company personnel/contractors and delivered direct to the laboratory.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been completed.

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	ing section also apply to this section. JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Grey Dam Nickel Project comprises the following tenements: M28/378, E28/1477, E28/2506 E28/2567, E28/2587, E28/2682 and E28/2760.</li> <li>Four of the tenements, E28/2506, E28/2567, E28/2682 and E28/2760 are subject to an option agreement where Carnavale has the right to acquire 80% interest in the tenements and have the sole right to explore for a period of 3 years.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Extensive drilling, primarily within M28/378 and the northern portion of E28/1477 has been carried out to define a lateritic nickel-cobalt resource at Grey Dam.</li> <li>Limited regional aircore traverses and selected deeper RC and diamond drilling has been completed by previous explorers targeting nickel-sulphide mineralisation within the tenements.</li> <li>Much of the historic drilling has been to blade refusal only, with an emphasis on targeting lateritic nickel blankets in the weathered profile and very few deep drill holes int fresh rock.</li> <li>The targeted mafic/ultramafic package that were the focus of investigation for the UFF soils programme has no historic drilling.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The bedrock geology comprises granite-greenstone sequences typical of the Yilgarn goldfields.</li> <li>The greenstone package includes mafic to ultramafic volcanic rocks similar to those that host nickel sulphide mineralisation at Kambalda</li> <li>The bedrock has been subject to weathering and laterite formation. In some areas the weathering blanket is well developed and has formed zones of lateritic nickel-cobalt enrichment.</li> <li>The greenstones are enclosed by bounding granitoids.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is</li> </ul> </li> </ul>	No drilling completed.

Criteria	JORC Code explanation	Commentary
	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	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No data aggregation or intercept calculations are included in this release.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	No drilling completed.
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.	<ul> <li>Representative plans are provided in this report.</li> </ul>
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.	<ul> <li>The report is considered balanced and provided in context.</li> <li>Further exploration including ground geophysical surveys, mapping, sampling and other exploration activities are required to fully understand the results in greater detail.</li> </ul>
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.	<ul> <li>No meaningful previous work has been done on the project except as described in the report.</li> </ul>
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul> <li>The Company plans to complete further mapping, UFF soil sampling and a ground geophysical survey to further investigate the potential for the project to host nickel</li> </ul>

Criteria	JORC Code explanation	Commentary
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	sulphide mineralisation subject to results from phase two soils.