

9th April 2024

ASX Market Announcements ASX Limited 20 Bridge Street Sydney NSW 2000

## Soil Geochemistry and Rock Sample Analysis Results

### **Great Caesar Mining Leases**

### **Background**

On 16<sup>th</sup> October 2023 Emperor Energy Limited (ASX:EMP) (**Emperor Energy**) advised that it has executed an Asset Sale and Purchase Agreement to acquire three Mining Leases with a total area of 128 Hectares located between the cities of Townsville and Charters Towers in North Queensland, Australia.

The Mining Leases are located 60km Southeast of Townsville, Northeast Queensland and are accessible from Townsville by approximately 70km of sealed road and then approximately 40km of well-maintained gravel road.

The Mining leases are ML 1352 (Caesar No 2), ML 1353 (Caesar No 1) and ML 1439 (Great Fanning No 3) referred to as the Great Caesar Mining Leases. A plan of the Mining Leases is shown in Figure 2.

#### Soil Geochemistry and Rock Sample Program

Emperor Energy has conducted three field trips to the Mining Leases and carried out a soil and rock sampling program as part of its due diligence for acquisition of the Mining Leases.

The soil sampling program was carried out on a 40m x 20m grid to gain an understanding of background gold concentrations in soils across the Mining Leases and identify anomalous gold concentrations. The soil samples were collected by hand digging to a depth of 125 to 150mm.

Soils samples were then analysed for a range of elements, most importantly including gold, with these gold results shown in Figure 1 below.

In conjunction with the soil sampling, a range of rock samples were collected from surface across the Leases with the rock samples then assayed for gold.

The soil sample results clearly identify the historic "Great Caesar Workings" with anomalous gold concentrations occurring in soils along a zone of more than 400m in strike length.

Surface rock samples assay results from this area of old workings returned results of 21.1, 12.4, 10.3, 3.55, 3.38, 2.54, 0.84, 0.08 and 0.02 grams per tonne gold (Au g/t). These results are shown in Figure 3 below.

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Further anomalous gold concentrations are identified around the area referred to as "The Tunnel" where an open stope follows a 500mm wide zone of dark, crumbly gossanous material dipping at approximately 60 degrees from vertical and striking to the South South-East towards the Great Caesar Workings.

Rock sample assay results at The Tunnel returned 37.2, 20.8, 18.25 and 9.1 Au g/t.

Anomalous gold concentrations are also present on "Heart Stop Hill" where a brecciated sandstone outcrop containing gossanous material and quartz strikes southeast towards the Great Caesar workings.

Rock sample assay results at Heart Stop Hill returned 4.21, 1.95, 1.29, 1.15, 0.77, 0.58, 0.11, 0.05 and 0.03 Au g/t.

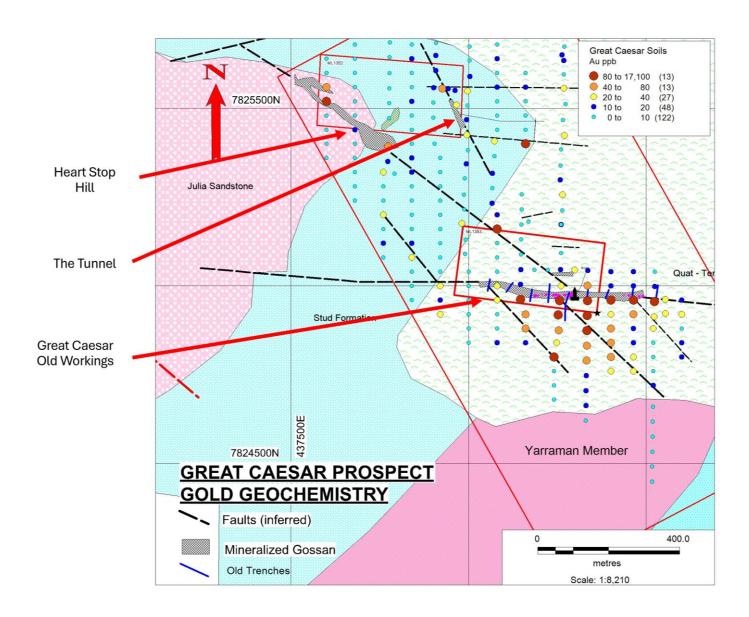


Figure 1: Soil Geochemistry Sampling Results showing gold concentrations in soils (Parts per Billion)

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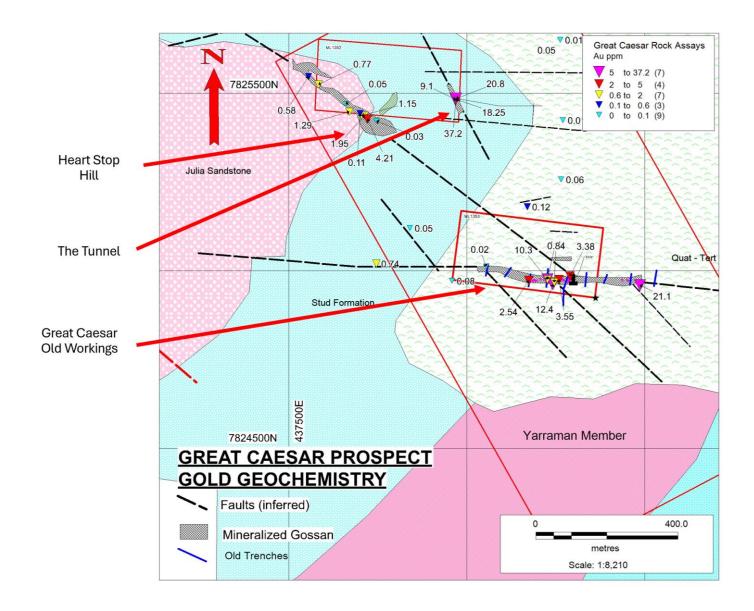


Figure 2: Surface Rock Sample Assay results across the Great Caesar Mining Leases (Parts per Million / grams per tonne gold)

The results of this soil geochemistry and rock sample work are very positive and support the previous historical report compiled by consulting Geologist Robert Pyper in 1997. Information from Pyper's report was released by Emperor Energy on 25<sup>th</sup> October 2023.

Emperor Energy will now plan a drilling program based on targets that have been identified by the soil and rock sampling, with the intention of gaining approval for this drilling program during the process of completing the acquisition of the Mining Leases by the end of May 2024.

Emperor Energy considers that subject to a successful exploration campaign this project provides an opportunity to deliver early cash flow to the company through contract open pit mining and contract processing for gold.

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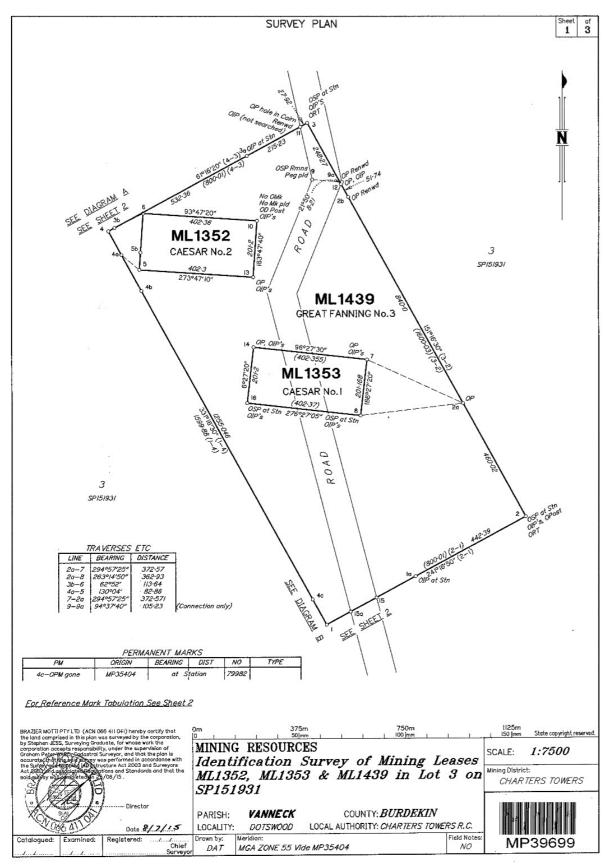


Figure 3: Plan of Great Caesar Mining Leases



### **Competent Persons Statement**

The information in this report, as it relates to historic exploration results from the Great Caeser mineral deposits is based on information compiled and/or reviewed by Mr. K S Weston, who is a member of the Australian Institute of Geoscientists (AIG). Mr. Weston is a consultant to the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Weston consents to the inclusion in this report of the matters based on the information in the form and context in which they appear.

#### **JORC Reporting Tables**

JORC Reporting Tables are included at the end of this announcement.

We thank shareholders and our team for their ongoing support and welcome any questions they may have.

This announcement has been authorised for release to the market by the Board of Directors of Emperor Energy Limited.

Yours faithfully

**Carl Dumbrell** 

**Company Secretary** 

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# **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	<ul> <li>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.</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 (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.</li> </ul>	<ul> <li>Soil samples were taken from hand dug holes ranging from 125 to 150mm deep.</li> <li>The soil sampling program was carried out on a 40m x 20m grid across the mining lease area.</li> <li>Hand-held GPS was used to locate soil sample positions with an accuracy of +- 3m.</li> <li>Rock samples were taken from surface exposure using a hand-held geology pick and visual identification of samples.</li> <li>Hand-held GPS was used to accurately locate rock sample positions.</li> </ul>
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).	No drilling conducted
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 conducted
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 the relevant intersections logged.</li> </ul>	<ul> <li>Rock samples have been collected at various points across the Mining Leases.</li> <li>Rock Samples have not been logged to any extent that would support appropriate Mineral Resource estimation.</li> <li>Rock samples have not been logged with any regard to length or extent of mineralization.</li> </ul>
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> </ul>	<ul> <li>The entire rock sample was initially crushed.</li> <li>The sample was then fine crushed to 70%&lt;2mm</li> <li>The sample was then split with a riffle splitter to establish a</li> </ul>

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		LIMITED
Criteria	JORC Code explanation	Commentary
	<ul> <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>250 gram sample.</li> <li>The 250 gram sample was then pulverized to 80% &lt; 75um</li> <li>A 50g sample is then collected for fire assay analysis.</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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples were analysed for gold using a 50 gram sample for fire assay.</li> <li>Assays were carried out at the following independent Laboratories:         <ul> <li>ALS Laboratory in Brisbane</li> <li>On Site Laboratory in Bendigo</li> </ul> </li> <li>Certified reference standard samples, blank samples and duplicate samples are inserted into the sample stream to test laboratory precision and homogeneity of sampling.</li> <li>Assay results have been supplied with Quality Controlled certificates of Analysis</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>Samples were delivered from the field to exploration services company Terra Search based in Townsville</li> <li>Terra Search then packaged samples for courier transport to Laboratories.</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>Location of data points has been recorded using GPS derived co-ordinates.</li> <li>All samples except for one sample are within the area of the Great Caesar Mining Leases.</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 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>	<ul> <li>Soil sampling was carried out on a 40m x 20m grid.</li> <li>Rock samples were taken at random location with visual selection of samples.</li> </ul>
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</li> </ul>	<ul> <li>No drilling conducted</li> <li>The soil sampling grid has be carried out on a North-South and East-West grid pattern.</li> <li>Rock samples were taken at random location with visual</li> </ul>

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Criteria	JORC Code explanation	Commentary
	assessed and reported if material.	selection of samples.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were delivered from the field to exploration services company Terra Search based in Townsville</li> <li>Terra Search then packaged samples for courier transport to Laboratories.</li> </ul>
Audits reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews conducted</li> </ul>

# 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	<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 licence to operate in the area.</li> </ul>	<ul> <li>Mining Leases ML 1352         (Caesar No 2), ML 1353         (Caesar No 1) and ML 1439         (Great Fanning No 3)         collectively referred to as the         Great Caesar Mining Leases,         located in Queensland,         Australia.</li> <li>Currently owned by RPD TSV         Pty Ltd (Seller), with an         executed Asset Sale and         Purchase Agreement with         Emperor Energy Ltd (Buyer)</li> <li>100% owned by RPD TSV Pty         Ltd</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration carried out by Marathon Petroleum 1980, Aberfoyle Exploration Pty Ltd 1981 and Pegmin Ltd 1984.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Leases cover gold bearing siliceous and tectonically brecciated sandstones and fractured siltstones. Within these are gossanous quartz zones and stringer veins, striking at about 80 degrees and dipping 35 degrees north and which extend for some 550m with widths commonly around 3-5m. The sequence includes a set of repetitive mineralized beds which, in surface exposure, are quartz veined, variably gossanous, clayey and brecciated."</li> <li>"The gold is associated with minor silver, lead and copper sulphides and with abundant pyrite and arsenopyrite. A broad zone of potash alteration</li> </ul>

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		LIMITED
Criteria	JORC Code explanation	Commentary
		surrounds the main mineralization
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> </ul> </li> <li>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.</li> </ul>	No drilling conducted
Data aggregation methods	<ul> <li>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.</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>	No details available
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 (eg 'down hole length, true width not known').</li> </ul>	No drilling conducted
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Distribution of the soil sample analysis results and rock sample analysis results have been mapped separately using GPS co-ordinates.</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.	Rock sampling resulted in values from trace to 37.2 g/t Au
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 further information
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> </ul>	<ul> <li>It is intended that an Exploration Program will be progressed throughout 2024</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	with a further soil geochemistry survey followed by a series of drilling programs aimed at establishing a JORC compliant Resource Statement.

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