

10 November 2021

# Confirmation of Copper Mineralisation at Three Kimberley Projects

# HIGHLIGHTS

- Three gossans were identified at McGowan, associated with an interpreted mafic intrusion measuring 8.0km by 3.4km in size. 115 Rock chips were collected across this magnetics feature and multi-element assay analyses were completed.
- Gossan A, covering an area 70m by 35m of gabbroic origin:
  - $\circ~$  22.10% Cu, 3.08g/t Au and 35.00 g/t Ag
  - $\circ~$  9.37% Cu, 4.07g/t Au and 91.70g/t Ag
  - $\circ~$  7.87% Cu, 4.23g/t Au and 29.00g/t Ag
  - Additional copper grades at this gossan include: 12.55% Cu 9.88% Cu and 5.13% Cu.
- The two additional gossans, located approximately 1.4km NE of Gossan A, demonstrated further potential including:
  - 10.65% Cu, 9.13% Cu, 8.98% Cu and 6.47% Cu
- Rock chip samples from Deadhorse Project showed encouraging anomalism in an underexplored area, particularly:
  - 2.58% Cu, 1.41g/t Ag, 0.03% Pb, 0.02% Zn
  - 0.27% Cu, 24.3 g/t Ag, 1.39% Pb, 1.99% Zn
- Historic Ni-Cu soil anomaly confirmed at Lamboo over corresponding AEM and magnetics feature.
  - 0.84% Ni, 0.27% Cu
- Reprocessing of AEM and magnetics as well as evaluation of geochemical anomalism on the projects will guide the confirmed July 2022 field program.



Peak Minerals Limited (ASX: PUA) (**Peak** or **the Company**) is pleased to provide this update to the market on the McGowan, Deadhorse and Lamboo projects in the Kimberley (Figure 1).

Peak's CEO Jennifer Neild says of the results, "We are excited about the potential of these underexplored assets. The high copper values at McGowan are particularly encouraging and require more detailed geophysical assessment and drilling to define the source of the copper. The geochemistry at Deadhorse and Lamboo is helping us define the exploration models with more confidence and allowing us to vector in on target areas. I'm pleased that Peak now has a plan and the resources to progress these projects."





### **McGowan Project**

- 48 rock chips were collected, many of the samples were gabbro and thought to be a part of the Lamboo Intrusion, defined by historic field mapping and geophysics (Figure 3). The intrusion has been structurally deformed and this complexity is likely why it is underexplored. Figure 4 shows the detail of these rock chip assay results.
- 6 samples, define a gossan zone that is 70m by 35m over an isolated, circular magnetic feature (see Figure 2 and Figure 3).
- Samples with high Au and Ag are thought to represent a hydrothermal overprint.
- Drilling by Northern Star reported 6m at 0.6% Cu and 0.36 g/t Au from surface in the area (see ASX release Option to acquire highly prospective copper portfolio in WA and Equity Placement to raise \$2,000,000 on 21 September 2020). This drilling is at the edge of the gossan and have not tested any extent below 6m.



Figure 2. Showing the McGowan gossan which showed high Cu assay values from rock chips







Figure 3. Magnetic RTP-TMI tilt at McGowan showing the location of the rock chip samples. The length of the tear drop shaped, intrusion is 8.0km. See Figure 4 for detail.



Figure 4. Close up of Gossans A, B and C. Magnetic RTP-TMI tilt at McGowan showing the location of the rock chip samples.



## Lamboo Project

- A total of 14 rock chip samples were collected at the Lamboo Project (see Figure 5).
- The project is underlain by mafic-ultramafic intrusives associated with the Lamboo Intrusive Complex, similar to McGowan Project.
- Historic exploration has identified a large coincident Ni-Cu soil anomaly that strikes over 900m and is greater than 350m wide.
- The potential for a nickel-copper sulphide target is supported by:
  - Ni-Cu soil anomalism
  - Mapped ultramafic lithologies,
  - Nickel laterite on surface (Sample with 0.83% Ni) and
  - Geophysical features in magnetics
- The south-central portion of the tenement is difficult to assess and sample due to the 'black soils' covering much of the area. These soils impeded the effectiveness of the soil geochemistry surveys and thus the true potential of the area that is yet to be realised.



Figure 5. Ni/Cu soil anomaly map over RTP TMI 1VD showing location of surface samples. Note KSS00126 is the red dot in the centre of the soil anomaly.



### **Deadhorse Project**

- 53 rock chip samples were collected to assess and determine the validity of the historic prospects and occurrences.
- Two newly identified areas returned significant Cu values (see Figure 6 and Table 1).
- Mineralisation in the area is associated with the Carson Volcanic unit. Further work on this tenement is warranted to understand the relationship of the mineralisation with the surrounding lithologies.



Figure 6. Location of rock chip samples at the Deadhorse Project.



Ag

(g/t)

1.41

0.73

24.30

1.40

0.01

2.57

24.50

35.00

2.73

10.60

29.00

9.11

91.70

3.68

4.94

9.50

2.55

4.08

0.80

2.94

1.77

1.03

S %

0.02

0.01

0.12

0.02

0.01

0.04

0.01

0.03

0.01

0.01

0.02

0.02

0.08

0.01

0.01

0.02

0.04

0.14

0.03

0.13

0.01

0.05

Pb

(ppm)

251

293

13900

188

1

117

68

19

18

21

1060

13

5250

354

6

4

45

131

70

15

3

72

Zn

(ppm)

209

603

19900

5980

921

58

523

232

307

585

804

17

1980

123

12

17

32

112

85

12

98

35

Project	Sample ID	Easting	Northing	Cu %	Au (g/t)	Ni (ppm
	KSS00031	289529	7981455	2.48	0.01	16
<b>D</b> "	KSS00034	289499	7981484	0.71	0.04	34
Deadhorse	KSS00062	281133	7974334	0.27	0.34	256
	KSS00127	281133	7974334	0.02	0.01	137
Lamboo	KSS00126	323396	7964971	0.27	0.00	8390
	KSS00011	280930	7937405	9.13	0.13	89
	KSS00089	280153	7936145	9.88	0.22	67
	KSS00090	280144	7936174	22.10	3.08	83
	KSS00091	280147	7936182	5.13	0.05	53
	KSS00092	280199	7936156	12.55	1.94	126
	KSS00093	280214	7936181	9.37	4.05	48
	KSS00094	280213	7936182	0.79	1.61	5
	KSS00095	280218	7936178	7.87	4.27	267
McGowan	KSS00099	280818	7936799	0.56	0.19	29
	KSS00102	280498	7937517	0.08	1.30	5
	KSS00106	280524	7937472	6.47	0.54	6
	KSS00107	280524	7937471	0.91	0.30	30
	KSS00111	280545	7937425	0.54	0.05	9
	KSS00128	280933	7937405	8.98	0.06	81
	KSS00129	280994	7937402	0.77	0.11	14
	KSS00130	280991	7937403	0.73	0.06	11
	VSS00121	280937	7937404	10.65	0.06	56

All coordinates are in MGA94 Zone 52.

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### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Ms Barbara Duggan, who is a Member of the Australian Institute of Geoscientists. Ms Duggan is employed by Peak Minerals Limited. Ms Duggan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking 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'. Ms Duggan consents to the inclusion in this announcement of the matters based on her information in the form and context in which it appears.

The information in this announcement that relates to Exploration Results is extracted from the Company's ASX announcement Option to acquire highly prospective copper portfolio in WA and Equity Placement to raise \$2,000,000 on 21 September, 2020. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

### APPENDIX 2: 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	Comments
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.	Rock chip samples were collected where outcrop was present and in areas with historic mineralisation in trenches or adits.
	•Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples were taken to best represent the outcrop and, if present, style of mineralisation.
	<ul> <li>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.</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 was undertaken.
	Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling was undertaken.
		•Measures taken to maximise sample recovery and ensure representative nature of the samples	No drilling was undertaken.
		• 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.	No drilling was undertaken.
	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.	No drilling was undertaken.
(AL		•Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	No drilling was undertaken.
		•The total length and percentage of the relevant intersections logged.	No drilling was undertaken.
	Sub-sampling techniques and	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	No drilling was undertaken.
	preparation	•If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No drilling was undertaken.
		•For all sample types, the nature, quality and appropriateness of the sample preparation technique.	ALS Laboratory, up to 3kg of sample is pulverised to <75µm.
		• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	QAQC reference samples and duplicates were routinely submitted with each sample batch.
		• Measures taken to ensure that the sampling is representative of the <i>in-situ</i> material collected, including for instance results for field duplicate/second-half sampling.	Duplicate samples were routinely submitted every 25 samples.
		• Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes taken are appropriate relative to the style of mineralisation and analytical methods undertaken.
	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.	All samples were sent to ALS laboratory for multi- element analysis (4 Acid digestion with ICP-MS and ICP-AES finish) and Au, Pd, and Pt analysis (30g lead fire assay with ICP-AES finish).



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	• 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.	Field XRF utilised to assist with identification of sulphide species and relative abundance for confirmation of visual assessment.
	• 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.	For all sampling, certified reference materials (CRM's) were utilised every 20 samples with every 5 <sup>th</sup> CRM being a blank. Duplicates were collected every 25 samples. In addition, QAQC data from the lab is also collected.
Verification of sampling and assaying	•The verification of significant intersections by either independent or alternative company personnel.	No drilling was undertaken.
	•The use of twinned holes	No drilling was undertaken.
	•Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data was capture in field books and put into digital spreadsheets. Data was checked and verified. Digital files were imported into the PUA electronic database. All physical sampling sheets are filed and scanned electronically.
	• Discuss any adjustment to assay data.	N/A
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.	No drilling was undertaken.
	•Specification of the grid system used.	All rock chip samples quoted in this Report are using the GDA1994 MGA, Zone 52 coordinate system.
	<ul> <li>Quality and adequacy of topographic control.</li> </ul>	Topography based on publicly available data.
Data spacing and distribution	•Data spacing for reporting of Exploration Results.	Rock chip samples were taken where outcrop was present and lithologies were perspective.
	• 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.	Reconnaissance sampling only.
	•Whether sample compositing has been applied.	No compositing has been applied to the exploration results.
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.	Rock chip sampling was to verify historic mineralised zones and check lithologies. Deposit types are still being understood. Follow-up sampling required to determine extent of mineralisation.
	• 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.	No orientation biased sampling bias has been identified.
Sample security	•The measures taken to ensure sample security.	Samples were transported from the field at the end of the program by vehicle directly to the assay laboratory.
Audits or reviews	•The results of any audits or reviews of sampling techniques and data.	Apart from a desktop review of the historic surface and drill data, no audits have been undertaken.



#### 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>	Peak Minerals Ltd has acquired 100% of Greenrock Metals Pty Ltd and thus 100% of E80/5271 (McGowan), E80/5081 (Lamboo) and E80/5283 (Deadhorse). E80/5271, E80/5081 and E80/5283 are granted tenements and is in full force. There are no known impediments towards the exploration and subsequent development of the Project. Greenrock Metals Pty Ltd retains a 1% NSR for all minerals sold. No known impediments exist with respect to the exploration or development of the tenement.
Exploration done by other parties	•Acknowledgment and appraisal of exploration by other parties.	McGowan: Mapping by BMR in 1963 identified numerous gossans. The gossans consist of Cu-Ag-Au-Zn mineralised quartz veins hosted in the Lamboo Gabbro. Work by WMC in late 60s and early 70's focussed on the gossan outcrops. Subsequent exploration has been undertaken by Northern Star Resources. Lamboo: Exploration starting in the 1970's by Australian Anglo America with the most recent exploration completed by Magma Metals through to 2012. Deadhorse: Exploration review underway, no significant activity in 20+ years.
Geology	•Deposit type, geological setting and style of mineralisation.	McGowan and Lamboo: The project area covers a number of poorly outcropping gabbro intrusives and is prospective for hosting base and precious metals mineralisation. Previous exploration has identified a number of gossanous quartz veins hosted within gabbroic rocks. Deadhorse: The project is mix of sedimentary and volcanic units relating to the Carson Volcanics which are known to host copper mineralisation. The target is sedex copper/base metal mineralisation
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> </ul>	Lamboo: Soil sample data was taken from A Files A5208 and A76466. The data was compiled and a soil map was made using the nickel and copper values. The data from A5208 was in paper format and scanned prior to being digitised. Current Rock chips: The locations of the rock chips are located in the tables above.



		•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.	No information material to the understanding of the exploration results has been excluded.
	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.	All results for the rock chips collected have been included in the above tables.
		•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.	Rock chips were collected, therefore aggregation does not apply.
A		•The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalence data are reported.
	Relationship between mineralisation widths and intercept lengths	•These relationships are particularly important in the reporting of Exploration Results.	No drilling or channel sampling was completed.
		• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not known at this time.
		• 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').	No drilling was 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.	A plan view of all rock chip samples has been included for each project.
	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 rock chips results have been reported.



•Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All other relevant data has been included within this report.
•The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Data evaluation and targeting will be completed across all three tenements. Based on the results a work program will be planned and proposed for the 2022 dry season.
•Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A map noting the sample locations for each project have been included. The geological interpretation for each project is still in progress.
	<ul> <li>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.</li> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <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>