

High Grade Copper Assays Over 6km At Sandover - NT

- Surface sampling at the Sandover Copper Project ("Sandover") in the Northern Territory has confirmed high grade copper mineralisation (up to 20.9% Cu) at four separate areas totalling over 6km of strike
- The outcropping shale units that contain copper mineralisation have been mapped to extend for more than 20km of strike
- Copper mineralisation at Sandover is similar in age and setting to the giant deposits of the Zambian copper belt
- A historic airborne EM survey covering a part of the outcropping copper bearing horizon is being reprocessed to aid in target definition
- Further on-ground mapping and sampling at Sandover is planned to start in March/April 2022

The directors of Encounter Resources Ltd ("Encounter") are pleased to provide assay results from the surface sampling and mapping conducted at the large scale Sandover project in the Northern Territory.

Commenting on the high grade copper at Sandover, Managing Director, Will Robinson said:

"The confirmation of outcropping high grade copper over a large area is a promising start to exploration at Sandover.

Sandover covers a Zambian copper belt aged, sub-basin on the southern margin of the Georgina Basin, approximately 170km north of Alice Springs.

Access is excellent with the Stuart Highway and Ghan railway extending through the western margin of the project.

Further areas of interest have been identified at Sandover and will be sampled at the start of the 2022 field season.

We are engaging with experts in Zambian style copper deposits to assist in the design of exploration programs to fast track this emerging copper opportunity in the Northern Territory."

Figure 1 – Sample Location Areas 1 & 2 at Sandover in October 2021 (refer Figure 2)



Encounter Resources Limited Suite 2, 1 Alvan St Subiaco WA 6008 P +61 8 9486 9455 E contact@enrl.com.au www.enrl.com.au



Background

Sandover is located 170km north of Alice Springs and covers a major structural corridor on the southern margin of the Georgina Basin. Access is excellent with the Stuart Highway and Ghan railway extending through the western margin of the project. Historical exploration at Sandover has mapped copper mineralisation over 20km of strike in a stratiform position.

Sandover is interpreted to represent a locally preserved Neoproterozoic depocentre, overlain by more extensive Cambrian Georgina Basin sediments. A number of the major elements of the classic Zambian style sediment-hosted copper system are present at Sandover.

Exploration Activity

In October 2021, field mapping and rock chip sampling was completed at Sandover to ground truth the previously mapped outcropping copper.

Sampling was conducted in four field areas located up to 6km apart (Figure 2). Each area confirmed the presence of an outcropping red-bed sandstone sequence with multiple, narrow but strike extensive, grey shale units containing copper oxide mineralisation (malachite). Sampling of copper mineralisation at surface returned assays up to 20.9% Cu and a suite of highly anomalous pathfinder elements (Zn, Ag, As, Bi, Mo and Pb) (refer Table 1). There has been limited prior drilling completed at Sandover between 1966 and 1970 (refer Figure 2). Two drill holes were completed by previous explorers near Area 2 and no prior drilling has been completed at Area 1.



Photos 1 & 2 – Sample SA0000011 selected sample of surface scree Sandover 5.5% Cu (Area 2)



Next Steps

Encounter is engaging with experts in Zambian style copper deposits to design an exploration program to fast track this emerging exploration opportunity. Exploration will focus on identifying extensions to the reduced units within the basin along strike and under cover. There will be a particular emphasis on where these units intersect long-lived basin forming structures which are areas with the potential to host major mineral deposits.

Given the potential significance of the copper horizon at Sandover, the project area has been expanded to over 4,700km².

Historical data collation and integration is ongoing. Inspection of historical drill core available in the Alice Springs core library from Sandover will be completed in March-April 2022

An airborne EM survey covering part of the area of the outcropping copper oxide mineralisation has been obtained. This survey is being reprocessed to assist in mapping the prospective conductive host geological unit as it dips under cover. Furthermore, an expanded EM survey is expected to be flown across the extents of the mapped copper mineralisation.

Further regional surface mapping and sampling of the copper mineralised shale units will commence in March-April 2022.

Sandover also includes known pegmatite occurrences with potential for lithium and other critical metals which will continue to be investigated in conjunction with the copper exploration activities.





Figure 2 – Geological map showing cupiferous outcrop, drillhole locations and surface sampling (compiled from company reports and Haines 2004) *Source: NTGS Geology and Mineral Resources of the Northern Territory. Special Publication 5. Compiled by Ahmad, M. and Munson, T.J., June 2013.*

Additional locations annotated are the four areas Encounter sampled at Sandover in October 2021.





Photo 3 – Sample SA000000 – 20.9% Cu (Area 1)



Photo 4 – Sample SA000013 – 6.3% Cu (Area 2)



Photo 5 – Sample SA000016 – 4.0% Cu (Area 3)



Photo 6 - Sample SA000036 - 4.5% Cu (Area 4)



SampleID	East	North	Cu %	Zn_ppm	Ag_ppm	As_ppm	Bi_ppm	Mo_ppm	Pb_ppm
SA000000	427355	7549909	20.90	864	13	2450	707	37	332
SA000001	427947	7545065	0.003	20	<1	3	0.2	<0.5	6
SA000002	427391	7549762	0.04	20	<1	5	0.6	<0.5	4
SA000003	427566	7549924	0.008	14	<1	3	0.2	<0.5	4
SA000004	427586	7549937	0.01	12	<1	2	0.1	<0.5	2
SA000005	427700	7549947	2.06	74	<1	213	110	13.5	25
SA000006	427632	7549901	1.89	34	<1	54	5.7	4	13
SA000007	427578	7549937	0.03	16	<1	2	0.6	<0.5	2
SA000008	427631	7549877	2.34	248	4	535	187	28.5	48
SA000008A	427551	7548208	0.004	8	<1	2	0.2	<0.5	8
SA000009	428015	7548124	0.002	10	<1	2	0.2	<0.5	3
SA000010	428315	7548073	0.008	18	<1	4	0.7	<0.5	4
SA000011	428791	7547939	5.48	42	12	140	123	59.5	34
SA000012	428788	7547937	0.36	28	<1	22	5.3	3.5	6
SA000013	428633	7547860	6.34	50	6	143	168	67	39
SA000014	428556	7547859	2.15	34	6	67	66.2	32.5	17
SA000015	428126	7547939	0.01	30	<1	3	0.5	<0.5	7
SA000016	429189	7543682	3.96	268	2	8	13.2	3	24
SA000017	429355	7543593	0.01	46	<1	3	0.2	<0.5	5
SA000018	429353	7543565	0.01	54	<1	10	5	<0.5	6
SA000019	429356	7543684	1.51	88	<1	24	26.9	3	16
SA000036	428027	7545071	4.55	82	7	334	110	73	24
SA000037	428131	7544944	1.55	46	1	141	34.5	37	16

Table 1: Location and Cu, Zn, Ag, As, Bi, Mo and Pb assay results from surface rock chip sampling from Sandover. Note the break in sample numbers is due to sampling from separate field areas.

Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration.





Figure 3 – Location of field mapping and sampling



Figure 4 – Sandover Schematic Cross





Figure 5 – Encounter copper projects in the Northern Territory - Project Location Plan





About Encounter

Encounter is one of Australia's leading mineral exploration companies listed on the ASX. Encounter's primary focus is on discovering major copper dominant deposits in Australia. Encounter's assets include:

- A large project portfolio in the Paterson Province of WA where it is exploring for copper-gold deposits at its 100% owned Lamil Project and for copper-cobalt deposits at the Yeneena project with IGO Limited (ASX:IGO);
- A series of camp scale, first mover copper opportunities in the Northern Territory. This includes the Elliott copper project which is being advanced in partnership with BHP via a \$25m earn-in and joint venture; and
- The Aileron IOCG project in the West Arunta region of WA.

For further information, please contact:

Will Robinson	Michael Vaughan
Managing Director	Fivemark Partners
+61 8 9486 9455	+61 422 602 720
<u>contact@enrl.com.au</u>	michael.vaughan@fivemark.com.au

The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewick consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. This announcement has been authorised for release by the Board of Encounter Resources Limited.



SECTION 1 SAMPLING TECHNIQUES AND DATA

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 sounds, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Areas 1-4 at the Sandover project were sampled by Encounter staff by surface rock chips. 23 rock chip samples were taken of outcropping and float rocks including copper bearing mineralisation contained within grey shale units. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sample locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.
	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 (e.g. submarine nodules) may warrant disclosure of detailed information	Rock chip samples were sent to Bureau Veritas Minerals Pty Ltd Laboratories in Perth, where they were dried, crushed, pulverised and split to produce a sub – sample for ICP (OES) (MS) 4 Mixed Acid Digest.
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).	N/A
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	N/A
	Measures taken to maximise sample recovery and ensure representative nature of the samples	N/A
	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.	N/A
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.	A geological description was recorded and photograph taken of each sample prior to submission to the lab for analysis.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative in nature and records interpreted lithology, alteration, mineralisation, structure, veining and other features of the samples.
	The total length and percentage of the relevant intersections logged	All sampled have been logged by Encounter geologists
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	N/A
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation was completed at Bureau Veritas Minerals Pty Ltd Laboratories in Perth. Samples were dried, crushed, pulverised (90% passing at a ≤75µM size fraction) and split into a sub – sample for ICP (OES) (MS) 4 Mixed Acid Digest
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these will be at an average of 1:33.
	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.	No duplicate samples were taken. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of the mineralisation at Sandover.
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.	The samples have been analysed by ICP using a 4 mixed acid digest including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. This extended digest approaches a total digest for many elements however some refractory minerals are not completely attacked. Assays have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry (OES)(AI, Ca, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, S, Sc, Ti, V, Zn) and ICP – Mass Spectrometry(MS) (Ag, As, Bi, Cd, Co, Ga, Hf, In, La, Mo, Nb, Pb, Rb, Sb, Sn, Sr, Ta, Te, Th, TI, U, W, Y, Zr).
	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.	N/A
	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.	Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks as part of in- house procedures.



Criteria	JORC Code explanation	Commentary		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The assay results included in this report have been verified by Sarah James (Exploration Manager)		
	The use of twinned holes.	No twinned holes have been drilled.		
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary location data was collected for Sandover on field ipad and GPS. Data collected including assays are sent offsite to Encounter's Database (Datashed software), which is backed up daily.		
	Discuss any adjustment to assay data.	No adjustments have been made to the assay data.		
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.	Drill hole collar locations are determined using a handheld GPS.		
	Specification of the grid system used.	The grid system used is MGA_GDA94, zone 53.		
	Quality and adequacy of topographic control.	Estimated RLs were assigned to be corrected at a later stage using a more detailed DTM.		
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Rock chips at the Sandover prospect have been collected in four areas, over 6km apart.		
	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.	Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.		
	Whether sample compositing has been applied.	N/A		
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.	N/A		
	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.	N/A		
Sample security	The measures taken to ensure sample security.	The chain of custody is managed by Encounter. Samples were delivered by Encounter personnel to the assay laboratory.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on Sandover data.		

SECTION 2 REPORTING OF EXPLORATION RESULTS



Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title	The areas sampled at the Sandover project are located within the tenements EL32374 and EL32421 which are 100% held by Encounter.
	interests, historical sites, wilderness or national park and environmental settings.	The sampling areas are contained within the Mount Skinner Pastoral Lease.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling exploration activity at Sandover was completed during the late 1960s and early 1970s. In 1966 Kennecott completed a three hole percussion drilling program (BH1-3) for a total of 610m together with regional costean sampling. In 1968, a program of 4 diamond holes for 662m (Mt Skinner 1-4) was drilled by the Mines and Water Resource Branch, NT. In 1970 Centamin N.L. drilled 4 diamond holes (CMS1- 4) in the wider Sandover area for 1781m Other parties including Utah Developments Co, Alcoa Australia Ltd and CRA completed regional reconnaissance mapping, geochemical surface sampling and small geophysical surveys in the area.
Geology		Sedimentary rocks at Sandover form the south western margin of the Georgina Basin. The Upper Proterozoic Central Mt Stuart bed and Upper-Proterozoic to Lower Cambrian Grant Bluff Formation lie unconformably on the basement metamorphics of the Arunta block.
	Deposit type, geological setting and style of mineralisation	Sandover is interpreted to represent a locally preserved Neoproterozoic depocentre, overlain by more extensive Cambrian Georgina Basin sediments. A number of the major elements of the classic Zambian style sediment- hosted copper system are present at Sandover.
Drill hole information	A summary of all information material to the understanding of the exploration results including 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 meters) of the drill hole collar Dip and azimuth of the hole Down hole length and interception depth Hole length 	

Refer to tabulation in the body of this announcement.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	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.	N/A
	Where aggregated 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.	N/A
-	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported in this announcement.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
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 plane view of drill hole collar locations and appropriate sectional views.	Refer to body of this announcement
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All meaningful and material information has been included in the body of the text.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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 meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The next phase of work will be designed following reprocessing of open file geophysics and extensive analysis of historical data.