

## Outstanding High Grade Gold Results from Tennant Creek

### Highlights

- Significant new drill results received from the Black Snake and Susan gold prospects
- High-grade near-surface gold mineralisation enhances potential for open pit mining
- **New high-grade gold intercepts from Black Snake** include:
  - **8m at 15g/t gold** from 16m including:
    - **4m at 24.4g/t gold** (RC drill hole BSRD008)
  - **9m at 7.96g/t gold** from 6m including:
    - **1m at 54g/t gold** (BSRD018)
  - **6m at 7g/t gold** from 18m including:
    - **3m at 12.6g/t gold** (BSRD014)
  - **15m at 6.77g/t gold** from 4m including:
    - **9m at 10.4g/t gold** (BSRD007)
- **New high-grade gold intercepts from Susan** indicate extensions of the gold-bearing oxide zone and include:
  - **5m at 3.93g/t gold** (SS011)
- The above results were recently received from the laboratory and reflect previously unassayed Reverse Circulation samples from drilling completed by former joint venture partner Territory Resources
- Previously released assay results from the same drill program at Susan (ASX 18 February 2019) include:
  - **11m at 48g/t gold** from 26m including:
    - **9m at 58.5g/t gold and 1m at 246g/t gold** (RC drill hole SS001)
  - **8m at 16g/t gold** from 22m including:
    - **6m at 20.4g/t gold** including 2m at 26g/t and 1m at 41g/t gold (RC drill hole SS003)
- As previously advised, Emmerson terminated its Joint Venture with Territory Resources in November 2020 (ASX 9 November 2020) and now has a new partner, Tennant Consolidated Mining Group who are forging ahead with establishing a large central CIP mill and preparations for mining.

### Emmerson Managing Director, Rob Bills commented:

*“These latest results continue to advance our twofold strategy of adding value through discoveries and extensions to known high grade gold mineralisation plus build the pipeline of small mines, where Emmerson receives a low-risk, free carry 6% production royalty stream. JORC mineral resources are currently being estimated at our Chariot and Mauretania projects, and based on these results, will now be extended to Black Snake. Once complete, this will provide a partial “see through valuation” of this portion of Emmerson’s emerging portfolio of royalty streams.*

*The results from Susan have expanded the high-grade gold envelope and further drilling will be undertaken to test for extensions and repeats of the ironstone within this structural corridor.”*

### **Susan – an emerging high grade gold project**

The historic Susan Mine is within Emmerson's southern project area (SPA) (Figure 1) and produced approximately 90,000ozs at 23.5g/t gold in 1959-1960, from shallow underground workings via a single shaft down to 42m below surface (ref: Emmerson Prospectivity Report 2008).

Prior exploration by Emmerson recognised the potential of the greater Susan area based on structural and geophysical criteria – in particular the correspondence between the magnetic signature of the Susan Mine (Figure 2) and the various untested aeromagnetic anomalies in the district. High grade gold mineralisation at Susan occurs with sericite-hematite alteration at the contact of the magnetite ironstone.

The complete set of assay results from this 2018 drilling now point to good potential for expanding the existing mineralisation as it remains open to the east and at depth below drill hole SS011 (Figure 3). Furthermore, at the mine scale the geophysical (magnetic) anomalies are more extensive than the known high grade gold mineralisation, opening up the possibility of further extensions along strike from these recent drill results.

### **Black Snake – strong potential for a high grade mine**

Black Snake has advanced to scoping level studies with permitting well advanced. Given its proximity to Golden Kangaroo East and the Three Thirty gold prospects, mining synergies from potential multiple ore sources will now need to be factored into this scoping study (Figure 1).

The Black Snake mineralisation occurs within an ESE, subvertical shear zone, with gold occurring 30m below the surface, with widths of up to 8m and open in all directions. The mineralisation consists of quartz-hematite stringers within a hematite shale sequence and is atypical of the Tennant Creek Mineral Field, ironstone hosted gold mineralisation (Figures 4 & 5). This style of mineralisation remains largely untested in the TCMF and will be the subject of ongoing studies.

### **Next Steps - Drilling in progress and advanced mining studies underway**

Emmerson and new Joint Venture partner, Tennant Consolidated Mining Group (TCMG) are planning an increasingly drill intensive program over the five year earn-in period. Projects currently underway include:

- Drilling (now underway) at Mauretania to test for extensions and pre mining geotechnical drill holes.
- Drilling at West Gibbet – to follow up historical intersection of 13m at 66.9g/t gold from 74m (drill hole WGBRC024)(ASX 26 May 2008).
- Ultra High Resolution drone magnetic survey underway - to pinpoint new ironstones (the typical host to high grade gold mineralisation in the field).
- JORC resource estimates at Chariot, Mauretania and now Black Snake projects.
- Feasibility studies by TCMG on establishing the central mill in Tennant Creek in 2022.

Outside of this, Emmerson have retained 100% ownership of the historic Jasper Hills, high grade copper-gold and cobalt project and are working with our Traditional Owner, Joint Venture partner to unlock this for exploration.

### **About Emmerson Resources, Tennant Creek and New South Wales**

Emmerson has a commanding land position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields that has produced over 5.5Moz of gold and 470,000t of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, and Golden Forty. These high-grade deposits are highly valuable exploration targets, and to date, discoveries include high-grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These discoveries were found utilising new technology and concepts and are the first discoveries in the TCMF for over two decades.

### **A recent rush of new tenement applications by major and junior explorers in the Tennant Creek district, not only highlights the prospectivity of the region for copper and gold but also Emmerson's strategic 1,800km<sup>2</sup> land holding.**

In addition, Emmerson is fast tracking exploration across five exciting early-stage gold-copper projects in NSW, identified (with our strategic alliance partner Kenex/Duke Exploration) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. Duke can earn up to 10% (to pre BFS) of any project generated providing certain success milestones are met.

The highly prospective Macquarie Arc in NSW hosts >80Moz gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain underexplored due to historical impediments, including overlying cover (farmlands and younger rocks) and a lack of effective exploration.

### **About Tennant Consolidated Mining Group (TCMG)**

TCMG is a subsidiary of TA Private Capital Security Agent Ltd, a Hong Kong headquartered assets management firm, best known for its private debt solutions spanning trade finance through mid-tenor supply chain financing to mid to longer tenor term and project loans. TA has a diverse portfolio of capital deployed globally including within the Australian mining sector.

TCMG's focus is to rationalise assets in the Tennant Creek area, with the objective of undertaking detailed studies with the ultimate goal of developing a centralised processing facility commercialising known mill feed sources in and around Tennant Creek.

### **Regulatory Information**

The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed and verified as best as the Company was able. As outlined in this announcement, the Company is planning further drilling programs to understand the geology, structure and potential of the untested areas. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.

### **Competency Statement**

The information in this report on exploration results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cuison is a full-time employee of the Company and consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

### **Cautionary Statement**

The Exploration Targets described above are conceptual in nature. It must be noted that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Emmerson Resources Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Emmerson believes that its expectations reflected in these forward- looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of a Mineral Resource.

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This release has been authorised by the Board of Emmerson Resources Limited

**Table 1: Black Snake significant drill hole intersections**

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI TRUE (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Bi (ppm)	Co (ppm)	Cu ppm	Fe (%)	Sample Type	Geology	
BSRD007	429575	7823518	388	-61.8	155.2	4	19	15	6.8	0.14	150	16	52	9	1m, 2m and 4m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
						<i>incl</i>	10	19	9	10.4	0.21	214	26	79	11		1m comp
						<i>incl</i>	10	11	1	43.5	0.48	563	3	53	7		
						<i>incl</i>	14	15	1	16.6	0.3	265	3.1	30.0	4.9		
BSRD008	429582	7823524	389	-72.5	152.7	16	24	8	15.0	0.11	57	13	20	7	4m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
						<i>incl</i>	16	20	4	24.4	0.19	102	21	36	9		
BSRD014	429562	7823523	387	-73.3	152.3	18	24	6	7.1	0.06	103	7	45	9	4m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
						<i>incl</i>	21	24	3	12.6	0.08	173	10	74	9		
						<i>incl</i>	21	22	1	27.1	0.14	490	17	205	12		
BSRD015	429566	7823514	388	-57.1	159.8	8	13	5	1.8	0.12	45	2	9	5	1m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
BSRD018	429556	7823512	388	-57.7	153.6	6	15	9	8.0	0.06	77	5	14	4	1m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
						<i>incl</i>	10	15	5	13.4	0.08	120	5	17	5		
						<i>incl</i>	13	14	1	53.9	0.25	451	11	51	8		
BSRD022	429557	7823488	387	-58.3	346.0	22	24	2	8.3	0.36	0.2%	4	206	12	1m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
						<i>incl</i>	22	23	1	15.4	0.43	0.3%	4	186	11		
BSRD005	429573	7823523	388	-61.2	155.5	12	18	6	1.2	0.10	73	4	19	7	1m and 4m comp	Oxidized hematite shale cut by quartz-hematite veinlets and stringers	
BSRD044	429568	7823493	389	-45.5	306.3	17	21	4	3.3	0.09	267	2.4	31	17	1m comp	Oxidized hematite shale	
BSRD016	429565	7823490	388	-61.1	343.6	19	20	1	3.1	0.13	75	4	23	26	1m comp	Oxidized hematite shale	

- (1) Samples reported are 1-metre riffle split, 2m composite and 4m composite Reverse Circulation samples.  
(2) Multi element and gold analysis method Aqua Regia Digest/ICP-OE.  
(3) Intersections are reported as downhole lengths and not true width.

- (4) Minimum cut-off of 1 g/t Au. No maximum cut-off.  
(5) Maximum of 1m internal dilution.

**Table 2: Susan significant drill hole intersections**

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI TRUE (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Bi (ppm)	Cu ppm	Co (ppm)	Fe (%)	Mg ppm	Mo ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm	Sample Type	COMMENTS	
SS011	419417	7826130	380	-58.06	182.5	49	54	5	3.9												5m comp	Magnetite - hematite ironstone (Gold assay only)	
SS001	419436	7826085	380	-51.15	358.0	19	21	2	2.5	0.85	413	306	30	28.73	467	240	31	4	5	23	1m comp		
							26	37	11	48.3	0.4		407	25	22	1023	0.17%	200	3	19	23	1m comp	Magnetite - hematite ironstone; oxidized sandstone and siltstone, Highly crushed ironstone (magnetic) from 30-37m - Fault zone?
						<i>incl</i>	27	36	9	58.5	0.45		395	26	22	995	0.18%	237	3	21	17		
						<i>incl</i>	27	28	1	114.4	0.60	>1.0%	318	35	25	963	0.13%	750	3	41	13		
						<i>incl</i>	33	34	1	246.0	0.3	>1.0%	414	19	20	1185	0.31%	541	3	40	24		
SS003	419437	7826110	380	-50.6	176.5	22	30	8	16.0	0.49	0.24%	436	17	21	1028	0.16%	32	6	9	7	1m comp	Magnetite - hematite ironstone	
						<i>incl</i>	24	30	6	20.4	0.58	765	443	18	22	894	0.13%	37	3	9	7		
SS013	419447	7826117	380	-50.32	182.8	18	20	2	6.8	0.73	0.46%	158	27	31	141	659	149	4	4	9	1m comp	Magnetite - hematite ironstone	
						<i>incl</i>	19	20	1	12.5	0.25	0.41%	126	22	28	93	492	167	6	4	4		

- (1) Samples reported are 1-metre riffle split and 5m composite Reverse Circulation samples.
- (2) 1m sample analysis by multi-acid digest with an ICP/OES & Fire Assay/OES finish
- (3) Composite samples analysed for gold by Fire Assay ICP/OES only
- (4) Intersections are reported as downhole lengths and not true width.
- (5) Minimum cut-off of 1 g/t Au. No maximum cut-off.
- (6) No internal dilution.

**Table 3. Black Snake collar locations**

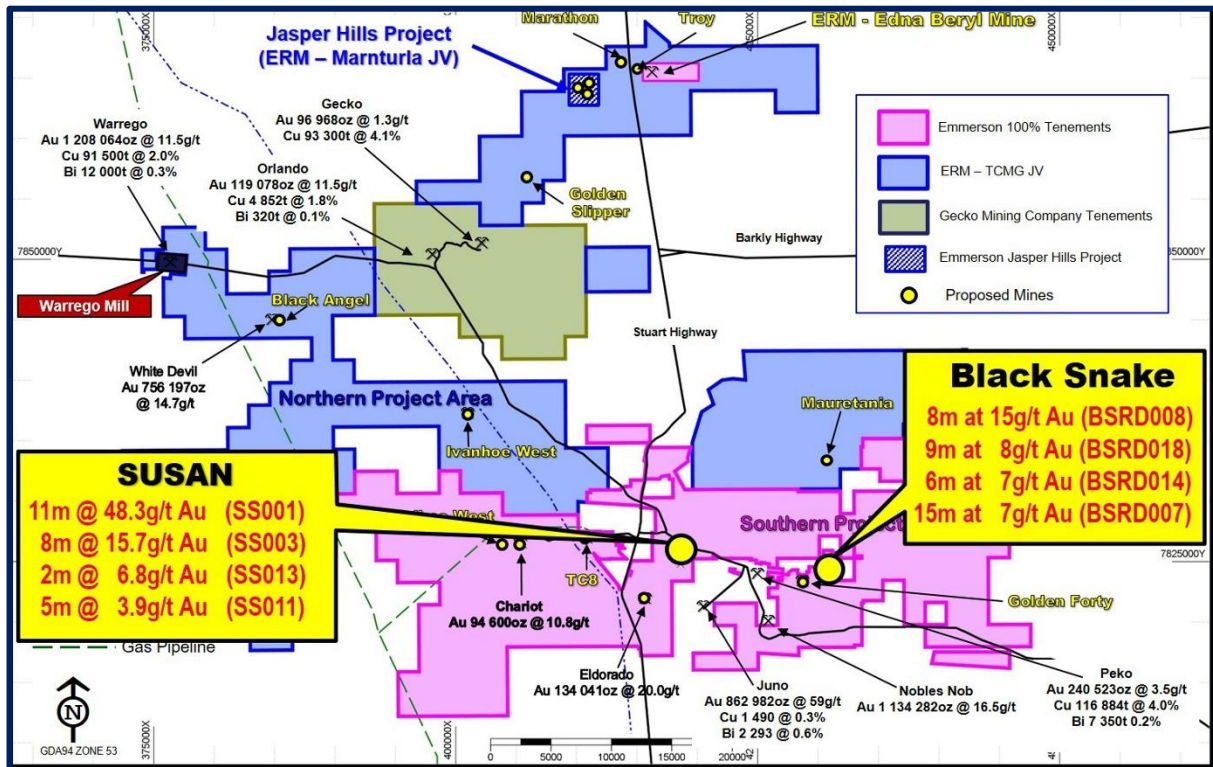
Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip (deg)	AZI TRUE (deg)	Total Depth (m)	Drill Type	Drill Date	Prospect Name	Tenement
BSRD001	429623	7823521	389.9	-50	356.7	42	RC	7/11/2018	Black Snake	MLC53
BSRD002	429624	7823510	390.3	-52	356.7	42	RC	7/11/2018	Black Snake	MLC53
BSRD003	429632	7823517	390.0	-51	347.6	42	RC	7/11/2018	Black Snake	MLC53
BSRD004	429634	7823510	389.4	-52	347.9	42	RC	7/11/2018	Black Snake	MLC53
BSRD005	429573	7823523	388.1	-61	155.5	30	RC	9/11/2018	Black Snake	MLC53
BSRD006	429573	7823523	388.1	-84	133.5	34	RC	9/11/2018	Black Snake	MLC53
BSRD007	429575	7823518	388.5	-62	155.2	42	RC	11/11/2018	Black Snake	MLC53
BSRD008	429582	7823524	388.6	-72	152.7	42	RC	7/11/2018	Black Snake	MLC53
BSRD009	429582	7823524	388.6	-90	0.0	42	RC	7/11/2018	Black Snake	MLC53
BSRD010	429582	7823523	388.7	-48	154.2	42	RC	7/11/2018	Black Snake	MLC53
BSRD011	429591	7823525	389.4	-78	154.1	42	RC	11/11/2018	Black Snake	MLC53
BSRD012	429602	7823527	389.9	-72	159.2	42	RC	10/11/2018	Black Snake	MLC53
BSRD013	429562	7823523	386.8	-60	154.1	33	RC	11/11/2018	Black Snake	MLC53
BSRD014	429562	7823523	386.7	-73	152.3	26	RC	11/11/2018	Black Snake	MLC53
BSRD015	429566	7823514	388.3	-57	159.8	30	RC	9/11/2018	Black Snake	MLC53
BSRD016	429565	7823490	388.0	-61	343.6	20	RC	8/11/2018	Black Snake	MLC53
BSRD017	429565	7823490	388.1	-64	342.8	25	RC	8/11/2018	Black Snake	MLC53
BSRD018	429556	7823512	388.2	-58	153.6	15	RC	9/11/2018	Black Snake	MLC53
BSRD019	429551	7823523	385.8	-78	160.6	42	RC	11/11/2018	Black Snake	MLC53
BSRD020	429541	7823518	384.2	-55	154.0	42	RC	11/11/2018	Black Snake	MLC53
BSRD022	429557	7823488	387.1	-58	346.0	30	RC	8/11/2018	Black Snake	MLC53
BSRD024	429546	7823489	388.2	-61	152.4	42	RC	8/11/2018	Black Snake	MLC53
BSRD025	429543	7823494	388.3	-67	345.9	42	RC	8/11/2018	Black Snake	MLC53
BSRD026	429544	7823496	388.3	-49	336.7	20	RC	10/11/2018	Black Snake	MLC53
BSRD027	429522	7823526	381.6	-62	318.0	42	RC	11/11/2018	Black Snake	MLC53
BSRD028	429520	7823525	381.6	-44	299.0	42	RC	10/11/2018	Black Snake	MLC53
BSRD029	429523	7823527	381.7	-53	333.9	42	RC	11/11/2018	Black Snake	MLC53
BSRD030	429526	7823521	381.4	-57	195.5	42	RC	8/11/2018	Black Snake	MLC53
BSRD031	429528	7823522	381.5	-45	167.1	42	RC	8/11/2018	Black Snake	MLC53
BSRD032	429529	7823523	381.6	-40	134.2	42	RC	8/11/2018	Black Snake	MLC53
BSRD033	429522	7823507	380.7	-43	155.7	42	RC	9/11/2018	Black Snake	MLC53
BSRD034	429523	7823509	380.9	-50	137.0	42	RC	9/11/2018	Black Snake	MLC53
BSRD035	429521	7823507	380.5	-50	186.8	42	RC	9/11/2018	Black Snake	MLC53
BSRD036	429519	7823513	380.6	-52	340.9	42	RC	10/11/2018	Black Snake	MLC53
BSRD037	429511	7823499	379.7	-45	335.5	42	RC	10/11/2018	Black Snake	MLC53
BSRD038	429514	7823494	379.6	-50	187.9	42	RC	9/11/2018	Black Snake	MLC53
BSRD039	429515	7823494	379.6	-49	157.3	42	RC	9/11/2018	Black Snake	MLC53
BSRD040	429516	7823495	379.8	-51	141.0	42	RC	9/11/2018	Black Snake	MLC53
BSRD041	429510	7823498	379.6	-62	315.3	42	RC	10/11/2018	Black Snake	MLC53
BSRD042	429510	7823496	379.6	-46	295.0	42	RC	10/11/2018	Black Snake	MLC53
BSRD043	429512	7823498	379.6	-61	9.9	42	RC	10/11/2018	Black Snake	MLC53

Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip (deg)	AZI TRUE (deg)	Total Depth (m)	Drill Type	Drill Date	Prospect Name	Tenement
BSRD044	429568	7823493	388.6	-46	306.3	42	RC	13/11/2018	Black Snake	MLC53
BSRD045	429569	7823492	388.6	-63	309.2	42	RC	13/11/2018	Black Snake	MLC53
BSRD046	429570	7823492	388.6	-79	324.1	42	RC	13/11/2018	Black Snake	MLC53
BSRD047	429569	7823495	388.7	-90	0.0	12	RC	13/11/2018	Black Snake	MLC53
BSRD048	429569	7823494	388.7	-62	332.4	22.5	RC	13/11/2018	Black Snake	MLC53
BSRD049	429564	7823487	330.0	-81	335.2	42	RC	13/11/2018	Black Snake	MLC53

**Table 4. Susan collar locations**

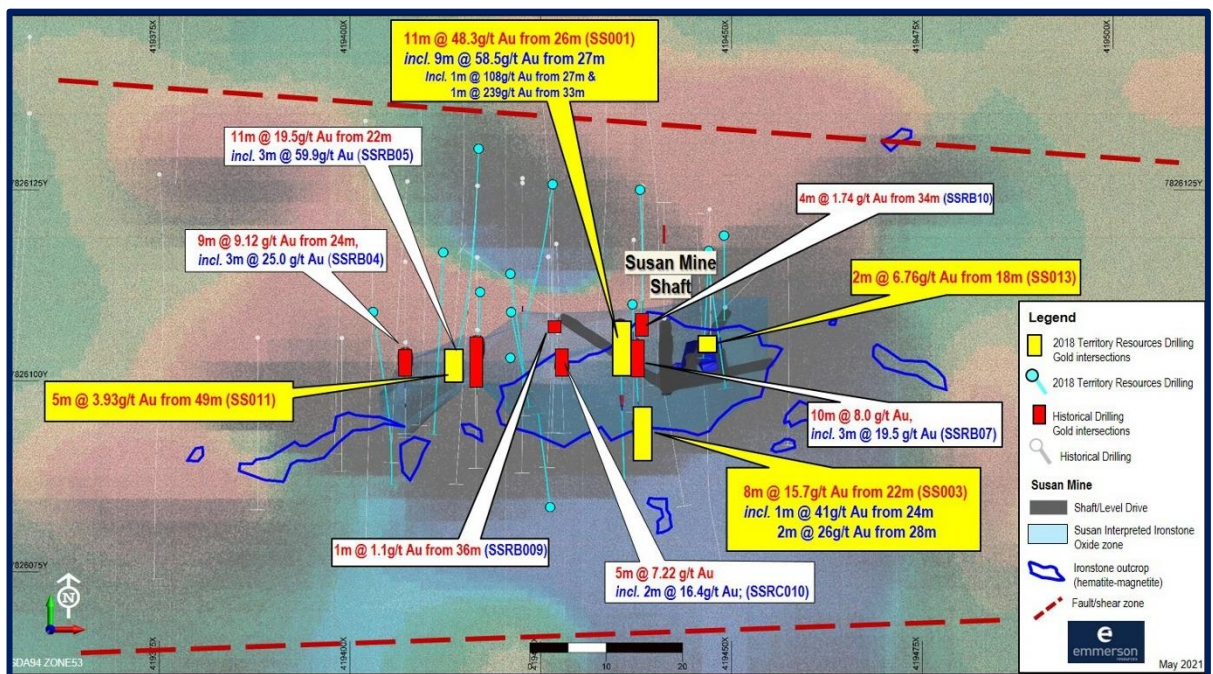
Hole ID	East (MGA94_55)	North (MGA94_55)	RL AHD	Dip (deg)	AZI TRUE (deg)	Total Depth (m)	Drill Type	Drill Date	Prospect Name	Tenement
SS001	419436	7826085	380.1	-51	358.0	37	RC	20/11/2018	Susan	MLC524
SS002	419438	7826125	378.7	-68	178.0	54	RC	21/11/2018	Susan	MLC524
SS003	419437	7826110	380.0	-51	176.5	30	RC	22/11/2018	Susan	MLC524
SS004	419426	7826083	380.2	-52	352.8	20	RC	21/11/2018	Susan	MLC524
SS005	419427	7826126	380.0	-72	188.3	54	RC	20/11/2018	Susan	MLC524
SS006	419412	7826117	380.0	-59	182.6	45	RC	20/11/2018	Susan	MLC524
SS007	419421	7826114	380.0	-59	172.1	30	RC	21/11/2018	Susan	MLC524
SS008	419421	7826109	380.6	-60	168.9	25	RC	21/11/2018	Susan	MLC524
SS009	419421	7826103	380.0	-90	0.0	15	RC	21/11/2018	Susan	MLC524
SS010	419403	7826109	381.0	-55	170.9	40	RC	20/11/2018	Susan	MLC524
SS011	419417	7826130	380.0	-58	182.5	54	RC	20/11/2018	Susan	MLC524
SS012	419417	7826112	380.6	-60	181.5	25	RC	21/11/2018	Susan	MLC524
SS013	419447	7826117	380.0	-50	182.8	22	RC	21/11/2018	Susan	MLC524
SS014	419447	7826115	380.0	-50	172.2	25	RC	21/11/2018	Susan	MLC524
SS015	419449	7826119	380.0	-67	180.0	28	RC	21/11/2018	Susan	MLC524



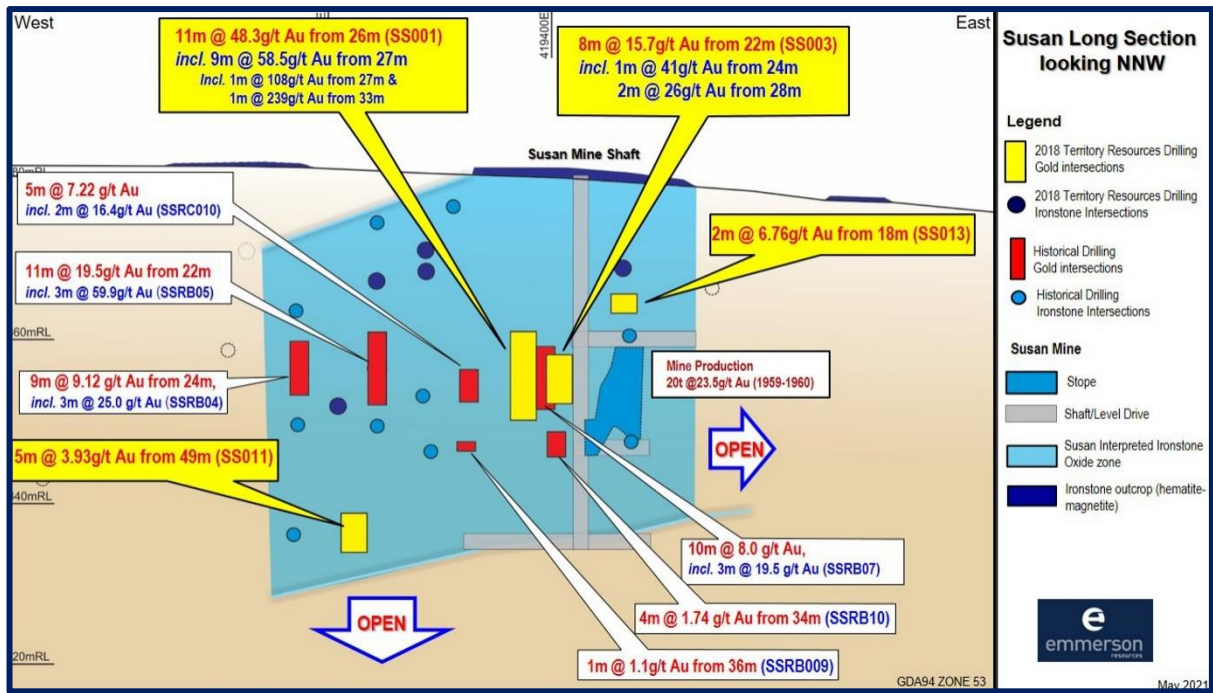


**Figure 1:** Map of the Emmerson Tennant Creek tenements and TCMG JV area. Yellow labels indicate future potential small mines that are at various stages of exploration or mining studies.

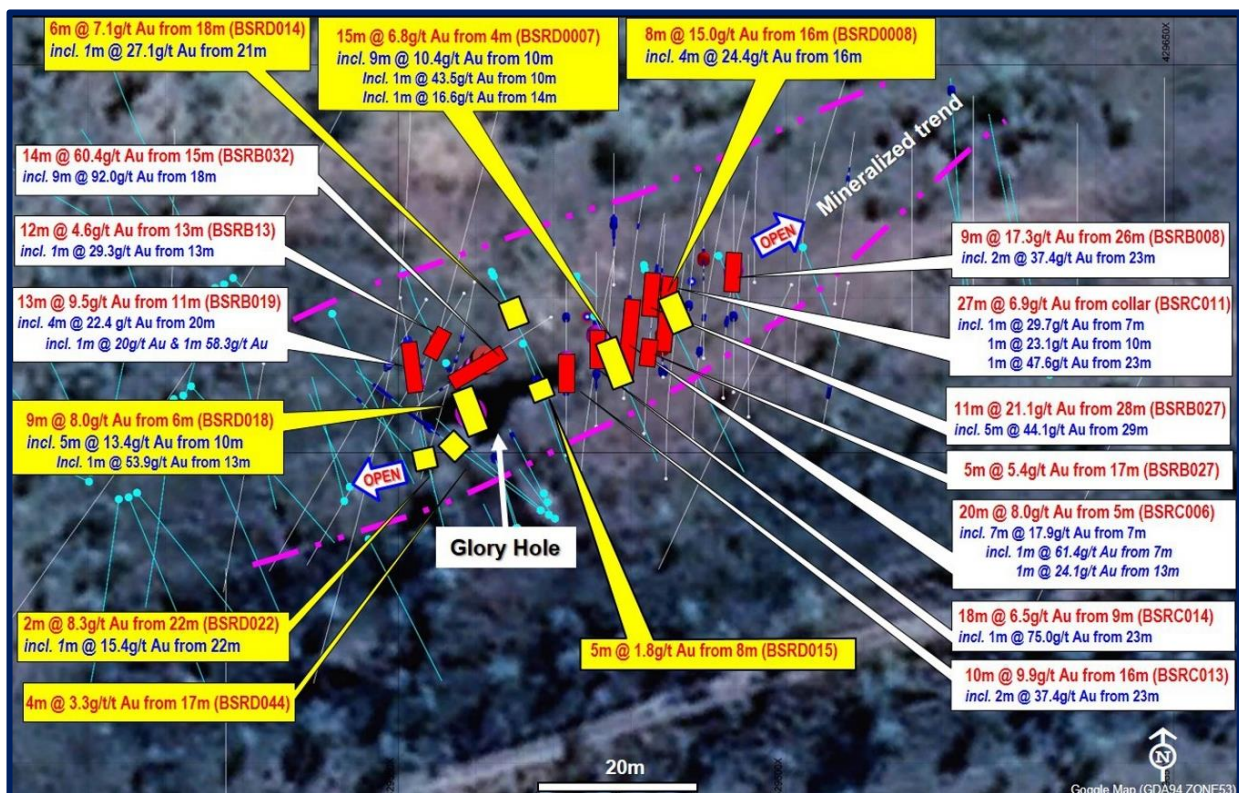
*Note: quoted resources from historical deposits from Ahmad, M., Wygralak, A.S. and Ferenczi, P.A. (1999). Gold deposits of the Northern Territory 2<sup>nd</sup> ed. Darwin: Northern Territory Geological Survey, p.60*



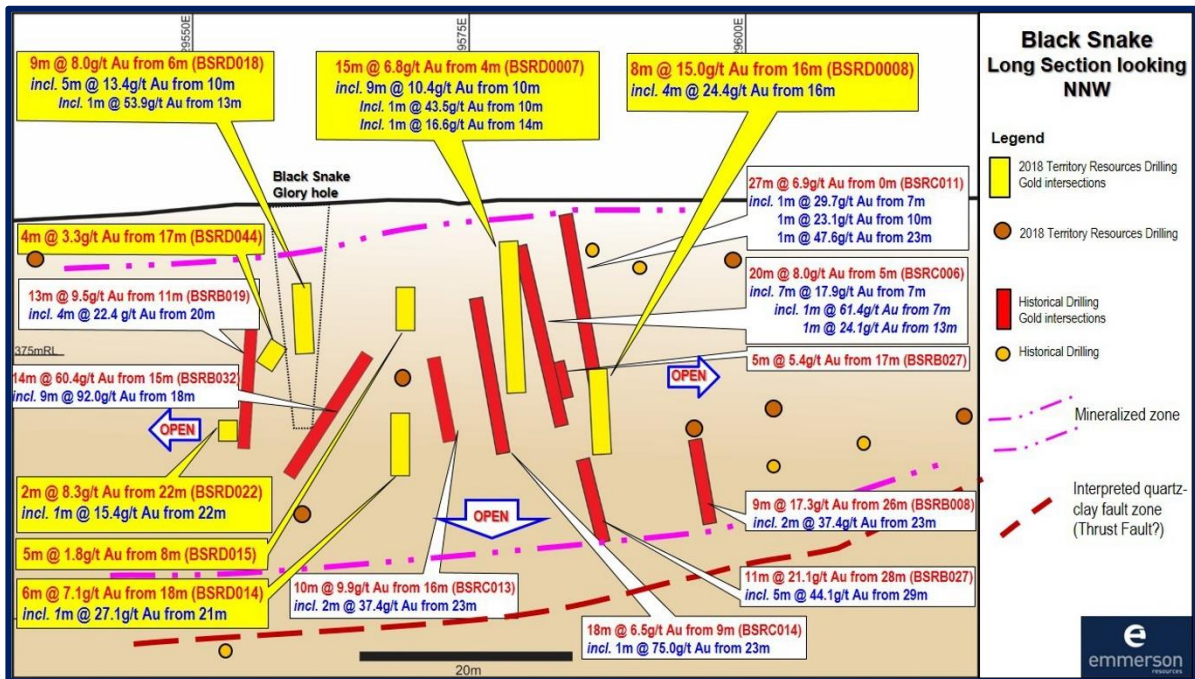
**Figure 2.** Plan view of the Susan Project – showing the drill collars and extent of outcropping ironstone, with a background of the ground magnetics (TMI).



**Figure 3.** Long Section of the Susan Project showing the shallow historical workings plus recent drill intercepts (yellow callout) – note the potential for extending the envelope of mineralisation. Also showing the gold intersections from historical drilling (ASX 12 April 2016).



**Figure 4.** Plan view of the Black Snake Project – showing the drill collars, structure and mineralised hematite horizon – note possible extensions



**Figure 5.** Long Section of the Black Snake showing recent drill intercepts (yellow callout) – note possible extensions. Also showing the gold intersections from historical drilling (GRM ASX 17 February 2005).

The exploration results contained within the above company release are in accordance with the guidelines of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

## SECTION 1 SAMPLING TECHNIQUES AND DATA – BLACK SNAKE PROJECT AREA – RC DRILLING

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 downhole 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 style="list-style-type: none"> <li>Drill holes (BRD001-22 and BSRD024-49) were drilled by Territory Resources from 7/11/2018 to 13/11/2018 and reported in this current release.</li> <li>Drilling was designed to confirm historical gold intersections</li> <li>The Black Snake Exploration Target has been historically drilled and sampled using RAB, Reverse Circulation (RC) and diamond drilling (DD) techniques. 29 RAB holes for 1,627m, 18 RC/Percussion holes for 1,146 and 1 Diamond hole for 75.2m have been completed. The drill hole spacing ranges between 10m and 20m centres.</li> <li>RAB samples consist of 3m composites which may have suffered from down-hole grade contamination. Single 1m samples were also sent to the laboratory.</li> <li>Historical samples generated by Giants Reef Mining were sent to North Australian Laboratories Pty Ltd in Pine Creek, Northern Territory.</li> <li>Samples from (BSRD001-22 and BSRD024-49) were sent to Intertek Laboratories in Perth, Western Australia.</li> <li>RAB &amp; RC chips are riffle split on site to obtain 3m composite samples from which 3.0kg was pulverised (at the laboratory) to produce a 50g charge for Fire Assay (Au). Individual 1m samples were pulverised (at the laboratory) to produce a 50g charge for analysis Fire Assay (Au).</li> <li>RC chips (BRD001-22 and BSRD024-49) were riffle split on site to obtain 4m, 3m and 2m composites and 1m individual samples from which 2.5 – 3.0kg was pulverised (at Genalysis in Alice Springs) to produce a 25g charge for analysis by Aqua Regia Digest/ICP-OE</li> <li>No QC assessment of drill hole sampling methods from drilling can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>48 RC drillholes for 1767m were drilled by Territory Resources (Table 3 in text).</li> <li>RC drill rig used was an Atlas Copco L8-30.</li> <li>The drill rig produces a 112mm diameter hole and is sampled using a face sampling bit.</li> <li>Drill hole depths range from 12m to 42m.</li> <li>RC drilling utilizes a 5<sup>3/4</sup> inch, face sampling bit.</li> <li>RAB, RC and Diamond drilling accounts for 100% of the current drilling at the Black Snake Exploration Target.</li> <li>RC recoveries are logged and recorded in the database</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>RC samples are visually checked for recovery, moisture and contamination.</li> <li>Recoveries are considered good for the reported RC drilling.</li> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>Emmerson consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material. Visible (course) gold is reported in historic drill reports and caution in assessing the data is required.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Caution must also be taken while interpreting the historical RAB gold intersections. It is the author's opinion that many of the results reported may be exaggerated based on the nature of contamination commonly seen during RAB drilling.</li> <li>• Sample recovery for RC is considered good and representative.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Geological logging was completed by Territory Resources geologists.</li> <li>• Emmerson's logging codes and procedures were provided to Territory to enable consistency of logging.</li> <li>• All RC samples were lithologically logged in one metre intervals.</li> <li>• Drill hole geological data was provided to Emmerson in digital format.</li> <li>• Structural logging of the RC drill samples was not possible.</li> <li>• Magnetic susceptibility data for all individual 1m RC samples are collected as per ERM procedure .</li> <li>• All RC chips are stored in trays in 1m intervals.</li> <li>• All RC chips are secured in Territory's shed in Tennant Creek.</li> <li>• Historical RAB &amp; RC samples could not be lithologically re logged by Emmerson geologists as no chips were retained.</li> <li>• A validation of all historical drilling data was completed in 2016 by a full time Emmerson Resources senior geologist.</li> <li>• Historical diamond core, RAB &amp; RC chips could not be located.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• RC samples were collected on the rig using cone (from the drill rig) and then riffle split by the field assistants if dry to obtain a 3 kg sample.</li> <li>• The sample preparation of RC samples for follows industry best practice in sample preparation involving oven drying, coarse crushing of the sample down to ~10mm followed by pulverisation of the entire sample (total prep) using LM5 grinding mills to a grind size of 85% passing 75 micron.</li> <li>• Pulverised material is still with the laboratory (pulp) including duplicate samples at the time of reporting.</li> <li>• No comment on the historical sub-sampling techniques can be made.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Field QC procedures involve the use of certified reference material (CRM's) as assay standards, and include blanks, duplicates.</li> <li>• A selection of CRM's is available to the geologists and insertion points are predetermined prior to drilling.</li> <li>• Samples typically weigh less than 3kg to ensure total preparation at the pulverisation stage.</li> <li>• Individual 1m field duplicates RC samples are collected using a riffle splitter.</li> <li>• Laboratory checks include CRM's and in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted.</li> <li>• The sample sizes are considered to be appropriate to correctly represent the gold mineralisation at the Black Snake Exploration Target based on the style of mineralisation and the thickness and mineral consistency of the intersection(s).</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Emmerson Resource's Exploration Manager has visually verified significant intersections in RC samples.</li> <li>The geochemical data is provided to Emmerson by JV partner TCMG</li> <li>Original assay certificates have been requested to validate the contents of the database against the original.</li> <li>Once geochemical data is provided to ERM it is loaded using an external database administrator and secured through a relational database (Datashed).</li> <li>No twin drill holes have been completed at the Black Snake Exploration Target.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole 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 style="list-style-type: none"> <li>Sample locations are shown in Figure 4 and Table 3 within the main text.</li> <li>All reported drill hole collars were surveyed (set out and picked up) using a differential GPS and by a suitably qualified company employee.</li> <li>Collar survey accuracy is +/- 30 mm for easting, northing and elevation coordinates.</li> <li>Co-ordinate system GDA_94, Zone 53.</li> <li>Topographic measurements are collected from the final survey drill hole pick up.</li> <li>Downhole survey measurements were collected at a minimum of every 18m using a REFLEX electronic single shot camera for RC.</li> <li>Historical RAB holes do not have downhole survey data.</li> <li>Historical RC holes have downhole surveys collected every metre using a 3 component down hole magnetometer.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill holes are spaced 10-15 metres apart in dip and strike. This close spacing is necessary due to the style and morphology of the shear zone being drilled.</li> <li>The spacing of historic drill hole collars is erratic.</li> <li>Identified mineralisation within the Black Snake Exploration Target has been defined by drill holes on a section spacing of 5m to 10m with an average on-section spacing of 10m.</li> <li>Emmerson considers the Black Snake mineralisation to be an Advanced Exploration Target.</li> <li>It is uncertain that further evaluation and/or further exploration work will enable the Black Snake Exploration Target to be reported as a Mineral Resource or Ore Reserve in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Exploration drilling perpendicular to mineralized bodies or shear zone.</li> <li>No orientation-based sampling bias has been identified in the data at this point.</li> <li>It is considered that the recent RC drilling is representative and that no sample bias has been introduced.</li> <li>Results at this stage suggest that the geological target being tested have been drilled at the correct orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>RC samples from 2018 drilling were selected, bagged and labelled by site geologist and field assistants.</li> <li>They are placed in sealed polyweave bags and then larger bulk bags for transport to the assay laboratory.</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>While samples are being analysed in the Lab they are</li> </ul>

Criteria	JORC Code explanation	Commentary
		considered to be secure.
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No formal audit has been completed on the historical samples.</li> <li>No formal audits ore reviews have been completed on the samples being reported.</li> </ul>

## SECTION 2 REPORTING OF EXPLORATION RESULTS – BLACK SNAKE PROJECT AREA – RC DRILLING

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The Black Snake Exploration Target lies wholly within Mineral Lease C53 (ML C53).</li> <li>The Black Snake Exploration Target is located 15kms east south-east of the Tennant Creek Township and 15.5kms east of the Stuart Highway.</li> <li>Black Snake is situated on map sheet SE53-14 Tennant Creek 1:250,000 and sheet 5758 Tennant Creek 1:100,000 at GDA coordinate 429550mE 7823490mN.</li> <li>ML C53 is located within Aboriginal Freehold Land held by the Warumungu Aboriginal Land Trust (NT portion 3735). The tenement is 100% held by Emmerson Resources Limited.</li> <li>The Exploration Target is on Aboriginal Freehold Land. An agreement under the Aboriginal Land Rights (Northern Territory) Act 1976 has been entered into between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners. The agreement provides for the protection of sites, the payment of compensation and allows the landowners unfettered access to the lease area (other than the immediate mine site where there are restrictions).</li> <li>Exclusion Zones are identified close to MLC 53 however does not impact on the Black Snake Exploration Target area.</li> <li>MLC 53 is in good standing and no known impediments exist.</li> <li>Mining Licence Central 53 (ML C53).is 100% held by Emmerson Resources Limited.</li> <li>Permitting of the Black Snake mine is well advanced, with approval for the Exploration Mine Management Plan and completion of the Heritage survey.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Black Snake was discovered in 1937 and mined until 1947 by excavation of vertical shafts and horizontal drives to a maximum depth of about 30 metres. There is no recorded production.</li> <li>Giants Reef Mining conducted all known “modern” exploration in and around the Black Snake Exploration Target Area.</li> <li>Giants Reef has carried out exploration on the Black Snake area from 2003 to 2005 and during this time identified significant gold mineralisation below the outcropping ironstone.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschist facies)</li> <li>Greywacke-siltstone-shale sedimentary sequence that usually displays a pronounced east-west cleavage.</li> <li>The Black Snake mineralisation occurs within an ESE, subvertical shear zone, with gold occurring 30m below the surface, up to 8m wide and open in all directions. The mineralisation consists of quartz-hematite stringers within a</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>hematite shale sequence and is uncharacteristic of the typical, ironstone hosted gold mineralisation</p> <ul style="list-style-type: none"> <li>Supergene enrichment is very evident.</li> </ul>
<b>Drillhole information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A list of the drill holes, collar detail and intersections is provided in the body of this text Table 1 and Table 3 and on figures 4 and 5.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Mineralized intersections are reported as down hole intervals and not weighted averages.</li> <li>Please refer to the table of significant results in the body of the text for detail on cut off grades and mineralised widths.</li> <li>These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> <li>Cut-off grades have been used for reporting of exploration drill results and are defined in the Table 1.</li> </ul>
<b>Relationship between mineralization widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The Black Snake mineralisation occurs within an ESE, subvertical shear zone, with gold occurring 30m below the surface, up to 8m wide.</li> <li>Holes that intersected mineralization at Black Snake were drilled perpendicular to the strike of the mineralization trend (Figure 4)</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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 drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures in body of text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Significant results are reported in Table 1.</li> <li>Due to the age the Resource Estimation for the Black Snake resource, Emmerson are cautious and do not believe the historical Resource Estimate can be reported in accordance with the current 2012 JORC Code. Emmerson considers the Black Snake mineralisation to be an Advanced Exploration Target.</li> <li>It is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Density measurements were routinely collected by Giants Reef geologists and are recorded in Emmerson's database.</li> <li>No metallurgical testing has been completed on material sourced from the Black Snake Exploration Target.</li> <li>Giants Reef mining conducted a down hole magnetic survey on selected RC drill holes within the target area. Results indicated that there is limited to no magnetic material at depth.</li> <li>No groundwater has been intersected in any of the drilling to date.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Further work</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Mining Management Plan (MMP) was submitted to the Northern Territory government on the 30/03/2017.</li> <li>Plan to submit a 100kg bulk sample for metallurgical test and assessment.</li> <li>Additional drilling is required to establish grade and volume of the mineralised body.</li> <li>Geotechnical investigations.</li> </ul>

The exploration results contained within the above company release are in accordance with the guidelines of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (JORC Code, 2012 Edition).

### Section 1 Sampling Techniques and Data – SUSAN PROJECT AREA – RC DRILLING

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 downhole 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 30g 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 style="list-style-type: none"> <li>Drill holes (SS001-SS015) were drilled by Territory Resources from 20/11/2018 to 21/11/2018 and reported in this current release.</li> <li>Drilling was designed to confirm historical gold intersections</li> <li>The Susan holes were sampled using Reverse Circulation drilling techniques (RC). Fifteen holes (SS001-SS015) were drilled for a total of 504m.</li> <li>Holes were angled to intersect subvertical ironstones and were mostly drilled to the South.</li> <li>RC chips were riffle split on site to obtain 2 to 5m composite samples from which 2.5 – 3.0kg was pulverised (at Genalysis in Alice Springs) to produce a 25g charge for analysis by Fire Assay/OES finish only.</li> <li>Individual 1m sample was pulverised to produce a 25g charge for analysis by multi-acid digest with an ICP/OES &amp; Fire Assay/OES finish.</li> <li>No QC assessment of drill hole sampling methods from drilling can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>15 RC drillholes for 504m were drilled by Territory Resources (Table 4 in text).</li> <li>RC drilling accounts for 100% of the current reported drilling at <i>Susan Exploration Target</i>.</li> <li>RC drill rig used was an Atlas Copco L8-30.</li> <li>The drill rig produces a 112mm diameter hole and is sampled using a face sampling bit.</li> <li>Drill hole depths range from 15m to 54m.</li> <li>RC recoveries are logged and recorded in the database.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>RC samples are visually checked for recovery, moisture and contamination.</li> <li>No wet samples were recorded during the drilling.</li> <li>Every attempt is made to collect representative samples.</li> <li>Recoveries are considered good for the reported RC drilling.</li> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp.</li> <li>Emmerson do not consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>

<b>Logging</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Geological logging was completed by Territory Resources geologists.</li> <li>• Emmerson's logging codes and procedures were provided to Territory to enable consistency of logging.</li> <li>• All RC samples were lithologically logged in one metre intervals.</li> <li>• Drill hole logging data was provided to Emmerson post drilling.</li> <li>• Lithological data was uploaded to Emmerson's relational database whereby the data undergoes a further set of validations checks prior to final upload.</li> <li>• Codes included lithology, oxidation, alteration, veining and presence of sulphide minerals.</li> <li>• Structural logging of the RC drill samples was not possible.</li> <li>• Magnetic susceptibility data for all individual 1m RC samples were collected as per ERM procedure.</li> <li>• All RC chips are secured in Territory's shed in Tennant Creek.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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 insitu 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 style="list-style-type: none"> <li>• RC samples were collected on the rig using cone (from the drill rig) and then riffle split by the field assistants if dry to obtain a 3 kg sample.</li> <li>• The sample preparation of RC samples follows industry best practice in sample preparation involving oven drying, coarse crushing of the sample down to ~10mm followed by 5-minute pulverisation of the entire sample (total prep) using LM5 grinding mills to a grind size of 85% passing 75 micron.</li> <li>• Pulverised material not required by the laboratory (pulp) including duplicate samples are returned to Territory Resources and stored undercover at the Tennant Creek shed.</li> <li>• Coarse rejects are disposed of by the Laboratory.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Field QC procedures involve the use of certified reference material (CRM's) as assay standards, and include blanks, duplicates.</li> <li>• In every 100 samples Territory have inserted 2 Standards, 2 Field Duplicates and 2 Blanks.</li> <li>• A selection of CRM's is available to the geologists and insertion points are predetermined prior to drilling.</li> <li>• Samples typically weigh less than 3kg to ensure total preparation at the pulverisation stage.</li> <li>• RC field duplicates are collected on the composite samples, using a riffle splitter.</li> <li>• Individual 1m RC sample duplicates are also collected using the same technique.</li> <li>• Laboratory checks include CRM's and/or in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted. These QC results are reported along with sample values in the final analytical report. Barren quartz washes are also routinely used in zones of mineralisation.</li> <li>• QAQC data provided is then uploaded with the sample values into ERM's database through an external database administrator (contractor).</li> <li>• A QAQC database is created as a separate table in the database and includes all field and internal laboratory QC samples.</li> <li>• The sample sizes are considered to be appropriate to correctly represent the mineralisation at <i>The Susan Exploration Target</i> based on the style of mineralisation (iron oxide copper gold), the thickness and mineral consistency of the intersection(s).</li> </ul>
<b>Verification of sampling</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>• Exploration Manager has visually verified significant intersections in RC samples.</li> <li>• Recent geochemical data is provided to Emmerson by JV partner TCMG</li> </ul>

<b>and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Once geochemical data is provided to ERM it is loaded using and external database administrator and secured through a relational database (Datashed).</li> <li>Laboratory data is received in digital format provided by Territory Resources.</li> <li>Original data sheets and files have been requested to validate the contents of the database against the original logging.</li> <li>No twin drill holes have been completed at Susan</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole 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 style="list-style-type: none"> <li>Sample locations are shown in Figure 2 and Table 4 within the main text.</li> <li>RC Drill hole collars were surveyed (set out) using a differential GPS and by a suitably qualified contractor.</li> <li>Collar survey (set out) accuracy is +/- 30 mm for easting, northing and elevation coordinates.</li> <li>Final collar positions have been partially collected (picked up)</li> <li>Co-ordinate system GDA_94, Zone 53.</li> <li>Topographic measurements will be collected from the final survey drill hole pick up and a DTM will be created.</li> <li>Position of mine workings were digitised and coordinated using historical reports. Accuracy is considered +/- 2metres.</li> <li>Downhole survey measurements were collected at a minimum of every 18m using a REFLEX electronic single shot camera for RC.</li> <li>This survey camera equipment is quoted by the manufacturer to have an accuracy of <ul style="list-style-type: none"> <li>Azimuth <math>0-360^{\circ} \pm 0.5^{\circ}</math></li> <li>Dip <math>\pm 90^{\circ} \pm 0.2^{\circ}</math></li> </ul> </li> <li>If the measurement is considered to be affected by magnetic material (ironstone) then an average from the last non-affected and the next non-affected measurement is used.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill density in the Susan Project is ~10m x 10m. Some lines have been drilled to 5m x 5m.</li> <li>There is insufficient drill / assay data to establish the geological and grade continuity at this stage of drilling.</li> <li>No Mineral Resource Estimation can be applied to these Exploration Results.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Exploration drilling is perpendicular to the mineralized bodies or shear zone.</li> <li>No orientation-based sampling bias has been identified in the data at this point.</li> <li>Results at this stage suggest that the geological target being tested are drilled in the correct orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are selected, bagged and labelled by site geologist.</li> <li>They are placed in sealed polyweave bags and then transported by road to the Alice Springs assay laboratory.</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>While samples are being processed in the Lab they are considered to be secure.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No formal audits ore reviews have been completed on the samples being reported.</li> </ul>

**SECTION 2 REPORTING OF EXPLORATION RESULTS – THE SUSAN PROJECT AREA – RC DRILLING**  
*(Criteria listed in the proceeding section may apply to this section)*

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li><i>The Susan Exploration Target</i> is located within Mining Licence Central 524 (ML C524).</li> <li><i>The Susan Exploration target</i> is located on Vacant Crown Land, Parcel 04440.</li> <li>Mining Licence Central 524 (ML C524) is 100% held by Emmerson Resources Limited.</li> <li>Land Access is secured through Emmerson's Pre-Existing Tenements Agreement (PET) with the CLC which is in good standing.</li> <li>Land Access is secured through Emmerson's Land Access Agreement signed by the owners of the Tennant Creek station.</li> <li>Heritage surveying (assisted by the Central Land Council) was conducted prior to any exploration being conducted within <i>The Susan Project Area</i>.</li> <li>One restricted work area is identified over The Susan ironstone outcrop.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Prospecting via a shallow vertical shaft (42m) produced a reported 120 tonnes of ore at 23.5g/t Au from 1959-1960.</li> <li>Normandy Mining completed regional mapping and reconnaissance drilling over the Susan Project area. This work was completed during 1995-2000.</li> <li>Emmerson Resources commenced exploration at <i>The Susan Exploration Target</i> in 2016. RC drilling 10 holes for 1,065 metres (SSRC011-012) &amp; (SSRC014-021) and one diamond (NQ) drill hole for 549.2 metres.</li> <li>Outcrop mapping and rock chipping was undertaken by Emmerson Resources.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschist facies)</li> <li>Greywacke-siltstone-shale sedimentary sequence that usually displays a pronounced east-west cleavage. Ore occurs adjacent to steeply dipping, lenticular or pipe-like magnetite/ haematite/ chlorite/quartz bodies ('ironstone') that are found along east-west trending structures. It is generally thought that the magnetite / haematite was hydrothermally formed in dilation zones along the controlling structures, and that the deposition of gold, sulphides and associated alteration minerals was a later event with mineralisation possibly being derived from a different source but following the same structurally controlled path.</li> <li>Exploration work by Emmerson identified a cluster of magnetic anomalies, one of which corresponds with the mine and surface outcrop of magnetite-hematite ironstone. The Susan magnetite-hematite ironstone occurs within a shear zone on the southern limb of a syncline, thus repeats of the ironstone (and mineralisation) can be expected.</li> </ul>

Criteria	JORC Code explanation	Commentary
		Gold mineralisation occurs with sericite-hematite alteration at the contact of the ironstone.
<b>Drillhole information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A list of the drill holes, collar detail and intersections is provided in the body of this text Table 2 and Table 4; and on figures 2 and 3.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Mineralized intersections are reported as down hole intervals and not weighted averages.</li> <li>Please refer to the table of significant results in the body of the text for detail on cut off grades and mineralised widths.</li> <li>These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> <li>Cut-off grades have been used for reporting of exploration drill results and are defined in the Table 2.</li> </ul>
<b>Relationship between mineralization widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation identified at <i>The Susan Exploration Target</i> is contained within hematite-magnetite ironstone.</li> <li>The ironstone dips ~85 degrees to the north and strikes east-west.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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 drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures in body of text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Significant results are reported in Table 2.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Not Applicable.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>Collection of a 100kg composited bulk metallurgical sample from recent drilling.</li> <li>Ore and waste characterisation sampling to assist with production of a Mining Management Plan.</li> <li>Additional drilling is required to establish grade and volume of the mineralised body.</li> </ul>

Criteria	JORC Code explanation	Commentary
	areas, provided this information is not commercially sensitive.	<ul style="list-style-type: none"> <li>• Geotechnical investigations.</li> </ul>