

## High Grade Copper and Zinc Mineralisation Confirmed at Barraba Copper Project

### Highlights:

- Copper assay results up to 4.6%, zinc up to 4.0% and cobalt up to 0.7% from mine dump samples at the historic Murchison Mine site
- Soil geochemical sampling and analysis confirms surface copper mineralisation around the Murchison Mine, with mineralisation open to the West and East
- The above results have now confirmed that the Murchison Mine is a high priority drill target within the broader Barraba Copper Project
- Further exploration works being planned to follow on from these encouraging results

Comet Resources Ltd (Comet or the Company) (ASX:CRL) is pleased to provide assay results from mineralised samples taken during the field program undertaken in November 2020 at the Barraba Copper Project located in the New England area of NSW, approximately 550km north of Sydney. Comet has now received complete assay results from samples taken from the historical high grade Murchison Copper Mine site and the Gulf Creek North prospects.

The Field Program included grid based geochemical soil sampling and rock chip sampling. Evidence of copper mineralisation was widespread around the Murchison Copper Mine. Historical mine workings that were previously unknown to the Company around the Gulf Creek North area and proximate to a number of chargeability anomalies identified by a prior induced polarisation (IP) survey were also assessed.

Matthew O'Kane, Managing Director of Comet Resources, said ***“These assay results, with high copper, zinc and cobalt, have confirmed that the historic Murchison Copper Mine at the Barraba Copper Project is another area of high priority exploration interest to us. In addition to the known historical high grade mineralisation at the Gulf Creek Mine, these results now provide us with multiple exploration targets at the project. We look forward to advancing physical exploration works on both prospects.”***

### Murchison Copper Mine

Historical data indicates that the historic Murchison Copper Mine is a volcanogenic massive sulphide (VMS) style deposit, the same as that found at the Gulf Creek Copper Mine. These deposits often occur in clusters due to the nature of the hydrothermal processes that form them. This is the case at the Barraba Copper Project with three historic VMS deposits identified within the Project area.

The Murchison Copper Mine (Figure 1) produced ore in the early 1900's with historical records indicating the presence of underground workings to a depth of 16 metres, as well as a number of shallow pits. Copper and zinc mineralisation were the primary commodities of interest. Historical production records state copper was produced at an average grade of 3%, with historical assays up to 5.1%.



**Figure 1:** Panorama of Murchison Mine location showing the historical workings in the centre

The initial Field Program focused on delineating the tenor of the visible mineralisation as well as its extent. Accordingly, a number of mine dump and outcrop samples were taken for laboratory analysis. In addition, a number of grid-based soil samples were taken across the perceived strike of the mineralisation. The program entailed the analysis of rocks and soils by SGS laboratories (SGS) in conjunction with in-situ field analysis utilizing a Niton personal XRF analyser (p-XRF). All soil sampling was based on a grid array, with samples taken every 5 metres on the two central lines and then every 10 metres on the outer two lines. All four survey lines were orientated approximately South-North. A plan of the sampling locations and results is illustrated in Figure 2.

The results of the soil sampling for the main elements of interests are summarised as follows:

- a) In general terms, strongly elevated values for copper, zinc and iron were recorded over Soil Sample Line 1, which was placed directly over the Murchison workings. A comparison of the p-XRF results for in-situ analysis v's the -80# sieved sample analysis by SGS indicates similar trends and orders of magnitude for the main elements of interest.
- b) Strongly elevated values for copper, zinc and iron were recorded for Soil Line 2.
- c) Elevated values for zinc and copper were recorded on Soil sample Lines 3 and 4. The lower results appear to reflect the greater distance of the sampling from the old workings.

Full results are presented in Appendices one, two, three and six.

A number of outcrops (see Figure 2 for sample locations) were analysed with the p-XRF and included a number of samples from the mine dump. In addition, rock chip samples from the same general locations were also forward to SGS Laboratories with the view to verifying the p-XRF data. These data clearly highlighted strong copper and zinc mineralization, whether by p-XRF or laboratory testing. Notable observations include:

- Copper values up to 4.6% and zinc values up to 4.0%
- High cobalt values up to 0.7%

These results are strongly supportive of further exploration being required, including geophysical surveys. Planning for this work is now underway with the objective of outlining drilling targets as soon as possible.



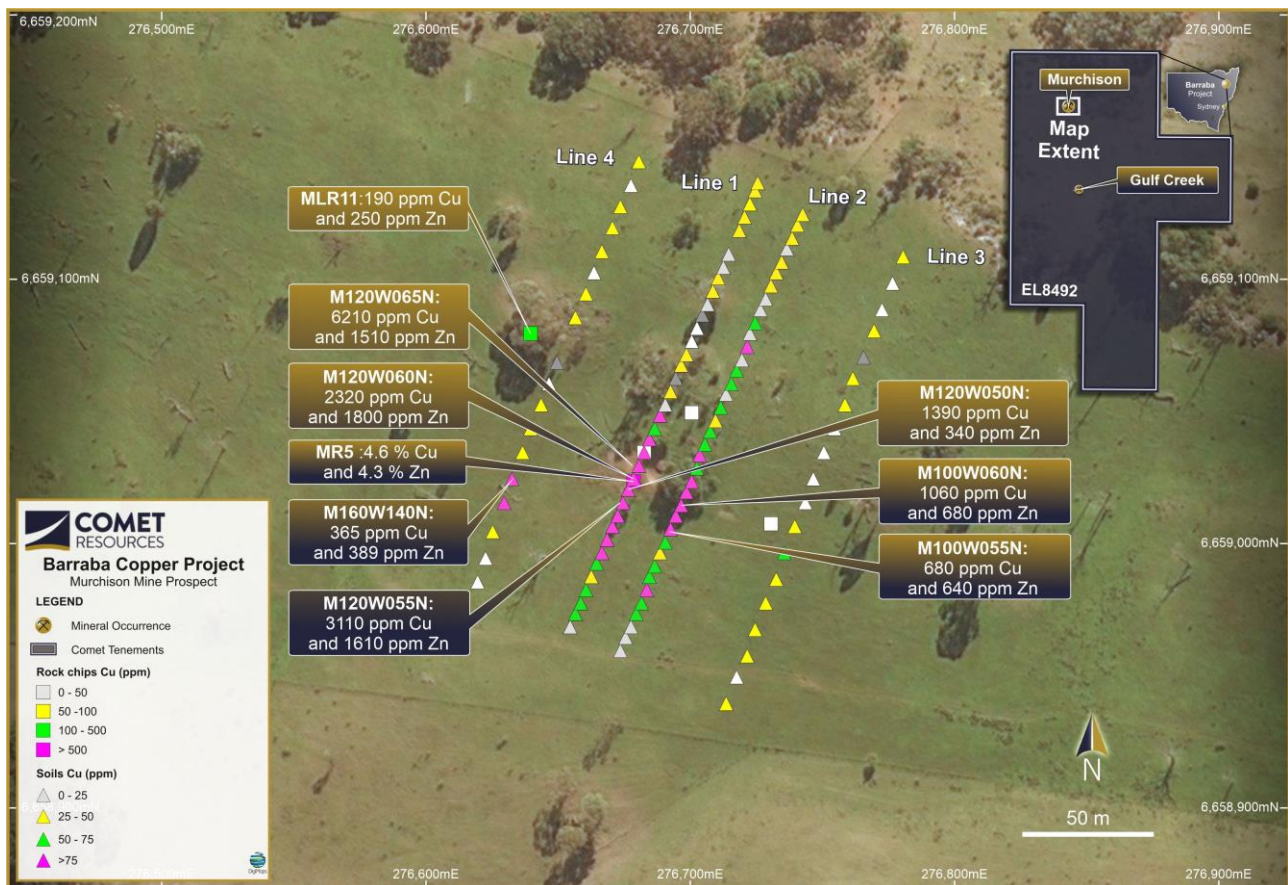


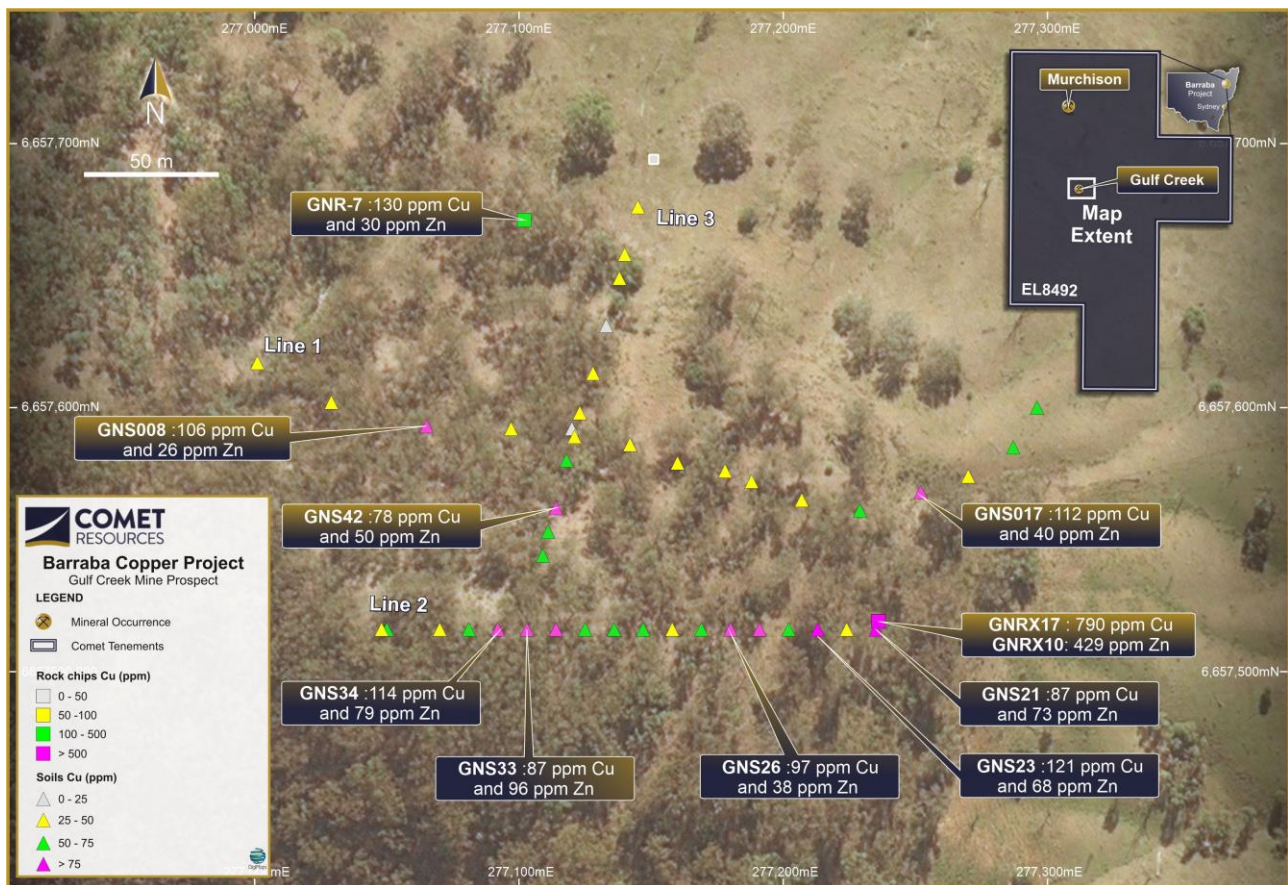
Figure 2: Location of soil and rock chip samples at the Murchison Mine – analysis by p-XRF or SGS Laboratories

### Gulf Creek North Prospect

A reconnaissance program was also undertaken over ground to the north of the Gulf Creek Mine within freehold land where exploration access has been granted. The focus of the program was to determine whether historically identified IP anomalies, some of which coincided with an orange/red oxidised soil profile, represented a mineralising event.

During the investigation of the area, the presence of several pits and an 18 metre deep shaft were noted, evidencing past workings. Mullock from these workings exhibited strong iron oxide alteration.

In-situ soil analysis by a Niton p-XRF was carried out along three soil lines, the locations of which are illustrated in Figure 3. Sample spacings were at either 10 or 20 metres. In addition, a number of rock faces were analysed by the Niton p-XRF, whilst a representative selection of rock chip samples were collected and forwarded to SGS for laboratory analysis. The location of the rock chip samples are also illustrated in Figure 3.



**Figure 3:** Location of rock and soil sample locations at the Gulf Creek North Prospect area.

A number of elements from the soil sampling were assessed and plotted. Only Soil Sample Line No 1 exhibited any significant trends. Please see appendices four to six for full results.

Of the elements that were analysed, only copper and zinc values show a modest increase towards the east, perhaps indicating a slight influence from historic workings located in that general area. However, in-situ values for all other elements are quite low.

A number of outcrops (see Figure 3 for sample locations) were spot-analysed with the p-XRF and a number of rock chips were also forwarded to SGS laboratories for additional analysis.

The p-XRF sampling indicated moderately elevated values for copper (up to 0.08%) and zinc (up to 0.04%), with two samples also demonstrating high cobalt values (up to 0.35%). No significant values were recorded by laboratory analysis.


Overall, the soil and rock sampling results from the Gulf Creek North Prospect area indicate the presence of some subdued copper and zinc mineralisation, but of a relatively low tenor. Further soil sampling is however justified to better define the relationship between the elevated soil values, the previously defined IP anomalies and the historical workings.




This announcement has been authorised by the Board of Comet Resources Limited

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## About Comet Resources

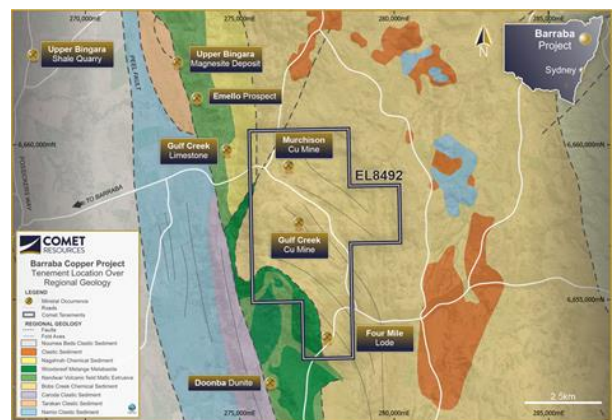
### Santa Teresa Gold Project (Mexico)

The Santa Teresa Gold Project is comprised of two mineral claims totalling 202 hectares located in the gold rich El Alamo district, approximately 100 km southeast of Ensenada, Baja California, Mexico; and 250 km southeast of San Diego, California, USA. The Project is prospective for high grade gold. In addition to the two claims of the Project, two additional claims totalling a further 378 hectares in the surrounding El Alamo district are being acquired from EARL.



### Barraba Copper Project (NSW)

The 2,375ha exploration licence that covers the project area, EL8492, is located near the town of Barraba, approximately 550km north of Sydney. It sits along the Peel Fault line and encompasses the historic Gulf Creek and Murchison copper mines as well as the Four Mile Lode. The region is known to host volcanogenic massive sulphide (VMS) style mineralisation containing copper, zinc, lead and precious metals. Historical workings at Gulf Creek produced high-grade copper and zinc for a short period around the turn of the 19th century, and this area will form a key part of the initial exploration focus.



### Springdale Graphite Project (WA)

The 100% owned Springdale graphite project is located approximately 30 kilometres east of Hopetoun in south Western Australia. The project is situated on free hold land with good access to infrastructure, being within 150 kilometres of the port at Esperance via sealed roads.

The tenements lie within the deformed southern margin of the Yilgarn Craton and constitute part of the Albany-Fraser Orogen. Comet owns 100% of the three tenement's (E74/562 and E74/612) that make up the Springdale project, with a total land holding of approximately 198 square kilometres.



#### Forward-Looking Statement

This announcement includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Comet Resources Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may," "potential," "should" and similar expressions are forward-looking statements. Comet Resources Limited believes that its forward-looking statements are reasonable; however, forward looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

#### Competent Persons Statement

The information in this report that relates to exploration and geological data for the Barraba Copper Project is based on information compiled by Mr Mart Rampe from Harvest Group Services Pty Ltd, an independent geological consultant and a member of the Australian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Environmental Institute of Australia and New Zealand. Mr Rampe has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code"). Mr Rampe consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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**Appendix One: p-XRF Soil Sample results from the Murchison Mine:**

p-XRF Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
<b>Soil Sample Line 1</b>					
m120w00n	276769	6659159	120.37	<LOD	<LOD
m120w005n	276771	6659164	97.61	24.3	<LOD
m120w010n	276773	6659168	96.05	<LOD	<LOD
m120w015n	276775	6659173	75.79	<LOD	<LOD
m120w020n	276777	6659178	92.2	<LOD	<LOD
m120w025n	276779	6659183	94.43	58.6	<LOD
m120w030n	276781	6659187	111.56	205.63	<LOD
m120w035n	276783	6659192	170.59	275.09	<LOD
m120w040n	276785	6659197	208.01	193.13	<LOD
m120w045n	276787	6659201	193.65	138.34	<LOD
m120w050n	276789	6659206	409.6	1386.94	<LOD
m120w055n	276791	6659211	1585.91	4300.29	<LOD
m120w060n	276793	6659215	3298.5	1505.55	<LOD
m120w065n	276795	6659220	1278.97	5143.05	<LOD
m120w070n	276797	6659225	162.49	603.62	<LOD
m120w075n	276799	6659230	139.25	204.71	<LOD
m120w080n	276801	6659234	95.1	49.77	<LOD
m120w085n	276803	6659239	95.36	49.36	<LOD
m120w090n	276805	6659243	63.66	<LOD	<LOD
m120w095n	276807	6659248	51.44	<LOD	<LOD
m120w100n	276809	6659253	202.31	<LOD	<LOD
m120w105n	276811	6659258	184.04	41.28	<LOD
m120w110n	276813	6659262	135.07	<LOD	<LOD
m120w115n	276815	6659267	144.73	<LOD	<LOD
m120w120n	276817	6659272	40.74	<LOD	<LOD
m120w125n	276819	6659277	79.06	22.12	<LOD
m120w130n	276821	6659281	106.18	<LOD	<LOD
m120w135n	276823	6659286	86	<LOD	<LOD
m120w140n	276825	6659291	100.41	<LOD	<LOD
m120w145n	276827	6659295	126.89	32.32	<LOD
m120w150n	276829	6659300	122	29.3	<LOD
m120w160n	276833	6659309	138.09	60.72	<LOD
m120w165n	276835	6659314	121.19	28.61	<LOD
m120w170n	276837	6659319	117	49.38	<LOD
m120w175n	276839	6659324	141.34	44.24	<LOD
m120w180n	276840	6659327	137.88	54.91	<LOD






p-XRF Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
<b>Soil Sample Line 2</b>					
m100w180n	276857	6659315	135.91	38.6	<LOD
m100w175n	276855	6659311	197.28	41.56	<LOD
m100w170n	276853	6659306	120.65	24.23	<LOD
m100w165n	276851	6659302	144.84	55.05	<LOD
m100w160n	276849	6659297	122.7	23.66	<LOD
m100w155n	276847	6659293	155.44	32.28	<LOD
m100w150n	276845	6659288	89.25	<LOD	<LOD
m100w145n	276843	6659283	86.84	28.96	<LOD
m100w140n	276841	6659279	84.38	<LOD	<LOD
m100w135n	276839	6659274	76.68	<LOD	<LOD
m100w130n	276837	6659270	78.58	<LOD	<LOD
m100w125n	276836	6659265	44.6	<LOD	<LOD
m100w120n	276834	6659260	46.09	<LOD	<LOD
m100w115n	276832	6659256	120.6	<LOD	<LOD
m100w110n	276830	6659251	79.36	<LOD	<LOD
m100w105n	276828	6659247	84.7	<LOD	<LOD
m100w100n	276826	6659242	93.59	<LOD	<LOD
m100w095n	276824	6659237	87.46	<LOD	<LOD
m100w090n	276822	6659233	94.09	<LOD	<LOD
m100w085n	276820	6659228	153.02	<LOD	<LOD
m100w080n	276818	6659224	120.77	34.99	<LOD
m100w075n	276817	6659219	110.91	68.85	<LOD
m100w070n	276815	6659214	148.44	82.19	<LOD
m100w065n	276813	6659210	583.44	309.54	<LOD
m100w060n	276811	6659205	965.28	2987.32	<LOD
m100w055n	276809	6659201	776.52	1318.19	<LOD
m100w050n	276807	6659196	130.84	94.38	<LOD
m100w045n	276805	6659191	105.43	57.59	<LOD
m100w040n	276803	6659187	106.6	<LOD	<LOD
m100w035n	276801	6659182	100.45	44.15	<LOD
m100w030n	276799	6659178	161	65.62	<LOD
m100w025n	276798	6659173	123.01	44.03	<LOD
m100w020n	276796	6659168	107.48	35.05	<LOD
m100w015n	276794	6659164	106.16	26.09	<LOD
m100w010n	276792	6659159	105.14	<LOD	<LOD
m100w005n	276790	6659155	124.35	24.68	<LOD
m100w000n	276788	6659150	92.66	<LOD	<LOD



p-XRF Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
<b>Soil Sample Line 3</b>					
m60w180n	276895	6659299	127.03	26.34	<LOD
m60w170n	276891	6659289	88.04	<LOD	<LOD
m60w160n	276887	6659279	61.58	<LOD	<LOD
m60w150n	276884	6659271	90.22	33.19	<LOD
m60w140n	276880	6659261	147.86	23.85	<LOD
m60w130n	276876	6659253	95.76	43.21	<LOD
m60w120n	276873	6659243	101.1	47.56	<LOD
m60w110n	276869	6659234	83.83	<LOD	<LOD
m60w100n	276865	6659225	105.35	<LOD	<LOD
m60w090n	276861	6659215	82.8	<LOD	<LOD
m60w080n	276858	6659206	77.16	<LOD	<LOD
m60w070n	276854	6659197	114.12	35.42	<LOD
m60w060n	276850	6659187	233.7	60.15	<LOD
m60w050n	276847	6659177	150.4	48.47	<LOD
m60w040n	276843	6659168	114.36	39.47	<LOD
m60w030n	276839	6659158	133.98	33.16	<LOD
m60w020n	276836	6659148	111.26	26.11	<LOD
m60w010n	276832	6659140	87.12	<LOD	<LOD
m60w000n	276832	6659130	116.05	29.15	<LOD
<b>Soil Sample Line 4</b>					
m160w180n	276795	6659335	108.64	33.63	<LOD
m160w170n	276792	6659326	82.79	<LOD	<LOD
m160w160n	276788	6659318	109.67	35.02	<LOD
m160w150n	276785	6659310	108.27	37.94	<LOD
m160w140n	276781	6659301	108.87	29.71	<LOD
m160w130n	276778	6659293	47	<LOD	<LOD
m160w120n	276775	6659285	104.69	41.32	<LOD
m160w110n	276771	6659276	187.56	43.74	<LOD
m160w100n	276768	6659277	58.54	<LOD	<LOD
m160w090n	276764	6659259	136.43	21.02	<LOD
m160w080n	276761	6659251	85.35	<LOD	<LOD
m160w070n	276758	6659243	90.14	35.35	<LOD
m160w060n	276754	6659234	98.48	28.74	<LOD
m160w050n	276751	6659225	188.12	32.48	<LOD
m160w040n	276747	6659215	389.17	364.58	<LOD
m160w030n	276744	6659206	256.45	249.49	<LOD
m160w020n	276741	6659195	96.66	31.32	<LOD
m160w010n	276737	6659185	136	<LOD	<LOD
m160w000n	276734	6659176	57.37	<LOD	193.97

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p-XRF Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
<b>Soil Sample Line 1 in Plastic</b>					
plasticm120w00n	276769	6659159	94.33	<LOD	<LOD
plasticm120w005n	276771	6659164	66.25	29.26	<LOD
plasticm120w010n	276773	6659168	88.8	38.16	<LOD
plasticm120w015n	276775	6659173	98.71	35.92	<LOD
plasticm120w020n	276777	6659178	77.49	35.9	<LOD
plasticm120w025n	276779	6659183	73.33	34.27	<LOD
plasticm120w030n	276781	6659187	116.33	247.93	<LOD
plasticm120w035n	276783	6659192	146.59	209.19	<LOD
plasticm120w040n	276785	6659197	169.39	168.28	<LOD
plasticm120w044n	276787	6659201	156.62	126.5	<LOD
plasticm120w050n	276789	6659206	356.13	1614.6	144.67
plasticm120w055n	276791	6659211	1387.41	3170.34	248.66
plasticm120w060n	276793	6659215	1376.79	2225.88	<LOD
plasticm120w065n	276795	6659220	1417.37	6168.91	404.59
plasticm120w070n	276797	6659225	174.06	524.78	217.4
plasticm120w075n	276799	6659230	134.23	204.77	<LOD
plasticm120w080n	276801	6659234	90.18	38.34	<LOD
plasticm120w085n	276803	6659239	102.23	88.61	<LOD
plasticm120w090n	276805	6659243	48.18	<LOD	<LOD
plasticm120w095n	276807	6659248	47.11	<LOD	<LOD
plasticm120w100n	276809	6659253	154.17	23.65	<LOD
plasticm120w105n	276811	6659258	147.9	33.92	<LOD
plasticm120w110n	276813	6659262	146.62	28.15	<LOD
plasticm120w115n	276815	6659267	44.93	<LOD	<LOD
plasticm120w120n	276817	6659272	35.86	<LOD	<LOD
plasticm120w125n	276819	6659277	79.84	<LOD	<LOD
plasticm120w130n	276821	6659281	79.9	29.86	<LOD
plasticm120w136n	276823	6659286	99.23	23.2	<LOD
plasticm120w140n	276825	6659291	98.74	<LOD	<LOD
plasticm120w145n	276827	6659295	93.96	33.96	<LOD
plasticm120w150n	276829	6659300	101.44	30.44	<LOD
plasticm120w160n	276833	6659309	127.8	37.5	<LOD
plasticm120w165n	276835	6659314	109.38	46.76	<LOD
plasticm120w170n	276837	6659319	120.91	42.47	<LOD
plasticm120w175n	276839	6659324	137.12	48.2	<LOD
plasticm120w180nn	276840	6659327	148.75	50.04	<LOD

**Appendix Two: SGS Soil Sample results from the Murchison Mine:**

SGS Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Cu	Zn	Co
METHOD			ICP90Q	ICP90Q	IMS90Q
LDETECTION			10	10	0.1
UDETECTION			50000	50000	2000
UNITS			PPM	PPM	PPM
<b>Soil Sample Line 1</b>					
M120W 000 N	276769	6659159	100	41	25.3
M120W 005 N	276771	6659164	70	32	21.1
M120W 010 N	276773	6659168	40	28	13.1
M120W 015 N	276775	6659173	80	26	26.1
M120W 020 N	276777	6659178	120	36	22
M120W 025 N	276779	6659183	110	29	26.5
M120W 030 N	276781	6659187	100	31	27.1
M120W 035 N	276783	6659192	110	44	29.6
M120W 040 N	276785	6659197	90	45	22.4
M120W 045 N	276787	6659201	30	32	17.6
M120W 050 N	276789	6659206	60	38	17.7
M120W 055 N	276791	6659211	190	28	15.3
M120W 060 N	276793	6659215	190	31	24.5
M120W 065 N	276795	6659220	190	16	25.6
M120W 070 N	276797	6659225	90	22	27.1
M120W 075 N	276799	6659230	120	29	27.3
M120W 080 N	276801	6659234	130	35	21.9
M120W 085 N	276803	6659239	60	29	19.1
M120W 090 N	276805	6659243	X	20	12.7
M120W 095 N	276807	6659248	10	19	15
M120W 100 N	276809	6659253	50	28	19.9
M120W 105 N	276811	6659258	70	34	15.8
M120W 110 N	276813	6659262	70	20	9.3
M120W 115 N	276815	6659267	60	12	7.6
M120W 120 N	276817	6659272	30	27	6.3
M120W 125 N	276819	6659277	50	64	11.2
M120W 130 N	276821	6659281	50	51	12.3
M120W 135 N	276823	6659286	90	45	15.9
M120W 140 N	276825	6659291	70	51	18.8
M120W 145 N	276827	6659295	50	54	18.9
M120W 150 N	276829	6659300	50	67	17.7
M120W 155 N	276831	6659304	40	73	12.5
M120W 160 N	276833	6659309	80	72	19.1
M120W 165 N	276835	6659314	80	71	11.8
M120W 170 N	276837	6659319	60	73	12.9
M120W 175 N	276839	6659324	60	72	10.8
M120W 180 N	276840	6659327	30	81	6.9



SGS Soil Sample Results - Murchison					
Sample ID	Easting	Northing	Cu	Zn	Co
METHOD			ICP90Q	ICP90Q	IMS90Q
LDETECTION			10	10	0.1
UDETECTION			50000	50000	2000
UNITS			PPM	PPM	PPM
<b>Soil Sample Line 2</b>					
M100W 000 N	276788	6659150	10	80	28
M100W 005 N	276790	6659155	20	120	19
M100W 010 N	276792	6659159	20	120	18
M100W 015 N	276794	6659164	80	110	19
M100W 020 N	276796	6659168	100	120	21
M100W 025 N	276798	6659173	150	150	25
M100W 030 N	276799	6659178	100	90	27
M100W 035 N	276801	6659182	100	120	22
M100W 040 N	276803	6659187	50	110	32
M100W 045 N	276805	6659191	100	120	29
M100W 050 N	276807	6659196	160	150	39
M100W 055 N	276809	6659201	680	640	41
M100W 060 N	276811	6659205	1060	680	51
M100W 065 N	276813	6659210	270	2290	45
M100W 070 N	276815	6659214	150	190	27
M100W 075 N	276817	6659219	100	130	40
M100W 080 N	276818	6659224	120	130	16
M100W 085 N	276820	6659228	60	120	12
M100W 090 N	276822	6659233	100	180	20
M100W 095 N	276824	6659237	50	80	14
M100W 100 N	276826	6659242	70	130	15
M100W 105 N	276828	6659247	20	90	13
M100W 110 N	276830	6659251	90	120	13
M100W 115 N	276832	6659256	60	230	18
M100W 120 N	276834	6659260	20	90	18
M100W 125 N	276836	6659265	310	110	17
M100W 130 N	276837	6659270	10	60	15
M100W 135 N	276839	6659274	60	240	18
M100W 140 N	276841	6659279	20	50	15
M100W 145 N	276843	6659283	20	80	25
M100W 150 N	276845	6659288	30	70	22
M100W 155 N	276847	6659293	30	70	36
M100W 160 N	276849	6659297	40	110	36
M100W 165 N	276851	6659302	20	110	42
M100W 170 N	276853	6659306	30	80	30
M100W 175 N	276855	6659311	30	80	38
M100W 180 N	276857	6659315	30	120	26

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**Appendix Three: p-XRF Rock samples from the Murchison Mine:**

Murchison Mine Rock Samples - p-XRF results					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
mr1	276793	6659214	3140	3059	784
mr3	276793	6659214	3577	11074	1096
mr4	276793	6659214	247	6532	<LOD
mr5	276793	6659214	40245	46113	3995
mr6	276793	6659214	27508	25928	6659
mr7	276793	6659214	1907	18954	501
mr8	276797	6659225	<LOD	<LOD	<LOD
mr9	276797	6659225	<LOD	<LOD	<LOD
mr10	276797	6659225	<LOD	<LOD	<LOD
mr11	276754	6659270	105	<LOD	<LOD
mr12	276754	6659270	98	<LOD	<LOD
mr13	276754	6659270	134	<LOD	<LOD
mr14	276754	6659270	121	<LOD	<LOD
mr15	276815	6659240	173	<LOD	<LOD
mr16	276815	6659240	78	<LOD	<LOD
mr17	276815	6659240	232	<LOD	225
mr18	276815	6659240	85	<LOD	<LOD
mr19	276845	6659198	152	<LOD	<LOD
mr20	276845	6659198	72	<LOD	<LOD

**Appendix Four: p-XRF soil samples from the Gulf Creek North prospect:**

<b>p-XRF Soil Sample Results - Gulf Creek North Prospect</b>				
<b>Sample ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Zn</b>	<b>Cu</b>
<b>Units</b>	<b>(metres)</b>	<b>(metres)</b>	<b>ppm</b>	<b>ppm</b>
<b>Soil Sample Line 1</b>				
gns001	276967	6657645	14	<LOD
gns002	276984	6657629	16	<LOD
gns003	277001	6657617	17	27
gns004	277015	6657611	19	<LOD
gns005	277029	6657602	16	31
gns006	277043	6657599	20	<LOD
gns008	277065	6657593	26	106
gns009	277097	6657592	28	34
gns010	277120	6657592	20	21
gns011	277142	6657586	23	38
gns012	277160	6657579	23	46
gns013	277178	6657576	27	32
gns014	277188	6657572	20	48
gns015	277207	6657565	29	50
gns016	277229	6657561	32	51
gns017	277252	6657568	40	112
gns018	277270	6657574	26	48
gns019	277287	6657585	41	67
gns020	277296	6657600	43	53
<b>Soil Sample Line 2</b>				
gns21	277235	6657516	73	87
gns22	277224	6657516	58	43
gns23	277213	6657516	68	121
gns24	277202	6657516	35	61
gns25	277191	6657516	45	75
gns26	277180	6657516	38	97
gns27	277169	6657516	25	57
gns28	277158	6657516	27	42
gns29	277147	6657516	26	59
gns30	277136	6657516	35	72
gns31	277125	6657516	53	72
gns32	277114	6657516	52	81
gns33	277103	6657516	96	87
gns34	277092	6657516	79	114
gns35	277081	6657516	34	57
gns34	277070	6657516	19	31
gns37	277050	6657516	44	65
gns38	277048	6657516	31	40
gns39	277037	6657516	13	<LOD



p-XRF Soil Sample Results - Gulf Creek North Prospect				
Sample ID	Easting	Northing	Zn	Cu
Units	(metres)	(metres)	ppm	ppm
<b>Soil Sample Line 3</b>				
gns40	277109	6657544	52	59
gns41	277111	6657553	32	57
gns42	277114	6657562	50	78
gns44	277118	6657580	23	52
gns45	277121	6657589	18	45
gns46	277123	6657598	23	33
gns47	277126	6657607	29	<LOD
gns48	277128	6657613	19	33
gns49	277131	6657622	18	<LOD
gns50	277133	6657631	20	24
gns51	277135	6657640	21	<LOD
gns52	277138	6657649	21	37
gns53	277140	6657658	17	28
gns54	277143	6657667	19	<LOD
gns55	277145	6657676	17	32
gns56	277147	6657685	<LOD	<LOD
gns57	277150	6657694	11	<LOD
gns58	277153	6657703	27	<LOD

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**Appendix Five: p-XRF Rock samples from the Gulf Creek North prospect:**

Gulf Creek North - p-XRF rock samples					
Sample ID	Easting	Northing	Zn	Cu	Co
Units			ppm	ppm	ppm
gnrX1	277236	6657519	220.95	182.07	<LOD
gnrX2	277236	6657519	238.96	90.4	<LOD
gnrX3	277236	6657519	91.21	47.62	<LOD
gnrX4	277236	6657519	219.06	48.82	<LOD
gnrX5	277236	6657519	38.24	39.43	<LOD
gnrX6	277236	6657519	220.89	464.84	876.3
gnrX7	277236	6657519	33.74	<LOD	<LOD
gnrX8	277236	6657519	142.29	94.4	<LOD
gnrX9	277236	6657519	229.08	204.61	<LOD
gnrX10	277236	6657519	429.19	480.91	3477.19
gnrX11	277236	6657519	145.78	121.14	1124.29
gnrX12	277236	6657519	216.12	88.06	<LOD
gnrX13	277236	6657519	183.22	117.01	526.87
gnrX14	277236	6657519	57.37	47.02	<LOD
gnrX15	277236	6657519	26.91	38.14	<LOD
gnrX16	277236	6657519	68.88	88.94	<LOD
gnrX17	277236	6657519	353.46	789.57	<LOD
gnrX18	277236	6657519	160.62	153.7	<LOD
gnrX19	277236	6657519	217.48	228.07	1183.68

**Appendix Six: SGS Rock samples from Murchison Mine and the Gulf Creek North prospect:**

Murchison Mine and Gulf Creek North Rock Samples - SGS results					
Sample ID	Easting	Northing	Co	Cu	Zn
METHOD			ICP90Q	ICP90Q	ICP90Q
LDETECTION			10	10	10
UDETECTION			100000	100000	100000
UNITS			PPM	PPM	PPM
GNR-1	277236	6657519	X	70	70
GNR-2	277236	6657519	20	70	100
GNR-3	277236	6657519	10	90	230
GNR-4	277236	6657519	20	100	90
GNR-5	277236	6657519	30	110	160
GNR-6	277236	6657519	10	70	180
GNR-7	277102	6657671	X	130	30
GNR-8	277151	6657694	X	40	40
MLR-01	276793	6659214	850	3330	3730
MLR-02	276793	6659214	270	5180	4200
MLR-03	276793	6659214	230	14000	5610
MLR-04	276793	6659214	100	34300	1500
MLR-05	276793	6659214	40	25400	1110
MLR-06	276793	6659214	20	920	350
MLR-07	276793	6659214	80	2090	2100
MLR-08	276793	6659214	130	28000	2550
MLR-09	276793	6659214	130	17300	2210
MLR-10	276754	6659270	X	190	190
MLR-11	276754	6659270	X	130	250
MLR-12	276754	6659270	X	40	160
MLR-13	276754	6659270	X	30	190
MLR-14	276754	6659270	X	10	10
MLR-15	276754	6659270	X	X	230
MLR-16	276754	6659270	X	20	140



## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling limited to rock chip sampling and soil sampling. Rock chip sampling focused on mineralized mullock heaps generated from old workings and surrounding rock types. Soil sampling focused on soil sampling lines over mineralized zones with samples analyzed every 5,10 or 20 metres.</li> <li>A selection of rock chip and soil samples were forwarded to SGS Australia for laboratory analysis.</li> <li>At the same time, a p-XRF was used to analyze the soils collected for the laboratory analysis as well as analyzing sites in-situ.</li> <li>The p-XRF was also used to "spot" analyze outcrop as well as mineralized mullock.</li> <li>Rock chip sampling was focused on representative sampling of specific outcrops and mineralized outcrop and/or mullock. 1-2 kg of rock chip samples were collected by a geologist using a rock hammer. Those samples analyzed by SGS were crushed and pulverized at the laboratory before analysis.</li> <li>Analysis was focused on Cu and Zn mineralization. Both laboratory and p-XRF analysis demonstrated anomalous values in and around the old workings and of similar magnitude and demonstrated that the p-XRF technique is a highly cost effective exploration tool.</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>No drilling undertaken</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</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All rock chip sampling is qualitative and designed to provide guidance only on mineralized and non-mineralised rock types</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling undertaken</li> <li>• No drilling undertaken</li> <li>• Laboratory analysis of rock and soil samples was undertaken by SGS Australia Pty Ltd. Rock samples were crushed and analysed by Sodium Peroxide Fusion and ICP-OES Finish for 30 elements and Fire Assay, ICP-AAS finish for Au. Soil samples received by SGS were dried and sieved to - 80# prior to analysis for the same suite of elements as for rocks.</li> <li>• SGS applies a rigorous internal quality control process to all of its analytical techniques</li> <li>• Rock chip sampling was selective and based on geological observations.</li> <li>• Each rock chip sample analyzed by SGS was 1-2kg in weight and was considered appropriate for the grain size.</li> </ul>
<b>Quality of assay data and</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument</i></li> </ul>	<ul style="list-style-type: none"> <li>• SGS Laboratory analysis entailed crushing and pulverizing and analysis of 31 elements using ICP and AAS. These procedures report near total results.</li> <li>• A Niton p-XRF analyser was used which has internal system checks. These checks are activated at least twice per day. The operating mode chosen was</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>laboratory tests</b>	<p><i>make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>"Mining". No geophysical tools used during this program.</p> <ul style="list-style-type: none"> <li>Internal laboratory standards were analysed with all samples</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> <li>No drilling undertaken</li> <li>The Company's Project Manager has undertaken and supervised all sampling and procedures. All data has been digitally recorded and prepared in accordance with the NSW Government guidelines and subject to the Mines Act (1992)</li> <li>No adjustments were made</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> <li>A hand held Garmin GPS was used to locate representative rock and soil sampling positions</li> <li>A local grid was established for soil sampling purposes</li> <li>Adequate for purpose</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The location of all soil and rock samples are illustrated within the report</li> <li>Not relevant</li> <li>No compositing applied</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were taken of outcrops that were considered to be representative of varying rock types and mineralized float. Soil sampling was undertaken orientated across perceived mineralizing trends.</li> <li>No drilling undertaken</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples forwarded to SGS were subject to written Control of Custody (COC) procedures</li> </ul>



Criteria	JORC Code explanation	Commentary
<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>Sampling techniques and procedures were consistent with industry standards and the benefit of the Project Managers geological experience.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also 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>The current exploration program is located within the Barraba Copper Project which is subject to Exploration Licence 8492. The licence is held by J Downes and is subject to a joint venture with Comet Resources Limited. The current program is located on private land which is subject to an executed Compensation and Access Agreement. The main area of interest is the Gulf Copper Mine which is located within Crown Land and subject to Native Title negotiations.</li> <li>An application for the renewal of the licence for a further three years has been lodged. There are no known impediments to the renewal of the licence.</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>Modern exploration of the Barraba Project area has been undertaken since 1964 by a variety of companies, including Carpentaria Exploraiton Company, Austminex Pty Ltd, Electrolytic Zinc Company, Newmont Holdings Pty Ltd, CRA Exploration Pty Ltd, Rimfire Pacific Mining NL, Graynuc Metals Limited and Peel Mining.</li> <li>Exploration activities have focused primarily on the Gulf Copper Mine which has been tested by only two diamond drill holes. Other work has entailed geophysical surveys, soil and rock sampling and geological mapping</li> <li>The Gulf Creek copper mine was primarily exploited between 1889 and 1912. Approximately 35,000t of ore grading 5% Cu was mined. Only limited modern exploration has been conducted since mining activities ceased. Previous mining identified three ore bodies at Gulf Creek. These have not been closed off and there is potential for further economic mineralisation to be discovered. In addition, potential for additional copper mineralization is considered likely at the Murchison Mine and Four Mile lode and should be assessed in conjunction with the exploration of the Gulf Copper mine.</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>It sits along the Peel Fault line and encompasses the historic Gulf Creek and</li> </ul>

Criteria	JORC Code explanation	Commentary
		Murchison copper mines as well as the Four Mile Lode. The region is known to host volcanogenic massive sulphide (VMS) style mineralisation containing copper, zinc, lead and precious metals. Historical workings at Gulf Creek produced high-grade copper and zinc for a short period around the turn of the 19th century, and this area will form a key part of the initial exploration focus.
<b>Drill hole 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 drill holes:               <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>None of the areas investigated have been previously drilled</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 (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No high grade cutting employed</li> <li>No Aggregation used</li> <li>No Metal equivalents used</li> </ul>
<b>Relationship between mineralisation widths and</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 drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>intercept lengths</b>	<i>width not known</i> ’).	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to descriptions and diagrams in the body of the report</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Summary of results reported in the body of the report</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No other substantive data available</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Additional work in the areas investigated will entail geophysical surveys as well as additional rock and soil sampling in conjunction with geological mapping. The details of this program are yet to be formulated.</li> </ul>