

# DRILLING CONFIRMS VMS COPPER-GOLD-ZINC POTENTIAL AT ECLIPSE PROSPECT, WESTERN VICTORIA

- Volcanic hosted massive sulphide (VMS) style mineralisation confirmed in 3 horizons.
- Peak assays of 2.4 g/t gold, 1.5% copper and 0.3% zinc returned within multiple broad zones of sulphide mineralisation, mainly pyrite with minor chalcopyrite and sphalerite.
- Detailed geological assessments suggest the VMS horizons strengthen towards the north where airborne magnetics highlight a large 4km long and 1.5km thick volcanic basin.
- Follow-up AC and diamond drilling now being planned, expected to commence in Q4 2020, weather permitting.

Navarre Minerals Limited (**ASX: NML**) (Navarre or the Company) is pleased to announce encouraging new diamond drilling results from its 100%-owned Eclipse prospect within the Stavely Arc, 260km west of Melbourne Victoria and approximately 60 kilometres north-west of Stavely Minerals Limited's (ASX: SVY) Cayley Lode copper discovery (Figure 1).

The new results provide evidence for a volcanic hosted massive sulphide (VMS) system containing at least three distinct mineralised stratigraphic horizons with chalcopyrite (copper), sphalerite (zinc), gold and silver representation. The observed elevated metals and broad zones of alteration and sulphides are encouraging signs of a fertile and hot volcanic hydrothermal system to the north.

High resolution airborne magnetic data reveals the Eclipse prospect to be part of a larger system, occurring on the southern margin of a near vertical, westward younging "v"-shaped volcanic basin of approximately 4km in length and 1.5km in thickness.

The new drilling has significantly expanded the mineralised footprint and the potential of the Eclipse prospect.

Navarre's Managing Director, Geoff McDermott, said:

"The results of the drilling program have provided evidence for a large poly-metallic mineral system at Eclipse in the emerging Stavely Arc volcanics of western Victoria.

"Interpretation, based on alteration mapping, geochemistry and geophysics, all combine to provide strong evidence that multiple zones of VMS style mineralisation are strengthening towards the north where the thickest parts of a large volcanic basin occur. This area will be the focus of our next phase of drilling expected to recommence at year end."



Figure 1: Location of Navarre's gold and copper mineral properties

#### Results of the diamond drilling program

Navarre has completed 1,497m of diamond drilling across three holes at the Eclipse prospect within its 100%-owned Western Victoria Copper Project. The drilling program was designed to test a large induced polarisation (IP) geophysical chargeability anomaly beneath and adjacent to a supergene blanket of enriched copper (chalcocite) mineralisation (Figure 2).

Three angled diamond drill holes were completed across an east-west transect corresponding with the strongest IP chargeability response and magnetic high (Figures 2 & 3). All holes intersected broad zones of pyrite mineralisation, a good sign for a significant and fertile volcanic hydrothermal system containing anomalous gold, copper, silver and zinc assay values, and explains the IP response.

Best drill intercepts returned in this round of drilling include (See Tables 1 & 2 and Figures 2 & 3):

- 29.4m @ 0.2 g/t gold from 165.9m, incl. 0.4m @ 2.4 g/t gold & 1.5% copper (ED003 Zone B)
- 16.1m @ 0.1 g/t gold & 0.1% copper from 160.5m (ED002 Zone A)
- **19.7m @ 0.1% zinc** from 60m (ED001 Zone B)

Three distinct horizons of alteration and mineralisation have been identified in the diamond drilling, termed Zones A, B and C (see Figures 3 and 4):

**Zone A** – occurs as a strong zone of sericite alteration intersected in ED002 at approximately 130m depth. It is interpreted to represent the southern projection of known chalcopyrite mineralisation intersected in previous drilling underlying the chalcocite blanket. Zone A contains anomalous manganese (Mn), antimony (Sb), arsenic (As), barium (Ba), strontium (Sr) and bismuth (Bi) which are reliable VMS pathfinder elements. A combination of the anomalous element suite and strong sericite alteration is consistent with known chalcopyrite mineralisation intersected further north in historical drill holes.

**Zone B** - the combination of mixed iron (Fe) and magnesium (Mg) chlorite signature in the volcaniclastic package in ED003 (from 136m to 280m), strong sericite and chlorite alteration in ED001 from 60m, proximal potassic alteration

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signature in ED001 (from 72m to 78m) and replacement texture massive sulphides in ED001, provide a strong indicator of proximity to developing mineralisation. Zone B has not been previously recognised in drilling and appears to be at a lower stratigraphic level than Zone A. Zone B has not been subject to any significant exploration drilling in the past and provides an additional stratigraphic horizon to explore in future programs. Zone B alteration contains anomalous Mn, thallium (TI), Sb, Ba, strontium (Sr), As and Bi.

In addition, Zone B is exhibiting a progressive northward quiescence in the depositional environment as evidenced by a substantial thinning of beds compared to average bed thickness and sedimentary cycles up stratigraphy. The Company believes the quiescent sedimentological conditions developing to the north are more favourable for VMS type massive sulphide precipitation and preservation.

**Zone C** – the basal sequence observed in the lower portion of ED003, at around 422m, contains a strong band of silica, sericite, and chlorite alteration hosted within volcaniclastic siltstone amongst a rhyolite intrusion. In VMS deposit examples in the Mount Read Volcanics of Tasmania (e.g. Rosebery) and the Hill End Trough in NSW (e.g. Woodlawn), rhyolite intrusions define zones of mineralisation where massive sulphides typically occur at the base or surrounding the intrusive sequence.

The Zone C band of alteration is strongly pyritic and contains anomalous Sb, As and Sr and will be investigated further to the north to assess if the alteration intensity increases and pathfinder elements become more anomalous.



Figure 2: Eclipse prospect longitudinal projection, looking towards west, showing recent drilling on an IP chargeability image.



Figure 3: Eclipse Cross-Section showing geological interpretation and significant assay results.





High resolution airborne magnetics indicates the Eclipse prospect may be part of a much larger mineralised system. A substantial 'v'-shaped volcanic basin of approximately 4km long by 1.5km thick can be seen in the magnetic image of Figure 4, where the Eclipse prospect occurs on its southern margin. Furthermore, subtle conductive features, apparent in old EM survey data coincide with widespread pyritic mineralisation in drill holes and two sharp IP chargeability anomalies coincide with the Eclipse Prospect and continue north, maintaining strength of response for over 500m in strike.

#### Conclusions

In summary, Navarre believes the Eclipse prospect warrants further drill testing because the prospect contains all the hallmarks of a fertile and hot VMS system. These features include:

- felsic bimodal volcanics showing a westward progression from felsic to mafic dominated mixed sequence stratigraphy;
- massive sulphide mineralisation and clastic sulphides with chalcopyrite and sphalerite representation;
- syn-sedimentary sulphide mineralisation intersected in ED001 and ED003 is progressively becoming more concentrated towards the north;
- evidence of a northward progression from a high energy to low energy depositional setting;
- widespread acid alteration dominated by chlorite and sericite development;
- strong lithogeochemical anomalism indicating proximity to potential economic mineralisation, including Na depletion;
- alteration appears concentrated within three main target zones, with Zone B showing a footwall alteration halo of approximately 100m thickness. This feature is typical of sub-seafloor replacement type VMS deposits such as Rosebery and Hercules in western Tasmania; and
- high resolution airborne magnetic data shows a regional V-shaped feature containing the Eclipse prospect. It is reasonable to consider this as a graben feature younging to the west to guide future exploration activities.

#### **Next Steps**

Follow-up AC and Diamond drilling is now being planned to test the three zones of the VMS system towards the north. This program is aiming to commence in Q4 2020 at the conclusion of the winter rains.

Ongoing work includes petrographic studies on selected drill core samples and a downhole EM survey in hole ED003 to locate any potential off-hole conductors related to VMS mineralisation that can be targeted in the follow-up drill programs.



Figure 4: Plan view of Eclipse prospect relative to interpreted volcanic basin

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Hole ID	From	То	Interval	Gold (g/t)	Copper (ppm)	Silver (g/t)	Zinc (ppm)	Comments
ED001	60.0	79.7	19.7	0	145	0.3	905	B Zone
includes	60.0	61.0	1.0	0	493	0.9	3,380	B Zone
and	72.6	75.6	3.0	0	186	0.9	2,280	B Zone
ED001W1	238.5	239.4	0.9	0.3	90	0.2	223	B Zone
ED002	148.4	149.4	1.0	0.1	1,160	0	339	A Zone
	149.4	150.4	1.0	0.3	265	0.2	242	A Zone
	160.5	176.6	16.1	0.1	1,048	0.3	761	A Zone
includes	161.4	162.7	1.3	0.1	3,506	1.3	226	A Zone
	169.0	175.7	6.7	0.1	1,304	0.5	735	A Zone
ED003	111.4	112.7	1.3	0.3	2,024	3.1	2,752	B Zone
	166.7	196.1	29.4	0.2	693	0.4	148	B Zone
includes	166.7	167.1	0.4	2.4	15,100	9.4	119	B Zone
	304.6	305.8	1.2	0.1	1,260	0	31	C Zone
	334.1	334.6	0.5	0	1,070	0.2	11	C Zone

#### TABLE 1: Significant diamond drilling intercepts

#### **TABLE 2: Diamond Drill Hole Collars**

Hole ID	Easting (GDA94Z5 4)	Northing (GDA94Z54)	RL (AHD)	Depth	Dip	Azimuth (mag)	Comment
ED001	600320.4	5884088.2	222.6	188.4	-60	265	
ED001W1	600320.4	5884088.2	222.6	590.7	-60	265	Replacement hole following technical issue with ED001 at 188.4m depth
ED002	599920.7	5884044.4	217.5	301.9	-50	090	
ED003	600199.1	5884028.9	223.4	512.0	-50	073	

This announcement has been approved for release by the Board of Directors of Navarre Minerals Limited.

#### – ENDS –

For further information, please visit <u>www.navarre.com.au</u> or contact:

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#### **Competent Person Declaration**

The information in this release that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Shane Mele, who is a Member of The Australasian Institute of Mining and Metallurgy and who is Exploration Manager of Navarre Minerals Limited. Mr Mele has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Mele consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

#### Forward-Looking Statements

This announcement contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Navarre and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Navarre assumes no obligation to update such information.

#### **About Navarre Minerals Limited:**

Navarre Minerals Limited (ASX: NML) is an Australian-based resources company that is creating value from a portfolio of early to advanced stage gold projects in Victoria, Australia.

Navarre is searching for gold deposits in an extension of a corridor of rocks that host the Stawell (~five million ounce) and Ararat (~one million ounce) goldfields (**The Stawell Corridor Gold Project**). The discovery of outcropping gold on the margins of the **Irvine** basalt dome and high-grade gold in shallow drilling at **Langi Logan** are a prime focus for the Company. These projects are located 20km and 40km respectively south of the operating 4Moz Stawell Gold Mine.

The high-grade **Tandarra Gold Project** is located 50km northwest of Kirkland Lake Gold's world-class Fosterville Gold Mine, and 40km north of the 22 million-ounce Bendigo Goldfield. Exploration at Tandarra, in Joint Venture with Catalyst Metals Limited (Navarre 49%), is targeting the next generation of gold deposits under shallow cover in the region.

The Company is searching for a high-grade gold at its **St Arnaud Gold Project.** Recent reconnaissance drilling has identified gold mineralisation under shallow cover, up to 5km north from the nearest historical mine workings, which the Company believes may be an extension of the 0.4Moz St Arnaud Goldfield.

The Company is also targeting volcanic massive sulphide, epithermal and porphyry copper-gold deposits in the **Stavely Arc** volcanics. The Project area captures multiple polymetallic targets in three project areas including **Glenlyle**, **Eclipse** and **Stavely**. All properties are currently 100% owned. Stavely (EL 5425) is subject to a farm-in agreement where Stavely Minerals Limited may earn an 80% interest by spending \$0.45M over 5 years.

At the Jubilee Gold Project, 25km southwest of LionGold's Ballarat Gold Mine, the Company is undertaking a systematic exploration program targeting extensions and repetitions of historically mined transverse quartz reefs that bear similarity to the high-grade Swan – Eagle system at Fosterville.

# JORC Code, 2012 Edition - Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary		
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Diamond Core Drilling</li> <li>The diamond drill core samples were selected on geological intervals varying from 0.2m to 1.6m in length.</li> <li>All drill core was routinely cut in half (usually on the right of the marked orientation line) with a diamond saw and submitted for analysis.</li> <li>Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance/ Testing (QA). Certified standards and blanks were routinely inserted into assay batches.</li> </ul>		
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Diamond Core Drilling</li> <li>Pre-collars were drilled to solid bedrock using an HWT (114.3mm) drill bit followed by diamond coring with a diameter of 63.5mm (HQ) and 50.6mm (NQ2).</li> <li>Diamond drilling of HQ3 (triple-tube) was undertaken to ensure maximum core recovery.</li> <li>All drill core was orientated with a Reflex ACT III core orientation tool then continuously marked with a line while on an angle iron cradle.</li> </ul>		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Diamond Core Drilling</li> <li>All diamond core was logged capturing any core loss, if present, and recorded in the database.</li> <li>All drill depths are checked against the depth provided on the core blocks and rod counts are routinely carried out by the driller.</li> <li>Core recovery for the areas sampled was generally good.</li> </ul>		
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging of samples followed Company and industry common practice. Qualitative logging of samples included (but was not limited to); lithology, mineralogy, alteration, veining and weathering.</li> <li>All logging is quantitative, based on visual field estimates.</li> <li>Detailed diamond core logging, with digital capture, was conducted for 100% of the core by Navarre's geological team.</li> </ul>		
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>Diamond Core Drilling</li> <li>Detailed diamond core logging, with digital capture, was conducted for 100% of the core by Navarre's geological team.</li> </ul>		

Criteria	JORC Code explanation	Commentary
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Half core was sampled from NQ and HQ diameter drill core.</li> <li>Company procedures were followed to ensure subsampling adequacy and consistency. These included (but were not limited to), daily workplace inspections of sampling equipment and practices.</li> <li>Blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures.</li> <li>No second-half sampling has been conducted at this stage.</li> <li>The sample sizes are appropriate to correctly represent the sought after mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analysis for gold is undertaken at ALS Perth, WA by 30g Fire Assay with an AAS finish to a lower detection limit of 0.01ppm Au using ALS technique Au-AA25.</li> <li>Bulk-leach analysis for gold is also undertaken by ALS Perth, WA on selected samples with &gt;0.2ppm Au from Au- AA25 method. The bulk leach method utilises a ~2kg sample using ALS technique Au-AA15. Navarre selectively does this to check for the effects of nuggety gold particularly in know regions containing this effect.</li> <li>ALS also conducted a 35 element Aqua Regia ICP-AES (method: ME-ICP41) analysis on each sample to assist interpretation of pathfinder elements.</li> <li>No field non-assay analysis instruments were used in the analyses reported.</li> <li>A review of certified reference material and sample blanks inserted by the Company indicate no significant analytical bias or preparation errors in the reported analyses</li> <li>Internal laboratory QAQC checks are reported by the laboratory and a review of the QAQC reports suggests the laboratory is performing within acceptable limits.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Samples are verified by database consultants (Geobase) and Navarre geologists before importing into the drill hole database.</li> <li>No twin holes have been drilled by Navarre during this program.</li> <li>Primary data was collected for drill holes using a Geobase logging template on a Panasonic Toughbook laptop using lookup codes. The information was sent to a database consultant for validation and compilation into a SQL database.</li> <li>Reported drill results were compiled by the Company's geologists and verified by the Exploration Manager and Managing Director.</li> <li>No adjustments to assay data were made.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All maps and locations are in UTM Grid (GDA94 zone 54).</li> <li>All drill collars are initially measured by hand-held GPS with an accuracy of <u>+</u>3 metres. On completion of program, a contract surveyor picks-up collar positions utilising a differential GPS system to an accuracy of <u>+</u>0.02m.</li> <li>A topographic control is achieved via use of DTM developed from a 2005 ground gravity survey measuring relative height using radar techniques.</li> <li>Down-hole surveys were taken every 30m on the way down to verify correct orientation and dip then multishots taken every 6m on the way out of the drill hole.</li> </ul>

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Variable drill hole spacings are used to test targets and are determined from geochemical, geophysical and geological data together with historic mining information.</li> <li>Drilling reported in this program is of an early exploration nature and has not been used to estimate any mineral resource or ore reserves.</li> <li>Refer to sampling techniques, above for sample compositing</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Exploration is at an early stage and, as such, knowledge on exact location of mineralisation, in relation to lithological and structural boundaries, is not accurately known.</li> <li>The drill orientation is attempting to drill perpendicular to the geology and mineralised trends previously identified from earlier drilling. Due to the early stage of exploration it is unknown if the drill orientation has introduced any sampling bias. This will become more apparent as further drilling is completed.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Chain of custody is managed by internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Orange, NSW (ALS Laboratories). At the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	There has been no external audit or review of the Company's sampling techniques or data at this stage.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Eclipse prospect lies within Navarre's Black Range Project. All reported work occurred within Victorian mineral licence EL4590 is owned by Navarre Minerals Limited (ASX:NML). Exploration licence EL4590 was last renewed in April 2012 for 5 years.</li> <li>There are no non-government royalties or historical sites at Eclipse.</li> <li>The area where the reported mineralisation occurs is Crown Land formerly used for pastoral and timber cutting purposes which is held in reserve by the State of Victoria and managed by the Victorian Dept. of Environment and Primary Industries (DEPI).</li> <li>There are native title agreements in place with two Native Title claim groups in respect of Crown Land within EL4590.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Navarre's Eclipse prospect encompasses the former McRaes prospect, formerly owned by CRA Exploration who conducted work in the period 1989 to 1997 with surrender of the licence not long after take over by parent company Rio Tinto.</li> <li>CRA first detected the poly-metallic mineralisation at Eclipse using reconnaissance RAB drilling along the farmers southern paddock boundary.</li> <li>A total of 422 RAB or air-core holes were drilled across an area of 2.2 x 1.5km around the McRaes / Eclipse area. CRA reports note the poor sample return from the RAB and misleading absence of geochemical anomalism above primary mineralisation in both air-core and RAB drilling. This near-surface "geochemical dispersion" is now known</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul> <li>as the Depletion Zone associated with recent weathering processes that render many historical holes as ineffective tests.</li> <li>Historical CRA shallow RAB and air-core drilling was broadly applied at a 100m line spacing with holes spaced approximately 20-25m apart. CRA recognised that the earlier RAB drilling was ineffective in penetrating the very hard silica-sericite or sandstone cover rock types, and in a number of areas re-drilled with air-core. As Navarre now knows even that air-core failed to penetrate completely through the chalcocite zone. Significant areas containing cover sandstone were not included in the RAB or air-core programs.</li> <li>Beyond this CRA drilled 4 diamond holes beneath the area of shallow Zn, Cu and Au anomalism with collars located outside the higher grade chalcocite zones. Percussion precollars were also used by CRA for the diamond drilling (including GM048).</li> <li>A total of 22 RC holes were drilled by CRA in either 1992-93 or 1995-96 across Eclipse prospect with 5 of these within the chalcocite zone where grades over 0.4% Cu were reported along with significant gold.</li> <li>The CRA drill data has not been fully validated and no drill core, chips or any sample material from that period of work exists by which Navarre could substantiate the reported results.</li> <li>Uncertainty concerning CRA drill hole locations at Eclipse is raised with one past vertical RC PVC plastic collar located in the field some 20m distant from its reported location (hole GM061). No other collars could be located in the field.</li> <li>Further information concerning the Rio Tinto (CRA) drill results can be found in the Navarre Minerals Prospectus of March 2011, p18.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The project area is considered highly prospective for the discovery of economic deposits of the following types:         <ul> <li>copper gold porphyry systems;</li> <li>volcanic hosted base and precious metals (VMS);</li> <li>shear- hosted orogenic gold systems;</li> <li>epithermal gold and silver.</li> </ul> </li> <li>The basement rocks of the Black Range Project represent the oldest Palaeozoic rocks in Victoria and include basement Cambrian volcanic arc sequences (Stavely – Black Range volcanics (or Mount Stavely Volcanic Complex as described by the GSV - MSVC)) that are structurally dismembered. These volcanic basement rocks are largely masked by younger cover, either Murray Basin or Grampians Group sediments. Small windows of exposure north and south of the Grampians Mountain Range have led to a number of modest copper and gold discoveries such as Stavely Minerals Thursdays Gossan copper resource.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul> </li> </ul>	<ul> <li>Reported results are summarised in Figures 1 and 2 and Tables 1-2 within the main body of the announcement.</li> <li>Drill collar elevation is defined as height above sea level in metres (RL)</li> <li>Drill holes were drilled at an angle deemed appropriate to the local structure and stratigraphy and is tabulated in Tables 1 &amp; 2.</li> <li>Hole length of each drill hole is the distance from the surface to the end of hole, as measured along the drill</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>down hole length and interception depth</li> <li>hole length.</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>	trace.
Data aggregation methods	<ul> <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> <li>All reported assays have been average weighted according to sample interval.</li> <li>Significant copper intercepts are calculated using lower cuts of 0.1% Cu (anomalous), 0.3% (significant economic level), and 1.0% Cu (potential ore grade level).</li> <li>Gold intercepts are calculated using a lower cut of 0.1g/t Au and 1.0g/t Au.</li> <li>Zinc and Silver intercepts are calculated using lower cuts of 0.2% Zn and 1.0g/t Ag.</li> <li>No top cuts are used.</li> <li>By reporting both low and high lower cut levels used for calculating copper and gold intersections in Table 1, short intervals of high grade that will have a material impact on overall intersection average grades are highlighted.</li> <li>Where assays less than detection limits (LOD) have been returned those results are ascribed zero value for internal waste calculations. No such values <lod any="" been="" calculation="" far="" for="" have="" in="" li="" report.<="" so="" this="" used=""> <li>Only relevant elements of economic interest are reported here (base metals and gold), however a much larger suite of elements were assayed for by either ICP or Portable XRF. Interpretation of the grades and distribution of all or some of these elements is both ongoing and of academic (non-material) input to understanding of the geological systems present which may be of use in further exploration.</li> </lod></li></ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Diamond Core Drilling</li> <li>Estimated true widths are based on orientated drill core axis measurements and are interpreted to represent between 60% to 90% of total downhole widths.</li> <li>True widths for the hypogene mineralisation are not known but the mineralisation is presently interpreted to be sub-vertical to steeply westerly dipping in the area tested in the current program.</li> </ul>
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to diagrams in body of text
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>All drill hole results received and pending have been reported in this announcement.</li> <li>No holes are omitted for which complete results have been received.</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk</li> </ul>	All relevant exploration data is shown in diagrams and discussed in text.

Criteria	JORC Code explanation	Commentary	
	samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.		
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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> <li>By nature of early phase exploration, further work is necessary to better understand the mineralisation systems that appear characteristic of this area.</li> <li>Petrology studies of selected drillcore samples are in progress. Navarre is also planning to conduct a downhole EM survey in drillhole ED001 to locate potential offhole conductors related to VMS mineralisation.</li> </ul>	