

# ASX ANNOUNCEMENT

## ABOUT CALIDUS RESOURCES

Calidus Resources is an ASX listed gold producer that is ramping up the 1.7Moz Warrawoona Gold Project in the East Pilbara district of Western Australia.

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29 September 2022

# Maiden Blue Spec Reserve underpins expansion plan for Warrawoona

Study contemplates a new parallel processing route at Warrawoona to treat high-grade satellite mines, increasing production over an initial 7-year period

## HIGHLIGHTS

- Maiden Reserve for Blue Spec of 83koz combined with a 17koz Reserve at Copenhagen<sup>2</sup> provides a combined 100koz Reserve that will be treated via a parallel, Stage 2 Sulphide Plant located at Warrawoona:
  - Blue Spec Reserve 83koz @ 11.2g/t
  - Copenhagen Reserve 17koz @ 5.5g/t
- The Sulphide Processing Plant will initially treat Copenhagen and Blue Spec ore for a combined 7 years (collectively the “**Warrawoona Stage 2 Expansion**” or “**Sulphide Plant Project**”) with additional feed possible from the Coronation satellite pit at Warrawoona and other exploration targets
- Total Calidus Reserves increase to 600koz with addition of the Blue Spec Reserve
- Production contribution from the Sulphide Plant is an average of 30kozpa, which is in addition to the operating Warrawoona Gold Project
- Based on the DFS<sup>1</sup> Production Profile, peak production from Warrawoona increases to 140kozpa (with an average of 120kozpa) via the inclusion of the Sulphide Plant
- Permitting for Blue Spec is expected to be completed by the end of the March Quarter of 2023 which will allow for Final Investment Decision (**FID**) by the Calidus Board in the June Quarter of 2023
- Calidus will use this permitting window to reduce costs and advance the Sulphide Project to FID including formal tender and award major scopes of work such as:
  - Procurement and Installation of the Sulphide Plant
  - Off take agreement for the concentrate product(s)
  - Underground mining (including owner mining option)
- Technical studies for the Blue Spec Reserve have been completed to a Feasibility Level of detail as outlined in this announcement and accompanying JORC Tables and Listing Rules 5.9.1 as required by the ASX (Section 13)

<sup>1</sup> Refer ASX Announcement 29 September 2020 “Feasibility Study paves the way for construction of Warrawoona”.

Calidus Resources Limited (ASX:CAI) (“**Calidus**” or the “**Company**”) is pleased to announce a maiden Reserve for Blue Spec that allows the Company to advance the Sulphide Plant Project towards a Final Investment Decision in mid-2023. The results of the Feasibility Study which support the Blue Spec Reserve, coupled with the existing Copenhagen Reserve, shows that the integration of these high-grade satellite deposits into the operating Warrawoona gold project will generate a significant increase in production and operational cashflow for modest additional capital expenditure.

The Sulphide Plant would be constructed at Warrawoona with Blue Spec and Copenhagen ore trucked to Warrawoona for processing. This provides leverage off the infrastructure and personnel already based at Warrawoona. Trucking the ore is a practical option given the low-volume, high-grade nature of both Blue Spec and Copenhagen.

Calidus Managing Director Dave Reeves said: *“This maiden Reserve for Blue Spec shows we have a clear pathway to growing production at Warrawoona to 140,000oz a year, increasing free cashflow significantly and enabling us to leverage existing infrastructure.*

*Our growth strategy is now underpinned by Reserves of 600,000oz in a tier-one location, with a strategically located operational hub and exceptional team.*

*Calidus is in an enviable position with a solid foundation of production and a strong growth pipeline based on a substantial Reserve base and significant scope for further increases in mine life through organic and inorganic growth”.*

## 1. Mineral Resource Estimate

An updated Blue Spec Mineral Resource Estimate (**MRE**) hosts a JORC 2012 Mineral Resource of 190koz at 24.4g/t (Table 1) and was used as a basis for the Feasibility Study.

On a Gold Equivalent basis (**AuEq**) the Blue Spec MRE is 222koz at 28.4g/t AuEq as shown in Table 2.

Cut-off grades were calculated using a Net Smelter Return (**NSR**) utilising metal pricing for gold and antimony, recoveries and other payability assumptions as detailed in Section 3 “Cut-off parameters” in the accompanying JORC Code Table 1 and Listing Rules 5.8.1 as required by the ASX (Section 12).

The total Calidus MRE updated with Blue Spec is now 43Mt at 1.2g/t for 1.662Moz (Table 3). Company Resources were last reported as of 30 June 2022.<sup>2</sup>

**Table 1: Blue Spec Project Mineral Resource**

Deposit	Measured			Indicated			Inferred			Total		
	kt	Au (g/t)	koz	kt	Au (g/t)	koz	kt	Au (g/t)	koz	kt	Au (g/t)	koz
Blue Spec				70	31.5	71	96	21.2	66	166	25.5	136
Gold Spec				24	30.1	24	52	17.9	30	76	21.8	54
<b>Total</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>94</b>	<b>31.1</b>	<b>95</b>	<b>148</b>	<b>20.1</b>	<b>96</b>	<b>243</b>	<b>24.4</b>	<b>190</b>

<sup>2</sup> Refer ASX Announcement 21 September 2022 “Annual Report to shareholders”

**Table 2: Blue Spec Project Mineral Resource (AuEq)**

Blue Spec Project	Indicated					Inferred					Total				
	Kt	Au (g/t)	Sb (%)	AuEq (g/t)	AuEq koz	Kt	Au (g/t)	Sb (%)	AuEq (g/t)	AuEq koz	Kt	Au (g/t)	Sb (%)	AuEq (g/t)	AuEq koz
Blue Spec	70	31.5	1.5	35.3	79	96	21.2	1.6	25.3	78	166	25.5	1.6	29.6	158
Gold Spec	24	30.1	2.6	36.7	28	52	17.9	1.3	21.2	35	76	21.8	1.7	26.1	64
<b>Total</b>	<b>94</b>	<b>31.1</b>	<b>1.8</b>	<b>35.7</b>	<b>108</b>	<b>148</b>	<b>20.1</b>	<b>1.5</b>	<b>23.8</b>	<b>114</b>	<b>242</b>	<b>24.3</b>	<b>1.6</b>	<b>28.4</b>	<b>222</b>

**Table 3: Company Resources updated with Blue Spec**

Deposit	Cut-Off	Measured			Indicated			Inferred			Total		
	(g/t)	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz
<b>Klondyke Open Pit</b>	<b>0.3</b>	<b>1.6</b>	<b>0.93</b>	<b>49</b>	<b>28.8</b>	<b>0.90</b>	<b>835</b>	<b>8.3</b>	<b>0.81</b>	<b>217</b>	<b>38.7</b>	<b>0.88</b>	<b>1,101</b>
<i>including</i>	0.5	1.1	1.17	42	20.1	1.12	725	5.0	1.09	176	26.3	1.12	943
<b>Klondyke UG</b>	<b>1.5</b>				<b>1.0</b>	<b>2.87</b>	<b>89</b>	<b>1.8</b>	<b>3.31</b>	<b>162</b>	<b>2.7</b>	<b>2.83</b>	<b>250</b>
<i>including</i>	2.0				0.7	3.36	72	1.2	4.08	130	1.9	3.33	202
Copenhagen	0.5				0.2	5.58	34	0.1	2.65	9	0.3	4.54	43
Coronation	0.5				0.6	1.88	34	0.2	1.24	9	0.8	1.69	43
Fieldings Gully	0.5				0.3	1.80	16	0.3	1.87	20	0.6	1.84	36
<b>Blue Spec Project</b>					<b>0.1</b>	<b>31.1</b>	<b>95</b>	<b>0.2</b>	<b>20.2</b>	<b>96</b>	<b>0.2</b>	<b>24.3</b>	<b>190</b>
<i>Blue Spec</i>	<i>Note</i>				0.1	31.5	71	0.2	21.2	66	0.2	25.5	136
<i>Gold Spec</i>	<i>Note</i>				0.0	30.1	24	0.1	17.9	30	0.1	21.8	54
<b>Total</b>		<b>1.6</b>	<b>0.93</b>	<b>49</b>	<b>31</b>	<b>1.1</b>	<b>1,103</b>	<b>11</b>	<b>1.7</b>	<b>513</b>	<b>43</b>	<b>1.2</b>	<b>1,662</b>

Note:

Mineral Resources for Blue Spec were calculated on a cut-off using Net smelter return and Gold Equivalent using metal pricing, recoveries and other payability assumptions detailed in Section 3 "Cut-off parameters" in the JORC Code Table 1 and ASX Listing Rules 5.8.1 (Section 12)

## 2. Reserve

The Maiden Reserve for Blue Spec is 83koz at 11.4g/t Au. Additional information relating to the Reserve is contained with the information required by ASX Listing Rule 5.9.1 (Section 13) and Section 4 JORC Code Table 1 which are both contained in this announcement.

The total Calidus Reserve updated to include Blue Spec is 13.8Mt at 1.4g/t for 600koz (Table 4). Company Reserves were last reported as of 30 June 2022.<sup>3</sup>

<sup>3</sup> Refer ASX Announcement 21 September 2022 "Annual Report to shareholders"

**Table 4: Company Ore Reserve updated with Blue Spec**

Deposit	Cut-Off	Proven			Probable			Total		
	(g/t)	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz	Mt	Au (g/t)	koz
Klondyke Open Pit	0.33-0.36	1.4	1.0	45	9.8	1.0	326	11.3	1.0	371
Klondyke Underground	1.2				1.9	2.1	120	1.9	2.1	120
St George Open Pit	0.36-0.39				0.2	1.2	9	0.2	1.2	9
Copenhagen Open Pit	1.88				0.1	5.5	17	0.1	5.5	17
Blue Spec	Note				0.2	11.4	83	0.2	11.4	83
<b>Total</b>		<b>1.4</b>	<b>1.0</b>	<b>45</b>	<b>12.3</b>	<b>1.4</b>	<b>555</b>	<b>13.8</b>	<b>1.4</b>	<b>600</b>

Note:

Mineral Reserves for Blue Spec were estimated on a cut-off using Net smelter return and Gold Equivalent using metal pricing, recoveries and other payability assumptions detailed in Section 4 in the JORC Code Table 1 and ASX Listing Rules 5.9.1 (Section 13)

### 3. Mining

The Mining Study was completed by Mining Consultant Entech Pty Ltd (**Entech**).

Blue Spec has previously been mined, and the mining study only considered areas below the historic workings (ie no remnant mining). Costing has been allowed for dewatering of these historic workings based on supplier quotes.

#### Cut-Off Grades

Cut-off grades for initial optimisations were calculated using a net smelter return (**NSR**) of the Antimony-Gold Concentrate, Processing costs for the Sulphide Circuit (from the Feasibility Study) and benchmarked relevant mining costs from Entechs' database.

Cut-off grades were reconciled following completion of the mine plan and detailed financial modelling to ensure relevance.

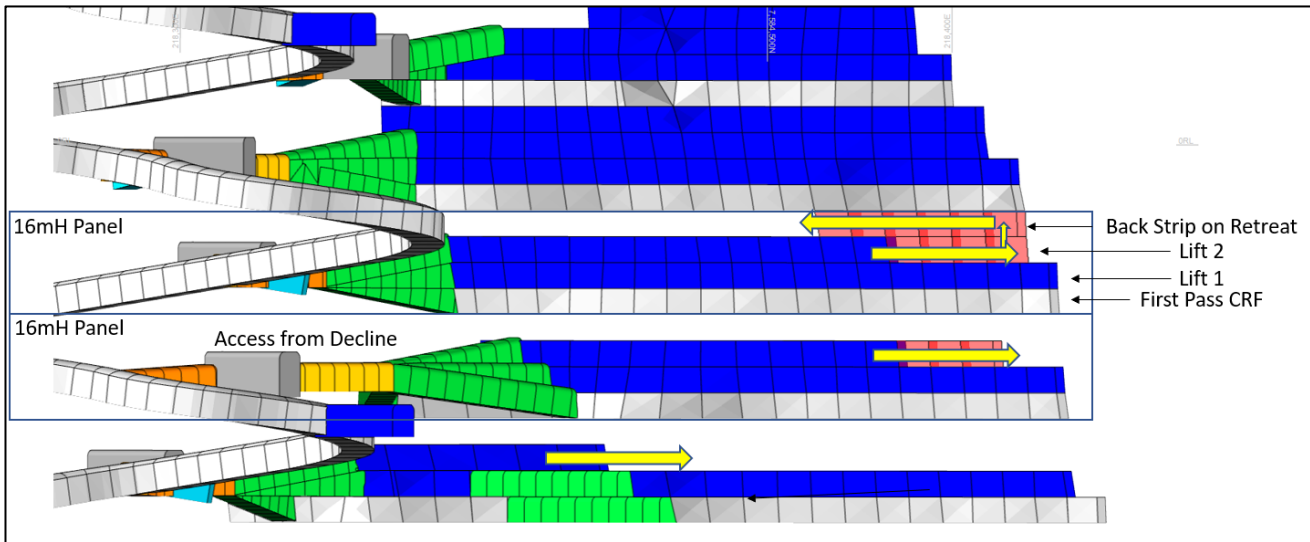
#### Mining Method

Blue Spec is a steeply dipping vertical/sub-vertical narrow vein deposit. There are two separate mining areas located ~1.2 km apart along strike, named Blue Spec and Gold Spec. Detailed analysis by independent geotechnical experts Peter O'Bryan & Associates was carried out to Feasibility study standard and this provided the key justification for the chosen mining method.

Based on these inputs, the mining method selected was overhand mechanised cut-and-fill with four x 4mH lifts in each panel (total panel height 16m). Three lifts will be extracted using jumbo development techniques with the top lift finally back-stripped on retreat. Cemented rockfill (**CRF**) will be placed in the bottom lift to allow stoping underneath, with uncemented rockfill used elsewhere. Single-boom jumbo drills will be used for the ore development and low-profile loaders for production material movement.

Access to the mine is planned to be through a boxcut and portal arrangement, via a 5.0 mW x 5.0 mH decline. Capital development will be mined using twin-boom jumbos and 5 m<sup>3</sup> loaders, which will also load all material onto trucks.

A schematic of the mining method is shown in Figure 1.



**Figure 1: Blue Spec Mining Method - Cut and Fill**

### Mine Plan

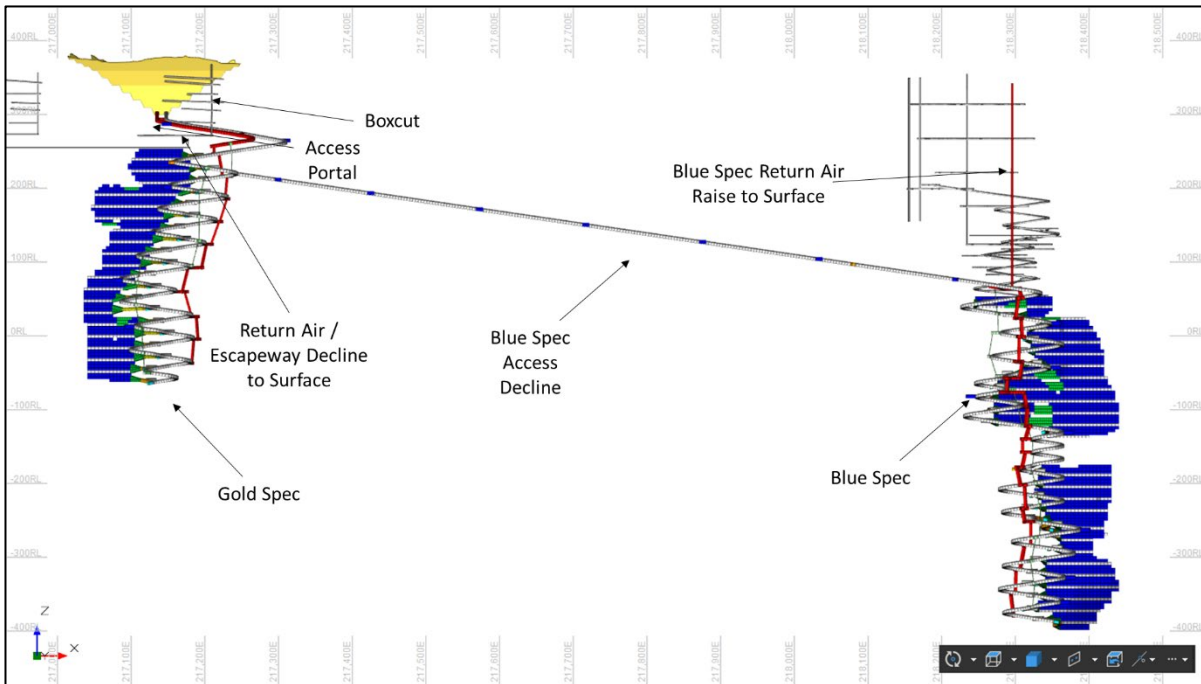
A minimum mining width of 2.5 mW was applied to ore development and jumbo stripping. Unplanned dilution and mining recoveries were applied based on the lift sequence as follows:

1. Bottom drive - no dilution, 100% mining recovery;
2. First lift (working on CRF) – 3% fill dilution at zero grade, 98% recovery;
3. Second lift (working on rockfill) – 6% fill dilution at zero grade, 98% recovery; and
4. Back-strip – 3% fill dilution at zero grade, 81% recovery to allow for placement of a 4m long rib pillar every 16m, as advised by the geotechnical recommendations.

A stope optimisation process was carried out using Datamine Software’s Mineable Shape Optimiser® (**MSO**), incorporating the minimum mining widths, lift heights and cut-off grades. The results were used to generate mineable production development designs. Capital development including decline, stockpiles, accesses, ventilation network, secondary egress and water management was designed to connect the production areas from the boxcut above the Gold Spec area. The initial decline drives down on Gold Spec and a Decline Access is developed across to Blue Spec.

Gold Spec will be ventilated via a primary fan located in a ventilation portal in the boxcut, which also provides secondary egress. Ventilation and secondary egress at Blue Spec are planned to be provided through a raise to surface.

A schematic of the final mine design is shown in Figure 2.



**Figure 2: Blue Spec General Layout**

The mine schedule was developed using Deswik.Sched® software. The schedule was driven by productivity constraints for the proposed fleet.

Mining was assumed to be carried out by Calidus as an owner-operator. A detailed mine cost model was determined based on recent relevant supplier quotes.

## 4. Metallurgy and Processing

### Metallurgical test work

Extensive metallurgical test work completed on the Project by previous owners<sup>4</sup> demonstrated the effectiveness of using flotation for the recovery of gold and antimony. Results suggested that an overall gold recovery of 95% is achievable. The testwork also showed that additional gold could be recovered by cyanide leaching of the flotation tailings.

Calidus undertook additional Metallurgical testwork between October 2021 and August 2022. Samples were obtained from drill holes in the Blue Spec lode and the Gold Spec lode which were compiled into single composites for Blue Spec and Gold Spec, respectively.

Comminution tests including the Bond rod mill work index (**RWi**), Bond ball mill work index (**BWi**) and abrasion index (**Ai**) were carried out on selected core pieces in the ore zones, as well as the ball mill work index on core pieces taken from the waste adjacent to the ore zones.

Additional test work included bulk density tests (shrink wrap method), XRD mineralogy, QEMSCAN, gravity recoverable gold and a diagnostic leach.

Flotation test work was conducted on the two separate composite samples as follows:

- Three batch rougher/scavenger flotation tests to produce a stibnite rougher concentrate followed by a separate sulphide (pyrite/arsenopyrite) rougher concentrate;
- One batch 2 stage flotation test with an initial gravity concentration stage, to produce stibnite rougher/cleaner concentrates followed by sulphide rougher/cleaner concentrates; and

<sup>4</sup> Refer ASX Announcement 21<sup>st</sup> September 2020 "Calidus to acquire high-grade Blue Spec gold mine".

- One locked cycle flotation test with initial gravity concentration followed by 2 stage stibnite rougher/cleaner flotation and sulphide rougher/cleaner flotation, including recycling of the decanted water from the cleaner concentrates.

Cyanidation leach tests were conducted on the rougher/scavenger tailings from the earlier batch tests and later tests on the combined tailings from the locked cycle flotation tests.

## Metallurgical balance

The grade and recovery results from the gravity, flotation and leaching tests are summarised in Table 5.

**Table 5: Metallurgical Balance**

Metallurgical Balance	Mass	Gold Grade (g/t)	Gold Recovery (%)	Antimony Grade (%)	Antimony Recovery (%)
<b>Feed</b>		<b>15.5</b>		<b>1.9</b>	
Stibnite Concentrate	4.4	293	83	38	89
Sulphide Concentrate	3.2	44	9	2.9	
Leach Tailings	92.4	0.73	3		
<b>Overall</b>			<b>95</b>	<b>89</b>	

## Sulphide Plant

The Sulphide Plant includes the following process areas:

- ROM pad with two-stage crushing of run of mine ore using a jaw crusher followed by a secondary cone crusher to a mill feed size of -10 mm;
- Storage of crushed ore in a 30-tonne capacity fine ore bin, equivalent to 16 hours mill run time;
- Grinding through a single 400 kW ball mill to a product size of 80% passing 75 µm;
- Treatment of approximately 25% of the mill discharge stream for gravity gold recovery using a centrifugal gravity concentrator;
- Flotation to produce a gold/stibnite concentrate through a rougher flotation bank followed by a cleaner bank, the gravity concentrate will be combined with this concentrate, followed by;
- Flotation to produce a sulphide concentrate through a rougher flotation bank followed by a cleaner bank;
- Thickening of the two concentrate streams in dedicated thickeners;
- Filtration of the two separate concentrates using a common filter;
- Cyanidation of the flotation tailings stream;
- Water storage and distribution;
- Utilities and services; and
- Reagent handling and dosing.

The layout of the Sulphide Plant, showing its proximity to the operating 2.4Mtpa CIL Processing Plant at Warrawoona is shown in Figure 3. The location of the Sulphide Plant allows it to leverage off the existing infrastructure including gas fired electricity generation from the Power Station, Reagent Storage, Water Services as well as shared supervision, maintenance and management.



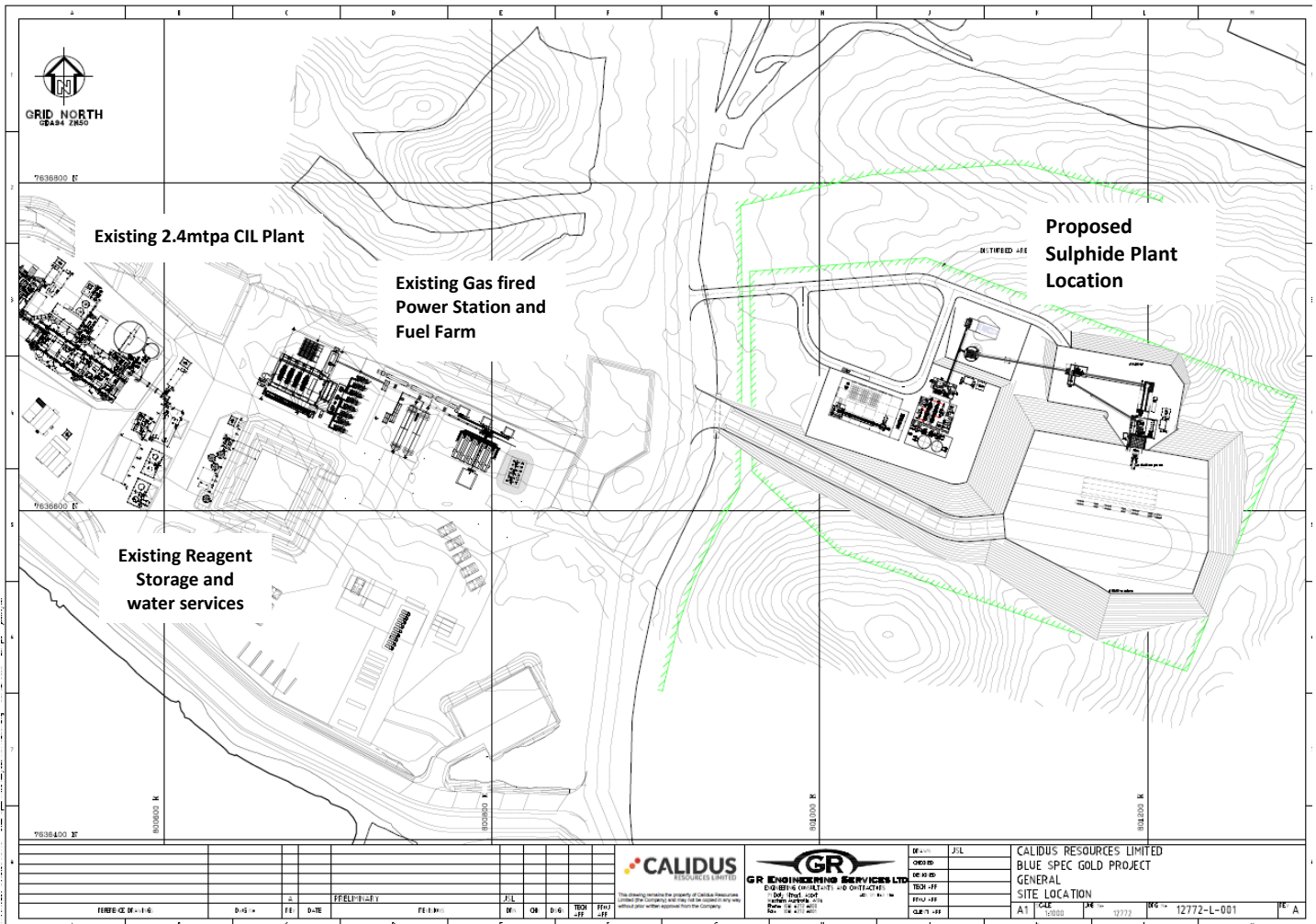


Figure 3: General Arrangement showing Existing 2.4mtpa CIL Plant at Warrawoona and planned Sulphide Plant location

### Concentrate Specification and Sales

Concentrate Specifications for both sulphide and stibnite products were prepared based on metallurgical test work (Table 6). These specifications were presented to several potential offtake partners who, in turn, presented non-binding commercial terms to purchase the products. Indications of inland and export freight costs have also been received from providers servicing the Pilbara and the ports of Fremantle and Port Hedland. The commercial terms and freight costs have been evaluated on a NSR basis and incorporated in the Feasibility Study.

Table 6: Concentrate Specification

Product		Gold (g/t)	Antimony (%)	Arsenic (%)	Sulphur (%)	Lead (ppm)	Bismuth (ppm)
Stibnite Concentrate	Expected Grade	280	38	0	21	2,500	8
	Grade Range	250 - 300	36 - 39	0.18 - 0.32	20 - 22	1800-3100	6 - 10
Sulphide Concentrate	Expected Grade	44	3	1	23		
	Grade Range	36 - 50	1.7 - 3.9	0.45 - 0.65	18 - 26		



## Production Profile

The Production profile of the Sulphide Plant including processing of both Blue Spec and Copenhagen ore is shown in Figure 4.

The combined Warrawoona Production profile, including the Stage 1 Production Profile from the Warrawoona DFS, plus the Stage 2 production profile which is the incorporation of the Sulphide Plant Project is shown in Figure 5.

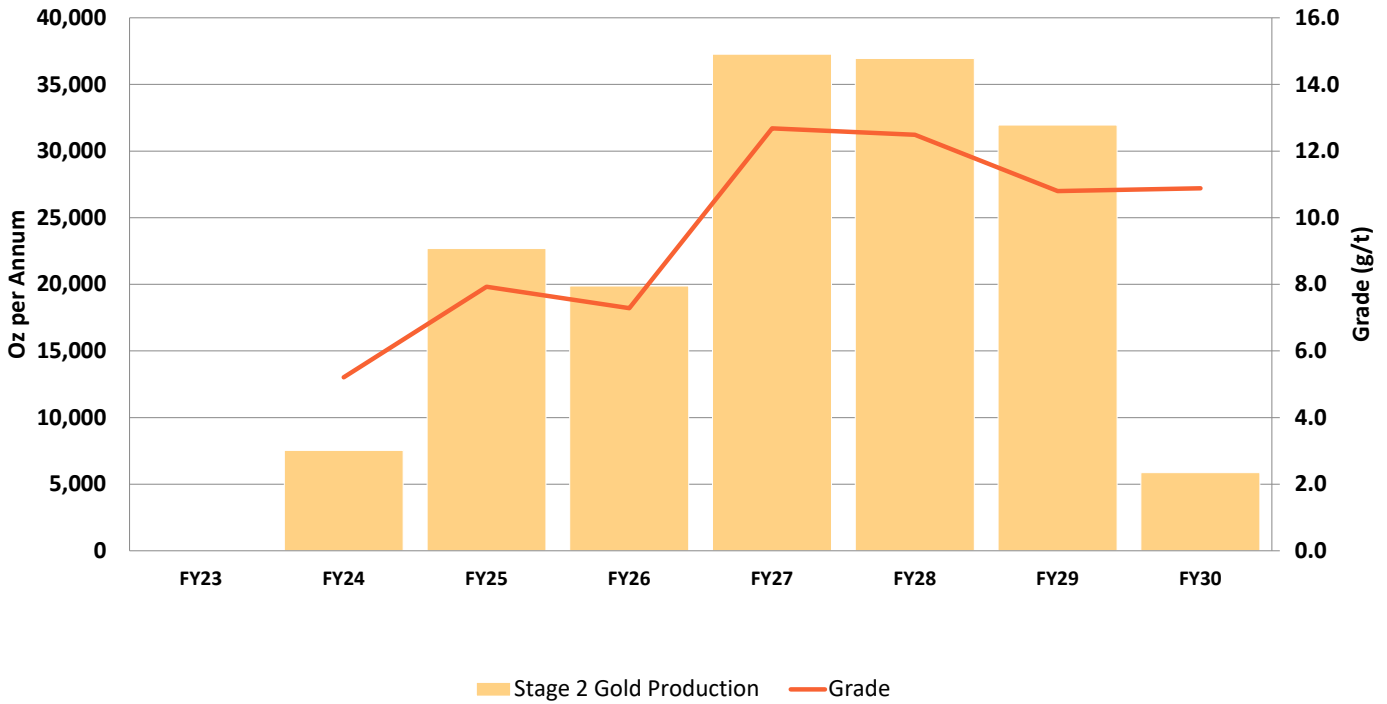


Figure 4: Sulphide Plant Production Profile showing annualised recovered ounces and average grade

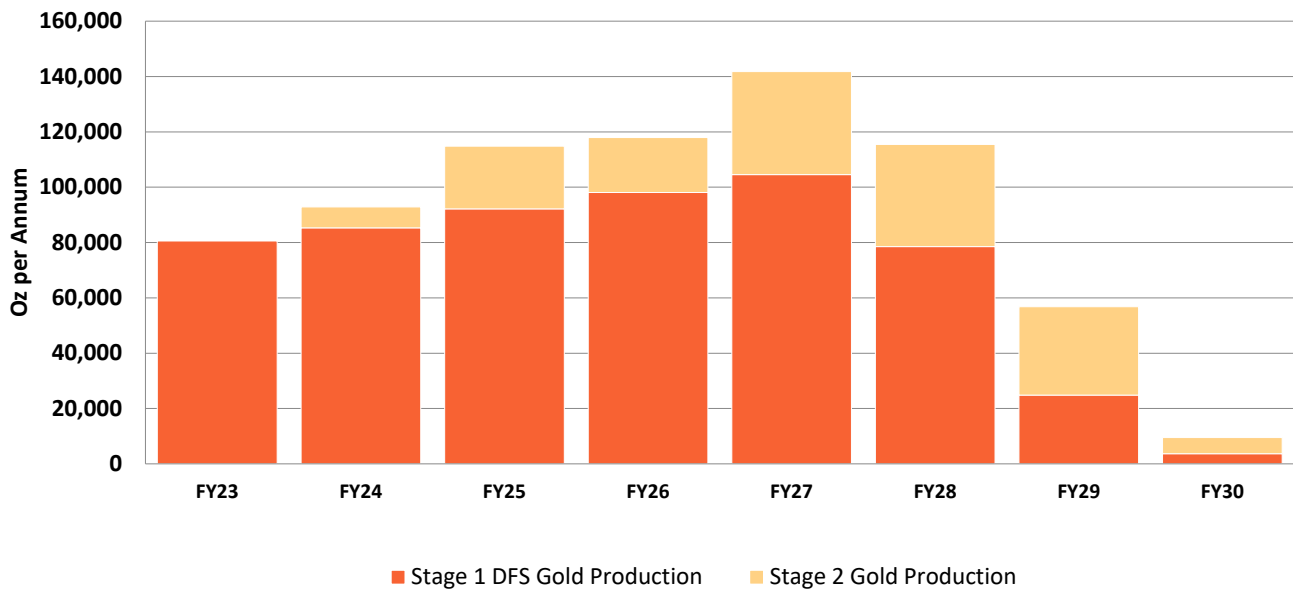


Figure 5: Annualised production profile for combined Warrawoona production (Stage 1) with the Sulphide Plant (Stage 2)

## **Tails Dam**

A tails dam is not required at Blue Spec due to the operating philosophy of transporting the ore to Warrawoona for treatment through the sulphide plant. Tails from the sulphide circuit would report to the main CIL Plant before being thickened, treated with cyanide detoxification and discharged to the Warrawoona Tails Dam.

## **5. Non-Processing Infrastructure**

The supporting infrastructure required for the operation of Blue Spec will include the following works:

- Upgrade of existing 2km access road;
- Installation of a small village to accommodate the underground mining workforce and Calidus owners team;
- Upgrade of communications network and IT facilities;
- Installation of transportable buildings including site offices, change rooms, crib rooms and ablutions;
- Fuel storage and distribution facility;
- Electrical power generation;
- Water supply including refurbishment of existing borefield providing water for processing and potable supplies;
- Light vehicles and mobile equipment;
- Potable water treatment; and
- Wastewater treatment.

### **Access Road**

It is planned to use existing roads for personnel transport, haulage of ore to Warrawoona and deliveries to site. Minor upgrades will be required on the short section between the Skull Springs public road and the camp/mine (approx. 2km).

### **Accommodation Village**

A small village will be required to be installed at the existing Blue Spec village site. As there will be no processing on site, the village will only need to accommodate the underground mining contractor and a small Calidus owners' team.

### **Communications**

Discussions have commenced with Telstra to extend services to the Blue Spec mine site from Nullagine. This is the same approach Calidus has taken with communications at Warrawoona with a repeater tower installed between the town and site. This will form the basis for communications to and from site. A UHF radio system will also be set up that will include a "leaky feeder" system to the underground for general communication and emergency response requirements.

### **Power Supply**

Power will be supplied from a contract, hybrid power station installed on site. This would likely be a build own operate (BOO) arrangement from an independent power provider where Calidus is charged a unit cost (\$/kwhr) for electricity consumed.

### **Fuel Storage**

The existing fuel storage tanks are likely to be replaced. Fuel storage can also possibly be undertaken with the power supply contractor as this will be the biggest consumer of diesel.

### **Water Supply**

Water supply will be from a combination of dewatering the underground workings and an existing bore field. The bore field is currently licensed and an application is underway for dewatering of the underground. Due to their being no process water requirements on site, water requirements are limited to dust suppression, raw water for underground mining and supplying RO units for potable water.

## 6. Environmental Permitting

All required baseline studies have been completed for Blue Spec and Permitting applications are underway.

Previous owners referred the Project to the Department of Agriculture Water and Environment (**DAWE**) in relation to the threatened flora and fauna species either found, or listed as potentially occurring in the Project Area. A Decision on Referral (EPBC 2012/6672) was provided advising that the proposed action in developing the Project is not a controlled action, provided it is undertaken in accordance with the manner described in the Referral. Given that the proposed operating philosophy of trucking ore to Warrawoona will not increase the current disturbance footprint, it is unlikely Calidus will need to review this advice.

Blue Spec will need to comply with Western Australian Environmental Approvals which apply to all developments and will include:

- Mining Proposal and Mine Closure Plan – administered by DMIRS. Application submitted; and
- Water Licensing – administered by DWER. Application submitted.

Heritage Surveys have been completed by Calidus as well as previous owners with no Heritage sites recorded in the Project Area.

### Legacy Issues

As the mine has previously operated, there are several environmental legacies Calidus will remediate. These include asbestos contamination which has been already remediated, and an historic tailings dam which will be capped with fresh rock from underground at closure.

## 7. Blue Spec Plant Pre-Production Capital Cost Estimate

The Pre-production capital costs for Blue Spec are shown in Table 7. This is the all-in cost incurred at the mine site up until the commencement of processing ore and realising cash flow generation from gold sales.

The mining studies for Blue Spec assumed an owner mining scenario with the cost of the equipment assumed to be financed.

**Table 7: Blue Spec Pre-Production Capital Expenditure**

Blue Spec Pre-Production Capital Costs	Units	Costs
Pre-Production Mining Costs	A\$M	26
Accommodation Village Construction	A\$M	5
Box Cut and Portal Establishment	A\$M	3
<b>Total Pre-Production Blue Spec Capital</b>	<b>A\$M</b>	<b>34</b>

## 8. Blue Spec Operating Cost Estimate

Operating costs were estimated for mining operations, haulage to Warrawoona, processing through the sulphide plant at Warrawoona and Blue Spec operational overheads (staff and salaries, accommodation, transport etc.).

Underground mining costs were prepared by Entech. The mining cost model assumed an owner miner approach. Given the relatively small-scale nature of the underground and in-house Calidus expertise in operating underground mines, this is considered a viable option to the standard contract model which attracts additional margin (cost). Labour requirements were determined by Entech and Calidus.

Processing Costs for the sulphide circuit are based on the costs as determined by the Blue Spec Feasibility Study. Labour, flights and accommodation costs are based on current pricing for Warrawoona.

Third party and government royalty payments for Blue Spec project are incorporated.

The Operating Cost estimate for Blue Spec is as per Table 8.

**Table 8: Blue Spec Operating Cost**

Blue Spec Operating Costs	LOM Unit Costs (A\$/oz)	Total LOM Costs (A\$M)
Mine Development	425	59
Business Services/Manning	622	87
Plant and Power Costs	221	31
Haulage Costs (Blue Spec to Warrawoona)	50	7
Processing Costs (Sulphide Plant)	163	23
Concentrate Transport and Smelter Charges	132	18
Stibnite By-Product Credits	(157)	(22)
Royalties (Govt + 3 <sup>rd</sup> Party)	185	26
<b>Total All-In Sustaining Cost (AISC)</b>	<b>1,641</b>	<b>229</b>

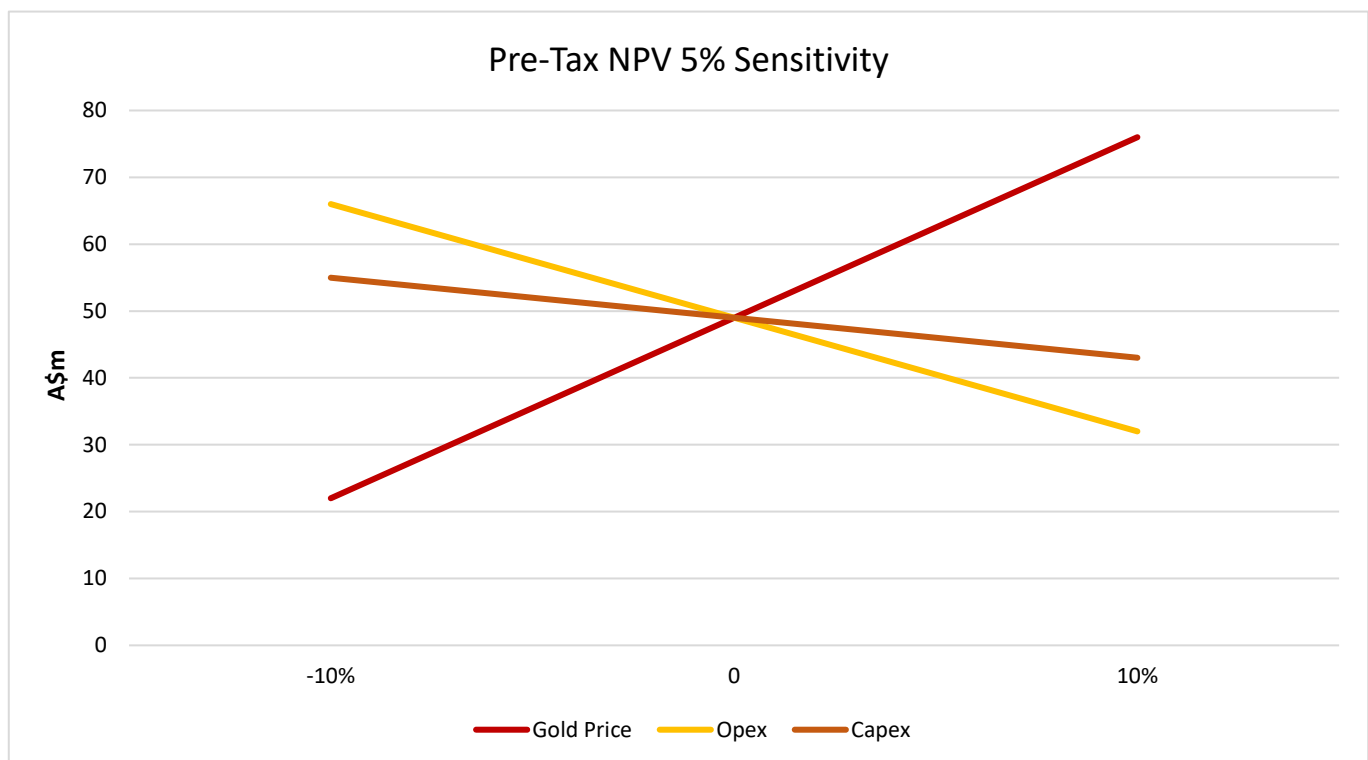
## 9. Financial Evaluation

The financial evaluation was completed by incorporating the treatment of both Copenhagen and Blue Spec through the Sulphide Plant, collectively the Sulphide Plant Project.

A summary of the financial evaluation is shown in Table 9. The Project has a Pre-Tax NPV<sub>(5%)</sub> for the Project of \$49m and IRR of 30% based on a gold price of A\$2,500/oz. Sensitivities are shown in Figure 6.

**Table 9: Sulphide Plant Project Financial Summary**

Production Summary	Units	Sulphide Plant Project
Initial Mine Life	Years	7
Total Ore (contained)	oz	557kt @ 9.9g/t for 177koz
Gold Payable	oz	154,644
Processing Rate	ktpa	100
Average LOM Metallurgical Recovery	%	94.5
Pre-Production Sulphide Plant Project Costs		
Sulphide Plant Construction Capital	A\$M	24
Pre-Production Blue Spec Capital	A\$M	34
Pre-Production Copenhagen Gold Sales	A\$M	(37)
Pre-Production Copenhagen Operating Costs	A\$M	20
Total Pre-Production Cashflow	A\$M	41
Operating Cashflows		
Gold Revenue	A\$M	350
All-in Sustaining Cost (AISC)	A\$M	230
Total Operating Cashflow (Pre-tax)	A\$M	120
LOM Unit Costs		
All-in Sustaining Cost (AISC)	A\$/oz	1,641



**Figure 6: Project Sensitivities**

## **10. Funding and timeline to development**

Financial modelling completed by Calidus shows that development of Blue Spec can be funded out of cash flow from operations. The development schedule has assumed a FID of June 2023 at the completion of Project Permitting, at which time Warrawoona would have been in production in more than 12 months.

## **11. Project Upside**

Calidus intends to use the permitting window to continue to optimise the Feasibility Study and pursue early works for the project. Calidus considers that significant opportunities exist to reduce costs, particularly with regards to the procurement and installation of the Sulphide Plant and securing 2<sup>nd</sup> hand fixed equipment for the mine and village. In addition, Calidus will also advance off take agreements for concentrate to Letter of Intent stage and tender major scopes of work.

## **12. Information provided in accordance with ASX Listing Rule 5.8.1**

In accordance with ASX Listing Rule 5.8.1 the following information is provided that is material to understanding the report estimates of Mineral Resources

### **Geology and Geological Interpretation**

The Blue Spec gold project lies within the Mosquito Creek Formation, a thick sequence of siliciclastic metasediments comprising dominantly quartz-rich arenites and shales that has undergone multiple periods of deformation. The Mosquito Creek Formation is located within the extensive rhombic Mosquito Creek Basin in the southeastern extent of the Pilbara granite-greenstone terrane (Easterday et al., 2008). The Mosquito Creek Formation is interpreted to be Mesoarchaean in age (Bagas et al., 2008).

Stratigraphy within the basin generally trends east–northeast, with both northwest and north–south trending regional fault orientations exerting major influences on the basin architecture. Intrusive dykes comprising dolerite and hornblende-bearing tonalities are also observed within the basin, while gabbroic sills are a prominent feature along the northern and southern margins of the basin. The Blue Spec line is a clearly defined and mapped, major fault structure that nucleated during north–south oriented regional shortening, upright folding and thrusting along a major anticlinal hinge position. It has undergone multiple periods of deformation (Easterday et al., 2008).

The Blue Spec Shear gold-antimony deposits are interpreted to be epizonal orogenic gold deposits. Gold mineralisation is associated with the Blue Spec Shear Zone that was emplaced during two deformation events. The first event produced a laminated quartz-carbonate vein with minor pyrite, gold and arsenic. The second event overprinted the first with brecciated and recrystallised quartz-carbonate veins containing pyrite, gold and localised concentrations of massive stibnite.

The Blue Spec Shear Zone runs east–west, and can reach 30 m in true thickness. Localised narrow shear splays have been observed bifurcating from the main zone in historically mined void models. Mineralised lodes are steeply dipping, with primary mineralisation located in dilatant jogs in the shear zone.

Interpretations of domain continuity were initially undertaken in Leapfrog 3D software, with mineralisation intercepts correlating to individual domains manually selected, after drill hole core review, prior to creation of a vein model. Interpretation was a collaborative process with CAI geologists to ensure modelling appropriately represented the current understanding of geology and mineralisation controls.

### **Drilling techniques**

Drilling completed by Novo in 2016 comprised RC pre-collars (face sampling hammer), with diamond tail drilling completed using a mix of HQ and NQ tube sizes. A number of the RC pre-collars and diamond tails were stopped short of their target due to excessive hole deviation or poor ground conditions. All collar locations were picked up using DGPS. Continuous downhole surveying was carried out by gyroscope, with recordings taken at approximately 10 m downhole intervals.

Recent (2021) DD holes were drilled by Calidus using an HQ tube size. All collar locations were picked up by licensed surveyors. Continuous downhole surveying was carried out using a REFLEX EZ-GYRO™ instrument, with readings recorded at approximately 10 m downhole intervals.

### Historical Drilling

Historical drilling at Blue Spec and Gold Spec comprises rotary air blast (RAB), RC and DD holes undertaken from the 1970s through to 2016 by Anglo American, Metromar Minerals, Northwest Resources and Novo Resources. Details of historical drilling techniques used by Metromar and Anglo American in the 1970s are not available. RAB and channel samples from the underground workings were not used in the estimate. Half (50%) of the historical drilling used in the estimate was completed by Northwest Resources.

Elevation adjustments were made by Northwest Resources to some pre-2006 drill holes that did not have an RTK (real-time kinematic) survey value to match the 2013 surveyed digital terrain. Only collars that intersected the resource area were adjusted.

### Drilling by Northwest Resources: 2006–2013

Northwest Resources' drilling campaigns consisted of various combinations of stand-alone RC drill holes, RC pre-collars with HQ/NQ diamond tails, HQ with step-down to NQ2 diamond holes drilled from surface, and wedge drilling from HQ diamond parent holes.

RC drill hole collars were surveyed by Northwest Resources personnel using either a hand-held GPS (5 m accuracy) or DGPS (50 cm accuracy) and the orientation and inclination at collar were set out using compass, pegs and tape.

Holes for the 2013 drill campaign were carried out using dual frequency RTK GNSS, with the origin of the survey being NUL24. The MGA control was transferred to Blue Spec in 2005 using RTK and a check was completed on Station NWR1001 using AUSPOS to verify the accuracy of the MGA control (Collin Bebbington, Dip Surv AMS – Grade 1 MSSSI, Cobe Surveys Pty Ltd).

Downhole surveys were taken every 30 m during drilling using an electronic single-shot (REFLEX EZ-SHOT™) instrument. All holes greater than 50 m in length were downhole surveyed.

Ground conditions were generally good, with very good to excellent recovery below the weathering horizon. Deviations were influenced by lithology, with greater deviation in the softer shale units.

### **Sampling and Sub-Sampling techniques**

Drilling of the 16 DD holes by Novo produced core for lithology logging and assaying. Half of the core was sampled, and the remaining half was transferred to permanent storage. The RC samples were obtained by cone splitter (1.5–2.0 kg) and were used for lithology logging and assaying. RC drilling was sampled at 1.0 m intervals. Core samples intervals varied from 0.21 m to 1.86 m based on interpreted lithological contacts, although the majority of samples were in the 1 m range. All Novo collar locations have been surveyed using a DGPS accurate to approximately ±10 mm.

The DD core collected by Novo was NQ or HQ size. Downhole surveying was carried out with a north-seeking gyroscope at approximately 30 m downhole intervals.

Calidus' DD holes in 2021 produced core for geotechnical and metallurgical testing, as well as lithology logging and multi-element assaying. Quarter-core samples were collected across the interpreted zones of Au-Sb (gold and antimony) mineralisation. Assay results from these samples were used to define intervals for metallurgical sampling. For these defined intervals, the remaining three-quarters of each core sample was selected for metallurgical testing. The remaining three-quarters and whole core was transferred to permanent storage. The core was predominantly sampled at 1.0 m intervals, with some sampling adjusted to match geological boundaries.

All recent collar locations have been surveyed using a DGPS accurate to approximately ±10 mm.

The DD core collected by Calidus was mostly HQ size, although part of one hole was drilled using NQ size due to bogging of the HQ rods. Downhole surveying was carried out with a REFLEX EZ-GYRO™ instrument at approximately 10–30 m downhole intervals. All survey readings were recorded using true azimuth.



## Historical Sampling

The metadata pertaining to the sampling methods of drill holes prior to 2006 are unknown.

### Sampling by Northwest Resources: 2006–2013

The 2011–2012 drilling program was conducted by NDRC Drilling Pty Ltd using a Romatech RT50 rig with a 4-inch rod string. Samples were collected by a downhole face-sampling hammer, with drill chips passed through a cone splitter with a 25/75 split ratio. The 25% split was captured in a calico bag for analysis, and the remainder was collected in green plastic bags and laid in rows adjacent to the hole collar. The sample intervals were determined by the geologist, with 1 m samples taken over the zone of interest, and 4 m composite samples for the remainder of the hole.

RC samples were logged from the chip trays at the end of each hole using the same data input template as the DD holes. The RC drilling method does not enable structural and geotechnical information to be preserved/recorded.

Diamond drilling in 2013 was completed by Titeline Drilling Services using a two-track mounted UDR-200 rig with HQ and NQ core diameters.

The DD core was marked up and oriented by field assistants and verified by the geologist. Core recovery, hardness and rock quality designation (RQD) were measured and recorded by field assistants. Geological data (colour, weathering, regolith, lithology, alteration, veining, mineralogy), structural data (alpha/beta) and geotechnical data (fractures, veining) were logged by geologists onto paper logs and imported into a DataShed/SQL database.

Drill core was selectively whole-core sampled at intervals determined by the geologist. Wide zones of interest were sampled at 1 m intervals broken down by geological contacts, with all vein material and strongly mineralised sections sampled at intervals typically between 0.3 m and less than 1 m.

Geological information was thoroughly documented and photographed with the remaining unsampled hole stored on site. Samples are securely transported to the laboratory and regularly monitored for quality control issues. The historical mining information provides additional validation that the grades and mineralisation intercepted are within expectations.

### **Sample Analysis method**

Novo's DD and RC samples were submitted to Genalysis (Perth) for analysis. Samples were dried, crushed and pulverised to 90% passing 75 µm. They were then split to a 50 g charge weight for fire assaying. These were then analysed by AA (to 0.005 ppm Au detection limit).

Calidus' recent DD samples were submitted to Bureau Veritas (Perth) for analysis. Samples were dried, crushed and pulverised to 90% passing 75 µm. They were then split to a 40 g charge weight for fire assaying and were analysed for gold by AAS (to 0.01 ppm Au detection limit).

## Historical Analysis

Information regarding analysis methodology was not available for drilling prior to 2006.

### Analysis by Northwest Resources: 2006–2013

Whole-core samples were submitted in lengths between 0.3 m and 1.2 m. Samples were then crushed to 2 mm, by ALS Metallurgy, Perth. A 100 g split was taken for geochemistry analysis at ALS Geochemistry, Perth; the remainder of the sample was retained for metallurgical testwork.

Geochemistry splits (100 g) were pulverised to greater than 80% passing the 75 µm sieve. All bulk and pulp rejects were retained at ALS Metallurgy and ALS Geochemistry.

High-grade gold-antimony mineralisation can create issues for both metallurgy and fire assay. During the assay process, to get a representative antimony determination in highly mineralised samples (>1% Sb), SGS Laboratories halved the charge weights to 15 g. While doing so achieved a more accurate antimony determination, it was noted that the gold values decreased as a result. Subsequent research and discussions with several geochemists on gold-antimony mineralisation indicated that the flux generally needs to be adjusted to accommodate this mineralisation type. High antimony values may cause cracking of the cupel, resulting in low gold recovery or the formation of speiss, which will preferentially absorb gold.

Initial testwork by Genalysis using a variation of the 'nitre assay method' indicated that on average there is an 8% increase in gold values. While still preliminary, this work has shown a potentially significant increase with respect to gold grades and will be investigated further.

Certified reference materials were submitted with all sample data to provide quality control and assurance of assay results. During the period from 2005 to 2010, an alternating low-grade and high-grade gold standard was inserted every 50 samples per batch.

From 2010 onwards, the frequency of standards insertion was increased to one in 10 to 20 samples, and certified blank reference materials were also included in the standards rotation. No field duplicates have been submitted due to whole-core sampling protocols. ALS Laboratories also included its own internal standards, blanks and duplicates as part of its internal quality control program. No antimony standards were submitted.

It has been noted that the 'high grade' standards are low for this deposit and higher-grade standards should be sourced for future analysis. These should include at least one standard at the expected run-of-mine grade (~30 g/t).

Quartz flushes are inserted by the laboratory between each sample, with a double quartz flush used between high-grade samples to reduce contamination of lower-grade samples.

Assay results of standards are considered appropriate if they are within three standard deviation limits as defined by the standards' certification.

### **Estimation Methodology**

A two-dimensional (2D) Ordinary Kriging interpolation approach was selected for the domains to address some of the main issues encountered when estimating narrow vein mineralisation, such as Blue Spec and Gold Spec, which were:

- Additivity issues due to non-uniform support and resulting grade bias – there are instances of highly variable individual intercepts (e.g., 0.14 m to 4.8 m) which would be difficult to incorporate and represent statistically using downhole composites of equal lengths (e.g., 0.5 m, 1.0 m or 2.0 m); and
- Varying mineralisation geometry across lode, down dip and along strike.

Assumptions discussed and tested during the estimation include:

- Assumption of intrinsic correlation between grade and true width (TW) was tested and met during variogram analysis; and
- 2D estimation technique assumes full horizontal extraction of the modelled vein.

The 2D interpolation approach used for the MRE varies from a 3D approach in that estimation of both an accumulation variable (intercept gold, antimony composite multiplied by TW) and the TW variable is undertaken in a 2D plane using identical variogram and search parameters to ensure consistency for subsequent back-calculation of gold block grades.

The RC and DD samples were composited for the full width of the domain intercept, followed by trigonometric calculation of TW using the orientations of the drill hole intercept and ore domain defined by the Leapfrog reference (midpoint) surface. Gold and antimony accumulation variables were then calculated by multiplying the intercept grade by TW.

Channel samples, RAB drilling and water bore drill holes were excluded from all compositing processes and subsequently the MRE outcomes.

Composited sample data were transformed (grid rotation removed) before being pressed onto a cartographic plane and statistical analysis was undertaken on accumulation, width and grade variables. The use of further sub-domaining of composite data by weathering or hole type, for the purposes of interpolation, was not supported by statistical and spatial analysis.

Assessment of top-capping for the 2D estimate was undertaken on the gold and antimony accumulation variables and applied on an individual domain basis.

Geostatistical analysis was undertaken in Supervisor software on the capped, declustered accumulation variables in 2D space for the combined Blue Spec mineralisation domains and single Gold Spec mineralisation domain, with robust omnidirectional variogram models delineated and search neighbourhoods optimised by Quantitative Kriging Neighbourhood Analysis (QKNA). These parameters were applied to their respective low-grade halo domains.

Ordinary Kriging (OK) grade interpolation of capped gold accumulation and TW was undertaken in 2D space using OK (GEOVIA Surpac™) at the parent cell size of 10 m × 10 m (no sub-celling). Considerations relating to appropriate block size include drill hole data spacing, conceptual mining method (selective mining unit analysis), variogram continuity ranges and search neighbourhood optimisations.

The mineralisation interpretation was used as a hard boundary for volume delineation.

Once the 2D interpolation was optimised and validated, gold parts per million (ppm) and antimony per cent values for each block were calculated by dividing interpolated accumulation by interpolated TW, whereby for each block:

- Block gold ppm = Block gold accumulation value/Block TW value;
- Block antimony percent = Block gold accumulation value/Block TW value; and
- Back-calculated gold and antimony ppm values for each block were transformed from 2D to 3D space and pressed across the full width of the corresponding domain in the final host 3D compilation model.

The 3D block model was coded with density, depletion and classification prior to global and local validations and evaluation for Mineral Resource reporting.

Validation of the gold and antimony accumulations, TW estimations and back-calculation was completed by global and local bias analysis, statistical and visual inspections in 2D and 3D space.

Only DD and RC data were used during the estimation. Average sample spacing is variable, ranging from 10 m × 10 m in areas of historical mining to a nominal 20 m × 20 m in the upper portions of the underground resource and 50 m × 50 m at depth (approximately below 300 mRL).

A check estimate in 2D was undertaken for all domains using Inverse Distance Squared and gold and antimony accumulation. The check estimate results were on average the same as the OK estimate, although there was variability between domains (-18% to +17% for gold and -14% to +13% for antimony).

### **Criteria used for Classification**

Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, historical mining activity, as well as metal distribution.

**Indicated** Mineral Resources were defined where a moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:

- blocks were well supported by drill hole data, with drill spacing averaging a nominal 30 m or less, or where drilling was within 20 m of the block estimate;
- diamond drill core showed strong continuity of vein and mineralisation style and intensity of deformation; and
- blocks were interpolated with a neighbourhood informed by a minimum of four samples.

**Inferred** Mineral Resources were defined where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:

- drill spacing was averaging a nominal 50 m or less, or where drilling was within 50 m of the block estimate; and
- blocks were interpolated with a neighbourhood informed by a minimum of two samples.

Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. The MREs do not account for selectivity, mining loss and dilution. This MRE update includes Inferred Mineral Resources which are unable to have economic considerations applied to them, and there is no certainty that further sampling will enable them to be converted to Measured or Indicated Mineral Resources.

The reported Mineral Resource for underground was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 840 m and 450 m below surface at Blue and Gold Spec, respectively.

Upper limit constraints on the Indicated Mineral Resources were demarcated by the historical underground voids (remnant areas) at 311 m from surface (54 mRL) at Blue Spec and 115 m from surface (255 mRL) at Gold Spec.

In these remnant areas of the deposits Mineral Resources were classified as Inferred and extended to surface. Inferred material excluded all historically mined voids and also blocks within 5 metres of a void. In the opinion of Entech, the supplied topography survey, pit void extents and historical underground voids appropriately represent the pit excavation and underground workings.

Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resource remained unclassified. No estimation or assumptions with respect to deleterious elements, non-grade variables or by-products was made.

### **Cut-off grades**

The cut-off grade for reporting of underground global gold and antimony Mineral Resources at Blue Spec Gold Spec uses an NSR of A\$240/t which is approximately 80% of the Mining Feasibility Study break-even value. The NSR cut-off takes revenue from the gold and antimony metals and offsets to site operating and sustaining capital costs, including underground operating development, into account. Metallurgical recoveries are factored in the NSR calculation. The gold and antimony metal components of the NSR calculation all have reasonable potential of being saleable.

The NSR calculation adjusts individual grades for all metals included in the calculation by applying the following modifying factors, further outlined in Section 13:

- Metal Prices;
- Metallurgical Recoveries; and
- Payability factors inclusive of concentrate treatment charges, refining charges, metal payment terms, NSR royalties and logistic costs.

### **Mining and Metallurgical methods and parameters**

Mining and Metallurgical methods as well as other modifying factors considered are listed in the following Section 13.

## **13. Information provided in accordance with ASX Listing Rule 5.9.1**

In accordance with ASX Listing Rule 5.9.1 the following information is provided that is material to understanding the report estimates of Ore Reserves

### **Material Assumptions**

The Ore Reserve statement is based on modifying factors including geotechnical, metallurgical hydrogeological, hydrological, environmental and cost estimates. These are derived from various discrete studies undertaken by specialised consultants, in particular technical area as listed below:

- Geotechnical - Peter O'Bryan and Associates;
- Mineral Resource Estimate – Entech;
- Mining Studies – Entech;
- Metallurgy – GRES, BV, Metallurgical Management Services;
- Processing Plant – GRES, Metallurgical Management Services;
- Concentrate Marketing – AFX Commodities; and
- Environmental Baseline Studies – CDM Smith, ERC Consultants, Woodgis, SRK Consulting, Njamal Heritage, Sticks and Stones Cultural Resources Management, Bennelongia, Carrick Consulting, Terrestrial Ecosystems, Bat Call WA, Terrenus Earth Sciences.

A portion of the Blue Spec Gold Project Indicated Resource has been converted to a Probable Ore Reserve subject to various studies undertaken as part of the Feasibility Study detailed in this announcement. The status of the modifying factors are considered sufficient to support the classification of the Probable Reserve when based upon the Indicated Resource. The Blue Spec Reserve represents 14% of the overall Warrawoona Reserve.

In addition to the above the following basis of estimate is noted:

- The Sulphide Process Plant Capital Cost and Operating Cost was completed by GR Engineering Services Ltd (**GRES**);
- Labour, flights, accommodation, power, reagent costs were based on actuals from the operating Warrawoona Gold Project;
- An independent marketing consultant was used to request non-binding commercial terms to purchase the Concentrate products produced by the Sulphide Plant from a number of potential offtake partners;
- The mining cost model is a first principle cost model which assumes an owner mining scenario. Entech developed the cost model based on inputs from Original Equipment Manufacturers, non-binding request for pricing and the Entech database which were adjusted for inflation;
- Gold price used was based on a gold price of A\$2,500/oz;
- Antimony price was based on the average price for 2022;
- Diesel price was based on current terminal gate prices, net of rebate; and
- Power costs were obtained on a non-binding request for proposal basis

### **Criteria for classification**

The Mineral Resource Estimate (**MRE**) used as a basis for the conversion to an Ore Reserve was calculated by the Competent Person and is included in this announcement. Inputs derived from the Feasibility Study, such as payability, metallurgy recovery were used to report the MRE.

### **Cut-off Grade**

A NSR was used to calculate cut off grades. The NSR takes revenue from the gold and antimony metals allowing for metallurgical recoveries and payabilities for each and then offsets royalties, shipping and smelter deductions (penalty elements).

### **Mining Assumptions**

Detailed optimisations and mine designs were carried out by Entech.

Based on geotechnical advice, the geometry of the orebody and the high-grade small volume nature of Blue Spec, a mechanised cut-and-fill mining method was selected. There are four x 4 mH lifts in each panel (total panel height 16m). Three lifts will be extracted using jumbo development techniques with the top lift finally back-stripped on retreat. Cemented rockfill (**CRF**) will be placed in the bottom lift to allow stoping underneath, with uncemented rockfill used elsewhere.

### **Metallurgical Assumptions**

An overall gold recovery of 95% has been applied based on test work completed as part of the Feasibility Study. The Sulphide Plant produces two concentrates, with the float plant tails then leached to recover additional gold by cyanidation. The respective recoveries are 83% via the Stibnite concentrate, an additional 9% via the Sulphide concentrate and a final 3% via leaching of the float plant tails for a combined 95% recovery.

### **Environmental**

Environmental approvals have already been received which allows for the construction of the Sulphide Float Plant. All baseline studies have been completed for Blue Spec and respective applications submitted. These are the Mining Proposal and Mine Closure Plan submitted to DMIRS, and the water abstraction license (required to dewater the historic underground workings) submitted to DWER.

As part of its commitment to remediate legacy issues at Blue Spec, Calidus has already completed asbestos remediation works and has committed to capping a historic tailings dam with fresh rock from underground during operations.

### **Tenure**

All deposits are situated on granted Mining Leases. A Mining Lease permits mining operations in accordance with its conditions.

## **Transport**

### ***Blue Spec Ore***

Blue Spec ore will be hauled uncrushed to the Warrawoona sulphide plant for crushing and treatment.

### ***Concentrate***

Transport, shipping and smelting costs for concentrate used were based on non-binding indicative terms provided by potential purchasers for the concentrate.

### ***Dore***

Transportation of gold dore' to market will be via charter aircraft utilised for transporting company personnel to Perth.

## **Infrastructure**

The infrastructure required for the operation of Blue Spec will include the following:

- Upgrade of Access road;
- Installation of an accommodation village;
- Communications network and IT facilities;
- Transportable buildings including site offices, change rooms, crib rooms and ablutions;
- Workshop facilities
- Fuel storage and distribution facility;
- Electrical power generation;
- Power reticulation across the project site;
- Water supply including bores providing water potable supplies;
- Light vehicles and mobile equipment;
- Potable water treatment; and
- Wastewater treatment.

## **Notes Specific-ASX Announcements**

The following announcements were lodged with the ASX and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Announcement can be found in the following releases. Note that these announcements are not the only announcements released to the ASX but specific to resource reporting on the Blue Spec Gold Project. The Company confirms that it is not aware of any new information or data that materially affects the information on the Project and in the case of the MRE, that all material assumptions and technical underpinning the estimates in the previous announcements continue to apply and have not materially changed.

- ASX Announcement 21 September 2022 “Annual Report to shareholders”
- ASX Announcement 2 June 2022 “Strong drill results show potential open pit at Blue Spec”
- ASX Announcement 23 March 2021 “Blue Spec Project set to significantly increase production”
- ASX Announcement 29 September 2020 “Feasibility Study paves the way for construction of Warrawoona”
- ASX Announcement 21st September 2020 “Calidus to acquire high-grade Blue Spec gold mine”

The Company confirms that it is not aware of any new information or data that materially affects the information included in previous market announcements and, the case of that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.

## **Competent Persons Statement**

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Steve Sheppard a competent person who is a member of the AIG (Member #5290). Steve Sheppard is employed by Calidus Resources Limited and holds shares and options in the Company. Steve has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Steve Sheppard consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

The information in the report to which this statement is attached that relates to the estimation and reporting of underground gold Mineral Resources at the Blue Spec and Gold Spec deposits is based on information compiled by Mr Timothy Holmes BSc, a Competent Person and a current Member of the Australian Institute of Geoscientists (MAIG 7935). Mr Holmes, Senior Geologist at Entech Pty Ltd, is an independent consultant to Calidus Resources Ltd (CAL) and has sufficient experience relevant to the style of mineralisation and deposit type under consideration and to the activities being undertaken 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 Holmes consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

The information in this report that relates to the Underground Ore Reserves is based on and fairly represents information compiled or reviewed by Mr Matthew Keenan. Mr Keenan is a full time employee of Entech Pty Ltd. Mr Keenan has confirmed that he has read and understood the requirements of the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Keenan is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is accepting responsibility. Mr Keenan is a Member of the AusIMM and has provided his prior written consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **Forward Looking Information**

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Statements regarding plans with respect to the Company’s mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code 2012 Edition and the ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts based on all information disclosed in this announcement.

This announcement has been authorised for release by the Board.

### **For further information please contact:**

**Dave Reeves**

Managing Director



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**JORC Code, 2012 Edition – Table 1 – Blue Spec Deposit**  
**Section 1 Sampling Techniques and Data**

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Sampling techniques</b>	<i>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.</i>	The Blue Spec deposit has been sampled entirely by diamond drill (DD) holes on nominal 30x40m spacing. Gold Spec as sampled by combination of reverse circulation (RC), at shallow vertical depths and DD holes on deeper sections of the lodes. Diamond core samples had a minimum sample length of 0.35m, a maximum of 1.4m, with a 1m default length. Sample intervals were defined by geological boundaries, considering rock types, alteration, veining, and sulphide abundance.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	All defined mineralised zones from DD holes were logged in detail by the geologist and marked up for whole core sampling, including 1-2m of wall rock material either side of mineralised zones. Samples ere then crushed, split and pulverized to produce a 30g charge for fire assay prior to 2103 and 50g post 2013. For the 2021 campaign, the remaining bulk reject was sent to MinAnalytical Laboratories in Perth, for a 500g split analysis by Photon Assay technique. RC samples for Gold Spec were logged and sampled in 1m splits in mineralised zones or zones of interests.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	All aspects of the determination have been discussed above.
<b>Drilling techniques</b>	<i>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).</i>	Diamond drilling was undertaken with track-mounted UDR200 rigs, standard tube, HQ diameter to 100m (Blue Spec), 60m (Gold Spec), and NQ2 to EOH at both deposits. All NQ2 core was oriented every run using Ace ACT tool. RC drilling was undertaken using standard gear with a down-hole face sampling bit and associated compressor to keep samples dry.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Core recovery and core loss measures were recorded by the field assistant and verified by the geologist. Core recovery percentage is calculated in the drilling database. Core recovery is good to excellent below the weathering horizon with no major core loss through ore zones.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No additional measures were required to maximise recovery
	<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>	No correlation has been demonstrated between sample weights as measured by the laboratories and grade.
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation,</i>	Geological information (colour, weathering, regolith, lithology, texture, alteration, veining, mineralogy, structure, vein and fracture intensity) was logged by the geologist. Core recovery and RQD were logged by the field

Criteria	JORC Code explanation	Commentary
	<i>mining studies and metallurgical studies.</i>	assistant. Geotechnical information (fracture intensity, roughness, alteration) was logged by the geologist pre 2013 and by a dedicated geotechnical engineer in 2021. Geotechnical information was measured for each drilling run (0.1-3.1m intervals), and every meter from 40m outside ore zones to end of hole. All core was photographed dry and wet.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging drill core was predominately qualitative in nature, although vein and sulphide percentages were estimated visually. All core trays were photographed after logging.
	<i>The total length and percentage of the relevant intersections logged.</i>	All recovered intervals were geologically logged.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Prior to 2013, core was whole-core sampled, 0.3-1.2m length. All defined mineralised zones, and 1-2m of wall rock outside ore zones are sampled. For the 2021 program the core was quarter cored.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	RC samples were collected from the full recovered interval each metre at the drill rig by a cone splitter. A split, comprising roughly 1/8 of the drilled interval, was collected each metre into a pre-labelled calico bag.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<p>Pre 2013, core samples underwent crushing to &lt;2mm by ALS Metallurgy, Perth with a 100g split for pulverising to &gt;80% passing 75µm; the remainder of the crushed sample was retained for metallurgical test work. The pulverised sample was split to obtain a 30g charge for assay by ALS Geochemistry, Perth. All pulps and rejects were retained at ALS Metallurgy and ALS Geochemistry.</p> <p>Samples from the 2016 drilling were submitted to Genalysis (Perth) for analysis. Samples were dried, crushed, and pulverised to 90% passing 75 µm. They were then split to obtain a 50 g charge for fire assay. These were then analysed by AA (to 0.005 ppm Au detection limit).</p> <p>In 2022, samples submitted to Bureau Veritas (NATA accredited for compliance with ISO/IEC17025:2017) for Fire Assay were dried at 105°C, and crushed to a nominal top size of 3mm, (samples &gt;3kg were riffle split), pulverised to 85% passing 75 µm, and a 50g split obtained for Fire Assay and AAS finish.</p> <p>Samples submitted for photon assay to MinAnalytical Laboratory Services Australia Pty Ltd (NATA accredited for compliance with ISO/IEC17025:2005) were oven dried and crushed to a nominal top size of 3mm, (samples &gt;3kg were riffle split), and 500g linear split (PAP3512R) placed into a jar for photon assay (PAAU2).</p> <p>The larger sample size used for photon assay (compared with 50g for Fire Assay)</p>

Criteria	JORC Code explanation	Commentary
		ensures a more representative assay in systems characterised by coarse gold, as identified in the core from Blue Spec.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	No independent QAQC was utilised. QAQC practices adopted were those of the analysing laboratories comprising Certified Reference Material and blanks at a rate of 2 for every 25 samples submitted.
	<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>	Post 2013, field duplicates of RC samples were collected at a rate of 1 in 40. For drill core, no field duplicates were taken, but bulk reject from the primary Fire Assay was sent for confirmatory Photon Assay analysis.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Drill core of NQ or HQ diameter is considered appropriate for sample collection. Quarter core is the minimum sample volume acceptable for core of this diameter.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Pre 2017, Au assays were determined by fire assay/AAS finish based on 30g sample; As, Sb, Fe, S assays determined by aqua regia/ICP-MS finish at ALS Geochemistry, Perth. All Sb assays >1% re-assayed by XRF at ALS Geochemistry, Brisbane.  In 2021, Photon assays were carried out by MinAnalytical. Gold can be measured even if it has not been liberated from the sample material. Photon assay for a ~500g sample has a nominal lower detection limit of 0.03g/t Au which was considered to be appropriate for this style of mineralisation and a total analysis.
	<i>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.</i>	No such tools were used in the preparation of this release.
	<i>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.</i>	QAQC comprised the laboratories own internal standards and external laboratory checks with the use of both Bureau Veritas and MinAnalytical. The repeatability between laboratories has established acceptable levels of precision.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	On receipt of assay results from the laboratory, the results were verified by the Geological Database Manager and by the Regional Exploration Manager who compared the results with geological logging. Significant intercepts have been reviewed in the available data by senior geological staff at Calidus.
	<i>The use of twinned holes.</i>	No twinned holes were drilled.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Pre 2017, all data was captured on paper logs and entered into Datashed/SQL database with built-in validation.  In 2021, geological data was logged into Excel spreadsheets on a Toughbook

Criteria	JORC Code explanation	Commentary
		<p>computer at the core preparation facility for transfer into the drill hole database.</p> <p>DataShed is used as the database storage and management software and incorporated numerous data validation and integrity checks using a series of predefined relationships. All original planned data was retained in DataShed for validation purposes.</p>
	<i>Discuss any adjustment to assay data.</i>	Adjustments made to the assay data were limited to the replacement of below detection results with a negative value.
<b>Location of data points</b>	<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>	Drill hole collars were surveyed using a DGPS (with 50cm accuracy for eastings and northings). Downhole surveys were carried out by drilling contractors generally every 30m using a Reflex multi-shot camera or EZ-GYRO.
	<i>Specification of the grid system used.</i>	The grid system used is MGA94 Zone 51. All coordinates in this release refer to this grid system.
	<i>Quality and adequacy of topographic control.</i>	Topographic control provided by UAV photogrammetry using a DJI Phantom 4 RTK drone with a 2cm vertical and 1.25cm horizontal accuracy.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	This drilling does not form the basis of or change the classification of the Mineral Resource estimation but has increased data density in existing classified Mineral Resources.
	<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>	This drilling does not form the basis of or change the classification of the Mineral Resource estimation but has increased data density in existing classified Mineral Resources.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied during data collection.
<b>Orientation of data in relation to geological structure</b>	<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>	<p>The gold/antimony mineralisation identified to date consists of a main mineralised shear at each project area, and smaller footwall and hangingwall lodes, all striking approximately 260° and dipping steeply (80°–85°) to the south.</p> <p>The drilling at Blue Spec and Gold Spec was oriented approximately perpendicular to the strike of mineralisation and at as high an angle as possible to the dip of the main mineralised lodes, given the limited drilling positions resulting from the high topographic relief and target depths required; in an attempt to achieve unbiased samples.</p>
	<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>	No sampling bias has been identified in the relationship between drilling orientation and orientation of key structures.

Criteria	JORC Code explanation	Commentary
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	<p>Pre 2017, samples were delivered to ALS laboratories by Toll Ipec (ex Newman) or Nor- West Freight (ex Nullagine). No additional security measures were undertaken.</p> <p>In 2021, all core was strapped to pallets with a lid covering the top trays. The pallets were picked up from the Blue Spec core processing area and transported to Bureau Veritas in Perth using a reputable freight company. Bureau Veritas received and placed the core trays on racks within their facility which was then inspected by representatives from Calidus. The samples at Bureau Veritas in Perth are kept in a secured building with restricted entry. Bureau Veritas operates an audit trail for every sample whilst in their custody.</p>
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	The program and data were reviewed by senior company personnel.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary									
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	<p>The Blue Spec deposit is situated in the East Pilbara District of the Pilbara Goldfield of Western Australia, approximately 20km ENE of the town of Nullagine. The Project comprises mining licence M45/115 which is beneficially held 100% by Calidus Blue Spec Pty Ltd a wholly owned subsidiary of Calidus Resources Limited.</p> <p>M46/115 is a pre-native title granted mining lease and is not subject to the right to negotiate provisions of the Native Title Act.</p> <p>M46/115 is subject to a royalties held by St. Barbara Limited and RSI (WA Gold) Pty Ltd.</p>									
	<i>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.</i>	<p>The tenements are in good standing and no known impediments exist.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Tenement ID</th> <th style="text-align: left;">Holder</th> <th style="text-align: left;">Size (ha)</th> <th style="text-align: left;">Renewal</th> <th style="text-align: left;">Ownership/Interest</th> </tr> </thead> <tbody> <tr> <td>M46/115</td> <td>Calidus Blue Spec Pty Ltd</td> <td>113.10</td> <td>3/2/2033</td> <td>100%</td> </tr> </tbody> </table>	Tenement ID	Holder	Size (ha)	Renewal	Ownership/Interest	M46/115	Calidus Blue Spec Pty Ltd	113.10	3/2/2033
Tenement ID	Holder	Size (ha)	Renewal	Ownership/Interest							
M46/115	Calidus Blue Spec Pty Ltd	113.10	3/2/2033	100%							
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Modern exploration has been undertaken by several companies from the mid-1970s to the present day. During this period Anglo-American, Mulga Mines, Metramar Metals, Australian Consolidated Minerals Ltd, MinProc, Chase Minerals, Fimiston Mining and NorthWest Resources all conducted exploration in the Blue Spec area. Exploration included drilling, geological mapping, bulk sampling, underground sampling, soil sampling, aeromagnetic surveys, aerial photography, resource modelling/calculations and petrology.</p>									
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>M46/115 lies within metasedimentary rocks of the 2980-2930 Ma Mosquito Creek Basin. Gold deposits across the basin largely consist of epizonal, quartz-vein hosted Au±Sb mineralisation associated with flexures or oblique cross-cutting structures of the main E- to ENE-trending shear zones. The deposits at Blue Spec and Gold Spec are very high-grade, narrow quartz lodes.</p>									
<i>Drill hole Information</i>	<p><i>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:</i></p> <p><i>easting and northing of the drill hole collar</i></p> <p><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p> <p><i>dip and azimuth of the hole</i></p> <p><i>down hole length and interception depth</i></p>										



Criteria	JORC Code explanation	Commentary
	<i>hole length.</i>	
<i>Data aggregation methods</i>	<i>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.</i>	No data aggregation methods have been applied to these exploration results.
	<i>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.</i>	High-grade gold intercepts within broader, lower grade intercepts are reported as included intervals.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents values are used for reporting of exploration results.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The mineralisation at Blue Spec and Gold Spec appears to be associated with shearing, veining and alteration and dips at approximately 80°. The drill holes have dips of close to 55° when piercing the mineralisation and should, therefore, intersect the mineralisation at a moderate angle. Reported downhole widths will be longer than the true widths.
<i>Diagrams</i>	<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>	No maps and sections have been included in the body of the report because no significant new discoveries are being reported.
<i>Balanced reporting</i>	<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>	No exploration results are included in this announcement.
<i>Other substantive exploration data</i>	<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>	All meaningful and material data pertinent to this announcement are included in the body of the announcement.

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further work will involve infill drilling to increase confidence in the Inferred Mineral Resource, testing of along strike and down-plunge continuations to the current mineralisation and the possible locations of higher-grade ore shoots, and to test the extent of the remnant mineralisation around historic mining voids in the upper parts of the orebody.
	<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>	Diagrams are contained in this announcement.

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	<p>For drilling completed by Calidus, drill data was collected in the field and stored in Excel spreadsheets. This was then checked, validated and imported to a DataShed database by the group Geological Database Manager. Unique sample numbers and pre-numbered calico sample bags were used. Sample intervals were determined by the geologists in the field and are generally at 1m intervals.</p> <p>Geological metadata is centrally stored in Calidus' Perth office and is managed in DataShed software. The database was updated as new data and sent to Perth from the field. Historical data is kept in an MS Access database, which is an extract from an earlier version DataShed database.</p>
	<i>Data validation procedures used.</i>	<p>Database checks were completed and included the following:</p> <ul style="list-style-type: none"> <li>• Checking for duplicate drill hole names and duplicate coordinates in the collar table.</li> <li>• Checking for missing drill holes in the collar, survey, assay and geology tables based on drill hole names.</li> <li>• Checking for survey inconsistencies including dips and azimuths &lt;0°, dips &gt;90°, azimuths &gt;360° and negative depth values.</li> <li>• Checking for inconsistencies in the 'From' and 'To' fields of the assay and geology tables. The inconsistency checks included the identification of negative values, overlapping intervals, duplicate intervals, gaps and intervals where the 'From' value is greater than the 'To' value.</li> </ul> <p>Database checks were conducted in MS Access, Leapfrog and Surpac™ Mining software.</p> <p>Calidus has suitable processes and due diligence in place to ensure acceptable integrity of the drill hole data that underpins the Mineral Resource. Entech used the drill hole data as supplied and undertook independent checks for fatal flaw data audits and visual verification as part of Entech's due diligence process.</p> <p>The drill hole data, as supplied by Calidus, was considered suitable for underpinning Mineral Resource estimation of global gold ounces and incorporated drilling results available up to and including 31 August 2021.</p>
<b>Site visits</b>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	Entech did not conduct a site visit.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	Entech determined that no site visit was required as historical workings are inundated and therefore inaccessible. In addition, the core yard at Blue Spec has reportedly been vandalised, although core photographs of more recent drill holes (2000 onwards) have been recorded.
<b>Geological interpretation</b>	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	<p>Entech was supplied with an MS Access database 'Calidus_blue_spec.mdb'.</p> <p>Factors which limit the confidence of the geological interpretation include a limited understanding of structural controls on mineralisation and therefore plunge control on the high-grade component of the mineralisation.</p> <p>Factors which aided the confidence of the geological interpretation included historical geological mapping, good understanding of the regional structural controls, available orientated drill core, analysis of lithological, veining and alteration controls.</p>

Criteria	JORC Code explanation	Commentary
		Entech considers confidence for the geological interpretation, geometry and continuity of the structures that support the MRE is high. Mineralisation is predominantly contained in quartz veins in the sedimentary units. RC and DD holes to date supports the geometry and continuity implied in the MRE.
	<i>Nature of the data used and of any assumptions made.</i>	<p>Mineralisation interpretations were informed by 52 RC and 102 DD holes (inclusive of RC holes with diamond tails).</p> <p>Mineralisation within the quartz host lithology was based on a combination of geological logging (veining percentage), antimony content and visual identification of structural deformation (where drill core photographs exist), and a nominal cut-off grade of 0.5 g/t gold. Surrounding the host lithology, low-grade halo sub-domains could be determined by lower quartz vein percentage, less deformation of the surrounding sedimentary country rock and often lower antimony grades.</p> <p>Seven mineralisation domains were interpreted at Blue Spec (five of these with low-grade halo sub-domains) and one mineralisation domain at Gold Spec (with a low-grade halo sub-domain).</p> <p>Within the mineralised wireframe, if an intercept fell below the nominal cut-off but continuity was supported by geological veining/alteration, the intercept was retained for continuity purposes due to the commodity and the style of deposit.</p>
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	The mineralisation at Blue Spec and Gold Spec is constrained within quartz veining in strongly deformed sediments along the Blue Spec shear. Historical mining voids confirm the geometry and continuity of the current interpretation.
	<i>The use of geology in guiding and controlling Mineral Resource estimation.</i>	Core photographs for 70 DD core or DD core tailed drill holes intersecting the mineralisation domains are available for review. High gold and antimony grades were commonly associated with massive laminated and brecciated quartz-carbonate veins, increased stibnite and other sulphides and strong deformation of sedimentary host rock.
	<i>The factors affecting continuity both of grade and geology.</i>	Gold and antimony show a positive correlation, and similar ranges of maximum variability. To date, no truncating structures have been identified along strike or down dip.
<b>Dimensions</b>	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	<p>Mineralisation domains in Blue Spec (seven domains in total, five with low-grade halo sub-domains) extend over a 350 m strike length. Lode widths are highly variable and range from 0.5 m to 4 m. The Mineral Resource extends 885 m from the surface (365 mRL) to a lower limit of -520 mRL.</p> <p>The mineralisation domain in Gold Spec (one domain with a low-grade halo sub-domain) extends over a 480 m strike length. Lode widths are highly variable and range from 0.3 m to 11 m. The Mineral Resource extends 450 m from the surface (370 mRL) to a lower limit of -80 mRL.</p> <p>Mineralisation within the model which did not satisfy the classification criteria for Mineral Resources remained unclassified.</p>
<b>Estimation and modeling techniques</b>	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer</i>	Interpretations of domain continuity were undertaken in GEOVIA Surpac™ software, with mineralisation intercepts correlating to individual domains manually selected prior to creation of a vein model using Leapfrog Geo implicit modelling software.

Criteria	JORC Code explanation	Commentary
	<p><i>assisted estimation method was chosen include a description of computer software and parameters used.</i></p>	<p>A two-dimensional (2D) Ordinary Kriging (OK) interpolation approach was selected for the lodes, to address some of the main issues encountered when estimating narrow vein mineralisation, such as those at Blue Spec/Gold Spec, which were:</p> <ul style="list-style-type: none"> <li>• additivity issues due to non-uniform support and resulting grade bias; instances of highly variable individual intercepts (e.g., 0.14 m to 4.8 m) which would be difficult to incorporate and represent statistically using downhole composites of equal lengths (e.g., 0.5, 1.0 or 2.0 m)</li> <li>• varying mineralisation geometry across lode, down dip, and along strike.</li> </ul> <p>RC and DD samples were composited for the full width of the domain intercept, followed by trigonometric calculation of true width (<b>TW</b>) using the orientations of the drill hole intercept and ore domain defined by the Leapfrog reference (midpoint) surface. A gold accumulation variable was then calculated by multiplication of intercept grade by TW.</p> <p>Samples from rotary air blast (<b>RAB</b>) and water bore drill holes were excluded from all compositing processes and subsequently the MRE outcomes.</p> <p>Composited sample data was transformed (grid rotation removed) before being pressed onto a cartographic plane and statistical analysis undertaken on accumulation, width, and grade variables, to assist with determining estimation search parameters, top-cuts, etc.</p> <p>Variography analysis of individual domains was undertaken on capped and de-clustered gold and antimony accumulation variables in 2D space, followed by Quantitative Kriging Neighbourhood Analysis to assist with determining appropriate search parameters.</p> <p>The 2D block models for interpolation were created using a block size of 10 mN × 10 mE × 1 mRL with no sub-celling. Considerations relating to appropriate block size include drill hole data spacing, conceptual mining method (SMU analysis), variogram continuity ranges and search neighbourhood optimisations.</p> <p>Grade interpolation of cut gold and antimony accumulation and TW was undertaken in 2D space using OK (GEOVIA Surpac™) at the parent cell size. The mineralisation interpretation was used as a hard boundary for volume delineation.</p> <p>No assumptions were made for metallurgical recovery applied in the MRE or reporting process.</p> <p>After estimation: Gold ppm and Antimony ppm values for each block were calculated by dividing interpolated gold accumulation by interpolated TW, whereby for each block:</p> <ul style="list-style-type: none"> <li>• Block gold ppm = Block gold accumulation value/Block TW value</li> <li>• Block antimony ppm = Block gold accumulation value/Block TW value</li> <li>• Back-calculated gold ppm values for each block were transformed from 2D to 3D space and pressed across the full width of the corresponding domain in the final host 3D compilation model.</li> </ul> <p>Only DD and RC data was used during the estimation. Average sample spacing was variable, ranging from 10 m × 10 m in areas of historical mining to a nominal 20 m × 20 m in the upper portions of the underground resource and 50 m × 50 m at depth (approximately below 300 mRL).</p> <p>Assumptions discussed and tested during the estimation include:</p> <ul style="list-style-type: none"> <li>• Intrinsic correlation between grade and TW was tested and met during variogram analysis.</li> </ul>

Criteria	JORC Code explanation	Commentary																																																			
		<ul style="list-style-type: none"> <li>2D estimation technique assumes full horizontal extraction of the modelled vein.</li> </ul> <p>Validation of the gold and antimony accumulation, TW estimations and gold ppm and antimony back-calculation was completed by global and local bias analysis, statistical and visual inspections in 2D and 3D space.</p>																																																			
	<p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p>	<p>A check estimate in 2D was undertaken for all domains using Inverse Distance Squared and gold and antimony accumulation. The check estimate results had, on average, &lt;1% difference compared to the OK estimate, although there was variability between individual domains (-18% to +17% for gold and -14% to 13% for antimony).</p> <p>Tabulated mine productions records pertaining to Blue Spec and Gold Spec from the 25 October 2004 NWR Prospectus, page 34, include:</p> <table border="1" data-bbox="922 496 1865 715"> <thead> <tr> <th>Period</th> <th>Ore Treated (t)</th> <th>Gold Produced (oz)</th> <th>Av. Rec Grade (g/t)</th> <th>Antimony Metal (t)</th> </tr> </thead> <tbody> <tr> <td>1906</td> <td>22.4</td> <td>4.44</td> <td>6.18</td> <td></td> </tr> <tr> <td>1935-1955</td> <td>54,248.2</td> <td>32,009</td> <td>18.35</td> <td>798.8</td> </tr> <tr> <td>1960-1962</td> <td>9,939.0</td> <td>6,174</td> <td>19.32</td> <td></td> </tr> <tr> <td>1976-1978</td> <td>47,422.0</td> <td>23,276</td> <td>15.26</td> <td>690.6</td> </tr> <tr> <td>1986-1988</td> <td>42,443.0</td> <td>14,282</td> <td>10.46</td> <td>159.6</td> </tr> <tr> <td>1992-1993</td> <td>c. 9,000.0</td> <td>3,900</td> <td>13.50</td> <td></td> </tr> </tbody> </table> <p>Gold grades above are recorded as recovered gold. It is unclear whether this is the mine head grade or the recovered grade after processing. Antimony production is only partially recorded. Comparing historical production records with the depleted Blue Spec and Gold Spec estimations, the MRE tonnage is 116% of production, grade 84% and ounces 98%, likely explained by the low-grade halo estimated in the current MRE.</p> <table border="1" data-bbox="922 900 1547 1023"> <thead> <tr> <th>Source</th> <th>Tonnes</th> <th>Grade</th> <th>Ounces</th> </tr> </thead> <tbody> <tr> <td>Historical production</td> <td>163,075</td> <td>15.19</td> <td>79,645</td> </tr> <tr> <td>Blue Spec/Gold Spec MRE</td> <td>189,646</td> <td>12.76</td> <td>77,821</td> </tr> <tr> <td></td> <td>116%</td> <td>84%</td> <td>98%</td> </tr> </tbody> </table>	Period	Ore Treated (t)	Gold Produced (oz)	Av. Rec Grade (g/t)	Antimony Metal (t)	1906	22.4	4.44	6.18		1935-1955	54,248.2	32,009	18.35	798.8	1960-1962	9,939.0	6,174	19.32		1976-1978	47,422.0	23,276	15.26	690.6	1986-1988	42,443.0	14,282	10.46	159.6	1992-1993	c. 9,000.0	3,900	13.50		Source	Tonnes	Grade	Ounces	Historical production	163,075	15.19	79,645	Blue Spec/Gold Spec MRE	189,646	12.76	77,821		116%	84%	98%
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	<p><i>The assumptions made regarding recovery of by-products.</i></p>	<p>No assumptions with respect to by-products were made.</p>																																																			
	<p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p>	<p>No estimation for deleterious elements or other non-grade variables was made.</p>																																																			
	<p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p>	<p>Block dimensions for interpolation were Y: 2.5 mN, X: 10 mE, Z: 10 mRL with sub-celling of Y: 0.3125 mN, X: 0.3125 mE, Z: 0.3125 mRL to provide adequate domain volume definition and honour wireframe geometry. Considerations relating to appropriate block size include drill hole data spacing, conceptual mining method, variogram continuity ranges and search neighbourhood optimisations.</p> <p>DD and RC data was used during the estimate. Average sample spacing ranges from 10 m to 70 m, with a nominal 225–60 m spacing maintained for all classified domains.</p>																																																			

Criteria	JORC Code explanation	Commentary
		A three-pass search strategy was employed, with all domains estimated a maximum distance of 85 m (Blue Spec Sb) to 90 m (Gold Spec Sb) for all passes and a reduction of minimum number of neighbourhood composites from 5 to 2 to 1 applied.
	<i>Any assumptions behind modelling of selective mining units.</i>	No selective mining units were assumed in this estimate.
	<i>Any assumptions about correlation between variables.</i>	Statistically there is a positive correlation between gold and antimony grade. The NSR reporting approach assumes the recovery of gold and antimony from the mineralised lodes. The recovery of these elements is supported by metallurgical studies.
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	<p>All domain estimates were based on mineralisation domain constraints underpinned by geological logging (lithology and veining) and a nominal cut-off grade of 0.5 g/t gold. The mineralisation constraints have been used as hard boundaries for grade estimation wherein only composite samples within that domain were used to estimate blocks coded as falling within that domain.</p> <p>The relationship of width to grade was considered a key control of metal distribution in the MRE. Therefore, accumulation variables were used to appropriately reflect this geological control.</p>
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	<p>Assessment and application of top-capping for the 2D estimate were undertaken on the gold and antimony accumulation variable within individual domains. Top-capping was used where spatially anomalous high grades were unable to be sub-domained and were likely to bias resulting estimate.</p> <p>Top-caps, where appropriate, were applied on a combined deposit basis, on a grade x true width accumulation as outlined below:</p> <ul style="list-style-type: none"> <li>• Blue Spec mineralisation domains. Top-cap = 260 Gold Accumulation and 2.0% metal reduction</li> <li>• Blue Spec low-grade halo sub-domains. Top-cap = 20 Gold Accumulation and 6.2% metal reduction</li> <li>• Gold Spec mineralisation domains. Top-cap = 65 Gold Accumulation and 4.3% metal reduction</li> <li>• Gold Spec low-grade halo sub-domain. Top-cap = 4 Gold Accumulation and 5.7% metal reduction</li> <li>• Blue Spec mineralisation domains. Top-cap = 130,000 Antimony Accumulation and 13.5% metal reduction</li> <li>• Blue Spec low-grade halo sub-domains. Top-cap = 22,500 Antimony Accumulation and 19.2% metal reduction</li> <li>• Gold Spec mineralisation domains. Top-cap = 70,000 Antimony Accumulation and 3.9% metal reduction</li> <li>• Gold Spec low-grade halo sub-domain. Top-cap = 6,000 Antimony Accumulation and 2.8% metal reduction.</li> </ul>
	<i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	Validation of the estimation outcomes was completed by global and local bias analysis (swath plots), statistical and visual comparison (cross and long sections) with input data. Production data from 1906 to 1993 compares well in gold ounces to the estimate outcomes; however, this data is from the 2004 NWR Prospectus, not primary sources or survey volumes, and does not always include antimony production.

Criteria	JORC Code explanation	Commentary																									
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	The tonnages were estimated on a dry basis.																									
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	<p>The Blue and Gold Spec underground Mineral Resource is reported exclusive of mineralisation which has been mined. In situ mineralisation adjacent to mine development which was not of sufficient volume to support economic extraction (for example mineralised pillars and skins) has also been excluded from the reported Mineral Resource.</p> <p>The A\$240/t NSR cut-off for the Mineral Resources is approximately 80% of the June 2022 Mining Feasibility Study break-even. The NSR cut-off takes revenue from the gold and antimony metals and offsets to site operating and sustaining capital costs, including underground operating development, into account. Metallurgical recoveries are taken into account in the NSR calculation. The gold and antimony metal components of the NSR calculation all have reasonable potential of being saleable.</p> <p>The Mineral Resource is reported only from blocks inside mineralised domains. Tonnages were estimated on a dry basis.</p> <p>For the purposes of the NSR and Gold Equivalent calculation, assumed metal prices, exchange rates, recoveries and payabilities are listed in Table 1.</p> <p><b>Table 1</b></p> <table border="1"> <thead> <tr> <th colspan="5">Metallurgical Recoveries and Metal Prices</th> </tr> <tr> <th colspan="3">FX Rate: A\$0.73:US\$1</th> <th colspan="2">Blue and Gold Spec</th> </tr> <tr> <th>Metal</th> <th>Units</th> <th>Price</th> <th>Recoveries</th> <th>Payable Metal Factor</th> </tr> </thead> <tbody> <tr> <td>Gold</td> <td>AU\$/g</td> <td>75.71</td> <td>95</td> <td></td> </tr> <tr> <td>Antimony</td> <td>AU\$/lb</td> <td>8.70</td> <td>95</td> <td>Gold concentrate treatment charges, metal refining, payment terms (concentrate), logistic costs and NSR royalties</td> </tr> </tbody> </table> <p>For the purposes of NSR determination, NSR values were calculated on a block-by-block basis prior to reporting at the nominated cut-off value of A\$240/t.</p> <p>It is the Competent Person's opinion that these methods and cut-off grades satisfy the requirements for 'reasonable prospects for eventual economic extraction'.</p>	Metallurgical Recoveries and Metal Prices					FX Rate: A\$0.73:US\$1			Blue and Gold Spec		Metal	Units	Price	Recoveries	Payable Metal Factor	Gold	AU\$/g	75.71	95		Antimony	AU\$/lb	8.70	95	Gold concentrate treatment charges, metal refining, payment terms (concentrate), logistic costs and NSR royalties
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<b>Mining factors or assumptions</b>	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with</i>	<p>The assumed mining method is sub-level open stoping (<b>SLOS</b>) with cemented rock fill (<b>CRF</b>) and a minimum mining width of 3.5 m.</p> <p>The Mineral Resource extends nominally 885 m below the topographic surface. Entech considers material at this depth would fall under the definition of 'reasonable prospects for eventual economic extraction' in an underground mining framework.</p> <p>No dilution or cost factors were applied to the estimate.</p>																									



Criteria	JORC Code explanation	Commentary
	<p><i>an explanation of the basis of the mining assumptions made.</i></p>	
<p><b>Metallurgical factors or assumptions</b></p>	<p><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>Metallurgical recovery factors have been applied through the use of the NSR. Metallurgical recoveries were derived from testwork.</p> <p>Entech understands Calidus considers that crushing and grinding followed by froth flotation will produce a saleable gold-antimony concentrate and is the preferred processing route for treatment of the Blue Spec and Gold Spec resources. Flotation testwork was completed by previous owners as well as Calidus for the Blue Spec Feasibility Study. Saleable concentrate criteria were provided by an independent concentrate marketing agent to guide the testwork.</p> <p>Testwork completed between October 2021 and July 2022 by Bureau Veritas demonstrate that froth flotation can produce a high-grade gold-antimony concentrate with low levels of penalty elements such as arsenic. Flotation testwork producing a stibnite rougher concentrate and a sulphide rougher concentrate was carried out on a composite from each deposit, each compiled from two holes within the central area deposit. The stibnite concentrate (including gravity recovery) was assumed to be the saleable product. Results of the testwork showed that the combined gravity/stibnite concentrate product has a gold recovery of 83% and an antimony recovery of 89% with arsenic grades well below penalty rates (4 000 ppm). Sulphide concentrates and tailings leach increases total gold recovery to 99%.</p>
<p><b>Environmental factors or assumptions</b></p>	<p><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<p>No environmental factors were applied to the Mineral Resources or resource tabulations. The deposit is located on a granted mining licence.</p>
<p><b>Bulk density</b></p>	<p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p>	<p>Bulk density values at Blue Spec and Gold Spec were derived from measurements taken from 29 DD drill holes, with a total of 317 samples collected across the deposits in 2008. The samples were submitted for specific gravity (SG) analysis to ALS Perth using the OA-GRA08 technique for whole core. Entech understands this technique is considered to produce results similar to Archimedes method and suitable for bulk density. Statistical analysis indicated a variation of bulk density values between weathering state and lithology.</p> <p>The following bulk density mean values were then applied in the block model:</p>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Blue Spec: <ul style="list-style-type: none"> <li>○ Oxide: 2.1 t/m<sup>3</sup></li> <li>○ Transitional: 2.3 t/m<sup>3</sup></li> <li>○ Fresh: 2.77 t/m<sup>3</sup>.</li> </ul> </li> <li>• Gold Spec: <ul style="list-style-type: none"> <li>○ Oxide: 2.1 t/m<sup>3</sup></li> <li>○ Transitional: 2.3 t/m<sup>3</sup></li> <li>○ Fresh: 2.8 t/m<sup>3</sup>.</li> </ul> </li> </ul>
	<p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p>	<p>The samples were submitted for SG analysis to ALS Perth using the OA-GRA08 technique for whole core. This approach is adequate in accounting for void spaces and moisture within the deposit.</p>
	<p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<p>Due to the statistical variation in lithology, bulk densities were averaged in each weathering unit for oxide and transitional material, and further broken down into lithologies for fresh material. An average bulk density based on weathering and lithology coding has been assigned for tonnage reporting.</p>
<p><b>Classification</b></p>	<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p>	<p>Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity, mineralisation volumes, historical mining activity, as well as metal distribution.</p> <p><b>Indicated</b> Mineral Resources were defined where a moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:</p> <ul style="list-style-type: none"> <li>• blocks were well supported by drill hole data with drill spacing averaging a nominal 30 m or less, or where drilling was within 20 m of the block estimate</li> <li>• blocks were interpolated with a neighbourhood informed by a minimum of four samples.</li> </ul> <p><b>Inferred</b> Mineral Resources were defined where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:</p> <ul style="list-style-type: none"> <li>• drill spacing was averaging a nominal 50 m or less, or where drilling was within 50 m of the block estimate</li> <li>• blocks were interpolated with a neighbourhood informed by a minimum of two samples.</li> </ul> <p>Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. The MREs do not account for selectivity, mining loss and dilution. This MRE update includes Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that further sampling will enable them to be converted to Measured or Indicated Mineral Resources.</p> <p>The reported Mineral Resource for underground was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 885 m below surface at Blue Spec and 450 m below surface at Gold Spec.</p>

Criteria	JORC Code explanation	Commentary
		<p>Upper limit constraints on the Indicated Mineral Resources were demarcated by the historical underground voids (remnant areas) at 311 m from surface (54 mRL) at Blue Spec and 115 m from surface (255 mRL) at Gold Spec.</p> <p>In these remnant areas of the deposits, Mineral Resources were classified as Inferred and extended to surface. Inferred material excluded all historically mined voids and also blocks within 5 metres of a void. In the opinion of Entech, the supplied topography survey, pit void extents and historical underground voids appropriately represent the pit excavation and underground workings.</p> <p>Mineralisation within the model which did not satisfy the criteria for Mineral Resource remained unclassified. No estimation or assumptions with respect to deleterious elements, non-grade variables or by-products was made.</p>
	<p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p>	<p>Consideration has been given to all factors material to the MRE outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade interpolations (sensitivity analysis).</p> <p>In addition to the above factors, the classification process considered nominal drill hole spacing, estimation quality (conditional bias slope, number of samples, distance to informing samples) and reliability of input data, specifically.</p>
	<p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.</p>
<p><b>Audits or reviews</b></p>	<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>External audits and internal peer review were undertaken with a focus on independent resource tabulation, block model validation, verification of technical inputs, and peer review of approaches to domaining, interpolation and classification. No technical errors were found.</p>
<p><b>Discussion of relative accuracy/confidence</b></p>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p>	<p>Variances to the tonnage, grade and metal tonnes are expected with further definition drilling. It is the opinion of the Competent Person that the classification criteria for Indicated and Inferred Mineral Resources appropriately capture and communicate these variances and risks to all downstream users. The MRE is considered fit for the purpose of underpinning feasibility-level studies.</p>
	<p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation</i></p>	<p>The Mineral Resource Statement relates to global tonnage and grade estimates. No formal confidence intervals nor recoverable resources were undertaken or derived.</p>

Criteria	JORC Code explanation	Commentary
	<i>should include assumptions made and the procedures used.</i>	
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	No recent, reliable underground production data was available for comparison purposes. Historical gold production data indicates comparable ounces from historical mining areas. The project is currently at feasibility stage.

## Section 4 – Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i>	The Ore Reserve is based on Mineral Resource estimates by Entech as contained in this announcement
	<i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i>	Mineral Resources are inclusive of Reserves
<b>Site visits</b>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	The Competent Person has not visited site as it is not material to the work completed  The Competent Person has also relied on reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	The Competent Person has not visited site as it is not material to the work completed.
<b>Study status</b>	<i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i>	A Feasibility level estimation of costs, modifying factors and parameters resulting in a mine plan that is technically achievable and economic using the determined Ore Reserve.
	<i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i>	Ore Reserves are declared based upon a Feasibility Study that included mine plans and mine designs that are deemed technically achievable and have been tested for economic viability using input costs, metallurgical recovery and expected long term gold price, after due allowances for royalties.
<b>Cut-off parameters</b>	<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	Calculated value is based on a NSR to take account of the revenue from the gold and antimony metals allowing for metallurgical recoveries and payabilities for each and then offsets for royalties, shipping and smelter deductions (penalty elements). A stoping cut-off value of \$141/t ore and a development ore cut-off value of \$45/t ore has been applied based on the NSR inputs and relevant cost estimates from previous studies on the project.
<b>Mining factors or assumptions</b>	<i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i>	Optimisations have been completed by Entech to generate detailed mine design and schedule.
	<i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i>	Based on geotechnical advice, the geometry of the orebody and the high-grade small volume nature of Blue Spec, a mechanised cut-and-fill mining method was selected. There are four x 4 mH lifts in each panel (total panel height 16m). Three lifts will be extracted using jumbo development techniques with the top lift finally back-stripped on retreat. Cemented

Criteria	JORC Code explanation	Commentary
		rockfill ( <b>CRF</b> ) will be placed in the bottom lift to allow stoping underneath, with uncemented rockfill used elsewhere.
	<i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i>	Geotechnical parameters were provided by Peter O'Bryan and Associates. The underground designs conform to these recommendations.
	<i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i>	The Mineral Resource model used for optimisation was as detailed previously.
	<i>The mining dilution factors used.</i>	A minimum mining width of 2.5 mW was applied to ore development and jumbo stripping. Unplanned dilution and mining recoveries were applied based on the lift sequence as follows:
	<i>The mining recovery factors used.</i>	<ol style="list-style-type: none"> <li>1. Bottom drive – no dilution, 100% mining recovery.</li> <li>2. First lift (working on CRF) – 3% fill dilution at zero grade, 98% recovery.</li> <li>3. Second lift (working on rockfill) – 6% fill dilution at zero grade, 98% recovery.</li> <li>4. Back-strip – 3% fill dilution at zero grade, 81% recovery to allow for placement of a 4 m long rib pillar every 16 m, as advised by the geotechnical recommendations.</li> </ol>
	<i>Any minimum mining widths used.</i>	A minimum mining width of 2.5mW was applied.
	<i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i>	<p>Mine plans have been generated and cashflow checked both inclusive and exclusive of inferred resources. Where Inferred Resources were essential in justifying development to access Indicated Resources, these Indicated Resources have not been converted to Reserves.</p> <p>The Ore Reserve does not include any Inferred resource and the Ore Reserve is technically and economically viable without the inclusion of the Inferred resource.</p>
	<i>The infrastructure requirements of the selected mining methods.</i>	Mobilisation, establishment and all site and mine infrastructure to support open pit and underground mining has been accounted for in the study.
<b>Metallurgical factors or assumptions</b>	<p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p>	<p>All ore will be processed at a new sulphide float plant established at Warrawoona to produce a concentrate</p> <p>The processing technology (floatation) is well established in many gold operations.</p> <p>Recent metallurgical test-work was completed by BV to determine metallurgical recoveries applied in the Feasibility Study</p>

Criteria	JORC Code explanation	Commentary
	<p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>No problematic levels of deleterious elements or penalty elements have been detected during test work.</p>
<b>Environmental</b>	<p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>The mining and associated site infrastructure areas affected by disturbance have been covered by baseline environmental and heritage studies with permitting currently in process.</p> <p>The waste rock storage area has been designed with suitable storage capacity, located within an existing disturbed area for the local catchment.</p> <p>The waste rock mass has been tested inert for acid forming potential.</p>
<b>Infrastructure</b>	<p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></p>	<p>There is sufficient land within the lease area for the establishment and operation of the planned activities.</p> <p>Labour would be sourced from Perth on a fly in-fly out basis, either into Marble Bar or Nullagine</p> <p>Water supply will be available from bore-fields located in proximity to the mine site and from underground dewatering</p> <p>A camp will be established in close proximity to the operation.</p> <p>Power will be provided by on site natural gas and diesel generators.</p>
<b>Costs</b>	<p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</i></p> <p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government and private.</i></p>	<p>Capital costs for the construction of the processing plant have been provided by GRES.</p> <p>Mine capital and operating costs are based on:</p> <p>First principle cost model which assumes an owner mining scenario. Inputs provided from Original Equipment Manufacturers and on a quotation basis as required.</p> <p>Allowances have also been included for dewatering, day-works and other ancillary works, and contractor accommodation and flights as determined by Calidus.</p> <p>All costs and revenue are in AUD.</p> <p>Processing operating costs were determined based on:</p> <p>A FS carried out by independent engineers GRES.</p>

Criteria	JORC Code explanation	Commentary
		Royalties for WA State Government royalty and additional third-party royalties.
<b>Revenue factors</b>	<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>A NSR was used for revenue. The NSR takes revenue from the gold and antimony metals allowing for metallurgical recoveries and payabilities for each and then offsets royalties, shipping and smelter deductions (penalty elements).</p> <p>A gold price of AU\$2,500/oz and an antimony price of AU\$18,667/t was applied to determine financial viability. The Competent Person considers this to be an appropriate commodity price assumption based on the current level of study and price environment at the time of the completion of the Ore Reserve work.</p>
<b>Market assessment</b>	<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></p> <p><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></p> <p><i>Price and volume forecasts and the basis for these forecasts.</i></p> <p><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	An independent marketing consultant was engaged by Calidus to obtain non-binding indicative terms for the off-take products.
<b>Economic</b>	<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p> <p><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>The Ore Reserve estimate is supported by a financial model that has been prepared from operating cost inputs to a Feasibility level. The model covers the current 7-year life of the Project.</p> <p>All major cost inputs have been sourced from contractors and suppliers.</p> <p>A discount rate of 5% has been applied.</p> <p>The resulting NPV and IRR is positive and sensitivity analysis have been completed for the commodity price as contained in the PFS.</p>
<b>Social</b>	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	The Calidus owners' team are in liaison with the government and key stakeholders and it is not expected to incur any impediments for the project to proceed.
<b>Other</b>	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <p><i>Any identified material naturally occurring risks.</i></p>	<p>No material naturally occurring risks have been identified for the project</p> <p>It is expected that future agreements and Government approvals will be granted in the necessary timeframes for the successful implementation of the project.</p>



Criteria	JORC Code explanation	Commentary
	<p><i>The status of material legal agreements and marketing arrangements.</i></p> <p><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	<p>There are no known matters pertaining to any third parties to affect the development of the project.</p>
<b>Classification</b>	<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<p>Classification of the Ore Reserve is based on the Indicated Mineral Resource classification only.</p> <p>The Indicated Mineral Resource has been converted to a Probable Ore Reserve.</p> <p>The result appropriately reflects the Competent Person's view of the deposit.</p>
<b>Audits or reviews</b>	<p><i>The results of any audits or reviews of Ore Reserve estimates.</i></p>	<p>The Ore Reserve estimate has not been independently audited or reviewed.</p>
<b>Discussion of relative accuracy/ confidence</b>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The mine designs, schedule and financial model for the Ore Reserve have been completed to a Feasibility standard with a better than +/- 25% level of confidence.</p> <p>A degree of uncertainty is associated with geological estimates and the Ore Reserve classification reflects the level of confidence in the Mineral Resource.</p> <p>There is a degree of uncertainty regarding estimates of modifying mining factors, geotechnical and processing parameters that are of a confidence level reflected in the level of the study.</p> <p>The Competent Person(s) area satisfied that a suitable margin exists that the Ore Reserve estimate would remain economically viable with any negative impacts applied to these factors or parameters.</p> <p>There is a degree of uncertainty in the commodity price used however the Competent person(s) are satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.</p>