

UPDATED SULPHUR SPRINGS ORE RESERVE: NEW MINE PLAN ACHIEVES SIGNIFICANT CAPITAL AND OPERATING COST SAVINGS

Highlights

- Updated Ore Reserve of 7.28 Mt at 1.2% Cu and 3.5% Zn for 84,000 t of contained copper and 255,000 t of contained zinc for the Sulphur Springs Copper-Zinc Project
- New underground mine plan using an optimised mining method results in forecast savings in operating and capital costs of \$61 million
- Ore Reserve excludes the recently identified high-grade supergene zone of 880,000 t at 3.9% Cu, which will be the focus for the next phase of project optimisation
- Ore Reserve confirms that Sulphur Springs is a valuable, development-ready base metal project which is highly leveraged to continued improvements in the zinc price

Venturex Resources (ASX: VXR – “Venturex”) is pleased to announce an updated Ore Reserve estimate for its 100%-owned **Sulphur Springs Copper-Zinc Project**, located 144km to the south-east of Port Hedland in the East Pilbara.

The Ore Reserve, which is based on the updated Mineral Resource Estimate announced last month (see ASX release – 11 May 2016), represents another step in the continued optimisation of the Sulphur Springs Project aimed at improving the value of this already attractive project.

The Ore Reserve estimate prepared by Entech Mining (“Entech”) is set out below:

Description	Category	Tonnes '000	Cu (%)	Cu (t)	Zn (%)	Zn (t)	Ag(g/t)
Open pit	Proved	-	-	-	-	-	-
	Probable	2,930	1.3	39,000	4.2	122,000	15.8
	Total¹	2,930	1.3	39,000	4.2	122,000	15.8
Underground	Proved	-	-	-	-	-	-
	Probable	4,350	1.0	45,000	3.1	133,000	13.5
	Total²	4,350	1.0	45,000	3.1	133,000	13.5
Total	Proved	-	-	-	-	-	-
	Probable	7,280	1.2	84,000	3.5	255,000	14.4
	Total	7,280	1.2	84,000	3.5	255,000	14.4

1. All Inferred Resources within the reserve pit design (1,400,000 t of massive sulphide Resource at a grade of 1.1% Cu and 3.3% Zn and 880,000 t of supergene Resource at a grade of 3.9% Cu and 0.6% Zn) have been categorised as waste material.
2. Inferred Resources contained within the underground reserve design (980,000 t at a grade of 1.4% Cu and 4.1% Zn) have been assigned a nil grade and dilute the reported Reserve.

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For further details

John Nitschke
Managing Director
T: +61 8 6389 7400
admin@venturexresources.com

Board

Tony Kiernan
Chairman

John Nitschke
Managing Director

Anthony Reilly
Non-Executive Director

Darren Stralow
Non-Executive Director

Trevor Hart
Company Secretary

Contact Details

Registered Office
Level 2
91 Havelock Street
West Perth WA 6005

T: +61 8 6389 7400
F: +61 8 9463 7836
admin@venturexresources.com
www.venturexresources.com

ABN: 28 122 180 205

The mine plan supporting this estimate identified a bulk mining method for the underground portion of the project that has resulted in savings of \$61 million underground mining capital and operating costs when compared to the first phase of optimisation completed in November 2015 (see ASX release 4 November 2015). This represents a saving in underground mining costs of 22%.

Management Comment and Next Steps

Venturex's Managing Director John Nitschke said: "This is another great piece of work by Entech. The reduction in underground mining costs goes straight to the bottom line value of the Sulphur Springs Copper-Zinc Project.

"The bulk mining method further reduces the start-up and operational risks of the project.

"The lower level of confidence in the Inferred Resource within the underground bulk mining envelope means that we have had to treat this material as waste dilution with no grade. Even after factoring in this 30% dilution of the underground portion of the deposit, the project still satisfies the financial hurdles for a JORC Reserve.

"The Inferred Supergene Resource of 880,000 tonnes at mined grade of 3.9% copper that sits on top of the sulphide ore body has not been included in the Reserve. This mineralisation includes enriched secondary copper mineralisation that it expected to be amenable to heap leaching.

"Logging of drill samples identified the presence of fine high-grade chalcocite mineralisation that may open up the opportunity to direct ship part of this resource to smelters, as Sandfire Resources did in the early stages of the DeGrussa Copper-Gold Mine in WA and as has been done historically at other operations.

"The final phase of the optimisation of Sulphur Springs will be focused on quantifying the value of the Inferred Supergene Resource and, in particular, the potential for a staged development of this greenfields project that Venturex can achieve at current metal prices. This will require proving up this Resource, metallurgical testwork, mining and processing plans and permitting."

Ore Reserve Estimate (Summary Information Required by Listing Rule 5.9.1)

This ASX announcement has been prepared in compliance with the JORC Code (2012) and ASX Listing Rules. The Company has included the JORC Code (2012) table of checklist of assessment and reporting criteria (see Appendix 1) for the Sulphur Springs Re-Optimisation Study Resources and Reserve Statement.

As follows is a summary of the pertinent information used in the calculation of the Ore Reserve.

SULPHUR SPRINGS COPPER ZINC PROJECT RESERVE ESTIMATE BACKGROUND INFORMATION

Location

The Sulphur Springs Copper Zinc Project includes the Sulphur Springs and adjacent Kangaroo Caves deposits located in the Pilbara region of Western Australia 144 km by road south east of Port Hedland. The Project is accessible from the existing Atlas Abydos all weather haul road.

The town of Port Hedland is a major mining centre with established mining service providers and a skilled workforce. It is a major port for the export of iron ore, and has suitable facilities for the export of concentrates produced by the Project.

All the deposits are Volcanogenic Massive Sulphide (VMS) copper-zinc-lead-silver systems. Sulphur Springs was discovered in 1984 and the nearby Kangaroo Caves discovered in 1990. Neither deposit has been previously mined.

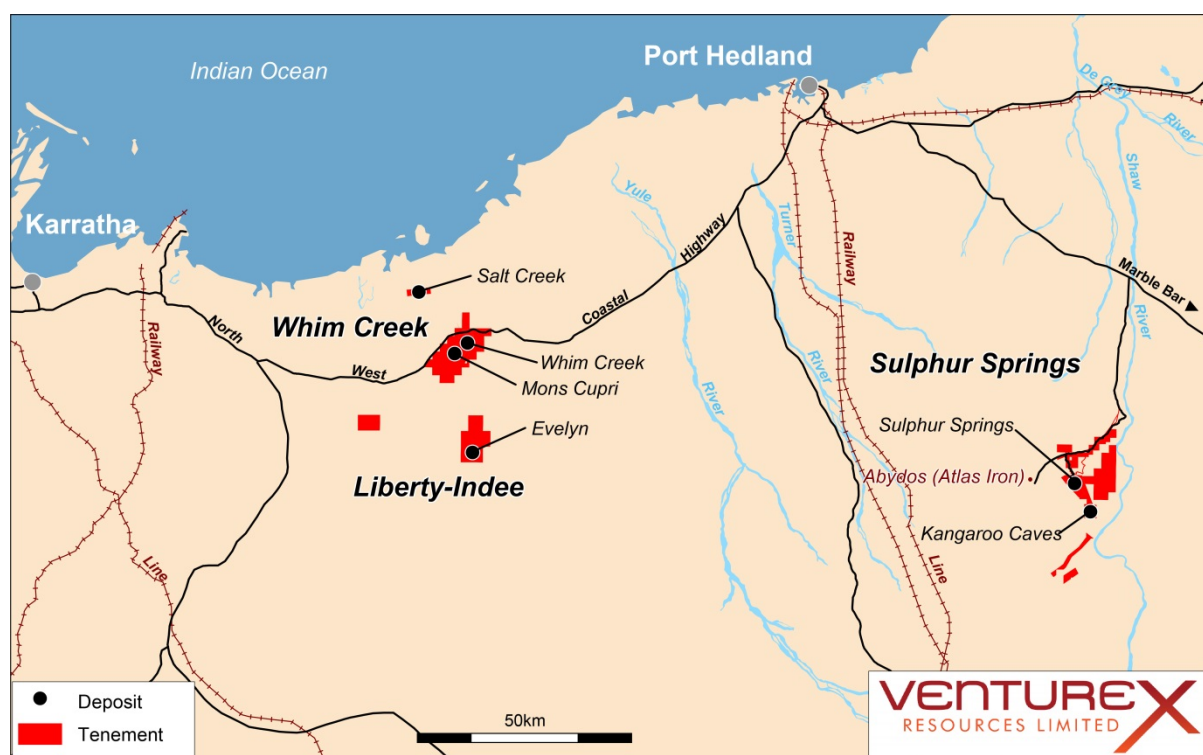


Figure 1: Map of Project Locations

Tenure

All Resources included in the Reserve estimate are located on granted Mining Leases set out in Table 1 and are covered by agreements with traditional landowners as determined by the National Native Title Tribunal.

Project	Tenement	Deposits
Sulphur Springs	M45/494	Sulphur Springs
	M45/653	Planned Infrastructure
	M45/1001	Planned Infrastructure
	M45/587	Kangaroo Caves

Table 1: Tenements

In addition to these tenements Venturex Resources holds an extensive and highly prospective land holding covering of 7,314 ha covering the majority of the Panorama trend, which is the host to the mineralisation, to the south of Sulphur Springs.

Mineral Resources

The mineral Resources upon which the Reserve estimate for Sulphur Springs is based are shown in Table 2.

JORC Classification	Ore Type	Million Tonnes	Cu %	Zn %	Ag g/t
Indicated	Fresh	6.7	1.3	4.3	17
	Transition	1.6	1.5	4.1	18
Sub Total		8.3	1.4	4.3	17
Inferred	Fresh	3.7	1.1	4.0	17
	Transition	0.6	1.4	3.9	20
	Supergene	0.8	4.2	0.8	23
Sub Total		5.1	1.6	3.5	18
TOTAL		13.4	1.5	4.0	18

Table 2: Tabulation based on all resource above 0.4% Cu and less than 0.4% Cu but greater than 2% Zn. Tonnes rounded to nearest 0.1 million and grades to nearest 0.1%

The Sulphur Springs Mineral Resource used information from 144 holes for a total of 36,106m of drilling at a nominal spacing of 40m by 30m of which approximately 80% was drilled by diamond core. This deposit is open at depth.

The Resource estimate is based on a balanced interpretation of the full geological setting of the mineralisation which is well understood from surface outcrops. No top cuts or cut offs were applied in the modelling process so all grades are considered and used to interpolate block grades. Estimation was carried out using standard geo-statistical methods to interpolate grade into geologically constrained ore type domains.

Mineral classification was based on the consideration of a combination of average weighted distance from sample points, true distance, drill density and geological interpretation confidence.

An economic cut-off grade was applied to constrain the Resource. This was based on long term base metal price and foreign exchange rate estimates published by reputable industry analysts, consensus price forecasts, standard industry treatment and refining terms and costs from the Optimisation Study. The cut-off used is 0.4% copper and 2% zinc where copper is less than 0.4%.

Three Resource estimates for the Sulphur Springs deposit have previously been prepared and independently audited and all Resource estimates, including this one, are materially the same.

Mining Method

The top portion of the Sulphur Springs deposit will be mined using an open pit. The open pit will be developed in two stages with the first stage providing access to ore in the top of the western lode of the deposit and the second stage taking the pit to its final limit and providing access to portal and ventilation shaft positions. A contractor supplied and operated mining fleet consisting of 190 tonne excavators, 100 tonne trucks and ancillary drilling equipment will be used.

The Supergene Inferred Resource that sits on top of the sulphide ore body will be part of the first material mined in the open pit operation.

A mining recovery of 95% with an ore grade dilution of 10% has been applied to open pit ore mining blocks.

The bulk of the lower portion of the deposit will be mined using an underground core and shell mining method. This involves the extraction of long hole open stopes followed by sublevel caving of interstitial pillars. The mining void formed will be filled with waste material tipped from the open pit. Open stoping with hydraulic fill will be used in the western lode below the open pit.

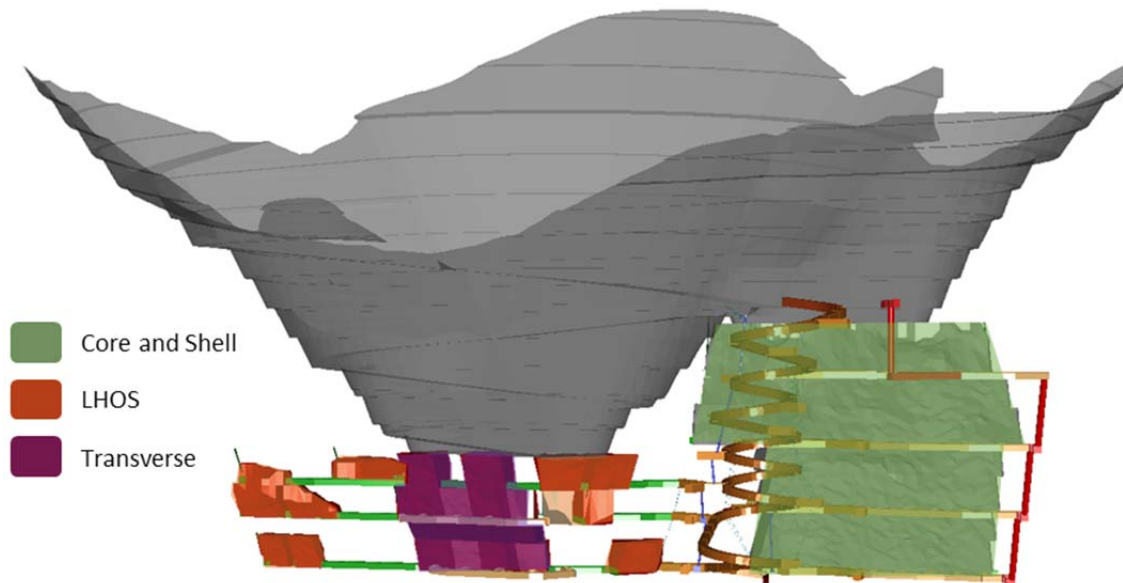


Figure 2: Combined 2016 Sulphur Springs Reserve Mine Design Looking North

A schematic of the core and shell mining sequence is shown in Figure 3.

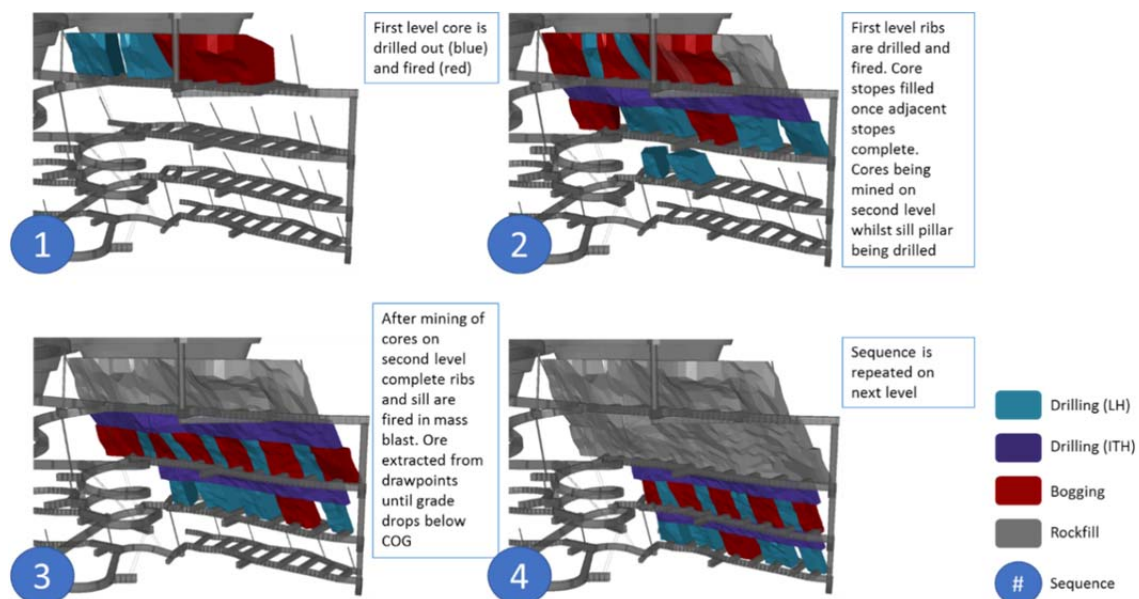


Figure 3: Sulphur Springs Core and Shell Mining Sequence

A portal located at 1190mRL in the open pit will provide access into the underground mine. The collars of the main exhaust raises and paste fill hole will also be located on this level. The mining fleet will consist of a contractor supplied and operated development jumbo, production drill rig, 17 tonne capacity loaders and 50 tonne articulated haul trucks.

Ground conditions in the Sulphur Springs underground mine are good to very good and water ingress is estimated to be modest. Gaining access via the open pit has eliminated much of the start up risk associated with the underground mine and significantly reduced the development requirements to bring the underground mine into production.

A mining recovery of 95% for open stopes and 80 % for core and shell ribs and sill pillars was applied to underground mining. Ore grade dilution of 10% was applied to open stopes and the ribs and 25% to the sill pillar.

The mining method is ideally suited to the Sulphur Springs deposit because of the continuity and dimensions of the mineralisation and is a highly productive method that provides safe efficient extraction of the Resource with minimum development requirements. The need for the expensive cemented paste fill used in highly selective mining methods assumed in previous studies is also eliminated.

It has resulted in significant reductions in capital and operating costs for the underground mine.

Ore Reserve Estimate

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3. All Inferred Resources within the reserve pit design (1,400,000 t of massive sulphide Resource at a grade of 1.1% Cu and 3.3% Zn and 880,000 t of supergene Resource at a grade of 3.9% Cu and 0.6% Zn) have been categorised as waste material.
4. Inferred Resources contained within the underground reserve design (980,000 t at a grade of 1.4% Cu and 4.1% Zn) have been assigned a nil grade and dilute the reported Reserve.

Table 3: Ore Reserve Estimate

The Reserve estimate is based solely on the Indicated portion of the Resource estimate and is therefore categorised as Probable. The estimate has been generated by ongoing optimisation of a mine plan developed in a Bankable Feasibility Study so there is a high level of confidence in the modifying factors that have been applied.

A Net Smelter Return (NSR) for diluted ore blocks was calculated on the basis of the recovery of payable metals, being copper, zinc and silver, and pricing assumptions. An NSR based cut-off grade of \$46 per tonne was applied.

Metallurgy and Processing

Supergene Material

The Inferred Supergene Resource of 880,000 tonnes at delivered grade of 3.9% copper that sits on top of the sulphide ore body includes enriched secondary copper mineralisation that is expected to be amenable to heap leaching based on known characteristics of these minerals.

Logging of drill samples has identified the presence of fine high-grade chalcocite mineralisation that may open up the opportunity to direct ship a portion of this resource to smelters, as Sandfire Resources did in the early stages of the DeGrussa Copper-Gold Mine in WA and as has been done historically at other operations.

The Supergene material will be mined from the open pit in the first 18 months of mining. It is anticipated that any portion that cannot be upgraded to direct shipping grade will be placed on a heap leach pad and extracted through an SX/EW facility located at Sulphur Springs. Production of cathode copper from the supergene heap leaching operation will continue through the life of the operation until copper recovery becomes sub economic.

Sulphide Ore

The sulphide ore processing plant will be located adjacent to the Sulphur springs deposit and have a nominal throughput rate of 1 Million tonnes per annum. It will be a conventional processing plant producing copper and zinc concentrates using the following processes:

- Single stage crushing plant
- SAG and ball mill
- Differential copper- zinc flotation circuit
- Concentrate thickening and filtration
- Containerised transport to Port Hedland with loading into bulk ships
- Tailings thickening and disposal into a conventional tailings storage facility (TSF) with a high density polyethylene (HDPE) liner and underdrainage system designed to limit leakage into the environment

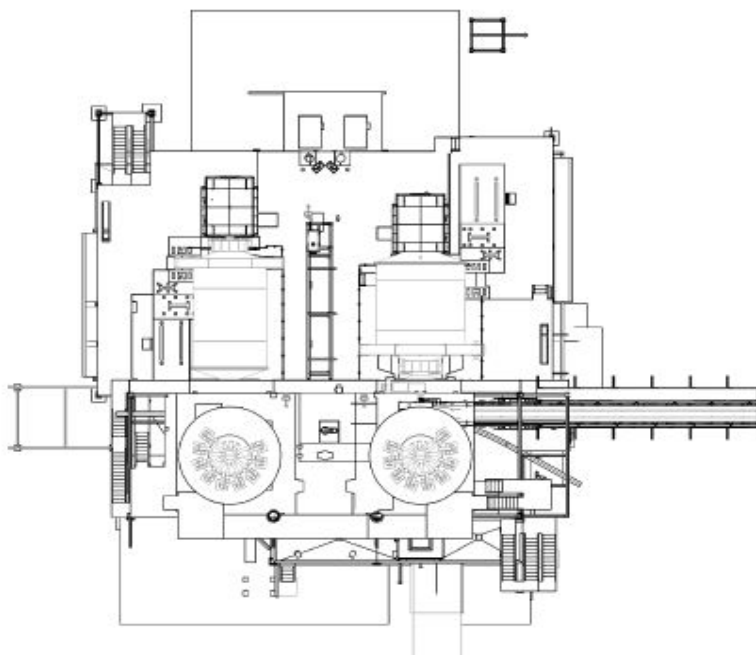


Figure 4: General Arrangement of SAG Ball Milling Circuit

The grind size (P80 < 65 micron) required to liberate the copper and zinc minerals from other barren components of the ore has allowed the use of a SAG/ball mill circuit to grind the ore.

The flotation circuit will use standard industry processes to separately float the copper bearing chalcopyrite and zinc bearing sphalerite minerals. Conventional rougher/scavenging produces saleable copper and zinc concentrates without the need for regrind of the intermediate flotation products.

Extensive metallurgical test work on Sulphur Springs deposit has been undertaken over a number of years. Recovery to concentrate on the Sulphur springs ore is estimated to be 90% for copper and 93% for zinc. Silver is recovered as a by product in both the copper and zinc concentrates.

The zinc concentrate produced from Sulphur Springs will have a high grade of 55% zinc with low iron and will be particularly attractive in the market. The copper concentrate produced will have a grade of 26% copper with low arsenic and halide contents.

Test work has confirmed that the concentrates have good thickening, filtration and materials handling characteristics.

Infrastructure

The Sulphur Springs site is located 6.1 km from the haul road to the Atlas Iron Abydos mine. An agreement is in place for Venturex to use the haul road for access and trucking concentrate upon payment of a share of the capital cost and ongoing maintenance on the road. The capital contribution is limited to \$9 million and is payable over five years.

Power will be generated onsite via an build own operate (BOO) diesel fired power station with 12 MW of installed capacity.

Water from mine dewatering will initially be highly acidic and contain dissolved metals. It will be treated through a water treatment facility and then used in the process plant. The water from mine dewatering will be supplemented by return water from the TSF, which will require treatment through the water treatment facility, and water from a bore field. Several production bores have already been developed within 2.5 km of the process plant. The Project site will be designed such that any contaminated water runoff or seepage will be collected and pumped to the TSF which is designed to contain a 1 in 100 year rainfall event.

Administration offices, ablution blocks, workshops and store buildings located at Whim Creek and already owned by Venturex will be relocated to Sulphur Springs.

A 200 room permanent village will be established on site. A 200 man camp will be rented to supplement this during construction. The Project will be operated on a drive-in/drive-out basis out of Port Hedland. It is expected that a significant portion of the workforce will live in Port Hedland with the remainder commuting from Perth and other centres.

An assessment of the prevailing and expected market for transportable buildings and light vehicles has indicated that good quality second hand options exist for their supply. It has been assumed that these items will be purchased second hand for the Project.

Permitting

A Definitive Feasibility Study on the Project was completed in 2013. This study was based on all of the Sulphur Springs deposit being mined using underground mining methods and proposed the use of dry stacking of tailings. In 2014, a Clearing Permit, Mining Proposal and Mine Closure Plan for this Project were approved by the Department of Mines and Petroleum of Western Australia (DMP).

The use of an open pit to mine the top portion of the Sulphur Springs deposit together with reversion to a conventional tailings dam will require the revised project to be referred to the EPA for the determination of the appropriate level of assessment.

An amended Mining Proposal, application for Native Vegetation Clearing Permit and Mine Closure Plan for Sulphur Springs will then be prepared and submitted to the DMP for their consideration and approval. The time taken to achieve these approvals will be determined by the level of assessment required by EPA.

Venturex has received competent advice that with the application of good industry practice supported by appropriate investigation and design, and on the basis of recent projects approved by the regulators, that approval of the amended project is likely to be achieved.

Closure

All waste rock will be assessed for its potential to form acid (PAF) before it is mined. PAF waste that cannot be disposed of in the underground workings or the open pit will be encapsulated within the body of the waste dump as it is mined. The waste dump will be constructed as a long term stable land form. Surface treatment upon completion will reflect the ongoing land use.

The TSF will be decommissioned and enclosed with an engineered cover incorporating a HDPE liner that will be designed to shed water and limit the ingress of water into the sulphide tailings.

A lake will in time form in the open pit after closure. While the water in this lake will be low in pH due to contact with pit wall mineralisation, previous modelling has indicated that this lake will function as an evaporative sump with limited outflows to the environment.

All of the industrial plant will be removed and the site returned to a land use agreed with the local stakeholders and DMP.

Capital Costs

The maximum cash drawdown for the Sulphur Springs Project is estimated at \$244M (initial capital expenditure including first fill plus two months working capital). The costs are inclusive of all infrastructure and indirect costs required to develop and commission the Sulphur Springs mine and includes an owner's contingency of \$10M in addition to the normal engineering contingency.

The capital estimate includes the following:

- Engineering, Procurement and Construction Management construction model for construction of processing plant and infrastructure;
- Contract mining of both the open pit and underground;
- Owner-operator processing facilities and workforce with second hand mobile fleet;
- Build-Own-Operate third-party power supply (\$/kWh basis);

- Existing or second hand buildings
- Contract catering and operation of the village (\$/man-day basis);
- Contract concentrate road haulage, storage and ship loading (\$/t basis).

The capital cost estimate for the heap leach and fit for purpose SX/EW plant have not been estimated to a Pre-Feasibility Study level.

The capital cost estimate for the sulphide ore process plant and infrastructure was developed by Lycopodium using quoted pricing on major pieces of equipment and services with the balance from their data base. The stated accuracy is $\pm 25\%$.

The total cost estimate for the Sulphur Springs open pit and the underground mines at Sulphur springs were developed by Entech based on detailed design of the mine and indicative pricing from open cut and underground mining contractors specifically for the study. Standard accounting principles were used to allocate costs between capital and operating. Pre-production costs include both capital and operating costs carried out prior to the production of first product from the mine.

Capital Costs	Units	2016 Reserve	2015 OS
Treatment Plant	\$M	100	100
Infrastructure (inc TSF & Haul Road)	\$M	77	78
Mining Sulphur Springs Open Pit	\$M	42 *	3
Mining Sulphur Springs Underground	\$M	23	39
Sustaining Capital (inc TSF lifts)	\$M	34	35
Rehabilitation & other	\$M	37	37
Owner's costs up to production	\$M	12	12
Owner's Contingency	\$M	10	10
Salvage	\$M	-19	
Total Capital	\$M	317	329
Pre-Production Capital	\$M	197	202
Maximum cash draw down	\$M	244	226

Table 4: Capital Costs compared to November 2015 Optimisation Study (OS)

* Accelerated open pit schedule to mine Reserve only

Operating Costs

The operating costs for the supergene material have not been estimated to a Pre-Feasibility Study level at this stage.

The life of mine average operating costs for the Sulphur Springs sulphide project including the Sulphur Springs open cut and underground is \$129 per tonne of ore. The process and general and administration operating costs were estimated by Lycopodium based on power and reagent consumptions indicated by test work, mechanical and electrical equipment components of the plant and prevailing labour costs.

Open pit and underground mine operating costs for Sulphur Springs were developed by Entech as set out above.

The breakdown of operating cost per Reserve tonne of ore for the 2016 Reserve estimate compared to the 2015 Optimisation Study (2015 OS) is in Table 5.

Operating Costs Sulphide Ore Only	Units	2016 Reserve	2015 OS
Mining Sulphur Springs Open Cut	\$/t ore	43.84	38.44
Mining Sulphur Springs Underground	\$/t ore	36.71	48.11
Processing & TSF	\$/t ore	40.00	35.58
Owner's Contingency	\$/t ore	2.00	2.00
G & A	\$/t ore	4.00	4.17
Sub total on-site	\$/t ore	85.58	87.82
Concentrate Road haulage & handling	\$/t ore	3.92	4.78
Shipping	\$/t ore	4.49	4.49
Treatment charges / Refining charges	\$/t ore	24.73	30.96
Sub total off-site	\$/t ore	33.14	40.23
Total Operating Cost	\$/t ore	118.72	129.01

Table 5: Reserve Operating Costs

JORC Economic Analysis

A financial model based on the above capital and operating costs and operational parameters applied to the mining and treatment of Probable ore only was developed.

Based on the consensus prices and exchange rates as set out below the NPV of the treatment of the Probable ore at an 8% discount rate was positive.

Copper	US\$6,700 per tonne
Zinc	US\$2,400 per tonne
Silver	US\$19.00 per ounce
Exchange rate	US\$0.775

As with the majority of mining projects the NPV was most sensitive to metal prices and exchange rates. The proportion of zinc product results in the project being most sensitive to zinc prices.

Sulphur Springs Project Business Case

The Sulphur Springs Copper Zinc Project represents a substantial base metals project producing metals that are in demand and forecast to be in supply deficit in coming years.

The construction of the project can be phased with an initial stage of production based on extraction of the supergene Inferred Resource, subject to further evaluation work, contributing to the funding of the overall project.

The opportunity to mine the top portion of the Sulphur Springs deposit using open pit methods over the first four years of the Project has significantly reduced pre-production expenditure and operating costs. This combined with a top down bulk underground mining method has resulted in a simpler more robust project with a much lower risk profile.

The Project is located in a mining friendly jurisdiction in a location well endowed with skilled service providers and a potential workforce.

The Project has approved Mining Leases and Native Title Agreements and advanced environmental approvals.

There is an associated large tenure package covering the largest known copper zinc VMS deposits in the Pilbara region of NW Australia with significant exploration potential.

A mining inventory and estimated costs for the business case are shown in Table 6.

Forward Work Program

Further optimisation of Sulphur Springs will be focused on quantifying the value of the Inferred Supergene Resource and, in particular, the potential for a staged development of this green-fields project that Venturex can achieve at current metal prices.

This will require proving up this Resource, metallurgical test-work, mining and processing plans and permitting considerations.

Priority will also be given to identifying standalone near term production opportunities at Whim Creek and Mons Cupri.

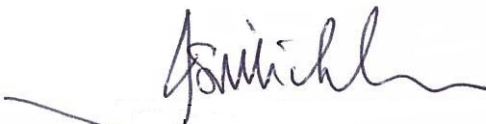
These opportunities will be pursued as funding permits.

Table 6: Business Plan Mining Inventory and Costs – Reserve plus Inferred Resources inside Mining envelopes ¹

Physicals	Units	Total	1	2	3	4	5	6	7	8	9	10	11	12
Sulphur Springs Open Pit														
Supergene Ore ²	'000t	879	373	507	-	-	-	-	-	-	-	-	-	-
Copper Grade	%	3.9%	3.4%	4.2%	-	-	-	-	-	-	-	-	-	-
Sulphide Ore	'000t	4,325	266	1,647	2,159	254	-	-	-	-	-	-	-	-
Copper Grade	%	1.3%	0.7%	1.2%	1.4%	1.4%	0.0%	0.0%	-	-	-	-	-	-
Zinc Grade	%	3.9%	0.6%	3.6%	4.3%	6.3%	0.0%	0.0%	-	-	-	-	-	-
Waste	'000t	41,538	21,988	15,664	3,796	90	-	-	-	-	-	-	-	-
Sulphur Springs Underground Ore														
Copper Grade	%	1.3%	-	-	-	1.8%	1.3%	1.5%	1.4%	1.1%	1.3%	1.2%	-	-
Zinc Grade	%	3.7%	-	-	-	3.7%	4.0%	4.0%	3.8%	4.0%	3.3%	1.9%	-	-
Development	m	7,325	-	-	-	2,766	2,954	1,605	-	-	-	-	-	-
Supergene Cathode Copper ³														
Sulphide Ore Processed														
Copper Grade	%	1.3%	-	1.4%	1.4%	1.5%	1.4%	1.5%	1.5%	1.1%	1.3%	0.9%	0.4%	-
Zinc Grade	%	3.8%	-	3.6%	4.2%	4.6%	4.7%	3.9%	4.1%	3.8%	3.5%	2.4%	0.8%	-
Process Plant and Infrastructure	\$'000	182,177	161,739	15,338	1,050	-	1,050	-	1,050	-	1,050	-	900	-
Mine	\$'000	61,503	56,590	-	-	12,789	10,859	115	-	-	-	-	-18,850	-
Sustaining	\$'000	29,250	-	-	-	3,750	4,500	4,500	4,500	4,500	4,500	3,000	-	-
Rehabilitation	\$'000	37,329	-	-	-	-	346	346	346	1,150	1,150	17,249	16,741	-
Capital	\$'000	310,259	218,329	15,338	1,050	16,539	16,755	4,961	5,896	5,650	6,700	20,249	-1,209	-
Underground Operating Costs	\$'000	182,432	-	-	-	17,385	34,800	41,148	27,867	25,453	24,240	11,539	-	-
Open Pit Operating Costs	\$'000	137,984	30,977	68,023	35,710	3,275	-	-	-	-	-	-	-	-
Processing and G&A Costs	\$'000	383,437	-	37,828	41,600	41,600	41,714	41,600	41,600	41,600	41,714	41,600	12,581	-
Concentrate Costs	\$'000	334,617	-	32,905	39,471	43,453	43,153	38,630	40,163	34,880	34,757	24,437	2,769	-
Total Operating Costs	\$'000	1,038,470	30,977	138,755	116,781	105,713	119,667	121,378	109,629	101,933	100,710	77,576	15,350	-
Concentrate Produced and Shipped														
Cu concentrate produced / shipped	'000 wmt	468	-	49	53	58	55	57	58	44	51	37	5	-
Zn concentrate produced / shipped	'000 wmt	597	-	56	72	79	81	67	70	66	60	42	4	-
Payable Cu in Cu concentrate	'000t	110	-	12	13	14	13	14	14	10	12	9	1	-
Payable Zn in Zn concentrate	'000t	264	-	25	32	35	36	29	31	29	27	18	2	-

Notes:

- The percentage of the mining inventory that is made up of Indicated Resources has increased to 69 % with 31% being Inferred Resources and **does not** constitute an Ore Reserve. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the full mining inventory will be realised.
- Supergene will be dumped onto a heap leach pad and potentially leached using an SX/EW plant
- No test work at a Pre-Feasibility Study level has been carried out on the supergene material and no production, revenue and costs can be ascribed to it.



JOHN NITSCHKE
Managing Director

For further information, please contact:

Investors:

**John Nitschke / Trevor Hart – Venturex Resources Limited on (08) 6389 7400 or
email: admin@venturexresources.com**

Media:

**Nicholas Read – Read Corporate on (08) 9388 1474 or
email: info@readcorporate.com.au**

About Venturex Resources Limited

Venturex Resources Limited (ASX: VXR) is an exploration and development company with two advanced Copper Zinc Projects near Port Hedland in the Pilbara region of Western Australia. The two projects are the Sulphur Springs Project which includes the Sulphur Springs Project, Kangaroos Caves Resource plus 27km of prospective tenements on the Panorama trend and the Whim Creek Project which includes the Resources at the Whim Creek, Mons Cupri and Salt Creek mines together with the Evelyn project and 18,100 ha of prospective tenements over the Whim Creek basin. Our strategy is to work with our partners Blackrock Metals to expand and extend the existing 5 tonne per day oxide copper heap leach and SXEW operation at Whim Creek, identify other near term production options at Whim Creek, Mons Cupri and Sulphur Springs and fully optimise the Sulphur Springs Project have it shovel ready to take advantage of forecast improvements in base metal prices.

About Entech Mining

Entech Pty Ltd has been associated with the Sulphur Springs Project since 2012 and was a key contributor to the 2015 Optimisation Study. Entech is an independent international mining consultancy specialising in mining engineering, geotechnical and geological services.

Competency Statements

The information in this report that relates to the Open Pit and Underground Ore Reserve and is based on information compiled or reviewed by Mr Donald, of Entech Mining Pty Ltd who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Donald has sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaking to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Reserve". Mr Donald consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled or reviewed by Mr David Milton of Hardrock Mining Consultants Pty Ltd who is a Member of the Australasian Institute of Mining and Metallurgy. The information contained in this report was previously released in an announcement titled "Sulphur Springs Resource Update" issued 11 May 2016.

The Company confirms that:

- a) The form and context of the material in this report has not been materially modified from the above previous announcement;
- b) It is not aware of any new information or data that materially affects the information included in the 11 May 2016 announcement and that all material assumptions and technical parameters underpinning the estimate in the 11 May 2016 announcements continue to apply and have not materially changed; and
- c) It is uncertain that following further exploration and evaluation that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC 2012 Code.

Forward Looking Statements

This report may include certain statements that may be deemed "forward-looking statements". All statements in this report, other than statements of historical facts, that address future activities and events or developments that the Company expects, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. The Company, its shareholders, directors, officers, agents, employees or advisers, do not represent, warrant or guarantee, expressly or impliedly, that the information in this Report is complete or accurate. To the maximum extent permitted by law, the Company disclaims any responsibility to inform any recipient of this Report of any matter that subsequently comes to its notice which may affect any of the information contained in this Report. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices, continued availability of capital and financing, and general economic, market or business conditions. Venturex assumes no obligation to update such information.

Investors are cautioned that any forward-looking statements are not guarantees of future performance and that actual results or developments may differ materially from those projected in forward-looking statements. Please undertake your own evaluation of the information in this presentation and consult your professional advisers if you wish to buy or sell Venturex shares.

APPENDIX 1

NOTES RELATING TO THE REOPTIMISATION STUDY RESOURCE AND RESERVE STATEMENT

Section 1 Sampling Techniques and Data

Details on resources for the Sulphur Springs Deposit has previously been announced to the market refer ASX announcement dated 11 May 2016 “Sulphur Springs Resource Update Increases Copper Content” for most recent update.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled with a combination of reverse circulation (RC) and diamond drill (DD) holes completed on a variable spacing across the deposit to a maximum vertical depth of depth of approximately 800 metres. The RC drill holes were sampled via an industry standard cyclone and riffle splitter system from the recovered sample. Diamond drill core was sampled using standard cut half core or where metallurgical samples taken quarter core was used. • Industry standard reverse circulation (RC) drilling produced whole meter RC drill samples split at the rig using a cone splitter producing samples of approximately 3kgs. Diamond drilling completed to industry standard using predominantly NQ size core. Diamond core was orientated, aligned and cut on geologically determined intervals in the range 0.15 to 2.1 metres. • The whole samples from the drilling were individually weighed, dried, stage crushed and pulverized to nominally minus 75 microns or 200 mesh (total preparation) to produce a pulp which was sub-sample for analysis.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• Prior to 2002 only diamond drilling was used to evaluate mineralisation (approximately 75% of informing information comes from diamond drilling) using mostly NQ size with some BQ, TT56 and HQ size. Drill core was generally structurally orientated for geotechnical and mineralisation structural information purposes. Post 2002 only RC drilling has been used using industry standard 5.5 inch face sampling equipment.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample	• All operators recorded diamond drill core recovery as a percentage of measured recovered core versus drilled distance. Recoveries were generally high except for cavity zones in the oxide zone. On average through the resource estimated zone core recoveries average better than

Criteria	JORC Code explanation	Commentary
	<i>bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	99%. - RC samples were weighed, the weights were recorded on field sheets and compared to an expected weight. The locations of intervals of damp or wet samples or low recovery were recorded and entered into the database. The cyclone and splitter were routinely inspected and cleaned during the drilling ensuring no excessive material build-up. Care was taken to ensure the split samples were of a consistent volume. - There are no detected or material bias or relationships of sample recovery and grade.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	- Diamond drill holes were geologically logged in their entirety and photographed. Representative areas of diamond drilling was logged for geotechnical purposes. RC drill holes were all qualitatively logged and representative sieved and washed chips collected and stored in chip tray samples. - Logging by all operators was at an appropriate detailed quantitative standard to support future geological, resource, reserve estimations and technical/economic studies. - All holes were logged in full..
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <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> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	- Diamond core was sawn with a diamond saw and half core samples (quarter core in metallurgical holes) taken for assay. 1 metre RC samples were collected and split off the drill rig using a cone splitter. Approximately 90% of the samples were dry in nature. - The sampling techniques for collection of the sample to be submitted to the assay facility for both diamond drilling and RC drilling are of consistent quality and appropriate. - Venturex and previous operators had on site during drilling and sampling operations, technically competent supervision and procedures in place to ensure sample preparation integrity and quality. - Some field duplicates were taken for RC drilling but not for diamond drilled samples. - The sample sizes are considered appropriate given the relatively fine grained nature of the sulphide mineralisation which is not nuggetty in nature, the sampling methodology and the percent assay value ranges involved

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <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> <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>	- Over the project life 4 different Perth based assaying facilities have been used. Analytical techniques involve either a three or a four acid digest with a multi-element suite ICP/MS finish (30g FA/AAS for precious metals). Samples were split into high sulphide and low sulphide types on submission to ensure appropriate digestion and quality analysis. Sulphur was determined by the Leco method. All methods of analysis are considered to provide “total” assay values. - No geophysical tools were used to determine any element concentrations reported. - QAQC using re submitted pulps and external check assays, blind blanks and reference standards has been applied to samples assayed. Depending on the operator between 5 and 10% of the assays relate to QA/QC procedures. An independent analysis of intra and inter laboratory bias and precision was undertaken in 2007 by CBH. The results of this QA/QC work indicate no material bias to assay results used by this report. .
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	- Prior to 2011, verification procedures are not documented. However inspection of retained core indicates that recorded locations of mineralisation are correct. Post 2011, significant intersections were checked by the Exploration Manager and Managing Director. Significant intersections are also verified/ by portable XRF data collected in the field and cross-checked against the final assays when received. - No specific twinned holes have been drilled. - A range of primary data collection methods were employed since 1989. Since 2007, data recording used a set of standard Excel templates on a data logger and uploaded to note book computer. The data is sent to Perth office for verification and compilation into an SQL database by the in-house database administrator. Full copies are stored offsite. Full data base verification of all historical information was completed in 2007 by CBH. All data is loaded and stored in DataShed data base. - The historical data (pre-2007) has been adjusted with all negative assays, representing below detection assays, were converted to positive assays of half stated assay detection limit.
Location of data points	<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> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	A full independent resurvey of all pre-2007 hole positions was completed by a licensed surveyor for CBH in 2007. Post 2007, all hole collar coordinates have been picked up by CBH/Venturex employees

Criteria	JORC Code explanation	Commentary
		using a DGPS with all co-ordinates and RL data considered reliable. - Downhole surveys were performed on all holes by either single shot Eastman camera or reflex gyro readings at 10-50 metre down hole intervals. - The grid system used for the location of all drill holes is MGA_GDA94, Zone 50. - Topographic control is provided by combination of external survey control, photogrammetry analysis and DGPS reading..
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i> <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> <i>Whether sample compositing has been applied.</i>	- Due to access for drill sites drilling patterns vary from nominally 40m by 40m to 30m by 30m in the plane of the mineralisation. - The current spacing is adequate to assume geological and grade continuity of the mineralised domain to an Indicated and Inferred resource level. - No compositing has been applied to the exploration results.
Orientation of data in relation to geological structure	<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> <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>	- The Sulphur Springs drilling azimuth is largely orientated perpendicular to the mineralised strike direction. Limitations imposed by the rugged terrain dictates that some drilling is conducted at angles not perpendicular to the dip of the mineralised system. - Given the dominantly strata bound nature of the mineralising system, no material, orientation based sampling bias has been identified in the resource estimation data.
Sample security	<i>The measures taken to ensure sample security.</i>	- Independent audits of the data in 2002 and 2006 concluded that the sampling protocols were adequate. - Post 2011, the chain of custody is managed by Venturex. The samples are transported by Venturex personnel to Whim Creek, stored in a secure facility and collected from site by Toll IPEC and delivered to the assay laboratory in Perth. Online tracking is utilised to track the progress of batches of samples
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	Independent audits of the sampling techniques and data were completed as part of previous and current feasibility studies in 2002 (McDonald Spiegers Pty Ltd), 2006 (Golders and Associates), 2008 (Zilloc Pty Ltd) and 2011 (Snowden). The studies were comprehensive and cover all industry standard issues. There does not appear to be any significant risk in accepting the data as valid

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	- Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. - 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.	- Sulphur Springs Deposit is located wholly within Mining Lease 45/494 and Venturix Resources Limited has a 100% interest in the tenement. - The tenement is within the Njamal Native Title Claim (WC99/8). - The tenement is subject to two third party royalties. - The tenement is a granted Mining Lease, is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration has been conducted at Sulphur Springs by Sipa Resources Limited in conjunction with Ashling Resources, Homestake Limited and Outokumpu since 1985 under various joint ventures and CBH Resources Limited from 2005.
Geology	Deposit type, geological setting and style of mineralisation.	The Sulphur Springs zinc-copper deposit is hosted by the Kangaroo Caves Formation, a volcano-sedimentary sequence within the north –northeasterly trending tectonostratigraphic domain known as the Lalla Rookh –Western Shaw Corridor (LWSC) in the central east of the Archaean Pilbara Craton. The deposit is a well preserved example of an Archaean volcanogenic massive sulphide (VMS) style deposit in a low grade metamorphic terrain.
Drill hole Information	- 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: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length. - If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not Applicable (NA). No new exploration data being released. This report relates to only previously publically reported and recorded information.
Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. - 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. - The assumptions used for any reporting of metal equivalent values should be clearly stated.	- All reported assays have been length weighted. - No top cut has been applied. - For reporting exploration results, a nominal 0.25% copper and 2.0% zinc lower cut-off has been applied. - High-grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.
Relationship between mineralisation widths and intercept lengths	- These relationships are particularly important in the reporting of Exploration Results. - If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. - If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Previous reports highlight down hole intercept and true widths
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	See long section in ASX release dated 18th November 2012.

Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All representative results have been reported or publically released.
Other substantive exploration data	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.	Previous feasibility studies (2002 and 2013) outline project geological characteristics and features with respect to possible mining methods, metallurgical characteristics, possible treatment routes, geotechnical and rock characteristics, ore densities, and potential deleterious or contaminating materials.
Further work	- The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). - Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	No further work of an exploration nature is proposed at this time of reporting.

Section 3 Estimation and Reporting of Mineral Resources

Details on resources for the Sulphur Springs Deposit has previously been announced to the market refer ASX announcement dated 11 May 2016 “Sulphur Springs Resource Update Increases Copper Content” for most recent update.

(Criteria listed in section 1, and where relevant in section 2 apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	- 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. - Data validation procedures used.	- Independent audits of the sampling techniques and data integrity were completed as part of previous feasibility studies in 2002 (McDonald Spiegers Pty Ltd), 2006 (Golders and Associates), 2008 (Zilloc Pty Ltd) and 2011 (Snowden). The studies were comprehensive and investigated the reliability of the database. No database integrity issues have been found. - Comparison of assay values reported on original certified assay sheets from the laboratory against the dataset records revealed no anomalies. The data base has a tabulation of original assay source and keeps a history of any variation/modification
Site visits	- Comment on any site visits undertaken by the Competent Person and the outcome of those visits. - If no site visits have been undertaken indicate why this is the case.	A site visit has been undertaken by the Competent Person in October 2013 and no issues of any material nature for this resource estimate were observed
Geological interpretation	- Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. - Nature of the data used and of any assumptions made. - The effect, if any, of alternative interpretations on Mineral Resource estimation. - The use of geology in guiding and controlling Mineral Resource estimation. - The factors affecting continuity both of grade and geology.	- A very high degree of confidence in the interpretation is based on detailed surface mapping (out crop is almost 100% with little vegetation or alluvium cover) which clearly shows the principal rock types, mineralisation distribution and structural (fault) features. Extensive company and academic studies over a 20 year period have characterized this mineralisation as a well preserved Volcanogenic Massive Sulphide (VMS) deposit. Drilling has demonstrated the continuity of the surface feature at depth. - All surface mapping, drill hole geological and assay data used as basis of interpretation and extent of resource estimate. Cross sectional interpretations were made mainly at 20m spaced sections which increase to 40m spaced at extreme ends of the mineralisation. The sectional interpretations included all major rock and ore types. The sections were then balanced at either 10m or 20m vertical intervals in plan-view horizontally honoring the surface geology and controlled by drilling intercepts at depth. - No alternative interpretations have geological support. - The economic mineralisation is spatially related to the sulphide bearing rock types and events. - VMS deposits have good continuity on a deposit scale. Locally the sulphide bearing rocks have varying tenors of sulphide minerals which vary in both vertical and lateral extent in fresh rock. Latter stage fault

Criteria	JORC Code explanation	Commentary
		and weathering effects have affected the distribution patterns also on a local scale. There is a separate less than 5m true thickness of massive sulphide zone recognized in the overlying chert (hanging wall). Ore types which form separate domains for grade interpolation are massive sulphide, both main and hanging wall, stock work and disseminated zones which can be of a fresh, transitional or supergene type. Oxide material is recognized but not estimated due to lack of informing data
Dimensions	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.	The Mineral Resource covers a single VMS sulphide mineralizing event which has been disrupted post mineralisation by a N-S sub vertical reverse fault into two off-set massive sulphide lenses (East and West), with the West block up faulted and outcropping. Total strike length (east-west) is approximately 500 metres, horizontal cross strike width is 60-125 metres (maximum true width of approximately 16 metres) to a vertical depth of 400 metres. Each lens dips to the north at approximately 45-55°. Underlying the massive sulphide ore type is a volcanic rock sequence which has disseminated and stock work (stringer) ore type sulphide mineralisation. The massive sulphide and stock work ore types may contain economic grades

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<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 assisted estimation method was chosen include a description of computer software and parameters used.</i> <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> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <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>	- The Sulphur Springs Mineral Resource Estimate takes into account observations, comments and methods of previous estimates completed by Outokumpu (2002), CBH (2009) and Venturex (2102). No production has occurred at this deposit. - The estimates have included all principal metals associated with the mineralisation where sufficient data is available. The principle revenue potential elements are copper, zinc, silver, lead and gold. Other elements estimated were sulphur, iron, arsenic, barium, bismuth, cadmium, cobalt, mercury, manganese, nickel and antimony. - A block model has been generated. Parent cell measures 10 metres (X axis), 10 metres (Y) and 10 metres (Z) with sub-cells of 2.5 metres (X), 2.5 metres (Y), 2.5 metres (Z), appropriate given an average drill spacing of 30 metres. The estimation is based on interpolation of grades using up to three passes of interpolation using appropriate inverse squared and cube interpolations in SURPAC. The interpolation is ellipsoidal and the directional features and search radii varies within the ore type domains. Minimum samples required to make an estimate vary from 2 to 20 according to ore type domain. Discretization was set to 5(Y) by 5(X) by 2(Z). - No selective mining consideration made in modelling. - A high confidence correlation between sulphur grade and S.G which was used to predict ore block density when S grade is greater than 1%. Good correlation exist between zinc, cadmium and mercury and the same estimating parameter were applied to these assays. Weaker correlations exist between other major and minor metals but were not used in estimation considerations. - Resource estimate related to ore type domains based on massive sulphide, disseminated sulphide and super gene zones for each lens and zone. These hard boundaries have strong unequivocal geological support and were used to constrain both the informing assay data selection and grade interpolation. - No top cuts were applied to any assay data. - Composite length was set at best fit of 1 metre for ore types massive, disseminated and supergene and 2m for stock-work. Estimate validated against original composite grades in swath plots and statistically using 20m slices.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis. Moisture content in ore is negligible
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The Mineral Resource estimate is reported at 0.4% Cu or 2% Zn, this being an economic cut-off considered by Venturex to be relevant to long term revenue considerations

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	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 an explanation of the basis of the mining assumptions made.	No assumption or modification to the resource has been made with consideration to mining methods factors. The resource estimate is an in-situ estimate. A minimum intersection width of 2m has been applied to massive sulphide zone
Metallurgical factors or assumptions	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.	No assumption or modification to the resource has been made with consideration to metallurgical factors. The resource estimate is an in-situ estimate
Environmental factors or assumptions	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 greenfield 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.	Estimate include rock type, weathering type and in-situ sulphur content of materials. No assumption or modification of the resource has been made in consideration of environmental factors
Bulk density	- 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. - 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. - Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	- Densities used in the calculation are based on around 2600 specific gravity determinations were carried out on whole diamond core samples of representative of all the different rock and ore types. Assays pertain to the same interval measured. - Density measurements were conducted on site by the classical water immersion method, using the total core for each sample. Check determination were made at the assay laboratories which confirmed the accuracy of the determinations. The rocks are homogenously solid with negligible pore space. - Metals of economic consideration and the basis of this estimate are only related to sulphide bearing rock. The high correlation confidence between sulphur grade and measured density has allowed the use of estimation of sulphur grades to predict rock density used in the tonnage estimates
Classification	- The basis for the classification of the Mineral Resources into varying confidence categories. - 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). - Whether the result appropriately reflects the Competent Person's view of the deposit.	- Mineral Resource classification into Inferred and Indicated categories is based on a combination of average weighted distance from sample points, true distance, drill density and geological interpretation confidence. No portion of the resource was considered to be of Measured category. - Appropriate account of the confidence in the tonnage/grade estimates and the supporting interpretation of the controlling geological factors and estimation method has been used for these classifications.

Criteria	JORC Code explanation	Commentary
		It is the opinion of the Competent Person that the resource classifications reflect their confidence in the estimates for the deposit
Audits or reviews	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	No review or audit of this estimate has been undertaken. The estimate is similar to previous estimates in its grade, tonnage and classification types. The greatest difference from previous estimate lies in the treatment of the main mineralisation envelope as a single contiguous zone of sulphide mineralisation rather than 20 separate zones and recognizing supergene and transitional ore types
Discussion of relative accuracy/ confidence	<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> <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> <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	- The model has been validated visually against drilling and statistically against input data sets on a domain and on swath plot basis. The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC code. - The statement relates to global estimates. - No production data is available to compare resource statement with.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3 apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. - Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	- This ore reserve is based entirely on the Indicated portion of the current reported Mineral Resources at the Sulphur Springs deposit (refer to ASX release 11/05/16 Sulphur Springs Resource Update Increases Copper Content). - Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	- Comment on any site visits undertaken by the Competent Person and the outcome of those visits. - If no site visits have been undertaken indicate why this is the case.	- The competent person has not visited the site. - The competent person is comfortable relying on reports from other independent consultants, and other Entech staff, who have visited site and other operations in the area respectively.
Study status	- The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. - 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.	- The mining study supporting the Ore Reserve has been completed to a pre-feasibility level. - Modifying factors accurate to the study level have been applied. The resulting mine plan is technically achievable and economically viable.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	A "Net Smelter Return" (NSR) function was modelled at the block level, based on block grades, recovery and pricing. For both open cut and underground, material was stockpiled and available for processing if NSR >\$AUD46 (total of processing cost plus G&A).
Mining factors or assumptions	- 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). - 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. - The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. - The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). - The mining dilution factors used. - The mining recovery factors used. - Any minimum mining widths used. - The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. - The infrastructure requirements of the selected mining methods.	- Conventional mining methods have been chosen. Open cut operations are planned around a 190t-class excavator and 100t dump trucks. Underground operations use rubber tyred diesel equipment, 1:7 decline, 50t class trucks. Open pit and underground designs are matched to the planned equipment fleet. - The selected mining methods resulted from an analysis of previous underground feasibility studies combined with additional geotechnical analysis. - Underground production will be predominantly from longhole open stopes and sub-level cave for removal of interstitial pillars. Voids will be filled post extraction with waste rock backfill introduced from a mill hole breaking through to the pit floor. - Independent consultants prepared the geotechnical analysis for the open pit. This forms the basis of pit design criteria. For the underground design, Entech's geotechnical engineer made an in-depth review of all previous geotechnical work and data to arrive at the currently adopted set of geotechnical parameters. These include stope size, fill method and additional support installation. Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve.

Criteria	JORC Code explanation	Commentary
		• Open pit mining blocks were diluted by 10%. Underground stopes were diluted by the following factors according to stope type: ○ Longhole open stope – 10% ○ Core and shell rib – 10% ○ Core and shell sill – 25% Underground ore development has assumed 0% dilution. • Mining Recovery of 95% was assumed for the open pit. Underground Mining Recovery factors were specified according to stope type: ○ Longhole open stope – 95% ○ Core and shell rib – 80% ○ Core and shell sill – 80% A 100% mining recovery for ore development has been assumed. • Pre-feasibility level mine designs support the Ore Reserve estimation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource. • The following infrastructure will be required and is included in the pre-feasibility capital and operating cost estimate: Backfill Plant; Tailings Storage Facility; Waste Rock Landform; Administration buildings; Stores and maintenance facilities; Power generation and Reticulation; Waste water treatment facilities; Water catchment dams; bore fields; evaporation ponds; Accommodation village; Airstrip; Processing Plant; Site access road
Metallurgical factors or assumptions	• <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> • <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> • <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> • <i>Any assumptions or allowances made for deleterious elements.</i> • <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> • <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>	• The metallurgical process was developed to a pre-feasibility level including the development of a flowsheet and capital and operating costs. • The process stages are based on well understood conventional unit processes. The plant design flow sheet uses confirmed metallurgical processes for this style of ore. The technology is standard in the base metal industry and will process the varying ore types through a conventional three stage crushing and grinding circuit, followed by sequential flotation of the copper, lead and zinc sulphide minerals to produce saleable copper, lead and zinc concentrates. • Considerable feasibility study level metallurgical test work programs were completed previously in 2002 and 2006. A further program of confirmatory test work was completed in 2011-12 including extensive testing of individual and composited geological domains. Metallurgical recovery factors were determined for each recovered metal in each concentrate product stream. • The deleterious element content of each concentrate product was determined and profiled against typical concentrate specifications sourced from third party purchasers. • No bulk sample or pilot scale test work has been undertaken.

Criteria	JORC Code explanation	Commentary
Environmental	<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>	- Extensive baseline environmental studies for the project area were completed in 2006 by CBH for a previous feasibility study. Further baseline studies have been conducted by Venturex in 2011-12 to add to this. Extensive materials (waste rock and tailings) characterisation studies have been undertaken. - Venturex have reviewed the issues arising from the Public Environmental Review process partially completed for the Panorama Copper-Zinc Project submitted by CBH Sulphur Springs Pty Ltd in November 2007. - Key issues identified for the project are impacts on conservation significant flora, long term management of potentially acid forming waste materials (waste rock and tailings) and water management. - Approvals received in 2013-14 for ore processing, underground mining and development of supporting infrastructure are considered to remain valid for the revised project. Additional approvals required for the revised project design have been identified. These relate to development of a small open pit with an associated waste rock landform, changed tailings storage method and location and the resultant increase in project footprint. Information needs to prepare application documents including a revised mine closure plan have been identified, scheduled and costed. - The project has carefully designed its footprint to minimise environmental impacts. Final design options were selected to minimise the disturbed area within landform constraints imposed by rugged topography.
Infrastructure	<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>	The site is remote. There is currently no substantial on-site infrastructure, and the pre-feasibility study comprehensively estimates the costs for the development of all necessary infrastructure items. Haul road access to the sealed Port Hedland- Marble road has been constructed under an agreement with Atlas Iron Limited.
Costs	<i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> <i>Allowances made for the content of deleterious elements.</i> <i>The source of exchange rates used in the study.</i> <i>Derivation of transportation charges.</i> <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> <i>The allowances made for royalties payable, both Government and private.</i>	- Capital and Operating costs were estimated to pre-feasibility level accuracy (+/-25%) in 3rd quarter 2015 based on the mechanical equipment lists, drawings and scope definition undertaken as part of the study. Process operating cost estimates were based on a breakdown of costs by discipline including consumables, power, labour and maintenance. - Mining operating costs were largely sourced from quotations provided by mining contractors along with first principles estimations and database rates by independent consultants. Processing, and general and administration operating costs were built up on standard industry cost profiles. - The product price has been assigned based on its full expected elemental makeup including all revenue drivers and deleterious components. - Venturex applied a fixed exchange rate of 0.775 cents/USD

Criteria	JORC Code explanation	Commentary
		- All infrastructure components and consumables are assumed delivered to site at estimated road haulage rates. Product is considered sold upon delivery to the destination port. - TC/RC forecasts are based on analysis of independent forecasts from a range of third party providers and third party smelters. - Allowances have been made for royalties, land access payments and mine rehabilitation fund.
Revenue factors	- 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. - The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	- The revenue is a function of diluted block modelled grade, modelled comprehensively through the mining, mineral processing and transportation chain where it is expected to be delivered to an offtaker at a forecast price. - The mine planning underpinning the Ore Reserves was conducted using preliminary, fixed point product pricing that was suitable for blockmodel coding and mine design. The Ore Reserves are feasible and economic under both pricing schedules. - Metal price and foreign exchange assumptions are based on analysis of consensus forecasts from a range of third party providers.
Market assessment	- The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. - A customer and competitor analysis along with the identification of likely market windows for the product. - Price and volume forecasts and the basis for these forecasts. - For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	- Zinc concentrate is committed under MOU to Toho Zinc Limited for the first 230,000 tonnes of contained zinc metal. The volume and high quality of zinc concentrate produced would attract a ready market domestically and internationally. - Based on design plant capacity and mining schedule, steady state production is forecast to be approximately 11,000t of copper, 32,300t of Zinc and 215,500oz of silver
Economic	- 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. - NPV ranges and sensitivity to variations in the significant assumptions and inputs.	For the purpose of estimating an Ore Reserve, an NPV was estimated at a discount rate of 8%. The confidence in the inputs is consistent with a Probable classification of the Ore Reserve. The project has a positive NPV.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	- The plant site is located on vacant crown land. - The NJAAMAL People have Native Title Rights over the area, the Company has a mining agreement in place with the NJAAMAL People to allow development of the site.
Other	- To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: - Any identified material naturally occurring risks. - The status of material legal agreements and marketing arrangements. - 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.	- Major construction, supply, operational, consumables supply and site service contracts remain to be committed and finalised. Zinc concentrate off-take MOU completed. Copper concentrate off-take is uncommitted. - Joint Access and Haul Road Development agreement completed. - All tenements required for the construction and operation of the Project are granted and in good standing. - The mining operation is proposed to occur upon M45/494, which has been granted. There are no grounds to believe that remaining required approvals will not be successfully granted.

Criteria	JORC Code explanation	Commentary
Classification	<i>The basis for the classification of the Ore Reserves into varying confidence categories.</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i>	- The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss. - The result appropriately reflects the Competent Persons view of the deposit. - None of the Probable Ore Reserves have been derived from Measured Mineral Resource.
Audits or reviews	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	No external Audits or reviews have been completed.
Discussion of relative accuracy/ confidence	<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> <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> <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> <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>	- This Ore Reserve is attributed a confidence classification of "Probable" Ore Reserve in its entirety. There is a degree of uncertainty associated with the Mineral Resource estimate and the modifying factors. - The accuracy and confidence limits are based on the current mine design and cut-off grade analysis employed in the technical and economic evaluation. Material changes to the technical or economic assumptions used, including operating costs, TC/RC costs, transport charges, concentrate payability factors and metal prices may materially impact the accuracy of the estimate. - No production data is available.