

ASX / MEDIA ANNOUNCEMENT

ASX: NCZ 25 June 2019

Century Expansion Study Incorporating In-situ Resource Development Demonstrates Strong Value Add Potential

New Century Resources Limited (Company or New Century) (ASX:NCZ) is pleased to provide the results of the Expansion Study (**Study**), incorporating Century's current defined unmined in-situ resource deposits into the overall tailings reprocessing operations.

General highlights (detailed highlights on page 3):

- Potential for mine life extension through to mid-2026
- Strong zinc production profile and development of a lead product
- Excellent project economics, with in-situ operations also providing the opportunity to reduce overall project C1 costs through by-product revenue
- East Fault Block resource upgraded to Indicated status
- Current operational ramp up making good progress, with June quarter 2019 operations on track to deliver record metal production



Figure 1: Overview of existing Reserves & Resources at the Century Zinc Mine

 Office
 Level 4, 360 Collins Street, Melbourne VIC 3000

 Phone
 +61 (3) 9070 3300

 Email
 info@newcenturyresources.com

 Website
 www.newcenturyresources.com



Cautionary Statements

As the Expansion Study utilises a portion of Inferred Resources, the ASX Listing Rules require a cautionary statement is included in this announcement. The Expansion Study referred to in this announcement is a study of the potential of combining the Company's in-situ resources with the Company's current tailings mining at the Century Zinc Mine.

The Expansion Study includes a minor proportion (3%) of Inferred Resources. There is a lower level of geological confidence associated with these additional Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production target will be realised. The Company has concluded however, that it has reasonable grounds for disclosing a mining and production target which includes 3% of Inferred Mineral Resources as the Inferred Resources used in the Expansion Study are not critical to the economic viability of the combined operations. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate additional Ore Reserves to support a longer mine life.

New Century Resources believes that the production target, forecast financial information derived from that target, and other forward looking statements included in this announcement are based on reasonable grounds. However, neither the Company nor any other person makes or gives any representation, assurance or guarantee that the production target or expected outcomes reflected in this announcement in relation to the production target will ultimately be achieved.

Investors should note that the Company believes the commodity prices, AUD:USD exchange rate and other variables that have been assumed to estimate the potential revenues, cash flows and other financial information are based on reasonable grounds as at the date of this announcement. However, actual commodity prices, exchange rates and other variables may differ materially over the contemplated mine life and, accordingly, the potential revenue, cash flow figures and other financial information provided in this announcement should be considered as an estimate only that may differ materially from actual results. Accordingly, the Company cautions investors from relying on the forecast information in this announcement and investors should not make any investment decisions based solely on the results.

A number of key steps need to be completed in order to achieve the expansion of production at the Century Zinc Mine. Many of those steps are referred to in this announcement. Investors should note that if there are any delays associated with completing those steps, or completion of the steps does not yield the expected results, the actual revenue and cash flow figures may differ materially from the Study results presented in this announcement.

To achieve the range of outcomes indicated in this announcement, funding in the order of A\$97 million will likely be required. While the Company is generating cashflow from operations, has existing cash reserves, has a financing facility through Värde Partners and any start-up working capital requirement is anticipated to be covered by the cash flow generation of the existing operations, investors should note there is no certainty that the Company will be able to raise any additional funding if needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.



Detailed Highlights:

In-situ Development Extends Strong Zinc Production Profile & New Lead Product:

- Based on a designed throughput of 10Mtpa tailings + 2Mtpa in-situ:
 - Zinc production <u>LOM average of 233ktpa zinc-in-concentrate</u> including ramp up period (total production 1,630kt) from both tailings and in-situ deposits
 - Lead production <u>LOM average of 29ktpa lead-in-concentrate</u> including ramp up period (total production 159kt) from in-situ deposits
 - Total silver production of up to 18.9Moz in zinc and lead concentrates

Excellent Overall In-situ Project Economics:

- Robust in-situ project economics, projecting (in addition to tailings operations):
 - <u>A\$422M in additional after tax free cashflow;</u> and
 - <u>A\$268M in additional overall Century operations NPV (after tax)</u>
- Combined operations have the potential to generate over A\$1,500M in after-tax free cash flow based on updated analyst consensus zinc pricing and TC projections



• Strong estimated EBITDA profile from combined tailings and in-situ operations:

Mine Life Extension:

- Development of Century in-situ operations in addition to existing tailings operations to provide an increase in mine life, now <u>totalling 7 years to mid-2026</u>
- Further opportunities to increase Century mine life through:
 - Silver King extension, which remains open along a structurally controlled strike with multiple drilling hits outside of the existing resource
 - Watson's Lode, which is to be assessed for further drilling and resource definition
 - New Century's exploration strategy, which includes active exploration across the tenements over the mine life, with multiple targets yet to be fully explored & defined



Attractive Overall Operating Costs:

- Average LOM C1 costs are projected to be:
 - Case 1: Current tailings only operations (ramping up to 12Mtpa) LOM C1 costs of US\$0.56/lb Zn including ramp up, based on revised tonnage and TC projections
 - Case 2: Combined tailings (10Mtpa) and South Block & East Fault Block operations (2Mtpa) LOM average C1 costs of US\$0.55/lb Zn including ramp up, with in-situ mining and processing costs offset by lead & silver credits
 - Case 3: Combined tailings (10Mtpa) and all in-situ deposit operations (2Mtpa) LOM average C1 costs of US\$0.50/lb including ramp up, with in-situ mining and processing costs offset by lead & silver credits



Improved Capital Expenditure Profile:

- Case 1: Current tailings only operations (ramping up to 12Mtpa) capital estimate:
 - 37% reduction in total capital costs for tailings Phase 2 ramp-up (A\$40M from A\$63M)
 - Capital use optimised to complete refurbishment of the remaining 45% of plant capacity to achieve zinc recovery target & throughput of up 12Mtpa tailings
 - Remaining tailings ramp-up capital to be incurred over FY20
- Case 2: Capital estimate for development of South Block / East Fault Block deposits estimated at A\$55M (in addition to Case 1 capital), spread over ~2 years from decision to mine
- Case 3: Capital estimate for development of all in-situ deposits estimated at A\$97M (in addition to Case 1 capital)

In-situ Development Next Steps:

- In-situ Feasibility Study now underway, planned for completion end of Q3 FY20, the results of which will be used for consideration of a decision to mine
- Current schedule estimate allows for first concentrate production from in-situ mining in 2H FY21, should a decision to mine be made



Current Tailings Only Operational Ramp-Up Progress:

- Mining rate ramp up status and schedule:
 - Completion of Phase 1 tailings ramp up, with the third mining cannon now online generating a stable ~8Mtpa mining rate as of mid-June 2019
 - Tailings ramp up now planned to progress to 12Mtpa by end of Q3 FY20, with ramp down to 10Mtpa if in-situ operations commence per indicative timing in 2H FY21
 - 6.6% of the current tailings Ore Reserve (77.3Mt at 3.1% ZnEq) mined to date

Recovery performance ramp up status and schedule:

- Successful achievement of 55%+ recovery at a stable 6Mtpa mining rate
- Instability from mining expansion to 8Mtpa and a short term plant bottleneck in the cleaner circuit resulting in June 2019 quarterly recovery currently averaging 44%
- Anticipating strong recovery growth in the September 2019 quarter through full utilisation of the entire cleaning circuit (45% additional cleaning capacity to current operations)
- Remainder of the cleaning circuit to be wet commissioned by end of July 2019, with ore processing to occur from August 2019
- New Century remains on track for record metal production in the June 2019 guarter



Processing Plant Plan View (Current Operations)

Online from August 2019, removing cleaner circuit recovery bottlenecks for 8-9Mtpa operations

Legend (Current Tailings Only Operational Status):

Online August 2019

Online Q3 FY20 Allows expansion to 12Mtpa in conjunction ----with fourth mining cannon

Not under refurbishment



Ap	oproximate	Technical Parame	eters - Life-of-Mine				
	Units	12 Mtpa Tailings	10Mtpa Tailings + South Block / East Fault Block	10Mtpa Tailings + South Block / East Fault Block + Silver King			
Mine Life (from 01 July 2019)	-		7 years (through to mid-2020	5)			
Estimated Start Date	-	In Operation	1H CY2021				
Mining ¹							
Tailings - Ore Mined	Mt	72.3	72.3	72.3			
Tailings - Waste Mined	Mt	0	0	0			
In-situ - Ore Mined	Mt	-	7.7	9.3			
In-situ - Waste Mined	Mt	-	62.2	62.8			
Open Pit Strip Ratio ⁶	-	-	8.1	8.1			
Processing				•			
Tailings - Av. Zinc Grade ²	%	3.0%	3.0%	3.0%			
Tailings - Av. Lead Grade ²	%	0.6%	0.6%	0.6%			
Tailings - Av. Silver Grade ²	g/t	12	12	12			
In-situ - Av. Zinc Grade ²	%	-	4.8%	5.0%			
In-situ - Av. Lead Grade ²	%	-	1.2%	4.3%			
In-situ - Av. Silver Grade²	g/t	-	39	54			
Tailings - Zinc Recovery ³	%	62%	62%	62%			
Tailings - Lead Recovery ³	%	-	-	-			
Tailings - Silver Recovery ³	%	43%	43%	43%			
In-situ - Zinc Recovery ³	%	-	75%	76%			
In-situ - Lead Recovery ³	%	-	68%	71%			
In-situ - Silver Recovery ³	%	-	65%	69%			
Production ¹				•			
Zinc Metal Recovered	kt	1,293	1,563	1,630			
Lead Metal Recovered	kt	-	63	159			
Silver Metal Recovered	kOz	11,876	17,488	18,909			
Zinc Concentrate Grade ⁴	%	49%	50%	50%			
Silver in Zn Conc. Grade ⁴	g/t	140	160	160			
Lead Concentrate Grade⁵	%	-	68%	69%			
Silver in Pb Conc. Grade⁵	g/t	-	350	510			
Zinc Concentrate Production	kt	2,639	3,126	3,261			
Lead Concentrate Production	kt	-	93	230			

Table 1: Expansion Study Technical Summary (see table notes below)

Table 1 Notes:

1. For further details on projected annual production figures for all products see Figure 10 and Table 7

2. Average metal grades based on life of mine material reporting to the processing plant

3. Average recoveries based on steady state operations exclusive of ramp up

4. Zinc concentrate from all deposits to be combined (in-situ and tailings initially processed via separate existing zinc rougher circuits, followed by combined feed for the zinc scavenger and zinc cleaner circuits), see Figure 7

 Lead concentrate from all in-situ deposits to be combined and processed through the existing individual lead rougher/scavenger and cleaning circuits), see Figure 7

6. Strip ratio for South Block / East Fault Block open pits only



Fi	nancial Pa	rameters (appro	ximate)					
Metal Prices & Exchange Rate ¹								
Zinc		US\$2,650/t (US\$1.20/lb)						
Lead		US\$2,	165/t (US\$0.98/lb)					
Silver			US\$19/oz					
AUD/USD			\$0.70 ⁷					
	Units	Units 12 Mtpa Tailings ² 10Mtpa Tailings + South Block / East Block / East Fault B Fault Block + Silver King						
Project Cash Flows								
Net Smelter Revenue	A\$M	3,504	4,432	4,949				
C1 Operating Costs (payable Zn) ⁴	USD/lb Zn	0.56	0.55	0.50				
C1 Operating Cost Differential ⁵	USD/lb Zn	-	-0.01	-0.05				
EBITDA	A\$M	1,704	2,102	2,404				
Capital Expenditure ³	A\$M	40	95	137				
Sustaining Capital & Rehabilitation ⁶	A\$M		127					
Valuation								
Free Cashflow (after tax)	A\$M 1,128 1,365 1,549							
NPV ₈	A\$M	879	1,024	1,146				
IRR (incremental on 12Mtpa tailings)	%	-	46%	80%				

Table 2: Expansion Study Financial Summary (see table notes below)

Table 2 Notes:

1. Commodity pricing assumption represents average over life of mine based on Consensus Economics forecasts, June 2019.

Tailings economics based on the Restart Feasibility Study (Nov 2017), up to date actual operating cost data, with revised commodity, exchange rate and treatment charge assumptions as well as considering current depletion of the Ore Reserve and existing tailings ramp up progress.

3. Capital Expenditure represents further capital requirements for tailings ramp-up and all capital requirements including appropriate contingency allowances for in-situ development

4. C1 is defined as direct cash operating costs produced, net of by-product credits, divided by the amount of payable zinc produced. Direct cash operating costs include all mining, processing, transport, treatment costs and smelter recovery deductions through to refined metal.

5. Calculated reduction (negative value) or increase (positive value) in LOM average operating costs due to incremental cost increase of respective in-situ operation Case

6. Net rehabilitation is expected to remain the same as increased disturbance for East Fault Block and Silver King are offset by savings through integrated mining and rehabilitation of the waste rock dumps.

7. USD: AUD of 0.73 used for FY20 and then 0.70 for every subsequent year.



Project Overview

Mine Location and History

The Century Zinc Mine (**Mine** or **Project**) is located in north-west Queensland approximately 250km from Mt Isa. Production at Century began in 2000 and was one of the largest zinc mines in the world, producing 475,000tp.a. zinc and 50,000tpa lead concentrates using conventional open-pit mining, grinding and flotation at the Lawn Hill mine site.

Processed concentrates were transferred along a 304km underground slurry pipeline to Century's port facility at Karumba, on the Gulf of Carpentaria. Concentrates were then dewatered before being transported on the M.V. Wunma transhipment vessel to export ships anchored offshore and then sold to smelters globally.

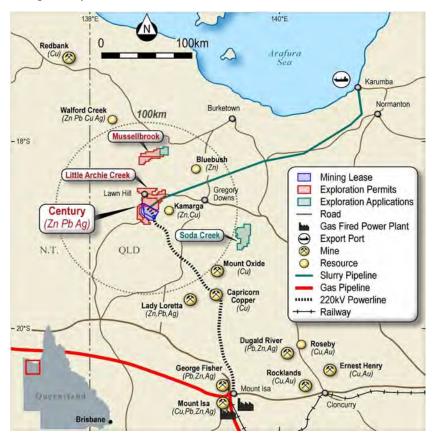


Figure 1: Century Project and regional infrastructure overview

The mine was placed on care in maintenance in 2016 by the then owners MMG and acquired by New Century Resources in 2017.

Current Tailings Reprocessing Operations

Since acquiring the Century Mine, the Company has focused on restarting operations through the reprocessing of the large tailings Ore Reserve on the mine site. Operations on tailings commenced in August 2018 and has been ramping up to an initial Phase 1 design throughput of 8Mtpa.



Mineral Resources & Reserves

The current Tailings Ore Reserve (**77.3Mt at 3.0% Zn and 12g/t Ag**) provides the base production. Beyond this, three in-situ deposits on the mining lease, located less than 2km from the processing plant, were used as the basis for the Study.

- The **South Block** (**SB**) **Deposit** was the final cutback of the original "Big Zinc" deposit and was never mined by the previous owners due to a site of cultural significance located at surface. In May 2018, the Queensland Government registered a Cultural Heritage Agreement between the Company and the Native Title holders to allow the removal of this site and the mining of South Block.
- The **East Fault Block** (**EFB**) **Deposit** is a pod of the original Century ore and is located just north of the previous ROM pad.
- The **Silver King** (**SK**) **Deposit** is a high-grade vein style deposit located to the south-west of the existing open pit and extends along strike.

The current total in-situ Mineral Resources at the Century Mine (excluding Reserves) are:

9.4Mt at 10.7% Zn+Pb (6.1% Zn, 4.6% Pb & 65g/t Ag)

consisting of an Indicated Mineral Resource of 6.7Mt at 7.2% Zn+Pb (5.7% Zn, 1.5% Pb & 43g/t Ag) and total Inferred Mineral Resources of 2.7Mt at 19.4% Zn+Pb (6.9% Zn, 12.5% Pb & 120g/t Ag).



Figure 2: In-situ resources used in Study

Please see the Resources and Reserve Statement at the end of this announcement for further details.



Study Aim & Cases

The Study aimed to investigate the incorporation of the in-situ deposits into the existing mine plan, compared to tailings only as per the 2017 Restart Feasibility Study¹ (**RFS**). Development of the insitu deposits concurrently with tailings aims to:

- Increase the overall operational mine life while maintaining the metal production profile;
- Deliver the metal production at the same or lower average C1 cost as tailings only; and
- Increase the overall after-tax free cash cashflow generated by the Project.

The following cases were investigated:

- 1. Tailings Only (Base Case): This is the case that was developed as part of the 2017 RFS. Initially involving a ramp up to a 15Mtpa tailings only (with the installation of additional flotation cells and regrind mills), this has been revised to a 12Mtpa tailings throughput only using the existing plant, resulting in a significant reduction in capital costs and allowing for a more optimal initial operation prior to implementation of in-situ operations.
- 2. Combination Tailings & In-situ Case 1: The first option investigated was to mine (via open pit) 2Mtpa of a combination of the South Block and East Fault Block indicated resources deposits and process this ROM concurrently with 10Mtpa of tailings.
- 3. Combination Tailings & In-situ Case 2: The second option is similar to Case 1, however with a different in-situ blend: 400ktpa of Silver King ore (via underground mining) and ~1.6Mtpa of South Block / East Fault Block ore concurrently with 10Mtpa of tailings.

Mining

Tailings Deposit

The Century Mine tailings storage facility (TSF) is approximately 2.7km long (north-south) and 2.2km wide (east-west). The tailings resource in the northern end of the TSF is approximately 10m deep while the resource is approximately 22m deep in the south-eastern corner, with an average thickness of 13m.



Figure 3: Current progress of hydraulic mining at Lawn Hill

¹ See ASX announcement dated 28 November 2017



The Century Tailings Deposit is currently mined utilising the hydraulic mining method. Hydraulic mining operations are progressively ramping up and will ultimately utilise five track-mounted monitor units; four actively working faces on the tailings deposit and one on standby.

Current hydraulic mining operations utilise three monitor units, which are now mining at a rate of 8Mtpa. To date 5.1Mt of tailings has been mined, representing 6.6% of the existing Ore Reserve.

South Block / East Fault Block Deposits

The development of South Block (SB) and East Fault Block (EFB) deposits were contemplated for incorporation into the existing operations as part of this Study. SB & EFB are proposed to be mined using open pit mining methods. Downer EDI Mining Pty Ltd (Downer) generated the mining plan and cost estimate for a combined development of both deposits, based on the current geological model and applying a 3.1% ZnEq cut-off grade for the ore.

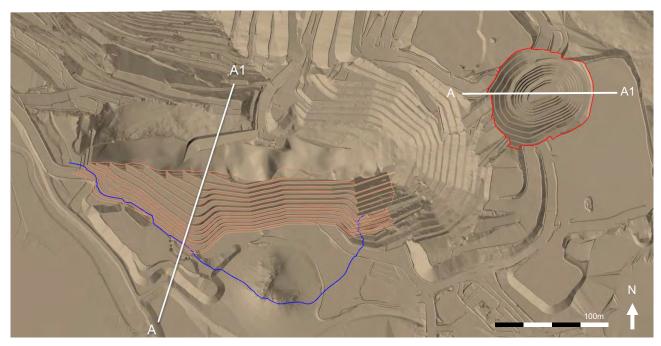


Figure 4: Final wall design for South Block (blue) and East Fault Block (red)

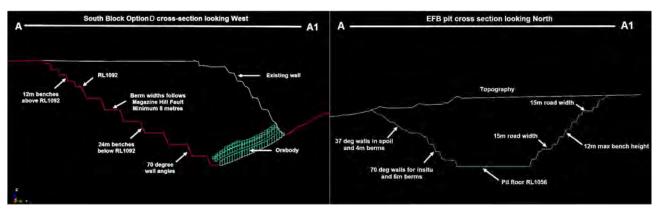


Figure 5: Mine design criteria for South Block (left) and East Fault Block (right)



The mine plan developed for SB used a strip ratio of 7.3. A combination of 12m (in the upper level) and 24m (in the lower level) bench heights were used with a 70 $^{\circ}$ wall angle, at a minimum width of 8m.

A pit shell for EFB developed by previous owners was used as the basis for the mine plan. The orebody is 40 metres from the surface, which includes approximately 10 metres of spoil material, followed by 30 metres of in-situ waste. 12m bench heights were used with a 70° wall angle. The mine plan developed for EFB used a strip ratio of 17.8.

Silver King Deposit

The underground mining method, design and schedule proposed for Silver King (**SK**) is downhole bench and fill using appropriately sized narrow vein mining equipment. The proposed underground mining method is a tried and proven technique well suited to Silver King's production rate requirements, geometry and expected ground conditions.

The method selected allows for a high degree of mechanisation with productivity and cost benefits. Typically, 40 to 50t articulated dump trucks, loaded by either 5.7 or 7.3m³ load haul dump units will undertake the loading and hauling while development jumbos and production drill rigs carry out the drilling for development and stoping respectively. All access development including the ramps will be developed at 5m wide by 5m high, on gradients not exceeding one in seven.

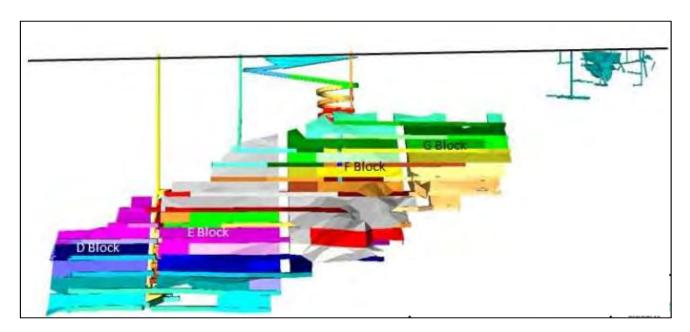


Figure 6: Silver King mining blocks (section looking west)

Due to the resource size and mining limitations, the maximum ore mining rate assumed to be produced from Silver King is 400ktpa.



Processing

Metallurgical Testwork

Metallurgical testwork for South Block was carried out using three composite samples from existing drill core samples. These composites represented a blend of different zones within the deposit to determine the impact of ore variability. A total of 25 flotation tests were carried out to determine the optimum primary grind size, reagent addition rate, impact of pre-flotation (carbon removal) and the impact of combining in-situ flotation with tailings compared to separate processing.

The testwork results were in line with historical Century operations, in both grind size, expected metal recovery and reagent consumption rate. The results also indicated that flotation with a combination of tailings and in-situ material provided no negative impact on flotation performance. However, the Company has opted to maintain separate rougher flotation circuits for tailings and in-situ to provide greater flexibility for process optimisation of each ore type in its own dedicated circuit. The concentrates from each rougher circuit will however be processed in the same existing scavenger and cleaner circuits to produce the final product.

No testwork was carried out on East Fault Block, due to the relatively small resource size compared to South Block and the similarity to historical Century ore and historical analysis completed by previous owners. Further testing on both South Block and East Fault Block, including piloting, will be carried out in the next phase of development prior to a decision to mine.

Previously, MMG conducted test work on the Silver King ore in conjunction with the then current Century ore in 2012. The tests showed the lead and silver recovery to be proportional to their head grades, with lead concentrate with grades of greater than 65% Pb and 200g/t Ag achievable with high recoveries (see Table 3). A pre-flotation stage for carbon removal on Silver King ore was not found to be necessary.

Process Design

The tailings only flow sheet has been provided in the RFS release. The Company engaged Sedgman Pty Ltd (**Sedgman**) to undertake a PFS-level design and capital cost estimate for operating the existing flotation plant and processing a combination of tailings and open pit/underground ore. The aim was to optimise the flow sheet such that the metal production rate could be maximised and mine life extended beyond the current tailings only operation. This formed the basis of setting the throughput limits for tailings and in-situ ore at 10Mtpa and 2Mtpa respectively.

The 'blended' flow sheet, whereby a combination of in-situ ore and tailings are treated concurrently, can be seen in the figure below. The flowsheet has been designed on the basis that ore and mined tailings are treated continuously in parallel, producing lead and zinc concentrates. This requires in-situ ore to be initially processed down one line of the flotation circuit and tailings down the other, with zinc rougher concentrates products combined for common scavenging and cleaning. One line configured to be for tailings only (i.e zinc rougher, zinc scavenger, zinc cleaner circuits). The other configured for the same operation as the original concentrator for in-situ ore



processing (i.e. pre-flotation, lead rougher, lead scavenger and zinc rougher sections, producing a saleable lead concentrate and an in-situ zinc rougher concentrate, which is combined with the tailings rougher concentrate which is further processed in the combined zinc cleaner circuit).

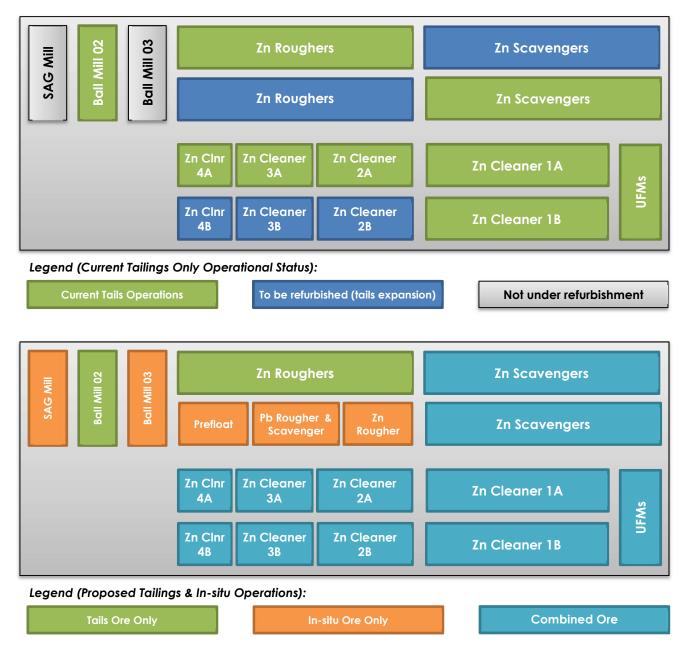


Figure 7: Plan views of the processing plant with comparison of the current tailings only flotation circuit with the proposed incorporation of in-situ processing

As Figure 8 below shows, the rougher tails from both the in-situ and tailings circuits are combined into a common zinc scavenger circuit. Subsequent to this circuit, only one common concentrate is then processed through the cleaner circuit.



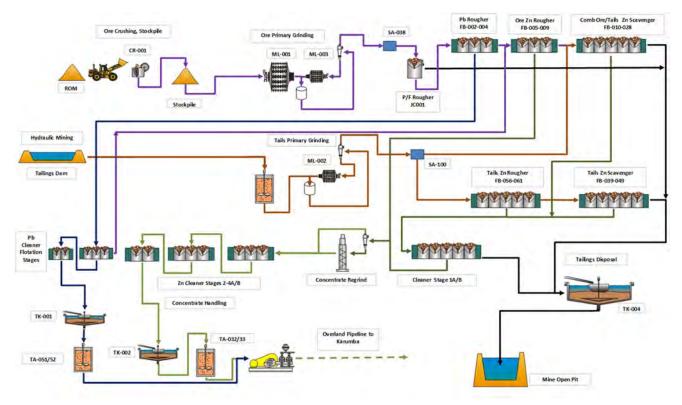


Figure 8: Flowsheet schematic of In-situ (purple) and/ Tailings (orange) process flow sheet

The in-situ flowsheet has been designed to utilise the existing plant equipment with a view to minimising modifications, limiting the need for additional large slurry flow pumping stages and new equipment.

Recoveries

Based on metallurgical testwork and historical performance on in-situ ore processing, the following is a summary of the design recoveries used for the Study.

Metal	Unit	12Mtpa Tailings	10Mtpa Tailings + SB/EFB	10Mtpa Tailings + SB/EFB + SK
Tailings - Zinc Recovery	%	62%	62%	62%
Tailings - Lead Recovery	%	-	-	-
Tailings - Silver Recovery	%	43%	43%	43%
In-situ - Zinc Recovery	%	-	75%	76%
In-situ - Lead Recovery	%	-	68%	71%
In-situ - Silver Recovery	%	-	65%	69%

Table 3: Metal Recoveries



The following conservative steady state recovery ramp-up profiles have been assumed for each ore stream:

- Tailings: 18 months from start of FY20 (averaging 53% FY20, taking into account current recoveries and assumed instability from mining rate ramp-up to 12Mtpa, ramping up to a consistent nameplate of 62% in Q3 FY21)
- SB/EFB: 10 months from first ore production
- Silver King: 10 months from first ore production

Services & Infrastructure

Power

Electrical power will be sourced through the existing infrastructure and supply networks. The total power demand under any Case does not exceed historical consumption and therefore the existing infrastructure is sufficient under all Cases.

Water

Water requirements can be adequately met with existing supply. Hydraulic mining will continue to use water sourced from the Evaporation Dam and recycled from the processing plant.

The groundwater supply infrastructure for Century Mine comprises of the Eastern and Western Borefields. Water extracted from these bores historically supplemented the process plant requirements and it is forecast that both Borefields have sufficient capacity to meet water demands in the event that the Evaporation Dam water is depleted.

Other Site Infrastructure

All other site infrastructure, including the airport, accommodation village, administration and project buildings, on-site laboratory, and maintenance warehouses have sufficient capacity to meet the peak demands of each Case. On-site manning is expected to peak at 400 personnel, which is within the capacity of the accommodation infrastructure in place.

Logistics & Marketing

Pipeline, Port and Logistics

The final zinc concentrate is pumped to the Karumba Port facility via the 304km underground slurry pipeline. At the port, slurry is thickened and dewatered using five large filter presses. Filtered concentrate is dried and agglomerated using a rotary dryer, where it is then stacked in an 80kt undercover stockpile facility.

The concentrate is then reclaimed and sent to the transhipment vessel (M.V. Wunma) for transport out of the Norman River to bulk carriers in the Gulf of Carpentaria. The Company has reinstated annual dredging of the river to allow for M.V. Wunma operation on all tides.

Lawn Hill, Pipeline and Port facilities are equipped to handle both zinc and lead concentrates (as per historical operations) and therefore do not require any modification.



Zinc & Lead Concentrate

The zinc concentrate produced by the proposed combined operations at Century is expected to contain on average 50% zinc and 155g/t silver and is proposed to be sold into existing offtake contracts.

The lead concentrate produced by the combined operations in the Study is expected to contain on average 69% lead and 230g/t silver. The Company does not yet have offtake contracts in place for a lead concentrate, however based on the projected product quality and current market demand, no issues are expected in achieving sale of 100% of production.

The payability and treatment charge (TC) terms used for the Study vary depending on the concentrate specifications and levels of by-products. The assumptions used by New Century are based on the benchmarks and actual costs from off-takers, determined by the current concentrate characteristics and are in line with normal terms available in the market.

Zinc concentrate payability have been assumed as follows:

- Zinc payable: 85% or minimum deduction of 8 units
- Silver payable: deduct 3oz and pay 80% of balance

Lead concentrate payability terms have been assumed as follows:

- Zinc payable: 95% or minimum deduction of 3 units
- Silver payable: deduct 1.6oz and pay 95% of balance

No penalties have been assumed for Century's expected product specifications.



Figure 9: Product logistics infrastructure at Karumba Port Facility



Expansion Timeline & Production Schedule

Project Development

Financial Year		2	020			202	1			20	22	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Case 1: 12Mtpa Tailings												
Current Operations	8-9	9Mtpa	Tails									
Refurbishment / Expansion to 12Mtpa+ Tailings				12Mtpa	Tailings							
Case 2: 10Mtpa Tailings + 2Mtpa SB / EFB												
SB/EFB Feasibility Study												
Pre-strip, Refurbishment / Modification for In-situ												
Commissioning / Ramp Up												
Operation								10Mtpa	a Taili	ngs + S	B/EFB	
Case 3: 10Mtpa + 2Mtpa SB / EFB + SK												
SK Prefeasibility Study												
SK Feasibility Study												
Development of Underground Mine												
Commissioning / Ramp Up												
Operation												

Table 4: Development schedule for each Case

The Study schedule has been developed in conjunction with the contributing contractors for the study, as well as the site-based Projects team. In all cases, the existing processing plant will be refurbished with the maximum tailings throughput until such time as in-situ ore is ready to process.

Based on the experience of current operations on site and ramp-up process to date, the current target for ramping up to a 12Mtpa throughput rate is by the end of Q3 FY20.

SB/EFB development will be subject to completion of a Feasibility Study, which is due for completion by the end of Q3 FY20 (drilling/sample collection underway). In the meantime, the plant will be refurbished such that up to 12Mtpa tailings can be processed through the plant until a decision to mine is made and the pre-strip (est. six months) is carried out. Once the pre-strip on SB/EFB is complete, the tailings throughput will drop to 10Mtpa to accommodate 2Mtpa of in-situ ore.

As the Silver King deposit is an Inferred Mineral Resource, a prefeasibility-level study is proposed to be completed, in conjunction with further infill drilling to increase the level of confidence. Upon completion of this study, a Feasibility Study will be completed to allow a decision to mine to be made.



Production Schedule

The following is the estimated production schedule assumed for each Case.

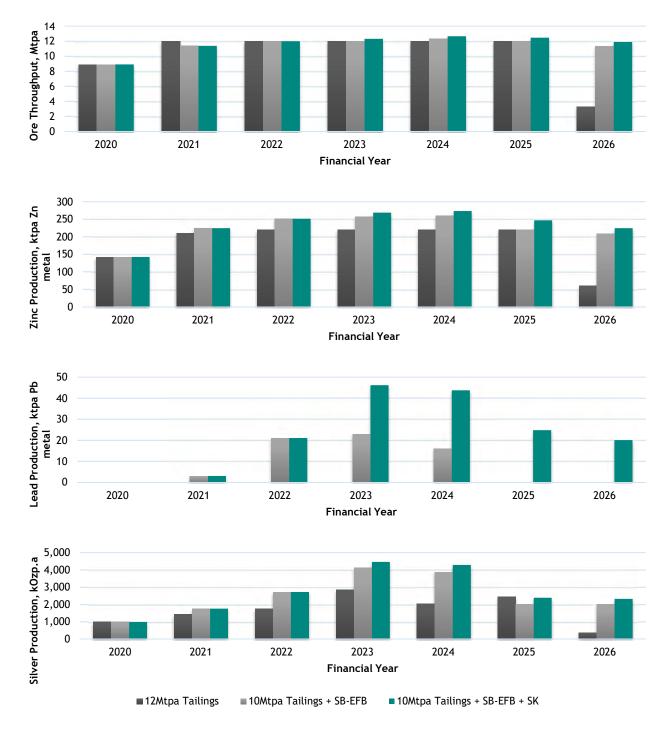


Figure 10: Estimated Ore Throughput & Zinc, Lead and Silver Production



The original 15Mtpa tailings case had a 6.3 year total mine life (from 1 July 2018). The addition of in-situ deposits and revision down to 10Mtpa tailings effectively increases the total mine life out to mid-2026. The combination of 10Mtpa tailings and 2Mpta in-situ material allows for a similar metal production profile to the original 15Mtpa tailings-only case but with an extended mine life. Further, the addition of in-situ deposits allows for the production of a lead product containing high silver credits.

The overall estimated mining production and grade profile for each Case is outlined below.

Financial Year	Unit	LOM Total	2020	2021	2022	2023	2024	2025	2026
12Mtpa Tailings									
Tailings Feed	Mt	72.3	8.9	12.0	12.0	12.0	12.0	12.0	3.3
Zn Head Grade	%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Contained Zn	t	2,141,000	267,000	355,000	355,000	355,000	356,000	355,000	98,000
Ag Head Grade	gpt	12.1	9.3	9.0	10.5	17.1	12.1	14.7	7.7
Contained Ag	koz	28,100	2,700	3,500	4,100	6,600	4,700	5,700	800
10Mtpa Tailings + Sou	uth Bloc	k / East Fau	ult Block						
Tailings Feed	Mt	72.3	8.9	10.6	9.6	9.6	10.2	12.0	11.4
SB/EFB Feed	Mt	7.7	0.0	0.7	2.4	2.4	2.2	0.0	0.0
Zn Head Grade	%	3.1%	3.0%	3.3%	3.2%	3.3%	3.2%	3.0%	3.0%
Contained Zn	t	2,506,000	267,000	373,000	384,000	392,000	399,000	355,000	336,000
Pb Head Grade	%	0.6%	0.6%	0.6%	0.8%	0.8%	0.8%	0.4%	0.3%
Contained Pb	t	494,000	57,000	73,000	91,000	97,000	96,000	45,000	35,000
Ag Head Grade	gpt	14.6	9.3	10.7	13.6	21.8	20.1	12.1	12.6
Contained Ag	koz	37,500	2,700	3,900	5,300	8,400	7,900	4,700	4,600
10Mtpa Tailings + Sou	uth Bloc	k / East Fau	ult Block +	Silver King					
Tailings Feed	Mt	72.3	8.9	10.6	9.6	9.5	10.0	12.0	11.5
SB/EFB Feed	Mt	7.7	0.0	0.7	2.4	2.4	2.2	0.0	0.0
SK Feed	Mt	1.7	0.0	0.0	0.0	0.4	0.5	0.5	0.3
Zn Head Grade	%	3.2%	3.0%	3.3%	3.2%	3.3%	3.3%	3.1%	3.0%
Contained Zn	t	2,590,000	267,000	373,000	384,000	407,000	414,000	388,000	357,000
Pb Head Grade	%	0.7%	0.6%	0.6%	0.8%	1.0%	1.0%	0.6%	0.5%
Contained Pb	t	608,000	57,000	73,000	91,000	126,000	128,000	74,000	59,000
Ag Head Grade	gpt	15.6	9.3	10.7	13.7	23.3	22.0	13.9	14.2
Contained Ag	koz	41,000	2,700	3,900	5,300	9,200	8,900	5,600	5,400

Table 5: Case Mining and Grade Profile by Financial Year (approximate)

Notes: Throughput shown as dry metric tonnes.



Capital Cost Estimates

The following table provides the capital cost breakdown for each Case. The 12Mtpa Tailings estimate is to a $\pm 10\%$ level of accuracy. The in-situ SB/EFB estimate is to a $\pm 25\%$ level of accuracy. The Case estimate including SK is to a $\pm 35\%$ level of accuracy.

Area / Cost Centre	12Mtpa Tailings	10Mtpa Tailings + SB/EFB	10Mtpa Tailings + SB/EFB + SK
Plant Refurb & Modification for In-situ ore (if applicable)			
Total Directs	32.3	32.3	32.3
EPCM	4.5	4.5	4.5
Overheads	3.2	3.2	3.2
TOTAL	40.0	40.0	40.0
In-situ Development			
Additional Refurbishment Required for In-situ Operation		9.4	9.4
Development Costs (Drilling, Met Testwork, FS)		3.0	7.5
Contract Mining Costs (Pre-strip or Development Advance)		34.6	59.5
Explosives & Fuel, Power Labour and Shared Services		7.4	12.6
Site Establishment and Boxcut Construction		-	7.8
TOTAL		54.4	96.8
TOTAL CAPITAL COST	40.0	94.4	136.8

Table 6: Capital Cost estimate for each Case (A\$M)

Targeting a design tailings throughput of 12Mtpa compared to the original RFS base case of 15Mtpa (followed by eventual ramp down to 10Mtpa once in-situ material is brought online) provides a cost saving of A\$23M, based on the RFS capital estimate. This is predominantly due to the elimination of capital for additional flotation cells or regrind mills, as the current plant equipment is sufficient to process 12Mtpa of tailings.

For the in-situ cases, the plant refurbishment cost also includes the cost of refurbishing the SAG and additional Ball Mill, as well as modification costs for the flotation circuit (A\$9.4M). A contingency of ~10% is included within each Case.

Any start-up working capital requirement is covered by the cash flow generation of the existing operation. As the operation is cash-flow positive when each of the new ore-types come online the net negative cash impact is negligible.

The basis of the capital estimates in Table 6 includes:

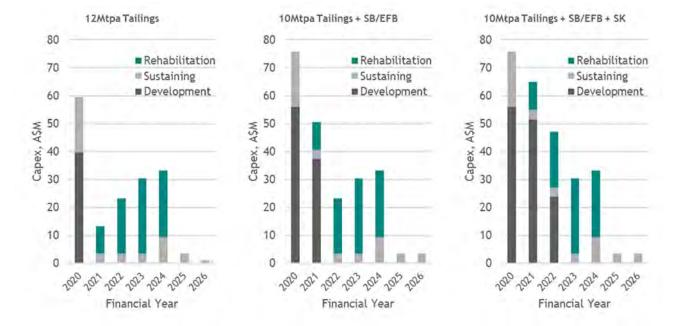
- Engineering, procurement and construction model for non-mining works;
- Combined owner-operator and contract labour for processing facilities and port;
- Owned fixed plant for office and admin buildings (existing), leased mobile fleet; and



• Contract mining for all Cases (tailings, SB/EFB and Silver King), including equipment, maintenance and labour.

No allowance has been made for fluctuations in the exchange rate (which has been assumed as \$0.73 USD:AUD in FY20 and then \$0.70 for each subsequent year).

In addition, there is a A\$46.4M sustaining capital provision over the life of mine under current operations, mainly for the annual dredging of the Norman River for transhipping and the 5-yearly survey of the Wunma. There is also an A\$81M provision toward the end of the project for the final rehabilitation of the tailings storage facility and evaporation dam, as well as rehabilitation of the three existing waste rock dumps on site.



The capital expenditure profile over for each case is as follows:

Figure 11: Capital expenditure profiles



Operating Cost Estimates

Operating costs have been estimated on the basis of quantities established from actual operating costs for the Project, estimates from suppliers and contractors (where applicable) and current market rates. Details of each cost centre can be found in the sections above.

Area / Cost Centre	12Mtpa Tailings		10Mtpa Tailings + SB/EFB		10Mtpa Tailings + SB/EFB + SK	
	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)
Mining (including power allocation)	2.60	0.06	5.41	0.11	6.37	0.12
Processing Plant	11.69	0.25	13.33	0.26	14.08	0.27
Sale Costs, incl. transport, TCs & Ag/Pb credit	11.88	0.25	9.63	0.19	5.79	0.11
C1 Cash Costs (payable metal basis)	26.16	0.56	28.38	0.55	26.24	0.50
Depreciation	2.56	0.05	2.95	0.06	3.31	0.06
C2 Cash Costs (payable metal basis)	28.72	0.61	31.33	0.61	29.54	0.56
Royalties and Corporate Costs	5.46	0.12	6.01	0.12	6.36	0.12
C3 Cash Costs (payable metal basis)	34.18	0.73	37.34	0.73	35.90	0.69

Table 7: Operating Cost estimate (LOM Average) for the Century Zinc Mine for each Case

Table Notes: C1 Cash Costs are defined as direct cash operating cost, net of any by-product credits. Direct cash operating costs include all mining and processing costs, mine site overheads and realisation costs (including transport costs, treatment and refining costs and smelter recovery deductions) through to refined metal. C2 Cash Costs include C1 costs, plus a depreciation charge. C3 Cash Costs include C2 costs, plus any royalties and corporate costs. C1, C2 and C3 are presented in this table based on Zn as the primary product with all other saleable commodities treated as by-product credits. C1, C2 and C3 are presented on a payable metal basis.

The C1 and C3 costs for each Case are similar, with the costs for the addition of South Block, East Fault Block and Silver King lower than that of 12Mtpa tailings only. While the incremental mining and processing costs are higher, much of the fixed costs are absorbed by tails processing. Further, the in-situ resources produce a high-silver lead product, which offsets the higher operating cost.



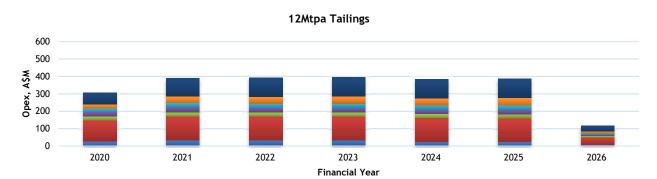
Figure 12: C1 Cost Profiles for each Case

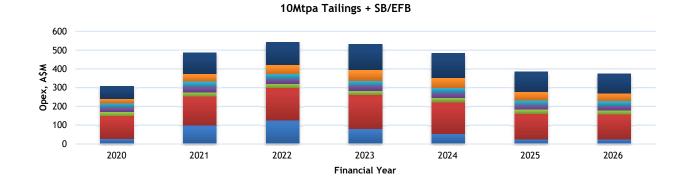


The largest impact on operating cost is the increase in treatment charges since the RFS was released in late 2017. There are also minor cost increases due to the reduction in target tailings throughput and operating costs. This is discussed further in the sections below.

Operating Cost Profiles

The following figure outlines the LOM operating cost profiles for each Case:





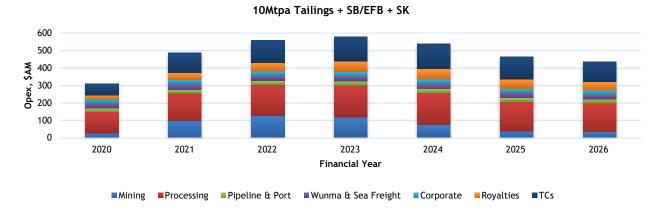


Figure 13: Operating cost profiles for each Case



Mining Costs

The average tailings mining cost over the LOM is A\$2.60/tonne feed (US\$0.06/lb payable zinc).

The average SB/EFB ore mining cost over the life of mine is A30.0/tonne. However, including the tailings mining rate and average cost results in a total average LOM mining cost for Case 1 of A5.41/tonne feed (US\$0.11/lb payable zinc).

The average ore mining cost over the life of mine, including the tailings, SB/EFB and SK mining rates is A\$6.38/tonne feed (US\$0.12/lb payable zinc).

Each mining cost includes allowance for the current or future proposed contractor supply agreement of all mining equipment, power, maintenance, labour, mobile equipment and G&A.

Processing Costs

Processing Unit Cost	12Mtpa	Tailings	10Mtpa Tailings + 2.0Mtpa SB/EFB		10Mtpa Tailings + 1.6Mtpa SB/EFB + 0.4Mtpa SK		
	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)	
Labour	2.02	0.04	2.03	0.04	2.01	0.04	
Maintenance	0.99	0.02	1.01	0.02	1.01	0.02	
Operating Consumables	4.29	0.09	4.84	0.09	4.99	0.10	
Power	3.12	0.07	4.14	0.08	4.71	0.09	
Site G&A, incl Enviro Management	1.27	0.03	1.31	0.03	1.34	0.03	
TOTAL	11.69	0.25	13.33	0.26	14.08	0.27	

Table 8: Life of Mine average Processing Operating Costs

The operating cost estimate above has been developed on the actual current operation costs at 8Mtpa, scaled for increased throughput. The costs have been separated into fixed and variable portions, with the variable portion adjusted for the production in that period. These costs include feed milling and flotation.

Product Logistics, Marketing & Sale Costs

The Study assumed operation of the M.V. Wunma in 5,000t parcels to concentrate ships in the Gulf. The LOM average operating cost for the transhipment vessel is A\$13.4/wet metric tonne of concentrate. This includes all labour, maintenance, consumables and G&A costs. The LOM average overseas shipment cost for the Study is US\$28.6/wet metric tonne, based on quotations received.



Unit Cost	12Mtpa	Tailings	10Mtpa Tailings + 2.0Mtpa SB/EFB		10Mtpa Tailings + 1.6Mtpa SB/EFB + 0.4Mtpa SK		
	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)	A\$/Feed Ore	US\$/lb Zn (payable)	
Inland Slurry Transport Costs (Pipeline)	0.23	0.00	0.23	0.00	0.23	0.00	
Port Costs (incl. labour, maintenance, consumables, power, G&A)	1.69	0.04	1.71	0.03	1.70	0.03	
Transshipment Costs (incl. labour, maintenance, consumables, G&A) and Sea Freight	2.26	0.05	2.36	0.05	2.37	0.05	
Treatment charges, deductions, lead and silver credits	7.69	0.16	5.30	0.10	1.49	0.03	
TOTAL	11.88	0.25	9.60	0.19	5.79	0.11	

Table 9: Life of Mine average Product Logistics and Sale Operating Costs

Treatment Charges

The Study incorporates updated assumptions for life of mine treatment charges, based on recent market volatility, annual benchmark increases and general market sentiment.

The 10 year average spot treatment charge is USD\$127/t concentrate. The Study has adopted a LOM average of USD\$170/t concentrate (34% above 10 year average) for treatment charges (RFS assumption USD\$75/t concentrate).

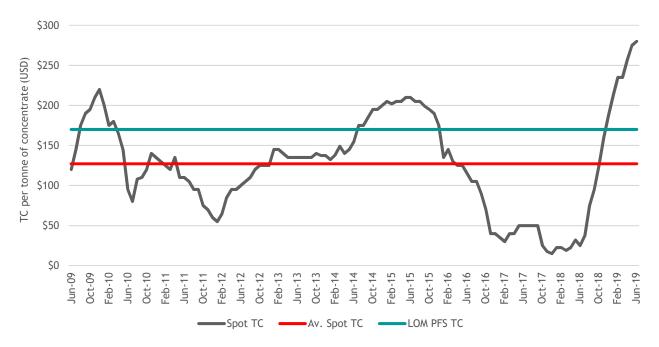


Figure 14: 10-year historical zinc treatment charges



Corporate Costs

LOM average corporate costs of A\$2.21/tonne feed have been taken into consideration and include all corporate overheads associated with the proposed operations, licenses, permits and mining lease payments as well as all cultural and stakeholder engagement commitments as outlined in the Gulf Communities Agreement.

Comparison to RFS Case

The following figure provides a breakdown of the life-of-mine C1 operating cost differential between the original RFS case assuming 15Mtpa and the current Study case for 12Mtpa tailings and in-situ resources (assuming a 10Mtpa Tailings + SB/EFB and Silver King).

The largest contributing factor to the overall increase in C1 costs is the increase in assumed LOM treatment charges in the Study compared to the assumed LOM RFS treatment charge. Also, the combination of the reduced flow rate (12Mtpa compared to 15Mtpa) and marginally higher operating costs have contributed to the increase in overall C1 costs. However, these costs are partially offset by the estimated net credits from both SB/EFB and SK.

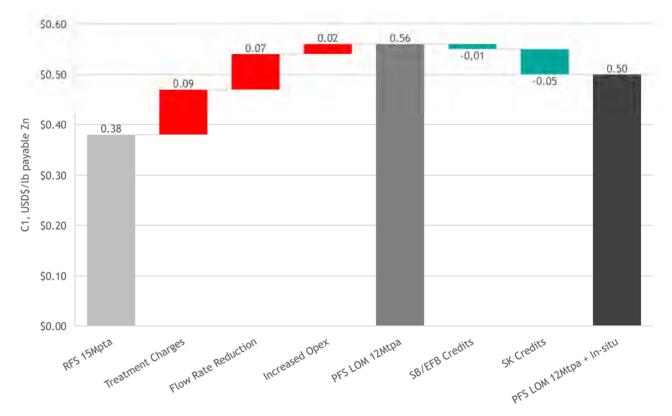


Figure 15: C1 Cost Breakdown from RFS Case to current Study Case (10Mtpa Tailings + SB/EFB + SK)



Financial Results

The economics for each Case has been assessed using the discounted cash flow method, based on a monthly schedule of tonnes mined and processed from reclaimed tailings and in-situ ore. Capital and operating costs are applied to mining, processing, product transportation and overheads. Shipping and logistics, product payability, treatment and refining costs, state and other royalties and taxes are included to calculate a Net Present Value (NPV) for the Project. A real, post-tax discount rate of 8%² has been applied to calculate the NPV.

ltem	Unit	12Mtpa Tailings	10Mtpa Tailings + 2Mtpa SB/EFB	10Mtpa Tailings + 2Mtpa SB/EFB & SK
Post-tax-NPV ₈	A\$M	879	1,024	1,146
Post-tax Total Free Cash Flow ¹	A\$M	1,128	1,365	1,549
Post-tax IRR - incremental on 12Mpta	%	-	46%	80%

Table 10: Estimated Economic Comparison Summary for each Case

Table Notes: 1) Includes full repayment of financing costs and all rehabilitation costs

A 2% escalation factor is applied, commencing July 2020. The economic model assumes the complete drawdown of the Värde debt facility A\$100M³, with the first tranche (A\$60M) drawn in February 2019 and the second assumed to be drawn in August 2019.

The Company has assumed the following metal prices, based on Consensus Economics commodity forecasts:

Financial Year	Unit	2020	2021	2022	2023	2024	2025	2026
Zinc	USD\$/t	2,629	2,574	2,549	2,573	2,595	2,698	2,698
Lead	USD\$/t	2,096	2,130	2,130	2,127	2,190	2,190	2,190
Silver	USD\$/t	16.93	17.47	18.04	17.96	19.76	19.76	19.76

Table 11: Metal Prices used in Model

It should also be noted that, as per contractual arrangements with MMG Limited, 40% of the annual EBITDA is allocated to meet the obligation to progressively replace the existing environmental bond that has been put up by MMG (i.e. up to A\$193.7 million). The Company currently envisages these amounts will be kept as quarantined cash on the Company's balance sheet. Therefore, this contractual obligation does not have an effect on the projected total free cash flow over the life of mine.

 $^{^2}$ The discount rate applied was 8%, based on a weighted average cost of capital (WACC) model. For the cost of equity, the assumed expected market return on investment was 7% and the beta (or risk) of the investment was 1.27. Varde debt conditions were used for the debt component.

³ See ASX announcement dated 17 February 2019 for details on the debt facility with Värde Partners





The following are the estimated EBITDA profiles projected for each Case:

Tax & Government & Royalties

The project is subject to Australian corporate tax, which has been applied at 30%. Tax calculations are impacted by depreciation deductions for capital items.

Queensland levies mineral royalties for extractive operations within the state. All royalties are based on an 'ad valorem' value of minerals. Zinc and silver royalties are determined by a variable rate between 2.50% and 5.00% of value, depending on average metal prices. The Queensland Government royalties are applied to all commodities produced and sold in accordance with published rates and guidelines. Please refer to the Queensland Mineral Resources Act 1989 (Mineral Resources Regulation 2013, current as of 19 April 2019).

In addition to government royalties, a 2% Net Smelter Royalty (NSR) has also been included⁴.

Unless otherwise stated, all cash flows are in Australian dollars, post-tax and are un-discounted.

Sensitivity Analysis

For each Case, the sensitivity of the project NPV to key input changes is summarised in the table below. The economics of the Project are most sensitive to the zinc price, exchange rate and metallurgical recoveries. Grade variation is not assessed as a key sensitivity, as the Ore Reserve of the Century Tailings Deposit demonstrates very little grade variation and this represents the majority of ore processed in each Case. Other factors include treatment charges and key operating cost inputs, such as consumables, reagents and labour.

Figure 16: EBITDA profiles for each Case for 10Mtpa Tailings + SB/EFB + SK

⁴ See ASX announcement dated 17 July 2017 for further details



Table 12: Sensitivity Analysis ranges applied

Parameter	Low Case	High Case
Zinc Price	-20%	20%
Tailings Recovery	-20% (50% recovery)	5% (65% recovery)
FX Rate	10%	-10%
Zinc TCs	20%	-50%
In-situ Recovery	-20%	5%
Discount Rate	2%	-2%
Process Consumables	20%	-20%
Mining	20%	-20%
Power	20%	-20%
Lead Price	-20%	20%
Silver Price	-20%	20%

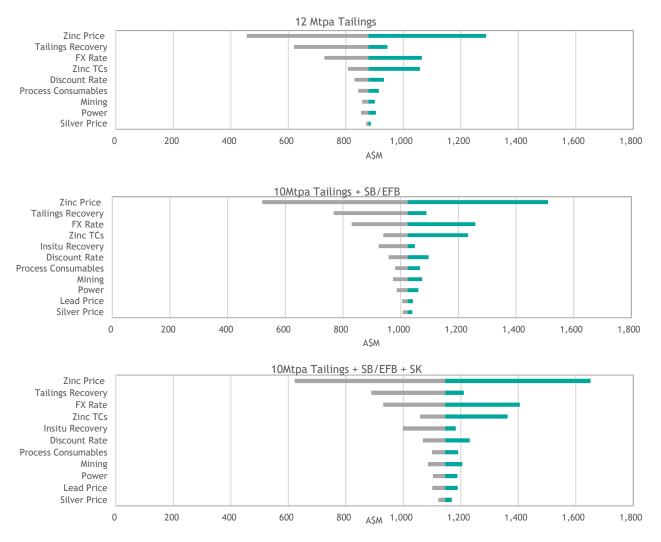


Figure 17: Sensitivity Analysis (NPV) for each Case



Environment & Rehabilitation

Environment

The proposed development of South Block and East Fault Block lie within currently disturbed areas on the existing mining lease and Environmental Authority. Therefore no major approvals are required to commence operations.

Development of the Silver King deposit will require an amendment to the existing Environmental Authority. While some further baseline studies will be required, it is envisaged that this amendment process will occur within the timeline required for development.

Rehabilitation

As announced on 1 March 2017, MMG provides the ongoing provision of bank guarantees of A\$193.7M for the benefit of Century to meet its financial assurance obligation with the Queensland Government for a period of up to 10 years through to 31 December 2026. As per the existing agreement with MMG, the Study has assumed the financial assurance will be progressively replaced via 40% of EBITDA from operations at the site, being quarantined as cash on the Company's balance sheet.

The Study has also assumed a provision of A\$81M for rehabilitation during operations, including final rehabilitation of the tailings dam and evaporation dam, as well as rehabilitation of the three existing waste rock dumps. Further, a portion of the overburden for East Fault Block consists of limestone, which can be used as a part of the capping process of the waste rock dumps, reducing the overall rehabilitation cost. This will be investigated further in the next Study.

Approvals & Stakeholders

Regulatory Approvals & Licenses

Century Mining Limited (CML), which is 100% owned by New Century Resources, holds all the relevant mining and exploration leases for the Cases considered in this study.

Native Title & Cultural Heritage

The Century Mining Leases were granted following a right to negotiate process in accordance with the Native Title Act 1993 (Cth) (NTA). Further, any Native Title rights and interests in the Term Lease underlying the Century Mining Leases were acquired by the State of Queensland following a process in accordance with the NTA.

The consent from the relevant Native Title holders for the grant of the Century Mining Leases (and other grants) is contained in the Gulf Communities Agreement (**GCA**), which has no termination date other than the date upon which the Century Mining Leases are relinquished.

Any Native Title rights and interests in relation to the Miscellaneous Transport Infrastructure Corridor for the Pipeline were acquired by the State of Queensland following a process in



accordance with the NTA. Further, the Operational Licence was granted following a process in accordance with the NTA. The consent from the relevant Native Title holders for the grant of the Operational Licence (and other grants) is contained in the GCA.

Any Native Title rights and interests in relation to the Karumba Port Facility were acquired by the State of Queensland following a process in accordance with the NTA.

As announced on 1 March 2017, MMG has funded a special purpose trust of A\$12.1M to ensure the Century Zinc Mine meet is its obligations under the GCA.

As announced on 28 May 2018, the Company entered into an Agreement with the Waanyi people giving consent for New Century to progress development of mining operations over South Block. As a part of this Agreement, the Waanyi people, via a special purpose joint venture (Waanyi Downer Joint Venture) will provide mining services for South Block and receive 50% of the profits in addition to other compensation arrangements. This provides direct and ongoing benefits to the Waanyi people through continued compensation throughout the mining of South Block.

Local Community

The impact area of the proposed operations encompasses the lower gulf region of northwest Queensland, inclusive of the area immediately surrounding the Century Mine at Lawn Hill and Karumba, and the communities of Gregory, Doomadgee, Burketown, Normanton and Mornington Island. These non-contiguous areas are contained within the local government areas of Burke Shire, Carpentaria Shire, Doomadgee Aboriginal Shire, and Mornington Shire.

The reinvigoration of economic activity at the Century Mine by New Century Resources has significantly re-energised communities through partial, and in some cases complete renewal of many of the past benefits identified through the Mine's previous operational life.

New Century Resources maintains regular engagement with the Queensland Government and with the local governments that have an interest in the Century Mine's operations, including the potential expansion activities described in this study.

Key Contractors

The Waanyi Downer Joint Venture (WDJV) completed the Study assessment of mine design, engineering and costings for the development of South Block and East Fault Block. As previously announced⁵, New Century has entered into a Collaboration Agreement with WDJV for feasibility activities over the South Block Deposit. The WDJV is a joint venture between Waanyi Enterprises Pty Ltd and Downer EDI Mining Pty Ltd (Downer), representing the interests of both the Waanyi People (traditional owners of the Century Mining Lease area) and Downer Group's mining services division.

⁵ See ASX announcement dated 6 September 2017



Xstract Mining Consultants Pty Ltd (**Xstract**) completed an updated Scoping Study level estimate for the Silver King Deposit. Xstract has extensive capabilities in feasibility studies as well as project valuations, technical due diligence, exploration and resource/reserve evaluation. Xstract also completed the PFS on Silver King in 2011 for previous owners of Century, MMG Limited.

Sedgman Pty Ltd (Sedgman) completed design and capital cost estimates relating to the Century Processing Plant, pipeline and port. Sedgman completed the EPC Contract for the restart of operations at Century⁶, the RFS and are partnered with New Century on the Operations and Maintenance of the Process Plant, Pipeline and Port⁷.

⁶ See ASX announcement dated 5 March 2018

⁷ See ASX announcement dated 7 May 2018



Watsons Lode: Further In-situ Upside Potential

The Watsons Lode Prospect provides potential further opportunity for mine life extension. Watsons Lode is located on the exploration permit (EPM 10544) surrounding the Century mining leases and is approximately 10km from the existing Century Processing Plant.

Numerous high-grade intersections have been reported from historical drilling at Watsons Lode as well as historical mining development and production. During previous small scale operations the Watsons Shaft was sunk to 100ft and combined with Lucky Dollar and Coughlans Lode produced 176t of lead and 1,100oz silver.

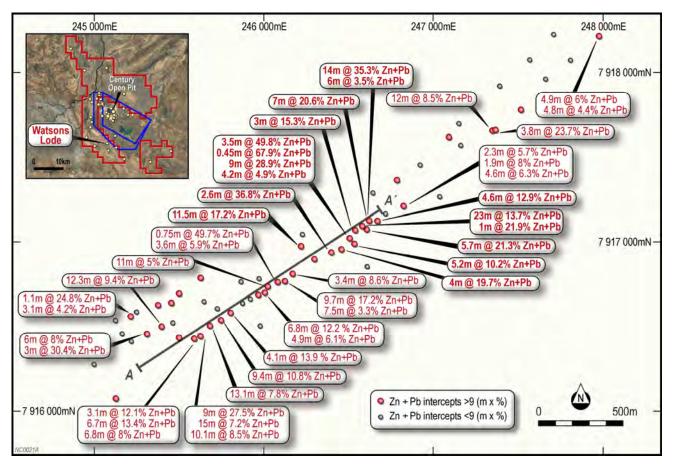


Figure 18: Overview of historical drilling results at Watsons Lode prospect

Any additional resources from Watsons Lode will compliment other established in-situ Mineral Resources from Silver King, East Fault Block and South Block.

The Company is now assessing the potential requirements to develop a JORC compliant resource on Watson's Lode. This information can be used to potentially incorporate the development of Watsons Lode into the overall mine plan.

Watsons Lode is one of many prospects in the vicinity of the Century Zinc Mine, with multiple targets identified to date.



To learn more, please visit: <u>www.newcenturyresources.com</u>

For further information, please contact:

New Century Resources

Patrick Walta Managing Director P: +61 3 9070 3300 E: info@newcenturyresources.com

Media enquiries

Shane Goodwin Head of Corporate Affairs P: +61 434 039 106 E: sgoodwin@newcenturyresources.com



Appendix 1: Reserve and Resources Statement

Mineral Resources	Tonnes (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (t)	Pb (t)	Ag (Oz)
South Block (Indicated)	6.1	5.3	1.5	43	322,000	90,000	8,550,000
East Fault Block (Indicated)	0.6	9.8	1.1	42	63,000	7,300	872,000
Silver King (Inferred)	2.7	6.9	12.5	120	186,000	337,500	10,500,000
TOTAL	9.4	6.1	4.6	65	571,000	434,800	19,922,000
Ore Reserves	Tonnes (Mt)	ZnEq (%)	Zn (%)	Ag (g/t)	Zn (t)	Pb (t)	Ag (Oz)
	. ,	. ,		10. 7			

Statement of JORC 2012 Compliant Resources & Reserves

Zinc Equivalent Calculation

ZnEq was calculated for each block of the Century Tailings Deposit from the estimated block grades. The ZnEq calculation takes into account, recoveries, payability (including transport and refining charges) and metal prices in generating a zinc equivalent value for each block grade for Ag and Zn. ZnEq = Zn%+ + Ag troy oz/t*0.002573. Metal prices used in the calculation are: Zn US\$3,000/t, and Ag US\$17.50/troy oz.

Competent Persons Statement

Mineral Resources

The information in this announcement that relates to Inferred Mineral Resources on the Silver King Deposit was first reported by the Company in its prospectus released to ASX on 20 June 2017, and the South Block Deposit was first reported by the Company to the ASX on 15 January 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Ore Reserves

The information in this announcement that relates to the Ore Reserve at the Century Tailings Deposit was first reported by the Company in its ASX announcement titled "New Century Reports



Outstanding Feasibility Results that Confirm a Highly Profitable, Large Scale Production and Low Cost Operation for the Century Mine Restart" dated 28 November 2017. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Cautionary Notes and Forward Looking Information

Certain statements contained in this report constitute forward looking statements. Forward looking information often relate to statements concerning New Century Resources' future outlook and anticipated events or results and, in some cases can be identified by terminology such as "may", "will", "could", "should", "expect", "plan", "anticipate", "believe", "intend", "estimate", "projects", "predict", "potential", "continue" or other similar expressions concerning matters that are not historical facts. Statements of historical fact are not considered forward looking information.

Forward looking statements are based on a number of material factors and assumptions, including, but not limited in any manner to, those disclosed in results; the ability to explore; communications with local stakeholders and community and government relations; status of negotiations of joint ventures; weather conditions; Ore Reserves; Mineral Resources; the development approach and schedule; the receipt of required approvals, titles, licenses and permits; sufficient working capital to develop and operate the mines and implement development plans; access to adequate services and supplies; foreign currency exchange rates; access to capital markets; availability of qualified work force; ability to negotiate, finalise and execute relevant agreements; lack of social opposition to mines or facilities; lack of legal challenges with respect to the property; the timing and amount of future production and ability to meet production, operating and capital cost expenditure targets; timing and ability to produce studies and analysis; execution of the credit facility; ability to draw under the credit facility and satisfy conditions precedent including execution of security and construction documents; economic conditions; availability of sufficient funding; the ultimate ability to mine, process and sell the mineral products produced; the timing, exploration, development, operational, financial, budgetary, economic, legal, social and political factors that may influence future events or operating conditions. Forward looking statement are only predictions based on New Century Resources' current expectations and projections of future events. Actual results may vary from such forward looking information for a variety of reasons.

Forecast financial information provided in this announcement based on the Expansion Study. The Company is of the view it has reasonable grounds for providing the forward looking statements included in this announcement. The detailed reasons for this conclusion are outlined throughout the announcement and appendices. However, the Company cautions that there is no certainty that the forecast financial information derived from the production targets will be realised.

Other than required by law, New Century Resources assumes no obligation to update any forward looking information to reflect, among other things, new information or future events.



2019 MINERAL RESOURCE ESTIMATE – Century East Fault Block

East Fault Block Mineral Resource (JORC 2012)-

Resource Category	Tonnes (Kt)	Zinc	Lead	Silver	Metal Con	tent	Zinc Equivalence
Indicated	646 density 2.74 t/m3	9.8 %	1.1 %	41.8 g/t	63,000t 7,300t 872,000oz	zinc lead silver	10.8 % 69,500t

Reported at a 3.0% Zinc Equivalence – Prices USD: Zn \$2500/t, Pb \$2200/t, Ag \$18/oz, Metal recovery: Zn 81%, Pb 61%, Ag 60%, Payable metal: Zn 85%, Pb 95%, Ag 95%

Competent Persons Statement

The information in this announcement that relates to Exploration Results and to the Indicated Mineral Resource on the Century East Fault Block Deposit is based on information compiled by Mr Damian O'Donohue, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy.

Mr O'Donohue previously worked at Century Mine site between 2009 and 2015 as a fulltime employee of MMG Limited. Mr O'Donohue is currently a full-time employee of Century Mining Limited, a solely owned subsidiary of New Century. Mr O'Donohue holds shares, and options, in New Century Resources Ltd (NCZ).

Mr O'Donohue has sufficient experience relevant to the style of mineralisation and the type of deposit under consideration, and in the activity 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 O'Donohue consents to the inclusion in this announcement of the mattes based on his information in the form and context in which it appears.



A JORC 2012 Table 1 declaration is appended below for the Century East Fault Block Deposit.

Appendix A JORC Table 1

PROJECT: CENTURY MINE EAST FAULT BLOCK RESOURCE ESTIMATION

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	pling 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.	Samples used within the Mineral Resource estimate are from whole rock HQ and NQ size diamond drill(DD) core.
	Include reference to measures taken to ensure sample representivity and	All downhole survey tools used in 2012 & 2014 were contractor managed. Tools were checked and calibrated prior to use according to the manufacturers specifications as part of the contractual agreement for the works.
	the appropriate calibration of any measurement tools or systems used	Magnetic field readings are taken with every down-hole survey to help identify any possible interference which may compromise the confidence in the magnetic values reported.



Criteria

JORC Code explanation

Commentary

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

Half core sub-samples were taken at intervals representing individual stratigraphic units ranging between 0.1m and 5.5m, and at 1m intervals where the unit exceeded 1m in vertical thickness.

Samples were crushed to <3mm in a jaw crusher producing a ~300g sample, then pulverised to P85 75µ in a vibratory ring mill. From the ring mill a subsequent 50-100g aliquot is taken to be prepared for the relevant sample analysis method.

XRF samples were combined at a 12:22 ratio to create a lithium borate flux containing 20% Sodium Nitrate as an oxidizing agent. The resulting melt is manually poured to form a fused disk. The fused disc is then analyzed using a wavelength dispersive X-Ray fluorescence (XRF) spectrometer.

Samples for atomic absorption spectrometry (AAS) used an aqua regia digest, consisting of a combination of HNO3 and HCI. The solution is then analyzed by the quantification of the absorption of optical radiation (light) by free atoms in the gaseous state.

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).

Drilling involved a mix of diamond drill (DD) holes, and percussion drilling (PD) collars with diamond drilling (DD)cored tails through the mineralised zone.

Core orientation was achieved using a single shot down-hole survey tool, which records - azimuth, inclination, magnetic tool face angle, gravity roll angle, magnetic field strength and temperature. From this data the bottom of hole, or BOH, is marked and an orientation line projected along the length of succeeding coherent core. This may be used for orientating geological structures during the logging process.

Drill sample recovery

Method of recording and assessing core and chip sample recoveries and results assessed Recovery was recorded for all DD holes. The difference between the length of the recorded drilling interval and the recovered length of the physical core was defined as core loss.

Where core loss = 0, core recovery = 100%.

Drill core recovery within the mineralised sequence approximated 100%.



Criteria	JORC Code explanation	Commentary
		HQ3 triple tube drilling equipment was utilised in 2012 which provides the best core quality in broken ground.
	Measures taken to maximise sample recovery and ensure representative	Drilling was carried out by suitably qualified and experienced drill crews
	nature of the samples	Geological supervision provides a means of quality control for sample recovery and ensures suitable core presentation.
	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.	No bias was identified between sample recovery and grade as sample recovery approximated 100%.



Logging

All DD drill core has been geologically logged by experienced geologists with the following data recorded: recovery, RQD, breaks per metre (BPM), stratigraphy, lithology, structure, colour, weathering, mineral proportion estimate and sample intervals.

The stratigraphy was logged as developed by Solid Geology (2002). Logs were then uploaded into the GBIS database. The logging has been undertaken to an appropriate level of detail to support Mineral Resource estimation, mining studies and metallurgical studies.

-	Sequence	Unit	Unit Code	Dominant Lithology	ypical Thickness (m)	Description - lithology and alteration
-	Cambnan cimestone	CLS	95	limestone	and the second second	bedded dolomitic limestone
	Carbonate Breccia CBX	CBX		carbonate breccia		limestone breccia
40 Ke	Hangingwall Sandstone	HWS	75	sandstone		quartz sandstone
	Hangingwall Sandstone	HWB		sandstone/shale		sandstone interbedded shale
	Hangingwall Siltstone	HWD	2	siltstone/shale	80	interbedded siltstone and then shale
	SINSKONS		145	siltstone/shale	9	interbedded siltstone and then pyritic/mineralised shale. Siderite & stylolite alteration.
	Shale Band 1		150	shale	0.9	B1 thinly bedded, characterised by sphalerite and pyrite in thin bands.
Marginal	Sillstone		155	siltstone	2	Thinly interbedded siltstone & shale. May contain some mineralised shales. Sideritic
Mar	Shale Band 2	0	160	shale	0.6	B2 is similar to B1, it can be Zn rich at the base grading up into pyritic shale.
	Silistone	Unit 100	165	siltstone	1.7	thick beds and coffee-brown colour, similar to unit 320. Strong siderite & stylolite alteration.
	Shale Band 3		170	shale	0.7	B3 has little or no pyrite, and is high Zn. Defines top of 'Upper Zone' units
	Sillstone		175	siltstone	0.8	Usually grey in colour
Upper Ore Zone	Shale Band 4		180	shale	0.6	Usually high in Pb ('the galena band') may be boudinaged, resembling unit 200
2	Siltstone	0.00	185	siltstone	0.8	Usually thin bedded and coffee coloured.
5	Shale Band 5	-	190	shale	0.5	High grade Zn
-	Siltstone		195	siltstone	0.4	Sometimes difficult to distinguish.
2	Ünit 200	Unit 200	200	shale	4.5	Thick massive shale, high grade Zn with galena rich veins and boudins.
	Unit 310		310	silustone/shale	1.1	Thin bedded shale/siltstone. The Zn grade drops off quickle and by ~50cm is <3.5% ZnEq
Interburden waste	United a	Unit 300	320	siltstone	3	Thick bedded barred sideritic siltstone known as the 'Cappucine Zone'. Strong siderite and stylolite alteration.
	Une SLL		410	shale	3.5	High grade Zn. Thick bedded shale with strong laminations of sphalerite.
sone	001002		420	mudstone	1.1	carbonaceous sideritic mudstone band recognisable by laci of bedding and conchoidal fractures,
Lower Ore zone	Unit 430	Unit 400	Unit #30 \$ 430 shale 2.2	High grade Zn. Thick bedded shale with strong laminations of sphalerite.		
Low	Unit 440		440	siltstone	0.5	Thin band similar to unit 320, known as the 'baby Cappuccing Zone'
	Unit 450		450	shale	6.4	Zn rich top grading down into a pyritic base. Assay based cut off into footwall.
wa se	Footwall Shale UFW	UFW	9	shale/silts tone	180	interbedded shale/siltstone/mudstone beds. Weak sidente

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.



Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging captured both qualitative descriptions such as geological details (e.g. stratigraphy) with some estimated quantitative values (e.g. mineral proportions). Drill core was photographed and catalogued in both wet and dry states as a record of the drill hole.
	The total length and percentage of the relevant intersections logged	The East Fault Block Mineral Resource is defined by 19 drill-holes, totalling 3421m of drilling. A total of 737m of core intersects the mineralised zone. 100% of total core recovered was logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Half-core samples were taken from DD core using a diamond core saw. Core was cut at approximately 10 degrees to the orientation line wherever practicable. Sampling was typically completed within the known geological Unit boundaries. Between lithological boundaries the nominal sample length was 1 m.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	N/A
		All sample preparation was consistent with industry standards. Minor variations in processes exist between the Century laboratory and the external ALS laboratory, no variations are considered material to the final analytical values.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were received and digitally logged into a Laboratory Information Management System (LIMS/CCLAS). The samples are then oven dried then crushed to a nominal 2mm or 3mm depending on the laboratory. The sample is then split with approximately 300g retained and pulverised to either 85% passing 75µm (ALS),or 85% passing 53µm (Century).
		The sample preparation techniques are considered appropriate, and quality control and quality assurance measures would indicate the same.





RESOURCES		
Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	A limited number of duplicate splits were taken and analysed to test for homogeneity at both the crush, and pulverised split stages of sub-sampling.
	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.	Duplicates for each sub-sample were plotted on Thompson-Howarth plots and analysed for precision, with no suggestion of any material bias being present in the process.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No grind size checks were carried out throughout the process. The final grind size of the Century Ultra fine circuit is P80 of 6 µm, far exceeding the standard grind size of any commercial laboratory. Grind size was not considered material to the analytical results and the downstream application. The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Century mineralisation (sediment hosted base metal) by the Competent Person.
Quality of assay data and aboratory tests		The Century site laboratory was accredited by NATA to the ISO/IEC 17025 standard for the analysis of Zn-Pb-Ag by XRF. This accounted for all samples analysed in the 2012 infill campaign.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Image: Non-Weight of State S
		Off-site analysis at Commercial laboratories for Primary and Umpire analysis (1995) of samples is assumed by the Competent Person to have been carried out to industry standard accreditation and standards.
		The XRF method is considered a total method, whilst the AAS method is considered near-total.





Criteria	JORC Code explanation	Commentary
	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.	Not applicable – no geophysical tools were used.
	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.	 The frequency, placement and type of QC used at the Century Laboratory was automated. The LIM system (CCLAS EL) will randomly place repeats and CRMs in a batch samples. The Laboratory was regularly audited for continued compliance with ISO/IEC 17025 by NATA. The Laboratory used matrix-matched well-certified internal standards inserted into every batch as unknowns, performs one repeat sample every batch. Blanks were not used as they were considered unfeasible in fused-bead XRF analysis. As a requirement of NATA accreditation, the laboratory regularly participated in external proficiency testing. Samples in all drilling programs were analysed at high quality commercial laboratories which included AMDEL, Analabs, Genalysis and ALS. Samples were analysed at the Century Mine Lab between 1999 and 2012. Analytical methods include Atomic Absorption Spectrometry (AAS), Induced Coupled Plasma Optical Emission Spectroscopy (ICP-OES) and LECO furnace methods. X-ray Fluorescence was also used during the latter assaying programs. All analyses completed are total or near total digest methods. Independent control samples were also inserted at given frequencies to test precision and accuracy of the relevant laboratory at given grade ranges. The QAQC controls for all drilling campaigns included: The insertion of laboratory certified standard reference materials matrix matched to the Century mineralisation, Duplicate samples of guarter core (1995), Duplicate samples of off-site "umpire" laboratory, Repeats of assayed pulps. Analysis of the above quality controls suggests that no material bias exists in the assay database, sampling or sample reparation procedures. The Competent Person does not consider the change in analysis method from ICP to XRF material to the Mineral Resource Estimate.



Criteria	JORC Code explanation	Commentary				
Verification of sampling and assaying	ampling The verification of significant intersections by either independent or alternative company personnel.	In 1996 Mining and Resource Technologies (MRT) completed data validation and review of the initial drilling completed by CZL from 1990 to 1995 across the Century Deposit.				
		Data from the 2012 Drilling campaign was internally validated by MMG Ltd Geologists.				
		Data identified in the above reviews that did not pass validation requirements was not flagged as 'Century Resource' within the database, and thus not used in the modelling and estimation process.				
	The use of twinned holes.	No twinned holes have been drilled.				
er de pr		Geologists and field assistants worked alongside the drill rig, ensuring drill compliance to the Company QA/QC procedure with regards to sample collection. Core logging data was recorded in Excel spread sheets (pre-made templates with drop down option lists) by site geologists.				
		All assay results were verified against logging. Drill-holes were also viewed in 3D modelling software to confirm no gross errors.				
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic)	 procedure with regards to sample collection. Core logging data was recorded in Excel spread sheets (pre-mattemplates with drop down option lists) by site geologists. All assay results were verified against logging. Drill-holes were also viewed in 3D modelling software to confirm gross errors. All data was reviewed by site geologists as well as the database administrator prior to entry into the compatatabase. All compulsory fields were completed prior to import. All data entries and edits are fully auditable. 				
	protocols.					
		All data entries and edits are fully auditable.				
		All QAQC data sets from the Century site Laboratory and ALS Brisbane were reviewed by site geologists who confirmed suitability of data for use in Mineral Resource modelling.				
	Discuss any adjustment to assay data.	Sample or assay data has not been adjusted in any way.				
		Where data was deemed invalid or unverifiable it was excluded from the Mineral Resource estimation.				



Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Collar co-ordinates of all drill holes were determined to an accuracy of 0.1 m in all directions by a licensed surveyor and stored in Century Mine Grid during the years of Open Pit Operations. Downhole surveys were taken at 30 m intervals for all inclined drill holes using single-shot Eastman camera equipment. The quality of all survey data is considered excellent.
	Specification of the grid system used.	All original data is stored in Century Mine Grid, and the Mineral Resource estimate is also carried out in this local grid. The Century Mine Grid was originally an Exploration grid based on an interpolated position from 1:100,000 map sheet 6660 Lawn Hill and a compass orientation, i.e. truncated AMG. Subsequent formal survey determined that an exact truncated grid required a shift of 18 m west and 152 m north and a swing of 0°20'. Too many drill holes had been referred to this grid so it was retained and adopted as the master grid for the project. Levels are (AHD+1000). A 20-point transformation is utilised for conversion to AMG84 zone 54 or MGA94, with an accuracy of +/-0.5m in the XY plane.
	Quality and adequacy of topographic control.	Annual aerial surveys are carried out at the mine. Topographic surfaces are updated using point data derived from DGPS, and then converted into Century Mine Grid. The topographic control is considered to be of a high standard.



Criteria	JORC Code explanation	Commentary
Criteria Data spacing and distribution	JORC Code explanation	<image/>
		7927200 N 1927200 N 192700 N 192700 N 192700 N 192700 N 192700 N 192700 N 192700 N 192700 N 192700 N 197700 N 19

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.

Drill spacing is considered sufficient to define both grade, and geological, continuity to a moderate to high level of confidence.

Drill spacing across the main Century deposit approximates 70m on average and was sufficient to define an Indicated Resource based on statistical analysis of grade data. The closer spaced drilling at the East Fault block is primarily used to determine the geological extents of this smaller more discrete body.



Criteria	JORC Code explanation	Commentary			
	Whether sample compositing has been applied.	No sample compositing has occurred. Compositing of sample data, by geological domain, was carried out prior to grade estimation.			
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Sampling was carried out as close as practicable to perpendicular through the mineralised sequence. Sample orientation is not considered a material risk to the Mineral Resource estimate.			
	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.	Drilling orientation is not considered to have introduced any material sampling bias.			
		Measures to provide sample security included:			
		Sample intervals were logged and recorded by geologists, and sample numbers assigned to each interval. DD samples were cut by field assistants and placed into clearly numbered calico bags.			
Sample security The measures taken to ensure sample security.		The individual calico bags were placed into poly-woven sacks which were tied with either metal wire ties or plastic cable ties.			
	Security.	Samples were transported by commercial carriers to off-site laboratories. Sample sheets were entered into the Geological database and a corresponding sample inventory was attached to the freight.			
		Upon receipt, the laboratory staff completed a sample receipt report, noting any missing or damaged samples.			
	No further measures were undertaken.				



Audits or reviewsThe results of any audits or reviews of sampling techniques and data.In 2002 and 2003 Snowden completed reviews on the data quality and QAQC procedures for geology sample data from 1999 to 2003 for the entire Century Resource including the East Fault Block.Audits or reviewsIn 1996 Mining and Resource Technologies (MRT) completed data validation and review of the initial drilling completed by CZL from 1990 to 1995.Data identified in the above reviews that did not pass validation requirements was not flagged as 'Century Resource' within the database, and thus not used in the modelling and estimation process.	Criteria	JORC Code explanation	Commentary
	Audits or reviews	•	from 1999 to 2003 for the entire Century Resource including the East Fault Block. In 1996 Mining and Resource Technologies (MRT) completed data validation and review of the initial drilling completed by CZL from 1990 to 1995. Data identified in the above reviews that did not pass validation requirements was not flagged as 'Century Resource'

Section 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status		Century Mining Ltd holds a mining lease (ML90045) over the East Fault Block area; this has an expiry date of 18/09/2037.
		The Gulf Communities Agreement (GCA) was negotiated between Pasminco Century Mine Limited, the
	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures,	Queensland Government and three native title groups - the Waanyi, Mingginda, and Gkuthaarn and Kikatj - under the right to negotiate provisions of the Native Title Act 1993 (Cth). This agreement, which was signed in May 1997, came into effect in September 1997 when Pasminco purchased the Century Mine project from Rio Tinto.
	partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The GCA specifies particular benefits and obligations on each party, which exist throughout the life of the mining project. In negotiating the GCA, Traditional Owners intended for the mine to contribute to the social and economic development of the Gulf while protecting and promoting cultural heritage.
	environmenter oettinge.	All activities undertaken are subject to the conditions of the Environmental Authority EPML00888813, issued by the Queensland Department of Environment and Heritage Protection. All activities are monitored by site based environmental scientists.



Criteria	JORC Code explanation	Commentary
	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.	Century Mining Ltd holds a mining lease (ML90045) over the East Fault Block area; this has an expiry date of 18/09/2037. There are no known impediments to operating in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The deposit was identified as part of the discovery of the adjacent Century Deposit by Conzinc Rio Tinto Australia (CRA) in 1990. Subsequent Resource definition drilling was carried out by Pasminco, Zinifex, and MMG Ltd.



Criteria	JORC Code explanation	Commentary
Geology		Located regionally within a major mineral province which also hosts the - Mount Isa, Hilton, George Fisher, Cannington, Dugald River and Lady Loretta base metal deposits - together with the McArthur River deposit in the McArthur Basin to the north-west; the Century deposit consists of sediment hosted stratiform Zn-Pb-Ag mineralisation hosted within the mid-Proterozoic Lawn Hill formation.
		The Century deposit is dislocated by faulting, and unconformably overlain by up to 100m of Cambrian limestones in the north. Where the mineralisation approaches the Cambrian unconformity, there is a zone of haematite alteration where ore grade mineralisation has generally been leached and altered.
		The mineralized units extended 1500 m north to south, and 1500 m east to west. Mineralisation outcrops at surface, and extended to a maximum depth of 310 m below the natural topographic surface in the already mined North Block.
	Deposit type, geological setting and style of mineralisation.	The mineralised sequence has a thickness of approximately 40m, it is fault bound to the north and south, and truncated by erosional unconformities in the east and west and is a synclinal tabular body in geometry.
		Across the deposit mineralisation occurs within laminated carbonaceous shales, which are interbedded with waste or lower grade sideritic siltstones or mudstones. The mineralisation shows good lateral continuity with well-defined stratigraphic marker horizons.
		The East Fault Block mineralisation represents a discrete, fault bound, mega-clast of the main ore-body offset by approximately 200m to the east. The defined stratiform body of mineralisation is encountered approximately 70m below current surface, and continues to a depth of approximately 140m.
		Additional high-grade mineralisation has been encountered below the East Fault block but the mode and extent of the mineralisation is poorly understood. The area is relatively well constrained by drilling therefor the capacity to host another large body of mineralisation is considered limited.



Criteria	JORC Code explanation					С	omn	nentary	7						
Drill hole Information		Hole ID	Easting AMG84	Northing ÁMG84	Relative level (RL)	Hole depth (m)	Dib	Azimuth	From (m)	To (m)	Length	20 %	Pb %	Agg/1	ZnEq N
		CEGT0032	Contraction of the local division of the loc	7927344		120.6	-68	182	59.8		2.8	6.75	0.14	114	7.41
							1.000		62.5				1.53	91	7.12
									75.5	93.0	17.5		0.89	40	12.42
		CEGT0035	248087	7927344	168	138.6	-78	269.9	101.0	109.8			3.90	50	9.55
									109.8	116.0			9.29	45	12.46
		EFBQ001	248110	7927369	168	140.6	-79.9	165.3	88.4	91.9	3.6		0.19	58	5.36
									91.9	101.2			1.37	76	6.92
			-			-			107.0	122.9				46	15.4
		EFBQ002	248110	7927370	168	141.4	-61.2	174.8	65.9	the second se		a second s	0.13	53	4.8
				1			-		68.9					63	7.4
		- Comment				-			81.0	100,5			0.67	21	12.3
		EFBQ004	248094	7927346	168	115.0	-60,7	157.1	51.7				0.05	53	4.9
	A summary of all information material	-	-	-			-		54.0				1.75	98	8.0
	to the understanding of the	550,0005		2002055	1.00	450.0	50.5	450.0	66.8		17.4	12.97	0.82	23	13.6
	÷	EFBQ005	248118	7927355	168	150.6	-59.5	158.8	52.8 63.3	58.4 76.1		5.37 15.08	1.41	45	6.5
	exploration results including a	EFBQ010	249060	7927406	160	230.0	-60.9	160.3	112.8		2.6		0.72	33 95	15.7
	tabulation of the following information	EFBQUIU	240005	7927400	100	230.0	-00.9	100.5	112.0	122.2			1.84	123	10.9
	for all Material drill holes:						<u> </u>		115.4					51	13.2
	 easting and northing of 	EFBQ011	2/12/029	7927336	167	123.8	-68	253.9	90.7	91.1			1.10	156	16.0
	the drill hole collar	CrbQ011	240000	7527550	10/	125.0	-00	233.5	91.3	93.3	2.0		0.68	10	3.4
	elevation or RL (Reduced								93.3	105.2			5.17	62	10.3
	Level - elevation above								111.0				1.86	100	16.8
	sea level in metres) of the	EFBQ012	248091	7927318	167	121.3	-68	255.9	51.2	57.5			0	164	6.3
	drill hole collar								57.5	71.7			3	124	9.2
	 dip and azimuth of the 								79.7	98.0		16.63	1.56	111	18.2
	hole	EFBQ013	248162	7927338	168	93.7	-90	0	45.0	77.7	32.7	10.92	0.81	62	11.7
	 down hole length and 	LH031	248086	7927365	149	153.1	-60	160	61.0	63.4	2.4	5.24	0.50	87	6.0
									63.4	70.8			0.98	64	6.6
	interception depth								75.3	92.0		12.56	0.87	30	13.2
	 hole length. 	LH144		7927381	147		-60	157	54.3	74.7		13.12	0.90	38	13.9
		LH149	248091	7927360	150	93.9	-60	157	56.2	57.8		15.15	0.26	265	16.6
									57.8	63.2	5.4		0.89	48	6.4
									67.2	83.3			1.11	26	14.1
		LH150	248134	7927385	147	85.0	-60	157	60.7	63.9				29	5.5
								450	66.1	84.8			0.56	27	11.7
		LH152	248100	7927382	149	104.7	-57	156	72.1	73.7	1.6		0.20	90	8.0
									73.7	78.8	5.1		2.07	65	8.1
		LH182	249062	7927357	150	111.0	-60	155	83.8 62.4	100.6 64.8	16.8	11.81 4.80	0.86	21 48	12.4
		LH182	248003	/92/35/	150	111.0	-00	155	64.8	72.4			1.11	48	5.3
									76.5	92.0			1.11	39	13.3
		ZCL563	248169	7927368	158	102.5	-60	151.4	42.9			17.43	2.02	73	19.1
		201303	240100	7527500	130	102.5		151.4	42.5	62.5		10.59	0.49	19	11.0
									62.5				0.03	3	4.7
									02.0	02.0	0.1		5.05		4.7



Criteria	JORC Code explanation	Commentary
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.	Drill hole assays were composited by geological domain used in the Mineral Resource estimate. Hole assays have been reported above a 3% Zinc equivalent cut-off. The assumptions used within the Zinc Equivalent calculation are explained below.
	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.	Aggregated intercepts are reported by the historic mine units at Century mine. Grades include internal dilution from low grade strata which cannot be selectively removed during the mining process.

The simplified formula is – Zinc Equivalence % = Zn% + (Pb% x 0.67) + (Ag g/t x 0.005)

The below assumptions were applied -

Metal	Price USD	Metal	Metal	Concentrate
		Recovery	Payable	Grade
Zinc	\$2500/t	81%	85%	57.3
Lead	\$2200/t	62%	95%	62.0
Silver	\$18/oz	60%	95%	7 oz

The assumptions used for any reporting of metal equivalent values should be clearly stated.



Criteria	JORC Code explanation	Commentary
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').	Drill-hole angles are designed to approximate true width intercepts to mineralisation. This report focuses on the Mineral Resource Estimate and as such true thickness is represented by the geological model.



Criteria

JORC Code explanation

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. Commentary

Diagrams

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.	The drill results being reported are considered both representative and balanced in nature with respect to the Mineral Resource.
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Section through 27150N (Century Mine Grid) showing relationship to Century Deposit -



Criteria	JORC Code explanation	Commentary
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.	Century Mine has an extensive Exploration, Mining, and Concentrate Production history. No information considered material to the East Fault Block Mineral Resource or the potential for economic extraction has been omitted.
Further work	The nature and scale of planned further work (e.g. tests for lateral	Further drilling may be planned to define the extents of high grade mineralised intercepted below the East Fault Block.
	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	Dril hole LH124 pictured below includes 26.1m @ 15.8% Zn from 199.8m and represents a potential replication of the East Fault Block at depth.



Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity		
		Qualitative logging was carried out into standardised Microsoft Excel logging spread-sheets with standardised drop- down logging codes for each variable. The logging geologist then completes a commentary for the relevant section which should correspond with the logging codes for the interval. Where there is inconsistency the commentary information is prioritised.
	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.	Partial data may not be imported to the database. Mandatory fields must be completed to allow import to occur. All results must correspond to identical sample dispatch numbers to be accepted.
		Assay data transcriptions errors were eliminated by the use of an automated results receipt process which imports data directly from the laboratory results file to the database.
		All changes and updates within the previous GBIS database, and the recently established Maxwells Geoservices WEBshed database, are fully auditable and traceable.
		Data used in the Mineral Resource has passed a number of automated and manual validation checks prior to use in the Mineral Resource estimate.
	Data validation procedures used.	The Competent Person assumed all historic data to be sufficiently validated for use in Mineral Resource Estimation based on the use in previous estimates; as such only visual inspection to identify any non-logical data issues was carried out – with no issues being identified.
Site visits	Comment on any site visits undertaken by the Competent Person and the	The Competent Person worked at Century Mine between 2009-2015, and visited site in April 2017.
	outcome of those visits.	No issues that may materially impact the Mineral Resource estimate for the East Fault Block have been identified.
	If no site visits have been undertaken indicate why this is the case.	
Geological interpretation	Confidence in (or conversely, the	The Geology and extents of the East Fault block is well understood and defined.
	uncertainty of) the geological	



Criteria	JORC Code explanation	Commentary
	Nature of the data used and of any assumptions made.	All data is from diamond drill hole analysis and observations. It is assumed that the East Fault Block has the equivalent ore characteristics to the Century Deposit they were originally one singular body. No modification of the rock characteristics has been observed between the Century deposit and East Fault Block.
	The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation.	No alternative interpretations were considered – the mineralisation is well defined and understood.
		The well-defined Century Stratigraphic sequence formed the basis for the estimation domains of the East Fault Block. The extents of the stratigraphic units up to fault terminations define hard boundaries within which estimation occurred for economic elements.
	The factors affecting continuity both of grade and geology.	Both grade and geological units are continuous across the East Fault Block until reaching the fault terminations.
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 East Fault Block Mineral Resource is a steeply dipping tabular ore-body with the following dimensions – 160m x 110m x 30m dipping at 60 degrees to the NW. Mineralisation is encountered at 50m below current surface and continues to a depth of 140m.



Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	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.	The volume block model was created in Vulcan software using 3D surfaces representing the stratigraphically defined mine units - Upper Ore Zone, Lower Ore Zone, the Interburden Waste unit and the 'marginal' 165, 155 and 145 units. Block dimensions were fixed in easting and northing, but block height can vary in Z. Each unit is represented by a single block in the Z direction; Due to the long ranges of the established Century variogram models (~400m x ~300m for Zn), relative to the extents of the remaining mineralisation (160m x 110m x 30m), interpolation and extrapolation of grades within the estimate were primarily limited by estimate sample count restrictions, and hard estimation boundaries, to prevent excessive smoothing of local estimates. Estimates for of Zn, Pb, Ag, Fe, Mn and S were carried out using the Ordinary Kriging method. A post script was used to calculate stoichiometric sulphide mineralogy and bulk density based on the Pb, Zn, S and Fe estimates; a density correction factor based on empirical grab sample data was applied within the calculation. Quantitative Kriging Neighbourhood Analysis (QKNA) was used to assess the quality of the estimate relative to the input data.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No Mine Production records are available for the East Fault Block.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding the recovery of by-products. The Century Deposit processing and concentrate characteristics are well understood from 15 years of mining and processing history.





Criteria

CES				
	JORC Code explanation	Commentary		
		The very small particle liberation size of Century sulphides has long been identified as a critical factor in achieving economic recoveries. As such the Century Milling circuit was designed and operated to achieve an ultra-fine grind with >50% passing 6 microns prior to pre-conditioning and sulphide flotation.		
		Mineralogically, zinc sulphides at Century are hosted within carbon rich black shales. The bituminous carbon within the shales is hydrophobic and requires removal during pre-flotation conditioning of the milled feed. During this process zinc minerals are also lost, impacting on overall zinc recovery.		
		The carbon:zinc ratio was the primary indicator of relative zinc recoveries in the past. When considering relatively constant carbon grades within the host rocks - where zinc grades are low, the carbon:zinc ratio as a function is high. In such circumstances - relative losses to the cleaner, and impact on final recoveries, is proportionately larger.		
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Historically, the Century Concentrator ran at approximately 0.35 carbon units to every 1 zinc unit, achieving 80% recovery for zinc. During the latter stages of production when zinc grades dropped, the Century feed approximated 0.5 carbon units to every 1 zinc unit, and plant recoveries averaged approximately 74%. Throughout the operating history of the mine a focus on metal output, as opposed to recovery, resulted in sub-optimal residence times for sulphide flotation. As such, extrapolation of past performance is not necessarily indicative of future recoveries.		
		The reported East Fault block Mineral Resource has an overall carbon:zinc ratio 0.4 to 1 which approximates historical concentrations in mill feed at Century Mine. It should be recognised that this ratio is based upon the Mineral Resource grade reported above a 3%ZnEq, therefor – should grade control and mining practices be able to better define higher grade zones an increase the zinc feed grade would further reduce the carbon:zinc ratio.		
		A reduction of the throughput rate relative to historic operations may also improve hydrometallurgical recoveries and decrease overall losses. Metallurgical testing by New Century Resources is ongoing at the time of reporting.		
		Carbon was not sufficiently sampled historically to carry out a kriged estimate for the East Fault Block Mineral Resource estimate, however average unit values for carbon across the Century deposit are considered sufficient for		

use in recovery estimate assumptions due to the overall low variability of carbon.



Criteria

JORC Code explanation	Commentary
In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Parent Block sizes are 15m x 15m in the x,y plane and 5m in the Z plane. Sub-blocking occurs to 5m x 5m x 1m to better honour the geometry of the geological model. The XY block size approximates half the drill sample spacing across the deposit. Due to the long range of the variograms employed relative to the deposit extents, a large search was adopted with estimates being restricted locally by limiting the maximum sample count criteria and enforcing octant based search limits.
Any assumptions behind modelling of selective mining units.	The deposit is most amenable to open pit mining by conventional load and haul methods and the Mineral Resource block sizes are considered relevant to this method. The Geological domains used for Estimation represent mineable packages of the stratigraphic sequence.
Any assumptions about correlation between variables.	No correlation assumptions have been applied in the estimate.
Description of how the geological interpretation was used to control the resource estimates.	The Resource Estimate was constrained within the pre-defined Stratigraphic units of the Century Deposit. The alternating sedimentary bands of the Century Deposit serve as mineral domains for the estimate. Hard boundaries were used due to the fault terminations that define the deposit.
Discussion of basis for using or not using grade cutting or capping.	No cutting or capping was used in the estimate. No bias was identified due to the effect of high yield samples.

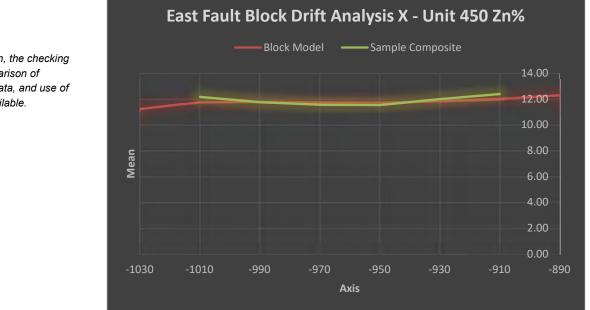




Block estimates were visually validated in Vulcan and compared to the sample composites. This allowed for rapid assessment of domain selections, and whether any blocks have not been filled by the search applied. In addition, the search ellipsoid and samples selected were visualised.

Global sample statistics were compared to block estimates. This ensured that no global bias exists.

A semi-local estimation check was carried out by plotting the average grade of the inputs and outputs in moving window slices (swath plots).



The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.



Criteria JORC Code explanation Commentary

 East Fault Block Drift Analysis Y - Unit 450 Zn%

 Block Model
 Sample Composite

 g
 6.00

 g
 6.00

 g
 6.00

 g
 0.00

QKNA checks on block estimates were carried out for an indication of block estimate quality relative to sample data through the evaluation of - Slope of Regression, Kriging Efficiency and Block Variance.

No reconciliation data is available for the East Fault Block as the deposit does not have any mining history.

Axis

Moisture Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.
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Criteria	JORC Code explanation			Commentary		
Cut-off parameters		The East Fault block Mineral Resource was reported at a nominal 3.5% zinc equivalent (ZnEq) Cut-off grade. The simplified formula is – Zinc Equivalence % = Zn% + (Pb% x 0.67) + (Ag g/t x 0.005) The below assumptions were applied -				
	The basis of the adopted cut-off	Metal	Price USD	Metal	Metal	Concentrate
	grade(s) or quality parameters applied			Recovery	Payable	Grade
		Zinc	\$2500/t	81%	85%	57.3
		Lead	\$2200/t	62%	95%	62.0
		Silver	\$18/oz	60%	95%	7 oz
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	e It is assumed the deposit will be mined by conventional load and haul methods with mining be ning hands which could not be selectively removed during mining				0
	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.		deposit was mined by this port the Mineral Resource			



Criteria	JORC Code explanation	Commentary
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.	Ore from the adjacent Century deposit was processed from 2000-2015 and has comprehensive historical production data to support the Mineral Resource estimate and assumptions. Stockpiled material is at a risk of spontaneous combustion due to the fine grained sulphide mineral content if left exposed for periods in excess of three months. The material within a combusting stockpile may result in lower metallurgical recoveries. No material impacts are anticipated with regards to the metallurgical assumptions.
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 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	All activities undertaken are subject to the conditions of the Environmental Authority EPML00888813, issued by the Queensland Department of Environment and Heritage Protection.



Criteria	JORC Code explanation	Commentary	
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	All density values reported are dry values.	
		Density values were calculated stoichiometrically from the Pb, Zn, S and Fe values within the block model.	
		The method uses proportional stoichiometric attribution, and accumulation, of specific gravity values based on empirical mineral species observations. A correction factor is then applied based on thousands of measured grab sample values taken over the life of mine (15 years).	
	nature, size and representativeness of the samples.	Average unit density values are applied to all waste. The basis for these comes from 15 years of mine reconciliations and grab sample measurements.	
		Density reconciliation from Mine Production data is considered good.	
	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,	Voids and vugs are considered for the limestone overburden and are accounted for within the average value assigned to this lithology.	
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Although density values and calculations are derived from the adjacent Century Deposit, these are considered appropriate due to the provenance of the East Fault Block as part of the Century ore-body.	
		A comprehensive production and reconciliation history associated with the Mine provides high confidence in the density values used for all materials.	



Criteria	JORC Code explanation	Commentary
Classification		The East Fault Block Mineral Resource is has been classified as 100% Indicated by the Competent Person.
		Data density is good, and input data of high quality.
	The basis for the classification of the Mineral Resources into varying	Quantitative Kriging Neighbourhood Analysis (QKNA) indicates good quality block grade estimates across the deposit relative to input sample data.
	confidence categories	The volume estimate of the East Fault block is considered of moderate to high confidence as the extents are well defined by the drilling.
		Mining practices, and ore-processing for the ore type are well defined and understood at Century Mine.
	Whether appropriate account has been taken of all relevant factors (i.e.	Geological continuity, and subsequent truncations, of the deposit are well defined.
	relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and	The tonnage estimate is based a high confidence volume model and density values based upon considerable sampling and mining data from the adjacent Century Deposit.
	metal values, quality, quantity and distribution of the data).	Data quality is considered good and fit for purpose.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification reflects the Competent Person's view of the deposit, and the Mineral Resource Estimate.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There has been no review of the Mineral Resource estimate at the time of reporting.





Criteria	JORC Code explanation	Commentary
	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	The geological model for the deposit is considered of high confidence based on close spaced drilling. Density assumptions are derived from 15 years of production reconciliations across the Century Deposit and are considered of high confidence also.
		Continuity of grade is across the deposit is good, and variability of grades within domains is low. The quality of the kriged estimate based upon all quantitative metrics is good, and global block estimate statistics correlate well with input sample data.
		The size of the deposit means a relatively short mine life for the deposit and the capacity to smooth any local variances within the estimate through stockpile blending.
		Overall based on quality input data, and supporting production data from the Century Deposit, confidence in the accuracy of the Estimate is high.
it relates to global or local es and, if local, state the releva tonnages, which should be r technical and economic eval Documentation should includ	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	The Mineral Resource estimate is global, however when considering the size of the deposit, full extraction would likely take less than 12 months and thus the estimate may be considered to be locally representitive.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	No production data is available for the East Fault Block Resource – the Mineral Resource is insitu and has no mining history.