

7 March 2019

MINERAL RESOURCE ESTIMATE UPGRADE AT SORBY HILLS

Highlights

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- An updated Mineral Resource Estimate (MRE) has been completed by wellregarded resources specialist CSA Global, resulting in material upgrade of the Resource.
- 82% increase in the tonnage of Global Resource to 29.97Mt of 4.7%Pb equivalent (3.7% Pb, 43g/t Ag) and 0.6% Zn.
- 123% increase in the tonnage of Indicated Resources to 10.85Mt of 5.0%Pb equivalent (3.9% Pb, 46g/t Ag) and 0.4% Zn.
- Updated MRE and deeper geological understanding confirms high potential to expand the Sorby Hills Resource base.
- A review of preliminary Dense Media Separation (DMS) test work has identified exceptional results indicating ore grades may be upgraded by two to three times prior to processing.
- Updated MRE and preliminary DMS test work will support the 2012 Pre-Feasibility Study review and update due for completion in March 2019.
- Further MRE Update to be completed Q3 2019 to support a new optimized Pre-Feasibility Study and will incorporate drill results yet to be received from Stage 1 as well as Stage 2 drilling planned to commence in April 2019.

Note: Zinc has NOT been included in Pb equivalent calculations at this time, however, work currently being completed by Pacifico may provide the supporting data to include in future calculations. See Appendix 2 for equivalent Pb% calculation assumptions.

Pacifico Minerals Limited ("Pacifico" or the "Company") is pleased to provide an update on the Sorby Hills Mineral Resource Estimate ("MRE") following the initial Phase 1 drill campaign at its 75% owned Sorby Hills Lead-Silver-Zinc Project ("Sorby Hills") located 50km northeast of Kununurra in Western Australia (ASX announcement, 14 February 2019).

An updated Mineral Resource Estimate has been completed resulting in an increased (by 82%) **Global Resource of 29.97Mt of 4.7% Pb equivalent** (3.7% Pb, 43g/t Ag and 0.6% Zn, using a 1.0% Pb cut off).

Within the Global Resource there is now an increased (by 123%) **10.85Mt of Indicated Resources with a grade of 5.0% Pb equivalent** (3.9% Pb, 46g/t Ag) and 0.4% Zn using a 1.0% Pb cut off).

The previous Mineral Resource Estimate ("MRE") was completed in 2018 (ASX announcement, 24 August 2018).

The MRE update has been completed by well-regarded resources specialist CSA Global ("CSA") and is based on the analyses received from the initial 34 holes of the Phase 1 drilling program carried out in late 2018, initial results from a new mining study completed by an independent international mining Engineering specialist which supports



a change in cut-off grade from the previous MRE, and an improved appreciation of the geological stratigraphy and structure.

CSA Global have a long history of involvement with the Sorby Hills Project with CSA managing a drill program and completing a Mineral Resource Estimate in 2007. Importantly, this was the first drilling program at Sorby Hills since 1980.

PMY's Managing Director Mr. Simon Noon said: "We are very pleased to be able to announce an 82% increase in the tonnage of the Mineral Resource Estimate for our 75% owned Sorby Hills Lead-Silver-Zinc Project. Importantly, this includes a 123% increase in tonnage of Indicated Resources following infill drilling in late 2018. This greatly increases confidence levels and will underpin the 2012 Pre-Feasibility Study review and update which is due for completion in March 2019. As data continues to come in from final drill holes completed in late 2018 and with phase 2 drilling planned to commence in April, these resource figures are expected to rise further in 2019. We are confident that the Sorby Hills Resource base will continue to grow and subject to successful development the Project could potentially become one of Australia's most significant lead producers."

Analyses results from a further 18 drill holes are yet to be received and, combined with the Phase 2 drilling program planned to commence in April 2019 (weather permitting), should further upgrade the MRE.

A new simplified appreciation of the geological stratigraphy and structure allows for a better delineation of the geometry of the deposits, and greater confidence in resources. Angled drilling and orientated core from the 2018 drilling campaign has revealed a clear control on mineralisation that is hosted between upper Knox Sediments and a lower Sorby Dolomite. The deposits consist of both diagenetic replacement mineralisation in the overlying slump breccias and shales, and epigenetic mineralisation in the more brittle Sorby Dolomite immediately underlying the slump breccias. The mineralisation is associated with low-angle syn-sedimentary faults.

The updated MRE and deeper geological understanding of the deposits confirm significant potential to grow the Sorby Hills deposit. The results of the 2018 drilling campaign provide Pacifico with high confidence in converting Inferred Resources to Indicated, and for the discovery of additional resources with future drilling programs using angled diamond holes.

A review of previous metallurgical testwork has confirmed preliminary Dense Media Separation (DMS) test work indicates ore grades may be significantly upgraded by two to three times prior to being fed into the process plant with minimal (<15%) metal loss. Additional optimisation work is required over both low-and-high-grade ore samples to obtain a deposit wide representative DMS upgrade factor. Pacifico are using a conservative upgrade factor of x2.12 when modelling process plant beneficiation performance from ore throughput to final concentrate for its financial model update due for completion in March.

Previous DMS test work was detailed enough to separately identify float, sink and fines at various heavy liquid densities and these streams were assayed separately (KBL Mining Ltd: ASX announcement, 6 December 2012).

Importantly, as most of the silver appears to be held within galena (lead sulphide), silver grades are similarly upgraded via DMS.

All previous DMS work was completed in 2011 and 2012. Pacifico has recognised the significance of this work and its potential to materially change the economics of the Project by providing pre-flotation ore with lead and silver



grades at least double to triple the mined head grade. A significant test program will commence to feed DMS results into a process plant design that incorporates a DMS beneficiation plant from commencement of mining.

Resources

The Sorby Hills MRE is presented in Table 1 and is reported above a cut-off grade of 1.0% Pb for most deposits, except for the Alpha Zn deposit which is reported above a cut-off grade of 1.0% Zn. The Mineral Resource is reported by deposit in Table 2.

The Mineral Resource is classified as a combination of Indicated and Inferred with geological and sampling evidence sufficient to assume geological and grade continuity within the Indicated volumes. Classification of the MRE was carried out considering the geological understanding of the deposit, quality of the sampling and density data, and drill hole spacing.

Table 1. Sorby Hills Mineral Resource. Reported from Blocks Where Pb > 1.0% (Except Alpha Zn Deposit, Zn>1.0%)

JORC Classification	Tonnes (Kt)	Pb %	Zn %	Ag g/t
Measured	-	-	-	-
Indicated	10,850	3.9	0.4	46
Inferred	19,130	3.6	0.7	42
Total	29,980	3.7	0.6	43

Note: All deposits reported against a Pb cut-off grade of 1.0% except Alpha Pod (Zn deposit) which is reported using a Zn>1.0% cut-off grade. Tonnes and grade are rounded to reflect uncertainty in the estimates



Table 2. Sorby Hills Mineral Resource by Deposit. Reported from Blocks Where Pb > 1.0% (Except Alpha Zn Deposit, Zn>1.0%)

Deposit	Classification	Tonnes (Kt)	Pb %	Zn %	Ag g/t
A	Inferred	380	7.7	1.3	37
	Sub-Total	380	7.7	1.3	37
В	Indicated	680	4.5	0.4	23
	Inferred	530	5.1	0.3	28
	Sub-Total	1,220	4.8	0.4	25
С	Indicated	2,350	2.7	0.4	20
	Inferred	2,490	2.2	0.4	20
	Sub-Total	4,840	2.4	0.4	20
DE	Indicated	4,180	4.0	0.5	47
	Inferred	1,730	2.7	0.7	38
	Sub-Total	5,910	3.6	0.6	44
F	Indicated	400	4.8	0.3	52
	Inferred	2,940	4.5	0.2	40
	Sub-Total	3,340	4.6	0.2	42
н	Inferred	2,320	4.1	0.4	33
	Sub-Total	2,320	4.1	0.4	33
I	Indicated	3,230	4.4	0.4	68
	Sub-Total	3,230	4.4	0.4	68
Alpha Pb	Inferred	3,910	3.4	0.3	50
	Sub-Total	3,910	3.4	0.3	50
Alpha Zn	Inferred	2,340	0.5	3.1	29
	Sub-Total	2,340	0.5	3.1	29
Beta	Inferred	2,490	6.2	0.5	78
	Sub-Total	2,490	6.2	0.5	78
All	Indicated	10,850	3.9	0.4	46
	Inferred	19,130	3.6	0.7	42
	Total	29,980	3.7	0.6	43



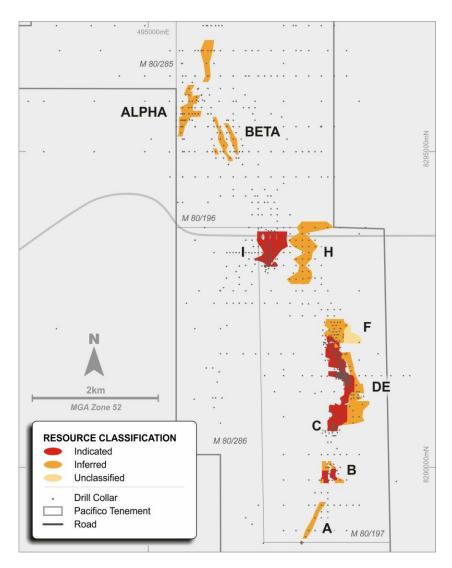


Figure 1. Mineral Resource Block Model Colour Coded by Classification. Drill Collars Are Used in MRE. (Red = Indicated, Orange = Inferred, Yellow = Unclassified)

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About Pacifico Minerals Ltd

Pacifico Minerals Ltd ("Pacifico") (ASX: PMY) is a Western Australian based exploration and development company focused on advancing the Sorby Hills Lead-Silver-Zinc Joint Venture project.

Pacifico owns a 75% interest in the Joint Venture with the remaining 25% (contributing) interest held by Henan Yuguang Gold & Lead Co. Ltd.



About Henan Yuguang Gold and Lead Co Ltd

Henan Yuguang Gold and Lead Co., Ltd (HYG) was established in 1957 by the government of Jiyuan City which is in Henan Province in North China. In July 2002, HYG (exchange code: 600531) was listed on the Shanghai Stock Exchange (SSX). Current ownership is approximately 29.61% by Jiyuan City. HYG is the largest lead smelting company and silver producer in China and has been among the Top 500 Chinese enterprises and Top 500 China manufacturing enterprises for the last five consecutive years. The main products produced by HYG are electrolytic lead, gold, silver and copper which are all registered at LME and LBMA respectively. In 2017, HYG produced 415,100 tonnes of electrolytic lead, 110,000 tonnes of copper, 958 tonnes of silver, 7,383 kg of gold and achieved sales of about US\$2,684 million. HYG's plants are largely modern, focussed on development of industrial technology and are environmentally-friendly. Its recently-refurbished lead smelting plant has achieved full automation. More information can be found on the HYG website; http://www.yggf.com.cn/en/.

Competent Person Statement

The information in this report that relates to Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has enough experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

Forward Looking Statements

Certain statements in this document are, or may be, "forward-looking statements" and represent Pacifico's intentions, projections, expectations or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements necessarily involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Pacifico, and which may cause Pacifico's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Pacifico does not make any representation or warranty as to the accuracy of such statements or assumptions.



Appendix 1 – Resource Criteria and Methodology

Geology and Geological Interpretation

While Sorby Hills mineralisation has many features typical of Mississippi Valley Type (MVT) deposits (carbonate hosted with apparently straightforward metallurgy) recent geological assessment has shown it to be a sediment replacement system with mineralisation focussed on the contact between the upper Knox Sediments and the lower Sorby Dolomite. The mineralisation consists of 11 discrete carbonate hosted Ag-Pb-Zn deposits, A, B, C, DE, F, H, I, J, Beta East, Beta West and Alpha. The deposits form a linear north-south belt extending over 7 km, sub parallel to the eastern margin of the Precambrian Pincombe Inlier and within the Carboniferous Burt Range Formation of the Bonaparte Basin.

The mineralisation is largely stratabound and hosted mainly on the contact between Knox Sediments and Sorby Dolomite, and in dolomitic breccia and shales typically developed at the contact, which generally dips shallowly to the east.

The mineralised pods average 7–10 m in thickness, are generally less than 1 km long and 100 to 500 m wide. There is some structural control to the mineralisation, with higher grade zones associated with faulting. Some of this faulting is interpreted to be at a low angle.

Drilling is a mixture of reverse circulation (RC) and diamond core with sampling predominantly at 1 m intervals. Hole spacing is generally 25 m (north) by 25 m (east) in the D and E deposits, and up to 50 m by 50 m in the other deposits.

The geological models and MREs for the B, C, DE, F, H and I deposits were updated as part of this MRE. The sample data from the 2011 MRE were used to estimate block grades for the A, Alpha and Beta deposits, using the same geological models as used in 2011.

Drill hole traces were loaded into Datamine software to assist with the interpretation of mineralisation domains, which were based upon a lower Pb limit of 1.0%. Some internal dilution was accommodated, generally where three or less adjacent samples of grade Pb < 1.0% were encountered in a zone of mineralisation with Pb > 1.0%.

The C, DE and F deposits represent a corridor of mineralisation with strike extent of 1,800 m and a maximum plan width of 350 m. Sectional interpretations of the mineralisation were combined into wireframe solids. Domains were extrapolated to the typical drill spacing beyond the last fence of drill holes supporting the interpretations. A total of 20 individual wireframe solids were constructed capturing the Pb mineralisation.

Weathering profiles for the base of complete oxidation ("BOCO") were interpreted in cross section views using lithological logs of weathering characteristics of the samples.

Drilling Techniques

The MRE is supported by samples collected from RC and Diamond ("**DD**") drilling, with holes drilled over a time span between the 1970s and late 2018. Many of the historical holes (pre-dating 2007) are known to have quality assurance issues and these holes were excluded from the MRE. A total of 323 drill holes penetrate the mineralisation domains, and of these, 90 holes are historical but were retained based upon acceptable quality assurance results.



Drilling methods used to support the Mineral resource estimate were RC and HQ DD drilling. RC drilling was also used to pre-collar holes with planned end of hole depth greater than 80 m, which were then completed with diamond tails.

Sampling and Sub-sampling Techniques

During the 2018 drilling program, RC sampling was conducted at 1 m intervals for the entire length of the hole. All the samples from RC pre-collars and RC holes were scanned with a portable XRF (Olympus InnovX Delta) for an indication of lead concentration. Intervals were selected for assaying from XRF readings above 0.3% Pb. An additional metre sample was taken above and below this interval. Mineralised HQ DD core was sampled at different intervals to reflect lithological boundaries, but within length limits of between 0.5 m and 1.1 m.

For drilling conducted prior to 2018, DD core was typically sampled at regular 1 m intervals. Some core was sampled at different intervals to reflect lithological boundaries. Various core diameters were used including BQ, NQ and HQ. RC sampling was conducted typically at 1 m intervals for the entire length of the hole.

For the 2018 drilling campaign, core was cut in half at the core shed in Kununurra using a diamond saw. Half core samples were collected and placed in pre-numbered calico bags. Samples were placed into heavy duty plastic bags and sealed for transport to the laboratory. Two 2 kg samples were collected from each RC metre using a rig mounted cone-splitter. The booster compressor was used on the rig to maintain consistently dry samples. One sample was used to be sent to the laboratory for analysis if selected, and the other stored in the Kununurra facility. All samples from RC holes were scanned with a portable XRF for an indication of lead concentration. One-meter intervals were selected to be sampled if above 0.3% Pb as indicated by the pXRF. An additional metre sample was taken above and below this interval.

For drilling campaigns pre-2018, core was cut in half at site using a diamond saw. Half core samples were collected and placed in pre-numbered calico bags. Samples were collected by the project geologist and geotechnician and placed into poly-weave bags for transport to the laboratory.

From 2007 through 2010, RC samples were collected at 1 m intervals using a trailer-mounted cone splitter attached to the drilling rig. 2-3 kg of split material for each metre was collected in a calico bag to be submitted for assay.

Sample Analysis Method

For samples collected in 2018, the samples were assayed to accepted industry standards at the Intertek-Genalysis nationally certified laboratory in Darwin. Multi-acid digestion of pulverised sample was followed by ICP-OES or an equivalent assay technique.

For drilling campaigns pre-2018, drill samples were assayed to accepted industry standards at nationally certified laboratories such as ALS, SGS and Genalysis. Multi-acid digestion of pulverised sample was followed by ICP-AES or an equivalent assay technique.

Appropriate quality assurance and quality control measures were implemented for all stages of drilling which support the MRE. Certified reference materials, blanks and field duplicates were used to monitor the accuracy and precision of sampling and sample analyses, with results within acceptable tolerance limits.



Estimation Methodology

A block model with block sizes of 10 m (X) x 10 m (Y) x 5 m (Z) was constructed. The block sizes are approximately half the tightest drill spacing, which generally supports an Indicated classification. Blocks and drill sample data were flagged according to the geological and mineralisation envelopes. Drill holes were sampled at 1 m intervals and the drill samples were accordingly composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts applied for Pb, Zn and Ag.

Sample populations for Pb, Zn, Ag and S were split by mineralisation domains and at the oxide / primary rock interface, as supported by statistical analysis of assay data. The composited drill samples were input into variogram modelling. Moderate to high relative nugget effects were modelled for these in the primary zone. Major variogram directions exhibited a shallow plunge in the plane of vein towards the southeast (approximately -10° to 140°).

Grades for Pb, Zn, Ag, S and Fe were interpolated for all the grade variables by ordinary kriging. Blocks were estimated using a search ellipse of 40 m (major) \times 40 m (semi-major) \times 20 m (minor) dimensions, with a minimum of 5 and maximum of 25 samples from a minimum of four drillholes. Search radii were increased, and the minimum number of samples reduced in subsequent sample searches if cells were not interpolated in the first two passes. Cell discretization of $4 \times 4 \times 1$ (X, Y, Z) was employed.

The Mineral Resource block model was an update of the 2011 and 2013 MREs, with updated geological interpretations for the B and F deposits based upon results from the 2018 drilling. Geological interpretations were also updated for the C and DE deposits to simplify the interpretation based upon the level of geological understanding of the deposit.

The density equation used in the resource estimate was derived from 119 density measurements taken from drill core samples of the various mineralised rock types at Sorby Hills deposits and takes into account an assumption of increasing porosity with increasing lead grade. This following equation was applied to the Mineral Resource estimate per weathering domain:

- Oxide: DBD = 2.48 + (PB*0.018), where Pb is the interpolated Pb block grade
- Transitional (C, D and E deposits only): DBD = 2.51 + (PB*0.018)
- Fresh: DBD = 2.74 + (PB*0.018)

The density value for the A, Alpha and Beta deposits were calculated using the formula DBD = 2.71 + (PB*0.0223), as used in the 2011 MRE for those deposits.

Mineral Resource Classification

The Mineral Resources were classified based upon drill hole spacing, quality of sampling and sample analyses, quantity of density measurements, and the relative confidence in the geological interpretation.

The MRE is classified as a combination of Indicated and Inferred in accordance with guidelines contained in the JORC Code. A drill spacing of equal to or less than 50 m (north) by 50 m (east) was used to initially define the Indicated volumes. Polygons were digitised around the appropriate volumes and the resource classification assigned to the block model. Inferred volumes are based upon a drill spacing of 50–100 m



(northing) by 50–100 m (easting). Figure 1 shows the classification of the Mineral Resource. The A, H, Alpha and Beta pods are wholly classified as Inferred.

The Mineral Resource is reported above a cut-off grade of 1.0% Pb. This cut-off grade is considered reasonable for the reporting of a Mineral Resource which will support an open pit mining scenario.

It is assumed any future mining will be by open cut methods, with considerations being given to some of the deeper-seated mineralisation to be mined by underground methods. Metallurgical test work undertaken to-date indicates that standard flotation circuitry will achieve high quality concentrates of 55% – 69% lead. Excellent Pb and Ag recoveries of 91% and 87% respectively, are achievable with a conventional crushing, grinding and flotation circuit. Test work also shows that the ore responds well to cyanide free reagents. No other modifying factors were considered during the preparation of the MRE.

The Competent Person believes there are reasonable prospects for eventual economic extraction of the Mineral Resource. A Pre-Feasibility Study was prepared in 2012 for the D and E deposits and demonstrated positive economic results. The project is located near the town of Kununurra and is easily accessible by road during the dry season.



Appendix 2 – Calculation of Pb Equivalent Grades

The contained metal equivalence formula is made on the following assumptions based on metallurgical work included in a Pre-Feasibility Study (ASX: KBL Announcement, 8 April 2014), and on the published London Metal Exchange closing metal prices of 22 February 2019.

- Lead Price US\$ 2,058.9/t
- Silver Price US\$ 0.511/g
- Lead recoverable 91%
- Silver recoverable 87%

It is Pacifico's opinion that all elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold. The formula used to calculate lead equivalent grade is:

Lead equivalent grade Pb% = ((Grade % Pb x recoverable % Pb x price US\$ per tonne Pb metal / 10,000) + (grade g/t Ag x recoverable % Ag x price US\$/g)) / (Grade % Pb x recoverable % Pb x price US\$ per tonne Pb metal / 10,000)

Metal equivalents are highly dependent on the metal prices used to derive the formula. Pacifico notes that the metal equivalence method used above is a simplified approach. Only preliminary metallurgical recoveries are available. The metal prices are based on average LME prices of 22 February 2019 and do not reflect the metal prices that a smelter would pay for concentrate nor are any smelter penalties or charges included in the calculation.

Owing to limited metallurgical data, zinc grades are not included at this stage in the lead equivalent grade calculation.



Appendix 3: JORC Code, 2012 Edition - Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling	Nature and quality of	During the drilling program (from 16 October to 9 December 2018), RC sampling was
Techniques	sampling (e.g. cut channels,	conducted at 1m intervals for the entire length of the hole.
	random chips, or specific	
	specialised industry standard	All the samples from RC pre-collars and RC holes were scanned with a portable XRF
	measurement tools	(Olympus InnovX Delta) for an indication of lead concentration. Intervals were
	appropriate to the minerals	selected for assaying from XRF readings above 0.3% Pb. An additional metre sample
	under investigation, such as	was taken above and below this interval.
	down hole gamma sondes, or	Main and the distance of a construction of the state of t
	handheld XRF instruments,	Mineralised HQ diamond core was sampled at different intervals to reflect lithological
	etc). These examples should	boundaries, but within length limits of between 0.5 m and 1.1 m.
	not be taken as limiting the	The sampling methodology is considered representative and appropriate for the
	broad meaning of sampling.	sediment replacement style of mineralisation at Sorby Hills.
	Include reference to	For drilling programmes conducted prior to 2018, diamond core was typically
	measures taken to ensure	sampled at regular 1 m intervals. Some core was sampled at different intervals to
	sample representivity and the	reflect lithological boundaries. Various core diameters were used including BQ, NQ
	appropriate calibration of any	and HQ. RC sampling was conducted typically at 1 m intervals for the entire length of
	measurement tools or	the hole.
	systems used.	
	Aspects of the determination	
	of mineralisation that are	
	Material to the Public Report.	
	In cases where 'industry	
	standard' work has been	
	done this would be relatively	
	simple (e.g. 'reverse	
	circulation drilling was used	
	to obtain 1 m samples from	
	which 3 kg was pulverised to	
	produce a 30 g charge for fire	
	assay'). In other cases, more	
	explanation may be required,	
	such as where there is coarse	
	gold that has inherent	
	sampling problems. Unusual	
	commodities or	
	mineralisation types (e.g.	
	submarine nodules) may	
	warrant disclosure of detailed	
	information.	
Orilling Techniques	Drill type (e.g. core, reverse	Drilling methods used in the 2018 drill program were RC and HQ diamond drilling. RC
	circulation, open-hole	drilling was also used to pre-collar holes with planned end of hole depth greater than
	hammer, rotary air blast,	80 m, which were then completed with diamond tails.
	auger, Bangka, sonic, etc) and	Complex teles by one help difference and condition by the second of the
	details (e.g. core diameter,	Samples taken by open hole drilling are not used in the Mineral Resource estimation.
	triple or standard tube, depth	-1



of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc). A total of 1,199 drill holes are in the database, with 546 holes drilled prior to 2007. Of these, 353 holes were retained. An additional 300 holes were drilled in the period 2007 to 2018.

Reference has been made in the announcement to 10 previous drilling campaigns at Sorby Hills prior to the drilling campaign reported in this announcement. A summary of historic drilling campaigns is provided below:

	Drill Hole Series	Drilling Methods	Year
1	DDH1-DDH65	Diamond coring with unspecified pre-collar (mud rotary)	1972-1973
2	R1 -R29	Rotary Percussion (some open hole RC)	Unknown
3	FDH1 -FDH89	Conventional RC using VPRH rig	1974
4	WBS1001 - W8S1157	Mud rotary and RAB pre-collars with diamond tail	1975
	WBS2000- WBS2159	Conventional RC using VPRH rig (possibly some open hole)	1975
	WBS3000 - WBS3039	Rotary (probably open hole)	1975
5	WBS4000 - WBS4205	Rotary (Mostly open hole some conventional RC)	1976-1979
6	WBS5000 - WBS5095	Mud rotary pre-collars diamond tails	1978-1979
7	WBS6000 - WBS6057	Some RAB some mud rotary pre- collars with diamond tails	1980
	WBS7000 - WBS7035	RAB and conventional RC	1980
8	CSHDD001- CSHDD029	Diamond coring with open pre-collar (mud rotary)	2007
9	ISHDD001- ISHDD006	Diamond coring with open pre-collar (RC)	2010
	ISHRC001- ISHRC047	Conventional RC using T685WS Schramm rig	2010
	DSHRC001- DSHRC024	Conventional RC using T685WS Schramm rig	2010
	CSHRC001- CSHRC024	Conventional RC using T685WS Schramm rig	2010
	IPRC001-IPRC004	Conventional RC using T685WS Schramm rig	2010



			DSHDD001- DSHDD002	Diamond coring with open pre-collar (RC)	2010
		10	KSHRC002- KSHRC100	Conventional RC	2011
		11	AB, ACD, AF, AI series	RC and HQ diamond tails (this announcement)	2018
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	better to a vi were i aroun most s sampl diamo Core r 91.3% the m discre the m From the cy record	than 97% through the sual relative volume mostly at 100% through use amples were collected the was collected the wind tail. The fault zones, hower ineralised zone is typologically colone was weighed ded. Bag weights we were poor sample records at 100% to 100% to 100% the sample records and the sund tail.	every for HQ diamond core was acceptable the mineralised zones. RC bags collected at a sestimate, and later weighed. Estimated rugh mineralisation and bag weights were as of an auxiliary compressor and booster was deed dry. There was an occasional wet sam pressure. In one or two holes where more RC hole was terminated and left to be recent diamond drilling (post-2007 but prior to occurring in the regolith at <30 m depth. Ever, most recoveries exceeded 95%. Diamonically NQ diameter. To maintain sample integrity each RC bag with the weight in kilograms and moisture re generally consistent with the average between (<20 kg) are noted in the initial 10	t site were subject elative volumes consistent at with the RC rig ple when there than 2 m of wet ontinued with a o 2018) averaged Core recovery in tering along and core through collected from e content ag weighing 25 kg
Logging	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Diamo stored All cor marks Struct	I. Te was logged in deta and RQD. Recoverion ural measurements	ne rig at Sorby Hills. Agged at a secure facility in Kununurra, whe ail. Core was processed with orientation li es and RQD's were recorded. of stratigraphy and fault orientations were lines were of sufficient confidence.	nes and metre
Sub-sampling Techniques and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc	Core v	es were collected ar	raign: core shed in Kununurra using a diamond and placed in pre-numbered calico bags. Sa astic bags and sealed for transport to the l	mples were



and whether sampled wet or dry.

For all sample types, the nature, quality and appropriateness of the sample preparation technique.

Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.

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.

Whether sample sizes are appropriate to the grain size of the material being sampled.

2 x 2 kg samples were collected from each RC metre using a rig mounted conesplitter. The booster compressor was used on the rig to maintain consistently dry samples. One sample was used to be sent to the laboratory for analysis if selected, and the other stored in the Kununurra facility.

Samples from RC holes into mineralisation were scanned with a portable XRF for an indication of qualitative lead concentration. 1 m intervals were selected to be sampled of above 0.3% Pb as indicated by the pXRF. An additional metre sample was taken above and below this interval.

For drilling campaigns pre-2018:

Core was cut in half at site using a diamond saw. Half core samples were collected and placed in pre-numbered calico bags. Samples were collected by the project geologist and geo-technician and placed into poly-weave bags for transport to the laboratory.

From 2007 through 2010, RC samples were collected at 1 m intervals using a trailer-mounted cone splitter attached to the drilling rig. 2–3 kg of split material for each metre was collected in a calico bag to be submitted for assay.

In 2011 drilling samples were not split off the drill rig because of the possibility of water ingress clogging up the cyclone and cone splitter when hitting a cavity. Drilling was suspended when water/wet sample encountered, and the hole dewatered prior to recommencement of drilling. Instead, a PVC pipe spear was used to obtain approximately 2–3 kg of sample from a representative cross section of the entire 1 m sample. KBL considered this to be the best means of sample collection avoiding potential for contamination within a sample splitter.

In 2011, using an Olympus Innov-X portable XRF analyser at the rig, readings over 1.0% lead, 1.0% zinc and/or 20ppm silver were regarded as anomalous and were sampled at 1 m intervals with at least 2 m either side (regardless of XRF reading) also collected as individual metre samples. Samples with lower, background, metal levels were amalgamated into 4 m composite intervals.

Quality of Assay Data and Laboratory Tests

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

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.

Nature of quality control procedures adopted (e.g. standards, blanks, duplicates,

For the 2018 drilling program:

Samples sent to Intertek-Genalysis in Darwin for preparation and analysis. Duplicates, blanks and standards were inserted at regular intervals.

Drill core and rock chip samples were assayed to accepted industry standards at the Intertek-Genalysis nationally certified laboratory in Darwin. Multi-acid digestion of pulverised sample was followed by ICP-OES or an equivalent assay technique.

Certified Ore Grade Base Metal Reference Material provided by Geostats Pty Ltd. The standards selected covered a range of lead and silver concentrations and there is good agreement between the Pb and Ag assays, and the mean values provided with the reference standards. For the standards the assayed values were within half of one standard deviation and more commonly below the mean suggesting that grade overestimation is not a significant problem in the dataset.

Duplicates and blanks were also included in all sample despatches and results are considered as acceptable by the Competent Person and by Pacifico and the drill samples are considered to be suitable to support the Mineral resource estimate



	outornal laboratori : ali a ali al	For drilling compaigns are 2019.
	external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	For drilling campaigns pre-2018: Drill core and rock chip samples were assayed to accepted industry standards at nationally certified laboratories such as ALS, SGS and Genalysis. Multi-acid digestion of pulverised sample was followed by ICP-AES or an equivalent assay technique. During post-2007 drilling, standards were inserted at least every 30 samples in the stream, consisting of Certified Ore Grade Base Metal Reference Material provided by Geostats Pty Ltd. The standards selected covered a range of lead and silver concentrations and there is good agreement between the Pb and Ag assays, and the mean values provided with the reference standards. For the standards the assayed values were typically within one standard deviation and more commonly below the mean suggesting that grade overestimation is not a significant problem in the dataset. Duplicates and blanks were included in the 2010 drilling but not the 2011 drilling. Check-samples sent to umpire laboratories in 2010 showed good agreement between ALS and Genalysis laboratories.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	QAQC and data downloaded from the assay lab was checked by an independent third party to confirm accurate transposing of sample number assay results with respective drill hole intervals Geological logs were hand written on A3 and A4 paper log sheets and digitally entered into data entry templates in MS Excel and entered into an Access database. Assay certificates were received from the analytical laboratories and imported into the drill database. No adjustment was made to the data. In 2007 14 twin holes were drilled using HQ diamond core into Beta Pod, I Pod, D Pod and C Pod, to enable an assessment of the oxide and sulphide mineralisation within the deposit and test the three historic drilling methods. The results from the twin holes display very poor grade and thickness correlation with the historic holes. The data suggested that a high degree of grade variability exists within the deposit and there is evidence of grade smearing in the open hole and RC assay data. Many historical holes were excluded from the Mineral Resource estimate based on these results, and other observations made at the time of drilling. Two twinned holes were drilled in the 2010 drilling campaign at I pod, to test repeatability of drill results and compare drilling methods. The assay results showed close correlation of Pb, Zn and Ag grades in one of the twins (drilled 1.5 m apart) but only close correlation for Ag and Zn in the second. Sporadic mineralisation of this nature comprising veins, pods and vughs is observed in drill core.
Location of Data Points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	The 2018 drill hole collars were accurately surveyed using a DGPS by a registered surveyor and recorded in GDA94 Zone 52. Pre-2007 drill hole collars have been accurately surveyed in local grid. Drill hole collar co-ordinates have also been converted to GDA94 Zone 52 grid as recorded in the KBL Mining drilling database.



	Specification of the grid	Post-2007 drill hole collars have been accurately surveyed by DGPS. Drill hole collar
	system used.	co- ordinates have been recorded in GDA 94 grid in the KBL Mining drilling database.
	system useu.	co- ordinates have been recorded in GDA 94 grid in the KBL Minning drining database.
	Quality and adequacy of topographic control.	Over 95% of drill holes are vertical with 90% having no down-hole surveys.
		An analysis of the trajectory of vertical holes accompanied drilling in 2010. Down-hole surveying of dip and azimuth for diamond holes was conducted using a single shot, Eastman down-hole camera. Holes drilled from surface were surveyed at 15 m to minimise interference from the rig and every 30 m after that to the end of hole. RC hole orientations were surveyed using a single shot Pathfinder down-hole electronic
		camera. Holes were surveyed at 6 m below surface and every 30 m after that to the end of hole. As a result of this work, it was determined that most of the diamond drill holes remained relatively vertical with very little down-hole deviation with dip consistently between 88° and 90°. As expected, there was a slight deviation with holes lifting towards the west, perpendicular to the plane of bedding which dips gently towards the east. Most RC holes remained close to vertical with little down-hole deviation, dipping consistently between 87° and 90°. There was a slight deviation with RC holes lifting towards the southwest.
		As the drilling intersecting the DE deposit is concentrated within 140 m of surface (mostly <70m from surface), a small deviation in hole azimuth and dip of vertical holes would not introduce significant uncertainty as to the sample location.
Data Spacing and	Data spacing for reporting of	Hole spacing varies but drilling is mostly completed on a 20–30 (E-W) metre by 30–40
Distribution	Exploration Results.	(N-S) metre drill pattern. A nominal drill spacing of 50 m (northing and easting) is still
	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.	used in some deposits, largely classified as Inferred. Infill drilling has achieved a closer spacing in many parts of the main DE deposit area. The likelihood that mineralisation is developed in an orientation other than that interpreted is considered to be low since the drilling is on an average 25 m by 35 m drill patterns. The data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and classifications applied.
	Whether sample compositing has been applied.	Sample compositing was not carried out.
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.	It is not considered that there is a significant sampling bias due to structure. All holes are drilled at 70 deg to the west (270 deg), to better sample both shallow and steeply dipping mineralised structures considered significant to the mineralisation.
	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.	1



Sample Security	The measures taken to ensure sample security.	Samples are stored and processed at a secure facility in Kununurra. All samples taken by Pacifico personnel to the truck depot in Kununurra and placed on a pallet and sealed for transport direct to the Intertek-Genalysis laboratory in Darwin.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data.	Two independent geologists have reviewed the sampling protocols in the field, the import of assay results from the laboratory online access system and the data management within excel spreadsheets and the Access database. The historical drilling (pre-2007) has been reviewed on several occasions by previous and current property owners, with many of the historical holes deemed to have poor quality assurance and therefore not to be used in Mineral Resource estimates.

Section 2 Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary				
Mineral Tenement and Land Tenure Status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding	Pacifico Minerals Ltd acquired a 75% interest in the Sorby Hills lead-silver project in Western Australia on 5 October 2018. Yuguang (Australia) Pty Ltd and wholly owned subsidiary of Henan Yuguang Gold & Lead Co. Ltd (HYG) owning the remaining 25%. The Sorby Hills Project comprises five mining leases (M80/196-197 and M80/285-287), all of which are currently held jointly between Sorby Hills Pty Ltd (75%) and Yuguang (Australia) Pty Ltd (25%).				
	royalties, native title interests, historical sites, wilderness or national park	Tenement	Area (km2)	Granted	Expiry	
	and environmental	M80/196	9.99	22/01/1988	21/01/2030	
	settings.	M80/197	9.95	22/01/1988	21/01/2030	
	The security of the tenure held at the time of	M80/285	5.57	29/03/1989	28/03/2031	
known impediment obtaining a licence	reporting along with any known impediments to	M80/286	7.89	29/03/1989	28/03/2031	
	obtaining a licence to operate in the area.	M80/287	8.15	29/03/1989	28/03/2031	
		The Mining Leases are The project area is apply Kununurra and covers Native title has not be prior to the High Courbeen extinguished over The project area lies and Tenure is in good stant M80/197 have a current remaining mining tenes.	proximately 50 km a total area of 12, en granted over th t acknowledging Ner the MLs. djacent to propose ding until 2030 (in ent cultural clearan ements normal cult	north-northeast of 612.40 hectares (h e area. The Mining ative Title and ther ed Goomig Range C some cases, out to ce access agreeme cural clearance plan	f the township of a). g Leases were granted refore native title has conservation Park. 2031). M80/286 & nt in place; for the	



Exploration Done by	Acknowledgment and	The Sorby Hills area has been systematically explored by numerous companies
Other Parties	appraisal of exploration by other parties.	since 1971. Prominent amongst these were ELF Aquitaine (1973-1981) with various JV partners (SEREM, St Joe Bonaparte & BHP), BHP (1981-1988), in JV with Triako; and CBH/Kimberley Metals/KBL Mining.
		Previous work included, geologic mapping, soil geochemistry, airborne and ground geophysics and extensive drilling campaigns.
Geology	Deposit type, geological setting and style of mineralisation.	The Sorby Hills mineralisation is regarded as having many features typical of Mississippi Valley Type (MVT) deposits. Recent geological assessment has refined this to a sediment replacement system, with mineralisation focussed on the contact between the upper Knox Sediments and the lower Sorby Dolomite.
		The Sorby Hills mineralisation consists of 13 discrete carbonate hosted Ag Pb Zn deposits (previously referred to as pods), Pods A–J, Beta Pod East, Beta Pod West and Alpha pod. The pods form a linear north-south belt extending over 7 km, sub parallel to the eastern margin of the Precambrian Pincombe Inlier and within the Carboniferous Burt Range Formation of the Bonaparte Basin.
		The mineralisation is largely stratabound and hosted mainly on the contact between Knox Sediments and Sorby Dolomite and in dolomitic breccia which is typically developed at the contact of a crystalline dolomite unit and overlying dolomitic siltstone which generally dips shallowly to the east.
		The mineralised pods average 7–10 m in thickness, are generally less than 1 km long and 100 to 500 m wide. There is some structural control to the mineralisation, with higher grade zones associated with faulting. Some of this faulting is interpreted to be at a low angle. The deposits also appear to be subparallel to two main fault trends. Mineralisation is often thicker and/or of higher grade in areas of strong brecciation.
		The Sorby Hills primary mineralisation is typically silver and lead-rich with moderate to high pyrite (FeS2) content and generally low amounts of sphalerite (ZnS). Galena (PbS) occurs as massive to semi-massive crystalline lenses often found in the more argillaceous units, and as coarse to fine disseminations or as open-space fill in fractures, breccias and vughs. Sphalerite typically predates galena and occurs as colloform open-space fill. It is typically more abundant at the lateral fringes of and below the lead mineralisation. Silver values tend to increase as the lead content increases and is generally assumed to be closely associated with the galena. A discrete pyrite zone is seen to occur below the base-metal mineralisation.
		The upper portions of the deposits are often oxidised and composed of a variable mix of cerussite (PbCO3) and galena. Cerussite has also been observed deeper in the deposits where faults, fractures and or cavities have acted as conduits for meteoric waters. The extent to which secondary lead minerals exist through the deposit has not been systematically documented; however, it is possible that other lead-oxide minerals may be present.
Drill Hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of	A report has been prepared by the registered surveyor as to the accuracy of the DGPS surveying undertaken at the drill collars. The total number of drill holes at the Sorby Hills project area for A, B, C, D, E, F, G, H, G, I, J, Alpha and Beta deposits since its discovery in 1971 comprises 1,200 surface drill holes for a total of 116,313.2 m of drilling.



	the following information	The Mineral Resource estimate is based upon the results from all drilling from
	for all Material drill holes:	2007 onwards, and a selection of historical holes which meet the Competent
		Person's quality assurance standards.
	 easting and northing 	
	of the drill hole collar	
	elevation or RL	
	(Reduced Level –	
	elevation above sea	
	level in metres) of the	
	drill hole collar	
	dip and azimuth of the hole	
	down hole length and	
	interception depth	
	hole length.	
	If the exclusion of this	
	information is justified on	
	the basis that the	
	information is not Material	
	and this exclusion does not	
	detract from the	
	understanding of the	
	report, the Competent	
	Person should clearly	
	explain why this is the	
	case.	
Data Aggregation	In reporting Exploration	No aggregated exploration data is reported here.
Methods	Results, weighting	
	averaging techniques,	The metal price and metal recovery factors used to calculate a lead grade
	maximum and/or	equivalent are listed in Appendix 1.
	minimum grade	
	truncations (e.g. cutting of	
	high grades) and cut-off	
	grades are usually Material	
	and should be stated.	
	Where aggregate	
	intercepts incorporate	
	short lengths of high-grade	
	results and longer lengths	
	of low-grade results, the	
	procedure used for such	
	aggregation should be	
	stated and some typical	
	examples of such	
	aggregations should be	
	shown in detail.	



	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship Between Mineralization 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').	The stratabound mineralisation at Sorby Hills generally dips gently to the east and drilling intercepts are typically close to true width.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	All plan view, cross-sectional and long sectional diagrams accurately reflect coordinates. Where there is a vertical exaggeration in the long section then this is clearly stated.
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.	Exploration results are not reported here, refer to previous company announcements (e.g.14th February 2019) for further detail.
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	Since the discovery of Sorby Hills base metal deposit in 1971 considerable geological information concerning the mineralisation and its host has been compiled. Similarly, numerous geochemical soil surveys and geophysical surveys have been conducted across the tenement package. This information is well documented in company annual reports and can be readily accessed via the WA DMIRS website.



	and method of treatment;	Extensive metallurgical test work on drill core samples from the Sorby Hills deposit
	metallurgical test results;	was carried out in the laboratories of the Technical Services Department of Mount
	bulk density, groundwater,	Isa Mines Limited, Mount Isa in the late 1970s and early 1980s.
	geotechnical and rock characteristics; potential deleterious or contaminating substances.	Subsequently, CBH Resources commissioned AMML to carry out a test work program to confirm the results of the Mount Isa Mines work and investigate the replacement of sodium cyanide (NaCN), used as a depressant for iron pyrite and zinc sulphide, by alternative reagents. The results of this work appeared in Report 0034-1 dated 8 August 2008. Further test work was carried out by AMML for Sorby Management, following the change in ownership of the Sorby Hills project. The results appeared in Report 0194-1 dated 24 Oct 2011. Based on the work undertaken by MIM and AMML, Pacifico anticipates that concentrates grading approximately 65% Pb at an overall recovery of 91% Pb and 87% Ag, will be obtained from the Sorby Hill base metal ores.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional drilling is planned to improve geological confidence, to upgrade the resource to higher confidence Mineral Resource categories, to aid in future Reserve estimates, and to delineate additional areas of potentially economic mineralisation. The drilling results reported in this announcement form Phase 1 of a two-phase drilling program, Phase 2 drilling will commence in April/May 2019 and will include an estimated 6,000 m of drilling.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database Integrity	Measures taken to ensure that data has not been corrupted by, e.g. transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	Sorby Hills drill hole data is stored in MS Access database and hand drawn drill hole logs are stored in scanned digital form. Data validation checks are routinely run when data is interpreted in 3D visualization and modelling software. A cross-check of historical DE deposit area collar coordinates in the database against original drill hole plans in WA Department of Mines and Petroleum reports was performed in 2011.



Site Visits	Comment on any site visits undertaken by	CSA Global consultants conducted site
	the Competent Person and the outcome of	visits as part of 2007 and 2010 drilling
	those visits.	campaigns and were involved with earlier resource estimates at Sorby Hills.
	If no site visits have been undertaken	The Competent Person has relied upon
	indicate why this is the case.	the opinions and recorded observations
		of the CSA Global consultants as to the
		quality of the sampling, location of project and local infrastructure, and the
		local geology.
		The Competent Person responsible for
		the Mineral Resource estimates is of the
		opinion that this work has all been completed in line with industry best
		practice and to an appropriate standard
		for the Mineral Resource reported.
Geological Interpretation	Confidence in (or conversely, the	The geological models for the B, C, D, E,
	uncertainty of) the geological interpretation of the mineral deposit.	F and I pods were re-interpreted for this MRE update, based upon recent drill
	interpretation of the inineral deposit.	sample data and a better geological
	Nature of the data used and of any	understanding of geological controls to
	assumptions made.	mineralisation.
	The effect, if any, of alternative	The A, H, Alpha and Beta deposit MREs
	interpretations on Mineral Resource estimation.	are based upon geological models and
	estimation.	sample data as used to support the 2011 MRE. No changes were made to
	The use of geology in guiding and	these models as part of this MRE
	controlling Mineral Resource estimation.	update.
	The factors affecting continuity both of	There is a reasonable confidence level
	grade and geology.	in the geological interpretation of the
		mineral deposits.
		The geological interpretation involved
		dividing the deposits into mineralised
		zones, essentially based on assay data, and identifying the fresh, transitional
		and oxide zones from the geological
		logging of drill core and chips, as well as
		mineralogy.
		Geological observations from the 2018
		drilling program has refined the
		geological models for the B and F deposits, with shallow dipping faults
		interpreted, in comparison to the more
		steeply dipping faults as interpreted for
		previous Mineral Resource estimates.
		The mineralised zones and weathering
		profile (oxide/primary) were treated



		having hard boundaries during grade estimation. There is some structural control to the mineralisation, with higher grade zones associated with faulting. The deposits also appear to subparallel the two main fault trends. Mineralisation is often thicker and/or of higher grade in areas of strong brecciation.
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 global Mineral Resource has a strike length of 5,000 m and plan widths of between 100 m and 500 m. The southern deposits (A to F) vary in depth from 10 m below surface to 170 m below surface. The I deposit is flat lying and typically sits at a depth of 80 m below surface.
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	Datamine Studio RM was used for the geological modelling, block model construction, and grade interpolation and validation.
	distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	A block model with block sizes 10 m (X) x 10 m (Y) x 5 m (Z) was constructed. Sub-celling was used. The block sizes are approximately half the tightest drill spacing, which generally supports an
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such	Indicated classification. Blocks were flagged according to the geological and mineralisation envelopes.
	data. The assumptions made regarding recovery of by-products.	Drill sample data were flagged by the mineralisation and weathering domain envelopes, with variable MINZON and WEATH used. Drillholes were sampled
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	at 1 m intervals and the drill samples were accordingly composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	applied for Pb, Zn and Ag. Log probability plots were used to determine the top-cuts, and the very high-grade samples were reviewed in
	Any assumptions behind modelling of selective mining units.	Datamine by the Competent Person to determine if they were clustered with other high-grade samples.
	Any assumptions about correlation between variables.	Sample populations for Pb, Zn, Ag and S were split by mineralisation domains and at the oxide/primary rock interface,



Description of how the geological interpretation was used to control the resource estimates.

Discussion of basis for using or not using grade cutting or capping.

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

as supported by a statistical analysis of assay data.

The composited drill samples were input into variogram modelling. Normal scores variograms were selected for modelling because they presented the best structured variograms for the assays. Downhole and directional variograms were modelled for Pb, Zn, Ag, Fe and S, using data from the most populated domains. Moderate to high relative nugget effects were modelled for these in the primary zone (Pb 70%, Ag 55%, Zn 43%, S 54% and Fe 33%), with short ranges generally 70 m for Pb associated with sills of up to 90% of the population variance. Long ranges were modelled in excess of 200 m. Major variogram directions exhibited a shallow plunge in the plane of vein towards the south-east (approximately -10° to 340°).

Grades were interpolated for all the grade variables by ordinary kriging, with local dip variations honoured by using Datamine's Dynamic Anisotropy functionality. Blocks were estimated using a search ellipse of 40 m (major) x 40 m (semi-major) x 20 m (minor) dimensions, with a minimum of 5 and maximum of 25 samples from a minimum of four drillholes per cell interpolation. Search radii were increased, and the minimum number of samples reduced in subsequent sample searches if cells were not interpolated in the first two passes. Cell discretization of 4 x 4 x 1 (X, Y, Z) was employed.

Grades were estimated into the waste domains using inverse distance squared method.

The Mineral Resource was an update of the 2011 and 2013 Mineral Resource estimates, with updated geological interpretations for the B and F deposits based upon results from the 2018 drilling. Geological interpretations were also updated for the C, D, and E deposits to simplify the interpretation



		1
		based upon the level of geological
		understanding of the deposit.
		Zn and Ag were interpolated into the
		mineralisation domains and
		metallurgical testwork are planned to
		gain further understanding of their
		recoveries.
		The interpolated grades were validated
		by way of review of cross sections
		(block model and drill samples
		presented with same colour legend);
		swath plots, and comparison of mean
		grades from de-clustered drillhole data.
Moisture	Whether the tonnages are estimated on a	Tonnages are estimated on a dry basis.
	dry basis or with natural moisture, and the	
	method of determination of the moisture	
	content.	
Cut-Off Parameters	The basis of the adopted cut-off grade(s) or	A reporting cut-off grade of 1.0% Pb is
	quality parameters applied.	used to report all deposits except for
		the Alpha (Zn) deposit, which is
		reported above a cut-off grade of 1.0%
		Zn. Pacifico have carried out recent
		mining studies supporting a cut-off
		grade of 1.0% Pb, and this has
		consequently been used to report the
		Mineral Resource.
Mining Factors or Assumptions	Assumptions made regarding possible	No mining factors are assumed for the
	mining methods, minimum mining	Mineral Resource deposit. Most of the
	dimensions and internal (or, if applicable,	deposits are amenable for open pit
	external) mining dilution. It is always	extraction, although underground
	necessary as part of the process of	mining scenarios are being considered
	determining reasonable prospects for	for the more deep-seated Mineral
	eventual economic extraction to consider	Resources.
	potential mining methods, but the	
	assumptions made regarding mining	
	methods and parameters when estimating	
	Mineral Resources may not always be	
	rigorous. Where this is the case, this should	
	be reported with an explanation of the	
	basis of the mining assumptions made.	
Metallurgical Factors or Assumptions	The basis for assumptions or predictions	No metallurgical factors were assumed
	regarding metallurgical amenability. It is	in the Mineral Resource estimate.
	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.	
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.	No environmental factors were assumed in the Mineral Resource estimate.
Bulk Density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The density equation used in the resource estimate was derived from 119 density measurements taken from drill core samples of the various mineralised rock types at Sorby Hills deposits and takes into account an assumption of increasing porosity with increasing lead grade. This following equation was applied to the Mineral Resource estimate per weathering domain: Oxide: DBD = 2.48 + (PB*0.018), where Pb is the interpolated Pb block grade Transitional (C, D and E deposits only): DBD = 2.51 + (PB*0.018) Fresh: DBD = 2.74 + (PB*0.018) The density value for the A, Alpha and Beta deposits were calculated using the formula DBD = 2.71 + (PB*0.0223), as used in the 2011 MRE for those deposits A program is being planned to significantly increase the dry bulk density database, with measurements from recent diamond core drilling and RC chips to be taken, and correlations made with mineralogy and Metal grades.



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Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. Data quality and confidence in the geological interpretation support the classification. Perimeters for Indicated and Inferred volumes were used to assign classification values (RESCAT: 2 = Indicated, 3 = Inferred, 4 = unclassified). The Indicated Mineral Resource is supported by regular drill pattern spacing of 50 m (EW) x 50 m (NS), or less. The Inferred Mineral Resource is supported by regular drill pattern spacing of 50-100 m (EW) x 50-100 m (NS). Waste blocks are recorded as unclassified (RESCAT=4) The final classification strategy and results appropriately reflect the Competent Person's view of the deposit.
Audits or Reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource estimate was internally peer reviewed by CSA Global prior to release of results to Pacifico. CSA Global reviewed the data collection, QAQC, geological modelling, statistical analyses, grade interpolation, bulk density measurements and resource classification strategies.
Discussion of Relative Accuracy/Confidence	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	Relevant tonnages and grade above nominated cut-off grades for Pb and Zn are provided in this report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages.



qualitative discussion of the factors that The Mineral Resource is a local estimate, whereby the drill hole data could affect the relative accuracy and confidence of the estimate. was geologically domained above nominated cut-off grades. 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.