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Heron Resources Limited

ASX/TSX Release

20 October 2015

ASX:HRR/TSX:HER	
Issued Shares	415M
Share Price	$0.099
Market Cap	$41M
Cash (31 Aug 2015)	$28.2M
Investments	$ 2.8M
Total C+I	$31.0M

Heron confirms 10Mt (M+I) of High Grade Tailings at 6.2% ZnEq[1] within Revised JORC 2012 Mineral Resource Estimate

- Woodlawn Tailings JORC 2012 Mineral Resource estimate summary:

Woodlawn Tailings Mineral Resources 2015 - Summary												
Tailings Dam	Resource Category	%	Cut-off	Tonnes (Mt)	ZnEq (%)	Zn (%)	Cu (%)	Pb (%)	Au (g/t)	Ag (g/t)	SG (t/m3)
All dams	Measured	67%	-	6.59	6.10	2.29	0.49	1.31	0.30	31.7	1.66
All dams	Indicated	33%	-	3.24	6.28	2.18	0.56	1.35	0.33	32.6	1.68
All dams	**Meas + Ind**		**-**	**9.83**	**6.16**	**2.25**	**0.51**	**1.33**	**0.31**	**32.0**	**1.67**
All dams	**Inferred**		**-**	**1.11**	**5.76**	**2.30**	**0.47**	**1.22**	**0.25**	**26.9**	**1.55**

- Incorporates additional 2008 and 2011 drilling – Mineral Resource now based on 332 holes for 2,683 metres
- 4.6% increase in Measured and Indicated Mineral Resources tonnages
- 6.1% lower overall tonnages than previous estimate due principally to more conservative density estimates
- Metal grades similar to previous estimates and have confirmed the high grade content of this material
- Mine planning for a revised Mineral Reserve has commenced and together with the underground project will form the basis of the production plan for the ongoing Woodlawn Feasibility Study

Heron Resources Limited (ASX:HRR TSX:HER, "Heron" or the "Company") is pleased to provide an updated estimate of the Woodlawn Tailings Retreatment Project (WRP) Mineral Resource at its wholly owned Woodlawn Project, located 250km south-west of Sydney, New South Wales, Australia. The previous estimate which dated from 2008 has been revised to incorporate additional drilling between 2008 and 2011. The estimate methodology and reporting is based on the requirements of the JORC 2012 Code.

The update to the WRP Resource is an integral part of the ongoing Woodlawn Feasibility Study with this work providing key input data for the tailings retreatment component of the project. The upgrade of the Mineral Resource to JORC 2012 required a comprehensive review of previous work and also allowed for the inclusion of drilling data that had been completed after the previous estimate. This detailed review, and the inclusion of the additional data, further improves the confidence in the reported estimates and will provide the basis for a new mining study and updated Mineral Reserve estimate.

The WRP is based around the re-processing of the tailings generated from the Woodlawn open-pit and underground mining operations that ran from 1978 to 1998. The tailings are contained in three tailings dams; Tailings Dam North (TDN), Tailings Dam South (TDS) and Tailings Dam West (TDW), see Figures 1-3. A proportion of TDN was previously re-treated with these re-treated tailings placed back into the same dam. These retreated tailings are estimated separately and designated "North_R" in the tables below.

A number of drill programs have been undertaken over the years, with the estimate utilising a total of 332 drill holes (distribution shown in Figure 3) and 1,312 samples. Drilling was mostly undertaken by Vibracore and push core drilling

[1] Zn equivalents (ZnEq) in this release are based on the formula: Zn(%) + 0.81 x Pb(%) + 3.12 x Cu(%) + 0.86 x Au(g/t) + 0.03 x Ag(g/t). Metal prices used in the calculation are: Zn US$2,300/t, Pb US$ 2,050/t, Cu US$6,600/t, Au US$1,250/oz and Ag US$18/oz. All these metals are expected to be recoverable. Refer to p15 of the announcement of 22 April 2015 entitled "Preliminary Economic Assessment Delivers Strong Business Case for the Woodlawn Zinc-Copper Project" for further information.

rigs. Samples were taken in approximately 1-2 metre intervals down the holes. Parts of the dams have been covered in water and remain undrilled and such areas account for the majority of the Inferred Mineral Resources category (Figure 3).

Drill samples were analysed at commercial Australian laboratories and industry standard methods were employed. The estimation was undertaken utilising a mining software package with grade distribution based on kriged or inverse-distance interpolations. No cut-off grades have been applied to the estimate as there is gross uniformity to the grades and no selective mining is envisaged. The available historic records of tailings placed into the dams (totalling 10.95Mt) reconciles to within approximately 1% of the total tonnages contained within the updated Mineral Resource Estimate.

Measured and Indicated Mineral Resource categories were based on drill hole spacing, while Inferred Mineral Resources occupy areas under water or where sparse drilling is present. Mining factors were taken into account when selecting the block size for the estimate; the estimate is based on 10m x 10m x 1m block sizes that have subsequently converted to 10m x 10m x 5m for mine scheduling and reserve reporting. The mining of the tailings is expected to proceed using hydraulic mining methods on 5 to 10m benches.

Further details can be found in the JORC (2012) Table 1 at the end of the report.

The following tables provide various breakdowns of the Mineral Resource estimate.

By Dam:

Woodlawn Tailings Mineral Resources 2015 – By Dam

Tailings Dam	%	Resource Class	Cut-off	Tonnes (Mt)	ZnEq (%)	Zn (%)	Cu (%)	Pb (%)	Au (g/t)	Ag (g/t)	SG (t/m3)
South	34%	Meas + Ind	-	3.34	5.95	2.47	0.46	1.22	0.25	27.0	1.65
West	39%	Meas + Ind	-	3.80	6.47	1.98	0.62	1.43	0.40	34.9	1.84
North	8%	Meas + Ind	-	0.77	7.54	3.13	0.46	1.68	0.31	44.0	1.52
North R	20%	Meas + Ind	-	1.92	5.38	2.06	0.40	1.16	0.26	30.0	1.43
All dams		**Meas + Ind**	**-**	**9.83**	**6.16**	**2.25**	**0.51**	**1.32**	**0.31**	**32.0**	**1.67**
South	78%	Inferred	-	0.87	5.64	2.26	0.48	1.18	0.24	24.4	1.58
North	6%	Inferred	-	0.07	7.22	2.66	0.42	1.77	0.32	51.3	1.38
North R	15%	Inferred	-	0.17	5.82	2.33	0.44	1.21	0.27	30.2	1.42
All dams		**Inferred**	**-**	**1.11**	**5.76**	**2.30**	**0.47**	**1.22**	**0.25**	**26.9**	**1.55**

By Mineral Resource Category:

Woodlawn Tailings Mineral Resources 2015 – By Mineral Resource Category

Tailings Dam	Resource Class	%	Cut-off	Tonnes (Mt)	ZnEq (%)	Zn (%)	Cu (%)	Pb (%)	Au (g/t)	Ag (g/t)	SG (t/m3)
South	Measured	43%	-	2.83	5.94	2.48	0.46	1.22	0.25	27.2	1.66
West	Measured	32%	-	2.09	6.39	1.96	0.59	1.45	0.40	35.6	1.82
North	Measured	7%	-	0.47	8.16	3.42	0.53	1.77	0.32	45.5	1.57
North R	Measured	18%	-	1.20	5.17	1.98	0.37	1.12	0.26	29.9	1.44
All	**Measured**	**67%**	**-**	**6.59**	**6.10**	**2.29**	**0.49**	**1.31**	**0.30**	**31.7**	**1.67**
South	Indicated	16%	-	0.51	5.99	2.43	0.49	1.25	0.27	25.8	1.61
West	Indicated	53%	-	1.71	6.56	2.00	0.66	1.40	0.39	34.0	1.86
North	Indicated	9%	-	0.30	6.57	2.68	0.36	1.55	0.30	41.8	1.45
North R	Indicated	22%	-	0.72	5.72	2.20	0.45	1.23	0.26	30.2	1.40
All	**Indicated**	**33%**	**-**	**3.24**	**6.28**	**2.18**	**0.56**	**1.35**	**0.34**	**32.6**	**1.68**
All dams	**Meas + Ind**		**-**	**9.83**	**6.16**	**2.25**	**0.51**	**1.32**	**0.31**	**32.0**	**1.67**
South	Inferred	78%	-	0.87	5.64	2.26	0.48	1.18	0.24	24.4	1.58
North	Inferred	6%	-	0.07	7.22	2.66	0.42	1.77	0.32	51.3	1.38
North R	Inferred	15%	-	0.17	5.82	2.33	0.44	1.21	0.27	30.2	1.42
All dams	**Inferred**		**-**	**1.11**	**5.76**	**2.30**	**0.47**	**1.22**	**0.25**	**26.9**	**1.55**

Figure 1: Aerial View of the Woodlawn Project area showing the Tailings Dams; the subject of this Mineral Resource estimate.

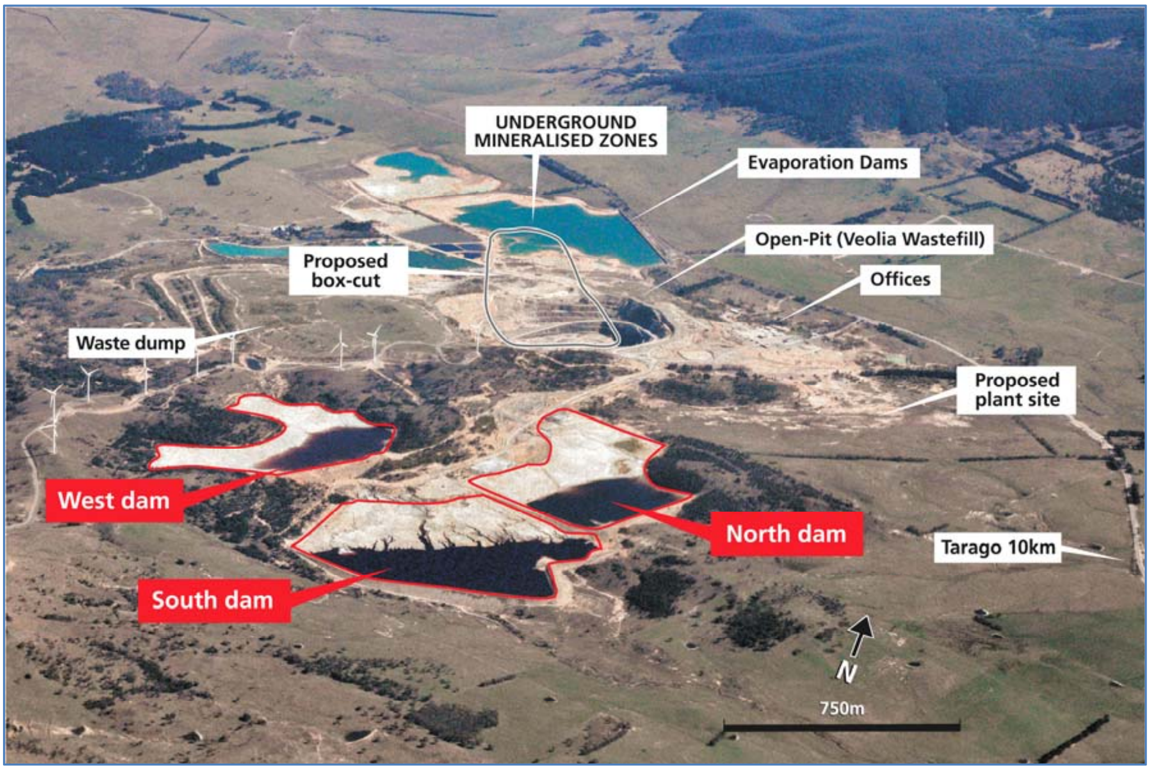


Figure 2: Oblique plan view of the tailings dams showing the Mineral Resource blocks colour coded by ZnEq%

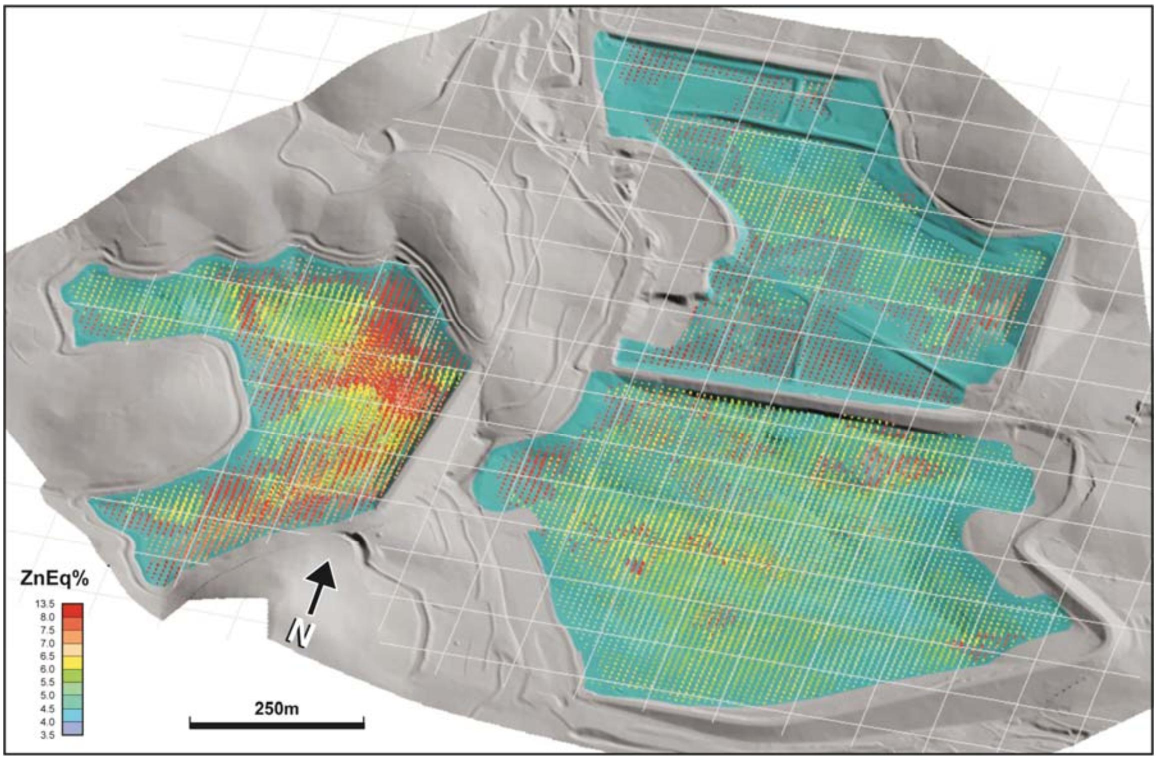
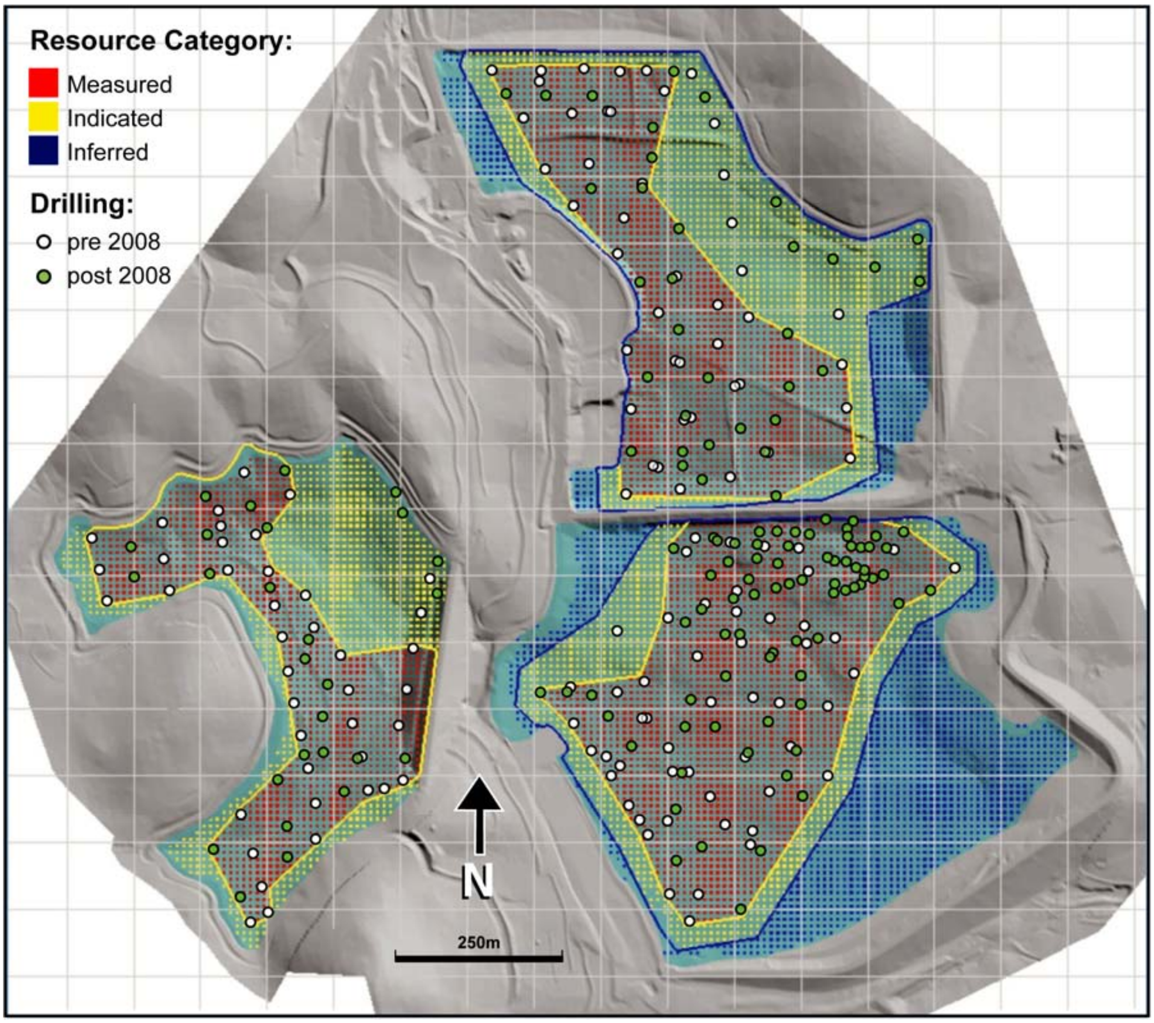


Figure 3: Plan view of the tailings dams showing the Mineral Resource blocks colour coded by resource category and drill collars



Forward Program

The revision of the Mineral Resource estimate for the WRP is an important component of the Feasibility Study, due for completion in June 2016, for the combined development of the tailings and underground mining operations. The revised estimate incorporates a substantial amount of new drilling data and provides a more robust estimate for planning work.

The block model for the estimate is now being optimised for mining and process scheduling which will also generate the Mineral Reserve base for the Feasibility Study.

A program of further drilling is being planned on the tailings dams as part of the Feasibility Study to provide additional material for metallurgical and paste-fill testwork.

The completed Technical Report in standard form prescribed by Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects will be published on Heron's web site, the ASX (ASX:HRR) and SEDAR www.sedar.com (TSX:HER) within 45 days of this news release. The Mineral Resource was classified into Measured, Indicated or Inferred categories in accordance with the guidelines of the 2012 edition of the JORC Code. It should be noted that there are no material differences between the Mineral Resource categories reported herein whether using those defined by JORC (2012) or the CIM Definition Standards on Mineral Resources and Reserves (CIM Definition Standards) adopted by CIM Council on May 10, 2014. The Mineral Resource, Mineral Reserve, and Mining Study definitions as described in the CIM Definition Standards are incorporated, by reference, into National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101).

About Heron Resources Limited:

Heron is engaged in the exploration and development of base and precious metal deposits in Australia. Heron's primary development project is the high grade Woodlawn Zinc-Copper Project located 250km southwest of Sydney, Australia.

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Compliance Statement (JORC 2012 and NI43-101)

The Woodlawn Tailings Mineral Resource estimate contained in this release has been completed and compiled by Mr Robin Rankin, a Competent Person who is a Member (No. 110551) of the Australasian Institute of Mining and Metallurgy (AusIMM) and accredited by the AusIMM since 2000 as a Chartered Professional (CP) in the geology discipline. Mr Rankin consults to Heron as Principal Consulting Geologist of independent geological consultancy GeoRes. He and GeoRes are professionally and financially independent of Heron, the consulting was on a fee basis and results were not contingent on payments. He has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 edition) and "qualified person" as this term is defined in Canadian National Instrument 43-101. Mr Rankin consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Canadian securities laws, which are based on expectations, estimates and projections as of the date of this news release. This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and amount of funding required to execute the Company's exploration, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Canada, Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information. Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

JORC CODE, 2012 EDITION – TABLE 1

Information in Section 1 (sampling and data) of the Table was derived from reports or data provided by Heron. Robin Rankin (the "Consultant" or "GeoRes") provided or produced all other details.

The Consultant was engaged to undertake a Mineral Resource update based on his previous work reported in May 2008, with the essential difference being the incorporation of additional drilling data – effectively "in-fill" drilling. As such, most data and processing details were the same as for the previous work, and many details included here originated from the Consultant's previous Mineral Resource estimation and reporting work on the WRP. It should be noted that the May 2008 Mineral Resource estimates were reported under the 2004 JORC Code and so a JORC Table 1 under the 2012 Edition of the Code was not provided.

SECTION 1 SAMPLING TECHNIQUES AND DATA

Details in Section 1 apply to the "new" drilling data (acquired during or since 2008 and used for this 2015 Resource estimate update) as well as the pre-2008 data used in the estimation reported in May 2008. This new data approximately doubled the size of the data set. Both data sets are similar in most details.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Historical: o All data is historical – obtained by immediate company precursors Tri Origin Minerals Ltd and TriAusMin Ltd (TRO). • Sampling: o Source: All from short vertical drill holes. Drilled in several programs and with several methods specifically adapted to drilling and sampling semi-loose saturated tailings dam material. o Sampling: Specifics varied according to drilling method. But sampling undertaken on full hole lengths with short down-hole sample intervals for representivity and as dictated by drilling method (tube lengths etc.). o Quality: Specifics unknown in terms of duplicates or contamination, but complete intervals sampled and then split down. Comparisons good between adjacent holes and different programs. o Elements: Assayed for base metals and related elements. o Further details on sampling and assaying techniques provided in sections below. • Sampling representivity: o Sample representivity is considered to be good overall. o Samples taken of whole drill lengths, split by down-hole sub-sampling. o Most drill holes sampled to full dam depth. o Hole distribution fairly uniform over the majority of dam areas. o Sample lengths variable between drilling methods, but short enough to be representative. o Sampling based on short fixed down-hole intervals. o All samples of very similar granular to fine sized material. • Mineralisation identification: o Determination of mineralisation unnecessary due to detailed knowledge of neighbouring source mine material and subsequent processing before deposition in tailings dams. o Consistent sampling for base metals. o Mineralisation presumed throughout full dam volumes – only grade varying with original processing efficiency. • Industry standard:

Criteria	JORC Code explanation	Commentary
		o No general industry standard work assumed as sampling of tailings dams relatively unusual and requiring methods partly requiring adaptation to actual local conditions.
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 methods: o Different programs used different drilling methods: ▪ Core – 1988 & 1995, Denehurst ▪ Auger – prior to 2009, TRO ▪ Vibracore – 2008 & 2011, TRO o Core: 50 mm stainless steel tube, with sample catchers at every 2 m rod break. Tubes pushed down into tailings. Depths ~5-14 m. o Auger: 75 mm auger. Sampling on 3 m intervals. Depths mostly 3 m. o Vibracore: Proprietary method. 50 mm tube. Depth 2.7 to 18 m. Double tube method, samples recovered from inner tube. Samples in 1.5 m plastic tubes. o Survey: Down-hole surveys presumed unnecessary from short nature of the vertical holes.
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.*	• Recovery recording: o Recovery assessment different with each method. o Core and Vibracore type recovery assessed as volume percentage of tube. o Auger assessment unknown. o Good recovery was a primary objective in drilling the tailings where loss of the unconsolidated material could occur. o Recovery data not analysed in general – sampling was accepted "as it came" o Core recoveries assessed to be reasonable. • Recovery maximisation measures: o Choice of method and drilling contractor influenced recovery, with recovery improving with experience. o Drilling twinned holes enabled cross-checking. • Recovery/grade relationship: o The coring and push-coring inherently prevented selective sampling on grade or grain size.
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.*	• Logging adequacy: o Geological logging not necessary as samples were not of primary geology. o Assays and sample details alone taken to be sufficient data.
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. and whether sampled wet or dry.* • *For all sample types, the nature, quality and*	The following is derived from an internal report supplied by Heron. 1.0 Denehurst Core (1988) The samples were obtained by driving a 50mm stainless steel tube column through the tailings. Each tube was 2m long and lengths were joined by a threaded stainless steel coupling. A stainless steel cutting bit was attached to the first length. Venus flytrap type catches were positioned at each joint

Criteria	JORC Code explanation	Commentary
	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.*	to enable core recovery. The column was driven through the tailings by a pulley mounted 15kg weight. This was supported by a 3m apex high quadrapod on a 3m square platform. The platform was mounted on drums to enable samples to be obtained from holes covered by water. The core column was retrieved via a winch arrangement.' Measurements of recovered core length and total depth were taken to calculate compaction. The sample was retrieved from the pipe lengths by ramming a disc down the tube and laying the core in halved poly pipes. Sections were then collected, typically 1.5-2.5m long and placed in plastic buckets. The length of sections was dependent on the total length recovered. Sample intervals for assay ranged from 0.4m to 3.4m. The average and median sample length was approximately 2.2m. Samples from the buckets were then thoroughly mixed using a spade on a clean concrete surface. A representative sample was collected by quartering, and then placed in an oven. Wet and dry weights were taken to calculate the moisture content. Excess sample was bagged and stored. The dried samples were split for sizing and assay. Samples for assay were pulverised and then analysed by XRF for Cu, Pb, Zn, Fe and Ag. Non sulphide Pb and Zn determinations were made by Ammonium Acetate solubility. Gold assays, where required, were by fire assay. Size fraction assays were performed to indicate the distribution of metal values by size. Where sample wasn't sufficient for assay by XRF, AAS was used. All work was undertaken by Woodlawn technical staff and assaying was performed in the onsite laboratory. 2.0 Denehurst Core (1995) A company known as Coastline Drilling from Queensland were contracted for this program. 'The drilling was conducted in May 1995. Only 15 holes of a planned 19 holes were drilled due to access difficulties. The drilling programme was overseen by the Senior Geologist, Mark Bouffler. Sampling for assays and metallurgical testwork was conducted by Woodlawn laboratory technical staff'. Coastline drilled 15 holes on TDS ranging in depth from 5-14m. The holes were 50mm in diameter. The drilling method used was very similar to the vibratory core method (see 4.0 below). Samples for assay were collected at 1m intervals and analysis was performed at the Woodlawn NATA registered laboratory using AAS for Cu, Pb, Zn, Ag, and XRF for Fe, Si and Mg. 3.0 Tri Origin Auger Drilling: Auger drilling was carried utilising a power auger rig mounted on a Toyota Land Cruiser. Auger holes were 75mm in diameter. Sampling was undertaken on nominal 3m intervals with most of the auger holes drilled to only 3m. The drilled tailings were regularly collected from around the hole collar as it returned up the auger flight. Systematic grab samples were gathered and placed into a calico bag for dispatch to the laboratory. The calico samples typically weighed around 2-4kg. The reject sample was placed into a bucket for storage. Grab sampling has been shown to be a reliable sub-sampling technique primarily due to the fine grained and homogenous nature of the tailings material. Orientation sampling results also support this assertion.

Criteria	JORC Code explanation	Commentary
		Sample recoveries were estimated by measuring the weight of the sample and comparing that to the expected weight extracted from the drilled run, based on volume and average wet densities. This indicated that all samples had greater than 90% recovery. 4.0 Tri Origin/TriAusMin Core Core Drilling was carried out with a Geoprobe 6620DT rig utilising the Vibracore method. All three Vibracore programs utilised the same contractor, (Numac Drilling), the same drill rigs and drilling equipment. The hole diameter was 50mm. Hole depths ranged from around 2.7m to 18.0m. The Vibracore rig was found to be an ideal machine for drilling the tailings, due to the low load bearing capacity of the rig, quality of sample achieved and excellent productivity. Geoprobe® brand utilise 'Dual Tube Sampling Systems'. This is a very efficient method for collecting continuous 'soft cores' with the added benefit of a cased hole. Dual tube sampling uses two sets of probe rods to collect continuous core. The method is similar to wire-line diamond core drilling. However, as opposed to rod rotation, the outer rod string is vibrated by rapid hammering. The drilled sample reports to a 1.5m long PVC tube housed in a 1.5m long 'sample rod'. The sample rod string is recovered through the outer rod/casing string which remains in the ground until hole completion. 5.0 Tri Origin/TriAusMin Sampling Sampling intervals were a composite of two drill runs until the end of the hole is reached. So the first sample from 0 - 2.7m was comprised of the 0 - 1.5m and the 1.5 - 2.7m sample combined. The starter rod sample was 1.5m. Sampling after this was conducted on 2.4m intervals (2 x 1.2m) until the end of the hole is reached. After the PVC tube is extracted from the sample rod, the tube is split (with a cutter). The exposed tailings core remains in the PVC which is placed on a hard surface. A nominal ½ core sample is cut and then bagged for dispatch to the assay laboratory. This process is nominally performed twice to produce one composite sample (until the end of hole sample). The reject sample is 'extruded' from the cut tube into a large plastic bucket and a sealed lid is placed on.) The bucket sample and calico sample (placed on top of the lid) are then weighed. • Sampling representivity: o The recovery percentage measurements ensured that samples were representative of intervals. o Hole twinning compared sampling of like intervals. • Sampling with respect to grain size: o Not undertaken.
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*	TriAusMin and TriOrigin to 2009 Samples were analysed by ALS Chemex. All samples were weighed upon receival and dried for 24 hours, the whole sample was then pulverised to 80% passing 75 microns. Assay charges were then extracted from a 100g pulp. The pulp was placed in kraft packet and the remaining pulverised bulk residue placed back into the original calico bag. A combination of ICPAES and fire assay

Criteria	JORC Code explanation	Commentary
	instrument make and model, reading times, calibrations factors applied and their derivation, etc. • *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.*	for gold were utilised. All methods can be considered as total extraction for the analytes requested. QAQC Procedures Standards Certified Reference Materials or standards were used as part of the company policy to monitor the accuracy of the laboratory. The following standards were inserted at the designated frequency; • Au standard – every 20 samples (not used in July 08 program) • Base Metal standard – every 10 to 20 samples (alternating between a high and low grade base metal standards). Field duplicates Field duplicates in the form of 1/2 or 1/4 were collected approximately every 20 samples. Results allow the precision of the sampling and analytical methods to be monitored. Blanks A certified blank sample was inserted approximately 20 samples. This assisted in monitoring lab procedures and assessing for sample contamination. Analysis of the QA-QC data indicates that acceptable levels of accuracy and precision were obtained during all programs. Historical Sample Assay Analysis (to 1998): The documentation available to Heron indicates that the Jododex and AMS assay analysis included: • Acid digestion of a pulversied aliquot and determination of copper, lead and zinc by AAS. • Compressing a pulverized aliquot into a button for XRD analysis for copper, lead and zinc, as well as determining precious metals together with iron, silicon, aluminum, magnesium and barium. • Fire assay of any gold values that exceeded 2ppm. NATA registered laboratory on site at Woodlawn. Samples were analysed by: • Aqua regia hydrofluoric and perchloric acid digest with AAS or ICP determination of Cu, Pb, Zn, Ag and Au. • Gold assay reporting above 2ppm were re-assayed by fire assay. • For some samples, a second aliquot was analysed by pressed powder XRF to determine Fe, Mg, Si, Al and Ba grades. Historical QAQC Methods (to 1998): At the time of the historical drilling and mining, blind QAQC samples were not routinely included in sample submissions to the laboratory. No QAQC data have been located for this period. The NATA certified onsite laboratory carried out internal QC, which included the insertion of certified reference standards and duplicates on a sample batch basis. No historical hardcopy data could be sourced for validation of QC, although resource reviews at the time

Criteria	JORC Code explanation	Commentary
		indicate that internal QC was a routine part of the laboratory assay process. Furthermore, the laboratory was required to perform such analyses as part of its ongoing NATA accreditation. This included independent QC testing by independent laboratories, as well as the onsite laboratory being employed to provide umpire assays of other laboratories. • Geophysics: o Not necessary and none undertaken.

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.*
		• Independent verification of significant intersections:
		  o Nature of fairly homogenised tailings material meant assays varied only slightly from hole to hole and by depth.
		• Twinned holes:
		  o A significant number of holes were twinned.
		  o The Consultant is not aware of the details of any analysis.
		• Primary data documentation, entry, verification and storage:
		  o All data was historical and supplied in computerised spread-sheet form.
		  o No information on data entry or storage.
		• Adjustment of assays:
		  o No adjustment of assay data has occurred.
		  o "Less than": All samples assay values less than the detection limit were generally set either to the value 0.00 or to a small value half the detection limit.

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.*
	• *Specification of the grid system used.*
	• *Quality and adequacy of topographic control.*
		• Surveying:
		  o Collars:
		    ▪ The specific accuracy of all the drill collar locations has not been verified but are believed to be accurate based on methods employed by the various programs.
		    ▪ Some hole collars picked up by the Consultant during site visits and found to be accurate.
		    ▪ Other (older?) collars now not visible as tailings dam surface easily eroded by rainfall.
		    ▪ A group of obvious collar-position errors were fixed through simple transformation.
		  o Down-hole surveys:
		    ▪ Un-necessary with short vertical holes.
		• Coordinate grid system:
		  All coordinates are in the Woodlawn Mine Grid system.
		• Topography:
		  o Surface topography highly accurate.
		  o Comparison of drill hole collars with topo locations logical.
		  o Hole collar elevations checked against topography and moved to topo elevation where obvious (others very close anyway).

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*
	• *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.*
	• *Whether sample compositing has been applied.*
		• Data spacing:
		  o Pre 2008 hole collar spacing either random at 50-100 m (North Dam) or regular at 50 m on lines 100 m apart.
		  o 2008 collars generally in-fill at 50 m spacing.
		  o Overall hole spacing all <100 m, much <50 m, and all very adequate.
		  o Hole spacing in the northern part of the South Dam ~30 m.
		  o Parts of South and West Dams not drilled because of standing water (and reflected in Resource classification).
		  o Down-hole sampling was generally fine at ~1-2 m.
		• Data distribution adequacy wrt estimation:

Criteria	JORC Code explanation	Commentary
		o The Consultant's view is that all sampling density in plan and down-hole was more than adequate to accurately represent strong lateral grade continuity in the sub-horizontal depositional mode of tailings being discharged onto accreting tailings surfaces. o All dams were sampled at roughly the same density. • Compositing: o Samples were composited on-the-fly (without altering raw samples) during geostatistical analysis and block grade estimation. o All samples composited to exactly 1.0 m plus 50% residuals. o Compositing was performed on a domain/lode basis (i.e. starting and ending at domain boundaries).
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.* • *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.*	• Data orientation adequacy wrt structure: o The dam grade structure was interpreted as having stong sub-horizontal continuity (resulting from normal tailings sub-aerial deposition). o The Consultant's view is that close and evenly distributed holes, drilled vertically, would sample the sub-horizontal dam layering in the best way and therefore be unbiased. o The Consultant's observation of sectional mineralisation validated the sampling orientation. o Virtually all drilling aimed to intersect the sub-horizontal dam layering at as normal an angle as was possible. o With the dam depths generally in the 10s of metres the ~1-2 m sample lengths were a reasonable fraction of the dam thickness. • Orientation bias: o The vertical drilling orientation and the even hole spacing would not appear to introduce a sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Sample security: o Unknown.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Audits of past drilling: o Unknown. o Assays have not been independently audited. o Heron performed considerable database verification during its databasing work. This flagged various issues which were researched as far as possible against historical records. o However assay tenor and locations are supported by results from varying drilling and sampling programs over time.

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• Mineral tenement status: o Heron's tenement holdings originate from TRO's holdings, which have been widely reported in previous Woodlawn documents and statements, including in previous JORC and NI 43-101 reports. o The Woodlawn project is located 250km south-west of Sydney in the state of New South Wales. The area is near the top of the Great Australian Dividing range and has an elevation around 800m above sea-level. The mineral and mining rights to the project are owned 100% by Heron Resources through the granted, special mining lease 20 (SML20), also known as S(C&P)L 20. The lease has recently been renewed for 15 years and has an expiry date of the 16th November 2029. o The project area is on private land owned by Veolia who operate a waste disposal facility that utilises the historical open-pit void. An agreement is in place with Veolia for the Company to purchase certain sections of this private land to facilitate future mining and processing activities. o The Consultant is not aware of any subsequent changes to that title, and is confident of Heron's title as described above. • Security of tenure and impediments to operation: o Recent Heron statements indicate steady progress in obtaining and increasing necessary NSW state tenure and operating permits.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous and/or other exploration: o The tailings the subject of this report are derived from mining of the adjacent Woodlawn polymetallic deposit. o The Woodlawn deposit was discovered by the Jododex JV in 1970 and open-pit mining began in 1978 and continued through to 1987. The project was bought outright by Rio Tinto (CRA) in 1984 who completed the open-pit mining. Underground operations commenced in 1986 and the project was sold to Denehurst Ltd in 1987 who continued underground mining up until 1998. The mineral rights to the project were then acquired by TriAusMin Ltd in 1999, who conducted further studies on a tailings re-treatment and underground operation. Heron took 100% ownership of the project in August 2014 following the merger of the two companies. o Various groups over the years have assessed the potential to re-treat the Woodlawn tailings

Criteria	JORC Code explanation	Commentary
		with Denehurst re-treating the upper part of TDN and a small portion of TDS, commencing in 1992.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Deposit type: o A tailings dam mineralisation deposit would be characterised as a sub-horizontal sub-aerial finely layered sedimentary deposition within a closed basin. o The Consultant geologically interpreted each tailings dam to represent a unique deposit, data segregated by unique domain number. o The North Dam was segregated into a basal primary deposit with an overlying sub-horizontal surface depleted layer representing a roughly constant depth dredged extraction with re-filling with re-treated tailings. The layers were data segregated by unique domain numbers. • Geological setting: o Sediments were contained within defined dam floors and bund walls. • Mineralisation style: o Anthropocene fluvial sediments, sub-horizontal fine layering.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Drill hole data: o Specific detailed information on drill holes is given in the full report. That data includes: ▪ Hole list and collar data: Easting's, northings, RL, azimuth, dip and total depth. ▪ Down-hole assay depths and assays. • Justification for any data exclusion: No data has been excluded.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Estimation details: o Grade estimation details and explanations are given in the resource report. o Data was segregated by dam (domain), for geological modeling, analysis and grade estimation. o Although some raw drill hole sample lengths were 1 m all samples were still composited down-hole to exactly 1.0 m +>50% residual lengths for geostatistical analysis and block grade estimation. o Each element in each dam was subject to statistical analysis, and on that basis data outliers were limited and some cut. • Intercept aggregations: o No aggregations other than down-hole length compositing were done.

Criteria	JORC Code explanation	Commentary
		• Metal equivalents: o A zinc equivalent (ZnEq) block value was computed in the block model from constituent elements. o The ZnEq calculation takes into account, mining costs, milling costs, recoveries, payability (including transport and refining charges) and metal prices in generating a Zinc equivalent value for each block grade for Au, Ag, Cu, Pb and Zn. ZnEq = Zn%+Cu%*3.12+Pb%*0.81 +*Au g/t*0.86+Ag g/t*0.03 o Metal prices used in the calculation are: Zn US$2,300/t, Pb US$ 2,050/t, Cu US$6,600/t, Au US$1,250/oz and Ag US$18/oz. Metal recoveries are provided in the other Heron reporting and it is Heron's view that all the metals within this formula are expected to be recovered and sold.
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').*	• Geometry of mineralisation and drill holes: o Mineralisation sub-horizontally layered, vertical drill holes normal to mineralisation. o Horizontal hole spacing less than typical continuity, so sufficient drilling density.
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.*	• Diagrams: o Illustrations of typical data are given in the resource report. o Sections though the models are provided in the resource report.
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.*	• Balanced reporting (all values): o All sample data is listed.
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.*	• Other material data: o In general the Consultant is not aware of any other exploration data that concerns the Resource.
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.*	• Further work proposed: o The Consultant makes recommendations that the un-drilled parts of the dams (generally below the standing water) be drilled. o He also recommends the tailings surfaces below the water, particularly in the South Dam, be surveyed.

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, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Drill hole data integrity & validation: o Data supply: TRO originally, and latterly Heron, supplied all raw drill data to GeoRes in spreadsheet form. GeoRes manipulated the data into suitable formats for further databasing and verification in Minex software. o For the pre-2008 Resource work the Consultant verified all data to the extent possible. Both drill hole and mapping data stood up as far as consistency and cross-referencing could reveal. o For the post 2008 Resource Heron performed drill hole data checking during its databasing. Heron found various collar and sample depth inconsistencies which were all checked and dealt with during the Consultant's work. All of those data issues were satisfactorily resolved and fixed. o In general the Consultant has not seen the original lab assay sheets and therefore cannot validate the spreadsheet data against originals. However no accuracy issues have been found, and data from each phase of drilling and assaying is compatible. o The Consultant databased all supplied data (historical and recent) in Minex software. o Assumed integrity: GeoRes relied on the basic integrity of the data supplied. o Surveys: GeoRes plotted databased holes and primarily validated locations by comparison with various historical collar plots. Not all collars were historically plotted, but those that were, matched. o Assays: Entered values could only be checked for gross down-hole interval integrity and for gross statistical errors. o Verification of the Minex database included: ▪ Loading error-checking. Particularly identifies down-hole depth errors, non-numerics, overlapping and missing intervals. ▪ Simple statistics. Picks up gross errors, such as unusual coordinates and anomalous grades. ▪ Reporting, followed by visual inspection and visual comparison with spread sheet source. ▪ Plotting in plan and section. ▪ Continuous checking during the section by section geological interpretation in the North Dam of the retreated base. o Gross integrity of the drilling data appears to be overwhelmingly confirmed by the broad confirmation from hole to hole of the grade continuity of each dam and the assay patterns in each. o Whilst the Consultant verifies the drill hole data to be satisfactory and plausible he cannot verify it absolutely as no recent confirmatory drilling has been done. • Topography data integrity & validation: o The topography data was sourced from government survey

Criteria	JORC Code explanation	Commentary
		and Mine maps, and so is valid to the extent that those maps are correct. o Topography data detail was adequate for the task.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Site visits: o The Consultant (the Competent Person) has visited the site on numerous occasions in the last 20 years. o The Consultant visited the tailings dams specifically for this Project on 4th June 2015, hosted by Heron's Steven Jones. o During the visit all 3 dams were inspected from their edges, with the South and West Dams traversed on foot. Various drill hole locations were inspected, photographed and coordinates taken by GPS.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The geological interpretation: o All material in each dam was interpreted to be finely sub-horizontally layered and mineralised. This would produce strong lateral grade continuity. Tailings grade variations over time would be expected to result in slight vertical grade variations. o Each dam was interpreted as a single data population (deposit). o The down-hole assaying variation patterns would be expected to be similar in adjacent holes in a layered fashion representing depositional trends. o This would be modelled through the use of "unfolding" block modelling where grade continuity was trended sub-parallel to the layering. o The layering was defined by the upper and lower dam surfaces. o North Dam: ▪ The upper retreated layer in the North Dam was interpreted as a separate population from the underlying un-retreated material. ▪ Its base was modelled as a surface from a distinct grade rise in the drill holes (with each hole having a low grade upper zone (re-treated material) and a higher grade lower zone (original material). • Confidence in the geological interpretation: o The Consultant is very confident of the overall interpretation as the nature of tailings dams are well established and there is absolute certainty that the material in the dams are mineralised tailings from the Woodlawn Mine. o Any "waste" dumped in the dams and not known about would be represented by its drill hole sampling. o The plotted grade model continuity confirms the interpretation. • Data nature and assumptions: o All samples within the dam surfaces were used – as they all represented the tailings material in the dam. o Sections of any holes drilled through the bottom of dams were identified by low grade assay signature and excluded. • Alternative interpretations: o If the nature of deposition in the dams was different to that interpreted and assumed then its continuity would still be accurately modelled by the block modelling as the data density is high. o An alternative vertical component to grade continuity is not

Criteria	JORC Code explanation	Commentary
		supported in any of the drill hole grade profiles. • Geological control on Resource estimation: o Interpretation was purely based on grade and dam shape. • Continuity controls on grade & geology: o Each dam was segregated by domain number control. o Sub-horizontal layering was controlled by the "unfolding" block model. • Grade continuity analysis determined by variography: o *Variography*: Grade continuity was investigated by geostatistical variographic analysis of drill hole sample assays – by dam, and for most elements. o *Continuity*: Grade continuity in the plane of the dams was imposed with the unfolding Z-grid block model. o *Distance weighting*: A mild distance weighting of 1.5 (increasing effective sample distance) was applied vertically (Z) to enhance sub-horizontal continuity. Other horizontal (X and Y) weights were determined from the variography, and were generally in the range 1-2. o *Composites*: Sample intervals for geostats analysis were composited down-hole to 1.0 m. o *Limits*: Outlying upper and lower cuts or limits were specifically applied for each element in each dam, based on the simple statistical analysis. o *Ranges*: Detail is given in resource report. o *Anisotropy*: Most lodes showed some degree of anisotropy.
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.*	• Lode overall dimensions: o The deposit model comprised 3 individual tailings dams. o The overall envelope enclosing all dams was 1.3 km E/W, 1.3 km N/S, and ~10-20 m deep in the North and South Dams and up to 30 m deep in the West Dam. • Individual lode dimensions (Mine Grid coordinates): o South Dam (dom 1): ▪ ~850 m E/W (10,500-11,350 E) ▪ ~700 m N/S (17,200-17,900 N) ▪ ~6.6 m average thick, min 0.0 m, max 14.6 m (2,770-2,796 RL) o West Dam (dom 2): ▪ ~550 m E/W (9,800-10,350 E) ▪ ~750 m N/S (17,250-18,000 N) ▪ ~9.7 m average thick, min 0.0 m, max 27.1 m (2,795-2,825 RL) o North Dam (dom 3): ▪ ~700 m E/W (10,400-11,100 E) ▪ ~700 m N/S (17,900-18,600 N) ▪ ~1.9 m average thick, min 0.0 m, max 8.2 m (2,778-2,800 RL) o North Dam retreated (dom 4): ▪ ~700 m E/W (10,400-11,100 E) ▪ ~700 m N/S (17,900-18,600 N) ▪ ~5.1 m average thick, min 0.0 m, max 9.3 m (2,784-2,800 RL) • Block model dimensions: o Dimensions of the block model volume containing all of the modeled lodes was: ▪ 1,700 m E/W (X) (9,700-11,400 E)

Criteria	JORC Code explanation	Commentary
		▪ 1,450 m N/S (Y) (17,150-18,60 N) ▪ 82 m RL (Z) (2,760-2,842 RL)
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 availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *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 drill hole data, and use of reconciliation data if available.*	• Modelling & estimation techniques: o Software: Modelling and estimation done in Minex Genesis geological software. o Geological structure and grade modelling included: ▪ Surfaces: DTM models of the confining upper and lower dam surfaces (combined triangulation and gridding). ▪ Domains: Samples in each dam segregated by domain. ▪ Unfolding: Bock model (Z-grid) built within the dam surfaces to trend block grade estimation sub-parallel to the surfaces. ▪ Grades: Individual grade block models (3D-grid) estimated, with tailored parameters, for each element in each dam. ▪ Block database: A block model database, loaded with all individual grade models, for manipulation of derived variables (such as zinc equivalent and Resource classifications) and for Resource reporting. o Geological surface model: ▪ Method: Triangulated surfaces interpolated from dam contour data, and subsequently transformed into 2*2 m gridded surfaces. Gridded floor of retreated material interpolated directly from down-hole intercepts using a trending algorithm. ▪ The gridding method's appropriateness stems from its 3D computational capability and rigor. ▪ Algorithm: Gridded surface modelling used a trending growth algorithm to interpolate smooth natural surfaces. Through extrapolation this method honours local inflections away from the reference plane mean orientation. Mesh point interpolations grow out from data points until all mesh points are estimated. ▪ Reference plane: Surface modelling here used a default horizontal reference plane. ▪ Gridded surface estimation parameters: • Scan distance: 1,000 m (nominal with growth algorithm) • Expansion: 200 m outside perimeter intercepts. • Extrapolation. • No data limits. ▪ Surface details: • Lodes: 1 (South Dam), 2 (West Dam), 3 (North Dam lower, original), 4 (North Dam upper, retreated). • Dam floors – 1FL, 2FL, 3FL, 4FL. • Dam surface – TOPO. • Simulated surface (below water) – SIM. • Origin (minimum): o 9,640 (X) o 17,050 (Y) • Extent:

Criteria	JORC Code explanation	Commentary
		o 1,890 m (X) o 1,670 m (Y) • Mesh: 2.0*2.0 m (XY) ▪ Build: Roof and floor surfaces built into a valid stacked model (WL_TAIL_GR1516_STR.GRD) to correct potential cross-overs between and within lodes. This process also calculates the thickness grid for each lode. o Data population domains: ▪ Samples and blocks (see below) in each lode were identified and segregated by domain number for the purpose of analysis and block grade estimation. ▪ Domains: Set in the drill hole database and in block database. • 1 – South Dam • 2 – West Dam • 3 – North Dam • 4 – North Dam retreated o Unfolding grade continuity control block model (Z-grid): ▪ Z Bock model (WLT15_1Z.GR3) was built within the geological lode surface model (file GRDFILE) to provide and control grade trending continuity within the (vertical N/S striking) plane of the lodes. ▪ Domain block model (WLT15_1D.GR3) was built as a mirror of the Z block model to flag blocks with domain numbers. ▪ "Unfolding" block model (Z-grid): • A Z-grid is built to align its X and Y data search directions sub-parallel to geological layer models (with each layer modelled by bounding upper and lower surfaces) with the same orientation. The XY searching is continuously (dynamically) transformed to follow along the undulations of the geological layers (and is therefore not in a straight line but parallels the layer). The Z direction remains a fixed direction normal to the average plane of the layer. The layer sub-parallel effect is achieved by a fixed number of "sub-blocks" being assigned across a layer in the Z direction (say 10). Layers with higher average and maximum thicknesses are assigned the most Z blocks. Thus Z direction block heights are always fractions of the full layer height at any XY location. As the thickness of the layer varies so does the Z sub-block height (so where the layer is 10 m thick the Z block heights would be 1 m, where 5 m they would be 0,5 m, etc.). This creates an undulating block height mesh normal to the layer as the individual Z block boundaries continuously remain sub-parallel to the layer orientation. This mesh orients the search along the Z sub-block layers. • A Z-grid may be built from multiple geological

Criteria	JORC Code explanation	Commentary
		layers. Blocks in each layer are assigned a unique domain number. • Where a geological layer model is not "horizontal" (its XY axis in the usual horizontal plane) then the Z-grid is rotated to align its "pseudo" XY axes parallel to the plane of the geological model (and therefore its Z axis normal to the plane of the model). Thus a vertical geological layer model would require a 90° rotation of the relevant X or Y axis (depending on the model strike direction) to orient the XY plane vertically, resulting in the Z axis now being horizontal. ▪ Unfolding block model rotation: • No rotation applied. • XY axes in horizontal plane, Z vertical. ▪ Unfolding block model dimensions: • Design criteria: o XYZ block sizes and extent set to cover full volume of all lodes. o Nominal Z block size 2 m to achieve actual vertical extent of 82 m with 41 blocks. o Nominal 10 blocks for each lode. Actual Z block size approximated to ~1 m given average lode thicknesses. • Origin (minimum): o 9,700 E (X) o 17,150 N (Y) o 2,760 RL (Z) • Extent: o 1,700 m E (X) o 1,450 m N (Y) o 82 m RL (Z) • Primary block size: o 10.0 m (X) o 10.0 m (Y) o 2.0 m (Z) (nominal) ▪ Sub-blocking: None. o Grade block models (3D-grid): ▪ Individually estimated from drill hole samples for each element in each lode. ▪ Continuity: Search directions controlled by un-folding block model (WLT15_1Z.GR3). ▪ Domains: Controlled by domain block model (WLT15_1D.GR3) and drill hole sample domain. ▪ Dimensions: Same as Z block model (above). ▪ Sample composites: Drill hole sample intervals composited on-the-fly down-hole to 1.0 m (plus >50% residual) lengths. ▪ Estimation algorithms: • Ordinary Kriging (OK) & inverse distance (ID2). • Scan distance: 1,000 m. To fill all blocks. • Distance weighting power (ID2): 2

Criteria	JORC Code explanation	Commentary

		• Anisotropy - distance weighting factor:
		  • XY directions: Factors varied according to geostats results .
		  • Z direction: Factor 1.5 in vertical direction to increase continuity horizontally.
		• Sample points/sectors:
		  • Maximum samples/sector: 3
		  • Minimum sectors: 1
		  • Minimum points: 1.
		  • Effectively minimum samples 3, maximum samples 18.
		• Limits: Input data limited according to statistics results.
		▪ Grades estimated:
		  • Ordinary Kriging (OK).
		    • Zinc (%) (OKZND1/2/3/4.GR3)
		    • Copper (%) (OKCUD1/2/3/4.GR3)
		    • Lead (%) (OKPBD1/2/3/4.GR3)
		  • Inverse distance (ID2)
		    • Iron (%) (IDFED1/2/3/4.GR3)
		    • Gold (g/t) (IDAUD1/2/3/4.GR3)
		    • Silver (g/t) (IDAGD1/2/3/4.GR3)
		    • Sulphur (%) (IDSD1/2/3/4.GR3)
		    • Density (t/m3) (IDSGD1/2/3/4.GR3)
		o Block database:
		  ▪ Block database model (WLT15_OK_Z1/Z5.G3*) (a Minex geological database) was built from the unfolding block model to store, JORC classify, and report grade estimates.
		  ▪ A 1m vertical block size was used for the best resolution "Resource" block model (_Z1.G3*). Resources were reported from this model.
		  ▪ A 5m vertical block size was used for a "mine scheduling" block model (_Z5.G3*).
		  ▪ "Geological database":
		    • A Minex geological database has regular orthogonal blocks and is used to database geology (by domain) and multiple variables (typically grades and density).
		    • Blocks are built from geological models (typically wire-frames, surface models, or other block models such as an unfolding model). Primary maximum size blocks are created where possible, and variably sized sub-blocks are created along edges of models to provide volumetric accuracy.
		    • Grades may be estimated directly into blocks from drill hole samples or loaded from grade block 3D-grids. Those grade 3D-grids may be rotated and/or computed with Z-grid control.
		    • Other variables, such as density or JORC classification variables, are computed using SQL macros.

Criteria	JORC Code explanation	Commentary
		▪ Block database rotation: • No rotation applied. • XYZ axes natural. • Axes of the imported grade block modes (unfolding models) normalised to orthogonal on-the-fly. ▪ Block database dimensions: • Origin (minimum): o 9,700 E (X) o 17,150 N (Y) o 2,760 RL (Z) • Extent: o 1,700 m E (X) o 1,450 m N (Y) o 82 m RL (Z) • Primary block size (Z 1 m resource model): o 10.0 m (X) o 10.0 m (Y) o 1.0 m (Z) • Sub-blocking (Z 1 m resource model): o 1 (X) o 1 (Y) o 1 (Z) • Potential minimum sub-block size (Z 1 m model): o 10.0 m (X) o 10.0 m (Y) o 1.0 m (Z) • Primary block size (Z 5 m sched model): o 10.0 m (X) o 10.0 m (Y) o 5.0 m (Z) • Sub-blocking (Z 5 m sched model): o 1 (X) o 1 (Y) o 5 (Z) • Potential minimum sub-block size (Z 5 m model): o 10.0 m (X) o 10.0 m (Y) o 1.0 m (Z) ▪ Block grade variables: • Variables ZN, CU, PB, AU, AG, FE, S, SG • Loaded from 3D-grids (see above). • Regular sized XY input blocks mirrored by XY database blocks. • Variably sized Z input blocks averaged into 1.0/5.0 m Z database blocks. ▪ Density: • Variable SG • Loaded from estimated 3D-grids. ▪ JORC classification variables: • Preliminary variable ZCAT152. Computed in each block by SQL. Based on variables generated during block estimation for average

Criteria	JORC Code explanation	Commentary
		distance (AU_D) and number of sample points (AU_P). Specific D and P criteria for each dam. • Final variable CAT5. Set from digitised polygons adapted from computed D and P results. • Set to: o 3 – Measured o 2 – Indicated o 1 – Inferred • Other estimates to check against: o May 2008 JORC Resource estimation by Consultant. o Mine tailings figures collated of production figures. o This Resource is compared with both estimates. • By-products and other elements: o None considered outside the list of variables estimated. o No mineralogy currently available to allow comment. • Deleterious elements: o None studied as an issue, and Consultant not aware of any existing issues not already contained within dams. o Assuming similar processing to original, with the same return of tailings to tailings dam. o Assuming any deleterious elements contained within the tailings dams. o Sulphur values assayed and block modelled. With respect to acid mine drainage any generated by the tailings is fully contained within the existing dams. Consultant believes that excess dam standing water catered for currently by pumping it into separate evaporation ponds. o Arsenic assays partially available but not block modelled. • Block size relationship to samples and search distances: o Block sizes were considered well-proportioned to drill hole spacing and down-hole sampling. o Plan (XY) block sizes (10*10 m) were ~20% of typical average drill hole spacing (~50 m) in plan. o Vertical (Z) block sizes (1 m) were ~ equal to or 50% less than down-hole sampling intervals (1-2 m), and equal to the down-hole sample composite length (1 m). o Sub-blocking was not an issue with the 1 m Resource model as all blocks were primary blocks (no sub-blocking used). o Sub-blocking with the 5 m mine scheduling model, where Z sub-blocking of 5 was possible, the sub-blocking was only to honour dam upper and lower boundaries and so maintain volumetric accuracy (and so had no relation to sample spacing). Here the 5 m block grades were composites of the 1 m block grades. • Selective mining units: o The 1 m vertical block size model purely represented the finest block size for Resource reporting. o The 5 m vertical block size model was specifically created to simulate Heron's specification for a dredging "bench" height and so allow mining representative scheduling. • Correlation between variables: o No specific analysis on variable correlation was done. o It was assumed that NO correlation existed – hence each

Criteria	JORC Code explanation	Commentary
		element was separately geostatistically studied and separately block estimated. o However it was clear from simple statistical analysis that some drill hole sample assay elements correlated and others didn't. o Plots of the estimated blocks showed that the principal elements (Zn, Cu and Pb) exhibited strikingly different grade distributions in the dams. This was presumed to reflect differing tailings compositions over time. This in turn was presumably due to differing mineralogy in the primary mining and also variations in processing over time. • Geological interpretation controls of the estimates: o The geological interpretation was of: ▪ Individual dams representing individual deposits or lodes. ▪ Fine sub-horizontal layering in the dams (caused by the mode of deposition) representing grade continuity. ▪ Confidence in estimates (for JORC) derived from the sample distances and numbers of samples. o Dam segregation was implemented through the domain control (already detailed above). o Fine sub-horizontal layer grade continuity was implemented through: ▪ The unfolding block model control (already detailed above) to trend search directions in the plane of the layering. ▪ The block dimensions (10*10*1 described above). ▪ The estimation distance weighting (tailored to each element in each dam, and described above). o Grade estimates were classified for JORC from the range results of the variographic analysis by lode. • Grade cutting/capping use: o A particular feature of all of the element assays (apart from their relatively low tenor in comparison to in-situ ore values) was their small range (high to low). This would be intuitively expected of processed tailings. o However most elements also contained (very) small numbers of data "outliers", both at the high and low ends. Reasons to limit or other limiting factors: ▪ Although the outliers were generally not particularly anomalous they were treated in order to bring them back to the otherwise very small range data, to prevent potentially undue weight being given to them. ▪ The unfolding block modelling control also inherently severely limits grade anomalies within and across layers. ▪ And the anisotropy Z weighting factor of 1.5 would also limit smearing. o All data outliers were subject to either clipping back to a boundary value, or simply rejected. o Outliers were attributed to: ▪ "Ore" grade (high value) rocks dropped into the dams. ▪ Unmineralised basement (low value) material erroneously sampled below the tailings dam. ▪ Poor or difficult sampling and measurements of density (which resulted in a number of values <1).

Criteria	JORC Code explanation	Commentary
		▪ An eastern area in the West Dam was marked by particularly high densities (>2.3). However as these were consistent across numbers of adjacent holes their validity seemed more certain and they were clipped back to higher values than elsewhere. • Estimate validation process: o Block geology validation: ▪ Volume report: Initial check to compare volumes reported within geological model lode surfaces with volumes reported from the blocks built from them. Expect almost exact match. ▪ Plots: Visual cross-sectional plot comparison of block boundaries with geological model surface intersections. Particular focus on validity of the blocks in each lode (possibly corrupt if the raw surfaces overlapped). Also check of block domain assignments. Comparisons considered good. o Block grade estimate validation: ▪ Estimate stats: initial basic check to compare overall (rather than lode/domain basis) stats given during the block estimation – input drill sample stats with estimated grade stats. Expect reasonable but not exact match. Particular focus on closeness of the maximums and the raw averages. ▪ Plots: Methodical visual cross-sectional plot comparison of colour-coded block grades with annotated drill hole sample values. Comparisons considered acceptable. • Estimate reconciliation: ▪ Estimate checked against the Consultant's previous JORC estimate in May 2008. ▪ Estimate checked against the mine tailings records. ▪ 2008: Comparison was considered good as the new estimate simply refined the 2008 version. ▪ Mine records: Comparison was considered as close as could be expected, given the slight doubt on the accuracy of the mine records and the slight inaccuracies that could exist with some dam floor surfaces.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Moisture: Reporting has assumed a dry basis. • All density measurements were of wet unconsolidated material with variable porosity. • Wet densities were all converted to dry by measurement (see section on density).
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Cut-off grades: o No cut-off was used in the Resource reporting.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding*	• Mining factors & assumptions: o It is expected that mining the tailings would be through "water monitoring" This is the use of high powered water jets to break up the semi-consolidated semi-dry tailings and wash the loose tailings gravel and fines into a sump from where it can be collected or pumped to the processing plant. o This washing would be done on a semi-fixed flitch basis, taken in the first instance to be ~5 m high. o Past re-treatment of the North Dam utilised a floating dredge

Criteria	JORC Code explanation	Commentary
	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.	in a pond.
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.*	• Metallurgical factors & assumptions: o No metallurgical (or mineralogical) data has been studied by the Consultant. o The Consultant does not consider this a deficiency as the tailings composition is well known as far as further processing requirements. o Part of the most recent drilling was aimed at collecting further samples for metallurgical testing.
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.*	• Environmental factors & assumptions: o The Consultant is not aware of environmental studies on the tailings project, and has not considered any environmental issues. o However the Consultant presumes this area would not present negative impacts, as the site was subject to mining and tailings deposition and retreatment in the past. o This assumption is reinforced by the current operations at the site where any existing environmental impacts are being successfully dealt with on an on-going basis. o As the Consultant is not a mining environmental impact expert he may not be aware of aspects that are now regulated, that were not at the time of last tailings retreatment.
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 (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the*	• Bulk density determination: o Significant drill hole density data was available and has been used to model block density. o Density was measured in representative holes evenly scattered over all dams. o Density was initially measured on a wet basis, and all converted to a consistent dry basis for analysis. • Density accounting for rock variability: o Density measurements were specifically tailored to the uniform damp to wet, loose, sand sized or finer material. o Densities were determined on wet material (as drilled) for vibracore and push core drilling methods. o All densities were converted from wet to dry density using either moisture determination and back calculation, or volume calculation with dry weight measurements. o The source of the tailings could be considered as a

Criteria	JORC Code explanation	Commentary
	evaluation process of the different materials.	homogenised constant rock type for the purposes of density. • Assumptions behind density estimates: o Densities measured in the drill holes were assumed to apply throughout the dams. o Following that assumption the densities could be block modelled in a similar way to grades.
JORC classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• JORC classification basis: o The principal criterion used in primary classification was the average distance and number of samples used to estimate each block grade. ▪ Sample distance could be related to the average geostatistical maximum range determined from the variogram analysis of the principal lodes. Sample distances less than the range would have higher confidence (as they would be statistically linked) with increasing confidence with reducing distance. ▪ Numbers of samples could be related to the uniformity of drilling around a block. Greater numbers of samples would imply better data distribution around a block. Blocks at the edges of dams, where holes were only present on one side, would have the lowest confidence. ▪ Classifications were decided on combinations of the distances and point numbers – for each element and in each dam – based on the geostatistical analyses. Values were set by SQL in a CAT variable to specify the JORC class. • Class value set to: o 3 – Measured o 2 – Indicated o 1 – Inferred o A secondary visual criteria were applied by observing the calculated distance, points and calculated classes. This smoothed the areas in each class and took into account unsupported dam edge areas. • JORC classification: • Classification accounting for all relevant factors: o Classification details were developed : ▪ As project knowledge was gained. ▪ During the geological interpretation. ▪ With regard to the previous mining and tailings history and data spacing deemed necessary for that. o Confidence in the classification was particularly supported by the good variography results. • CP's view of classification result: o The classification scheme developed by the Consultant (the CP) produced results which accurately reflect his expectations of the class proportions and their relative locations and distributions. o He considers the classification to be conservative in that the tailings "deposit" is close to a completely "known" entity which is volumetrically well defined and well sampled.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Audits or reviews</td><td>The results of any audits or reviews of Mineral Resource estimates.</td><td>Audits:
The Consultant is unaware of specific third-party audits of this estimate.
However during the Project data supply, data processing, analysis and Resource block estimation, Heron has been closely involved and/or kept informed.
Furthermore Heron has inspected the resulting block models to a reasonable degree to satisfy itself of the validity of the results.</td></tr>
<tr><td>Discussion of relative accuracy/ confidence</td><td>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 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.</td><td>Accuracy & confidence in the estimate:
Statement: The Consultant is confident in the accuracy of the estimate. Reasons follow.
This estimation work could be considered to be a second generation process – it builds on earlier 2008 knowledge and work.
The careful geological interpretation, surface modelling and “unfolding” grade continuity control are considered the most appropriate to the style of mineralisation.
The use of unfolding is considered to have substantially aided the variography (leading to definition of long ranges with clearer indications of isotropy) and grade estimation.
Unfolding was recommended by the Consultant in the 2008 work.
Global or local estimate: This is a global estimate.
Reconciliation: The Consultant regards the reconciliation of the reported Resource to be adequately close to both the 2008 estimate and the mine tailings records.</td></tr>
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