North River Resources plc / Ticker: NRRP / Index: AIM / Sector: Mining

# North River Resources plc ("North River" or the "Company")

## Resource expansion drilling programme completed

North River Resources plc, the AIM quoted exploration company, announces drill results and an assessment of its recently completed underground diamond drilling programme at the Namib Project in Namibia.

### Highlights

- \* A total of 4,142 metres of resource drilling completed.
- \* A number of outstanding intersections continue to support strong resource upside at Namib, although overall results are not expected to grow the Indicated Mineral Resources at this stage, pending further drilling.
- Drill results indicate that refinement of the 3D geological and structural model is required prior to undertaking further drilling and that future resource development targeting is increasingly dependent on accessing additional underground drill positions as the mine is developed.
- Further to the interim drilling results announced on the 21 March and 26 April 2016, an additional 32 holes, totalling 2,959 metres are being reported in this RNS. Significant intersections of mineralisation not previously announced, include:
  - NLDD072: 3.1m (true width of 2 metres) at 8.2% zinc, 28.4m (true width of 7 metres) at 33.2% zinc and 7.9m (true width of 3 metres) at 30.6% zinc
  - NLDD083: 3.5m (true width of 2.5 metres) at 22.0% zinc and 9.7m (true width of 5 metres) at 18.9% zinc
  - NLDDK082: 6.6m (true width of 4 metres) at 20.3% zinc and 10.2% lead
  - NLDDK087: 4.3m (true width of 3 metres) at 16.4% zinc
- The Company continues discussions with the Ministry of Mines and Energy on the grant of the Mining Licence for the Namib Project and remains hopeful that this will be forthcoming in the near term.
- \* Cash preservation remains a priority and the Company has further reduced corporate overheads and put next step resource development and drilling plans on hold until there is clarity on the timing of moving the project forward to a construction decision.

#### Details of the completed drilling programme

The drilling programme to test extensions at depth in the North and South orebodies of the Namib resource, which commenced in January 2015, has now been completed. A total of 4,142 metres were drilled, using a contracted Diamec rig together with the Company's own Kempe drill.

The announcement of additional very encouraging intersections continues to support the strong resource upside at Namib and follows previously announced holes from this campaign, including NLDD067 with 57.1 metres (true width of 8.5 metres) at 28.5% zinc, and NLDD069 with 35.7 metres (true width of 9.0 metres) at 33.8% zinc. The overall results of this programme have however been sporadic and will not at this point translate into a significant increase in the Indicated Mineral Resource category to underpin an extension to mine life. The Company has determined that additional infill and extension drilling is certainly warranted to further delineate mineralised zones to the level of confidence required to support Indicated Mineral Resources, but that this should now only be undertaken following further interpretation of the recently completed drilling, which will include an update to the geological and structural model in the light of new data. This drilling programme has highlighted a greater structural complexity that needs to be better understood in order to improve future extension drilling targeting, and that will require ongoing attention if and when the project is taken forward into construction and mining operations.

The geological framework model for the deposit continues to indicate there is no reason to suggest that mineralisation does not continue at depth, but these drilling results show that zone targeting and delineation remains challenging due to the sub-vertical lode geometry and limits of available drilling positions from which to optimise intersection angles. The Company remains confident in the upside of the Mineral Resource, as indicated by both the deep drilling intersections achieved during this latest drilling campaign, and previous down-hole electromagnetic surveying work (see press release of 6 September 2013) projecting potential mineralisation conductors to depths as far as 700 metres below surface. In the short term the Company has put drilling on hold until there is clarity on the timing of moving the project forward to a construction decision, and will concentrate on additional data reanalysis and collection from available drill core, review and interpretation of recent drilling data, and refinements to the 3D model using all available information to improve understanding of the geological structure.

#### Mining licence and ongoing development

"The Company continues to discuss the granting of the mining licence for the Namib Project with the Ministry of Mines and Energy, and is in the process of providing further detail to support the proposal submitted to the Ministry in April 2016 on meeting the new Mining Licence conditions.

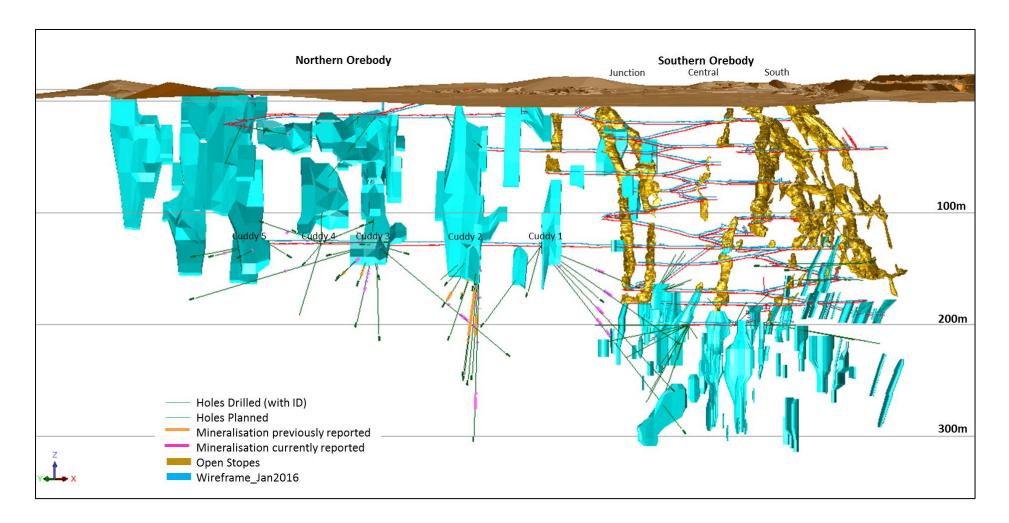
Cash preservation remains a priority and the Company has further reduced corporate overheads and put next step resource development and drilling plans on hold until there is clarity on the timing of moving the project forward to a construction decision. A lower run rate level of expenditure going into 2017 will extend the available timeframe for the Company to firm up a development plan for the Namib Project or redefine the corporate strategy.

#### **Competent Persons Statement**

The information in this release that relates to Exploration Results is based on information compiled by Mr. Galen White, Principal Geologist of CSA Global (UK) Ltd and a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM). Mr White has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. White consents to the inclusion in this release, of matters based on his information, in the form and context which it appears.

North River CEO James Beams commented, "These drill results provide further confidence in the potential to grow the Namib mineral resource but at the same time have highlighted the challenges to achieving a step change increase in resource until a construction decision is taken and the mine is further developed during ongoing operations".

Figure 1: Long section of the Mine Looking North East



# Table 1: Significant intercepts table

Location	Cuddy	Hole_Type	Hole_ID	NAT_East	NAT_North	NAT_RL	Max_Depth	Dip	Azimuth	mFrom	mTo	IntervalWidth	True Width	Zn_pct	Pb_pct	Ag_ppm	Fe_pct
North	Cuddy 2	DD	NLDD067*	475143.4	7509860.0	170.8	170.8	-42	228	57.9	115.0	57.1	8.5	28.5	0.1	34	24.0
North	Cuddy 2	DD	NLDD069*	475143.6	7509859.9	170.9	161.9	-46	225	100.1	135.9	35.7	9.0	33.8	0.1	46	20.3
North	Cuddy 2	DD	NLDD071	475142.9	7509860.0	171.2	95.1	-20	239	33.8	45.4	11.6	7.5	12.5	0.1	33	30.3
North	Cuddy 2	DD	NLDD072	475143.9	7509860.2	170.9	170.8	-45	226	51.8	54.8	3.1	2.0	8.2	0.2	26	26.0
North	Cuddy 2	DD	NLDD072	475143.9	7509860.2	170.9	170.8	-45	226	89.4	117.8	28.4	7.0	33.2	0.1	40	24.6
North	Cuddy 2	DD	NLDD072	475143.9	7509860.2	170.9	170.8	-45	226	123.9	131.8	7.9	3.0	30.6	0.1	89	24.4
North	Cuddy 4	DD	NLDD076	475015.3	7509924.8	173.6	49.9	-1	162	32.1	37.6	5.5	2.5	10.5	2.6	60	23.9
North	Cuddy 4	DD	NLDD077	475012.1	7509927.3	174.3	61.8	14	271	37.4	40.5	3.2	1.5	22.1	0.9	73	32.0
North	Cuddy 3	DD	NLDD080	475052.9	7509895.7	171.3	191.3	-38	156	103.7	117.5	13.9	9.5	26.6	0.0	104	16.7
North	Cuddy 3	DD	NLDD081	475050.3	7509896.9	171.9	77.2	-18	239	33.2	44.0	10.9	7.5	22.5	0.9	192	27.3
North	Cuddy 2	DD	NLDD083	475145.7	7509861.7	170.9	236.6	-45	220	155.3	158.7	3.5	2.5	22.0	0.1	168	35.0
North	Cuddy 2	DD	NLDD083	475145.7	7509861.7	170.9	236.6	-45	220	192.4	202.1	9.7	5.0	18.9	0.0	29	29.2
North	Cuddy 1	DD	NLDD085	475188.3	7509824.8	169.7	167.8	-31	163	19.9	24.8	4.8	3.0	10.3	1.3	81	31.8
North	Cuddy 1	DD	NLDD088	475188.0	7509825.3	169.6	161.6	-44	173	92.0	98.0	6.0	4.5	3.1	0.0	0	39.9
North	Cuddy 2	DD	NLDDK074*	475145.6	7509861.7	170.8	79.5	-35	230	43.4	46.4	3.0	1.5	35.0	0.1	74	22.8
North	Cuddy 2	DD	NLDDK074*	475145.6	7509861.7	170.8	79.5	-35	230	49.6	61.5	11.9	6.0	20.8	0.0	24	18.4
North	Cuddy 2	DD	NLDDK075*	475145.4	7509861.7	170.8	94.5	-35	244	79.5	88.2	8.7	4.0	19.5	0.9	59	18.8
North	Cuddy 2	DD	NLDDK075*	475145.4	7509861.7	170.8	94.5	-35	244	89.5	92.5	3.0	2.0	12.2	0.1	34	39.1
North	Cuddy 3	DD	NLDDK076*	475053.3	7509903.9	171.6	79.5	-22	243	28.9	32.5	3.6	1.3	9.8	2.6	42	14.7
North	Cuddy 3	DD	NLDDK076*	475053.3	7509903.9	171.6	79.5	-22	243	67.6	75.7	8.1	2.5	6.7	7.6	101	33.9
North	Cuddy 3	DD	NLDDK077*	475053.3	7509904.0	171.5	75.0	-27	229	47.6	51.3	3.8	1.5	10.6	0.2	10	18.6
North	Cuddy 3	DD	NLDDK077*	475053.3	7509904.0	171.5	75.0	-27	229	60.8	66.6	5.8	2.0	12.2	10.9	157	28.3
North	Cuddy 3	DD	NLDDK078	475053.4	7509902.5	171.7	58.5	-24	214	25.9	31.2	5.3	3.5	7.6	1.7	30	19.4
South	Cuddy K	DD	NLDDK079	475346.0	7509655.4	150.4	60.0	5	140	18.4	22.9	4.5	4.0	2.3	1.3	31	19.0
North	Cuddy 3	DD	NLDDK082	475052.4	7509895.8	172.2	30.0	-11	203	10.4	16.9	6.6	4.0	20.3	10.2	149	14.6
North	Cuddy 5	DD	NLDDK087	474982.0	7509962.0	173.1	66.0	-8	262	55.3	59.6	4.3	3.0	16.4	0.0	38	34.5
North	Cuddy 1	DD	NLDD064*	475186.2	7509826.9	169.5	62.8	-41	228	No Significant Intercepts							
North	Cuddy 1	DD	NLDD065*	475185.9	7509827.7	169.5	113.8	-35	245			No Sig	nificant Inte	ercepts			
North	Cuddy 2	DD	NLDD066*	475143.3	7509860.2	170.9	173.8	-42	239	No Significant Intercepts							
North	Cuddy 2	DD	NLDD068*	475143.6	7509859.6	170.8	92.8	-41	221	No Significant Intercepts							
North	Cuddy 2	DD	NLDD070	475143.8	7509860.2	170.9	170.9	-51	230		No Significant Intercepts						
North	Cuddy 4	DD	NLDD073	475009.9	7509924.9	174.3	40.7	13	252			No Sig	nificant Inte	ercepts			

#### Continued...

Location	Cuddy	Hole_Type	Hole_ID	NAT_East	NAT_North	NAT_RL	Max_Depth	Dip	Azimuth	h mFrom mTo IntervalWidth True Width Zn_pct Pb_pct Ag_ppm Fe_pc
North	Cuddy 4	DD	NLDD074	475010.8	7509923.7	173.2	65.2	-16	216	6 No Significant Intercepts
North	Cuddy 4	DD	NLDD075	475014.5	7509924.4	174.3	49.0	15	180	0 No Significant Intercepts
North	Cuddy 4	DD	NLDD075A	475014.5	7509924.3	174.3	61.8	15	176	6 No Significant Intercepts
North	Cuddy 3	DD	NLDD078	475050.4	7509896.8	171.4	110.8	-36	226	6 No Significant Intercepts
North	Cuddy 3	DD	NLDD079	475052.3	7509895.9	171.5	101.8	-35	219	9 No Significant Intercepts
North	Cuddy 3	DD	NLDD082	475049.5	7509897.5	171.9	184.9	-16	281	1 No Significant Intercepts
North	Cuddy 1	DD	NLDD084	475188.0	7509825.2	169.6	194.6	-40	170	0 No Significant Intercepts
North	Cuddy 1	DD	NLDD086	475188.6	7509824.9	169.9	101.8	-20	162	2 No Significant Intercepts
North	Cuddy 1	DD	NLDD087	475187.5	7509824.6	169.7	92.2	-29	177	7 No Significant Intercepts
North	Cuddy 2	DD	NLDDK073*	475146.2	7509860.6	170.8	78.0	-31	226	6 No Significant Intercepts
South	Cuddy K	DD	NLDDK080	475334.6	7509660.0	152.2	25.5	0	326	6 No Significant Intercepts
South	Cuddy K	DD	NLDDK081	475352.8	7509653.6	148.5	39.0	-2	243	3 No Significant Intercepts
North	Cuddy 3	DD	NLDDK083	475055.5	7509893.9	172.3	25.5	-9	182	2 No Significant Intercepts
North	Cuddy 3	DD	NLDDK084	475050.4	7509896.8	172.4	27.0	3	232	2 No Significant Intercepts
North	Cuddy 3	DD	NLDDK085	475050.0	7509897.2	172.0	51.0	-11	268	8 No Significant Intercepts
North	Cuddy 5	DD	NLDDK086	474981.5	7509962.6	173.0	65.1	-10	237	7 No Significant Intercepts
North	Cuddy 5	DD	NLDDK088	474982.1	7509961.8	173.0	72.0	-12	278	8 No Significant Intercepts
North	Cuddy 5	DD	NLDDK089	474982.2	7509961.7	172.5	54.0	-10	202	2 No Significant Intercepts

#### \* Represents holes forming part of this drilling campaign that have been reported previously in the interim announcements of 21 March 2016 and 26 April 2016

Significant Intercepts are based on the following criteria:

- Minimum intercept length: 3 metres
- Maximum internal waste: 1 metres
- Cutoff Lead/zinc combined: 1 %
- True thickness lengths were obtained by measuring intercepts manually from a perpendicular-to-dip sectional review. Lengths are approximate due to the variable nature of the lodes.

#### Appendix: Quality Assurance Quality Control of assay results

Diamond core samples were half core samples and are selectively sampled based on observable sulphide mineralisation. Approximately one metre of waste is sampled either side of mineralisation.

Samples were prepared and analysed at Bureau Veritas Namibia (Swakopmund). Iron, lead and zinc samples were fused with sodium peroxide, dissolved in dilute HCL and analysed by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry. Silver samples were dissolved in a multi acid digest and assayed by inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

The Quality Assurance Quality Control (QAQC) programme included blanks and certified reference materials (CRMs) from African Mineral Standards (AMIS) in Johannesburg, South Africa and duplicate samples. QAQC results were monitored and where issues were noted, the laboratory was requested to re-assay the affected samples.

During the QAQC analyses for the results reported in Table 1 above, sporadic failures in the zinc, lead and silver CRMs and blanks were noted. The lab was requested to re-assay these affected QC sample as well as ten samples either side for the failed elements. Failures were either resolved or understood after re-assay.

#### \*\*ENDS\*\*

#### For further information please visit <u>www.northriverresources.com</u> or contact:

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About North River Resources: North River Resources (AIM ticker: NRR) is a multi-asset mining exploration and development company with projects located in Namibia and Mozambique. The Company's primary focus is bringing its flagship Namib project into production. The Namib project is the restart of a high grade zinc-lead underground mine located in Namibia.

## December 2016

# Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary				
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Since May 2016 20 Diamec DD (diamond) for 2,386 m and 12 Kempe DD (diamond) for 574 m drilled. Assays have been received for 23 holes, 9 holes not sampled as no mineralisation was intersected.</li> <li>Underground holes are often drilled in fans from defined cuddies, due to drill rig accommodation and access issues.</li> <li>Sampling was selective over mineralized intervals and samples were collected at 1 m intervals or to geological boundaries, from which an average of 1.6 – 1.8 kg of sample was collected for analysis.</li> <li>NRR Standard Operating Procedures (SOP) were followed to ensure samples are representative.</li> <li>Holes are selectively sampled based on observable sulphide mineralisation. Samples are sent for chemical assay.</li> <li>Approximately 1m of apparent waste is sampled either side of mineralisation.</li> </ul>				
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core</li> </ul>	DD (NQ and BQ for Diamec holes), BX (40mm, Kempe Drilling);				
	diameter, triple or standard tube, depth of diamond tails, face-	HTYPE No. Holes Total Depth (m)				
	sampling bit or other type, whether core is oriented and if so, by	DD - Diamec 20 2,386				
	what method, etc.).	DD - Kempe 12 574				
		Grand Total 32 2,959				
		Core is not orientated				

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Recovery data was collected for drill core and reviewed for the 2014 MRE. Conclusions were that core recovery was excellent, averaging 95% recovery within the mineralisation. Recovery dropped in breccias to 76%, however, within the mineralised lodes, recovery was over 90%. Recoveries from recent drilling are in line with previous analysis and 9 holes (NLDD075, NLDD075A, NLDD088 and NLDDK084 to NLDDK089) being reported do not have recovery data. These holes contained no mineralised intercepts.</li> <li>The relationship between recovery and grade of all available diamond drilling was investigated during the last MRE update, and no sample bias was observed. An updated review in this area should be completed during future MRE update work in due course. Deviation from the conclusions previously drawn is not expected to occur.</li> <li>Most the mineralised rock masses drilled are in competent rock and new drilling is predominantly underground. Recovery is not considered an issue as regards sample representivity.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Logging was undertaken (or is in process) for all holes in the Exploration Update using standardised logging codes which describe and summarise the material drilled, its geological, mineralisation and structural characteristics and basic geotechnical characteristics.</li> <li>Core photography is undertaken for all drilling.</li> <li>Currently five holes in this Exploration Update do not have logging data in the database (geological review in progress).</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for</li> </ul>	<ul> <li>Diamond core samples are half core cut with a diamond saw along an orientation line to prevent preferential sampling of core as described in the SOP. Samples are weighed.</li> <li>The laboratory splits the coarse crushed samples to obtain duplicate samples which are analysed within the sample batch.</li> <li>The sample sizes are appropriate given the grain size of the material</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Samples from the current drill campaign were sent to Bureau Veritas, Swakopmund for silver, lead, zinc, iron analysis as well as density measurements.</li> <li>Lead, zinc and iron samples were fused with Sodium Peroxide and dissolved in dilute Hydrochloric acid for analysis by ICP (OES).</li> <li>Silver samples were digested with a four-acid digest (Hydrofluoric, Nitric, Hydrochloric and Perchloric) and analysed with an ICP (OES) finish.</li> <li>Density measurements are taken by the lab on the half core samples sent to the lab –Archimedes method.</li> <li>Blanks and CRMs were inserted in the sample stream on site. Duplicates were taken from laboratory coarse crush samples. No external checks have been undertaken at this stage.</li> <li>Some CRM failures have been observed (both with the North River reference material and the Bureau Veritas internal standards (silver). Where failures were noted, the failed CRM and ten samples either</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>side were re-assayed. Failures were either resolved or understood after re-assay.</li> <li>No twinned holes have been drilled.</li> <li>A site visit by the CP was completed between 23 May and 26 May 2016 whilst drilling and sampling activities were being completed. The following verification activities were completed; <ul> <li>UG inspection to level 5 to observe Kempe drill practises (cubby 3). Observed core in holes 82 and 83 and confirmed the presence of mineralised zones in hole 82.</li> <li>Inspected Adamas rig (broken down at the time of the visit) at the end of Level 5.</li> <li>Inspected cubby 2 and cited collar positions for drilled fan.</li> <li>Inspection of historical sample pulps stored on Level 1.5. Confirmed material not destroyed.</li> <li>Inspection of core processing facility and review of SOP against observations. Logging activity being completed at the time of the</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>visit.</li> <li>Review of hole NLDD67 containing significant mineralised intersection (low angle to core axis).</li> <li>Review of hardcopy data sheets related to current drilling.</li> <li>Review of site safety procedures.</li> <li>Lab audit of Bureau Veritas lab in Swakopmund.</li> <li>A second site visit was completed by a CSA Senior Geologist between 19 July and 23 July 2016 for the purposes of;</li> <li>Review of the geological interpretation and 3D geological/mineralisation model.</li> <li>Collaboration with site staff and conduct training.</li> <li>Complete further review of data collection activities.</li> <li>Make recommendations for additional data collection.</li> <li>Assay certificates for significant intersections have been verified by CSA Global. No other physical external verification has taken place. Significant intersections are logged by a senior geologist and verified by the NRR Geology Manager.</li> <li>Data is captured in excel spreadsheets and merged into a SQL relational database (hosted by CSA Global).</li> <li>Procedures are in place, but it is advised that these are reviewed and updated to reflect current practices.</li> <li>No adjustments have been made to the assay data, apart from overwriting assay data that failed QAQC, which has been reassayed and QAQC passed.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A surveyed topography of the immediate mine area was provided by NRR. The surface topography was surveyed and the collar positions of drillholes were also surveyed by NRR using a Leica Robotic Total Station TCRA1205, R100.</li> <li>Holes have been surveyed downhole with an Electromind Sonde Probe (BDVG42) which measures magnetic deviation.</li> <li>Due to the steep to near-vertical nature of the lodes downhole surveying is critical to project mineralisation intercepts correctly.</li> <li>The grid system for all data points is WGS84 Zone 33S.</li> </ul>
Data	Data spacing for reporting of Exploration Results.	Holes in the Northern Extension were drilled on a 15m x 40m grid.

Criteria	JORC Code explanation	Commentary
spacing and distribution	<ul> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul><li>Data spacing in the South Mine varied.</li><li>No sample compositing has been used.</li></ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>All holes were drilled to try and intersect the orebody, though not all are perpendicular due to the practical necessity of underground fan drilling.</li> <li>Due to the vertical/sub-vertical nature of the lodes and the limited underground access positions from which to drill, drilling can often intersect mineralisation at away from the perpendicular, resulting in longer than 'true-width' intersections.</li> <li>Down-plunge targeting is challenging due to the steepness and irregularity of the shoots, and limitations n positions from which to drill.</li> <li>Drilled intercepts (and their relationship to true widths, and therefore representivity) will be critically evaluated during subsequent Mineral Resource Estimation update study to address any sampling bias that may exist.</li> </ul>
Sample security	The measures taken to ensure sample security.	• Sample pulps are stored in a locked shed on-site, and at Level 1.5 underground, where there is security on duty at all times.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Data was imported into an SQL database and validated. QAQC reports were produced and reviewed. Issues were sent to the laboratory for comment and where relevant, samples were reassayed. QAQC was reviewed again and the database updated.</li> <li>During the recent site visits by CSA staff in May and July 2016, review and auditing of sampling techniques and procedures was completed.</li> </ul>

# 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	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>NRR announced on the 26 April 2016 that its 100% held Namibian subsidiary, Namib Lead &amp; Zinc Mining (Pty) Limited, has submitted a formal proposal to the Namibian Ministry of Mines and Energy ("the Ministry") in respect of its Namib Project mining license application. The area covered by the Mining License application (ML185) is located within the Namib Lead and Zinc Mining (Propriety) Limited 100% owned EPL2902. As at December 2016 the mining license has not been granted and the company remains engaged in ongoing dialogue with the Ministry in this regard.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous drilling on the deposit was completed by ISCOR in the late 1980's to early 1990's and by Kalahari Resources in 2008.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The NLZP is an intrusive-related Zn-Pb-Ag deposit, stratabound within the distinctive Mine Marble Unit, located within the Karibib Fm. of the Swakop Group.</li> <li>The Swakop Group was deposited within the Damaran Basin between 770 Ma to 600 Ma and was then incorporated into the Central Zone of the Damaran orogenic belt at 550—490 Ma.</li> <li>Mineralisation post-dates ductile deformation while brittle disruption has resulted in overturning in the western end of the South Orebody and results in greater complexity in the 'Junction Zone'.</li> <li>The Zn-Pb-Ag mineralisation with anomalous Cu, Sn and In as well as F suggests a granite-related system. No causative intrusion has been identified.</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	<ul> <li>32 holes are reported, of which 13 had significant intercepts, and 19 did not have significant intercepts.</li> <li>Azimuths and Dips vary significantly due to the underground fan drilling of a steeply dipping to near-vertical mineralization.</li> <li>Hole lengths ranged between 40.72 to 236.60 m (Diamec) and 25.5 to 72 m (Kempe).</li> </ul>

Criteria	JORC Code explanation	Commentar	у				
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the</li> </ul>	<ul> <li>All collars are located within the NLZP and been captured using UTN WGS 1984, Zone 33 South.</li> <li>Minimum and maximum positions are displayed below:</li> </ul>					
	information is not Material and this exclusion does not detract from		Min Easting	474981.48	_		
	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.		Max Easting	475352.83			
			Min Northing	7509653.62			
			Max Northing	7509962.62			
			Min RL	148.54			
			Max RL	174.33			
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	hole interc waste of 1 • Core samp	ept with 1 % combined m. Weighted averages bles from 23 holes (9 h m 0.3 to 1.63 m (aver	ulated on a minimum d Pb and Zn and a ma s were used. holes not sampled as r rage 0.92 m). 40 % of	ximum internal		
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	to minerali undergrou True thick perpendicu	sation strike which is und. ness widths were obtaular-to-dip sectional reliable nature of the log	ill intercepts vary and r unavoidable due to the ained by measuring m eview. Lengths are ap des, but are consider	limited access anually from a proximate due		
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>A long se results.</li> </ul>	ection showing drillho	les is included in thi	s reporting of		
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.	Comprehe results.	nsive table of interce	pts in contained in th	ne reporting of		

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Density is analysed by the laboratory using the Archimedes principle [dry weight / (dry weight – wet weight)].</li> <li>Based on a 6.5 % zinc and 2.5 % lead plant feed grade the recoveries based on completed metallurgical test work should be 87 % and 85 % for zinc and lead respectively. Ag that is mostly associated with lead should be about 80 % recovery (not calculated in the studies).</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>NRR have completed the budgeted drill metres planned for the current program.</li> <li>Due to the mixed nature of the drilling results returned from the recent program, significant increase in Mineral Resource inventory is not expected at this time.</li> <li>NRR plan to complete a more detailed review of recent results which will include, but may not be limited to, update of the 3D geological model in the light of new data, complete additional structural interpretation, collect additional data from historical RC drill chips and refine the targeting model to develop future drilling plans.</li> </ul>