ASX ANNOUNCEMENT

ASX : CXO

21st October 2014

Additional silver lead mineralisation discovered at Inkheart

HIGHLIGHTS

- **First assay results received for Core's recent 2,500m RC drilling program**
- **Silver and lead mineralisation intersected in a number of holes has extended the mineralised zones at Inkheart.**
- **Results include :**
    - **3m @ 268.0g/t Ag & 8.0% Pb [IKRC013 39-42m]**
    - **6m @ 95.6g/t Ag & 2.1% Pb [IKRC007 111-117m]**
        - **Inc. 3m @ 177.0g/t Ag & 4.1% Pb [114-117m]**
    - **15m @ 37.7g/t Ag & 0.6% Pb [IKRC014 108-123m]**
- **Additional assays to be received over next 2 weeks.**

Core Exploration Ltd (ASX:CXO) has received impressive initial silver and lead results in the first batch of assays from its recent reverse circulation (RC) drilling at its Inkheart Prospect in the Northern Territory. Core's RC drilling has hit additional silver and lead intersections with values of up to 268g/t silver (Ag) and 8% lead (Pb) (Figures 1 & 2).

These first assays results confirm and extend the mineralisation discovered at Inkheart by Core in the Company's first phase one drilling program during May this year.

Assays received to date show that silver and lead mineralisation has been intercepted consistently in all of the four drill sections within the targeted Bitter Springs Formation. Results also suggest that shallow higher grade intersections are potentially broadening at depth (Figure 2).

Assays pending are expected to extend the mineralised zones further to the south west with the mineralised zones also remaining open to the north east and at depth (Figure 1 and 2).

Higher grades have been intersected in structurally controlled zones within broader, lower grade alteration halos within individual sedimentary layers of the Bitter Springs Formation (Figure 2).

Results to date have confirmed that mineralisation at the Blueys and Inkheart Prospects are likely to be part of the same mineralising system, depositing metals in the Bitter Springs Formation.

This reinforces the tenement wide and regional potential of the Bitter Springs Formation for the discovery of economic base-metal deposits.

Approximately half of the assays from samples submitted for analysis from the latest drilling have been received to date. Core looks forward to receiving the assays for the remaining half of RC drill samples from the laboratories over the next two weeks to add to the developing exploration model at Inkheart.

Core's Managing Director Stephen Biggins commented "the grade and continuity of mineralisation intersected by Core's recent drilling, along with growing confidence in a predictable exploration model for high grade silver lead mineralisation at Inkheart strengthen the potential for further success in this new exploration province in the NT".

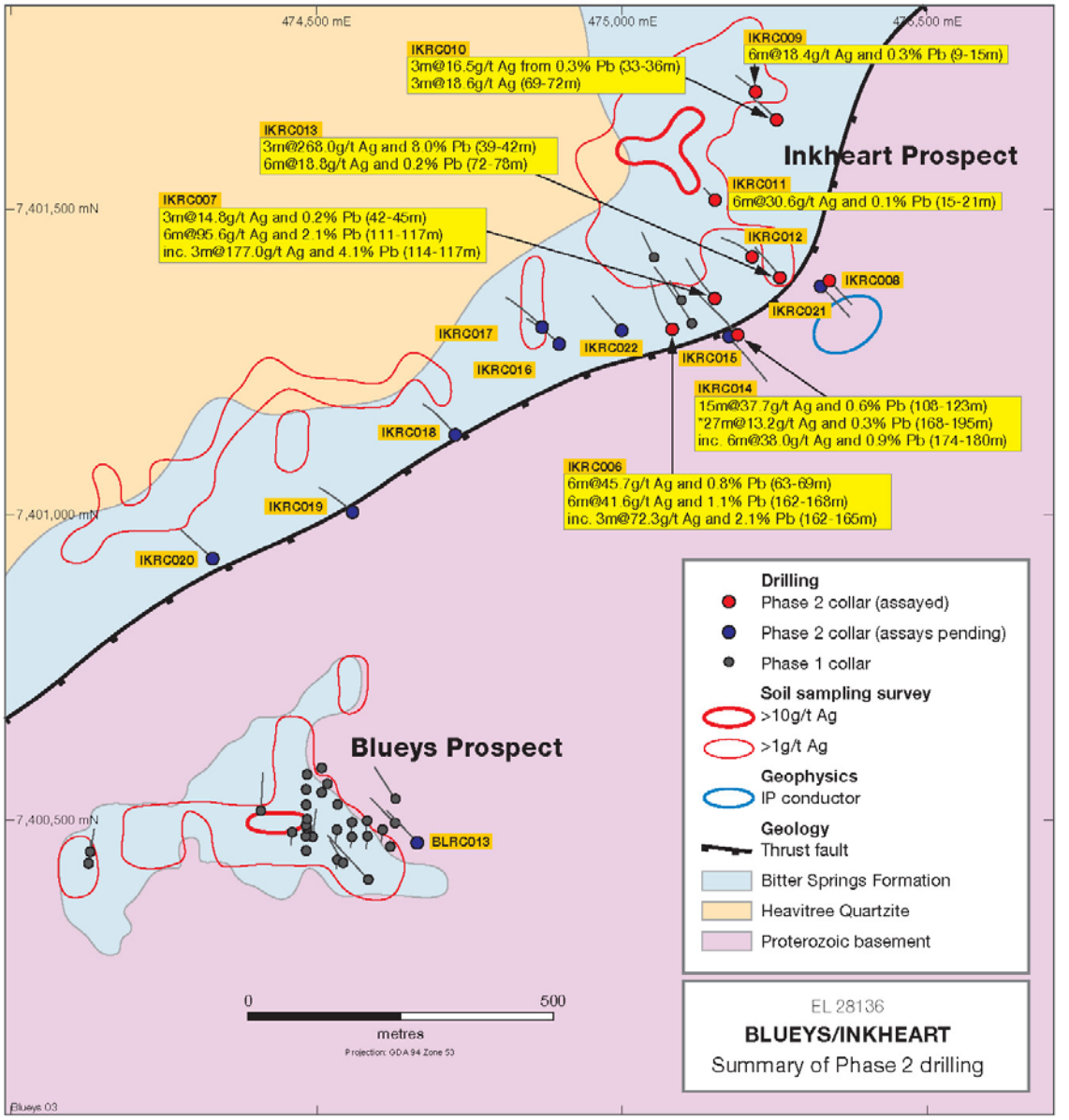


Figure 1. Drilling results and collar locations overlain on geology, Inkheart and Blueys Prospects, NT.

Results and Drilling

Latest drilling has confirmed and extended the high grade silver, lead and zinc mineralisation previously discovered by Core. Significant intersections have been returned from seven of the nine recently completed holes for which assays have been received to date:

IKRC006:
6m @ 45.7g/t Ag & 0.8% Pb [63-69m]
6m @ 41.6g/t Ag & 1.1% Pb [162-168m] inc 3m @72.3g/t Ag & 2.1% Pb [162-165m]
IKRC007:
3m @ 14.8g/t Ag & 0.2% Pb [42-45m]
6m @ 95.6g/t Ag & 2.1% Pb [111-117m] inc 3m @ 177.0g/t Ag & 4.1% Pb [114-117m]
IKRC009:
6m @ 18.4g/t Ag & 0.3% Pb [9-15m]
IKRC010:
3m @ 16.5g/t Ag & 0.3% Pb [33-36m]
3m @ 18.6g/t Ag [69-72m]
IKRC011:
6m @ 30.6g/t Ag & 0.1% Pb [15-21m]
IKRC013**:**
3m @ 268.0g/t Ag & 8.0% Pb [39-42m]
6m @ 18.8g/t Ag & 0.2% Pb [72-78m]
IKRC014:
15m @ 37.7g/t Ag & 0.6% Pb [108-123m]
27m @ 13.2g/t Ag & 0.3% Pb [168-195m] inc 6m @ 38.0g/t Ag & 0.9% Pb [174-180m]

Inkheart Prospect Mineralisation and Geology

Mineralisation at Inkheart is interpreted to be structurally controlled and likely related to the over-thrusting of the older (Mesoproterozoic) Artnarpa Igneous Complex over the younger (Neoproterozoic) Bitter Springs Formation (BSF) and (Heavitree Quartzite (HTQ) (Amadeus Basin). This over-thrusting has provided a fluid pathway for metal-bearing fluids to interact with reactive (carbonate) lithologies of the BSF, therefore providing a trap to accumulate base metals and silver.

Mineralisation at Inkheart is best developed within more carbonate-rich facies within the BSF and is related to quartz veining and carbonate alteration of the host sequence. Mineralisation is often visible as galena (lead sulphide), within strongly carbonate altered zones and are generally accompanied by increased abundance of pyrite. There is a strong association of silver with lead however copper and zinc results are more variable.

The limited drilling completed so far is yet to test the full extent of the target horizon and results are still pending for approximately half the holes from the recent program. There is however, strong support to suggest Inkheart comprises a laterally extensive and continuous, structurally controlled series of several mineralised zones dipping between 40° to 60° to the south-east.

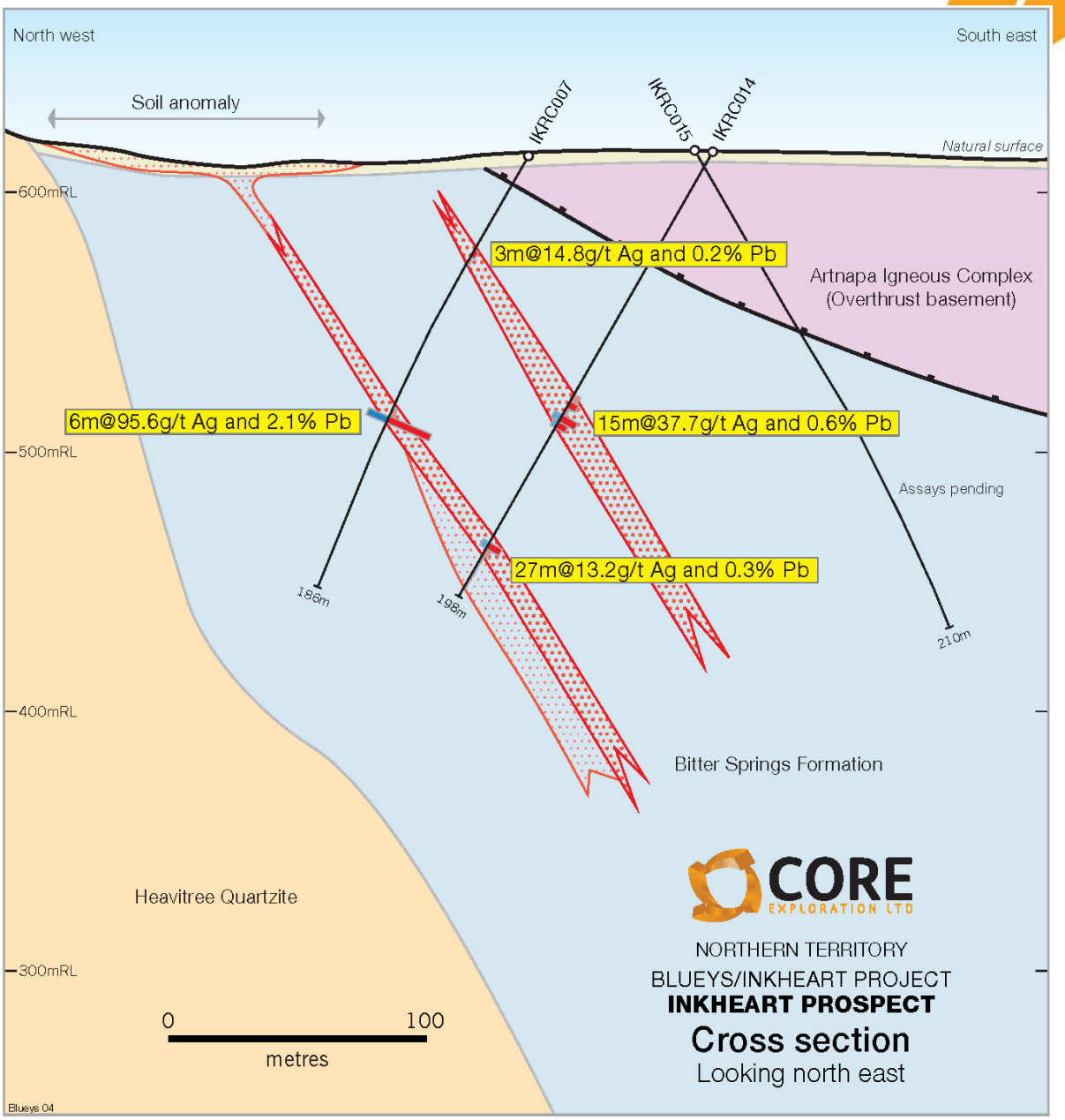


Figure 2. Cross-section of drillholes and interpreted prospect geology, Inkheart NT.

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Hole ID	Easting	Northing	RL	Total Depth	DIP	TAZ	Completion
IKRC006	475081	7401305	618.9	192	-60	325	Sep 2014
IKRC007	475152	7401357	614.4	186	-60	315	Sep 2014
IKRC008	475338	7401385	605.8	115	-60	135	Sep 2014
IKRC009	475219	7401695	611.6	90	-60	315	Sep 2014
IKRC010	475252	7401649	612.0	102	-60	315	Sep 2014
IKRC011	475152	7401517	607.7	60	-60	315	Sep 2014
IKRC012	475212	7401425	606.9	108	-60	315	Sep 2014
IKRC013	475257	7401391	606.7	114	-60	325	Sep 2014
IKRC014	475189	7401296	616.1	198	-60	315	Sep 2014
IKRC015*	475174	7401294	616.9	210	-60	135	Sep 2014
IKRC016*	474896	7401281	615.8	132	-60	315	Sep 2014
IKRC017*	474868	7401309	621.3	150	-60	315	Sep 2014
IKRC018*	474727	7401134	612.8	150	-60	315	Sep 2014
IKRC019*	474558	7401006	616.6	162	-60	315	Sep 2014
IKRC020*	474328	7400929	622.0	150	-60	315	Sep 2014
BLRC013*	474664	7400463	605.1	150	-60	315	Sep 2014
IKRC021*	475324	7401376	605.7	126	-60	135	Sep 2014
IKRC022*	474999	7401304	618.7	132	-60	315	Oct 2014

Table 1. Reverse circulation drillhole information, Blueys and Inkheart Prospects, NT.

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities 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. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This report includes exploration information that was prepared and previously disclosed by Core under the JORC Code 2012 in the ASX release on 17/06/2013 "High grade silver lead intersections from maiden drilling program Albarta Project, NT."

Blueys Inkheart RC Drilling – September 2014– JORC 2012

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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 (eg 'RC 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 (eg submarine nodules) may warrant disclosure of detailed information.*	• All RC drill cuttings were spear sampled. • RC sampling was initially undertaken using 3m composite intervals for first-pass analysis however a one metre un-composited samples collected using a splitter on the cyclone were retained for future follow-up analysis over anomalous zones. • All drilled intervals were sampled as 3-metre composites • Each one metre drilled interval is qualitatively annotated with a sample quality based on weight and moisture content.
Drilling techniques	• *Drill type (eg core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Coughlan Drilling were contracted to undertake RC drilling • All drilling was face sampling with a 5 1/2" RC Hammer • RC drilling was drilled at various angles and orientations with downhole surveys undertaken nominally every 30m down hole
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.*	• A visual estimate of recovery over individual one-metre drilled estimates was recorded. • RC drilling only so no assessment of sample representivity or sample bias available.

Criteria	JORC Code explanation	Commentary
	• *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.*	
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.*	• Drill cuttings are qualitatively logged and photographed • Qualitative logging includes lithology, colour, mineralogy, description, marker horizons, weathering, texture, alteration and mineralization
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 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.*	• See Sampling section above for a description of sampling and sub-sampling techniques. • Sample sizes are considered appropriate for the expected grainsize of mineralisation. • Every twentieth sample submitted for analysis was sampled was duplicated. Certified standards were submitted in sequence for every 25 samples submitted. • Subsampling techniques are undertaken in line with standard operating practices in order to ensure no bias associated with sub-sampling. • The nature, quality and appropriateness of the sampling technique is considered adequate for the type of mineralisation and confidence level being attributed to this initial reconnaissance drilling program.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their*	• A certified and accredited global laboratory (Intertek-Genalysis) was used for all assays. • Sample preparation was undertaken in Alice Springs with analysis undertaken at Intertek's Adelaide laboratory. • Samples were analysed using Intertek's 4A/OM10 technique which

Criteria	JORC Code explanation	Commentary
	derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	involves near-total 4 acid digest and analysis using ICP-OES and ICP-MS for 46 elements including Ag and Pb. • Internal certified laboratory QAQC is undertaken by Intertek. • Duplicates and certified standards were inserted in sequence as detailed above.
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.*	• Primary data is captured dirtectly into an in-house referential and integrated database system designed and managed by the Exploration Manager. All assay data is cross-validated within the database by various integrity scripts and externally using MapInfo drill hole validation checks including interval integrity checks. • Laboratory assay data is not adjusted.
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.*	**<u>Collar co-ordinate surveys</u>** • All coordinates are recorded in GDA 94 MGA Zone 53. • Surveys have been undertaken by Core Exploration staff using a hand-held GPS this tool has an accuracy of approximately 3m. • Topographic control uses the DTM generated by the UTS 100m airborne survey conducted over the area by Western Desert in 2008 **<u>Down hole surveys</u>** • Downhole surveys were undertaken using a Reflex electronic survey camera system supplied by Coughlan Drilling nominally every 30m down hole.
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*	• Initial reconnaissance RC drilling only. • See drilling section above regarding composite sampling

Criteria	JORC Code explanation	Commentary
	applied. • *Whether sample compositing has been applied.*	
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.*	• Initial reconnaissance drilling only
Sample security	• *The measures taken to ensure sample security.*	• Sample Intervals are put into individually numbered calico sample bags and are then loaded into cable tied bulka-bags before being dispatched to Intertek-Alice Springs for sample preparation.. • Assay pulps are returned to Core Exploration from contracted laboratories on a regular basis and stored securely for future reference.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been undertaken

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Inkheart / Blueys prospect areas is contained within EL 28136 that is 100% held by DBL Blues Pty Ltd a wholly owned subsidiary of Core Exploration Ltd. • Core Exploration manages EL 28136. • EL 28136 is located on Love Creek Station which is Aboriginal Freehold Land owned by the Central Land Council (CLC). • A work agreement has been signed with the CLC over EL 28136 and the work programme undertaken has been authorised by the CLC . • All drilling was undertaken outside of Heritage, Conservation or National Parks on EL 28136. • All work was undertaken within the scope of the Exploration Mining Management Plan (EMMP) that was approved by NTDME
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Various phases of historical exploration have been undertaken at Blueys by a number of companies over the last 30 years. Inkheart was discovered by CXO early in 2014 with this drilling program designed to follow up the initial drilling traverse completed in May 2014.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Geology comprises Neo-Proterozoic Amadeus Basin Metasediments of the Heavitree Quartzite and Bitter Springs Formation that have been in part over thrust by Meso-Proterozoic Artnarpa Igneous Complex. Drilling is targeting Ag-Pb mineralisation.
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*	• Drill hole information is recorded within the CXO in-house database with all collar locations listed in the table accompanying this document.

Criteria	JORC Code explanation	Commentary
	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.*	• No material information is excluded.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.*	• Aggregated intersections have been calculated separately for silver and lead using a 30g/t silver cut-off and 0.1% lead cut-off. Minimum intersection widths are 3m and up to 3m of internal dilation are included • No metal equivalents are reported.
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 (eg 'down hole length, true width not known').*	• Initial reconnaissance drilling only thus geometric relationship of mineralisation to vertical drill orientation unknown.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See attached plans showing drill hole density and sections as well as the tabulated drill hole information data accompanying this document.
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.*	• See attached table of intersections. • Reported intersections use the criteria detailed in the above section "data aggregation methods".
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*	• Mineralisation is generally hosted by carbonate-rich lithologies of the Bitter Springs Formation. Due to the drilling technique primary textures are hard to distinguish or are obliterated.

Criteria	JORC Code explanation	Commentary
	deleterious or contaminating substances.	• Groundwater is generally present below 100m depth. • Multi-element geochemistry assaying (45 elements) is routine for all sampling. Some elemental associations are recognised within certain lithologies within the region and are used as a tool to assist in interpretation of original lithologies where alteration affected the ability to visually determine the lithology.
Further work	• *The nature and scale of planned further work (eg 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.*	• Subject to Board approval further drilling may be undertaken