CASSINI
RESOURCES LIMITED

ASX Release (CZI)
4 November 2015

ZINC DISCOVERY AT X17 IN WEST ARUNTA

HIGHLIGHTS

- **Regional geochemical survey identifies three very significant Zinc - Lead anomalies**
- **Gossans confirmed at each prospect**
- **Highly anomalous Zinc lag samples with supporting Lead, Cadmium, Copper and Silver**
- **Anomalism verified with portable XRF results of up to 0.6% Zn in gossan rock chips**
- **The 35km long prospective sedimentary horizon potentially represents a new Zinc - Lead province**
- **Geology is characteristic of classic sediment-hosted, Mt Isa-style Zn mineralisation**
- **Rock chip and infill soil samples submitted for assay**
- **Reconnaissance drill program being designed to test for primary mineralisation beneath the identified gossans**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to announce the discovery of a potential new zinc(Zn) - lead(Pb) province at the Company's West Arunta Project ("X17" or "Project") in Western Australia. The Project is located near Lake McKay and 20km from the community of Kiwirrkurra near the WA – NT border. Cassini acquired 75% of the Project in 2013 and increased its interest to 100% in July 2015.

This discovery is based on analysis of soil and lag geochemical data and the subsequent identification of gossan outcrops during field reconnaissance in late October 2015.

Figure 1. Cassini team at one of the gossans at the Enceladus Prospect

PO Box 685, West Perth, Western Australia 6872 | T +61 (8) 6164 8900 | F +61 (8) 6164 8999
admin@cassiniresources.com.au | www.cassiniresources.com.au | ABN: 50 149 789 337

Summary

The Company believes it has made a significant Zn-Pb discovery based on the outcomes of work completed so far:

- The X17 Project was generated as part of a continental-scale targeting study, focused on frontier terranes in Western Australia;
- X17 was defined as a highly prospective, large scale conceptual target within the Centralian Superbasin, an area that is significantly under explored. It occurs at the intersection of several fundamental lithosphere-scale structures;
- Confirmation of X17's prospectivity was demonstrated by a soil sampling programme identifying discrete Zn soil anomalism of up to 10 times background, with supporting anomalism in Pb, Copper(Cu) and Silver(Ag);
- Coincident lag samples show highly anomalous Zn of up to 0.2%;
- Importantly, coincident Cadmium (Cd) anomalism present in the lag is recognised as a signature of sphalerite, the primary source of Zn mineralisation;
- Recent field reconnaissance identified several outcropping gossans as the likely source of each soil and lag anomaly;
- Lag and gossan anomalism was verified in the field with portable XRF results of up to 0.6% Zn, 0.2% Pb, 0.4% Ni and 0.05% Cu.

Managing Director Comment

Managing Director Mr Richard Bevan, said "We are delighted with the results from X17. This Project has been slowly progressing in the background for the past 12 months while we have focussed on our West Musgrave Project. Now that we've made this breakthrough and potentially found a new zinc-lead province, we think we have a compelling project that we can progress through to discovery in a cost effective and timely manner without requiring additional funding".

Three new Zinc - Lead Prospects Discovered

Evidence for a major Zn-Pb mineral system initially presented in both soil and lag geochemical results from a regional scale geochemical survey (1000m x 500m sample spacing). Three highly Zn anomalous lag samples have been identified (2210 ppm or 0.2%, 671 ppm and 222 ppm, see Table 1) which clearly represent a different population to the remainder of the data.

Very importantly, these three samples are also the most strongly Cd anomalous samples in the data set, with the rank order of Cd enrichment exactly the same as the rank order of Zn enrichment. The significance is that Cd is typically concentrated in sphalerite, the primary ore mineral for Zn and therefore these three Zn-Cd lag samples are considered to have the direct geochemical signature of sphalerite mineralisation.

Table 1. Anomalous lag samples with selected elements

Sample ID	East	North	Zn (ppm)	Cd (ppm)	Pb (ppm)	Cu (ppm)	Ag (ppb)
2617L	334885	7460837	2210	0.939	147.5	46.9	174
2911L	339781	7459918	671	0.495	44.7	51	49
4520L	348770	7472970	222	0.346	96.8	27.9	32

Cassini also engaged Reflex Geochemistry to normalise the soil data, effectively removing the dilution effects of silica from wind-blown sand that is common in the Gibson Desert. Three large, coherent soil anomalies, with Zn values up to 10 times background, coincide with the lag anomalies.

Importantly, the three significant soil and lag anomalies are interpreted to lie on a single continuous stratigraphic horizon, referred to as the Dione Horizon (Figure 2).

During field reconnaissance to investigate the source of the anomalies, three anomalous gossans were discovered at each prospect. Portable XRF (pXRF) was used to confirm zinc anomalism in lag and gossan at each prospect. Hand specimens of gossan have returned pXRF results of up to 0.6% Zn and 0.2% Pb (Table 2). This is considered to be very encouraging support for the hypothesis that these gossans represent the weathered products of sulphide Zn-Pb mineralisation hosted in shale or fine-grained sedimentary rocks.

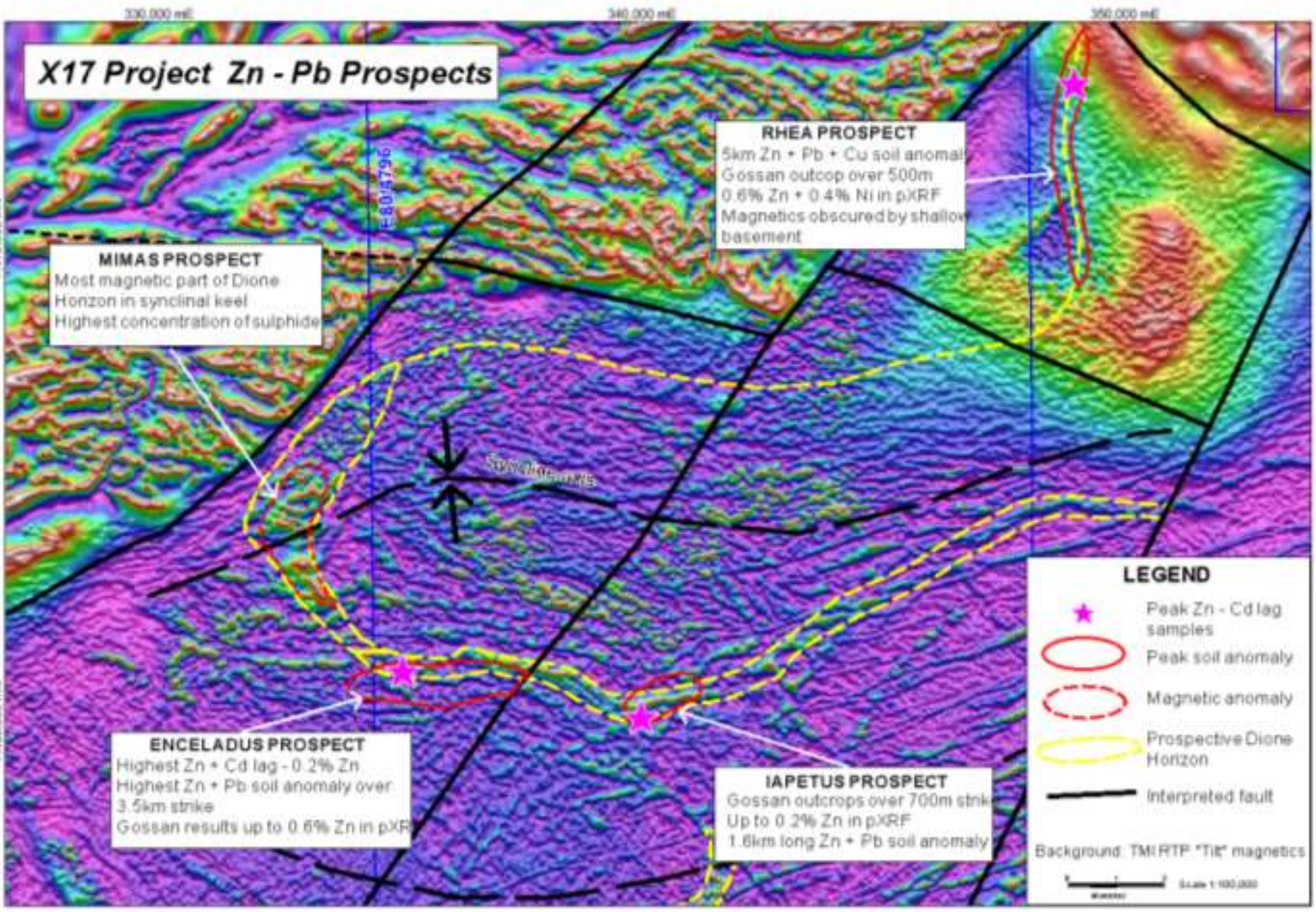

Figure 2. Summary of soil and lag geochemistry and geological interpretation.

The prospects have been called *Enceladus, Iapetus and Rhea.*

The Enceladus Prospect has the highest Zn and Cd in soil and lag results but is extensively sand covered with only minor gossanous sub-crops present. While the surface expression of mineralisation is limited, the soil anomaly extends over 3.5km.

The Iapetus Prospect lies immediately east of Enceladus and is possibly part of the same system but dislocated by a cross-cutting fault. This prospect has a soil anomaly striking over 1.6km, associated with a prominent gossanous outcrop that stretches over 700m strike (Figures 3 & 4).

Rhea is the largest soil anomaly with greater than 5km of strike and a strong coincident Pb and Cu anomaly. The soil anomaly also features a discontinuous gossan striking over 500m, that has highly elevated Ni (up to 0.4% in oxidised shale) as well as Zn and Pb in pXRF data. It is noted that Ni is an element commonly enriched in sediment-hosted base metal systems.

Table 2. Portable XRF results of selected elements

Prospect	East	North	Zn (ppm)	Pb (ppm)	Ni (ppm)	Cu (ppm)
Iapetus	339793	7459901	26	476	<LOD	<LOD
Iapetus	339450	7459985	1578	119	<LOD	<LOD
Iapetus	339386	7459983	5115	97	638	<LOD
Iapetus	339979	7459862	404	45	397	<LOD
Iapetus	339995	7459870	430	<LOD	<LOD	<LOD
Iapetus	340054	7460062	1978	51	<LOD	<LOD
Enceladus	335332	7460745	5774	335	497	196
Enceladus	334885	7460835	2459	162	132	120
Enceladus	334887	7460837	263	75	81	<LOD
Enceladus	334888	7460841	43	<LOD	<LOD	<LOD
Enceladus	334861	7460831	2675	241	<LOD	<LOD
Enceladus	335073	7460942	1225	455	<LOD	<LOD
Rhea	349159	7472942	361	145	4016	<LOD
Rhea	349185	7472820	1270	47	725	<LOD
Rhea	349184	7472834	3733	1388	399	<LOD
Rhea	349180	7472874	1135	267	2180	<LOD
Rhea	349180	7472874	319	551	1139	<LOD
Rhea	349184	7472891	1155	382	1569	<LOD
Rhea	349184	7472891	350	42	770	<LOD
Rhea	349183	7472904	537	90	1430	224
Rhea	349182	7472920	1088	<LOD	3868	<LOD
<LOD – less than limit of detection						

Figure 3. Iapetus gossan

Figure 4. Iapetus gossan forming a prominent ridge

Regional targeting

A new detailed geological interpretation of the project area has indicated that it represents a classic geological setting for Mt Isa-style, sediment-hosted Zn mineralisation.

The project area is located in the Neoproterozoic Amadeus Basin. The stratigraphy of the Amadeus Basin in the project area comprises a lower, terrestrial, oxidised sandstone unit known as the Heavitree Quartzite, which is overlain by the Bitter Springs Formation which comprises a reduced package of shale, carbonate and local evaporates. The Bitter Springs Formation, and particularly its lower parts (which represent a major stratigraphic redox gradient) are the primary target for base metal mineralisation. Within the project area, Bitter Springs Formation rocks are interpreted to occur primarily in a synclinal accumulation, consistent with the presence of a localised reduced sub-basin, which is an important element of the Sediment-hosted Zn targeting model. The recently discovered Teena Zn deposit in the Northern Territory is also closely associated with a synclinal position.

Re-processing of public aeromagnetic data has allowed Cassini to recognise a distinctive stratigraphic horizon, referred to as the Dione Horizon, which has been identified within the lower section of the Bitter Springs Formation and which is characterised at least partly by a subtle magnetic anomaly. This magnetic anomaly is weak and only stands out in contrast to the rest of the Amadeus sediments in the area which are essentially non-magnetic. It is suggested that this magnetic anomaly may represent a concentration of pyrite that lies in an outer halo around the zinc mineralisation.

The primary exploration work completed by Cassini to date has been a 1,000m x 500m spaced, surface geochemical survey over parts of the project considered to have suitable regolith conditions. This program was modelled on the geochemical survey that successfully resulted in the discovery of the Babel-Nebo Ni-Cu deposits in the West Musgrave region in 2000.

The terrain was noted to contain sparse outcrop, and be dominated by eolian sand cover. A fine-fraction (-80# sieve size) soil sample was taken at every location for a total of approximately 1,000 samples. If possible, a lag sample was also collected at the same site. However, there were many sites where this was not possible (ie soil was dominated by eolian material) and only 260 lag samples were collected (generally in the more residual areas).

Future Work Program

The Company has several exploration fronts for future work.

The Iapetus, Enceladus and Rhea targets have been well defined by current sampling and mapping and are ready to be tested by a reconnaissance-style drill program to test for economic primary mineralisation beneath the gossans. The Company will prepare all necessary heritage and environmental approvals as soon as possible.

The current geochemical sample spacing is too broad to identify more subtle exposures of mineralisation or any specific drill targets not associated with subcropping gossan. Therefore an infill geochemical sampling program is required along the prospective target horizon. A works program for heritage approval is currently being prepared.

A magnetic anomaly has been identified north of Enceladus in the interpreted syncline position of the Dione horizon. This is an ideal setting for sedimentary Zn mineralisation, as exemplified by the Teena deposit, recently discovered by Teck in the Northern Territory. The magnetic anomaly could represent pyritic horizons that typically surround sedimentary Zn mineralisation. This conceptual target is known as *Mimas* and is an exploration priority. Mimas is extensively sand covered with no bedrock exposure and therefore requires high-resolution geophysics to assist reconnaissance drill targeting.

For further information, please contact:

Richard Bevan
Managing Director
Cassini Resources Limited
Telephone: +61 8 6164 8900
E-mail: admin@cassiniresources.com.au

Footnote: Iapetus, Enceladus, Rhea and Mimas are four of the larger moons orbiting Saturn. On October 28th 2015, NASA's Cassini spacecraft completed a flyby of Enceladus, an icy world with a global ocean but also with hydrothermal activity that could potentially support simple life.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the X17 Project.

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.*	2014 detailed geochemical survey • Approximately 2,600 soil, lag, rock chip and 2kg bulk (BLEG) samples were collected on a nominal 1km x 0.5km grid. • At each site a -180um sieved soil sample of approximately 200g was collected from a shallow hole (no deeper than 30cm). Depending on the availability of suitable material a surface lag sample of approximately 500g of +2mm material was collected. BLEG samples were collected at each soil site and rock chip samples were collected where material was available. • At each site, a sample description was recorded to specify the surrounding terrain and note if there is outcrop in close vicinity to the sample site. • Of the samples collected, approximately 1,000 soil samples and 260 lag samples were submitted for assay using low-level, multi-element analysis. 2015 follow up field reconnaissance trip • Field reconnaissance was completed to investigate the source of the 2014 soil and lag anomalies. • A portable X-Ray Fluorescence (pXRF) analyser was utilised to confirm zinc and lead anomalism in lag and rock chip samples from each prospect. • Rockchip samples were collected at outcrops close to existing soil and lag anomalies; subsequent traverses were completed along strike of the outcrops and rockchip samples were taken. A total of 38 rockchip samples were collected. • Infill soil (17) and lag (1) samples were collected.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples were collected on a nominal 1km x 0.5km grid. Sample locations were picked up by handheld GPS. Samples were logged for landform and sample contamination. Soil samples were sieved through -180um plastic sieves. Lag samples were sieved through -6mm and -2mm sieves which are stacked together (the material passing through 6mm sieve and retained on the 2mm sieve is sampled). Sampling was carried out under Cassini protocols and QAQC procedures as per industry best standard.
	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 '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	The analytical suite for the soil and lag samples consisted of an aqua regia digest followed by an ICP-AES and ICP-MS finish (Au, Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr) and an aqua regia extraction with a ICP-MS finish

Criteria	JORC Code explanation	Commentary
	where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	for Au (lower detection). Additionally, soil samples had a semi-quantitative scan by pXRF (for As, Ca, Cr, Fe, Mn, Ni, Pb, S and Zn) immediately after sample preparation to identify anomalous samples.
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 of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).*	Not applicable. Results presented are surface geochemical samples, not from drilling.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable. Results presented are surface geochemical samples, not from drilling.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable. Results presented are surface geochemical samples, not from drilling.
	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.	Not applicable. Results presented are surface geochemical samples, not from drilling.
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.*	Not applicable. Surface samples were not logged.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable. Surface samples were not logged.
	The total length and percentage of the relevant intersections logged.	Not applicable. Surface samples were not logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable. Results presented are surface geochemical samples, not from drilling.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable. Results presented are surface geochemical samples, not from drilling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All geochemical samples were prepared for analysis in the field; being sieved to -180um or +2mm, bagged, numbered and sorted. At ALS (Alice Springs) samples were sorted and dried, pulverised to 75µm (85% of sample), dry-sieved to -180 micron (Tyler 80 mesh) screen and both the plus and minus fractions are retained. The sample preparation method used produces a homogenous analytical sub-sample that is fully representative of the material submitted to the laboratory.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Standard Operating Procedures were followed during the collection of the soil and lag samples. Soil material is homogenous and repeatable. If lag material was not available, then a lag sample was not taken.
	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.	During the 2015 reconnaissance field trip pXRF was used to test soil and lag samples within 10m from the 2014 soil and lag sample points, Zinc and Pb results were repeatable and within 15% of the reported laboratory results.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No orientation soil surveys were completed prior to the program, however REFLEX Geochemistry completed a reconnaissance field trip prior to the 2014 soil and lag sampling program to obtain information on the soil and rock profile of the area. The collected information was collaborated to produce a regolith map and to design the soil program and recommend appropriate sampling methodologies, sample types and guidelines.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and	Samples were taken in the field and analysed in the laboratory (ALS, Perth) in accordance with best

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td rowspan="3">Quality of assay data and laboratory tests</td><td>whether the technique is considered partial or total.</td><td>practise industry standard for the medium sampled in the particular environment and is considered appropriate geochemical test work for the mineralisation style.

<u>2014 Geochemical Sampling Program</u>

The analytical suite for the soil and lag samples consisted of an aqua regia digest followed by an ICP-AES and ICP-MS finish (Au, Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr) and an aqua regia extraction with a ICP-MS finish for Au (lower detection).

The element suite with detection limits was Au(0.0002ppm), Ag(0.001ppm), Al(0.01%), As(0.01ppm), B(10ppm), Ba(0.5ppm), Be(0.01ppm), Bi(0.001ppm), Ca(0.01%), Cd(0.001ppm), Ce(0.003ppm), Co(0.001ppm), Cr(0.01ppm), Cs(0.005ppm), Cu(0.01ppm), Fe(0.001%), Ga(0.004ppm), Ge(0.005ppm), Hf(0.002ppm), Hg(0.004ppm), In(0.005ppm), K(0.01%), La(0.002ppm), Li(0.1ppm), Mg (0.01%), Mn (0.1ppm), Mo(0.01ppm), Na(0.001%), Nb (0.002ppm), Ni(0.04ppm), P(0.001%), Pb(0.005ppm), Rb(0.005ppm), Re(0.001ppm), S(0.01%), Sb(0.005ppm), Sc(0.005ppm), Se(0.1ppm), Sn(0.01ppm), Sr(0.01ppm), Ta(0.005ppm), Te(0.01ppm), Th(0.002ppm), Ti(0.001%), Tl(0.002ppm), U(0.005ppm), V(0.1ppm), W(0.001ppm), Y(0.003ppm), Zn(0.1ppm) and Zr(0.01ppm). Aqua regia extraction with an ICP-MS finish for Au was additionally run with a lower detection of 0.0001 ppm.

Additionally, soil samples had a semi-quantitative pXRF scan for (As, Ca, Cr, Fe, Mn, Ni, Pb, S and Zn) immediately after sample preparation to identify anomalous samples.

<u>2015 Geochemical Sampling Program</u>

A Thermo Niton XL3t GOLDD+ portable XRF (pXRF) analyser was used in the field. Handheld XRF analyses are considered to be partial assays.

Samples are still in transit and are yet to be delivered to a laboratory for analysis.</td></tr>
<tr><td>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.</td><td>Portable XRF sampling was carried out using a Thermo Niton XL3t GOLDD+ portable XRF (pXRF) analyser. The pXRF was used on ‘Soil’ mode, using two runs, each with 40 second duration to give a total analysing time of 80 seconds.

The Thermo Niton XL3t GOLDD+ pXRF specifications include an Ag anode (with a tube voltage of 6-50kV and a tube power of 0-200 µA. The detector is a Geometrically Optimized Large Area Drift Detector (GOLDD) proprietor detector with 180,000 throughput cps. The resolution is around 185eV @ 60,000cps. A power source of Lithium ion batteries is used.

A cycle time of 40 seconds in Soil Mode was used and beam times were 30 seconds. Software version 8.2D.

An appropriate standard (OREAS 44P) was used regularly to check the calibration of the instrument.</td></tr>
<tr><td>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.</td><td>2014 Geochemical Sampling Program

• Sample preparation for fineness was carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		• Repeat or duplicate analysis for samples and analysis of CRM results reveals that the precision of samples is within acceptable limits. 2015 Geochemical Sampling Program • Geological staff have been formally trained in pXRF operation; they have practical and relevant experience in their use; and they understand the collection, and monitoring and interpretation of quality control data. • A standard (OREAS 44P) was used regularly to check the calibration of the instrument.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Both the Exploration Manager and the Technical Director of Cassini were present on the 2015 sampling program.
	The use of twinned holes.	Not applicable. Results presented are surface geochemical samples, not from drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Location and sampling data were collected by experienced field assistants under the supervision of a Cassini geologist during the 2014 program. Both the Exploration Manager and the Technical Director of Cassini were present on the 2015 sampling program. Data was entered into Excel spread sheets and the information was sent to Geobase Australia for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data.
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.*	Location data for soil sampling points was recorded by handheld GPS (±3m accuracy). Location data is downloaded from handheld GPS using appropriate software.
	Specification of the grid system used.	The grid system for the West Arunta Project is MGA_GDA94, Zone 52.
	Quality and adequacy of topographic control.	Topographic data was obtained from public download of the relevant 1:250,000 scale map sheets. The area exhibits subdued relief with undulating sand dunes and topographic representation is considered sufficiently controlled.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Soil samples were collected on a 1km x 0.5km nominal grid layout.
	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.	Sample spacing was deemed appropriate for identifying geochemical anomalies but could not be used to establish geological and grade continuity. It would not be appropriate to use this information in a Mineral Resource or Ore Reserve estimation capacity.
	Whether sample compositing has been applied.	No 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.*	The sample grid was orientated at 45°, roughly orthogonal to the regional geological fabric and structures.
	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.	Not applicable. Results presented are surface geochemical samples, not from drilling.
Sample security	*The measures taken to ensure sample security.*	Samples were collected and prepared in the field by an experienced field and geological staff. The sample chain of custody is managed by Cassini. XM Logistics delivered the samples to ALS, Alice Springs. Cassini staff delivered the samples to a

Criteria	JORC Code explanation	Commentary
		recognised freight service in Kalgoorlie whom delivered the samples to the assay laboratory in Perth. Tracking sheets track the progress of batches of samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Consulting firm REFLEX Geochemistry provided soil and lag sampling standard operating procedures which were followed in the field. To date there has not been an audit of data.

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 West Arunta Project comprises three contiguous Exploration Licences, E80/4749, E804796 and E80/4813. All Exploration Licences are held by Crossbow Resources Pty Ltd, a wholly owned subsidiary of Cassini. The tenements lie within the jurisdiction of the Ngaanyatjarra Land Council within Reserve 40783 for the Use and Benefit of Aboriginal Inhabitants.
	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.	All tenements are in good standing and have a Mineral Exploration and Land Access Agreement in place with the Ngaanyatjarra Land Council. No Mining Agreement has been negotiated.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Minimal historical exploration is recorded within the area covered by the West Arunta Project. Most of the exploration in this region has been conducted by government agencies. CRA Exploration Pty Ltd completed three aircore holes in the southern portion of the Project to test magnetic anomalies thought to be potential kimberlite pipes. These holes returned anomalous level of Zn and Pb.
Geology	*Deposit type, geological setting and style of mineralisation.*	The West Arunta Project is located on the western edge of the Palaeoproterozoic Aileron Complex of the Arunta Orogen in the North Australian Craton of Western Australia. The stratigraphy of the Amadeus Basin in the Project area comprises a lower terrestrial, oxidised sandstone unit known as the Heavitree Quartzite, which is overlain by the Bitter Springs Formation which comprises a reduced package of shale, carbonate and locally evaporites. The Project is considered prospective for sediment-hosted base metal deposits. The Bitter Springs Formation is the primary target for base metal 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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	Not applicable. Results presented are surface geochemical samples, not from drilling.
	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	Not applicable. As above

Criteria	JORC Code explanation	Commentary
	explain why this is the case.	
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.*	Not applicable. Results presented are single point data from surface geochemical samples, not from drilling.
	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.	Not applicable. Results presented are single point data from surface geochemical samples, not from drilling.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are currently being used for reporting exploration results.
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').*	Not applicable. Results presented are single point data from surface geochemical samples, not from drilling.
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.*	Refer to Figures in body of text.
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.*	All results are reported.
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.*	All relevant exploration data is shown on figures, in text and Annexure 1.
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.*	A follow up exploration work program is being planned and is likely to include a an aeromagnetic survey, infill geochemical soil and lag sampling and a reconnaissance drill program. All relevant diagrams and inferences have been illustrated in this report.