11 June 2015

SOR Targets WA Desert for Meteorite Impact Mineral Deposits

ASX listed Strategic Elements (SOR) will fund exploration of two projects covering potential **impact structures** caused by **meteorites** striking the Great Victoria Desert over a hundred million years ago. Meteorite impact structures potentially contain mineral deposits (e.g. copper, nickel, uranium, gold, diamonds) due to the enormous energy, heat and pressure created by the impact.

The projects were generated in collaboration between 100% owned Maria Resources and Dr Franco Pirajno, one of Western Australia's most respected geologists. As well as fieldwork on impact structures Dr Pirajno has published a book on hydrothermal processes and mineral systems including impact structures and written several peer reviewed papers on impact structures.

Company Comment

Managing Director Charles Murphy said, "Although the memory technology project is front and centre it is important for investors to remember there is more potential value in the Company. The two new projects are a fantastic addition by Dr Pirajno and the team and they could provide large scale upside for the Company as a whole".

Impact Structures

Meteorite impact is an extraordinary planetary process involving vast amounts of energy and extreme stress strain rates, causing immediate rises in pressure that produce fracturing, disruption and structural re-distribution of target materials.

Although not widely known in Australia as targets for exploration, meteorite impact structures are well recognised overseas to be associated with **significant** mineral resources. One of the most prominent deposits related to impact are gold deposits of the Witwatersrand Basin, which has produced approx. 40% of all gold mined on Earth[1].

The world class Nickel Copper Sulphide deposits in **mafic ultramafic intrusions** of the large Sudbury impact structure are also prominent. However there are numerous other deposits (Carswell Uranium, Ternovka Iron Ore-Uranium etc.) that are linked with impact structures.

The largest Zinc mine in Australia (Century Mine) was located directly adjacent to the Lawn Hill Impact Structure, although there is debate over the exact relationship. It is reported that impact structures in excess of 5-10km diameters represent potential exploration targets[1].

Lennis Project – Great Victoria Desert, WA

The Lennis Project covers 362 km^2 of ground lodged in the Great Victoria Desert over a potential meteorite impact structure and affected surrounding area. According to meteorite impact experts Iasky and Glikson, Lennis has a 20km diameter multi-ringed magnetic anomaly with the characteristics of a meteorite impact structure[2].

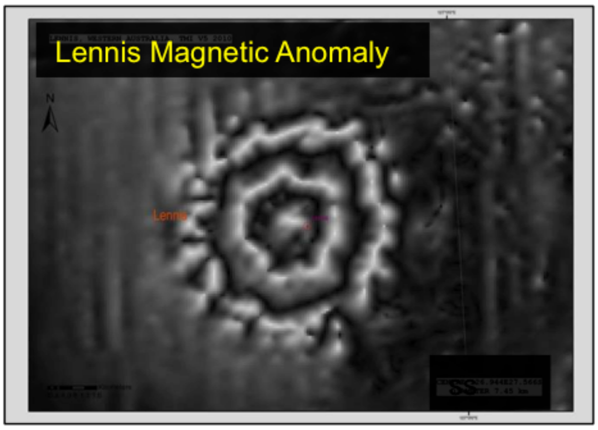
Imperial College calculations based on diameter predict that the potential meteorite was travelling at 17 kilometres per second producing energy roughly equivalent to 6780 mega tonnes of TNT[3], over six times more than the largest earthquake in history.

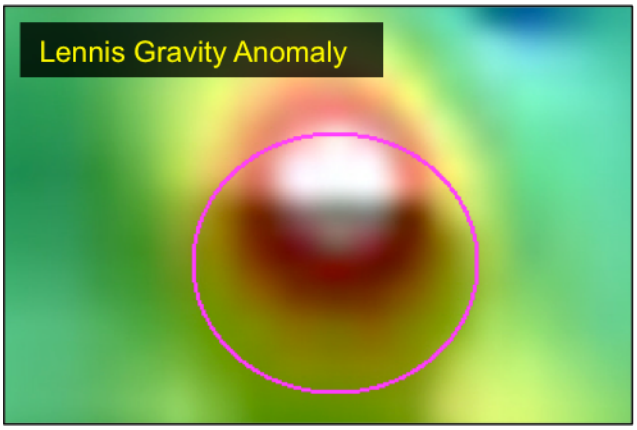
Lennis Project – Highly Prospective for Mafic-Ultramafic Magmatic Sulphides

Lennis is highly prospective for nickel-copper-platinum in massive sulphides due to a distinctive, strong positive gravity anomaly located **within** the potential impact structure.

Geoscience Australia interpreted multiple intrusions of the Albany Fraser Orogeny in the area around Lennis[7]. **Albany Fraser mafic-ultramafic intrusions** are well known to the market from the outstanding success of Sirius Resources and their rich Nova deposit. The nature of the gravity anomaly at Lennis is consistent with a **mafic-ultramafic intrusion** or area of dense alteration.

The gravity anomaly at Lennis is adjacent to the centre of the potential impact structure and is interpreted as an intrusive unit that may have been uplifted closer to surface during the Lennis impact event. It is notable that at the Carswell Impact Structure (Canada) uranium ore was reportedly uplifted by 2km[1]. Notably world-class deposits of nickel copper sulphides occur in mafic-ultramafic intrusions at the Sudbury Impact Structure.





Lennis Project – Prospective for Hydrothermal Vein Mineralisation

Only one Company (CRA, 1992) has explored the area, however they did not report an impact structure and positioned their 5 drill holes aimed at exploring for diamonds[4]. The gravity anomaly and most of the Lennis project were not tested in drilling for impact related deposits.

The heat energy produced by the impact results in the circulation of hydrothermal fluids capable of carrying ore minerals.

Analysis of CRA data from drill hole 90RCLE002 revealed **56m of highly anomalous manganese** from 24m to the bottom of the hole at 80m (see table).

The consistent manganese indicates a heat driven hydrothermal system exists within the potential impact structure and increases the prospect of metals (base metals, cobalt, gold, manganese) being present in hydrothermal veins.

Lennis Project – Other Hydrothermal Related Mineralisation

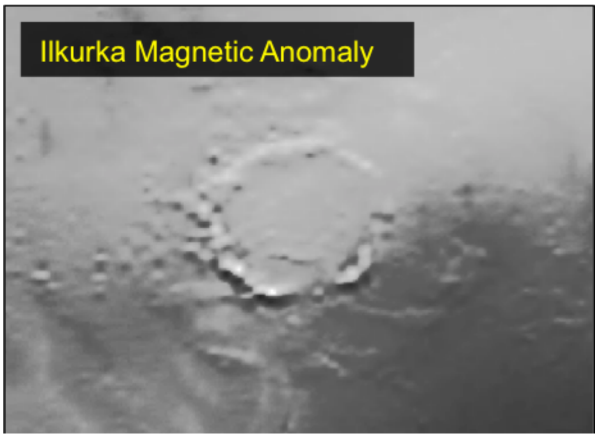
There is potential for Uranium mineralisation in black bitumen nodules within Lennis such as those reported at the Krivoy Rog impact structure[5] (Ukraine).

Some evidence of this exists at Lennis in CRA drill hole 90RCLE002 where anomalous Uranium, Cerium and Thorium values (see table) are associated with an "unidentified black mineral".

Ilkurka Project – Great Victoria Desert, WA

The second project called Ilkurka (*ilkurka*) covers 120 km^2 of ground lodged in the Great Victoria Desert over a potential meteorite impact structure and affected surrounding area. Ilkurka is approx. 80km southeast of the Lennis project. As reported by Iasky and Glikson, Ilkurka displays a 15km diameter magnetic anomaly with the characteristics of a meteorite impact structure[6].

As with Lennis, Geoscience Australia interpreted multiple intrusions of the Albany Fraser Orogeny in the area around Ilkurka[7]. However there is no relevant gravity survey available and there has been no drilling. CRA conducted ground magnetics for diamonds but decided against drilling.

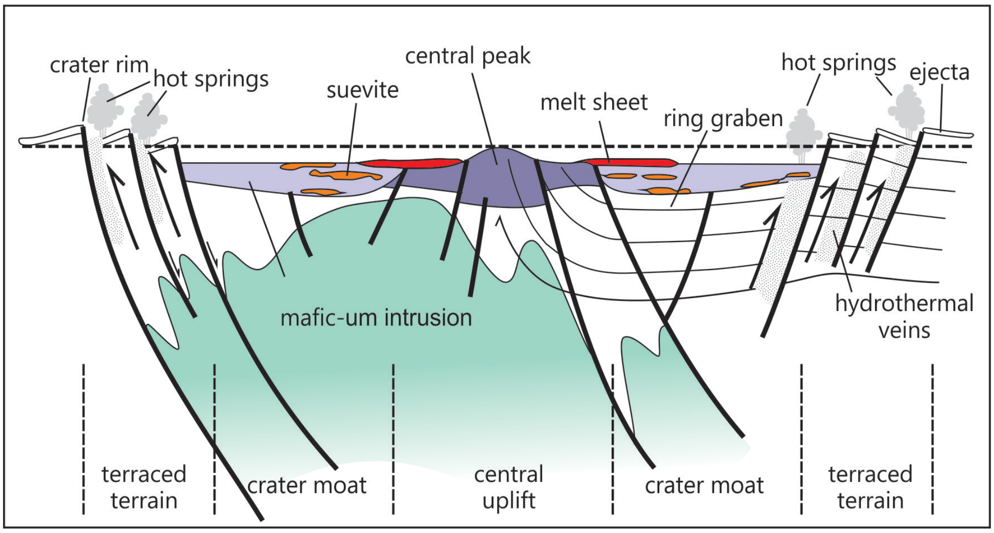


Dr Franco Pirajno visited Ilkurka in 2004 on a solo expedition across several WA Deserts whilst he was a Senior Geoscientist in the Geological Survey of Western Australia. He found it covered by sediments and no sampling was conducted.

As Ilkurka is unexplored and covered by sediments at surface there is no published data relating to the potential impact structure.

Ilkurka is a totally untested potential meteorite impact structure situated in a favourable location for mafic-ultramafic related nickel-copper-platinum and 100% owned Maria Resources intends to be the first explorer to drill into it.

Lennis and Ilkurka Exploration Model



The conceptual model above from Grieve[6] was modified by Dr Franco Pirajno to show an uplifted mafic-ultramafic intrusive to be targeted for magmatic sulphides containing nickel-copper-platinum. It also shows potential hydrothermal related areas to be targeted for base metals, cobalt, gold and uranium.

The existing gravity anomaly at Lennis is the priority target for drilling. However it is possible that smaller, shallower, higher density bodies / zones may be present but were not identified or defined by the existing wide spaced gravity readings.

360km^2 of ground has been applied for covering the Lennis project and 120km^2 of ground covering the Ilkurka project. It is intended for the first work program to include a detailed gravity survey at Lennis and an initial wider spaced survey at Ilkurka to uncover anomalies to be followed up with drilling.

About Maria Resources

Maria Resources is collaborating with world leading geologist Dr Franco Pirajno to explore Western Australia for mineral systems and models more commonly found overseas.

Maria Resources initial project in the Gibson and Great Victoria Deserts is seeking a style of copper-silver-cobalt known in central-eastern Europe as Kupferschiefer (PKS) that are the second most important style of copper deposits in the world. The Officer Project has applied for over 700km^2 of unexplored ground with over 190km of outcrop for low cost and effective sampling. Highly anomalous copper in several historic drill holes drilled 8 km apart with all the hallmarks of PKS provide a clear exploration focus. 'Discovery from overseas models in WA frontiers'.

Maria Resources has just announced the addition of the Lennis and Ilkurka projects, which will target potential meteorite impact structure related mineralisation in the Great Victoria Desert. Both projects potentially have uplifted Albany Fraser Orogeny mafic-ultramafic intrusives to be targeted for magmatic sulphides containing nickel-copper-platinum. Further potential for hydrothermal related base metals, cobalt, gold and uranium also exists.

About Strategic Elements

Strategic Elements is a unique vehicle listed under the code **"SOR"** on the Australian Stock Exchange and has a dual resources and technology exposure. In the technology sector the Company has recently agreed to back a revolutionary memory technology developed at the University of NSW.

Strategic Elements is registered by the Australian Federal Government under a special program to encourage investment into Australian SME's. The Company's registration as a Pooled Development Fund provides most shareholders with tax-free capital gains when they sell their shares and tax-free dividends.

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References

1. W. U. Reimold, C. Koeberl, R. L. Gibson, & B. O. Dressler, 2005, “Economic Mineral Deposits in Impact Structures: A Review”. Impact Tectonics, Impact Studies, pp 479-552.
2. R. Lasky & A. Y. Glikson, 2004, “New possible buried impact structures in the Carnarvon and Officer Basins, Western Australia”. Geological Society of Australia Abstracts 73, 235.
3. R. Marcus, H. J. Melosh, G. Collins, 2005, “Earth Impact Effects Program: A Web-based computer program for calculating the regional environmental consequences of a meteoroid impact on Earth”. Meteoritics and Planetary Science 40, Nr 6, pp 817-840.
4. M. R. Duncan, 1991, “Annual and final report on Okely Exploration Licences 69/444-445 & 447-449 Lennis 1: 250 000 Mapsheet, Western Australia”. Geoview Western Australia.
5. C. Koeberl & H. Henkel, 2005, “Impact tectonics”. Springer, Berlin.
6. R. A. F Grieve, 1987, “Terrestrial impact structures”. Annual Reviews of Earth and Planetary Science, 15, 245-270.
7. C. D’Ercole, F. Irimies, A. M. Lockwood, and R. M. Hocking, 2005, “Geology, geophysics, and hydrocarbon potential of the Waigen Area, Officer Basin, Western Australia”. Western Australia Geological Survey, Report 100.

Table

CRA hole 90RCLE002: East 296200 North 6945860 Depth 80m

Sample	Depth		Mn	Co	Ni	Cu	Zn	Ce	Th	U
	From	To								
2736251	0	2	48.9	3.1	9	3	85	13.6	6.2	0.9
2736252	2	14	34.1	2.1	5	-2	44	17.6	7.9	3.37
2736253	14	16	46.9	2	-5	6	38	8.8	21.9	5.73
2736254	16	20	110	8.8	7	6	78	10.3	17.2	4.69
2736255	20	24	159	34	17	9	149	23.5	10.7	3.89
2736256	24	26	1570	61	32	38	344	12.8	9.9	5.34
2736257	26	28	1310	63.4	37	82	256	45.4	9	6.34
2736258	28	30	1053	47.9	32	82	235	85.3	9.2	5.95
2736259	30	32	1530	50.9	33	62	132	90	8.7	6.64
2736260	32	34	1900	62.1	31	50	187	157	9.2	8.87
2736261	34	36	4210	104	43	52	246	178	8.6	13.4
2736262	36	38	2950	113	54	55	331	113	8.9	11.1
2736263	38	44	149	19.4	13	21	124	74.7	11.9	6.13
2736264	44	48	2120	27.1	30	95	121	77.1	14.9	14.9
2736265	48	60	2440	20.5	32	20	101	84.9	17.9	8.12
2736266	60	70	2600	10.1	19	5	77	66.3	14.3	4.47
2736267	70	80	1780	11.2	22	15	75	81.4	17.2	4.46

CRA hole 90RCLE004: East 296725 North 6949465 Depth 148m (included as reference)

Sample	Depth		Mn	Co	Ni	Cu	Zn	Ce	Th	U
	From	To								
2736279	0	2	154	8.4	15	11	23	75.5	38.3	2.08
2736280	2	4	67.4	7.7	13	5	24	107	54.1	2.13
2736281	4	16	35.4	1.7	12	-2	17	15.7	5.9	0.84
2736282	16	24	78.9	3.8	12	12	116	35.4	10.7	1.6
2736283	24	32	724	30	27	15	221	51.9	10.3	1.67
2736284	32	42	361	19.9	30	20	135	68.1	14.5	2.18
2736285	42	52	247	15.6	25	20	69	66.3	13.7	1.99
2736286	52	62	94.9	8.4	16	15	70	69.1	14.3	2.09
2736287	62	76	91.9	9.8	22	15	46	71.8	15.3	2.95
2736288	76	86	134	11.4	18	18	62	64.7	14	2.22
2736289	76	92	913	4.9	12	6	95	18.2	3.4	1.1
2736290	92	96	325	4.5	16	14	207	27	6	1.68
2736291	96	106	99.9	2.9	11	3	141	24.8	5.1	1.23
2736292	106	110	959	6	14	10	143	21.9	4.7	1.51
2736293	110	120	377	3.4	6	-2	119	16.7	3.5	1.23
2736294	120	124	142	2.1	7	-2	83	12.9	3.2	0.96
2736295	124	134	149	2.4	8	-2	28	10.9	2.3	0.67
2736296	134	142	190	4.5	29	2	34	11.4	2.4	0.52
2736297	142	148	160	2.5	10	-2	23	9.3	2	0.61

Regulatory

Competent Person
The information in this announcement that relates to Exploration Results is based on information compiled by Franco Pirajno, who is a Member of the Australian Institute of Geoscientists. Franco Pirajno is a consultant geologist and stock option holder in the Company. Mr Pirajno has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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'. Franco Pirajno consents to the inclusion in the report of the matters based on his information in the form and context in which it appears"

CRA Exploration results referred in this announcement are publically available and can be found in the Western Australian Minerals Reporting System (WAMEX), details of the drill holes referred to in this announcement are summarised below and described within the JORC Table 1 appended to this announcement.

JORC TABLE 1
Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	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 '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• *Drill results referred to within this Announcement were originally reported by CRA Exploration their final report for Exploration Licences 69/444-445, 69/447-449. Within this announcement the Company refers to one specific drill hole (90RCLE002) and includes a second drill hole for further reference (90RCLE004). CRA conducted exploration within Exploration Licences 69/444-445, 69/447-449, however did not report an impact structure. The exploration and drill holes were positioned for diamonds.* • *CRA Exploration undertook RC percussion, drilling was undertaken by Drilling Engineers Pty Ltd in September 1990.* • *The Company has prepared a JORC Table 1 (Section 1 & Section 2) solely to provide the reader of this public announcement further information on drilling activities conducted by CRA Exploration referred to in this announcement.*
Drilling techniques	• *Drill type (eg core, reverse circulation, 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).*	• *CRA Exploration undertook RC percussion drilling.*
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• *Geochemical samples were analysed by Analabs and disclosed within the Report.*
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral*	• *All logging data is disclosed within the Report.*

Criteria	Explanation	Commentary
	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.*	
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.*	• *Exact details of the sampling techniques and preparation are not disclosed within the CRA report and would likely have been proprietary practices within CRA Exploration at the time.*
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• *Geochemical samples were analysed for:* - *Au, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Zr, Nb, Mo, Ag, Ce, Pt, Pd, Pb, Bi, Th, U*
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.*	• *No twinned holes were drilled, all holes were in areas which had never been drilled.*
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.*	• *All drill locations were recorded and mapped by CRA Exploration Pty Ltd within the Report. CRA Exploration recorded locations in Northing and Eastings.*
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• *The two holes were drilled approx. 3.5km apart, the Company does not infer mineralisation extends between or beyond the two holes reported.*

Criteria	Explanation	Commentary
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.*	• *The two holes were designed and oriented to test kimberlites and lamproites.*
Sample security	• *The measures taken to ensure sample security.*	• *Exact details of how sample security was maintained as this is not disclosed within the CRA report and would likely have been proprietary practices within CRA Exploration at the time.*
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *Exact details of audit practices are not disclosed within the CRA report and would likely have been proprietary practices within CRA Exploration at the time.*

Section 2 Reporting of Exploration Results

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

Criteria	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.*	• *CRA Exploration held Exploration Licences 69/444-445, 69/447-449 in the Lennis district of Western Australia. CRA Exploration relinquished the licences after reporting to the Mines Department in Feb 1991.*
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	*Exploration has been previously carried out by :* • *CRA Exploration*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *Exploration Licences 69/444-445, 69/447-449 in the Lennis district of Western Australia, within the Officer Basin.* • *CRA reported that the Lennis Mapsheet is characterised by an extensive cover of Cainozoic ferruginous sediments and soil and Quaternary east-west trending longitudinal sand dunes with limited outcrop. The oldest units exposed are interbedded bleached quartz sandstones and siltstones of the Lower Palaeozoic Wanna Beds in the centre of the mapsheet.*

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.*
	• *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*
		• *See the Table in the body of the Announcement for details.*
		• *The elevation of the drill hole collars and the dip and azimuth is unknown.*

Criteria	Explanation	Commentary
	Person should clearly 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.* • *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.*	• *Assay results are reported for the drill cores.* • *CRA reported assay samples for each hole.*
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').*	• *The orientation or geometry of the drill holes has not yet been established.* • *Down hole length and true width is not known.*
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.*	• *CRA Exploration's report includes maps. The two drill holes are not related to a significant discovery.*
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.*	• *Reporting of all relevant results has been provided in this announcement.*
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.*	• *Not relevant for data reported as CRA were primarily exploring for diamonds.*
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.*	• *Further work has not been decided.*