



ASX Announcement

20 October 2014

Ranger 3 Deeps Exploration Decline project

Further underground drilling results released

- Six additional cross sections of underground close-spaced drilling of the Ranger 3 Deeps mineral resource completed.
- Significant intercepts include:
 - o R3D_12C_010 50m @ 0.803% eU3O8 from 110 metres
 - o R3D_13C_013E 53m @ 0.649% eU3O8 from 107 metres
 - o R3D_13C_005 64m @ 0.515% U3O8 from 106 metres
 - o R3D_13C_019 44m @ 0.650% eU3O8 from 115 metres
 - o R3D_13C_012 40m @ 0.707% eU3O8 from 112 metres
- Results are in line with the current geological model and structural interpretation

Energy Resources of Australia Ltd (ERA) has completed an additional six cross sections of underground close-spaced drilling of the Ranger 3 Deeps resource on the Ranger Project Area. These sections comprise 27 drill holes from sections 11675mN (Cuddy 12C North), 11650mN (Cuddy 12C Central), 11625mN (Cuddy 12C South), 11600mN (Cuddy 13C North), 11575mN (Cuddy 13C Central) and 11550mN (Cuddy 13C South) totaling 4,854.2 metres.

The downhole collar location and survey results of the recent drill holes are outlined in Appendix 1.

These underground drilling results are consistent with the expected geological understanding of the continuity of the mineral resource within this zone.

The results of the sections of the underground drilling programme are outlined below. These results should be read in conjunction with the JORC Code 2012 Edition – Table 1, outlined in Appendix 2 of this announcement. On completion of the Ranger 3 Deeps Prefeasibility Study, ERA will be in a position to finalise the Ranger 3 Deeps resource model and make appropriate adjustments to the mineral resource statement.

On 17 September 2014, ERA released an updated resource model estimate for Ranger 3 Deeps. The cross sections in this announcement provide additional detail on the geological interpretation used in the ore body modelling process for Ranger 3 Deeps. The underground close-spaced drilling program is now complete. There are a further ten cross sections to be finalised which will be released in due course.



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Ranger 3 Deeps project

In August 2011, the ERA Board approved the construction of the Ranger 3 Deeps Exploration Decline to conduct underground close-spaced drilling to further define and evaluate the Ranger 3 Deeps resource. Construction of the decline began in May 2012 and underground drilling commenced in May 2013.

In addition, ERA commenced a Prefeasibility Study on the proposed Ranger 3 Deeps underground mine in July 2012. The study is on schedule to be completed by the end of 2014 and is scheduled to be considered by the ERA Board in the first quarter of 2015.

Pursuant to ERA's section 41 Authority, it is permitted to conduct mining and processing operations on the Ranger Project Area until January 2021, following which rehabilitation activities will continue. Further details of the tenure held over the Ranger Project Area and environmental regulations are outlined in the JORC Code 2012 Edition – Table 1, outlined in Appendix 2 of this announcement.

Drilling Programme

The main objectives of the Ranger 3 Deeps underground drilling programme are to:

- (a) increase confidence in the known mineralisation to allow conversion to a mineral resource;
- (b) understand the distribution and abundance of deleterious minerals such as carbonate;
- (c) support the development of prefeasibility level mine plans; and
- (d) explore those prospective areas with less historical drilling, particularly at the northern end of the deposit.

All drill holes are drilled from positions in dedicated drilling drives, or cuddies, sufficient in size to adequately house the drilling operations. Drilling fans are oriented in a direction of approximately 240 degrees and arranged in vertical and inclined fans (Figure 1). Cuddy depths for the drilling program range from -120 metres to -310 metres from the surface.

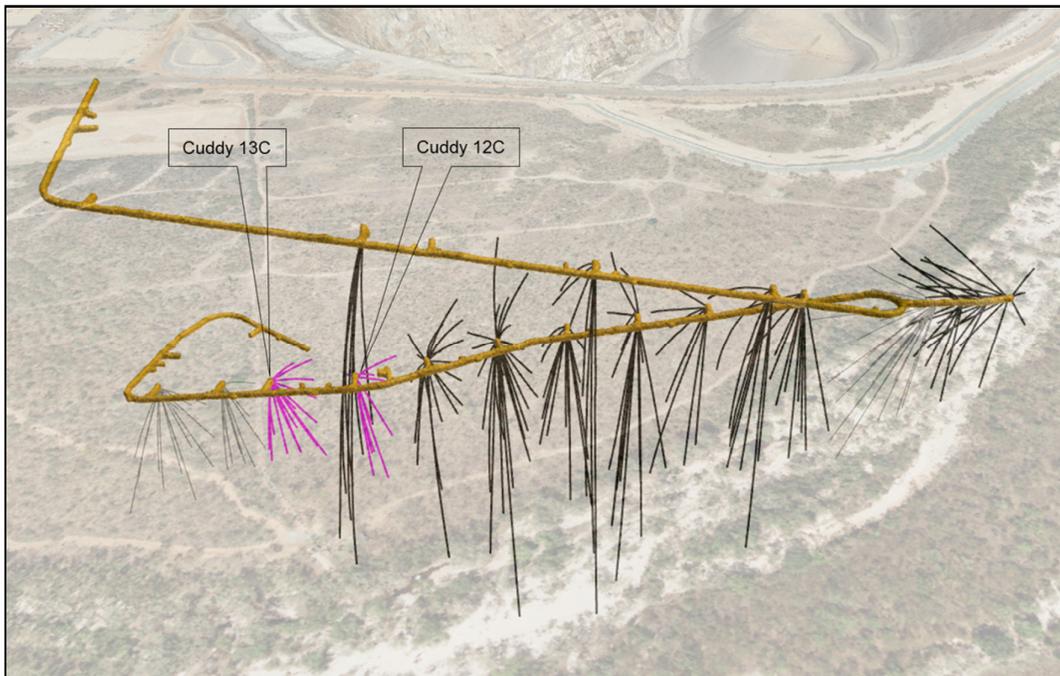


Figure 1 – Location of Cuddies 12C and 13C from which drilling has recently been completed. (Pink lines are for drill holes relevant to this announcement; black lines are for drill holes from previous announcements; grey lines are for drill holes for upcoming announcements).

- Three drill sections were undertaken from Cuddy 12C (Cuddy 12C North, Cuddy 12C Central and Cuddy 12C South, at dip angles of 70 degrees to the north and 90 degrees and 70 degrees to the south respectively).
- Three drill sections were undertaken from Cuddy 13C (Cuddy 13C North, Cuddy 13C Central and Cuddy 13C South, at dip angles of 70 degrees to the north and 90 degrees and 70 degrees to the south respectively).

Drill intersections from all drill drives have been interpreted and are shown in Figures 2 to 7.

Significant mineralised intervals are shown at a cut-off grade of 0.12% U_3O_8 . Results from all drill drives support and add resolution to the current Ranger 3 Deeps geological model. The width and grade of the reported significant intersections are broadly in line with results from previous surface drilling.

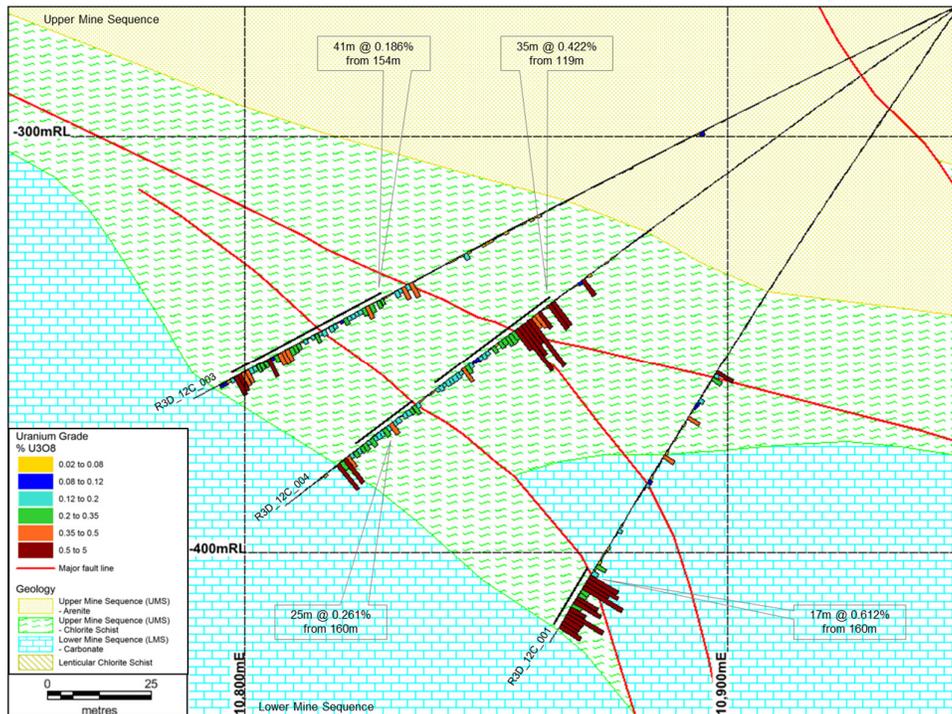


Figure 2 – Interpreted cross section showing the drilling results from Cuddy 12C North.
(Includes gamma equivalent and chemical assay results)

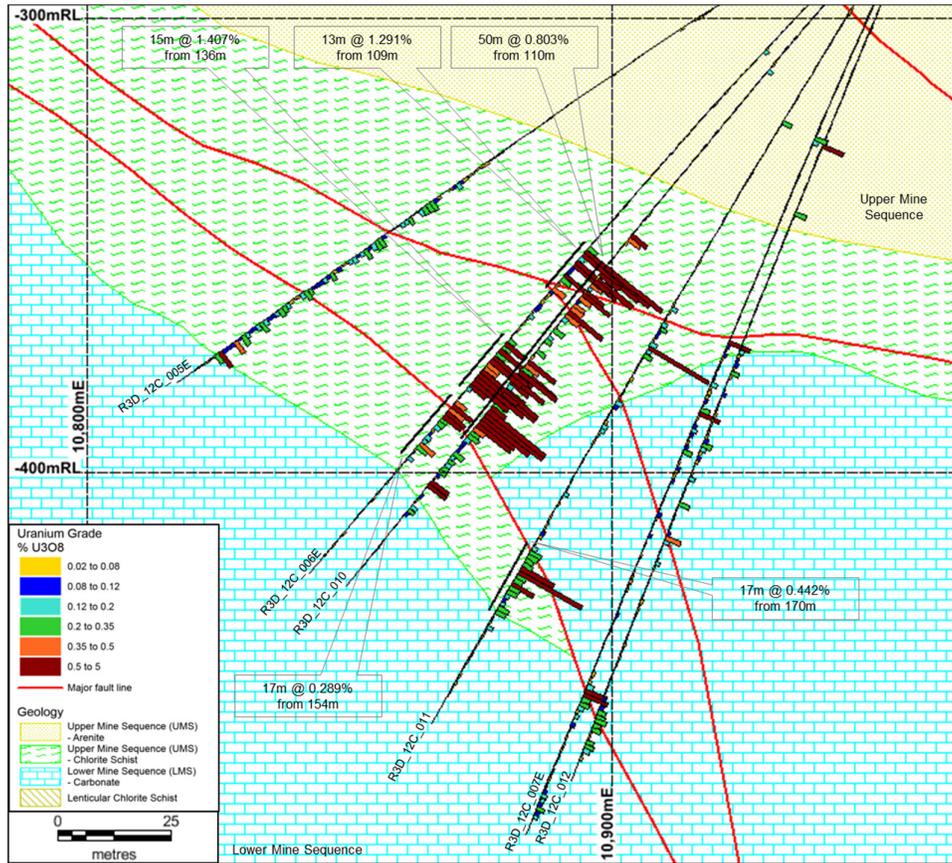


Figure 3 – Interpreted cross section showing the drilling results from Cuddy 12C Central. (Includes gamma equivalent and chemical assay results)

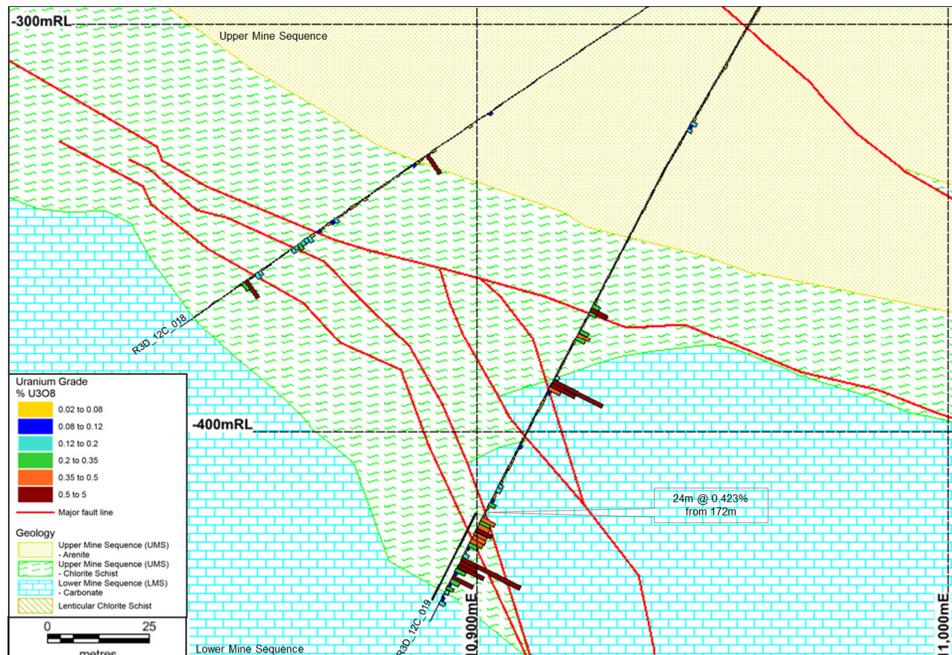


Figure 4 – Interpreted cross section showing the drilling results from Cuddy 12C South. (Includes gamma equivalent and chemical assay results)



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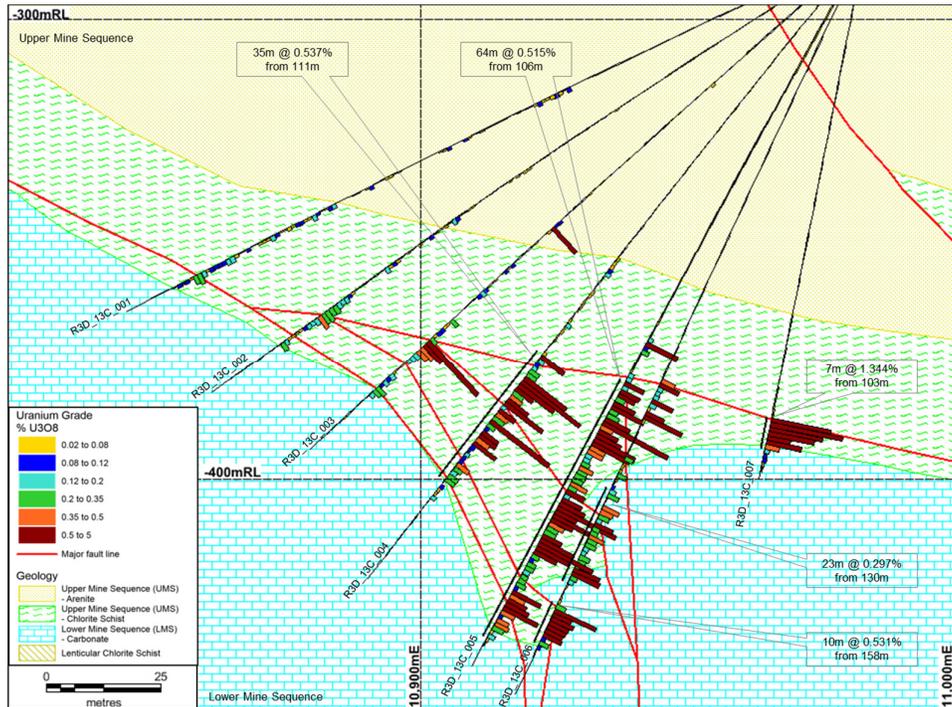


Figure 5 – Interpreted cross section showing the drilling results from Cuddy 13C North. (Includes gamma equivalent and chemical assay results)

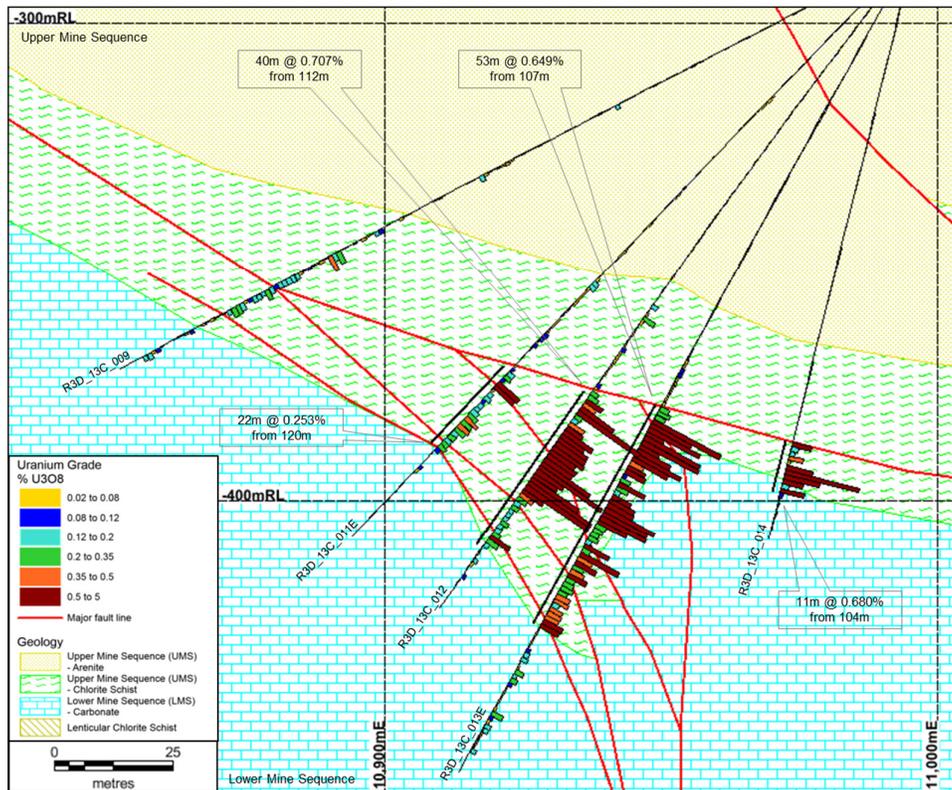


Figure 6 – Interpreted cross section showing the drilling results from Cuddy 13C Central. (Includes gamma equivalent and chemical assay results)

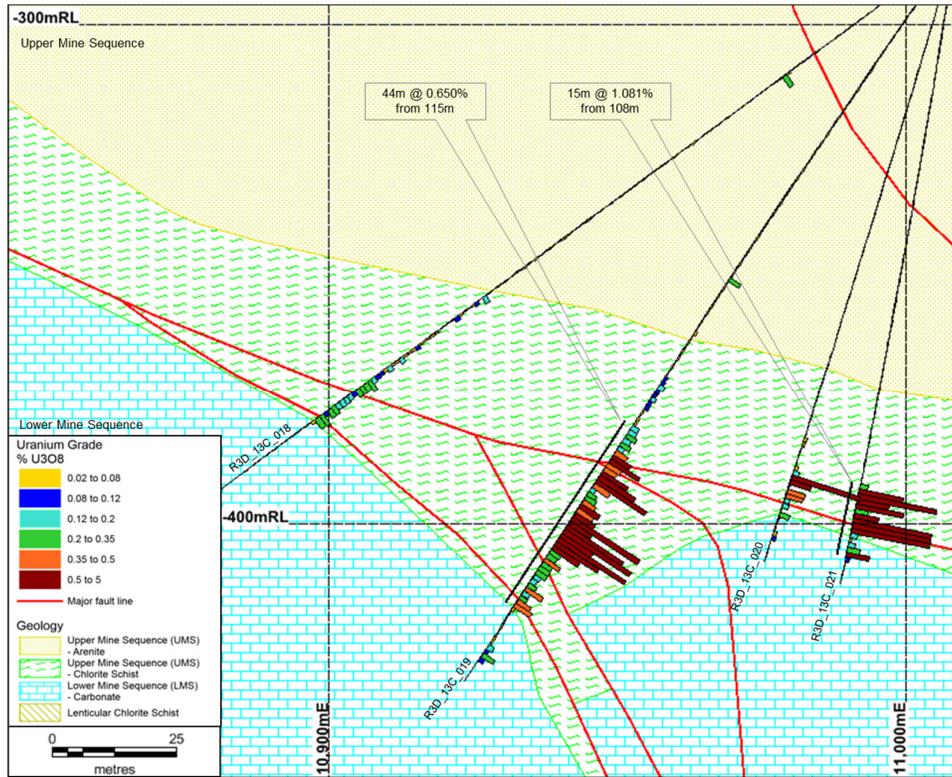


Figure 7 – Interpreted cross section showing the drilling results from Cuddy 13C South.
(Includes gamma equivalent and chemical assay results)

In line with current ERA procedures, a downhole geophysical gamma sonde is deployed internally within the drill rod string and subsequently in the open hole (subject to ground conditions). Geophysical measurements (gamma logging) are recorded every 0.05 metres and composited into one metre intervals to provide an equivalent U_3O_8 grade (referred to as eU_3O_8).

Samples for subsequent geochemical assays are selected on the basis of these downhole geophysical measurements. Intervals that have equivalent grades above 0.02% eU_3O_8 are automatically assigned for assaying, plus two samples above and below the triggered interval.

The significant results from the latest drill holes are presented in Table 1. The table includes eU_3O_8 results from gamma probing and geochemical analysis (ICPMS - U_3O_8 _G422M_ppm) of U_3O_8 . In time all eU_3O_8 will be replaced by geochemical assays effectively overriding the gamma probing analysis. The results are in line with the expectations from these drilling sections and will be used to give more confidence in the location of the mineralisation. Significant high grade intersections are in line with the expected continuity of mineralisation.

HOLE ID	FROM (m)	TO (m)	WIDTH (m)	GRADE % U_3O_8	METHOD
R3D_12C_001	160	177	17	0.612	Geochemistry
R3D_12C_003	154	195	41	0.186	Geochemistry
R3D_12C_004	119	154	35	0.422	Geochemistry
R3D_12C_004	160	185	25	0.261	Geochemistry
R3D_12C_006E	109	122	13	1.291	Gamma



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HOLE ID	FROM (m)	TO (m)	WIDTH (m)	GRADE % U ₃ O ₈	METHOD
R3D_12C_006E	136	151	15	1.407	Gamma
R3D_12C_010	110	160	50	0.803	Gamma
R3D_12C_011	170	187	17	0.442	Gamma
R3D_12C_019E	172	196	24	0.423	Gamma
R3D_13C_004	111	146	35	0.537	Gamma
R3D_13C_005	106	170	64	0.515	Geochemistry
R3D_13C_006	130	153	23	0.297	Gamma
R3D_13C_006	158	168	10	0.531	Gamma
R3D_13C_007	103	110	7	1.344	Geochemistry
R3D_13C_011E	120	142	22	0.253	Gamma
R3D_13C_012	112	152	40	0.707	Gamma
R3D_13C_013E	107	160	53	0.649	Gamma
R3D_13C_014	104	115	11	0.68	Gamma
R3D_13C_019	115	159	44	0.65	Gamma
R3D_13C_021	108	123	15	1.081	Gamma

Table 1: Significant results from Cuddies 12C and 13C.

Notes:

- A. *All intersections were determined using a 0.12% U₃O₈ cut-off at a minimum five metres composite, including a maximum of two metres of non-mineralised internal material. Intersections are downhole lengths and the true width of the intersections has not been calculated.*
- B. *Results include eU₃O₈ results from gamma probing and geochemical results using ICPMS - U3O8_G422M_ppm.*

Competent Person

The information in this report relating to exploration results is based on information compiled by Greg Rogers and Stephen Pevely, Competent Persons who are members of the Australasian Institute of Mining and Metallurgy. Greg Rogers and Stephen Pevely are full-time employees of ERA and have sufficient experience that 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'. Greg Rogers and Stephen Pevely consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.



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About Energy Resources of Australia Ltd

Energy Resources of Australia Ltd (ERA) is one of the nation's largest uranium producers and Australia's longest continually operating uranium mine.

ERA has an excellent track record of reliably supplying customers. Uranium has been mined at Ranger for three decades. Ranger mine is one of only three mines in the world to produce in excess of 110,000 tonnes of uranium oxide.

ERA's Ranger mine is located eight kilometres east of Jabiru and 260 kilometres east of Darwin, located in Australia's Northern Territory.

ERA is a major employer in the Northern Territory and the Alligator Rivers Region.

Located on the 79 square kilometre Ranger Project Area, Ranger mine is surrounded by, but separate from, the World Heritage listed Kakadu National Park.

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Appendix 1

Drill hole collar summary

Hole ID	AMG Easting GDA94	AMG Northing GDA94	GDA Reduced Level	Depth (metres)	Azimuth	Dip
R3D_12C_001	274686.1325	8597698.15	-270.126	181.1	250.8	-55.2
R3D_12C_003	274685.5545	8597697.977	-269.328	206	243.1	-24.5
R3D_12C_004	274685.7437	8597698.02	-269.641	200.8	245.5	-35.2
R3D_12C_005E	274685.6927	8597697.662	-269.553	198	238.3	-29.9
R3D_12C_006E	274686.1088	8597697.932	-269.893	204	239.8	-45
R3D_12C_007E	274686.2661	8597697.804	-269.937	227.8	244.6	-66.1
R3D_12C_010	274686.5328	8597698.323	-270.099	201	234	-49.2
R3D_12C_011	274686.4523	8597697.947	-270.1	215	234	-58.1
R3D_12C_012	274686.7384	8597697.998	-270.098	212.8	234.2	-68.4
R3D_12C_018	274686.0584	8597697.022	-269.61	191.6	224.1	-30.8
R3D_12C_019E	274686.7114	8597697.987	-270.099	200.7	232	-59
R3D_13C_001	274710.7143	8597605.321	-285.577	177.3	244	-23.7
R3D_13C_002	274710.7215	8597605.374	-285.819	170.3	245.1	-31.8
R3D_13C_003	274710.6956	8597605.587	-286.147	161.5	249.3	-40.6
R3D_13C_004	274710.6883	8597605.559	-286.462	173.2	250	-50.3
R3D_13C_005	274710.9857	8597605.911	-286.539	177.1	254	-59.6
R3D_13C_006	274711.0547	8597606.045	-286.541	180	262	-62.4
R3D_13C_007	274711.4286	8597606.426	-286.55	116.8	276	-76.6
R3D_13C_009	274710.8382	8597604.955	-285.786	186.3	234.4	-26.5
R3D_13C_011E	274710.9537	8597604.932	-286.422	167.8	235.5	-45.1
R3D_13C_012	274711.13	8597605.027	-286.495	167.8	235.2	-52.5
R3D_13C_013E	274711.2344	8597605.052	-286.537	194.5	235.6	-60.8
R3D_13C_014	274711.7553	8597605.277	-286.602	125	234.6	-76.7
R3D_13C_018	274711.1409	8597604.429	-286.084	184.1	223.9	-35.1
R3D_13C_019	274711.4702	8597604.505	-286.596	176.8	218.6	-53.2
R3D_13C_020	274712.1694	8597604.514	-286.616	128.4	206	-70.1
R3D_13C_021	274712.5834	8597604.559	-286.681	128.5	193.8	-77.7



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Downhole survey summary

Hole ID	Depth	Azimuth	Dip
R3D_12C_001	12	251.3	-55.4
R3D_12C_001	30	251.4	-55.4
R3D_12C_001	60	251.6	-56.0
R3D_12C_001	90	251.4	-57.0
R3D_12C_001	120	252.4	-57.5
R3D_12C_001	150	253.3	-57.7
R3D_12C_001	180	253.7	-57.7
R3D_12C_003	12	245.4	-25.4
R3D_12C_003	30	246.2	-26.1
R3D_12C_003	60	246.5	-26.7
R3D_12C_003	90	246.9	-27.0
R3D_12C_003	150	247.8	-28.0
R3D_12C_003	180	247.9	-28.2
R3D_12C_004	10	245.6	-35.3
R3D_12C_004	30	246.1	-35.7
R3D_12C_004	60	246.5	-36.0
R3D_12C_004	90	246.9	-36.3
R3D_12C_004	120	247.8	-36.6
R3D_12C_004	150	248.3	-36.9
R3D_12C_004	180	248.7	-37.5
R3D_12C_005E	15	240.3	-30.9
R3D_12C_005E	30	239.7	-31.3
R3D_12C_005E	60	239.7	-32.2
R3D_12C_005E	90	239.1	-34.6
R3D_12C_005E	120	239.3	-35.2
R3D_12C_005E	150	239.5	-35.6
R3D_12C_006E	12	239.9	-46.0
R3D_12C_006E	60	241.5	-47.2
R3D_12C_006E	90	241.8	-48.8
R3D_12C_006E	120	242.8	-49.3
R3D_12C_006E	180	243.7	-49.5
R3D_12C_007E	12	247.1	-66.5
R3D_12C_007E	30	247.5	-66.0
R3D_12C_007E	60	248.1	-66.3
R3D_12C_007E	90	249.2	-67.0
R3D_12C_007E	120	251.6	-66.8



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Hole ID	Depth	Azimuth	Dip
R3D_12C_007E	150	251.4	-67.1
R3D_12C_007E	180	252.8	-67.1
R3D_12C_010	15	235.6	-49.3
R3D_12C_010	30	235.6	-49.2
R3D_12C_010	70	236.6	-50.2
R3D_12C_010	120	237.2	-50.8
R3D_12C_010	150	237.9	-51.1
R3D_12C_011	12	234.4	-58.8
R3D_12C_011	30	236.8	-58.6
R3D_12C_011	60	237.1	-58.7
R3D_12C_011	90	237.9	-59.1
R3D_12C_011	150	241.5	-59.9
R3D_12C_011	180	242.9	-60.0
R3D_12C_012	20	237	-68.0
R3D_12C_012	30	238.6	-67.4
R3D_12C_012	40	238.3	-67.1
R3D_12C_012	60	239	-67.4
R3D_12C_012	90	239.6	-67.8
R3D_12C_012	160	242.1	-68.5
R3D_12C_012	190	242.2	-68.6
R3D_12C_018	15	224.5	-31.1
R3D_12C_018	30	224.7	-31.2
R3D_12C_018	60	225.5	-32.6
R3D_12C_018	90	225.7	-33.2
R3D_12C_018	120	226.1	-33.7
R3D_12C_018	150	226.6	-34.2
R3D_12C_018	180	226.7	-34.4
R3D_12C_019E	23	233.9	-59.6
R3D_12C_019E	30	233.9	-59.5
R3D_12C_019E	60	235.1	-59.7
R3D_12C_019E	90	237.4	-62.2
R3D_12C_019E	120	238.6	-62.3
R3D_12C_019E	150	239.3	-62.5
R3D_12C_019E	180	240.1	-63.1
R3D_13C_001	12	244.3	-24.5
R3D_13C_001	30	244.4	-24.9
R3D_13C_001	60	244.8	-25.6



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Hole ID	Depth	Azimuth	Dip
R3D_13C_001	90	245	-26.1
R3D_13C_001	120	245.5	-26.8
R3D_13C_001	150	245.9	-27.3
R3D_13C_002	12	245.4	-32.2
R3D_13C_002	30	245.7	-32.6
R3D_13C_002	60	246.3	-33.3
R3D_13C_002	90	246.6	-34.0
R3D_13C_002	120	247.7	-35.5
R3D_13C_002	150	248.4	-35.0
R3D_13C_003	12	249.1	-40.8
R3D_13C_003	30	249.5	-41.2
R3D_13C_003	60	249.9	-41.4
R3D_13C_003	90	250.1	-41.8
R3D_13C_003	120	250.4	-42.0
R3D_13C_003	150	250.6	-42.1
R3D_13C_004	12	250.3	-50.5
R3D_13C_004	30	250.4	-50.8
R3D_13C_004	60	250.8	-51.2
R3D_13C_004	90	251.1	-51.6
R3D_13C_004	120	251.4	-51.6
R3D_13C_004	150	252.1	-51.3
R3D_13C_005	30	255.2	-59.8
R3D_13C_005	60	254.8	-60.4
R3D_13C_005	120	258	-60.7
R3D_13C_005	160	258.5	-60.5
R3D_13C_006	12	262.8	-62.6
R3D_13C_006	30	264.3	-62.6
R3D_13C_006	60	264	-62.9
R3D_13C_006	90	264.8	-62.9
R3D_13C_006	120	264.7	-62.9
R3D_13C_006	150	265.2	-62.8
R3D_13C_006	180	265.4	-62.6
R3D_13C_007	12	275.7	-76.6
R3D_13C_007	30	275.2	-76.4
R3D_13C_007	60	275	-76.4
R3D_13C_007	90	275.2	-76.1
R3D_13C_009	12	235.2	-27.1



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Hole ID	Depth	Azimuth	Dip
R3D_13C_009	30	236	-27.2
R3D_13C_009	60	236.6	-27.2
R3D_13C_009	90	237	-27.6
R3D_13C_009	120	237.2	-27.8
R3D_13C_009	150	238.8	-28.3
R3D_13C_011E	12	234.5	-45.1
R3D_13C_011E	30	235.4	-45.5
R3D_13C_011E	60	236.6	-46.1
R3D_13C_011E	90	237.3	-46.2
R3D_13C_011E	150	238.8	-46.3
R3D_13C_012	12	235.5	-52.4
R3D_13C_012	30	236.8	-52.5
R3D_13C_012	60	238.5	-53.7
R3D_13C_012	120	241.8	-54.6
R3D_13C_013E	12	236.6	-60.8
R3D_13C_013E	30	237.5	-60.8
R3D_13C_013E	60	239.2	-60.9
R3D_13C_013E	90	241.4	-61.2
R3D_13C_013E	120	242.2	-61.2
R3D_13C_013E	150	242.5	-61.0
R3D_13C_013E	180	242.9	-61.0
R3D_13C_014	0	234.6	-76.7
R3D_13C_014	12	236.4	-76.4
R3D_13C_014	30	237.7	-76.1
R3D_13C_014	60	239.6	-76.1
R3D_13C_014	90	240.9	-76.1
R3D_13C_014	120	241.5	-76.2
R3D_13C_018	12	224.2	-35.5
R3D_13C_018	30	224.9	-35.6
R3D_13C_018	60	225.7	-35.5
R3D_13C_018	90	226.7	-35.5
R3D_13C_018	120	227.6	-35.7
R3D_13C_018	150	228	-35.7
R3D_13C_018	180	228.6	-36.0
R3D_13C_019	12	219.3	-53.5
R3D_13C_019	30	220.2	-53.9
R3D_13C_019	60	221.3	-54.5



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Hole ID	Depth	Azimuth	Dip
R3D_13C_019	90	223.2	-55.6
R3D_13C_019	120	225.6	-55.9
R3D_13C_019	150	226.7	-55.9
R3D_13C_020	12	207.3	-70.3
R3D_13C_020	30	208.9	-70.3
R3D_13C_020	60	210.2	-70.3
R3D_13C_020	90	212.6	-70.1
R3D_13C_021	15	197.6	-77.6
R3D_13C_021	30	200	-77.5
R3D_13C_021	60	203.8	-77.4
R3D_13C_021	90	207.2	-77.3
R3D_13C_021	120	210.7	-77.0



JORC Code, 2012 Edition – Table 1 – Cuddy 12C and 13C drill results

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Three primary sampling techniques are utilised, geophysical gamma logging, geochemical assaying and specific gravity by pycnometry testing, all of which are set as 1 metre intervals. • During the drilling phase a down hole geophysics gamma sonde is deployed during both the in rod and open hole drill runs (where possible according to ground conditions). Geophysical sampling is recorded every 0.05 metre and composited into 1 metre intervals and provides an equivalent U₃O₈ result (referred to as eU₃O₈). • The gamma sonde undertakes a daily calibration test against a standard source, and also undertakes a yearly calibration to verify the dead-time and K-Factor conversion variables used to convert observed and true gamma counts into an eU₃O₈ reading. • The selection of samples for geochemical assaying is initially defined by the results from the down hole geophysics 1 metre eU₃O₈ composites. Intervals that have gamma results above 0.02% eU₃O₈ are automatically assigned for assaying, plus the two samples above and below the triggered interval. In zones where the down hole geophysics were unable to reach and no gamma data was obtained the entire interval is selected for assay. • The current suite of geochemical analyses consists of 48 major and trace elements which is analysed by ICPMS and ICPOES. All elements are reported in parts per million (ppm), except for U, which is reported as the weight percent



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		<p>oxide U_3O_8.</p> <ul style="list-style-type: none"> Every tenth sample is also assigned for SG testing, and is conducted on the pulverized material by gas pycnometer at the analytical laboratory.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. 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.). 	<ul style="list-style-type: none"> All current drilling has been in NQ, NQ3 and HQ3 size diamond core. Core orientation is conducted by a reflex digital orientation tool and the low side markup is made at the drilling rig upon core retrieval. The remaining core orientation lines are completed by the field team at the core logging facility.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sample recovery is logged according to geotechnical intervals, with interval length and total recovered metres logged for the entire drill hole. All exclusion intervals are also recorded (due to core loss) to provide a total sample recovery percentage for every drill hole. The diamond core is processed in the ERA Jabiru East core yard where each metre is checked, measured and marked before the core is geologically and geotechnically logged. Every discrepancy between the measured length of the core and the driller's length marked on the core blocks is investigated. Discrepancies are resolved by ERA field staff, geologists and drilling personnel prior to cutting and sampling. Triple tube drilling has been selected to increase core recovery in the mineralised zone.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All diamond core is oriented and geologically logged to a detailed system that is constructed around the specific style of geological model/mineralisation under evaluation. Emphasis is placed upon the association of stratigraphy, lithology, structure and brecciation intensity. Similarly, the same core is



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	<ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<p>geotechnically logged to system that is specifically adopted to derive a Tunneling Quality Index (Q) for geotechnical stope span support criteria. 100% of the core is logged in this manner. All core is photographed under consistent lighting conditions and the digital images stored on an internal shared drive.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • Individual metres of diamond core that have been selected for geochemical analysis are cut in half by diamond saw, with each half of each metre representing a single sample. • Core is cut along a line through the centre of the axis of symmetry as defined by the dominant fabric in the rock (or the mineralised structures), i.e. the line which passes through the apex of the foliation ellipsoid. • Upon receipt at the analytical laboratory, samples are dried at 105 degrees Celsius to remove sample moisture. • Samples undergo a primary crushing stage to take the entire sample to <2 millimetres. On occasions, at this stage a sample may be rotary split off for additional metallurgical testing. • The remaining sample undergoes a secondary drying phase at 80 degrees Celsius to remove any additional moisture that may have resulted from the high humidity conditions in the NT. • A rotary split is conducted on up to 3 kilograms of crushed material to a 300 gram result, which then undergoes a final pulverise stage to take the entire sample to 95%<75µm. • The final pulverised sample undergoes a 4-acid near total digestion and submitted to ICPMS and ICPOES analysis.



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Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none">• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>• <i>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.</i>• <i>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.</i>	<ul style="list-style-type: none">• The down hole gamma sonde is a Geovista 38 millimetres Total Count Gamma Probe and there are currently three in cyclical use, 3348, 3498 and 3540. All three probes were calibrated on the Adelaide Models (AM1, AM2, AM3 and AM7) on 6 June 2013 in order to derive the Deadtime and K Factor for each probe. The derivation of these variables and the drilling diameter correction factors are all documented in a technical report provided by Borehole Wireline Pty Ltd.• To ensure quality control measures are in place for geochemical analysis, a uniform quality control process is assigned for each drill hole to be sampled.• Field duplicates are taken every 10 metres in the mineralised zone.• The five highest eU₃O₈ samples are also assigned as a field duplicate if not already duplicate as per 10 metre intervals.• A certified reference standard is inserted at a frequency of every 25th sample. There are 10 certified reference standards available, ranging from 0.03% to 1.68%, all of which have been created from ERA material and are matrix matched. The first standard is selected at random and subsequent standards are incremented from ERA_CRIS_1 to ERA_CRIS_10.• A blank sample (quartz sand) is also inserted at a frequency of every 20th sample.• All drill holes are sent as a single dispatch, whereby they are split up into sets of 88 by the analytical laboratory. An additional 12 check samples are included by the laboratory to conduct 100 sample analyses at a time (Qty x4 each of internal laboratory repeats, standards and blanks).• A Quartz flush is also inserted between every sample during the crushing stage to minimise potential contamination of sample preparation equipment.



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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> All samples are conducted by a NATA accredited laboratory (Northern Territory Environmental Laboratory, a division of Intertek). All sample results are reported in electronic format and imported directly into acQuire without modification to the original files. All results are saved in CSV and PDF format for future verification if required. A report of the import process and results is also saved on a shared network drive for archive purposes. Access to the import process is restricted by three layers of security, acQuire software, Active Directory and SQL server protocols are implemented to ensure that only trained and qualified staff are physically capable of importing assay results. The sample approval process also abides by the same level of security, with specific staff permitted to write permissions, all other staff have read-only access to assay results.
Location of data points	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> At present DGPS – Differential Global Positioning System, is used in conjunction with a real time kinematic (RTK) system involving a base/static station radio broadcasting its received satellite telemetry to a moving/rover receiver. Regular QA/QC checks are conducted for the veracity of the GPS system by positioning the GPS rover over known, monumented ground stations with the receivers on a fast static or dynamic mode. Base Station and Mine Grid System – the survey department of the ERA – Ranger mine maintains a base/static station 24/7 at the mine site office and broadcast the satellite telemetry on the local/adopted mine grid system. The relative positions of various features and earth works requirements are instantly available to the roving receivers for both setting-out and as-built



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Criteria	JORC Code explanation	Commentary
		surveys.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> The maximum range of mineralisation continuity as suggested by existing variography studies to achieve a “measured” mineral resource confidence category is a maximum of 25 x 25 metres. The goal of the underground drilling program is to reduce the current data spacing of existing surface exploration drilling from 50 x 50 metres to a maximum of 25 x 25 metres. This confidence classification will be reviewed with further variography studies as new data is gathered. All sampling is conducted on regular 1 metre intervals.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<ul style="list-style-type: none"> All drilling from the underground decline has been oriented to ensure it is 90 degrees to the strike of the known mineralisation and controlling structures. Previous surface drilling was oriented parallel to northing sections which was not 90 degrees the strike of the known mineralisation and controlling structures. The influence of this change of drilling orientation on sampling bias is under assessment.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> All post drilling assessments are undertaken within a fully lockable facility located at the Ranger mine. In preparation for dispatch to the laboratory, all bagged cut core samples are packed into 44 gallon drums with tension strapped lids, closed and stored for transport in a fully enclosed, lockable shipping module.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> ERA has internal audit and governance processes in place with respect to the classification and reporting of Mineral Resources.



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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 style="list-style-type: none">• <i>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.</i>• <i>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.</i>	<ul style="list-style-type: none">• ERA holds an authority issued pursuant to section 41 of the <i>Atomic Energy Act 1953</i> (Cth) ('Section 41 Authority') over the Ranger Project Area. This authorises ERA to conduct mining and processing operations on the Ranger Project Area.• The Section 41 Authority permits the conduct of mining and processing operations until 8 January 2021. Following this date, ERA must cease all mining and processing operations and is required to rehabilitate the Ranger Project Area in accordance with the Environmental Requirements annexed to the Section 41 Authority.• The Ranger Project Area is located on Aboriginal land. In January 2013, ERA, the Commonwealth Government, the Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Northern Land Council entered into a suite of agreements governing the conduct of operations on the Ranger Project Area.• ERA's operations are closely supervised and monitored by key statutory bodies including the Northern Territory Department of Mines and Energy, Commonwealth Government's Supervising Scientist Division, Northern Land Council, Gundjeihmi Aboriginal Corporation (representing the Mirarr Traditional Owners) and the Commonwealth Department of Industry.
Exploration done by other parties	<ul style="list-style-type: none">• <i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none">• The Ranger 3 Deeps mineralisation is down dip of the Ranger Pit 3 deposit, which was mined from 1997 to 28 November 2012. The Ranger 3 Deeps mineralisation has been defined by a series of successive surface diamond drilling programs from 2005-2009 undertaken by ERA.



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Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The Ranger mine and the Ranger Project Area lie in the north-easternmost part of the Pine Creek Geosyncline. Ranger 3 Deeps is a structurally controlled U₃O₈ deposit hosted by Paleo-Proterozoic arenites, shales and carbonate sediments of the Cahill formation which have been regionally metamorphosed to psammites, chlorite schists and magnesitic marble all of which dip at moderate angles to the east. The deposit sits within the “Deeps Fault Zone”, a NNW trending complex upward soling reverse fault system controlled by the competency structure of the local stratigraphy. This competency contrast of the Ranger package is hypothesised to directly reflect its depositional character. Mineralisation is associated with brecciation and structural overprint adjacent to reverse faulting and is intimately linked to the geochemistry of the chlorite schist host lithology.
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The initial azimuth and dip setup of the drill hole is conducted via a Down hole Surveys Azimuth Aligner™, which utilises north seeking gyros with precision to 0.2 degrees azimuth and 0.01 degrees inclination. Down hole surveys are conducted via a Reflex EZ-TRAC™ Survey camera (accuracy 0.35 degrees azimuth and 0.25 degrees inclination), with a single shot recorded every 30 metres during drilling, and multi-shot when retrieving rods as a means of quality control. The Reflex tool measures magnetic north, and therefore a correction factor is applied to convert to True North, taking into account yearly magnetic north drift as defined by Geoscience Australia. • Down hole length is recorded both via a daily drill plod and on each core tray blocks to define the start, end and core loss intervals for each drilling run. This is verified by the geologists and field team by cross referencing the drilling contractor measurements with actual core mark-up measurements. Any discrepancies are noted and rectified before any core logging or sampling is conducted.



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		<ul style="list-style-type: none"> Initial interception depth (as defined by eU_3O_8) is determined by the Geovista Logging unit, which records the wireline depth, speed and cable tension to determine a true down hole depth every five centimetres during the geophysics logging process. A daily wireline calibration check is conducted against known markers on the wireline to ensure the unit is calibrated before each logging run. Chemical assaying interception depth is determined by the core samples which are created against the core length markups conducted by the logging geologist.
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> All significant intersections are reported at a 0.12% U_3O_8 cut-off with a maximum of 2 metres internal dilution below that value. This is considered appropriate for a high grade underground mining project. All reporting of intersections is based on a regular sample length of 1 metre.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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</i> 	<ul style="list-style-type: none"> Previous surface drilling was completed on an E-W exploration/mine grid orientation towards 270 degrees. Current and proposed underground drilling is oriented towards 240 degrees which is at right angles to the strike of the structures known to host the mineralisation.



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Criteria	JORC Code explanation	Commentary
	<i>length, true width not known').</i>	
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) are included in the body of the accompanying announcement.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The associated report is considered to represent a balanced report.
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Other exploration data collected is not material to this announcement. Further data and interpretation will be reviewed and reported when considered material.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> To date, approximately 170 holes have been reported on, with approximately 45 holes remaining to be reported.