

ASX Release: 5 October 2022

## **OUTSTANDING NEW DRILL INTERCEPTS AT CUMMINS RANGE:**

455m at 0.5% TREO and 5%  $P_2O_5$  & 326m at 0.4% TREO and 4%  $P_2O_5$ 

Latest diamond holes further expand the rare earths and phosphate mineralisation at depth, demonstrating strong potential to expand the current 18.8Mt Resource

### **HIGHLIGHTS**

- Assays for next two diamond holes set new records at the Cummins Range Rare Earths and Phosphate deposit:
  - 455.6m at 0.5% TREO and 5% P<sub>2</sub>O<sub>5</sub> returned in CDX0027, with multiple high-grade rare earths intersections above 0.5% TREO cumulatively 100.4m at 1.9% TREO including 17m at 2.4% TREO from CDX0027
  - 326.4m at 0.4% TREO and 4% P<sub>2</sub>O<sub>5</sub> returned in CDX0022 with multiple high-grade rare earths intersections above 0.5% TREO cumulatively 60.5m at 1.8% TREO including 6.2m at 4.2% TREO
- Results follow the previous record intercept of 384.4m at 4% P2O5 and 0.4% TREO in CDX0020, reported on 20 September
- Rare Dyke is strongly mineralised to 500m down-dip with a >450m wide rare earths and phosphate mineralised alteration halo
- Drilling continues at Cummins Range with over 15,000m completed

Further to its announcement of 20 September 2022, RareX Limited (RareX, the Company) (ASX: REE) advises that assays have been received for a further two diamond drill-holes, CDX0022 and CDX0027, at its 100%-owned Cummins Range Rare Earths and Phosphate Project in the Kimberley region of Western Australia (the Project, Cummins Range).

Both holes returned very wide rare earths and phosphate intersections, building on the record intercept reported on 20 September 2022 and continuing to demonstrate the scale and potential of the Cummins Range Project.

The latest results include: 455.6m at 5%  $P_2O_5$  and 0.5% TREO and multiple high-grade rare earths intersections cumulatively 100.4m at 1.9% TREO including 17m at 2.4% TREO from CDX0027; and 326.4m at 4%  $P_2O_5$  and 0.4% TREO with multiple high-grade rare earths intersections cumulatively 60.5m at 1.8% TREO including of 6.2m at 4.2% TREO from CDX0022.

These two drill holes have been drilled on the same drill section down-dip from the JORC 2012 Indicated and Inferred Mineral Resource Estimate (at a 0.5% TREO cut-off) of 18.8 million tonnes at 1.15% TREO and 10% P<sub>2</sub>O<sub>5</sub>, highlighting the strong potential to expand and upgrade the current MRE.

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CDX0027 and CDX0022 are located 100m to the south-east of CDX0020, which intersected 384.4m at  $4\% P_2O_5$  and 0.3% TREO (ASX: 20 September 2022).

RareX Managing Director, Jeremy Robinson, said: "Our 2022 drilling program is continuing to provide overwhelming evidence that Cummins Range is a world-class mineral system, hosting both rare earth oxides and top-quality rock phosphate. The potential to extract both valuable minerals was confirmed by the encouraging metallurgical testwork results we announced yesterday, which confirmed the potential to produce a high-quality phosphate concentrate.

"The latest drilling is now adding significant volume and scale to the deposit, with these latest intersections occurring well beyond the current Mineral Resource envelope. They will be incorporated in our next MRE update, which will in turn underpin a Pre-Feasibility Study to determine the optimum scale of this exciting and globally significant project."

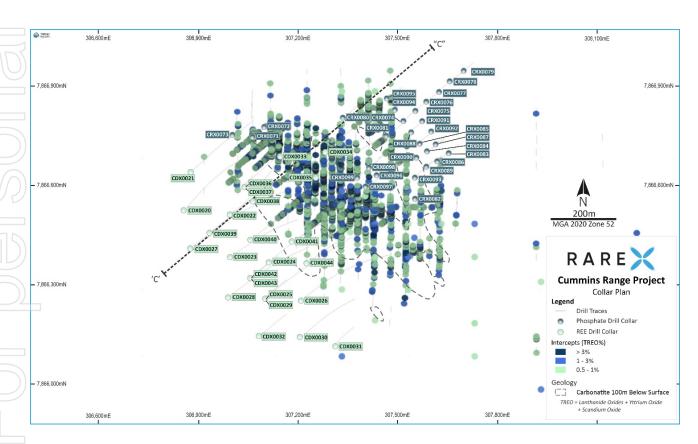


Figure 1. Drill hole locations of 2022 drill program. Showing TREO % mineralisation and location of drill Section 'C' - "C".



#### **CDX0027**

Assay results have been received for the diamond portion of CDX0027. The assays for the upper 198m of RC are still outstanding. The drill hole passed through the Pendant Dyke, Rare Dyke and was stopped short of the Phos Dyke.

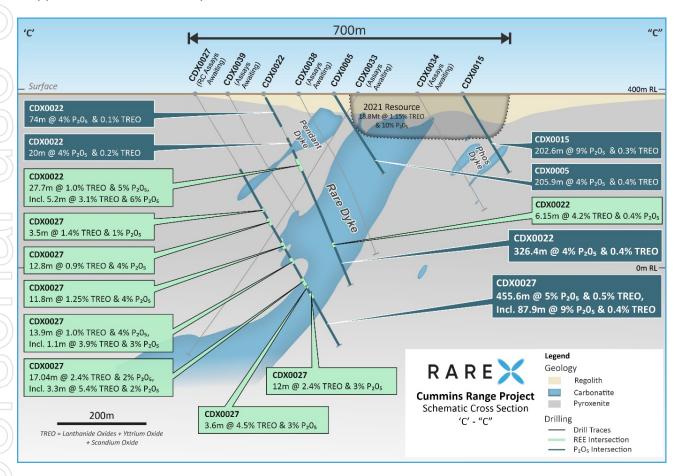


Figure 2. Section showing drill results for CDX0027 and CDX0022. Location of section shown on Figure 1.

A total of 24 rare earths mineralised zones (Table 1) were intersected with a cumulative width and grade of 100.4m at 1.9% TREO. Zones ranged in width from 0.5m to 17m and in grade from 0.6% to 5.8% TREO. The uranium and thorium oxide content is ultra-low with an average of 39ppm for the 24 mineralised zones.

A majority of the mineralised zones are located in the hanging wall position proximal to, or on contact zones with the Rare Dyke, including 17m at 2.4% TREO from 492.2m. Mineralisation within the Rare Dyke is also strong with intercepts of 3.6m at 4.5% TREO and 12m at 2.4% TREO.



The phosphate alteration around the Rare Dyke is extensive with a significant intercept of 455.6m @ 5% P2O5 and 0.5% TREO from 197.8m (Table 2). This phosphate intercept is likely to expand up-hole once RC assays are received for the top 197.8m.

The hole was stopped in strong phosphate mineralisation with the last 87.9m assaying at  $9\% P_2O_5$  and 0.4% TREO. The combined uranium and thorium oxide for the 455.6m intersection was very low at 69 ppm.

The phosphate occurs as disseminated apatite in the carbonatite and altered pyroxenite. Higher grade phosphate of >7%, for example hole CDX0015 in Figure 2, occurs in phoscorite, which is an ultramafic rock composed of coarse apatite-magnetite-phlogopite and diopside. The footwall position of CDX0027 is mostly phoscorite with the same geochemical composition as the Phos Dyke phoscorite.

#### **CDX0022**

All assays have been received for CDX0022, which was drilled through the Pendant Dyke and Rare Dyke and stopped in the footwall at 439.4m.

20 rare earths mineralised zones were intersected with a cumulative width of 60.5m at 1.8% TREO. The zones are hosted in the hanging wall position and within the Rare Dyke.

The most mineralised zone in the hanging wall position is 27.7m at 1% TREO including 5.2m at 3.1% TREO and within the Rare Dyke is 6.15m at 4.2% TREO. Negligible uranium and thorium oxide was seen with an average combined total of 37ppm over the 20 mineralised zones.

Consistent phosphate mineralisation was seen in most of CDX0022, with a large intersection starting at the Pendant dyke and finishing at the end-of-hole with 326.4m at 4%  $P_2O_5$  and 0.4% TREO. The disseminated coarse apatite is low in uranium and thorium with a combined average of 52ppm.

A scissor hole, CDX0033, was drilled to confirm the geological model and strike and dip of structures, rock fabrics and mineralised zones.

CDX0033 is shown in Figure 2 and is drilled down the hanging wall position. A low-angle rock fabric dipping to the south-west is seen in most of the drill hole which supports the geological model. Assays are expected in coming weeks.

This announcement has been authorised for release by the Board of RareX Limited.



## **Competent Person's Statements**

The information in this announcement that relates to the geological model is based on and fairly represents information compiled by Mr Guy Moulang, an experienced geologist who is an employee of RareX Limited. Mr Moulang is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity to which 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". Mr Moulang consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Prior exploration results were reported in accordance with Listing Rule 5.7 and the Company confirms there have been no material changes since the information was first reported.

The mineral resource estimate in this announcement was reported by the Company in accordance with Listing Rule 5.8 on 19 July 2021. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcement and that all material assumptions and technical parameters underpinning the estimates in the previous announcement continue to apply and have not materially changed.



## Appendix 1: Significant Intercepts and Drill Collars

## Table 1. TREO Significant Intercepts for Drill Holes CDX0022 and CDX0027 at 0.5% cut-off

TREO = Lanthanide Oxides + Yttrium Oxide + Scandium Oxide

Mineralised Zone	Hole ID	From (m)	To (m)	Interval (m)	TREO %	NdPr %	NdPr % of TREO	Nb <sub>2</sub> O <sub>5</sub>	P <sub>2</sub> O <sub>5</sub>
Rare Dyke Hanging wall	CDX0022	153.9	154.55	0.65	0.75	0.14	19	0.06	4
Rare Dyke Hanging wall	CDX0022	163.65	191.3	27.65	0.95	0.16	17	0.05	5
Rare Dyke Hanging wall	CDX0022	186.1	191.3	5.2	3.06	0.47	15	0.02	6
Rare Dyke Hanging wall	CDX0022	245	246.1	1.1	0.94	0.17	18	0.02	3
Rare Dyke Hanging wall	CDX0022	255	255.6	0.6	0.5	0.11	23	0.1	6
Rare Dyke Hanging wall	CDX0022	259.1	259.7	0.6	0.67	0.13	19	0.05	3
Rare Dyke Hanging wall	CDX0022	269.7	270	0.3	2.73	0.45	16	0.03	4
Rare Dyke Hanging wall	CDX0022	299.2	300	0.8	1.26	0.21	17	0.14	2
Rare Dyke	CDX0022	303	303.3	0.3	1.52	0.27	18	0.03	5
Rare Dyke	CDX0022	311.5	314.9	3.4	0.71	0.12	18	0.15	4
Rare Dyke	CDX0022	313.8	314.9	1.1	1.29	0.19	15	0.11	1
Rare Dyke	CDX0022	322.4	333.3	10.9	0.89	0.14	16	0.08	2
Rare Dyke	CDX0022	322.4	325.15	2.75	1.66	0.26	16	0.06	3
Rare Dyke	CDX0022	333	333.3	0.3	6.24	0.9	14	0.07	1
Rare Dyke	CDX0022	353.1	354	0.9	0.9	0.16	18	0.09	5
Rare Dyke	CDX0022	354.95	355.25	0.3	1.15	0.18	16	0.07	4
Rare Dyke	CDX0022	368.6	374.75	6.15	4.16	0.65	16	0.02	4
Rare Dyke	CDX0022	369.75	370.8	1.05	12.63	2.01	16	0	0
Rare Dyke	CDX0022	373.15	374.15	1	8.1	1.18	15	0.01	8
Rare Dyke Footwall	CDX0022	459.4	459.85	0.45	0.75	0.12	16	0.16	1
Pendant Dyke Hanging wall	CDX0027	208.95	209.95	1	1.26	0.24	19	0.04	3
Pendant Dyke Hanging wall	CDX0027	232.5	233.5	1	0.59	0.11	18	0.12	4

# RARE

Mineralised Zone	Hole ID	From (m)	To (m)	Interval (m)	TREO %	NdPr %	NdPr % of TREO	Nb <sub>2</sub> O <sub>5</sub>	P <sub>2</sub> O <sub>5</sub>
Pendant Dyke	CDX0027	241.35	242.35	1	1.73	0.3	18	0.07	1
Rare Dyke Hanging wall	CDX0027	263.2	264.5	1.3	0.57	0.1	18	0.02	1
Rare Dyke Hanging wall	CDX0027	301.33	304.8	3.47	1.37	0.21	16	0	2
Rare Dyke Hanging wall	CDX0027	301.33	301.7	0.37	5.65	0.87	15	0.01	6
Rare Dyke Hanging wall	CDX0027	308.8	313.15	4.35	0.97	0.16	17	0.02	3
Rare Dyke Hanging wall	CDX0027	308.8	309.25	0.45	5.78	0.87	15	0	1
Rare Dyke Hanging wall	CDX0027	325.9	338.65	12.75	0.87	0.15	17	0.05	4
Rare Dyke Hanging wall	CDX0027	325.9	326.95	1.05	4.22	0.68	16	0.05	3
Rare Dyke Hanging wall	CDX0027	331.2	331.8	0.6	3.99	0.62	16	0.05	3
Rare Dyke Hanging wall	CDX0027	350.6	352.52	1.92	1.18	0.2	17	0.08	4
Rare Dyke Hanging wall	CDX0027	372.5	374.95	2.45	1.4	0.25	18	0.1	4
Rare Dyke Hanging wall	CDX0027	378.97	380.2	1.23	0.52	0.09	18	0.12	5
Rare Dyke Hanging wall	CDX0027	389.95	401.7	11.75	1.25	0.21	17	0.06	4
Rare Dyke Hanging wall	CDX0027	399.4	401.7	2.3	3.32	0.52	16	0.03	1
Rare Dyke Hanging wall	CDX0027	417.6	419.4	1.8	0.88	0.14	15	0.1	1
Rare Dyke Hanging wall	CDX0027	430.1	443.95	13.85	0.99	0.17	17	0.08	4
Rare Dyke Hanging wall	CDX0027	431	431.85	0.85	3.49	0.57	16	0.12	4
Rare Dyke Hanging wall	CDX0027	438.5	439.59	1.09	3.92	0.61	16	0.04	3
Rare Dyke	CDX0027	492.16	509.2	17.04	2.36	0.37	16	0.02	2
Rare Dyke	CDX0027	493.55	496.8	3.25	5.39	0.81	15	0.01	2
Rare Dyke	CDX0027	505	508.55	3.55	4.47	0.7	16	0	3





Mineralised Zone	Hole ID	From (m)	To (m)	Interval (m)	TREO %	NdPr %	NdPr % of TREO	Nb₂O₅ %	P₂0₅ %
Rare Dyke	CDX0027	520	532	12	2.38	0.36	15	0.04	3

## Table 2. Phosphate Significant Intercepts for Drill Holes CDX0022 and CDX0027 at 3% cut-off.

TREO = Lanthanide Oxides + Yttrium Oxide + Scandium Oxide

Mineralised Zone	Hole ID	From (m)	To (m)	Interval (m)	TREO %	NdPr %	NdPr % of TREO	Nb₂O₅ %	P <sub>2</sub> O <sub>5</sub>
3	CDX0022	7	81	74	0.14	0.03	23	0.04	4
Pendant Dyke	CDX0022	112	132	20	0.22	0.05	22	0.22	3
Rare Dyke	CDX0022	144	470.4	326.4	0.39	0.08	20	0.06	4
Rare Dyke	CDX0027	197.8	653.4	455.6	0.48	0.09	20	0.06	5
Rare Dyke Footwall	CDX0027	565.55	653.4	87.85	0.35	0.09	27	0.05	9

## **Table 3. Drill Collars**

Hole ID	East MGA	North MGA	RLUTM	End Depth	Azimuth	Dip	Туре	Status
				(m)				
CDX0020	306871	7866529	392	666	50	60	Diamond	Assays Rece
CDX0021	306890	7866641	392	345.2	50	60	Diamond	Awaiting As
CDX0022	307007	7866511	391	470.6	50	60	Diamond	Assays Rece
CDX0023	307009	7866383	392	569.9	50	60	Diamond	Awaiting Ass
CDX0024	307123	7866367	391	545.8	50	60	Diamond	Awaiting Ass
CDX0025	307113	7866260	391	198	50	60	RC	Awaiting Ass
CDX0026	307222	7866252	391	578.8	50	60	Diamond	Awaiting Ass
CDX0027	306891	7866411	392	653.8	50	60	Diamond	Assays Rece
CDX0028	307005	7866263	392	695.8	50	60	Diamond	Awaiting Ass
CDX0029	307115	7866262	391	578.8	50	60	Diamond	Awaiting Ass
CDX0030	307220	7866139	391	515.9	50	60	Diamond	Awaiting Ass
CDX0031	307324	7866122	391	150	50	60	RC	Awaiting Ass
CDX0032	307101	7866148	391	198	50	60	RC	Awaiting Ass
CDX0033	307154	7866673	391	701	217	60	Diamond	Awaiting Ass
CDX0034	307296	7866700	392	293.8	50	60	Diamond	Being proces
CDX0035	307267	7866608	390	476.7	50	60	Diamond	Being proces
CDX0036	307046	7866596	392	84	50	60	RC	Being proces



Hole ID	East MGA	North MGA	RLUTM	End Depth (m)	Azimuth	Dip	Туре	Status
CDX0037	307040	7866590	392	428.9	50	60	Diamond	Being processe
CDX0038	307076	7866551	392	464.9	50	60	Diamond	Being processe
CDX0039	306946	7866457	392	324	50	60	RC	Being processe
CDX0040	307071	7866436	392	476.9	50	60	Diamond	Being processe
CDX0041	307202	7866431	391	446.9	50	60	Diamond	Being processe
CRX0071	307080	7866743	393	144	50	60	RC	Assays Receive
CRX0072	307113	7866776	393	96	50	60	RC	Assays Receive
CRX0073	307023	7866747	393	138	50	60	RC	Assays Receive
CRX0074	307528	7866794	391	120	50	60	RC	Assays Receive
CRX0075	307561	7866824	391	114	50	60	RC	Assays Receive
CRX0076	307602	7866854	391	114	50	60	RC	Awaiting Assa
CRX0077	307638	7866884	391	102	50	60	RC	Awaiting Assa
CRX0078	307672	7866914	391	102	50	60	RC	Awaiting Assa
CRX0079	307708	7866938	391	102	50	60	RC	Awaiting Assa
CRX0080	307349	7866802	392	126	50	60	RC	Awaiting Assa
CRX0081	307479	7866747	391	156	50	60	RC	Assays Receive
CRX0082	307564	7866558	392	96	50	60	RC	Awaiting Assa
CRX0083	307666	7866694	391	96	50	60	RC	Awaiting Assa
CRX0084	307601	7866701	391	157	50	60	RC	Awaiting Assa
CRX0085	307578	7866733	391	120	50	60	RC	Awaiting Assa
CRX0086	307624	7866671	391	126	50	60	RC	Awaiting Assa
CRX0087	307621	7866710	391	132	50	60	RC	Awaiting Assa
CRX0088	307549	7866763	391	126	50	60	RC	Being process
CRX0089	307593	7866649	391	114	50	60	RC	Being process
CRX0090	307568	7866676	391	114	50	60	RC	Being process
CRX0091	307586	7866791	391	96	50	60	RC	Being process
CRX0092	307613	7866762	391	96	50	60	RC	Being process
CRX0093	307565	7866624	391	150	50	60	RC	Being process
CRX0094	307502	7866829	391	120	50	60	RC	Being process
CRX0095	307479	7866857	391	120	50	60	RC	Being process
CRX0096	307445	7866625	391	132	50	60	RC	Being process
CRX0097	307415	7866591	391	150	50	60	RC	Being process
CRX0098	307421	7866647	391	132	50	60	RC	Being process
CRX0099	307389	7866622	391	174	50	60	RC	Being process



## Appendix 2: JORC Code, 2012 Edition – Table 1

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg '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.	<ul> <li>The Cummins Range Rare Earth deposit is being drilled tested with RC drilling and diamond drilling.</li> <li>The RC drill rig used a 5 ½ inch diameter hammer. Each 1m bulk sample was collected in a plastic bag.</li> <li>Diamond drill sizes used are PQ, HQ and NQ2</li> <li>Each metre was analysed with a portable XRF, and recovery and geology logs were completed.</li> <li>Sample interval selection was based on geological controls and mineralisation</li> <li>Each 1m RC sample has a 4% cone split from the drill rig. Samples submitted to the laboratory vary in length from 1m to 4m.</li> <li>Each core sample was cut in half with an automatic core saw. The half core sample was sent to the laboratory with intervals ranging from 0.3m to 1.3m.</li> <li>Samples are assayed for 35 elements using peroxide fusion with a ICP-OES and ICP-MS finish</li> </ul>
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).	<ul> <li>Prefix CRX drill holes are reverse circulation (RC) drilling</li> <li>Prefix CDX are diamond drilling.</li> </ul>
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.	<ul> <li>Recoveries for all drill holes were recorded for each metre.</li> <li>Recoveries for the RC drilling in this announcement are &gt;98%</li> <li>Recoveries for the Diamond drilling in thi announcement are 100%</li> </ul>





Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  The total length and percentage of the relevant intersections logged.	<ul> <li>All metres drilled had a geology log completed. Geology logs were aided using geochemical analysis from a portable XRF.</li> <li>The detail of logging is appropriated for Mineral Resource estimation.</li> </ul>
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 subsampling 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.	<ul> <li>A 4% split from the cone splitter on the drill rig is used for the laboratory assay. Samples are often composited and samples can range from 1-4m.</li> <li>This RC sampling technique meets the industry standards and is appropriate for this style of mineralisation and for resource estimation.</li> <li>Diamond core was cut in half with an automatic core saw and half the core was sent to the laboratory. This is an appropriate method for this style of mineralization and for resource estimation.</li> </ul>
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.	The reported assays were analysed by Nagrom. The following techniques were used:  • 35 elements were assayed for using peroxide fusion with a ICP-OES and ICP-MS finish  • In addition to internal checks by Nagrom, RareX incorporates a QA/QC sample protocol utilizing prepared standards, blanks and duplicates for 8% of all assayed samples.

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Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.  The verification of significant intersections by either independent or alternative company personnel.  Discuss any adjustment to assay data.	<ul> <li>Significant intercepts were calculated by RareX geological staff.</li> <li>The intercepts have not been verified by independent persons</li> <li>There are numerous drill holes with in the Cummins Range resource of comparable tenure</li> <li>All assay results are reported to RareX in parts per million (ppm). RareX geological staff then convert the parts per million to ppm oxides using the below element to stoichiometric oxide conversion factors. La<sub>2</sub>O<sub>3</sub> 1.1728, CeO<sub>2</sub> 1.2284, Pr<sub>6</sub>O<sub>11</sub> 1.2082, Nd<sub>2</sub>O<sub>3</sub> 1.1664, Sm<sub>2</sub>O<sub>3</sub> 1.1596, Eu<sub>2</sub>O<sub>3</sub> 1.1579, Gd<sub>2</sub>O<sub>3</sub> 1.1526, Dy<sub>2</sub>O<sub>3</sub> 1.1477, Ho<sub>2</sub>O<sub>3</sub> 1.1455, Er<sub>2</sub>O<sub>3</sub> 1.1435, Tm<sub>2</sub>O<sub>3</sub> 1.1421, Yb<sub>2</sub>O<sub>3</sub> 1.1387, Lu<sub>2</sub>O<sub>3</sub> 1.1371, Sc<sub>2</sub>O<sub>3</sub> 1.5338, Y<sub>2</sub>O<sub>3</sub> 1.2699, Nb<sub>2</sub>O<sub>5</sub> 1.4305, P<sub>2</sub>O<sub>5</sub> 2.2916</li> </ul>
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.	<ul> <li>Drill hole collars were located by handheld GPS and DGPS</li> <li>All coordinates are in MGA Zone 52H 2020</li> <li>Topographic control is maintained by the use of previously surveyed drill holes. The Cummins Range deposit is located on flat terrain.</li> <li>Down hole surveys were taken every 10m using an Axis Gyro tool</li> </ul>
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.	<ul> <li>Drill hole spacing is considered appropriate to gain a robust understanding of the mineralisation. The exploration team are seeing the same geological positions mineralised along strike, suggesting RareX have a solid geological model. Drill spacing is considered appropriate to gain an inferred mineral resource from.</li> <li>2m to 4m RC composites were completed in areas where higher grades were not expected</li> </ul>
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	The angled drill holes were directed as best as possible across the known geology.

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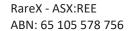






	considered to have introduced a sampling bias, this should be assessed and reported if material.		
Sample security	The measures taken to ensure sample security	•	Drill samples are delivered to Halls Creek by RareX staff. Then the samples are transported from Halls Creek to Perth via a reputable transport company.

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Cummins Range REO deposit is located on tenement E80/5092 and is 100% owned by Cummins Range Pty Ltd which is a wholly owned subsidiary of RareX Ltd. Cummins Range Pty Ltd has purchased the tenement from Element 2! with a potential capped royalty payment of \$1m should a positive PFS be completed within 36 months of purchase finalisation.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	CRA Exploration defined REO mineralisation at Cummins Range in 1978 using predominantly aircore drilling.     Navigator Resources progressed this discovery with additional drilling after purchasing the tenement in 2006.     Navigator announced a resource estimate in 2008. Kimberley Rare Earths drilled additional holes and upgraded the resource estimate in 2012.
Geology	Deposit type, geological setting and style of mineralisation.	The Cummins Range REO deposit occurs within the Cummins Range carbonatite complex which is a 2.0 km diameter near-vertical diatreme pipe that has been deeply weathered but essentially outcropping with only thin aeolian sand cover in places. The diatreme pipe consists of various mafic to ultramafic rocks with later carbonatite intrusions. The primary ultramafic and carbonatite rocks host low to high grade rare earth elements with back ground levels of 1000-2000ppm TREO and high grade zones up to 17% TREO. The current





		resource sits primarily within the oxidised/weathered zone which extends to 120m below the surface. Metallurgical studies by previous explorers and by RareX show the rare earth elements are hosted by monazite and bastnasite which are a common and favourable hosts for rare earth elements.
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 Person should clearly explain why this is the case.	All drill hole locations are shown on the drill plan and collar details are tabled within the announcement
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.	<ul> <li>Significant intercepts were calculated using weighted averaging</li> <li>A lower cut off grade of 0.5% TREO was used for the rare earths intercepts with a maximum of 4m dilution. The cut off grade and dilution are thought to be appropriate due to likely open cut mining methods that would be used on the outcropping ore body.</li> <li>A lower cut off grade of 3% P2O5 was used for the phosphate intercepts with a maximum of 6m dilution. The cut off grade and dilution are thought to be appropriate due to likely open cut mining methods that would be used on the outcropping ore body.</li> <li>No metal equivalent values have been used</li> </ul>



		Accumulated significant intercepts have been mentioned in the announcement and are composed of compiling the weighted averages of each significant intercept. The accumulated intercept does not take into account the dilution in between the individual intercepts and are there fore not a true representation of in situ minable ore.
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').	<ul> <li>The angled drill holes were directed as best as possible across the known geology.</li> <li>The true widths of the phosphate and rare earths intercepts in this announcement are likely &gt;80% of the true width. The current geological model interprets the Phos Dyke and surrounding lithologies to be similar to the Rare Dyke dipping to the south west. Current drilling is aimed at 50 degrees and 60 degrees dip cutting the interpreted lithologies at a high angle.</li> </ul>
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.	A drill hole plan and section are in the report.
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 is considered balanced
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.	RareX have a JORC compliant resource of 18.8Mt at 1.15% TREO, 0.14% Nb2O3 and 10% P2O5. Metallurgical studies are currently being conducted.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling.	<ul> <li>Awaiting assays for diamond and RC drilling</li> <li>Metallurgical tests are being conducted</li> </ul>

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## RARE

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

- PFS have commenced
- Drilling will continue at Cummins Range until November.

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