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Major high-grade fluorspar discovery

- **Critical minerals exploration programme is supporting the multi-commodity potential of the Ngualla carbonatite system**
- **Completion of all remaining assays from the current drilling:**
  - 7 RC drill holes from the Northern Zone as well as 11 RC and 2 DD drill holes from the Breccia Zone
- **Assays from Breccia Zone confirm outstanding high-grade thick intercepts of fluorspar supporting the potential of a globally significant fluorspar deposit:**
  - NRC390: **80m at 30.8% CaF_2** from surface including **10m at 53.3% CaF_2** from 34m
  - NRC408: **34m at 44.2% CaF_2** from surface including **10m at 59.2% CaF_2** from surface
  - NDD048: **68m at 30.6% CaF_2** from surface including 6m at **61.5% CaF_2** from surface and 8m at **58.1% CaF_2** from 12m
- **Prospectivity of Breccia Zone further enhanced by significant high-grade rare earth mineralisation as well as elevated levels of niobium:**
  - NRC408: **34m at 3.77% TREO** from surface including **8m at 4.87% TREO** from 2m and **16m at 4.63% TREO** from 14m
- **Final assays from Northern Zone extend the area of high-grade phosphate mineralisation, supporting the recently identified opportunity to supply phosphate into local fertiliser sector:**
  - NRC384: **28m at 16.7% P_2O_5** from 6m and **41m at 22.9% P_2O_5** from 39m to end of hole
  - NRC388: **40m at 20.3% P_2O_5** from 6m,
- **Ongoing engagement with strategic parties around low-cost phosphate and fluorspar development options that could complement the delivery of the Ngualla Rare Earth Project**
- **Further drilling to be evaluated as part of the next phase of the exploration programme**

Peak Rare Earths Limited (ASX: **PEK**) (**"Peak"** or the **"Company"**) is pleased to announce the final set of assay results from its critical minerals exploration programme, which is targeting the multi-commodity potential of the Ngualla carbonatite system.

Assay results cover a maiden drilling campaign in the Breccia Zone, comprising of 11 Reverse Circulation (**"RC"**) and 2 Diamond Drill (**"DD"**) holes. They confirm extensive high-grade and thick intercepts of fluorspar across the Breccia Zone (Figure 1) supporting the potential of a globally significant fluorspar deposit at Ngualla. High-grade rare earth mineralisation and elevated levels of niobium have also been intercepted within the Breccia Zone; further enhancing the prospectivity of the area.

The final set of assays from 7 RC holes within the Northern Zone have also been finalised. These demonstrate further high-grade intersections of phosphate, further extending the existing extent of phosphate mineralisation in the south direction.

Both fluorspar and phosphate are increasingly strategic critical minerals:

- Fluorspar is used in electrolytes within lithium batteries and to purify graphite anodes; and
- Phosphate is used in lithium iron phosphate EV batteries and fertilisers, which are critical to boosting food security and agricultural yields in Tanzania and East Africa.

Commenting on the assay results, Bardin Davis, the CEO of Peak, said:

"The results from our maiden drilling campaign in the Breccia Zone are extremely exciting and confirm a major fluorspar discovery. Fluorspar is an increasingly strategic critical mineral, and we have the potential of a globally significant deposit. The final assay results from the Northern Zone are also very pleasing and further extend the mineralisation area of high-grade phosphate.

We intend to further assess the potential for low-cost development options for these two commodities".

Results overview

The assay results from 18 RC holes and 2 diamond holes across the Northern Zone and Breccia Zone covering a total of 1,533m are included within this latest batch of results (Figure 2). Drilling in the Breccia Zone has targeted the southern and northern extent of the area where previous trench samples identified high-grade fluorspar at surface. The final set of drill holes from the Northern Zone has focused on infill between the current mineralised area and the Bastnaesite Rare Earth Zone, which lies ~1km south of the Northern Zone.

All assays pertaining to the current drilling campaign have been completed and covered a total of 57 drill holes for a total of 4,200m (Table 1).

Table 1. Drilling summary – 2023 exploration campaign

	Holes	Distance (m)
Northern Zone		
RC Holes	44	3,104
Breccia Zone		
RC Holes	11	885
DD Holes	2	211
Total	**57**	**4,200**

Figure 1. Cross section of Southern Breccia Zone (Section 9,149,000mN)

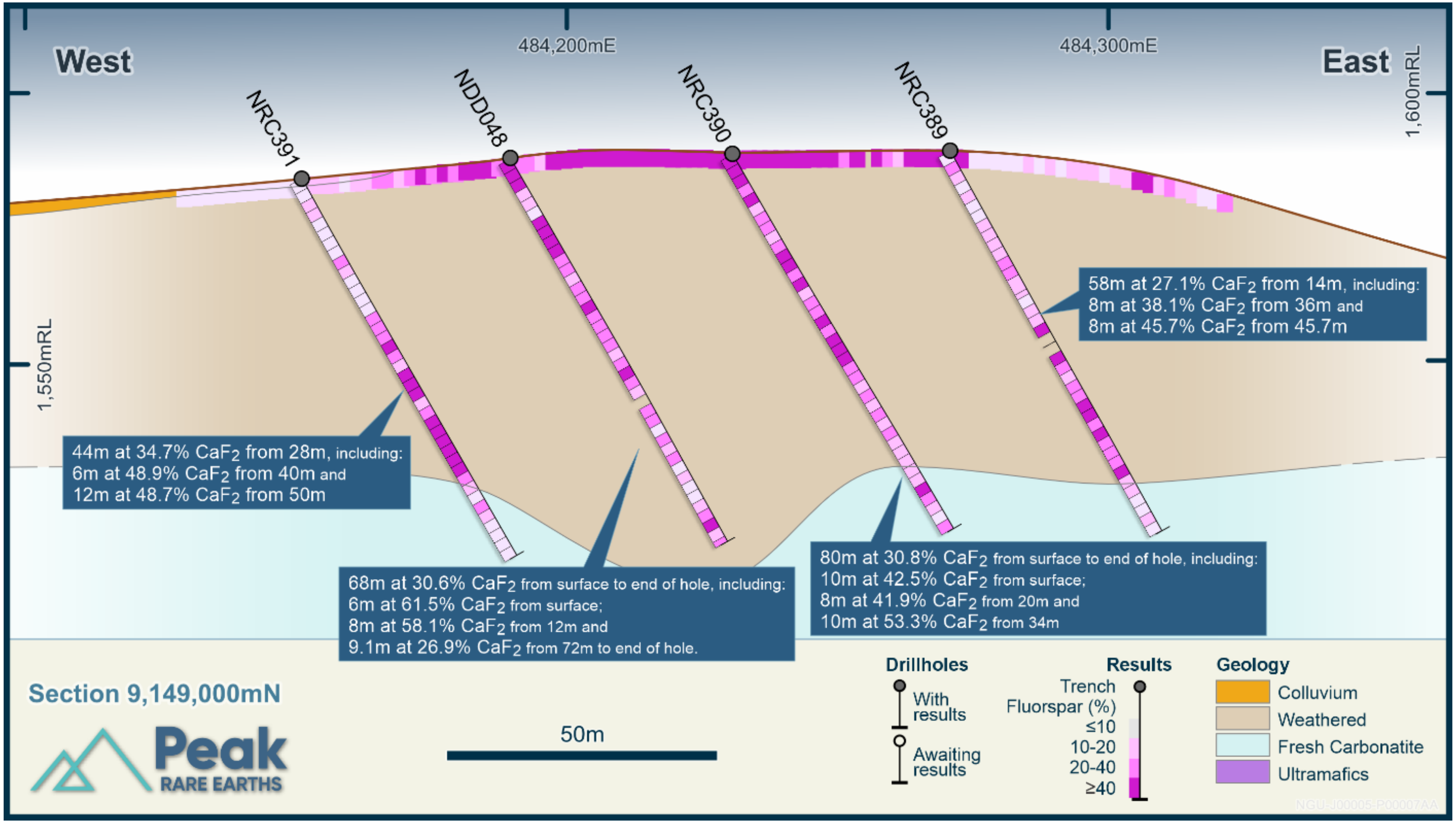
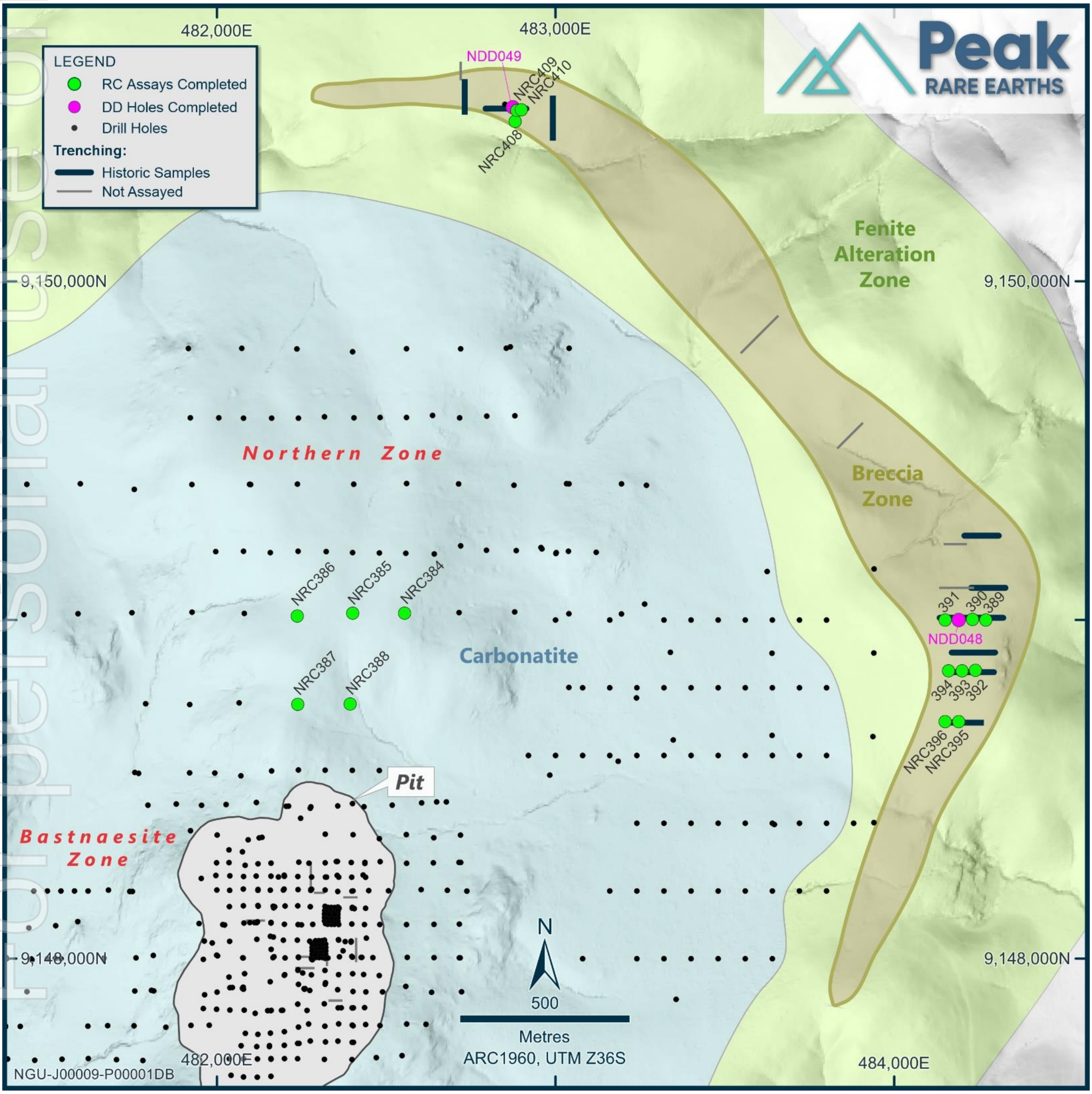


Figure 2. Plan view showing completed drill holes



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Geological results and interpretation – Breccia Zone

The assay results from the 11 RC and 3 DD drilled in the northern and southern Breccia Zones extend the wide and continuous zones of high-grade fluorspar mineralisation previously identified in trench sampling to depths of 70m.

Intersection highlights include:

Hole ID	Intersection
NDD048	**68m at 30.6% CaF_2** from surface to end of hole, including:
	6m at 61.5% CaF_2 *from surface;*
	8m at 58.1% CaF_2 *from 12m and*
	9.1m at 26.9% CaF_2 *from 72m to end of hole.*
NRC389	**58m at 27.1% CaF_2** from 14m, *including*:
	8m at 38.1% CaF_2 *from 36m and*
	8m at 45.7% CaF_2 *from 52m*
NRC390	**80m at 30.8% CaF_2** from surface to end of hole, *including*:
	10m at 42.5% CaF_2 *from surface;*
	8m at 41.9% CaF_2 *from 20m and*
	10m at 53.3% CaF_2 from 34m
NRC391	**44m at 34.7% CaF_2** from 28m, *including*:
	6m at 48.9% CaF_2 *from 40m and*
	12m at 48.7% CaF_2 *from 50m*
NRC393	**16m at 34.8% CaF_2** from surface, *including*:
	4m at 72.5% CaF_2 *from surface*
NRC408	**34m at 44.2% CaF_2** from surface, *including*:
	10m at 59.2% CaF_2 *from surface and*
	12m at 47.9% CaF_2 *from 16m*

See Table 3 for full report of all intersections.

The drill results support the potential of a globally significant fluorspar deposit. A summary of existing global fluorspar deposits and grades are set out in Appendix 2.

The mineralisation is located in a ring of hills formed by the alteration halo that surrounds the intrusive Ngualla Carbonatite. Fluorspar, niobium and rare earth mineralisation occur within this fenite alteration in a structural zone of brecciation and associated carbonatite dykes that can be traced over a strike length of 3.8km (Figure 2).

Two zones of mineralisation have been tested in this round of drilling, a southern area (Figure 1) and a northern area (Figure 3). In the southern area, wide and continuous zones of mineralisation have been intersected beneath the mineralised trenches. The most northerly of these drill lines returned the highest grades of fluorspar (Figure 1) with two holes ending in mineralisation. Drilling remains open to the north of this line.

The southern Breccia Zone holes also returned high-grade niobium and rare earth mineralisation. Highlights from the niobium mineralisation include:

Hole ID	Intersection
NRC390	**30m at 0.46% Nb_2O_5** from surface, *including*:
	6m at 0.81% Nb_2O_5 *from surface and*
	4m at 0.57% Nb_2O_5 *from 24m*
NRC391	**20m at 0.72% Nb_2O_5** from surface, *including*:
	18m at 0.77% Nb_2O_5 *from surface*

Shallow soil cover masks rock outcrop on the flanks of the hill around the southern Breccia Zone. Possible extensions to the fluorspar remain untested to the east and west, with several trenches starting and / or ending in mineralisation. Mineralisation also remains open along strike to the north and south.

In the northern area, approximately 2km to the northwest, the holes returned some of the highest-grade fluorspar from the drilling program, including **6m at 64% CaF_2** from surface in NRC408.

The northern Breccia Zone holes also intersected high-grade rare earths in addition to the fluorspar (Figure 3). Based on current spot prices, the basket value of the Breccia rare earth assemblage is 21% higher than the Bastnaesite Zone.

Trench ID	Intersection
NRC408	**34m at 3.77% REO** from surface, *Including*:
	8m at 4.87% REO *from 2m and*
	16m at 4.63% REO *from 14m*

See Table 3 for full report of all intersections.

Drill samples from the Breccia Zone have been analysed for deleterious element levels, with the results demonstrating that mineralisation of fluorspar and rare earths within the Breccia Zone are associated with low levels of radionuclides (thorium and uranium) and arsenic.

Table 2. Radionuclides and deleterious elements (Breccia Zone)

Element	Basis	Value (ppm)
Thorium	Th	93
Uranium	U	23
Arsenic	As	19

Note: Calculated from Breccia Zone trench intervals above 40% CaF_2.

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Figure 3. Cross section of Northern Breccia Zone (Section 9,150,500mN)

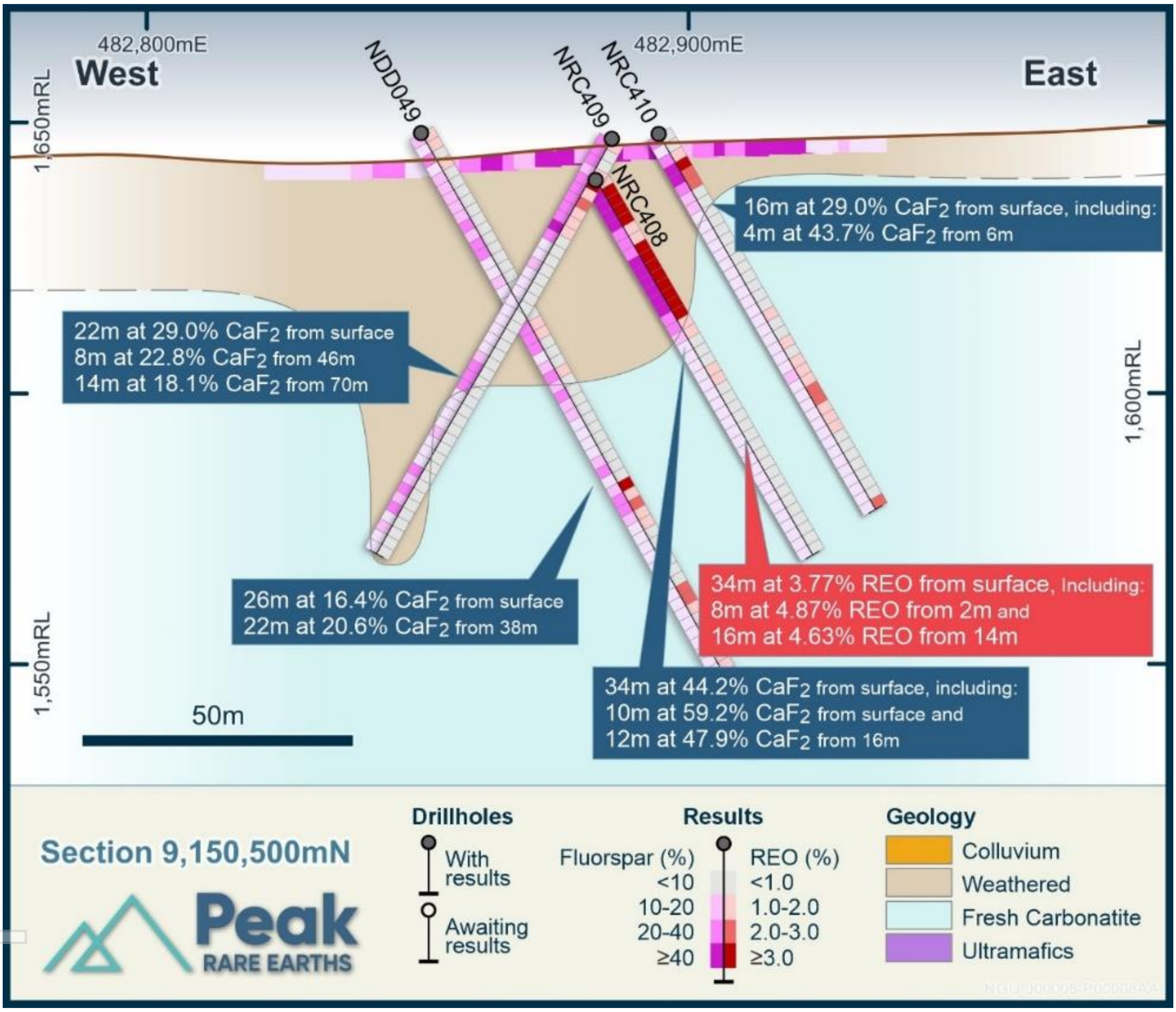

Table 3. Breccia Zone intersections

Hole ID	East	North	Hole Depth (m)	From (m)	To (m)	Interval (m)	Intercept (%)
Fluorspar							
NRC389	484,271	9,149,001	80	2	10	8	15.2
				14	72	58	27.1
			incl.	*36*	*44*	*8*	*38.1*
			and	*52*	*60*	*8*	*45.7*
NRC390	484,231	9,149,002	80	0*	80*	80	30.8
			incl.	*0**	*10*	*10*	*42.5*
			and	*20*	*28*	*8*	*41.9*

Hole ID	East	North	Hole Depth (m)	From (m)	To (m)	Interval (m)	Intercept (%)
			and	*34*	*44*	*10*	*53.3*
NRC391	484,151	9,148,999	80	4	8	4	14.8
				16	20	4	23.4
				28	72	44	34.7
			incl.	*40*	*46*	*6*	*48.9*
			and	*50*	*62*	*12*	*48.7*
NRC392	484,239	9,148,852	80	4	16	12	32.4
				50	54	4	14.3
				62	78	16	15.6
NRC393	484,203	9,148,853	80	0	16	16	34.8
			incl.	*0*	*4*	*4*	*72.5*
				38	50	12	17.4
				56	60	4	10.8
NRC394	484,162	9,148,855	80	58	80*	22	22.8
NRC395	484,194	9,148,702	68	0	4	4	18.2
				8	18	10	14.2
				62	68*	6	31.2
NRC396	484,152	9,148,704	80	2	54	52	23.3
			incl.	*4*	*8*	*4*	*44.4*
NRC408	482,883	9,150,478	80	0*	34	34	44.2
			incl.	*0**	*10*	*10*	*59.2*
			and	*16*	*28*	*12*	*47.9*
NRC409	482,886	9,150,504	88	0*	22	22	29.0
				46	54	8	22.8
				70	84	14	18.1
NRC410	482,894	9,150,506	80	0*	16	16	29.0
			incl.	*6*	*10*	*4*	*43.7*
NDD048	484,190	9,148,999	81.1	0*	68	68	30.6
			incl.	*0**	*6*	*6*	*61.5*
			and	*12*	*20*	*8*	*58.1*
				72	81.1*	9.1	26.9
NDD049	482,851	9,150,523	130	0*	26	26	16.4
				38	60	22	20.6
				68	82	14	16.5
Rare Earths (TREO)							
NRC389	484,271	9,149,001	80	32	38	6	2.48
			incl.	*34*	*38*	*4*	*3.18*
				42	46	4	3.19
				52	70	18	1.88
			incl.	*54*	*64*	*10*	*2.18*

Hole ID	East	North	Hole Depth (m)	From (m)	To (m)	Interval (m)	Intercept (%)
NRC391	484,151	9,148,999	80	0*	20	20	2.17
			incl.	*6*	*20*	*14*	*2.47*
				28	36	8	1.45
NRC396	484,152	9,148,704	80	0*	18	18	1.60
				36	56	20	2.45
			incl.	*38*	*46*	*8*	*3.07*
			and	*50*	*54*	*4*	*3.50*
NRC408	482,883	9,150,478	80	0*	34	34	3.77
			incl.	*2*	*10*	*8*	*4.87*
			and	*14*	*30*	*16*	*4.63*
NRC409	482,886	9,150,504	88	6	20	14	1.65
NRC410	482,894	9,150,506	80	4	12	8	2.44
			incl.	*6*	*12*	*6*	*2.90*
				44	64	20	1.60
			incl.	*54*	*58*	*4*	*2.63*
NDD049	482,851	9,150,523	81.1	0*	8	8	1.20
				74	84	10	2.25
				108	118	10	1.06
Niobium (Nb_2O_5)							
NRC389	484,271	9,149,001	80	62	70	8	0.32
NRC390	484,231	9,149,002	80	0*	30	30	0.46
			incl.	*0**	*6*	*6*	*0.81*
			and	*24*	*28*	*4*	*0.57*
				34	54	20	0.33
NRC391	484,151	9,148,999	80	0*	20	20	0.72
			incl.	*0**	*18*	*18*	*0.77*
				28	46	18	0.33
NRC393	484,203	9,148,853	80	12	24	12	0.29
				34	46	12	0.37
NRC395	484,194	9,148,702	68	10	20	10	0.29
				64	*68**	*4*	*0.84*

Note: Coordinate system in Arc 1960 UTM zone 36S. * = hole started and/or ended in mineralisation

Fluorspar. Intersections calculated using a lower grade cut of 10% CaF_2, minimum of 4m length, and a maximum of 2m internal dilution. Selected intersections >40% CaF_2 with a minimum length of 3m in italics. Fluorspar grade is reported from laboratory fluorine analyses on the assumption that all fluorine (F) is present as fluorspar (CaF_2), which is supported by field observations and calcium : fluorine geochemistry and ratios. Analysis by Nagrom, Perth, by fusion in nickel crucibles with ISE finish.

REO: Intersections calculated using a 1% REO lower cut and a maximum of 2m internal dilution. Selected intersections >2%REO with a minimum length of 3m in italics. REO = Total Rare Earth Oxides including yttrium. See Table 6 for relative distribution of individual rare earth oxide.

Geological results and interpretation – Northern Zone

The current phase of the Northern Zone drilling programme has been completed with the finalisation of assay results from 7 remaining drill holes. The programme was designed to test the extent of niobium and phosphate mineralisation in the Northern Zone and to assess the continuity of mineralisation between the two existing Northern Zone drill lines and the Southern Rare Earth Zone.

The results indicate that niobium, phosphate and rare earth mineralisation are broadly coincident in the Northern Zone, occurring in transported iron-rich sediments and a residual apatite-magnetite unit that infill the irregular karstic surface of the carbonatite. Mineralisation has been extended in both the northern and eastern directions based on the results received and remains open in these directions.

This latest round of results has confirmed the continuity of mineralisation between the Northern Zone and the Southern Rare Earth Zone (Figure 4). The mineralisation remains open to the north. Highlights from the latest results include:

Hole ID	Intersection
NRC384	**30m at 0.46% Nb_2O_5** from surface, *including*:
	4m at 0.92% Nb_2O_5 *from 24m*
NRC386A	**24m at 0.53% Nb_2O_5** from 6m, *including*:
	8m at 0.66% Nb_2O_5 *from 12m and*
	4m at 0.72% Nb_2O_5 *from 22m.*
NRC384	**41m at 22.9% P_2O_5** from 39m to end of hole
NRC388	**40m at 20.3% P_2O_5** from 6m

See Table 5 for full report of all intersections.

An evaluation of the Northern Zone rare earth mineralisation demonstrates a higher proportion of magnet rare earths relative to total rare earth oxides in the Bastnaesite Zone (Table 5). Based on current spot prices, the basket value of the Northern Zone rare earth assemblage is 40% higher than the Bastnaesite Zone.

Drill samples have been analysed for deleterious element levels, with assays completed to date demonstrating that mineralisation of niobium, phosphate and rare earths within the Northern Zone are associated with low levels of radionuclides (thorium and uranium) and heavy metals (cadmium and lead).

Table 4. Radionuclides and deleterious elements (Northern Zone)

Element	Basis	Value (ppm)
Thorium	Th	111
Uranium	U	98
Cadmium	Cd	5
Lead	Pb	455

Note: Calculated from recent and previous Northern Zone drilling intervals above 0.25% Nb_2O_5

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Table 5. Northern Zone intersections

Hole ID	East	North	Hole Depth (m)	From (m)	To (m)	Interval (m)	Intercept (%)
Niobium (Nb_2O_5)							
NRC384	482,554	9,149,020	80	0*	30	30	0.46
			incl.	*24*	*28*	*4*	*0.92*
				34	48	14	0.40
			incl.	*39*	*42*	*3*	*0.56*
				52	72	20	0.44
			incl.	*54*	*64*	*10*	*0.54*
NRC385	482,401	9,149,020	80	6	20	14	0.39
			incl.	*16*	*20*	*4*	*0.54*
NRC386	482,238	9,149,012	40	0*	18	18	0.50
			incl.	*12*	*18*	*6*	*0.86*
NRC386A	482,239	9,149,021	61	6	30	24	0.53
			incl.	*12*	*20*	*8*	*0.66*
			and	*22*	*26*	*4*	*0.72*
				38	51	13	0.96
				38	50	12	1.01
NRC387	482,239	9,148,751	80	0*	14	14	0.44
NRC388	482,394	9,148,752	74	6	44	38	0.40
Phosphate (P_2O_5)							
NRC384	482,554	9,149,020	80	6	34	28	16.7
				39	80*	41	22.9
NRC386A	482,239	9,149,021	61	6	32	26	17.4
				42	51	9	23.1
NRC388	482,394	9,148,752	74	6	46	40	20.3
Rare Earths (TREO)							
NRC384	482,554	9,149,020	80	0*	10	10	1.48
				30	40	10	1.54
NRC385	482,401	9,149,020	80	0*	18	18	1.45
NRC386	482,238	9,149,012	40	0	16	16	1.16
NRC386A	482,239	9,149,021	61	0	22	22	1.06

Note: Coordinate system in Arc 1960 UTM zone 36S. * = hole started and/or ended in mineralisation. Samples are 2m composites from angled -60 west RC drilling. *Niobium*: Intersections with a minimum width of 8m at >0.25% niobium oxide are reported. Intersections calculated using a 0.25% Nb_2O_5 lower cut and a maximum of 2m internal dilution. Selected intersections >0.5% Nb_2O_5 in italics. *Phosphate*: Intersections with a minimum width of 8m at >10% phosphate are reported. Intersections calculated using a 10% P_2O_5 lower cut and a maximum of 2m internal dilution. *REO*: Intersections with a minimum width of 8m at >1% REO are reported. Intersections calculated using a 1% REO lower cut and a maximum of 2m internal dilution. Selected intersections >2%REO in italics. REO = Total Rare Earth Oxides including yttrium. See Table 6 for relative distribution of individual rare earth oxide.

Figure 4. Current extent of mineralisation (phosphate and niobium)

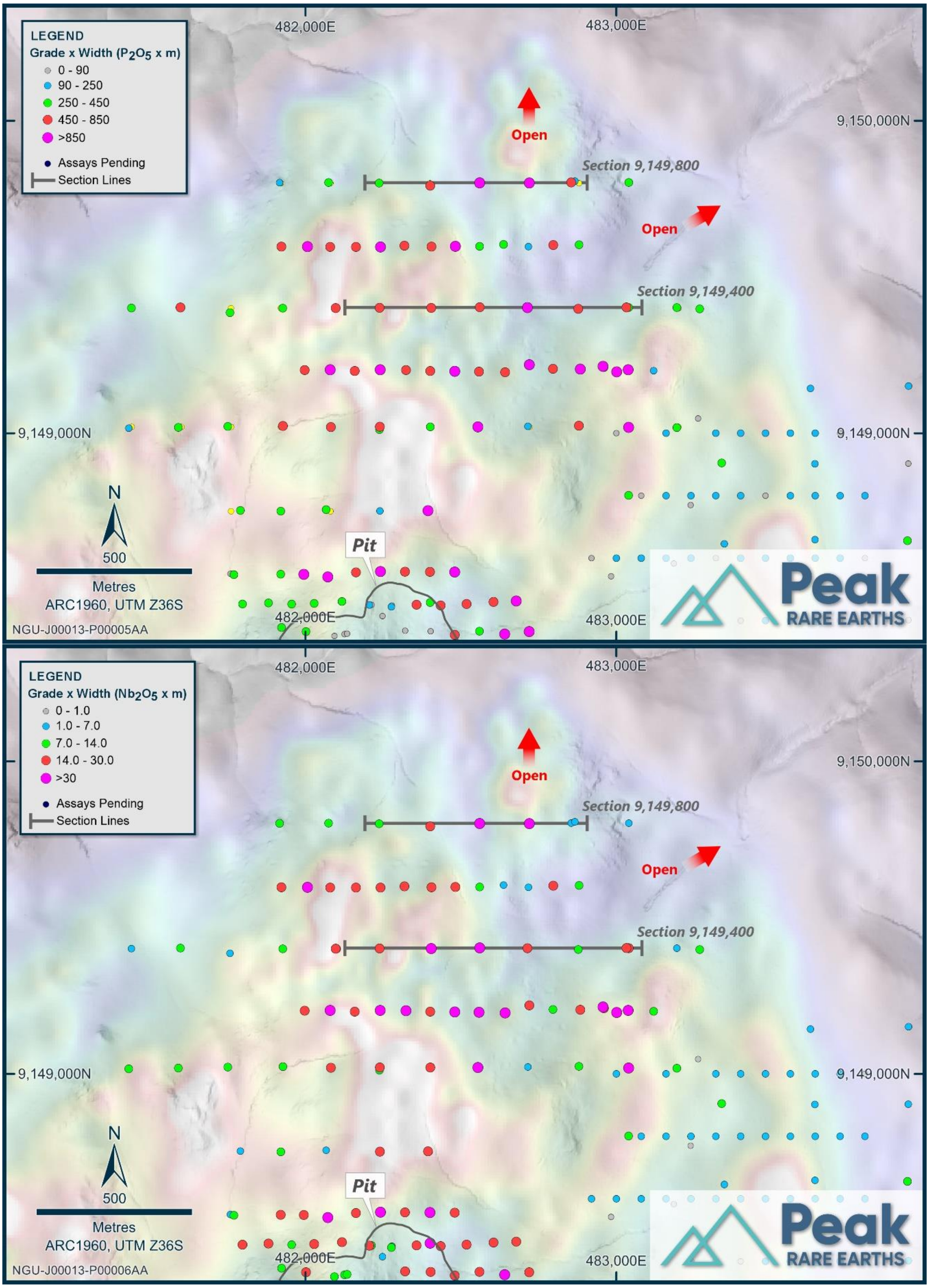
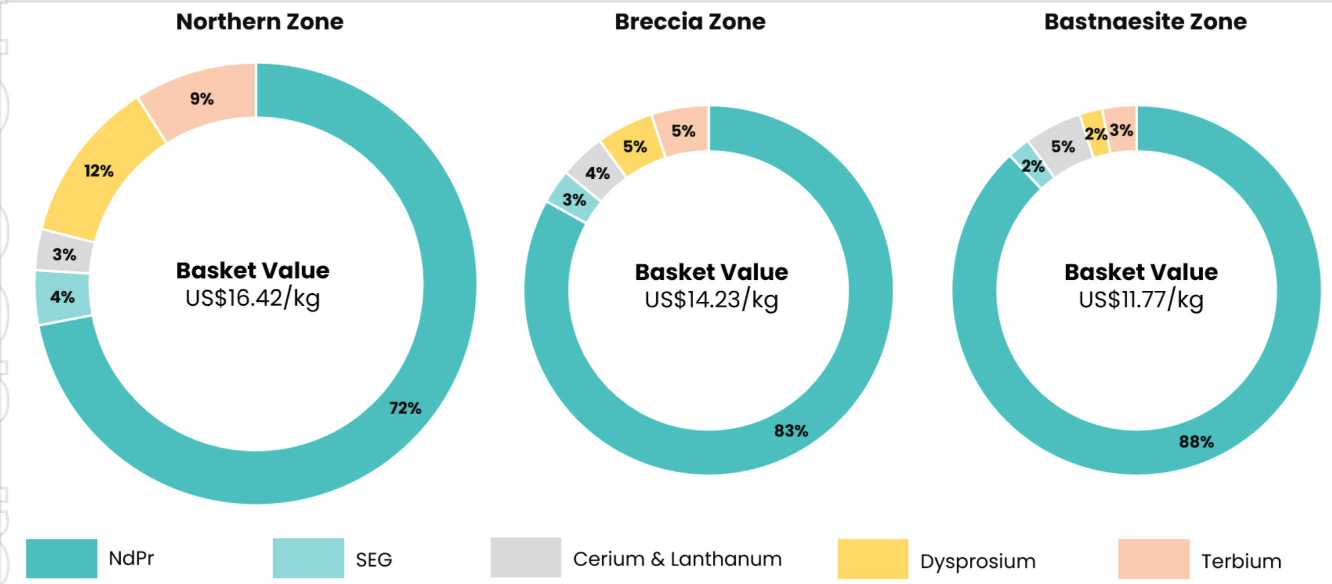


Figure 5. Basket value of rare earth assemblage within Northern Zone and Breccia Zone



Based on spot prices as at 15 March 2024 (Asian Market) – Neodymium US$48.7/kg, Praseodymium US$48.7/kg, Lanthanum – US$0.5/kg, Cerium – US$0.5/kg, Samarium – US$1.9/kg, Europium – US$24.8/kg, Gadolinium – US$22.5/kg, Terbium – US$750.7/kg and Dysprosium – US$254.4/kg

Table 6. Rare earth oxide grades and REO assemblage in the Northern Zone above 1% REO, Breccia Zone above 1% REO and the Weathered Bastnaesite Zone Mineral Resource

		Northern Zone*		Breccia Zone*		Mineral Resource**	
Rare earth oxide		**REO %**	**% of REO**	**REO %**	**% of REO**	**REO %**	**% of REO**
Lanthanum	La_2O_3	0.30	21.5	0.53	24	1.310	27.6
Cerium	CeO_2	0.62	44.5	1.00	46.1	2.293	48.3
Praseodymium	Pr_6O_{11}	**0.07**	**5.2**	**0.11**	**5.3**	**0.227**	**4.77**
Neodymium	Nd_2O_3	**0.27**	**19.1**	**0.4**	**18.8**	**0.784**	**16.5**
Samarium	Sm_2O_3	0.04	2.98	0.05	2.4	0.076	1.60
Europium	Eu_2O_3	0.01	0.77	0.01	0.5	0.014	0.29
Gadolinium	Gd_2O_3	0.03	1.85	0.02	1.0	0.029	0.61
Terbium	Tb_4O_7	**0.003**	**0.20**	**0.002**	**0.1**	**0.002**	**0.05**
Dysprosium	Dy_2O_3	**0.01**	**0.77**	**0.006**	**0.3**	**0.004**	**0.07**
Holmium	Ho_2O_3	0.001	0.11	0.001	0.04	0.000	0.01
Erbium	Er_2O_3	0.003	0.23	0.001	0.08	0.002	0.03
Thulium	Tm_2O_3	0.000	0.02	0.000	0.01	0.000	0.00
Ytterbium	Yb_2O_3	0.002	0.12	0.001	0.04	0.001	0.01
Lutetium	Lu_2O_3	0.000	0.01	0.000	0.01	0.000	0.00
Yttrium	Y_2O_3	0.04	2.63	0.02	1.16	0.010	0.20
Total REO		**1.40**	**100**	**2.16**	**100**	**4.75**	**100**

* Recent and previous Northern Zone/Breccia Zone drilling >= 1%REO. ** Ngualla 2016 weathered Bastnaesite Zone Mineral Resource >= 1% REO. Refer to the ASX announcement 24 October 2022 for Mineral Resource estimates. The Company confirms that at this time it is not aware of any new information or data that materially affects the information included in the announcement. The Company further confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the market announcement.

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Status and next steps

All drilling and assays related to the current critical minerals exploration campaign have been completed. The multi-commodity potential of the Ngualla deposit will continue to be evaluated via the following near-term activities:

- Updating the conceptual model of the Northern Zone to identify future drill targets and preferential areas of mineralisation for future development;
- Mineralogical analysis of the fluorspar DD core from the Breccia Zone; and
- Preliminary flowsheet evaluation for both the Breccia Zone and Northern Zone.

Peak intends to continue engagement with strategic parties around low-cost phosphate and fluorspar development options that could complement the delivery of the Ngualla Rare Earth Project.

Additional drilling will also be evaluated as part of the next phase of the critical minerals exploration programme.

This announcement is authorised for release by the Company's Executive Chairman and Chief Executive Officer.

Bardin Davis

Chief Executive Officer

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Competent Persons Statement

Information in this Announcement that relates to exploration results is based upon work undertaken by Maggie Hughes, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Maggie Hughes has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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'(JORC Code). Maggie consents to the inclusion in this announcement of the matters based on her information in the form and context in which it appears.

Forward Looking Statements

Certain statements contained in this announcement may constitute forward-looking statements, estimates and projections which by their nature involve substantial risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. When used in this announcement, the words "anticipate", "expect", "estimate", "forecast", "will", "planned", and similar expressions are intended to identify forward-looking statements or information. Such statements include without limitation: statements regarding timing and amounts of capital expenditures and other assumptions; estimates of future reserves, resources, mineral production, optimisation efforts and sales; estimates of mine life; estimates of future internal rates of return, mining costs, cash costs, mine site costs and other expenses; estimates of future capital expenditures and other cash needs, and expectations as to the funding thereof; statements and information as to the projected development of certain ore deposits, including estimates of exploration, development and production and other capital costs, and estimates of the timing of such exploration, development and production or decisions with respect to such exploration, development and production; estimates of reserves and resources, and statements and information regarding anticipated future exploration; the anticipated timing of events with respect to the Company's projects and statements; strategies and the industry in which the Company operates and information regarding the sufficiency of the Company's cash resources. Such statements and information reflect the Company's views, intentions or current expectations and are subject to certain risks, uncertainties and assumptions, and undue reliance should not be placed on such statements and information. Many factors, known and unknown could cause the actual results, outcomes and developments to be materially different, and to differ adversely, from those expressed or implied by such forward looking statements and information and past performance is no guarantee of future performance. Such risks and factors include, but are not limited to: the volatility of prices of rare earth elements and other commodities; uncertainty of mineral reserves, mineral resources, mineral grades and mineral recovery estimates; uncertainty of future production, capital expenditures, and other costs; currency fluctuations; financing of additional capital requirements; cost of exploration and development programs; mining risks; community protests; risks associated with foreign operations; governmental and environmental regulation; the volatility of the Company's stock price; and risks associated with the Company's by-product metal derivative strategies. There can be no assurance that forward looking statements will prove to be correct.

Appendix 1: Drill hole locations

Hole ID	East	North	RL	Dip	Azimuth	Length (m)
NDD048	484,190	9,148,999	1,588	-60	92	81.1
NDD049	482,851	9,150,523	1,648	-60	87	130
NRC384	482,554	9,149,020	1,676	-61	270	80
NRC384A	482,558	9,149,020	1,675	-60	270	10
NRC385	482,401	9,149,020	1,677	-59	271	80
NRC386	482,238	9,149,012	1,661	-61	269	46
NRC386A	482,239	9,149,021	1,661	-58	273	61
NRC387	482,239	9,148,751	1,670	-60	271	80
NRC388	482,394	9,148,752	1,646	-60	269	80
NRC389	484,271	9,149,001	1,589	-61	91	80
NRC390	484,231	9,149,002	1,589	-60	90	80
NRC391	484,151	9,148,999	1,584	-61	96	80
NRC392	484,239	9,148,852	1,601	-60	95	80
NRC393	484,203	9,148,853	1,597	-61	92	80
NRC394	484,162	9,148,855	1,593	-60	93	80
NRC395	484,194	9,148,702	1,590	-60	91	77
NRC396	484,152	9,148,704	1,583	-61	92	80
NRC408	482,883	9,150,478	1,646	-60	90	80
NRC409	482,886	9,150,504	1,647	-61	269	88
NRC410	482,894	9,150,506	1,648	-60	89	80

Appendix 2: Global fluorspar deposits

Project	Owner	Location	Reserve	Resource
St Lawrence[1]	Canada Fluorspar	Canada	-	10Mt @ 41.0% CaF_2
Windsor/ Speewah[2]	Tivan	Australia	-	27Mt @ 9.5% CaF_2
Storuman[3]	Tertiary Minerals	Sweden	-	28Mt @ 10.2% CaF_2
Ashram	Commerce Resources	Canada	-	249Mt @ 4.7% CaF_2
Nokeng	Sephaku Holdings	South Africa	-	11Mt @ 29.5% CaF_2
Doornhoek	Eurasian Resources Group	South Africa	-	517Mt @ 13.8% CaF_2
Liard	Ares Strategic Mining	Canada	-	3Mt @ 32.0% CaF_2
Maly	KHD Fluorspar	Mongolia	-	3Mt @ 33.0% CaF_2
Moina	Mazel Resources	Australia	-	25Mt @ 16.0% CaF_2

[1]Updated Pre-Feasibility Study Ni 43-101 Report, March 2023
[2]King River Copper Limited Maiden Mineral Resource Estimate for Speewah Fluorspar Project, 23 February 2018
3Tertiary Minerals website
4Commerce Resources website
5Sephaku Holdings website
6Doornhoek Fluorspar Project Presentation, Juinor Indaba, 2 June 2016
7Ares Strategic Mining website
8KHD Fluorspar website
9Moina Project Summary, Geotech International, April 2020

Appendix 3: Section 1 Sampling Techniques and Data (JORC Code 2012 Edition)

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

Criteria	Explanation	Commentary
Sampling techniques	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. 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 (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.	The RC samples were collected over 1 m intervals. A 3-tier riffle splitter was used to split and combine adjacent samples to form a 2 m composite, with a 2 kg split submitted for laboratory testing. Diamond core samples were collected over a nominal interval length of 2 m within lithological units and core run blocks. Quarter core samples were submitted for geochemical testing. The total lengths of all drill holes were sampled and submitted for assaying. Sample preparation and assaying procedures are described below.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The RC samples were collected using track mounted rigs equipped with 5.5" face sampling button bits and 6 m rods. The diamond core samples were collected using PQ3 coring equipment in the weathered friable material at surface (up to 6m) and HQ3 equipment in fresh material. A rod length of 6 m was used. Because of the weathered nature of the host rock and the

		disseminated nature of the mineralisation, it was not considered possible or necessary to orient the core.
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.	For the RC program, a face sampling bit was used to improve recovery and reduce contamination. Each sample was weighed, with the weight compared to the theoretical weight estimated from the hole diameter and expected density. The drill rods were air flushed after each sample to minimise contamination. The RC sample moisture content was qualitatively logged and recorded. Diamond core samples were collected using triple-tube coring equipment. The drilling was performed in short runs and at slow rates to maximise core recovery. The runs were marked and checked against the drillers' core blocks to ensure any core loss was recorded. A number of studies have been conducted at Ngualla to assess whether there is any relationship between recovery and grade, with no significant correlation identified. Material from the drill return and cyclone overflow have been periodically collected and assayed, and good correlation with the primary sample grades was observed. A number of DDH and RC twinned holes have been drilled at Ngualla. Close lithological and grade correlation was observed between the twinned datasets, with no evidence of significant differences that may indicate issues with one or both of the sampling methods.
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.	All DDH and RC intervals were geologically logged, with information pertaining to lithology, mineralogy, weathering, and magnetic susceptibility collected and recorded.

	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	RC sample weights were recorded. DDH recovery relative to drill length was recorded. RQD was measured and recorded for DDH intervals. Because the DDH cores were not oriented, structural orientation data were not recorded. The logging datasets comprised a mix of qualitative (lithology, weathering, mineralogy) and quantitative (RQD, magnetic susceptibility, recovery) information. The remaining three-quarter core pieces were returned to the core trays and stored for reference or subsequent testing. A small amount of material from each 1 m RC sample was collected and stored in chip trays. All core samples and chip trays were photographed. Logging was performed on the full length of each hole, with the level of detail considered appropriate to support mineral resource estimation studies.
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	RC chip samples were collected from each 1 m interval using a standalone 3-tier riffle splitter configured to give a 1/8 split. A scoop was used to collect an equal-sized portion from adjacent samples, which were combined to produce 2 m composites. Replicate samples were collected to confirm that scooping did not introduce significant bias or precision issues. Core samples were terminated at lithological contacts and at the end of each core run (which were marked by core blocks) or at 2 m intervals within lithological units. The cores were longitudinally split using a core saw for fresh material and a knife for weathered material, with quarter-core samples submitted for assaying. Peak has established a set of quality

	grain size of the material being sampled.	assurance (QA) protocols, which include the collection and insertion of field duplicates and certified reference samples into the sample stream prior to submission to the laboratory. Coarse crushed blanks are inserted by the laboratory prior to sample preparation. The QA samples are inserted at random, but at a frequency that averages 1:30 for each type. Twinned DDH and RC datasets were examined to confirm that the sample collection procedures had not resulted in significant bias or precision issues. The QA data does not indicate that there are any significant issues with the weight/particle size combinations used for sample preparation.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	A 50 g pulp from each sample was submitted to Nagrom, Perth for assaying using the three following techniques: Fused bead XRF analysis**:** the prepared sample is fused in lithium borate flux with lithium nitrate additive. The resultant glass bead is analysed by XRF. Analytes: Al, Ba, Ca, Cu, Fe, K, Na, Ni, Mg, Mn, P, Pb, S, Si, Ti, Zn, Zr, LOI. Peroxide fusion digest: the prepared sample is fused with sodium peroxide and digested in dilute hydrochloric acid. The resultant solution is analysed by ICP. Analytes: Cd, Ce, Dy, Eu, Er, Gd, Ho, La, Lu, Nb, Nd, Pr, Sc, Sm, Ta, Tb, Th, Tm, U, Y, Yb. Fusion in Nickel Crucibles With ISE Finish: Prepared sample is fused and then leached with water. The resultant solution is buffered and then read with a Fluoride Ion Selective Electrode. This method gives total fluoride values. Analytes: F

		No geophysical tools have been used to determine element grades for mineralisation at Ngualla. Laboratory performance was monitored using the results from the QA samples inserted by Peak (see above). The Standards consist of Certified Reference Materials prepared by OREAS Australia. Inter-laboratory checking of analytical outcomes is routinely undertaken to ensure continued accuracy and precision by the primary laboratory. All QA data are stored in the Ngualla database and regular studies are undertaken to ensure laboratory performance is within acceptable levels of accuracy. The QA studies confirm that accuracy and precision are within industry accepted limits.
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.	Significant intersections were verified by alternative Peak personnel. Peak have twinned 33 RC holes with DDH at Ngualla. Comparisons between the two datasets indicate the pairs generally show very good lithological and grade correlation. Primary data were handwritten onto pro-forma logging sheets in the field and then entered into Excel spreadsheets at the Ngualla site office. The spreadsheets include in-built validation settings and look-up codes. Scans of original field data sheets are digitally stored and secured. The data entered into the spreadsheets are reviewed and validated by the field geologist before being imported into a secure central database, managed by SRK Australia. Data collection and entry procedures are documented, and all staff involved in these

		activities are trained in the relevant procedures. With the exception of setting grades recorded as below detection to half the detection limit in the extracts used for mineral resource estimation, no adjustments to any the assay data have been made.
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.	The spatial data for Ngualla are reported using the ARC 1960 UTM, Zone 36S coordinate system. Drill collars were surveyed using a handheld GPS. A DGPS survey is currently being conducted, which will replace the GPS surveys once complete. Down hole surveys were completed during drilling using Reflex Gyro Sprint-IQTM, with readings taken at a nominal interval of every 10m down all DDH holes and RC holes. The elevation for each drill hole collar was adjusted to the elevation of a laterally coincident point on the topographic surface derived from a LiDAR survey flown for Peak by Digital Mapping Australia Pty Ltd in 2012. The LiDAR data have a reported accuracy of 10 cm in elevation and 15 cm north and south.
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 nominal drill hole spacing is 40 x 150 m in the Breccia Zone and 160 x 200 m in the Northern Zone. 1 m RC drill samples were combined in the field to form 2 m composite samples for final assay submission; 2 m composites are considered adequate for resource estimation and for the definition needed for the likely mining techniques for this style of mineralisation.
Orientation of data in	Whether the orientation of sampling achieves unbiased sampling of possible	The local karstic and magmatic structures display a variety of orientations and most of

relation to geological structure	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 drilling has been conducted on east-west traverses with holes angled 60° to the west. This orientation is considered suitable for the dominant mineralisation orientations. No orientation-based sampling biases have been identified or are expected for this style of mineralisation.
Sample security	The measures taken to ensure sample security.	The chain of custody of samples is managed by Peak. The samples are kept in sealed bags at an onsite storage facility prior to being trucked to the SGS laboratory Mwanza by Peak personnel. The Mwanza laboratory checks the received samples against the sample despatch forms and issues a reconciliation report. Following sample preparation, the pulp samples are transported to Nagrom, Perth by tracked air freight.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An SRK Consultant audited Peak's sampling, QAQC, and data entry protocols during a site visit at the start of the drilling campaign and considered the procedures to be consistent with industry best practice, and the data of sufficient quality for resource estimation.

Appendix 4: Section 2 Reporting of Exploration Results (JORC Code 2012 Edition)

(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.	The mineralisation lies wholly within the Special Mining Licence 693/2023 granted to Mamba Minerals Corporation Limited on 25 April 2023 (Mamba Minerals). Mamba Minerals was incorporated to hold the SML to develop and operate the Ngualla Project. Its shareholders on incorporation and currently are Peak 100% subsidiary, Ngualla Group UK Limited (NGUK) and the Office of the Treasury Registrar for and on behalf of the United Republic of Tanzania Government (the Registrar). NGUK holds 84% of the issued capital of Mamba Minerals, with the Registrar holding 16%. The SML is initially for a term of 30 years over the area set out in the original SML application, which covers ~18.14km2 and contains the Ngualla Project deposit. The SML area will be expanded in the future to include an existing Prospecting Licence (PL 10897/2016) and the expired Prospecting Licence (PL 9157/2013). The initial term will also be amended to be the shorter of 33 years and the life of the mine, with the ability to extend on application in accordance with the law at the time. There is no habitation or farming on the mineralised area and there are no wilderness, historical sites, national parks or environmental settings known to Peak at this time that would impede development and operation of the Ngualla Project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No systematic exploration for rare earths, niobium or fluorspar had been undertaken at Ngualla prior to Peak Resources acquiring the project in 2009. Limited reconnaissance exploration and surface sampling for phosphate had been

		undertaken by a joint Tanzanian-Canadian university based non-government organisation in the early 1980s.
Geology	Deposit type, geological setting and style of mineralisation.	The Ngualla Project is centred on the Ngualla Carbonatite, a 4 km x 3.5 km pipe-like intrusive body composed of carbonate mineral-rich, alkaline igneous rocks. The predominant components of the complex are an annular calcite carbonatite (and magnesiocarbonatite) and a central body of ferrocarbonatite. Weathering of the Ngualla carbonatite complex and landscape evolution were critical factors in the formation of the rare earth oxides, phosphate and niobium mineralisation. The mechanism of weathering differs according to carbonatite type and the different processes of mineralisation. Mineralisation has been residually enriched in the oxide zone at surface through weathering and the removal of carbonate minerals to variable depths of up to 140 m vertically. Rare earth elements are enriched in the central ferrocarbonatite relative to the calcite carbonatite and magnesiocarbonatite, but the calcite carbonatite is the main source of phosphate and niobium. Fluorspar mineralisation has been identified within a 3.8 km long structural zone or brecciated fenite within the alteration halo that surrounds the intrusive carbonatite.
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 –	The drill hole plan in Figure 2 illustrates the distribution of drilling and the details are tabulated in Appendix 1.

	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.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.	The massive and consistent nature of the mineralisation at Ngualla and the resulting uniform grade distribution does not require the statement of any higher-grade intervals when using a 1% REO lower cut-off grade, a 10% phosphate lower cut-off grade, a 0.25% niobium oxide lower cut-off grade or a 10% fluorspar grade. Rare earth grade is reported as 'Total Rare Earth Oxide', (REO), which is calculated as the sum of the individual 14 rare earth oxides plus yttrium, as shown in Table 6 of this document. No metal equivalents are reported in the intersection table.
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 (e.g. 'down hole length, true width not known').	Ngualla's rare earth and phosphate mineralisation occurs as a thick horizontal blanket developed over an irregular karstic surface that has both vertical and horizontal form and is developed on a vertical primary magmatic fabric, therefore there are both horizontal and vertical controls. Drilling reported is all at 60° to the west in the Northern Zone and 60° to the east in the Breccia Zone to best intersect both the vertical and horizontal components. All reported intersections are down hole lengths.

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.	The accompanying document is considered to represent a balanced report. Reporting of grades is done in a consistent manner. All previous significant intersections have been fully reported in previous releases.
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.	The accompanying document is considered to represent a balanced report. Reporting of grades is done in a consistent manner. All previous significant intersections have been fully reported in previous releases.
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.	Multi-element assaying is carried out on all samples, including for potentially contaminating elements and radioactive elements such as uranium and thorium. Other exploration data is not considered material to this document at this stage.
Further work	The nature and scale of planned further work (e.g. 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 drilling and sampling will be planned following completion and assessment of the current program.