

29 March 2023

Wide Clay REE Mineralisation Confirmed from Initial Drilling at Hyden Project

KEY HIGHLIGHTS

- Initial drilling has confirmed wide zones of clay REE mineralisation including:
 - o 54m @ 758ppm TREO from surface to EOH (23HYD011)
 - o 43m @ 877ppm TREO from 8 metres to EOH (23HYD012)
 - o 30m @ 938ppm TREO from 8 metres (23HYD014)
 - o 50m @ 664ppm TREO from 4 metres (23HYD005)
 - o 30m @ 742ppm TREO from surface to EOH (23HYD002)
 - o 26m @ 674ppm TREO from 13 metres to EOH (23HYD018)
 - 21m @ 707ppm TREO from surface to EOH (23HYD021)
 - o 25m @ 932ppm TREO from surface (23HYD022)
 - o 15m @ 1,092ppm TREO from 14 metres (23HYD020)
 - 15m @ 741ppm TREO from 3 metres (23HYD003)
 - 9m @ 1,015 ppm TREO from 8 metres to EOH (23HYD010)
- Each of the intervals contain higher grade core zones of mineralisation of grading over 1,000ppm TREO over significant widths, with results up to 3,607ppm TREO identified.
- Drilling was carried out over an area of approximately 500m x 500m (see Figure 2)
- The mineralisation remains open in all directions.
- Of the 22 initial holes completed, significant mineralisation was identified in 20 holes with 14 ending in mineralisation.
- Drilling of the initial 50 holes into the gravity anomaly identified to the east of the clay mineralisation is progressing well, with sampling expected to be completed this week.

Mamba Exploration Limited (ACN 644 571 826) ('**Mamba**', '**M24**' or the '**Company**') is pleased to advise that the initial drilling over the previously identified clay REE target has intersected significant widths of mineralisation in 20 of the initial 22 holes completed at the Hyden REE project. The Hyden REE project, which consists of 9 exploration licences for 1,316km², is located approximately 300 km east of Perth in the Western Australian wheatbelt (see Figure 1).



Managing Director, Mike Dunbar said:

"It is pleasing to intersect such significant widths of clay REE mineralisation from the initial drilling at Hyden. While we are surprised by the width and consistency of the mineralisation, it is also surprising that the mineralisation is so shallow, with little or no surficial cover over the clay mineralisation. It is also very encouraging that the mineralisation can be traced over the entire extent of the drilling, some 500m x 500m and remains open in all directions.

While tracing the clay mineralisation has been a priority, it is also pleasing to report that of the 22 holes completed so far, 14 of the holes ended in significant mineralisation. This suggests that there is potential for not only clay hosted mineralisation, but also bedrock mineralisation in the area.

We can also report that the drilling of the recently identified gravity anomaly is progressing very well. We expect that the sampling of these holes will be completed this week, allowing them to be submitted to the laboratory for analysis by the end of the week."

The initial drilling was undertaken around the historically identified high grade clay REE mineralisation, with 22 holes successfully completed over the clay target (see Figure 2). Of the initial drilling completed, 20 holes intersected significant widths of clay hosted mineralisation including;

- 54m @ 758ppm TREO from surface to EOH (23HYD011)
- 43m @ 877ppm TREO from 8 metres (23HYD012)
- 30m @ 938ppm TREO from 8 metres (23HYD014)
- 50m @ 664ppm TREO from 4 metres (23HYD005)
- 30m @ 742ppm TREO from surface to EOH (23HYD002)
- 26m @ 674ppm TREO from 13 metres to EOH (23HYD018)
- 21m @ 707ppm TREO from surface to EOH (23HYD021)
- 25m @ 932ppm TREO from surface (23HYD022)
- 15m @ 1,092ppm TREO from 14 metres (23HYD020)
- 15m @ 741ppm TREO from 3 metres (23HYD003), and
- 9m @ 1,015ppm TREO from 8m to EOH (23HYD010)

See Table 1 and Figure 2 for details and Table 2 for collar details and Table 3 for full REE analysis.



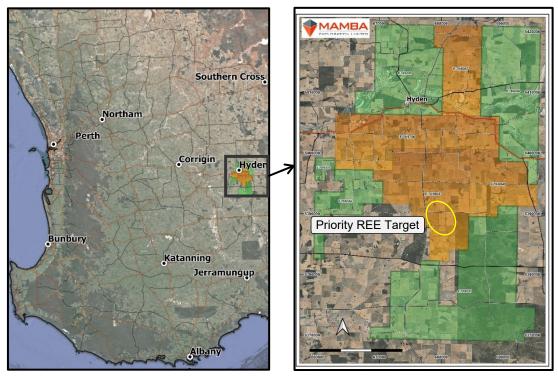


Figure 1: Location of Mamba Exploration's Hyden Project (LHS) and the Hyden Option Tenements (orange) and recently granted Exploration Licences (green) (RHS).



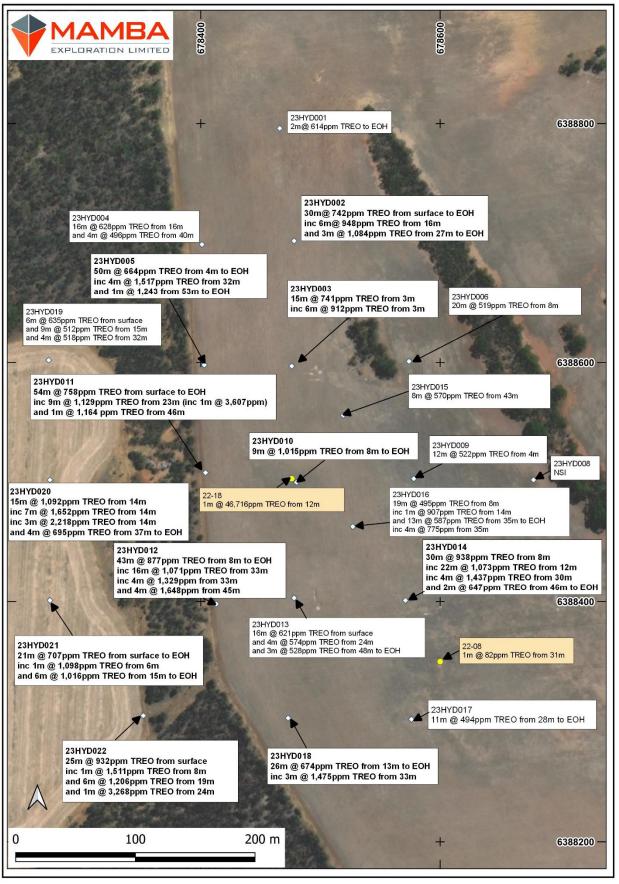


Figure 2: Hyden Project: Initial clay target aircore drilling with significant Intersections highlighted (beige boxes: historical results, white: new results).



Within the wide zones of mineralisation, narrower zones containing higher grades were intersected including;

- 7m @ 1,652ppm TREO from 14m (23HYD020)
- 22m @ 1,073 ppm TREO from 12m (23HYD014)
- 16m @ 1,071ppm TREO from 33m (23HYD012)
- 9m @ 1,129ppm TREO from 23m (23HYD011)
- 3m @ 1,475ppm TREO from 33m (23HYD018) and
- 6m @ 1,206ppm TREO from 19m (23HYD022).

Individual samples of up to 3,607ppm TREO were reported.

The mineralisation can be traced over the entire area covered by the initial drilling, some 500m north to south and approximately 500m east to west and remains open in all directions.

Importantly this shallow drilling was the first systematic test of the potential for clay hosted REE mineralisation and encouragingly 14 of the initial 22 holes completed ended in mineralisation, suggesting that there is potential for bedrock REE mineralisation in the area as well as the clay hosted mineralisation.

The breakdown of the types of REO's is highly variable within each of the mineralised intervals, with heavy rare earth oxides (HREO's) representing between 8% and 90%; and light rare earth oxides (LREO's) between 92% and 10%. Additional analysis is being undertaken to better understand the distribution of the various rare earth oxides within the clay target zone, as the different elements are likely to have very different mineralogy and metallurgical characteristics as well, representing substantially different value depending on the distribution.

The Company has also recently engaged RSC Mining and Mineral Exploration to undertake detailed scanning electron microscope (SEM) analysis of a number of the Hyden samples. This will assist in determining the mineralogy and element mapping of the REE samples as well, to better understand the distribution of the REE minerals and the potential of the area.

As announced on the 22nd of March, the initial drilling of the gravity anomaly identified approximately 2.5km east of the clay target has commenced (see Figure 3). This drilling is progressing very well, with the sampling of these holes expected to be completed this week.



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Hole Number	From (m)	To (m)	Interval (m)	TREO Grade (ppm)	Comments
23HYD001	24	26	2	614	EOH
23HYD002	0	30	30	742	EOH
inc	16	22	6	948	
inc	27	30	3	1084	EOH
23HYD003	3	18	15	741	
inc	3	9	6	912	
23HYD004	16	32	16	628	
and	40	44	4	496	
23HYD005	4	54	50	664	EOH
inc	32	36	4	1517	
inc	53	54	1	1243	EOH
23HYD006	8	28	20	519	-
23HYD009	4	16	12	522	
23HYD010	8	17	9	1015	EOH
inc	12	17	5	1366	EOH
23HYD011	0	54	54	758	EOH
inc	23	32	9	1129	2011
inc	31	32	1	3607	
inc	46	47	1	1164	
23HYD012	8	51	43	877	EOH
inc	33	49	43 16	1071	LOII
inc	33	49 37	4	1329	
inc	45	49	4	1648	
23HYD013	45	49 16	4 16	621	
	24	28	4	574	
and	48	20 51	3	528	ГОЦ
and 23HYD014	40 8	38	30 30		EOH
	0 12			938	
inc		34	22	1073	
inc	30	34	4	1437	5011
and	46	48	2	647	EOH
23HYD015	43	51	8	570	EOH
23HYD016	8	27	19	495	
inc	14	15	1	907	
and	35	48	13	587	EOH
	35	39	4	775	=
23HYD017	28	39	11	494	EOH
23HYD018	13	39	26	674	EOH
inc	33	36	3	1475	
23HYD019	0	6	6	635	
and	15	24	9	512	
and	32	36	4	518	
23HYD020	14	29	15	1092	
inc	14	21	7	1652	
inc	14	17	3	2218	
and	37	41	4	695	EOH
23HYD021	0	21	21	707	EOH

 Table One:
 Significant (+500ppm) TREO Mineralisation Intersected from the Initial Drilling completed at the Clay Target Area.



Hole Number	From (m)	To (m)	Interval (m)	TREO Grade (ppm)	Comments
inc	6	7	1	1098	
inc	15	21	6	1016	EOH
23HYD022	0	25	25	932	
inc	8	9	1	1511	
inc	19	25	6	1206	
inc	24	25	1	3268	

Note: Significant intersections based on +500ppm TREO and includes a maximum of 4m of internal waste. Two lower grade intersections are included as inclusion of the internal waste results in just below 500ppm for the overall intersection. EOH stands for end of hole.

		Nerthing					<u> </u>
HoleID	Easting	Northing	RL	Azimuth	Dip	Depth	Drill Type
23HYD001	678,466	6,388,796	368	0	-90	26	AC
23HYD002	678,478	6,388,702	370	0	-90	30	AC
23HYD003	678,476	6,388,597	368	0	-90	54	AC
23HYD004	678,401	6,388,699	374	0	-90	54	AC
23HYD005	678,403	6,388,598	374	0	-90	54	AC
23HYD006	678,574	6,388,601	363	0	-90	48	AC
23HYD007	678,779	6,388,501	357	0	-90	11	AC
23HYD008	678,678	6,388,502	360	0	-90	13	AC
23HYD009	678,578	6,388,503	362	0	-90	36	AC
23HYD010	678,480	6,388,500	367	0	-90	17	AC
23HYD011	678,404	6,388,508	371	0	-90	54	AC
23HYD012	678,413	6,388,398	367	0	-90	51	AC
23HYD013	678,478	6,388,403	365	0	-90	51	AC
23HYD014	678,571	6,388,401	362	0	-90	48	AC
23HYD015	678,519	6,388,556	366	0	-90	51	AC
23HYD016	678,527	6,388,463	364	0	-90	48	AC
23HYD017	678,576	6,388,302	358	0	-90	39	AC
23HYD018	678,473	6,388,303	363	0	-90	39	AC
23HYD019	678,273	6,388,602	376	0	-90	39	AC
23HYD020	678,274	6,388,502	374	0	-90	41	AC
23HYD021	678,274	6,388,401	369	0	-90	21	AC
23HYD022	678,352	6,388,305	366	0	-90	48	AC

Table Two: Collar Details of the initial holes drilled into the Clay REE target



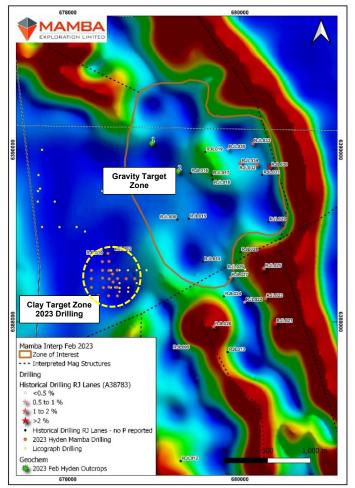


Figure 3: Hyden Gravity Overview – showing the Gravity Target Zone in relation to the Clay Target Zone drilling.

Additional information will be released as the programmes progress and as new data becomes available.

This announcement has been authorised for release by the board.

CONTACTS

For more information, please visit our website, or contact:

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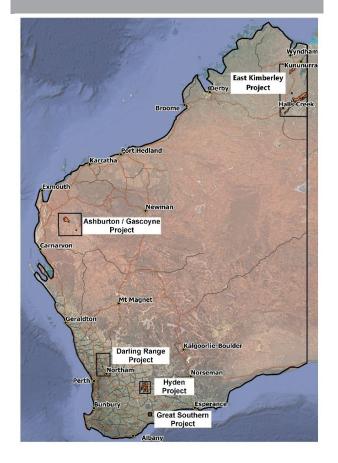


Competent Person Statement

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Mr Mike Dunbar, a "Competent Person" who is a Member of Australasian Institute of Mining and Metallurgy (AusIMM). Mr Dunbar is the Managing Director and CEO of Mamba Exploration Limited. He is a full-time employee of Mamba Exploration Limited and holds shares and options in the company. Mr Dunbar has sufficient experience that is relevant to the style of mineralisation and type of deposits 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'. Mr Dunbar consents to the inclusion in this announcement of the matters based on his information and in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements.

ABOUT MAMBA EXPLORATION



Mamba Exploration is a Western Australian focused exploration Company, with four 100% owned geographically diverse projects which provide year-round access. The projects are highly prospective mineral exploration assets in the Ashburton / Gascoyne, Kimberley, Darling Range and Great Southern regions of Western Australia. The projects in the Ashburton / Gascoyne and Great Southern are prospective for gold and REE whilst those in the Kimberley and Darling Range are prospective for base metals such as copper, nickel, PGE's and manganese and REE's. The recent option over the Hyden Project represents a significant development, with high grade REO's identified from clay from the project.

Mamba's Board comprises of Directors who have significant experience across sectors including mineral exploration, resource discovery, mine development and corporate finance, commodities trading and mine operations.

The Company's objective is to add significant shareholder wealth through the exploration of its projects and the discovery of economic Mineral Resources.



Table 3: F	uii breai	Kuown G	JI Assay	results			חוווות וו	y at the	: Clay I	argera	і пуйеі		SZONI	0001-	Z3HYL	JUZZ)		1				
				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Тb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FACT	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
23HYD001	0	4	4	28.2	0.78	0.56	1.07	1	0.17	17.9	0.14	7.8	2.38	6.7	0.8	9.77	46	4.1	155	49%	51%	8%
23HYD001	4	8	4	55.5	1.93	1.05	1.54	2.48	0.32	32.3	0.21	21.1	5.62	6.5	1.6	7.2	20	3.4	193	75%	25%	16%
23HYD001	8	12	4	72.2	3.11	1.89	1.36	4.51	0.6	38	0.28	31.1	7.7	4.9	1.9	7.53	24	2.2	242	76%	24%	19%
23HYD001	12	16	4	66.3	2.9	1.66	1.29	3.41	0.57	36.7	0.25	26.3	6.95	6.6	2.1	8.48	28	2.7	234	73%	27%	17%
23HYD001	16	20	4	97.1	5.39	2.96	1.31	6.92	0.97	48.3	0.3	44.5	11.25	8.1	3.1	8.58	49	6	354	71%	29%	19%
23HYD001	20	24	4	109.5	6.85	3.63	1.3	8.08	1.24	54.1	0.37	47.7	12.2	13	4.1	8.98	65	3.2	409	69%	31%	17%
23HYD001	24	26	2	175.5	8.35	4.67	1.47	9.69	1.46	86.7	0.52	71.6	18.8	14	4.6	20	88	3.6	614	72%	28%	17%
23HYD002	0	4	4	106.5	7.86	2.95	1.79	8.67	1.22	50.6	0.27	55.1	13.05	24.7	4.2	36.3	157	4.6	576	52%	48%	14%
23HYD002	4	6	2	134	7.88	4.38	1.73	9.56	1.48	63.6	0.54	63	16	22.5	5.9	21.7	47	2.3	482	74%	26%	19%
23HYD002	6	9	3	202	10.85	5.52	2.42	14.5	1.82	90.1	0.65	98.6	24.4	16.5	7.6	19.85	54	2.6	662	78%	22%	22%
23HYD002	9	12	3	266	15.1	7.74	3.48	21	2.72	109.5	1.06	144	34	20.9	7.1	18.35	62	2.2	858	80%	20%	24%
23HYD002	12	16	4	190.5	23.8	15.65	3.39	22.8	5.21	85.4	1.85	101.5	24	17.8	6	25.9	38	2.2	673	75%	25%	22%
23HYD002	16	19	3	311	16.05	9.16	2.54	19.5	3.08	147.5	1.08	132.5	35.6	13.6	5.5	87.1	69	2.3	1024	75%	25%	19%
23HYD002	19	22	3	254	11.7	6.25	2.19	14.6	2.2	122.5	0.77	106.5	29	9.9	3.8	65.4	95	1.8	872	72%	28%	18%
23HYD002	22	24	2	189	14.45	7.81	2.18	15.6	2.93	89.4	0.77	85.3	22	9.7	3.3	42.4	61	2.5	657	72%	28%	19%
23HYD002	24	27	3	139	8.5	4.44	1.74	10.7	1.61	69.6	0.48	63.5	16.25	7.1	1.8	25.6	59	1.8	494	72%	28%	19%
23HYD002	27	30	3	346	12.45	6.53	2.44	15.2	2.43	186	0.64	127.5	37.3	10	1.8	80.3	74	1.8	1084	78%	22%	18%
23HYD003	0	3	3	31.2	1.88	1.15	0.41	1.85	0.35	13.6	0.13	11.5	2.95	19.2	1.2	33.4	181	4.8	375	25%	75%	5%
23HYD003	3	4	1	226	7.75	3.26	2.58	10.35	1.35	115	0.29	90	25.4	26.6	2.3	8.3	109	1.7	761	76%	24%	18%
23HYD003	4	5	1	301	8.27	3.02	2.67	11.25	1.33	153.5	0.27	118.5	33.3	23.8	2.3	13.1	121	2.2	960	79%	21%	19%
23HYD003	5	6	1	326	10.4	3.71	3.25	15.95	1.7	155.5	0.26	151	38.8	23.3	2.4	8.91	115	1.8	1035	81%	19%	22%
23HYD003	6	7	1	267	8.5	3.29	3.05	11.65	1.3	131.5	0.29	113.5	30.7	21.2	2.4	8.22	111	1.5	863	78%	22%	20%
23HYD003	7	8	1	281	8.46	3.34	2.73	12.45	1.42	135.5	0.36	123.5	34.2	20.9	2.3	11.45	113	2.6	909	79%	21%	20%
23HYD003	8	9	1	293	9.82	4.24	2.75	14.55	1.81	137.5	0.34	137.5	35	19.9	2.5	11.05	108	2.2	941	79%	21%	22%
23HYD003	9	10	1	172.5	6.78	3.25	1.97	8.29	1.18	84	0.34	74	20.5	16.4	2.8	14.3	111	2.3	629	70%	30%	18%
23HYD003	10	14	4	211	9.77	4.69	3.25	12.65	1.81	100.5	0.52	98.5	25.5	16	2.6	7.77	97	3	717	75%	25%	20%
23HYD003	14	18	4	155	5.54	2.39	2.94	8.7	0.86	71.8	0.31	78.3	19.65	11.8	1.9	5.38	72	7.4	535	75%	25%	21%

Table 3: Full breakdown of Assay results from the Initial Drilling at the Clay Target at Hyden (Holes 23HYD001 – 23HYD022)

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FACT	FOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD003	18	22	4	129.5	11.15	5.58	3.31	13.4	2.11	60.4	0.61	70.2	16.25	10.8	1.7	4.3	53	1	461	75%	25%	22%
23HYD003	22	26	4	123	7.6	3.8	2.38	9.27	1.49	59	0.42	58	14.75	9.9	1.6	6.93	70	1.5	446	71%	29%	19%
23HYD003	26	30	4	108.5	6.55	3.27	2.09	8.34	1.21	51.2	0.34	52.8	13.5	8.5	1.6	5.44	78	1.3	415	68%	32%	19%
23HYD003	30	34	4	117.5	5.71	2.87	2.36	7.18	1.09	58.2	0.34	54.1	13.6	7.2	1.6	5.07	62	1.4	411	73%	27%	19%
23HYD003	34	38	4	114.5	5.98	3.42	2.12	8.32	1.22	53	0.28	54.9	14.2	8.1	1.3	4.43	66	1.2	410	72%	28%	20%
23HYD003	38	42	4	128	8.05	3.97	2.3	10.35	1.41	55.3	0.47	68	16.2	12.9	1.1	4.11	71	1.1	464	72%	28%	21%
23HYD003	42	46	4	115	6.54	3.39	2.44	9.12	1.26	50.5	0.3	59.7	14.7	11.8	1	3.79	66	1	419	72%	28%	21%
23HYD003	46	50	4	91	5.84	2.86	2.07	7.27	1.13	40.8	0.33	49.6	11.85	8.5	0.9	3.32	60	1.2	346	70%	30%	21%
23HYD003	50	54	4	89.9	6.81	3.72	1.97	7.82	1.33	43.8	0.43	44.4	11.15	8.4	3.1	7.04	51	1.7	341	70%	30%	19%
23HYD004	0	4	4	91.2	2.51	1.65	1.06	2.91	0.5	50.6	0.33	27.7	9.06	36.6	0.7	20.2	84	2.2	400	64%	36%	11%
23HYD004	4	8	4	52.3	2.07	1.31	0.77	1.91	0.43	31.8	0.26	17.4	5.04	22.6	0.3	10.3	27	2	211	73%	27%	13%
23HYD004	8	12	4	41.3	1.86	1.2	0.83	2.14	0.36	26	0.21	13.6	3.84	8.1	0.5	8.66	47	2.6	192	58%	42%	11%
23HYD004	12	16	4	144	4.83	2.45	2.07	5.74	0.91	71.9	0.42	47.4	13.85	10.4	2.7	6.99	64	2	459	75%	25%	16%
23HYD004	16	20	4	196	8.32	4.61	2.82	10.85	1.58	93.6	0.61	83.9	21.4	14.5	4.1	9.48	75	2.2	638	77%	23%	19%
23HYD004	20	24	4	185	7.39	4.29	2.82	9.81	1.33	95.8	0.65	85.3	21.9	12.8	4	9.69	118	2.1	679	71%	29%	19%
23HYD004	24	28	4	135	8.75	4.85	2.34	9.35	1.76	71.5	0.67	60	15.55	11	3.7	9.58	64	1.9	482	73%	27%	18%
23HYD004	28	32	4	214	5.94	2.8	2.06	8.99	1.04	111.5	0.37	84.1	23	12.8	3.9	58.1	64	1.9	713	75%	25%	18%
23HYD004	32	36	4	142.5	3.27	1.68	1.95	4.61	0.62	82.6	0.23	46.2	14	9.2	2.8	35.1	57	2.7	486	73%	27%	15%
23HYD004	36	40	4	55	2.71	1.56	1.02	3.34	0.49	28.4	0.21	23.6	6.02	21.5	1.1	8.88	151	4.3	379	42%	58%	9%
23HYD004	40	44	4	71.8	3.06	1.46	1.05	3.87	0.57	41.2	0.26	28.6	7.59	26.4	1.7	12.8	199	4.3	496	42%	58%	9%
23HYD004	44	48	4	48.5	1.97	1.35	0.7	2.2	0.44	29.5	0.28	16.2	5.2	12.4	1.7	12.55	71	3.5	252	53%	47%	10%
23HYD004	48	52	4	31.6	2.03	1.99	0.54	1.68	0.52	18.8	0.47	11	3.31	13.3	2.3	8.36	87	3.3	228	41%	59%	7%
23HYD004	52	54	2	33.1	1.38	1.19	0.29	1.44	0.32	16.8	0.24	10.6	3.26	10.2	1.8	16.8	68	2.3	204	43%	57%	8%
23HYD005	0	4	4	36.5	1.49	0.98	0.25	1.02	0.27	19	0.14	11	3.19	23.3	1.2	36	201	5.4	420	26%	74%	4%
23HYD005	4	8	4	28.8	1.18	1.16	0.26	1.02	0.29	15.2	0.17	9.5	2.71	66.3	0.9	43.1	374	1.6	676	21%	79%	2%
23HYD005	8	12	4	14.9	2.25	1.99	0.4	1.28	0.53	7.5	0.5	6.2	1.67	66.1	2.3	40.9	336	3	600	19%	81%	2%
23HYD005	12	16	4	41.5	1.52	1.36	0.32	1.27	0.33	34	0.22	8.1	3.1	25.5	4	18.55	152	11.3	371	36%	64%	4%
23HYD005	16	20	4	78.8	2.61	1.61	0.59	1.9	0.44	61.5	0.24	16.8	5.38	41.2	1.9	12.75	246	8.4	590	41%	59%	4%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD005	20	24	4	41.2	2.53	1.96	0.62	1.96	0.42	30.9	0.34	16.5	4.84	28.6	1.1	15.75	249	9.2	500	29%	71%	5%
23HYD005	24	28	4	33.9	2.05	1.52	0.6	1.81	0.46	21	0.3	12.5	3.68	22	1	25.8	142	4.4	335	33%	67%	6%
23HYD005	28	32	4	103.5	3.27	1.76	0.74	4	0.58	61.9	0.31	36.4	10.7	24.1	0.8	41.8	149	3.1	537	53%	47%	10%
23HYD005	32	34	2	252	8.68	4.53	1.65	11.6	1.68	138.5	0.66	97.7	26.5	36.1	0.9	104	151	3.2	1008	65%	35%	14%
23HYD005	34	36	2	620	15.3	6.5	1.5	23.8	2.52	337	0.77	231	65.6	30.1	0.5	203	152	2.6	2027	76%	24%	17%
23HYD005	36	39	3	144.5	4.17	2.4	0.94	6.18	0.89	86.8	0.33	48.2	14.5	19.4	0.8	41.9	191	2.4	687	55%	45%	11%
23HYD005	39	42	3	147.5	6.2	3.37	1.99	7.35	1.09	68.5	0.59	65.5	17.4	29.4	1.8	22	221	3.6	729	54%	46%	13%
23HYD005	42	46	4	117.5	15.4	10.05	3.5	14.95	3.25	52	1.18	64.9	15.7	66.5	0.5	9.65	117	2.4	596	63%	37%	16%
23HYD005	46	50	4	127.5	5.98	3.45	2.26	8.25	1.22	61.2	0.52	63.2	15.5	35.4	0.5	24.7	127	3.3	581	62%	38%	16%
23HYD005	50	53	3	190	3.3	1.7	1.39	4.67	0.6	98	0.23	61	19.45	32.3	0.9	12	252	7.3	837	57%	43%	11%
23HYD005	53	54	1	245	11.2	5.42	1.79	12.7	2.04	127.5	0.65	97.2	27.1	48.6	1.4	69	367	3.8	1243	53%	47%	12%
23HYD006	0	4	4	15.2	0.9	0.49	0.22	0.8	0.16	13	0.08	5.6	1.6	27	0.8	5.95	154	8.1	289	25%	75%	3%
23HYD006	4	8	4	10.2	0.67	0.34	0.43	0.96	0.12	24.1	0.09	9.4	2.97	47.4	0.4	3.57	177	9	353	31%	69%	4%
23HYD006	8	12	4	26	0.66	0.37	0.24	0.81	0.13	15.3	0.06	7.1	1.99	38	0.3	4.17	357	5.5	572	18%	82%	2%
23HYD006	12	16	4	38.7	7.81	4.64	2.36	7.6	1.61	15	0.55	25.2	5.18	33.7	0.4	2.91	264	6.8	515	27%	73%	7%
23HYD006	16	20	4	59.8	1.82	0.95	0.77	2.74	0.36	28.3	0.13	21.5	6.56	79.7	0.3	9.52	246	6.9	571	41%	59%	6%
23HYD006	20	24	4	31	1.79	0.97	0.6	2.1	0.37	19.1	0.11	9.8	2.97	30.7	0.8	4.93	229	7	423	26%	74%	4%
23HYD006	24	28	4	41.1	1.31	1.05	0.5	1.58	0.26	21.9	0.12	13.9	4.47	43.2	0.7	7.06	270	6	512	29%	71%	4%
23HYD006	28	32	4	69.2	2.06	1.17	0.86	2.13	0.33	35.2	0.18	25.9	7.54	37.8	0.9	10.25	161	7.9	443	47%	53%	9%
23HYD006	32	36	4	67	1.94	1.2	1.86	3.11	0.35	33.4	0.19	32.3	8.43	30.5	0.9	9.9	181	6.3	464	44%	56%	10%
23HYD006	36	40	4	70.2	1.88	0.91	1.2	2.64	0.29	35.6	0.19	33	8.15	36.9	1.1	12.8	204	6.9	510	43%	57%	9%
23HYD006	40	44	4	70.3	2.12	1.42	1	2.38	0.43	35	0.22	27.3	7.78	28	0.8	8.79	179	6.1	455	44%	56%	9%
23HYD006	44	48	4	52	1.4	0.71	0.9	2.51	0.28	29.2	0.17	17.6	5.62	26.3	0.7	7.88	201	7.7	437	36%	64%	6%
23HYD007	0	4	4	14.4	1.9	1.12	0.56	1.87	0.42	6.5	0.22	6.4	1.59	30	0.3	4.29	185	2.8	320	22%	78%	3%
23HYD007	4	8	4	7.7	1.61	1.16	0.52	1.4	0.37	3.7	0.19	4.4	0.84	30.7	0.1	3.99	178	6.1	299	19%	81%	2%
23HYD007	8	11	3	9.4	2.1	1.46	0.35	1.59	0.42	4.9	0.19	5.1	1.19	24.1	0.9	2.53	170	4.2	284	19%	81%	3%
23HYD008	1	5	4	14	0.18	0.11	0.11	0.27	0.03	7.7	0	3.1	1.22	4	2.1	1.87	87	3.4	156	23%	77%	3%
23HYD008	5	9	4	26.7	0.32	0.09	0.24	0.52	0.05	14.7	0.02	7.2	2.37	5.6	3.5	1.46	91	2.4	193	35%	65%	6%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD008	9	13	4	17.4	0.72	0.42	0.23	0.66	0.2	12.2	0.08	5.6	1.55	12.9	7.5	4.05	204	4.1	339	17%	83%	2%
23HYD009	0	4	4	23.8	1.82	1.15	0.3	1.5	0.35	11.4	0.2	9	2.24	18.2	1.4	23.5	190	5.8	359	21%	79%	4%
23HYD009	4	8	4	15.7	0.46	0.4	0.11	0.47	0.13	12.2	0.08	3.2	1.1	32.5	1.3	9.15	313	23.6	515	15%	85%	1%
23HYD009	8	12	4	20.3	0.22	0.1	0.19	0.4	0.04	19	0.01	3.9	1.49	37.9	1.4	1.73	267	9.4	452	22%	78%	1%
23HYD009	12	16	4	63.6	3.32	1.9	1.34	3.53	0.62	38.8	0.35	24.3	6.73	61.2	0.8	5.33	259	18.5	601	38%	62%	6%
23HYD009	16	20	4	44.1	5.11	3.42	1.38	4.61	1.08	24.6	0.48	20.2	5.66	40.1	0.6	7.39	214	7.7	468	34%	66%	6%
23HYD009	20	24	4	39.3	3.76	2.46	1.39	3.68	0.8	20.6	0.39	22.8	5.78	40.8	0.4	6.26	217	11.8	464	33%	67%	7%
23HYD009	24	28	4	53	3.22	2.16	0.89	3.36	0.67	29.3	0.25	21	5.7	32.4	0.7	17.25	174	5.9	429	39%	61%	7%
23HYD009	28	32	4	19	2.01	1.64	0.55	1.75	0.45	9.3	0.28	8.3	2.1	42	1	3.48	231	4.3	406	23%	77%	3%
23HYD009	32	36	4	11.6	2.56	1.82	0.66	2.46	0.53	5.2	0.29	5.9	1.48	41.3	0.4	1.1	227	5.8	383	20%	80%	2%
23HYD010	0	4	4	36.6	1.96	1.1	0.61	2.31	0.41	18	0.16	16.6	4.34	24.9	1.3	32.4	250	9.1	493	24%	76%	5%
23HYD010	4	8	4	18.1	0.69	0.47	0.12	0.39	0.17	4.9	0.12	3.6	1.01	27.1	1.2	13.7	159	2.8	289	22%	78%	2%
23HYD010	8	12	4	53.4	3.16	2.2	0.88	2.3	0.69	17.5	0.46	10.5	2.82	49.6	1.3	23.3	294	3.1	575	28%	72%	3%
23HYD010	12	14	2	636	35.9	21.6	8.74	35.9	7.28	271	2.97	195	53.7	39	0.9	20.5	210	2.5	1860	77%	23%	16%
23HYD010	14	17	3	66.3	22.6	16.95	3.24	17.7	5.17	97	2.74	58.7	16.3	33	0.6	10.4	137	395	1036	31%	69%	9%
23HYD011	0	3	3	47.5	1.34	0.93	0.61	2	0.3	29	0.15	14.7	4.15	19	0.9	39.7	236	4.9	494	28%	72%	4%
23HYD011	3	7	4	65.2	1.27	0.82	0.46	1.67	0.27	47.7	0.15	18.8	6.26	22.5	1	31.5	282	5.1	598	32%	68%	5%
23HYD011	7	11	4	43.6	1.48	0.93	0.27	2.17	0.33	23.8	0.13	16.6	4.79	29	1.3	43.4	332	24.7	647	22%	78%	4%
23HYD011	11	15	4	81.2	3.47	1.91	0.67	4.13	0.67	43	0.3	31.5	8.45	52.3	1.2	37.2	339	3.2	749	34%	66%	6%
23HYD011	15	19	4	77.4	3.48	1.27	1.27	4.66	0.63	37.9	0.26	40.1	10.4	39.6	0.9	15.25	410	1.4	799	31%	69%	7%
23HYD011	19	23	4	76.6	4.12	2.48	0.87	4.84	0.91	38	0.31	30.4	8.19	42	0.9	25.7	282	3.3	641	36%	64%	7%
23HYD011	23	27	4	175.5	11.3	6.7	3.07	13.9	2.31	96.8	0.85	79.1	20.2	37	1.3	35.1	334	0.8	999	49%	51%	12%
23HYD011	27	31	4	92.5	4.48	2.31	1.79	5.14	0.86	50.1	0.33	36.9	10.1	22	1.3	63.1	232	1	640	40%	60%	9%
23HYD011	31	32	1	1230	44.4	19.1	22.2	65.1	7.45	601	1.63	501	136	53.9	2.5	78.1	232	8.6	3607	84%	16%	21%
23HYD011	32	36	4	130.5	4.88	2.16	1.59	7.22	0.85	65.3	0.22	50.2	13.75	32	1.5	30.7	313	0.25	803	43%	57%	9%
23HYD011	36	40	4	114.5	5.77	2.94	1.56	7.39	1.03	58	0.37	46.3	12.8	38.9	1.6	27.2	294	1.2	753	43%	57%	9%
23HYD011	40	44	4	52.2	5.28	3.11	1.66	5.28	1.08	25.7	0.47	24.8	5.84	41	0.8	2.52	302	8.4	594	30%	70%	6%
23HYD011	44	46	2	39.1	2.88	1.7	0.96	3.36	0.6	19.1	0.22	16.6	4.44	37.3	0.7	6.31	323	0.8	569	24%	76%	4%

				Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD011	46	47	1	240	9.51	4.06	2.5	13	1.59	127	0.51	94.6	26.2	43	0.8	62.3	330	1.3	1164	55%	45%	12%
23HYD011	47	51	4	93.2	5.62	3.08	2.45	7.26	1.05	47.9	0.31	45.5	10.85	37.4	0.4	12.15	245	4.2	633	44%	56%	10%
23HYD011	51	53	2	83.8	2.7	1.05	1.79	4.52	0.47	49.2	0.14	32.6	8.92	45.6	0.4	11.95	254	1.4	613	43%	57%	8%
23HYD011	53	54	1	180	4.36	1.57	1.88	8.22	0.73	94.4	0.18	72.6	19.8	41.4	0.8	45.3	248	1	877	56%	44%	12%
23HYD012	0	4	4	32.1	1.09	0.73	0.16	0.85	0.2	6.3	0.13	4.4	1.22	24.6	1.5	63.8	229	12.2	465	18%	82%	1%
23HYD012	4	8	4	38.4	2.02	0.96	0.3	2.04	0.37	20.9	0.14	15.4	4.5	11.5	1.5	15.95	133	10.4	316	34%	66%	7%
23HYD012	8	12	4	166.5	10.85	6.63	2.97	11.5	2.12	109	0.84	83.7	22.8	35.3	2.6	47.6	472	8.6	1205	41%	59%	10%
23HYD012	12	13	1	133	5.35	3.24	1.64	5.86	0.93	80.8	0.55	57.1	16	35.6	2.4	37.6	409	8.7	981	39%	61%	9%
23HYD012	13	17	4	103	6	3.38	2.06	7.2	1.13	51.2	0.49	50.5	12.8	43.5	2.5	21.3	274	8	719	43%	57%	10%
23HYD012	17	21	4	101.5	10.2	5.87	3.69	12.45	2.08	56.1	0.65	61.2	14.7	38.9	1.1	13.7	495	3.4	1014	32%	68%	9%
23HYD012	21	25	4	67.8	7.9	4.24	2.98	9.11	1.52	52.9	0.51	48	12.1	31.5	0.9	10.55	166	6.1	514	49%	51%	14%
23HYD012	25	29	4	34.7	4.74	3.3	1.47	4.38	1.02	24.3	0.44	21.1	5.45	27.8	1	9.27	209	11.9	443	30%	70%	7%
23HYD012	29	33	4	126	7.61	5.17	2.16	8.69	1.59	70.9	0.66	53.1	14.6	31.4	1.5	38.1	192	9	683	52%	48%	12%
23HYD012	33	35	2	305	6.56	2.8	1.82	10.8	1.07	160.5	0.31	107	30.9	36.5	2.6	110	150	7.1	1121	68%	32%	14%
23HYD012	35	37	2	453	10.7	5.74	1.89	15.75	1.98	245	0.69	172	48.5	20.4	6.7	158	139	2.7	1537	73%	27%	17%
23HYD012	37	41	4	211	12.2	6.9	3.15	13.8	2.3	105	0.9	88.5	23	20.1	4.8	31.9	108	2	763	70%	30%	17%
23HYD012	41	45	4	143.5	10.45	6.13	2.77	11.2	2.15	74.5	0.77	60.3	15.3	22.2	3.4	18.3	76	3.1	542	70%	30%	16%
23HYD012	45	47	2	351	11.3	6.77	2.92	15.75	2.28	182	0.69	123	35.6	15.6	2.6	97.3	51	1.7	1076	79%	21%	17%
23HYD012	47	48	1	800	18.2	9.26	3.46	27.2	3.3	408	0.83	271	79.8	12.1	2.2	234	58	2.4	2306	82%	18%	18%
23HYD012	48	49	1	687	27.5	15.35	5.24	35.8	5.14	345	1.72	245	70.7	22.9	3	232	88	3.8	2135	77%	23%	17%
23HYD012	49	51	2	132.5	7.99	4.54	2.11	10	1.49	64.4	0.53	53	14.2	19.7	0.9	56.2	160	1.5	641	53%	47%	12%
23HYD013	0	4	4	53.3	2.39	1.45	0.71	2.5	0.43	21.3	0.24	16.2	4.46	24	1.1	25.1	258	49.6	566	25%	75%	4%
23HYD013	4	8	4	39.2	3.93	3.03	0.65	3.26	0.91	19.8	0.48	16.3	4.33	33.7	1.4	19.05	382	11.9	671	20%	80%	4%
23HYD013	8	12	4	36.4	2.32	1.52	0.84	1.86	0.43	20.6	0.28	15.8	4.24	39	1.2	7.99	310	3	554	25%	75%	4%
23HYD013	12	16	4	76.6	2.78	1.92	1.54	2.76	0.53	38	0.27	29.7	8.24	37.4	0.8	10.25	348	2.7	696	33%	67%	6%
23HYD013	16	20	4	26.8	2.15	1.48	0.79	2.03	0.44	13	0.23	10	2.36	31.5	1	9.06	248	5.7	440	23%	77%	3%
23HYD013	20	24	4	56	3.47	2.14	0.89	4.07	0.69	26	0.32	22.6	5.59	25.9	1.2	9.85	208	4.1	457	36%	64%	7%
23HYD013	24	28	4	25.5	3.29	2.08	0.8	3.44	0.69	15	0.3	10.1	2.63	20.4	1	10.55	359	4.4	574	15%	85%	3%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVEI	RSION FACT	OR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD013	28	32	4	33.4	2.35	1.57	0.51	2.44	0.46	17.8	0.23	13	3.34	18.5	0.9	9.16	281	4.8	485	21%	79%	4%
23HYD013	32	36	4	38.4	2.44	1.62	0.62	2.39	0.59	18.8	0.31	16.4	4.25	33.8	1	7.16	216	3	429	31%	69%	6%
23HYD013	36	40	4	34.4	3.07	2.18	0.62	2.84	0.71	18.4	0.35	14	3.87	27.6	0.9	5.35	208	4.9	405	29%	71%	5%
23HYD013	40	44	4	43	2.16	1.05	1.03	2.39	0.38	22	0.18	16.4	4.44	21.8	0.7	6.74	246	6.6	465	28%	72%	5%
23HYD013	44	48	4	29.6	2.48	1.62	0.82	2.42	0.53	14.9	0.28	13.3	3.57	22.4	0.9	6.88	208	2.6	385	26%	74%	5%
23HYD013	48	51	3	33.6	2.74	1.82	1.03	2.53	0.56	16.1	0.29	14.4	3.89	18.7	0.7	7.37	316	3.2	528	20%	80%	4%
23HYD014	0	4	4	13.4	1.17	0.94	0.22	0.97	0.29	6.5	0.13	5	1.26	20.9	1.1	13	208	9.9	351	16%	84%	2%
23HYD014	4	8	4	8.5	1.28	1.06	0.28	0.88	0.28	6.9	0.2	3.3	1.01	21.5	0.7	10.15	263	12.7	414	12%	88%	1%
23HYD014	8	12	4	32.5	0.32	0.2	0.15	0.28	0.07	35.6	0.05	6.4	2.89	28.9	0.3	5.86	376	11	624	20%	80%	2%
23HYD014	12	16	4	22.1	1.16	0.52	0.4	1.25	0.17	9.7	0.05	9.1	2.24	62.6	0.2	3.82	780	12.8	1138	11%	89%	1%
23HYD014	16	20	4	9.2	3.14	2.14	0.83	2.86	0.63	3	0.27	7.7	1.28	68.1	0.2	2.44	752	10.4	1085	10%	90%	1%
23HYD014	20	24	4	14	2.57	1.46	0.57	2.22	0.48	3.7	0.18	7.1	1.46	88.8	0.5	0.95	470	19.3	764	18%	82%	1%
23HYD014	24	28	4	55.5	2.8	0.99	2.32	5.03	0.39	21.6	0.08	33	7.45	78.8	0.1	0.53	531	82.4	1015	23%	77%	5%
23HYD014	28	30	2	54.8	4.65	1.02	3.61	7.29	0.61	16	0.12	42.3	8.88	42.8	0.3	0.37	546	9.2	920	21%	79%	7%
23HYD014	30	32	2	329	3.98	1.86	3.3	6.03	0.69	156	0.28	125.5	37.6	43	0.4	1.42	550	9	1558	53%	47%	12%
23HYD014	32	34	2	179	4.67	1.56	3.62	7.32	0.64	82.8	0.16	71	20.8	51.2	0.5	0.75	625	13.3	1315	37%	63%	8%
23HYD014	34	38	4	30.4	3.11	1.61	1.19	3.37	0.61	12.9	0.27	16.2	3.74	28.9	0.5	4.38	134	189.5	513	21%	79%	5%
23HYD014	38	42	4	33	1.33	0.75	0.77	1.54	0.28	18.1	0.15	12.2	3.54	28.6	0.9	7.12	139	13.4	320	35%	65%	6%
23HYD014	42	46	4	62.9	2.43	1.57	0.86	2.41	0.49	34.2	0.21	21.7	6.85	27.4	0.5	6.9	193	11.8	459	40%	60%	7%
23HYD014	46	48	2	127.5	7.49	4.34	1.78	7.54	1.5	70.2	0.58	47.2	13.6	26.8	2.1	21.2	184	15.8	647	53%	47%	11%
23HYD015	0	4	4	16.6	0.75	0.49	0.23	0.84	0.15	8.5	0.07	5.8	1.7	12.7	0.8	13.25	138	4.6	253	21%	79%	3%
23HYD015	4	8	4	10.9	0.86	0.44	0.12	0.44	0.14	6.7	0.12	3.3	1.05	11.5	0.7	11	83	5	167	24%	76%	3%
23HYD015	8	12	4	20.6	0.55	0.4	0.16	0.41	0.12	12.8	0.09	4.2	1.55	10.1	0.3	3.66	92	3.4	186	32%	68%	4%
23HYD015	12	16	4	10.9	0.41	0.34	0.12	0.33	0.1	8.1	0.08	2.8	0.84	9.8	0.3	2.09	79	1.8	145	27%	73%	3%
23HYD015	16	20	4	75.1	4.64	2.69	1.45	4.27	0.9	20.5	0.48	22.5	5.84	15.2	0.3	1.66	78	1.6	287	58%	42%	12%
23HYD015	20	24	4	44.6	4.01	2.6	1.1	3.27	0.79	17	0.44	18.1	4.42	17.6	0.3	2.29	92	2.7	258	47%	53%	10%
23HYD015	24	28	4	21.1	1.46	0.96	0.26	1.2	0.34	6.3	0.21	5.7	1.67	7.7	0.2	3.47	35	3.3	108	47%	53%	8%
23HYD015	28	32	4	47	2.05	1.2	0.63	2.66	0.48	24.2	0.26	16.5	4.47	12.6	1	9.74	94	3.3	269	47%	53%	9%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	FOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD015	32	36	4	46.5	2.95	1.42	1.26	3.6	0.54	24.6	0.21	20.3	5.04	19.2	1.4	8.4	165	18.8	392	35%	65%	8%
23HYD015	36	40	4	34.3	1.95	1.18	0.74	2.09	0.36	18.9	0.18	12.3	3.49	8.9	0.4	4.73	68	4.8	198	47%	53%	9%
23HYD015	40	43	3	9.7	1.09	0.75	0.32	0.91	0.26	5.4	0.13	3.8	1.01	6.8	1.4	1.78	87	3	153	21%	79%	4%
23HYD015	43	46	3	44.3	2.62	1.42	1.11	3.37	0.55	20.9	0.2	20.9	5.24	34.3	2.2	6.26	282	7.1	536	28%	72%	6%
23HYD015	46	49	3	52.6	3.23	1.5	1.43	3.93	0.62	26.7	0.22	24.8	6.4	39	0.8	5.59	268	4.3	543	33%	67%	7%
23HYD015	49	51	2	47.5	3.57	2.03	1.45	3.61	0.75	30.3	0.26	20.5	5.23	36.4	0.6	2.89	375	2.8	663	25%	75%	5%
23HYD016	0	4	4	26.4	1.42	0.69	0.29	1.3	0.28	11.1	0.16	7.6	2.23	20.5	1.2	36.5	246	7.7	450	18%	82%	3%
23HYD016	4	8	4	20.8	1.57	1.08	0.19	1.61	0.34	11.4	0.17	9.5	2.42	13.1	1.3	13.7	277	4	447	15%	85%	3%
23HYD016	8	12	4	45.2	2.15	1.04	0.28	2.82	0.35	30	0.2	20.8	5.29	18	1	16.55	281	2	529	27%	73%	6%
23HYD016	12	14	2	8.2	0.56	0.42	0.08	0.53	0.14	7.1	0.07	3.3	0.9	12.2	0.2	4.24	133	3.8	218	17%	83%	2%
23HYD016	14	15	1	93.7	5.04	1.52	6.6	14.5	0.72	182.5	0.15	218	56.7	21.9	0.8	4.47	147	3.9	907	75%	25%	36%
23HYD016	15	19	4	83.9	6.47	2.71	2.65	8.84	0.98	61	0.34	60.1	15.4	20	0.4	6.45	133	31.5	524	55%	45%	17%
23HYD016	19	23	4	40.9	4.3	2.53	1.72	6.04	0.91	33.9	0.38	29.2	7.35	12.4	0.2	3.72	146	12.4	370	40%	60%	12%
23HYD016	23	26	3	56.7	2.45	1.52	0.63	2.63	0.56	14.6	0.25	13.6	3.41	38.1	1.1	9.18	278	56.4	589	26%	74%	3%
23HYD016	26	27	1	92.2	6.16	2.97	0.74	7.04	1.02	42.4	0.33	40.7	10.4	35.1	1.1	27.9	215	3.1	594	44%	56%	10%
23HYD016	27	31	4	24.7	1.76	0.94	0.37	2.3	0.43	11.8	0.17	12.6	2.94	29.3	0.9	11.2	228	7.2	415	23%	77%	4%
23HYD016	31	35	4	14.6	1.6	1.24	0.18	1.71	0.42	7.7	0.16	7.3	1.91	32.1	0.7	5.56	284	3.1	452	17%	83%	2%
23HYD016	35	39	4	91.4	2.18	0.98	1.38	2.96	0.38	47.8	0.18	31.6	9.42	61.8	0.6	2.58	368	5.7	775	37%	63%	6%
23HYD016	39	42	3	76.3	14.25	9.13	5.14	14.85	3.06	33.1	1.18	46.4	10.1	31.6	0.4	4.4	209	4.3	566	42%	58%	12%
23HYD016	42	45	3	41.8	3.86	2.15	2.01	4.4	0.75	21.7	0.32	19.6	5.06	24.7	0.6	1.99	208	6.6	425	32%	68%	7%
23HYD016	45	48	3	49.3	4.95	2.49	2.01	5.07	0.98	24.5	0.43	25	5.97	29.2	0.8	5.42	253	10.9	519	31%	69%	7%
23HYD017	0	4	4	36.3	4.22	2.42	1.33	3.88	0.82	14.4	0.35	16.3	4.02	34.1	0.2	4.33	218	45.6	474	26%	74%	5%
23HYD017	4	8	4	17.8	3.1	1.74	0.82	2.87	0.6	7.8	0.28	10.9	2.5	28	0.1	0.81	187	1.2	330	24%	76%	5%
23HYD017	8	12	4	19.4	4.59	2.66	1.43	4.93	0.98	11.4	0.39	17.9	4.15	39.4	0.1	1	232	1.5	424	26%	74%	6%
23HYD017	12	16	4	10	1.39	0.78	0.42	1.23	0.26	3	0.13	4.8	1.12	50.5	0.1	0.76	195	0.9	336	24%	76%	2%
23HYD017	16	20	4	18.1	1.74	1.1	0.55	1.52	0.39	3	0.2	5.7	1.28	41.6	0.1	0.22	246	2.1	404	20%	80%	2%
23HYD017	20	24	4	26.8	2.73	1.54	0.62	1.98	0.6	2.3	0.3	5.2	1.12	43.4	0.4	0.13	247	33.7	455	21%	79%	2%
23HYD017	24	28	4	31.2	3.15	1.84	0.67	2.01	0.59	3.3	0.35	5.6	1.36	45.3	0.2	0.33	287	5.1	484	21%	79%	2%

				Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD017	28	32	4	24.7	6.39	3.69	1.24	4.6	1.3	11.9	0.62	12.8	2.93	46.7	0.2	0.35	308	3.8	533	22%	78%	3%
23HYD017	32	36	4	18.8	8.92	5.87	1.82	7.2	1.99	9.6	0.8	17	3.38	36.9	0.4	2.57	244	2.1	447	23%	77%	5%
23HYD017	36	39	3	22.9	2.92	1.88	0.55	2.46	0.62	5.4	0.32	7	1.49	43.4	0.5	20.6	292	4.7	505	19%	81%	2%
23HYD018	1	5	4	11.8	1.1	0.87	0.25	0.86	0.3	4.4	0.16	3.4	0.98	24.9	1.1	19.2	235	4.8	385	14%	86%	1%
23HYD018	5	9	4	13.7	2.78	2	0.45	1.75	0.68	5.7	0.31	3.8	0.95	28	1.2	8.14	234	5.4	385	16%	84%	1%
23HYD018	9	13	4	49.3	1.44	1.1	0.43	1.13	0.32	34	0.18	9	2.94	37.4	0.9	11.4	182	4.3	413	38%	62%	3%
23HYD018	13	17	4	94.9	3.4	1.94	1.49	3.86	0.58	43.6	0.33	37.6	10.15	47.9	1	8.15	206	5.7	571	49%	51%	10%
23HYD018	17	21	4	40.6	3.14	1.92	1.21	3.93	0.65	20.7	0.27	22.9	5.57	50.7	0.5	11.35	352	4.5	645	26%	74%	5%
23HYD018	21	25	4	20	0.81	0.61	0.37	1.14	0.19	17.2	0.07	5.3	1.89	25.5	0.3	7.33	125	6.2	261	32%	68%	3%
23HYD018	25	29	4	19.6	1.57	1.2	0.31	1.56	0.35	15.2	0.18	6.5	1.92	30.7	1.7	10.95	490	14.2	746	12%	88%	1%
23HYD018	29	33	4	36	1.88	0.99	0.23	1.98	0.3	22.3	0.14	12.5	3.87	18.5	1.2	16.15	283	83.2	591	19%	81%	3%
23HYD018	33	36	3	134.5	3.46	1.6	0.3	5.18	0.58	78.1	0.28	39.1	12.1	16.9	0.8	29.5	851	8.5	1475	23%	77%	4%
23HYD018	36	39	3	81.7	3.67	1.48	0.51	4.21	0.61	45.5	0.25	25.9	7.96	25	1.3	19.05	274	7	614	36%	64%	6%
23HYD019	0	2	2	54.3	1.3	0.68	0.43	1.36	0.24	11.8	0.09	10.3	2.69	29	1.2	59.7	353	56.5	716	18%	82%	2%
23HYD019	2	5	3	121.5	4.36	1.86	1.4	5.38	0.68	55.2	0.17	47.5	12.85	26.6	3.5	21.5	117	13.1	524	60%	40%	14%
23HYD019	5	6	1	260	7.51	2.75	2.46	10.9	1.26	126.5	0.2	97.2	27.1	19.3	3.8	16.9	79	15	806	79%	21%	18%
23HYD019	6	10	4	77.3	3.11	1.55	0.87	3.73	0.48	39.6	0.19	28.2	8.19	25.4	2	9.26	71	11.3	341	63%	37%	13%
23HYD019	10	12	2	40.1	2.85	1.7	0.6	2.68	0.57	15.7	0.3	14.5	3.75	44.5	1.2	6.1	34	7.7	211	67%	33%	10%
23HYD019	12	15	3	65.6	2.55	1.82	1.07	2.95	0.56	36.5	0.3	19.9	5.88	22	2.5	8.5	49	4.4	270	66%	34%	11%
23HYD019	15	17	2	263	7.82	3.14	3.31	11.4	1.2	132	0.34	89.3	25.8	8.8	2	8.57	50	3.1	734	85%	15%	18%
23HYD019	17	20	3	90.8	3.29	2.27	1.72	4.07	0.71	52.8	0.31	33.2	9.28	9.4	2	7.37	37	2.5	309	76%	24%	16%
23HYD019	20	22	2	166	6.21	2.67	2.38	8.9	1.01	84.7	0.38	72.8	18.85	10.9	2.8	9.38	29	2.4	502	84%	16%	21%
23HYD019	22	24	2	196.5	9.74	3.72	2.64	13.65	1.63	96.4	0.38	93	24	12	2.2	13.45	31	2.5	603	84%	16%	23%
23HYD019	24	28	4	107	6.54	3.38	1.78	8.46	1.19	52.1	0.39	51.7	12.8	18.8	2	7.72	98	6	458	63%	37%	17%
23HYD019	28	32	4	119.5	6.25	3.2	1.78	8.09	1.09	58.8	0.33	54.6	13.9	12.9	2.7	6.47	44	2.8	405	77%	23%	20%
23HYD019	32	36	4	162	7.39	3.26	2.3	10.35	1.28	77.5	0.36	69.7	18.85	10.6	3.1	7.79	48	8.4	518	78%	22%	20%
23HYD019	36	39	3	99.2	7	3.67	1.89	8.33	1.47	47.9	0.34	46.3	11.6	8.9	1.8	9.42	79	12.2	410	63%	37%	17%
23HYD020	0	4	4	34.3	0.91	0.6	0.26	1.49	0.21	13.7	0.13	9.9	2.69	17.3	1.1	44.7	150	5.9	347	27%	73%	4%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVE	RSION FAC	TOR		1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387				
Hole ID	From	То	Interval	ppm	ppm	%	%	%														
23HYD020	4	8	4	24.7	1.45	0.8	0.5	2.05	0.27	21.6	0.09	17.2	4.54	7.5	1.5	15.5	35	3.5	164	55%	45%	16%
23HYD020	8	12	4	86	3.99	1.68	0.61	5.45	0.65	60.7	0.21	46	12.5	17.8	4.4	28.7	62	3.9	402	66%	34%	17%
23HYD020	12	14	2	72.2	2.28	1.55	0.57	3.06	0.49	43.2	0.23	28.1	8.11	28.7	4.1	86.7	109	2.8	470	46%	54%	9%
23HYD020	14	15	1	626	16.35	4.76	7.67	29.7	2.08	554	0.27	358	109	18.6	2.1	25.6	78	2.8	2194	91%	9%	25%
23HYD020	15	16	1	516	21.2	5.56	8.83	37.6	2.82	213	0.3	243	55.4	19.3	2	16.05	65	3.3	1451	87%	13%	24%
23HYD020	16	17	1	853	19.65	5.41	8.73	36.5	2.73	299	0.38	310	77.7	28.8	1.8	16.2	59	2.5	2070	91%	9%	22%
23HYD020	17	18	1	1015	16.85	4.38	10.95	35.9	2.12	332	0.34	408	92.9	32.4	2.2	13.95	74	3.6	2460	92%	8%	24%
23HYD020	18	19	1	410	20.4	5.79	8.21	35.9	2.74	151.5	0.28	227	47.7	22.7	1.5	9.56	50	2.1	1193	86%	14%	27%
23HYD020	19	20	1	384	11.65	4.13	3.81	19.45	1.66	156	0.3	152	39.8	22.5	1.3	11.1	44	2.6	1026	88%	12%	22%
23HYD020	20	21	1	415	13.7	5.5	4.14	19.9	2.22	185.5	0.49	173	45.9	23.1	2.7	12.95	64	2.7	1167	87%	13%	22%
23HYD020	21	22	1	241	11.45	5.78	3.2	15.1	1.93	112	0.61	115	28.7	17.1	1.9	15.15	73	1.8	774	80%	20%	22%
23HYD020	22	23	1	224	25.1	16	5.67	25.7	5.35	94.5	1.92	122.5	27.4	15.6	1.4	18.55	46	2.6	756	77%	23%	23%
23HYD020	23	27	4	147.5	7.37	3.69	2.39	10.2	1.44	70.2	0.5	67.8	16.9	8.3	1.4	13.55	39	2.1	471	79%	21%	21%
23HYD020	27	28	1	229	8.45	4.18	2.52	11.4	1.43	121.5	0.4	93.9	24.9	7.4	1.2	14.8	39	1.6	674	85%	15%	21%
23HYD020	28	29	1	232	13.25	7.9	2.59	14.95	2.72	122.5	0.78	96	25.8	8.5	1.4	12.8	71	1.4	738	79%	21%	19%
23HYD020	29	33	4	106	5.3	2.58	2.03	6.8	0.87	56.6	0.23	47.3	11.55	7.2	1	14.35	38	5.6	367	75%	25%	19%
23HYD020	33	37	4	73.7	1.82	0.88	1.72	2.42	0.27	46.6	0.09	24	7.1	4.2	0.3	22.4	11	8.7	245	76%	24%	15%
23HYD020	37	41	4	42.2	1.36	0.82	1.76	1.56	0.2	30.4	0.06	12.3	3.8	3.5	0.3	8.76	11	486	695	16%	84%	3%
23HYD021	0	3	3	122	1.8	0.68	0.63	1.93	0.25	20.4	0.11	16.3	4.43	24.8	1.4	90.3	311	15.2	750	30%	70%	3%
23HYD021	3	6	3	60.6	1.43	0.67	0.48	2.1	0.27	23.3	0.09	17.1	4.79	28.1	2	39.2	170	9.9	440	36%	64%	6%
23HYD021	6	7	1	349	4.1	1.64	1.93	6.22	0.67	209	0.23	94.7	34.5	33.1	2.6	19.6	132	20.6	1098	79%	21%	14%
23HYD021	7	11	4	95.3	2.89	1.4	0.76	2.88	0.49	48.6	0.22	33.3	9.95	32	2.1	23.1	151	78.7	582	45%	55%	9%
23HYD021	11	15	4	51.6	1.67	1.16	0.79	1.78	0.32	32.3	0.17	15.1	4.49	25.9	1.6	40.7	159	22.2	437	35%	65%	5%
23HYD021	15	18	3	227	9.1	4.23	2.47	10.55	1.66	63.1	0.52	71.6	18.95	50.3	0.6	10.75	222	295	1181	44%	56%	9%
23HYD021	18	21	3	72.6	6.3	3.99	1.29	6.89	1.39	43.8	0.46	35.6	9.62	46	0.7	22.4	244	214	850	29%	71%	6%
23HYD022	0	4	4	81.2	2.43	1.28	0.58	2.56	0.45	21.2	0.16	17.4	4.77	29.8	1.5	93.5	405	60	885	21%	79%	3%
23HYD022	4	6	2	142.5	4.84	2.02	0.96	7.11	0.87	79	0.24	55	15.15	14.9	2.4	20.2	92	5.4	535	69%	31%	15%
23HYD022	6	7	1	255	4.65	1.72	1.33	6.45	0.73	140.5	0.22	82.8	25.6	14.8	2.4	30.7	137	3.9	856	73%	27%	15%

				Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO	LREO	HREO	NdPr
OXIDE CONVERSION FACTOR			1.2284	1.1477	1.1435	1.1579	1.1526	1.1455	1.1728	1.1371	1.1664	1.2082	1.1596	1.1762	1.1421	1.2699	1.1387					
Hole ID	From	То	Interval	ppm	ppm	ppm	%	%	%													
23HYD022	7	8	1	223	4.35	1.84	1.35	6.44	0.68	120	0.27	78.6	23.3	16.2	2.8	31.1	132	3.2	781	71%	29%	15%
23HYD022	8	9	1	514	9.57	3.1	3.28	16.8	1.29	276	0.24	194.5	55.3	18.6	2.6	48.7	108	5.1	1511	84%	16%	19%
23HYD022	9	11	2	210	6.45	2.67	1.47	8.74	1.06	112	0.27	82.8	22.4	17	1.8	35.7	88	3.8	715	74%	26%	17%
23HYD022	11	13	2	293	8.4	3.22	2.84	12.65	1.34	143.5	0.36	125	33.5	19.5	2.1	44.3	91	31.1	974	76%	24%	19%
23HYD022	13	15	2	162.5	6.73	3.05	2.06	9.1	1.13	75.9	0.33	80.2	19.95	20.5	2.4	25.8	105	17.8	642	67%	33%	18%
23HYD022	15	17	2	237	9.53	3.62	2.75	13.4	1.55	118	0.42	105	26.5	23	2.3	28	135	5.1	859	71%	29%	18%
23HYD022	17	19	2	294	11.3	4.95	2.97	14.05	2	144	0.49	124.5	32.7	16.6	3.1	39.4	101	13.7	968	76%	24%	19%
23HYD022	19	21	2	310	11.65	5.44	3.12	15.6	2.02	154	0.55	125	35	17.2	3.1	56.1	121	1.7	1037	74%	26%	18%
23HYD022	21	24	3	189	6.94	3.08	2.18	9.29	1.2	98.2	0.34	77	21.1	8.4	1.3	27.6	73	6.3	632	75%	25%	18%
23HYD022	24	25	1	1085	16.8	6.81	3.97	30.2	2.9	576	0.74	395	117.5	13.9	4.5	413	70	3.7	3268	80%	20%	18%
23HYD022	25	29	4	91.7	4.12	2.35	1	5.21	0.91	51.5	0.32	36.6	10.15	9.4	0.5	21	79	3.4	384	62%	38%	14%
23HYD022	29	33	4	45.5	5.39	3.33	0.96	4.06	1.11	28.4	0.45	18.3	4.77	9.7	0.4	4.57	77	2	251	51%	49%	11%
23HYD022	33	37	4	65	7.12	6.17	0.92	3.85	1.69	37.6	1.14	20.8	6.19	20.1	0.6	9.48	100	2.4	344	52%	48%	9%
23HYD022	37	41	4	49.7	4.62	3.81	0.92	3.24	1.08	27.4	0.69	15.9	4.83	14.7	0.7	12.3	94	1.4	287	47%	53%	8%
23HYD022	41	45	4	34.4	1.58	1.09	0.48	1.38	0.36	21.7	0.22	10.5	3.49	8.9	1	4.41	60	7.2	191	49%	51%	9%
23HYD022	45	48	3	42.5	1.44	0.89	0.55	1.5	0.3	27.5	0.19	14.3	4.36	7.3	0.6	5.23	52	5.6	200	58%	42%	11%

Note: TREO = elemental analysis* oxide conversion factor of rare earth elements plus Y. TREO highlighted cells in red are +1000ppm TREO, in yellow are 750 to 1000ppm TREO and in green are 500 to 750ppm TREO

JORC Code (2012) Table 1 – Hyden REE Project

Section 1 Sampling Techniques and Data

Criteria	JORC Code 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. 	• The sampling undertaken by aircore drilling. The samples were placed on the ground in rows of 10. Intervals were analysed using a portable XRF, to assist in detailed logging and selection of sampling intervals for laboratory analysis. pXRF used only test for two rare earth elements and are best used as a field tool, rather than for reporting of results, particularly for relatively low level results. The pXRF reports an assay result as well as an error for each element. Where the error is large relative to the result for the element, the result is not considered by the CP to be suitable for public reporting. As a result only the full laboratory assay results are reported.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	 No duplicate samples were taken, however analysis was validated through the use of internal laboratory standards and duplicates.
	• 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	 Samples were collected in the field and transported to the ALS for analysis. The selected REE samples taken were analysed by Lithium Borate Fusion ICP-MS (ALS code ME-MS81). Only the REE (and REO) results are reported in this announcement.
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. 	 The sample recovery was logged on a metre-by-metre basis and the samples appeared of consistent size and no wet sampling was observed. No relationship between sample size or recovery and grade is evident from the data collected to date.
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. 	The holes were fully geologically logged.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 The sampling was undertaken on a single metre interval basis from aircore drilling. After the pXRF analysis was undertaken, composite samples were submitted to ALS for full "wet chemical" analysis The samples were collected using spear sampling from the dry sample piles. No field duplicates or standards have been reported, Laboratory standards, duplicates and QA/QC protocols have been used by ALS. Sample sizes are considered appropriate for the stage of exploration being reported.

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 (ie lack of bias) and precision have been established. 	 Laboratory standards, duplicates and QA/QC protocols have been used by ALS. No bias has been identified. Some XRF analysis has been undertaken on the sample pulps, however as the XRF is not a definitive tool for REE analysis, only laboratory assayed results are reported. Rare earth element analyses were originally reported in elemental form but has been converted to relevant oxide concentrations as in the industry standard to - TREO = La2O3 + CeO2 + Pr6O11+Nd2O3 +Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3 Element to Oxide Conversion Factor are: 						
		Element	Conversion Factor (multiplier)	Oxide				
		La	1.1728	La2O3				
		Ce	1.2284	CeO2				
		Pr	1.2082	Pr6011				
		Nd	1.1664	Nd2O3	_			
		Sm	1.1596	Sm2O3	_			
		Eu	1.1579	Eu2O3	_			
		Gd	1.1526	Gd2O3				
		Tb	1.1762	Tb4O7				
		Dy	1.1477	Dy2O3				
		Но	1.1455	Ho2O3				
		Er	1.1435	Er2O3				
		Tm	1.1421	Tm2O3				
		Yb	1.1387	Yb2O3				
		Lu	1.1371	Lu2O3				
		Y	1.2699	Y2O3				
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. 	 The results being reported are overall mineralized intervals, including a maximum of 4m of internal waste (material below 500ppm TREO). Intervals of more than 500ppm TREO are considered to be significant. For completeness all of the results from each individual sample has been included in Table 3 of the report. At least two Company personnel have verified the intersections. No holes have been accurately twinned although one hole (23HYD010) was drilled within 10m of historical hole 22-018. Hole 23HYD010 did not replicate the single high grade assay result reported from hole 22-18. Additional exploration is recommended to better understand the location and orientation of the high grades 						

		reported in historical hole 22-18.
		 Geological and sampling data is collected on paper, with data entry undertaken on a daily basis and entered into a validated spreadsheet for inclusion into a database
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 All drill holes were located using a handheld GPS using MGA94 UTM zone 50S No downhole surveys have been undertaken and all holes are vertical
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. 	 Sample spacing is wide and not at a distribution that would allow estimation of a Mineral Resource. The individual metre samples have been composited, based on the pXRF tests conducted in the field. The samples ranged from single metre samples to 4m composite samples. The mineralized intervals have been length weighted to calculate the overall mineralized interval. A maximum of 4m of internal waste (material below 500ppm TREO) has been included into the overall mineralized intervals. No edge dilution has been included into the mineralized intervals.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Given the aircore holes are vertical and unsurveyed and the sampling of an assumed sub horizontal clay horizion drill orientation would not have resulted in any sample bias. There is no known relationship between drill orientation and interval width at this stage.
Sample security	• The measures taken to ensure sample security.	• Samples were collected in the field and transported directly to ALS from the field by a Mamba employee.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• There have been no audits or reviews of the sampling techniques or procedures used by Mamba Exploration.

Section 2 Reporting of Exploration Results

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 Hyden Project (REE Option area) covers the REE rights for four granted exploration licences 70/5003, 5756, 6040 and 6047 which cover a total of 561km². In addition, Mamba applied for 5 exploration licenses (E70/6353, 6354, 6355, 6356, and 6357 which cover approximately 755km². These new applications have now been granted. The project is located in the Eastern portion of the Western Australian wheatbelt and surrounds the regional town of Hyden some 300km East of Perth. Mamba has entered into an option agreement to secure 100% of the REE rights and owns 100% of the new tenements. Access is by well-graded shire roads from Hyden. The area is covered by the Ballardong People Indigenous Land Use Agreement native title area (WI2017/012)
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Exploration has been undertaken by several explorers, however most exploration has been focused on either gold, Ni PGE's or graphite, very little exploration has been undertaken for REE over the project.
Geology	• Deposit type, geological setting and style of mineralisation.	 The Hyden Project area is located in the Western Gneiss Terrane of the southwest Yilgarn Province. The tenements are covered by Palaeozoic, Mesozoic and Tertiary sediments that unconformably overlie or are faulted against Precambrian sequences of schists, gneisses, granites and sediments. The tenements cover a northerly striking aeromagnetic anomaly that appears to be related to a BIF/ultramafic sequence which is offset to the east in the central part of E70/5003 by a later eastwest Proterozoic dolerite dyke.
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. 	 Drilling data from the initial aircore drilling is included in Table 2 and Figure 2 in the body of the report. No drill data has been excluded from the report.
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 mineralized intersections have been calculated using a cutoff of 500ppm TREO, without top cutting of the grades and using a maximum internal dilution allowance of 4m. No edge dilution has been accounted for in the intervals and a minimum intersection width of two metres, although some individual samples have been reported to highlight that higher grades are present in the overall intervals, the overall intervals are reported in Table one of the report. For completeness the individual assays from the samples collected have been

Criteria	JORC Code explanation	Commentary						
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	 reported in Table 3 of the report. No metal equivalents are reported, however elemental assay results have been converted via industry standard factors as outlined in Section 1 of this JORC table 1 above to allow reporting of total rare earth oxides (TREO). 						
Relationship between mineralisatio n 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'). 	 There is no information available to comment on the geometry of the zones of interest at this stage, although the drilling is vertical and is testing an assumed flat lying clay horizon, There is no known relationship between drill orientation and width of the zones of interest. The true width of the mineralisation is unknown at this stage. 						
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. 	Appropriate plans are included in the body of 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.	• All assay data from the initial 22 holes drilled for REE are included in this report. Additional sampling is planned over the recently identified gravity target to the east of the recent Clay REE target aircore drilling included in this report.						
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.	• The regional DMIRS geophysical datasets have been assessed for the area of interest. The detailed gravity survey was undertaken on 8 east west lines and 2 north south lines at a station spacing of between 100 and 200m along the lines, with lines spaced between 600m and 5km apart (see Figure three). A total of 419 station readings were completed. This data was combined with the regional gravity data and a 3 D inversion model compiled. The model identified a north south trending dense unit (a greenstone belt) with granite bodies to the east and west. In the area of interest an intrusive feature was identified, which cross cuts the dense greenstone units and post dates the local geological trends including two Proterozoic dykes which have been identified from the regional magnetic dataset. This suggest that the intrusive feature is relatively young.						
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. 	 As mentioned in the body of the report, additional drilling has been planned and is underway on the project. 						