

Drilling Confirms District-Scale REE System and Uranium Potential at Sybella Barkly

Key Highlights

- Maiden drilling confirms district-scale, sediment-hosted Rare Earth Element (“REE”) system potential at Sybella Barkly.
- Total Rare Earth Element Oxides (“TREO”) mineralisation intersected at 54 metres depth and remains open, highlighting significant upside from limited drilling to date.
 - SBDH25021: **2 m @ 1,112 ppm TREO** from 54 m to end of hole, including **302 ppm NdPr** oxide from 54 m, within broader **5 m @ 850 ppm TREO**.
 - **Neighbouring holes that did not reach a comparable depth, demonstrate similar down hole anomalism** with up to 3 m at 534 ppm TREO.
- Geological **continuity demonstrated over kilometres of strike**. One drill hole ending in the interpreted mineralised horizon leaving the system **open in all directions**.
- Multiple additional TREO intercepts across widely spaced drill holes confirm a laterally extensive REE system, including:
 - SBDH25027: **3 m @ 920 ppm TREO** from 32 m within **6 m @ 734 ppm TREO from 29 m**; including 6 m @ 135 ppm NdPr oxide
 - SBDH25040: **3 m @ 700 ppm TREO** from 35 m; including 164 ppm NdPr oxide
 - SBDH25098: **9 m @ 584 ppm TREO** from 19 m; including 104 ppm NdPr oxide
- Identified mineralisation confirms the concept of REEs being mobilised into the Barkly tablelands sediments, opening an entire new system for exploration.
- Drilling has also defined a coherent multi-kilometre palaeochannel system prospective for roll-front uranium, with uranium anomalism of up to 35 ppm U₃O₈ intersected within oxidised channel sediments.
- Refined geological model has expanded the prospective footprint and resulted in additional samples from phase 1 being submitted for analysis. Results are expected in late Q1.
- Based on encouraging initial REE results, a follow-up drill program has been approved to test open REE mineralisation, to be undertaken in parallel with first pass drilling of highly prospective hard-rock REE targets.

Basin Energy Limited (**ASX:BSN**, “**Basin**” or the “**Company**”) is pleased to report results from its initial drilling program at the district scale **Sybella Barkly Project** (“**Sybella Barkly**” or the “**Project**”), confirming sediment-hosted REE anomalism and defining a laterally extensive palaeochannel architecture prospective for channel-hosted roll-front uranium mineralisation.

Phase 1 drilling was completed across the northern half of the Project. Aircore drillholes targeted regional scale electromagnetic (“**EM**”) conductors interpreted to be prospective for REE mineralisation and palaeochannel uranium mineralisation¹. Part of the drilling program was eligible for the Queensland Government CEI grant scheme, where Basin can claim \$150,000 toward costs¹.

¹ Refer ASX Announcement Basin Energy (ASX:BSN), 27th August 2025, “Basin Energy to Acquire Extensive Queensland Uranium and Rare Earth Portfolio.”



This maiden program represents the first systematic drilling of the Project and successfully validates the Company's geological concept for the district-scale sediment hosted REE and uranium potential, with drill holes spaced kilometres apart. The recognition of the REE mineralisation beneath the initial target horizon is extremely exciting, validating the Company's concept and taking it to the next level.

Managing Director, Pete Moorhouse commented:

"With these exciting results from our initial drill campaign, the Board has fast tracked approval for follow-on drilling. The next drill program will test both the sediment hosted REE mineralisation for depth continuity at hole SBDH25021 and the advanced hard rock rare earth prospects near Newmans Bore, akin to the Red Metal Sybella Discovery. This program will commence as soon as weather and conditions permit.

Phase 1 drilling commenced on the most greenfield target set of Basin's recently acquired Sybella Barkly portfolio, targeting the sediment hosted potential for uranium and REEs. This was completed first to satisfy requirements set by the Queensland Government co-founding exploration incentive that will see Basin receive \$150K contribution toward the drilling costs.

Drilling primarily targeted conductive clay horizons, however, our best REE anomalism was intersected underneath this horizon. Drillhole SBDH25021, which ended in 2 metres of over 1,100 ppm TREO below this horizon, leaves fantastic upside in all directions. Surrounding drillholes that failed to drill underneath the clay horizons, confirmed the presence of laterally extensive geochemical anomalism associated with the same upper sequence, further supporting the target. This data proves the concept that the REE-rich Sybella granites are shedding and mobilising REE throughout the expansive sediments of the Barkly tablelands and supports further drilling.

From a uranium perspective, we successfully defined an extensive coherent palaeochannel system capable of transporting and concentrating uranium. Considering the presence of multiple metres of strongly anomalous uranium within these sediments, this demonstrates a potential active system, with the next steps being to follow the channels to find the favourable reduced environments suitable to act as a trap. The potential for a South Australian Frome Basin style system here in Queensland is tangible."

District Scale Sediment-Hosted REE System Confirmed

Basin's maiden drill program identified REE anomalism across several drill holes and stratigraphic horizons (Figures 1 & 2). Critical to the exploration of the Project, drilling has identified a prospective horizon underneath the previous target zone of the airborne EM conductor. This horizon is located directly beneath a thick red clay sequence, in which the majority of holes terminated within. Drillhole SBDH25021 is one of a few drillholes of the program that drilled through the oxidised horizon and ended in mineralisation directly beneath:

- **SBDH25021: 2 m @ 1,112 ppm TREO including 2 m @ 302 ppm NdPr oxide from 54 m to the end of hole** within a broader 5 m @ 850 ppm TREO from 51 m.



Drill hole SBDH25023, located approximately 2 km to the southwest, stopped at the base of the red clay sequence however returned an elevated value of 2 m at 390 ppm TREO at the end of hole, importantly showing anomalism in the same stratigraphic horizon to hole SBDH25021.

A further 3.5 km to the west, hole SBDH25022 drilled through the red clays into a gravel unit, which also demonstrated anomalous TREO of 3 m at 534 ppm from 32 m. These are the only holes to drill through the red clays in this region, and all show increased TREO levels as the hole approaches the prospective horizon (Figures 1 and 2).

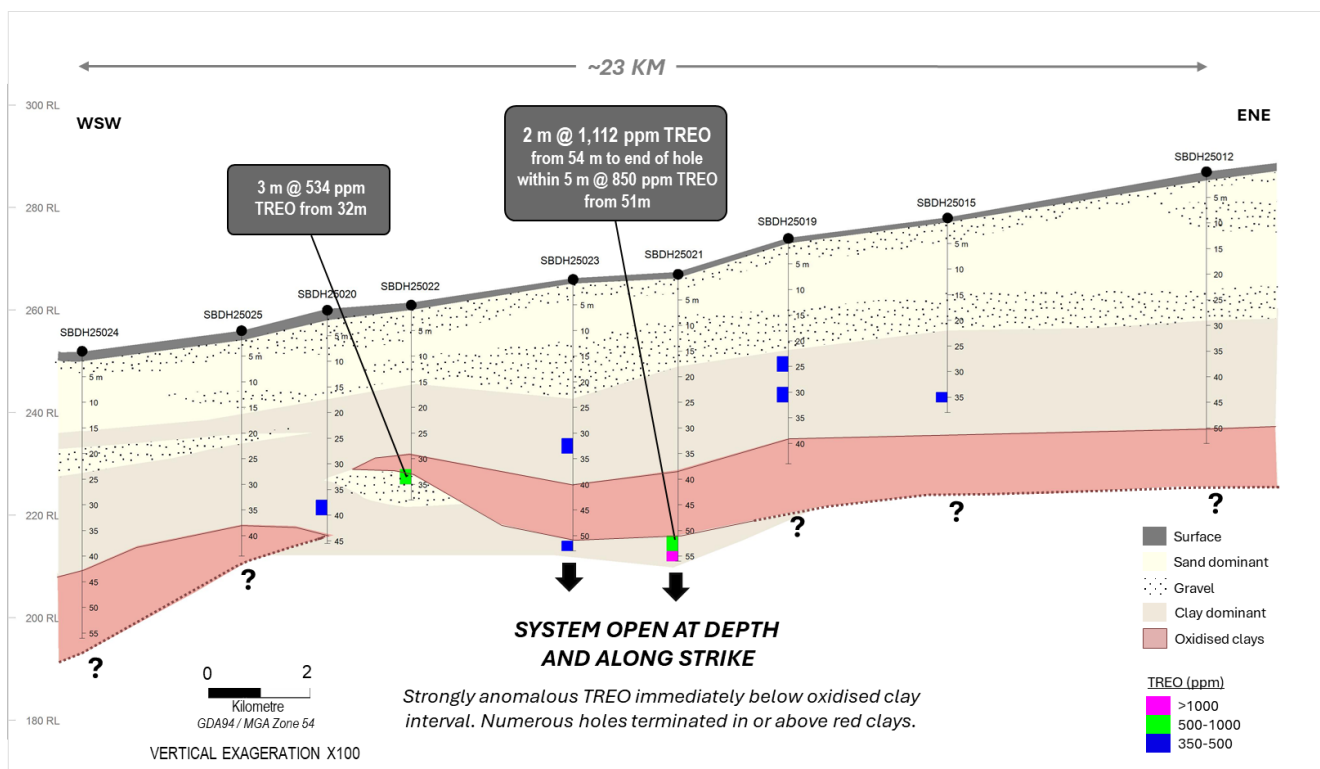


Figure 1: Long-section of drillholes SBDH25024, SBDH25025, SBDH25020, SBDH25022, SBDH25023, SBDH25021, SBDH25019, SBDH25015 and SBDH25012 displaying lithofacies and TREO intersections above 350 ppm.

Anomalous neodymium and praseodymium oxide ("NdPr oxide") values are associated with these intercepts, supporting the potential magnet REE content. Refer to Appendix 2 for drillhole collar information and Appendix 3 for assay results.

Other significant intercepts from the program, as defined for the highlights as over 500 ppm TREO over 3 metres, include:

- Drillhole SBDH25027: **3 m @ 920 ppm TREO from 32 m** within 6 m @ 734 ppm TREO from 29 m; including 6 m @ 135 ppm NdPr oxide.
- Drillhole SBDH25040: **3 m @ 700 ppm TREO from 35 m**; including 164 ppm NdPr oxide.
- Drillhole SBDH25098: **9 m @ 584 ppm TREO from 19 m**; including 104 ppm NdPr oxide.
- Drillhole SBDH25093: **3 m @ 546 ppm TREO from 19 m**.

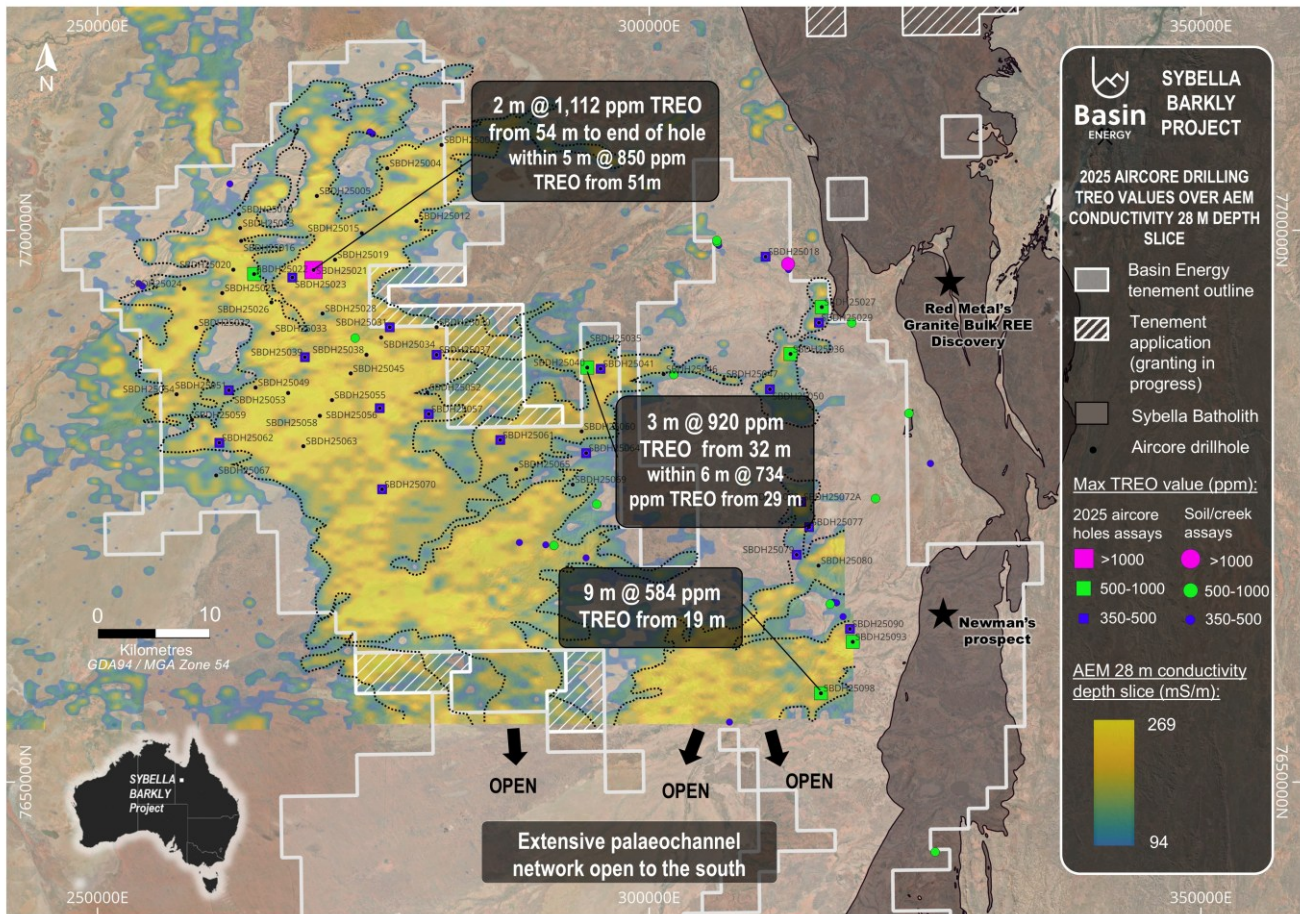


Figure 2: 2025 aircore drillhole location map displaying TREO values above 350 ppm over the airborne electromagnetic conductivity 28 m depth slice.

Drilling has established a laterally extensive sediment-hosted prospective REE system using very wide spaced drill holes, typically over 1 kilometre apart. Geological and geochemical relationships indicate that the potential for further, higher-grade TREO exists, especially directly beneath the red clay zone as shown in figure 1.

This revised targeting and lithological relationship has prompted the Company to expand its geochemical sampling program, with additional prospective samples being submitted for analysis. The initial sampling regime had been based on the conductive clay target model. Additionally, individual metre samples have been selected and submitted for higher resolution analysis of intervals of interest, critical for understanding mineral controls and distribution.

Palaeoflow directions data indicates that the system may extend directly south where no EM data exists to map the clays and channels. As part of this, Basin is assessing options for obtaining geophysics to map the southern extensions to the EM coverage.

Palaeochannel Architecture and Uranium Prospectivity Defined

Phase 1 drilling has delineated a coherent palaeochannel system characterised by stacked sands and basal gravels, interpreted to represent a significant palaeodrainage network with a broad north–south palaeoflow direction. Key observations include:

- Consistent channel architecture across kilometre-scale strike
- Widespread oxidised and bleached sands indicative of sustained groundwater flow
- Elevated uranium values locally associated with channel sands and basal gravels, with results of up to 35 ppm U_3O_8 over 3 m (Figure 3), representing approximately 10 times background.

Drillhole SBDH25027 returned **14 m @ 18 ppm U_3O_8 , including 3 m @ 25 ppm U_3O_8 from 29 m and 3 m at 35 ppm U_3O_8 from 32 m**. Strongly anomalous vanadium values were also returned for this interval, including a peak of 480 ppm from 29 to 32 m.

Step-out drilling along these interpreted channels demonstrates a transition from a clean, highly permeable white sand unit proximal to the Sybella Granites, to oxidised channel facies with evidence for uranium mobilisation providing a clear geological and geochemical vector toward more prospective reduced environments that remain untested to the south.

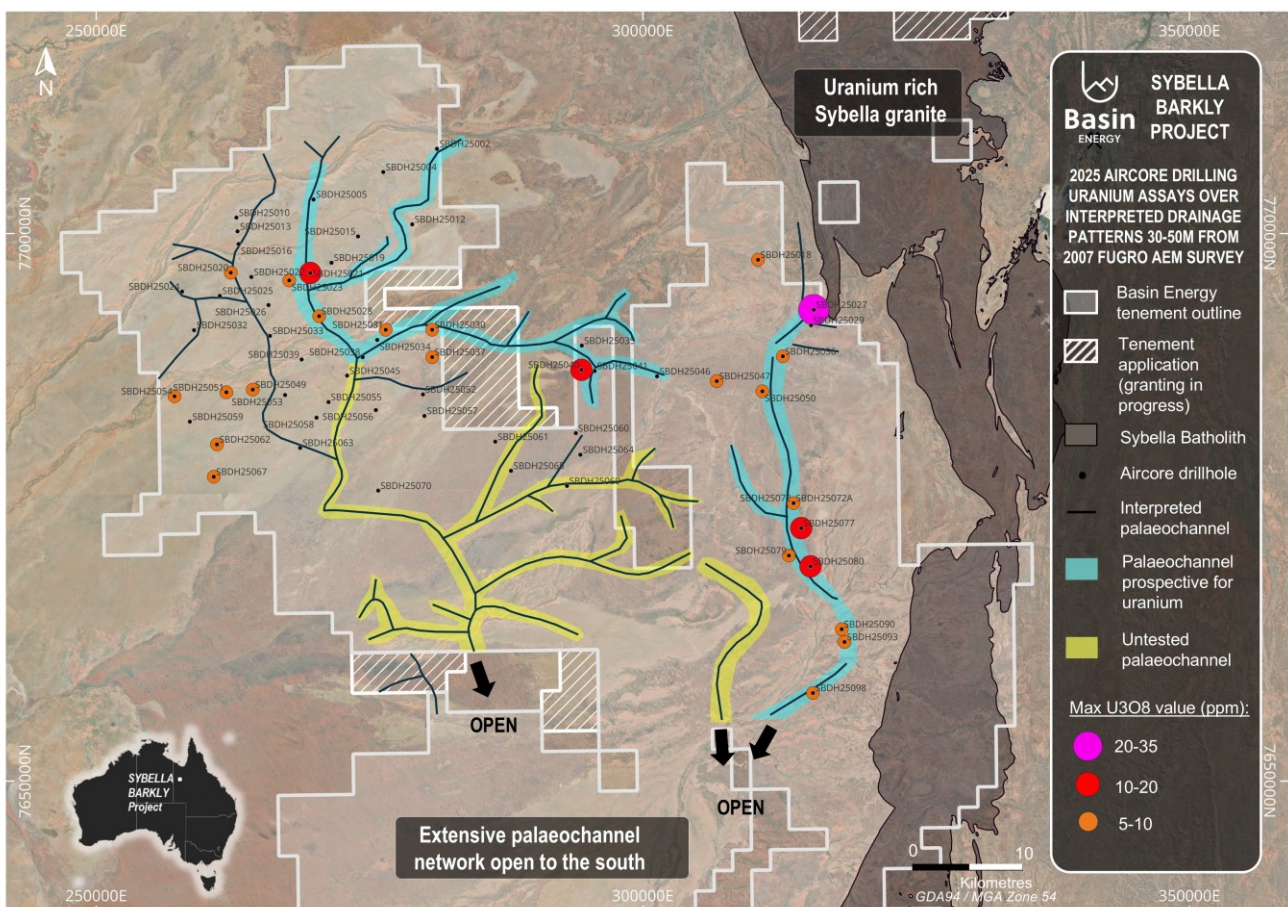


Figure 3: Uranium anomalies from 2025 aircore drilling over interpreted 30-50 m drainage patterns from the 2007 AEM survey and recent drilling data

Chip tray observations indicate the drilled palaeochannel sediments are predominantly oxidised and locally bleached, with no obvious reduced (grey/green) facies observed in the intervals drilled to date. This is consistent with the oxidised transport domain of a roll-front system, and suggests the potential reduced trap remains untested further down-gradient.

The EM data has proven to be an excellent tool in palaeochannel mapping, which allows follow-up on distal drilling down hydraulic gradient, along with systematic fence-line drilling.

Next District Scale Target - Granite Hosted REE Potential

Basin has completed access arrangements to allow Phase 2 drilling; which will target the hard rock potential of the various granites comprising the Sybella Batholith. These rocks are known to contain zones of enriched REE, including the Red Metal (ASX:RDM) owned Sybella Discovery (4.795 Bt @ 302 ppm NdPr using a 200 ppm NdPr cutoff grade²).

A shallow proof of concept auger drill hole program was completed in 2023 on the project area which demonstrated the presence of strongly anomalous REEs³, refer figures 4 and 6. A total of 82 auger holes were completed, with a maximum hole depth of 18 m and several of which were never assayed.

Strong REE anomalism was identified across three prospects (Figure 4) with the best anomaly being **5 m at 1,951 ppm TREO with 578 ppm NdPr oxide from 4 m to the end of hole**. Drilling at Newman's prospect highlighted a 3.7 km strike length prospective zone where drilling returned TREO values >1,000 ppm.

² Refer Red Metal Website for resource figure: redmetal.com.au/wp-content/uploads/2024/10/RDM_ASX_Sybella_REE_Maiden_Resource_final.pdf

³ Refer ASX Announcement Basin Energy (ASX:BSN), 27th August 2025, "Basin Energy to Acquire Extensive Queensland Uranium and Rare Earth Portfolio."



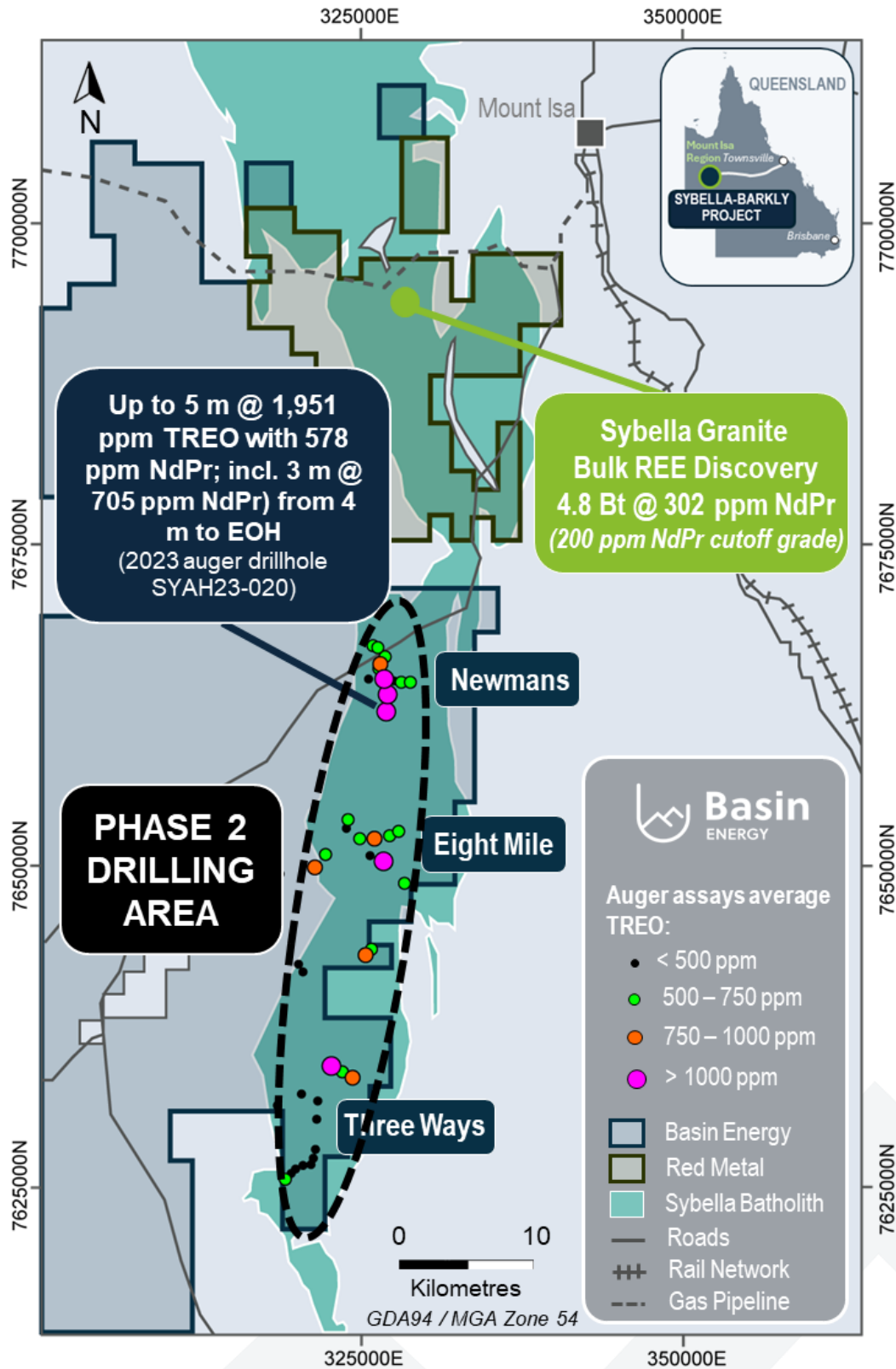


Figure 4: Phase 2 drilling area map highlighting average TREO from the 2023 auger drilling program at the Newmans, Eight Mile and Three Ways prospects

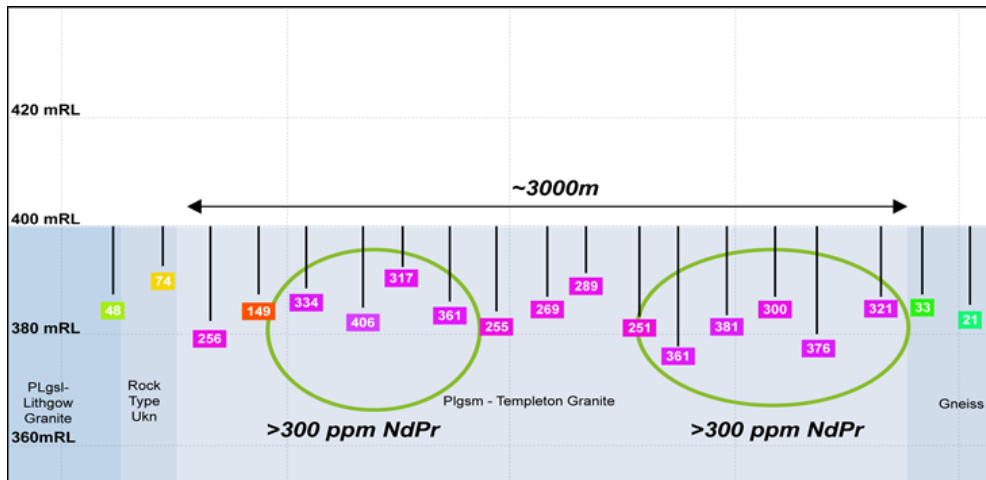


Figure 5 – Red Metals Discovery REE anomaly⁴

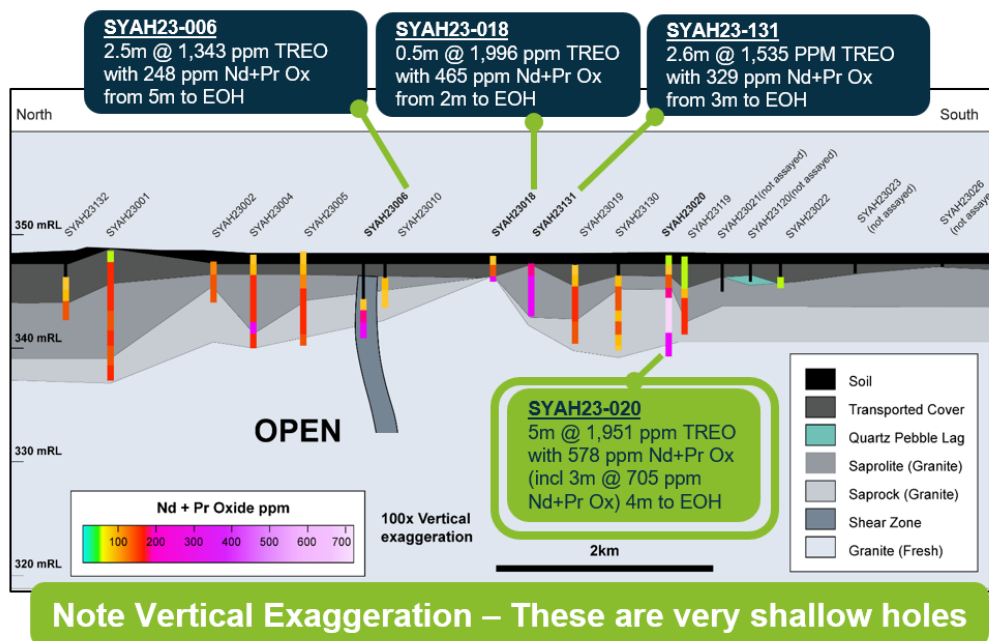


Figure 6 – Stylised section of Newmans Bore auger drilling

These results are very significant, considering all were reported to the end of holes (auger blade refusal), and the analogy in the geochemical anomaly of the Red Metal's Sybella deposit, refer figure 5 and 6.

Additionally, the newly completed drilling has identified elevated TREOs in the drainage system directly west of Newmans, refer figure 1. This appears to demonstrate a different signature to the sediment hosted REE anomalism and instead has a correlation with sand and gravels. This could be interpreted as direct mobilisation from the mineralised granites at Newmans.

⁴ Refer Red Metal Website for resource figure: redmetal.com.au/wp-content/uploads/2024/10/RDM_ASX_Sybella_REE_Maiden_Resource_final.pdf

This announcement has been approved for release by the Board of Basin Energy.

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Company Overview

About Basin Energy

Basin Energy (ASX: **BSN**) is a green energy metals exploration and development company with an interest in three highly prospective uranium projects positioned in the southeast corner and margins of the world-renowned Athabasca Basin in Canada, and 100% ownership in significant portfolios of uranium-green energy metals exploration assets located in Nordic region and uranium-REE assets west of Mount Isa in Queensland, Australia.

Directors & Management

Pete Moorhouse	Managing Director
Blake Steele	Non-executive Chairman
Cory Belyk	Non-executive Director
Matthew O’Kane	Non-executive Director
Ben Donovan	Company Secretary
Odile Maufrais	Exploration Manager

Basin Energy

ACN 655 515 110

Shares on Issue

191,309,005

ASX Code

BSN

Investment Highlights

QUEENSLAND (39*)

District scale exploration for REE and Uranium

SWEDEN (6*)

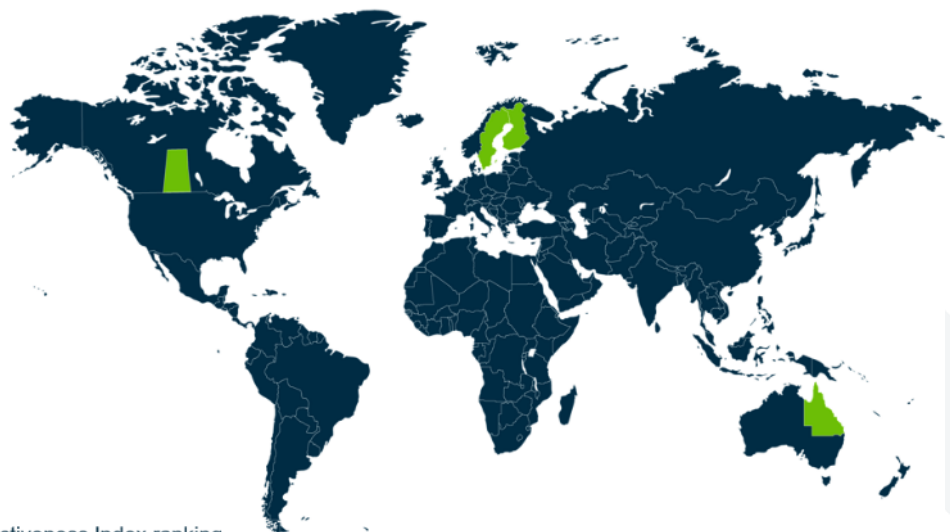
FINLAND (1*)

Green Energy Metals
Projects within historical uranium & base metal districts

CANADA (7*)

ATHABASCA BASIN

3 Uranium Projects in the worlds premier uranium district



*2024 Fraser Institute Investment Attractiveness Index ranking

Appendix 1

Competent Persons Statement, Resource Figure Notes and Forward-Looking Statement

The information that has been extracted from prior announcements referred to in this release, are available to view on <https://basinenergy.com.au/>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of exploration results, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this announcement that relates to previous exploration results was first reported by the Company in accordance with ASX listing rule 5.7 in the following Company ASX market releases:

- *ASX Announcement Basin Energy (ASX:BSN), 27th August 2025, "Basin Energy to Acquire Extensive Queensland Uranium and Rare Earth Portfolio."*
- *ASX Announcement Basin Energy (ASX:BSN), 24th October 2025, "Queensland Uranium and Rare Earth Acquisition Completed"*
- *ASX Announcement Basin Energy (ASX:BSN), 5th November 2025, "Drilling Contractors Engaged and Access Agreement Executed for Sybella-Barkly Uranium and Rare Earth Targets"*
- *ASX Announcement Basin Energy (ASX:BSN), 12th November 2025, "Drilling Commenced for Sybella-Barkly Uranium and Rare Earth Targets"*
- *ASX Announcement Basin Energy (ASX:BSN), 1st December 2025, "Basin Expands District-Scale REE and Uranium Footprint at Sybella-Barkly"*
- *ASX Announcement Basin Energy (ASX:BSN), 18th December 2025, "Basin Completes Phase One Drilling and Further Expands Sybella-Barkly Project"*

The information included within this release is a fair representation of available information compiled by Odile Maufrais, M.Sc., a competent person who is a Member of the Australian Institute of Mining and Metallurgy. Odile Maufrais is employed by Basin Energy Ltd as Exploration Manager. Odile Maufrais 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Odile Maufrais consents to the inclusion in this presentation of the matters based on her work in the form and context in which it appears.



Appendix 2

Drillhole collar location detail.

Coordinate system is GDA94 UTM 54. CEI Round 9 drillholes are highlighted in green.

HOLE ID	EPM	EASTING	NORTHING	DIP (°)	AZI (°)	EOH (m)
SBDH25002	EPM 28334	281,171	7,707,736	-90	0	50
SBDH25004	EPM 28334	276,255	7,705,613	-90	0	27
SBDH25005	EPM 28334	269,881	7,703,108	-90	0	39
SBDH25010	EPM 28331	262,825	7,701,454	-90	0	35.1
SBDH25012	EPM 28334	278,908	7,700,838	-90	0	53
SBDH25013	EPM 28331	262,927	7,700,202	-90	0	32
SBDH25015	EPM 28334	273,949	7,699,735	-90	0	38
SBDH25016	EPM 28331	263,024	7,699,039	-90	0	45
SBDH25018	EPM 28332	310,546	7,697,606	-90	0	27
SBDH25019	EPM 28334	271,526	7,697,333	-90	0	44
SBDH25020	EPM 28334	262,311	7,696,426	-90	0	45.5
SBDH25021	EPM 28334	269,583	7,696,400	-90	0	56
SBDH25022	EPM 28331	264,192	7,696,030	-90	0	38
SBDH25023	EPM 28331	267,656	7,695,722	-90	0	53
SBDH25024	EPM 28331	257,860	7,694,703	-90	0	56
SBDH25025	EPM 28331	261,304	7,694,312	-90	0	44
SBDH25026	EPM 28331	265,763	7,693,467	-90	0	36.1
SBDH25027	EPM 28332	315,642	7,693,039	-90	0	37
SBDH25028	EPM 28337	270,393	7,692,455	-90	0	53
SBDH25029	EPM 28332	315,384	7,691,625	-90	0	33
SBDH25030	EPM 28337	280,729	7,691,211	-90	0	53
SBDH25031	EPM 28337	276,485	7,691,211	-90	0	53
SBDH25032	EPM 28331	258,950	7,691,175	-90	0	44
SBDH25033	EPM 28337	265,896	7,690,659	-90	0	53
SBDH25034	EPM 28337	275,707	7,690,288	-90	0	53
SBDH25035	EPM 28336	294,421	7,689,770	-90	0	44
SBDH25036	EPM 28332	312,809	7,688,790	-90	0	39
SBDH25037	EPM 28337	280,730	7,688,715	-90	0	74
SBDH25038	EPM 28337	274,375	7,688,714	-90	0	53
SBDH25039	EPM 28337	268,795	7,688,498	-90	0	39
SBDH25040	EPM 28336	294,386	7,687,556	-90	0	38
SBDH25041	EPM 28336	295,594	7,687,448	-90	0	29
SBDH25045	EPM 28337	272,951	7,687,028	-90	0	53
SBDH25046	EPM 28332	301,303	7,686,963	-90	0	27
SBDH25047	EPM 28332	306,766	7,686,525	-90	0	29
SBDH25049	EPM 28331	264,322	7,685,746	-90	0	38
SBDH25050	EPM 28332	310,937	7,685,593	-90	0	31
SBDH25051	EPM 28331	261,907	7,685,504	-90	0	38
SBDH25052	EPM 28337	279,889	7,685,309	-90	0	53
SBDH25053	EPM 28337	267,277	7,685,252	-90	0	41
SBDH25054	EPM 28331	257,167	7,685,138	-90	0	35
SBDH25055	EPM 28337	271,252	7,684,609	-90	0	59
SBDH25056	EPM 28337	275,579	7,683,878	-90	0	53
SBDH25057	EPM 28337	280,022	7,683,345	-90	0	33
SBDH25058	EPM 28337	270,150	7,683,186	-90	0	50
SBDH25059	EPM 28340	258,566	7,682,825	-90	0	32



HOLE ID	EPM	EASTING	NORTHING	DIP (°)	AZI (°)	EOH (m)
SBDH25060	EPM 28336	293,875	7,681,776	-90	0	28
SBDH25061	EPM 28337	286,503	7,680,997	-90	0	50
SBDH25062	EPM 28340	261,043	7,680,743	-90	0	39
SBDH25063	EPM 28337	268,655	7,680,431	-90	0	49
SBDH25064	EPM 28336	294,289	7,679,805	-90	0	34
SBDH25065	EPM 28336	287,943	7,678,334	-90	0	53
SBDH25067	EPM 28340	260,755	7,677,788	-90	0	32
SBDH25069	EPM 28336	293,065	7,676,956	-90	0	37
SBDH25070	EPM 28337	275,795	7,676,526	-90	0	50
SBDH25072	EPM 28339	313,785	7,675,387	-90	0	28
SBDH25072A	EPM 28339	313,791	7,675,382	-90	0	50
SBDH25077	EPM 28339	314,490	7,673,101	-90	0	57
SBDH25079	EPM 28335	313,361	7,670,594	-90	0	44
SBDH25080	EPM 28335	315,342	7,669,610	-90	0	50
SBDH25090	EPM 28335	318,192	7,663,873	-90	0	50
SBDH25093	EPM 28335	318,449	7,662,702	-90	0	44
SBDH25098	EPM 28335	315,564	7,658,042	-90	0	55



Sample_ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250112	SBDH25033	11.0	14.0	49.4	98.9	11.3	42.1	7.8	1.5	7.0	1.1	7.2	1.4	3.8	0.6	4.1	0.5	43.0	279.7	53.4	4.2	112.0
SBD250113	SBDH25033	14.0	17.0	30.5	60.1	7.1	25.4	4.8	0.9	4.3	0.8	4.9	1.1	3.2	0.5	3.1	0.5	32.5	179.6	32.5	3.7	72.0
SBD250114	SBDH25033	17.0	20.0	32.1	64.9	7.0	26.1	4.4	0.9	4.3	0.6	4.5	1.0	2.6	0.4	2.6	0.4	26.7	178.5	33.1	4.5	89.0
SBD250115	SBDH25033	20.0	23.0	44.7	88.0	10.8	39.7	8.1	1.5	7.2	1.1	7.2	1.4	3.6	0.6	3.8	0.5	41.9	260.0	50.5	4.2	119.0
SBD250116	SBDH25033	23.0	25.0	32.4	72.8	7.2	25.8	4.7	0.9	4.4	0.7	4.7	0.9	2.5	0.4	2.4	0.4	26.9	187.1	32.9	3.2	109.0
SBD250117	SBDH25033	25.0	28.0	25.2	52.1	5.0	16.9	2.9	0.5	2.8	0.5	3.2	0.7	2.1	0.3	2.2	0.3	18.5	133.4	21.9	2.6	91.0
SBD250118	SBDH25033	28.0	31.0	36.0	92.5	7.9	27.9	6.1	1.1	4.9	0.8	5.1	1.0	3.0	0.5	2.8	0.4	28.3	218.2	35.8	3.4	130.0
SBD250119	SBDH25033	31.0	34.0	46.8	101.2	11.0	40.8	7.2	1.6	6.6	1.1	6.5	1.3	3.7	0.5	3.5	0.5	38.7	271.0	51.8	3.7	167.0
SBD250120	SBDH25033	34.0	36.0	44.7	93.2	10.3	37.7	7.7	1.6	6.2	1.0	6.7	1.2	3.5	0.6	3.3	0.5	39.6	257.8	47.9	3.7	148.0
SBD250121	SBDH25033	36.0	39.0	38.9	82.3	9.1	34.5	7.1	1.3	5.5	0.9	5.9	1.2	3.3	0.5	3.3	0.5	34.7	229.0	43.6	3.3	123.0
SBD250122	SBDH25033	39.0	42.0	25.7	53.7	6.0	21.2	4.1	0.8	3.6	0.6	4.2	0.8	2.3	0.4	2.6	0.4	23.1	149.5	27.2	2.6	112.0
SBD250124	SBDH25033	42.0	44.0	20.9	40.3	4.6	16.6	3.5	0.6	2.7	0.5	3.0	0.6	1.6	0.3	1.9	0.3	17.3	114.5	21.2	2.3	101.0
SBD250125	SBDH25033	44.0	46.0	28.6	54.5	7.3	29.0	5.1	1.1	4.6	0.7	4.6	0.9	2.7	0.4	2.6	0.4	26.7	169.2	36.3	3.1	105.0
SBD250126	SBDH25033	46.0	49.0	31.2	55.3	6.9	24.3	4.7	0.9	4.1	0.7	4.0	0.8	2.7	0.4	2.8	0.4	23.9	163.1	31.2	3.1	109.0
SBD250127	SBDH25033	49.0	52.0	31.1	59.1	6.9	25.4	4.5	0.9	3.8	0.7	4.6	0.8	2.4	0.4	2.6	0.4	22.7	166.4	32.4	3.3	104.0
SBD250128	SBDH25032	8.0	11.0	21.6	43.0	4.7	16.6	3.2	0.5	2.6	0.4	3.2	0.6	1.8	0.3	2.1	0.3	19.9	120.9	21.3	2.0	45.0
SBD250129	SBDH25032	11.0	14.0	20.9	39.2	4.4	17.0	3.6	0.5	2.7	0.5	3.2	0.7	1.9	0.3	2.2	0.3	20.3	117.6	21.5	2.1	59.0
SBD250130	SBDH25032	14.0	17.0	39.5	76.7	9.3	33.0	6.5	1.4	5.9	0.9	6.3	1.2	3.5	0.5	3.6	0.5	37.5	226.3	42.3	2.7	94.0
SBD250131	SBDH25032	17.0	20.0	34.4	67.7	8.1	28.9	4.9	0.9	5.1	0.8	4.8	1.1	2.9	0.5	3.3	0.5	33.8	197.7	37.0	2.9	85.0
SBD250132	SBDH25032	20.0	22.0	23.6	44.7	5.3	18.9	3.7	0.6	3.5	0.6	3.3	0.7	2.3	0.4	2.4	0.4	22.5	132.9	24.2	2.3	68.0
SBD250133	SBDH25032	22.0	25.0	37.6	72.7	8.4	30.2	5.8	1.2	4.8	0.8	4.8	1.0	2.9	0.5	3.1	0.4	30.2	204.5	38.6	3.4	116.0
SBD250134	SBDH25032	25.0	27.0	42.0	78.1	10.0	38.0	7.6	1.4	6.2	1.0	5.9	1.2	3.4	0.5	3.4	0.6	37.0	236.0	48.0	3.9	130.0
SBD250135	SBDH25032	27.0	29.0	31.0	61.1	7.5	29.0	5.3	1.2	5.1	0.8	4.5	0.9	2.7	0.4	2.9	0.4	29.5	182.2	36.6	2.9	103.0
SBD250136	SBDH25032	29.0	31.0	25.3	51.1	6.1	21.0	4.2	0.9	3.8	0.7	3.8	0.8	2.4	0.4	2.7	0.4	26.2	149.8	27.1	2.5	85.0
SBD250137	SBDH25032	31.0	33.0	17.2	37.6	3.6	13.8	2.6	0.5	2.5	0.4	2.8	0.6	1.9	0.3	2.0	0.3	18.8	105.0	17.4	2.0	75.0
SBD250138	SBDH25032	33.0	35.0	25.2	59.1	5.9	20.5	4.0	0.9	3.5	0.6	3.6	0.8	2.2	0.4	2.5	0.4	23.2	152.7	26.4	2.3	85.0
SBD250139	SBDH25032	35.0	37.0	50.5	96.1	11.2	38.4	7.4	1.6	6.4	1.0	6.3	1.2	3.7	0.5	3.5	0.6	36.1	264.4	49.5	3.4	165.0
SBD250140	SBDH25032	37.0	40.0	35.1	64.0	7.7	27.6	5.2	1.1	4.4	0.8	4.1	0.8	2.2	0.4	2.7	0.4	25.9	182.3	35.3	3.4	98.0
SBD250141	SBDH25032	40.0	43.0	23.7	44.0	5.3	18.9	3.9	0.9	3.4	0.5	3.3	0.6	1.8	0.3	1.9	0.3	19.4	128.2	24.2	2.9	107.0
SBD250142	SBDH25049	8.0	10.0	39.2	79.7	8.6	31.5	6.0	1.2	5.0	0.9	5.0	1.1	3.0	0.5	3.3	0.5	31.4	216.8	40.1	3.1	89.0
SBD250143	SBDH25049	10.0	13.0	54.1	111.5	12.7	44.2	8.2	1.5	6.8	1.1	6.4	1.4	3.9	0.6	4.1	0.6	42.7	299.8	56.9	4.6	109.0
SBD250144	SBDH25049	13.0	16.0	46.1	92.0	10.7	38.3	7.1	1.4	6.2	0.9	5.8	1.2	3.6	0.5	3.6	0.5	38.4	256.3	48.9	5.2	103.0
SBD250145	SBDH25049	16.0	19.0	43.0	82.9	9.5	33.6	6.3	1.3	5.8	0.8	5.4	1.1	3.3	0.5	3.6	0.5	34.4	232.1	43.1	5.2	121.0
SBD250146	SBDH25049	19.0	22.0	34.4	67.4	7.3	28.6	5.1	1.0	4.8	0.7	4.3	0.9	2.7	0.4	3.1	0.4	29.5	190.6	35.9	3.6	104.0
SBD250147	SBDH25049	22.0	25.0	32.3	67.2	7.3	26.9	5.4	1.0	4.5	0.7	4.3	0.9	2.6	0.4	2.9	0.4	27.9	184.8	34.2	3.0	128.0
SBD250148	SBDH25049	25.0	28.0	43.2	116.3	10.5	42.3	7.9	1.7	7.4	1.2	7.2	1.4	4.0	0.6	4.2	0.6	42.7	291.3	52.9	3.0	116.0
SBD250149	SBDH25049	28.0	30.0	30.1	59.9	6.9	24.7	5.1	1.0	3.6	0.6	3.6	0.8	2.1	0.4	2.4	0.4	24.3	165.8	31.6	2.1	93.0
SBD250151	SBDH25049	30.0	33.0	26.5	45.2	5.2	16.3	2.8	0.6	2.1	0.4	2.3	0.5	1.7	0.3	2.0	0.3	17.3	123.3	21.5	1.5	40.0
SBD250152	SBDH25049	33.0	35.0	23.7	44.7	4.6	14.5	2.1	0.4	1.7	0.3	2.0	0.4	1.2	0.2	1.4	0.2	12.2	109.6	19.1	1.5	33.0
SBD250153	SBDH25049	35.0	38.0	14.8	30.5	2.8	9.9	1.2	0.3	1.2	0.2	1.3	0.3	1.0	0.1	1.1	0.1	8.4	73.2	12.8	1.0	24.0
SBD250154	SBDH25051	6.0	9.0	46.3	89.6	10.8	40.9	7.2	1.2	6.2	1.0	5.9	1.2	3.3	0.5	3.5	0.5	36.7	254.8	51.8	2.8	84.0
SBD250155	SBDH25051	9.0	11.0	33.8	72.1	7.7	28.1	5.0	1.2	4.9	0.8	4.5	0.9	2.8	0.4	3.1	0.4	29.2	194.9	35.8	2.6	74.0
SBD250156	SBDH25051	11.0	12.0	21.7	40.4	5.1	18.7	3.4	0.7	2.8	0.5	3.2	0.6	2.1	0.3	2.1	0.3	20.7	122.6	23.7	2.0	41.0
SBD250157	SBDH25051	12.0	13.0	38.9	71.6	8.7	32.1	5.3	1.1	4.9	0.8	5.1	1.0	3.3	0.5	3.4	0.5	33.7	210.9	40.8	4.0	85.0
SBD250158	SBDH25051	13.0	14.0	27.3	56.8	6.6	24.8	4.7	0.9	4.2	0.6	3.8	0.8	2.5	0.4	3.0	0.4	26.8	163.7	31.4	3.6	66.0
SBD250159	SBDH25051	14.0	17.0	47.4	98.0	10.7	38.6	7.5	1.3	6.0	0.9	5.9	1.2	3.4	0.5	3.4	0.6	39.6	265.2	49.3	5.8	125.0
SBD250160	SBDH25051	17.0	20.0	34.2	68.3	7.6	28.2	5.0	0.9	4.4	0.7	4.2	0.9	2.7	0.5	2.9	0.4	27.8	188.8	35.8	3.8	99.0
SBD250161	SBDH25051	20.0	22.0	37.6	74.9	9.3	34.8	6.9	1.4	6.2	1.0	6.0	1.3	3.5	0.5	3.4	0.5	42.7	230.1	44.1	4.2	109.0
SBD250162	SBDH25051	22.0	24.0	21.2	49.9	4.9	17.5	3.5	0.8	3.0	0.5	3.1	0.7	2.0	0.3	2.2	0.3	20.3	130.3	22.4	2.7	74.0
SBD250163	SBDH25051	24.0	26.0	45.2	100.0	11.0	40.5	7.9	1.7	6.7	1.0	6.1	1.3	3.9	0.6	3.5	0.5	39.6	269.5	51.5	4.1	132.0
SBD250164	SBDH25051	26.0	28.0	39.3	85.6	9.8	36.0	6.6	1.2	5.5	0.9	5.4	1.1	3.1	0.5	3.3	0.5	36.2	235.2	45.8	3.4	116.0
SBD250165	SBDH25051	28.0	29.0	18.5	36.5	4.3	15.0	3.0	0.5	2.7	0.5	2.5	0.6	1.8	0.2	1.8	0.3	17.1	105.4	19.4	1.9	61.0
SBD250166	SBDH25051	29.0	32.0	25.4	56.4	5.4	20.5	3.6	0.7	3.3	0.6	4.0	0.9	2.5	0.4	2.9	0.4	24.3	151.3	26.0	3.0	117.0
SBD250167	SBDH25051	32.0	35.0	26.2	50.9	6.1	21.0	4.3	0.8	3.7	0.6	3.8	0.8	2.2	0.3	2.3	0.3	24.0	147.3	27.1	2.1	56.0
SBD250168	SBDH25051	35.0	37.0	71.9	205.8	15.4	53.0	9.3	1.4	5.8	1.0	6.2	1.2	3.7	0.6	4.1	0.6	34.0	414.0	68.4	2.9	104.0
SBD250169	SBDH25051	37.0	38.0	74.8	73.8	15.5	43.6	5.3	0.8	3.2	0.5	3.4	0.6	2.1	0.3	2.5	0.4	18.8	245.8	59.1	2.7	224.0
SBD250170	SBDH25062	10.0	13.0	47.1	91.4	11.2	41.8	7.7	1.4	6.6	1.0	5.8	1.3	3.7	0.6	3.3	0.5	39.7	263.2	53.0	2.5	99.0

Sample_ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250171	SBDH25062	13.0	14.0	67.7	206.4	16.6	57.9	10.5	1.9	8.6	1.4	8.8	1.7	4.9	0.8	5.3	0.8	48.4	441.5	74.4	3.9	130.0
SBD250172	SBDH25062	14.0	16.0	47.3	95.8	10.8	40.5	7.7	1.4	6.2	1.0	6.5	1.3	3.7	0.5	3.8	0.5	39.0	266.0	51.3	3.1	111.0
SBD250173	SBDH25062	16.0	18.0	28.0	52.5	6.5	24.6	4.3	1.0	4.1	0.7	4.1	0.9	2.5	0.4	2.9	0.4	27.2	160.0	31.1	2.5	63.0
SBD250174	SBDH25062	18.0	21.0	42.8	85.6	9.5	34.3	6.4	1.2	5.5	0.9	5.5	1.2	3.2	0.5	3.2	0.5	34.0	234.2	43.8	4.5	110.0
SBD250175	SBDH25062	21.0	24.0	47.6	96.3	10.8	36.9	7.1	1.3	6.2	1.0	6.1	1.2	3.7	0.5	3.3	0.6	36.8	259.4	47.6	5.6	124.0
SBD250177	SBDH25062	24.0	26.0	46.8	95.6	10.1	38.0	7.0	1.4	6.4	1.0	6.8	1.4	4.3	0.6	4.2	0.6	38.5	262.6	48.1	5.8	134.0
SBD250178	SBDH25062	26.0	29.0	42.5	84.3	9.4	32.5	6.7	1.4	6.1	1.0	6.0	1.2	3.7	0.5	3.4	0.6	33.3	232.4	41.9	5.3	129.0
SBD250179	SBDH25062	29.0	31.0	43.0	91.6	9.6	34.3	6.6	1.3	5.7	1.0	5.7	1.1	3.5	0.5	3.5	0.5	33.0	240.9	43.9	4.3	141.0
SBD250180	SBDH25062	31.0	33.0	35.2	64.7	8.3	28.5	5.6	1.1	4.9	0.8	4.5	0.8	2.6	0.4	2.7	0.4	25.5	186.1	36.8	3.5	92.0
SBD250181	SBDH25062	33.0	36.0	28.7	52.0	6.7	23.7	4.6	0.9	3.7	0.6	3.7	0.7	1.9	0.3	2.1	0.3	20.8	150.6	30.3	3.0	74.0
SBD250182	SBDH25062	36.0	39.0	17.4	34.3	4.1	14.5	2.7	0.7	2.3	0.4	2.3	0.5	1.6	0.2	1.6	0.2	14.5	97.1	18.5	3.8	68.0
SBD250183	SBDH25067	6.0	9.0	47.4	100.1	11.1	40.7	7.4	1.2	6.1	0.9	5.9	1.1	3.1	0.5	3.5	0.4	37.5	267.0	51.8	2.9	76.0
SBD250184	SBDH25067	9.0	12.0	45.0	95.8	10.8	38.6	8.0	1.2	6.3	1.0	6.1	1.3	3.4	0.6	3.7	0.5	41.1	263.5	49.4	3.3	95.0
SBD250185	SBDH25067	12.0	15.0	49.8	103.7	11.7	41.5	7.3	1.4	6.8	1.2	6.9	1.3	4.2	0.6	4.0	0.6	40.5	281.4	53.2	5.0	103.0
SBD250186	SBDH25067	15.0	17.0	49.8	102.7	11.7	42.6	7.7	1.6	6.9	1.1	6.5	1.3	4.1	0.5	3.7	0.6	39.4	280.1	54.3	5.2	104.0
SBD250187	SBDH25067	17.0	18.0	27.4	54.2	6.2	21.5	4.2	0.9	4.0	0.7	4.3	0.9	2.8	0.4	2.7	0.4	26.3	156.7	27.6	3.1	60.0
SBD250188	SBDH25067	18.0	20.0	44.9	91.9	10.3	38.3	6.7	1.3	6.3	1.0	6.2	1.1	3.5	0.5	3.3	0.5	35.8	251.5	48.5	5.0	111.0
SBD250189	SBDH25067	20.0	23.0	46.9	97.7	10.6	36.5	6.8	1.2	6.8	1.0	6.3	1.2	3.7	0.5	3.9	0.5	35.8	259.5	47.1	5.0	119.0
SBD250190	SBDH25067	23.0	25.0	45.5	92.4	10.0	34.8	6.6	1.4	6.2	1.0	6.0	1.2	3.8	0.5	3.7	0.6	33.9	247.6	44.8	4.4	124.0
SBD250191	SBDH25067	25.0	27.0	48.2	90.2	11.4	42.2	8.0	1.7	7.3	1.2	6.7	1.4	3.9	0.6	3.7	0.6	38.2	265.3	53.7	4.1	133.0
SBD250192	SBDH25067	27.0	30.0	38.1	74.4	7.9	26.8	5.0	0.9	4.8	0.7	4.5	0.9	2.5	0.4	2.4	0.4	24.4	194.4	34.8	3.6	102.0
SBD250193	SBDH25067	30.0	32.0	23.5	42.0	5.4	18.3	3.3	0.8	3.0	0.5	3.3	0.6	1.8	0.3	1.8	0.3	16.3	121.0	23.7	4.0	71.0
SBD250194	SBDH25059	3.0	6.0	34.9	71.2	8.0	30.6	5.4	1.0	4.9	0.8	5.0	1.1	3.3	0.4	3.0	0.5	30.6	200.7	38.6	2.7	71.0
SBD250195	SBDH25059	6.0	9.0	23.7	46.2	5.3	18.9	3.7	0.6	3.1	0.5	3.5	0.6	2.2	0.3	2.1	0.3	21.1	132.3	24.2	2.2	46.0
SBD250196	SBDH25059	9.0	12.0	29.6	58.2	7.1	24.6	4.6	0.9	3.7	0.6	4.2	0.8	2.3	0.4	2.6	0.4	24.8	164.8	31.7	3.1	66.0
SBD250197	SBDH25059	12.0	15.0	31.1	63.0	7.8	27.8	5.4	1.0	4.9	0.8	4.7	1.0	3.0	0.4	2.8	0.4	28.8	182.7	35.5	4.2	75.0
SBD250198	SBDH25059	15.0	18.0	27.9	57.7	6.4	22.9	4.6	0.7	3.9	0.7	4.3	0.8	2.6	0.4	2.5	0.4	25.4	161.1	29.2	3.4	73.0
SBD250199	SBDH25059	18.0	21.0	25.4	50.0	5.8	20.9	4.0	0.8	3.7	0.6	3.9	0.8	2.5	0.3	2.2	0.4	22.2	143.5	26.7	2.6	76.0
SBD250200	SBDH25059	21.0	24.0	45.3	88.7	10.6	37.6	6.9	1.4	5.7	1.0	6.1	1.2	3.6	0.5	3.4	0.7	36.1	248.8	48.2	4.5	126.0
SBD250201	SBDH25059	24.0	27.0	44.7	89.2	9.6	32.9	6.2	1.3	5.6	0.9	5.8	1.2	3.7	0.5	3.3	0.5	33.1	238.5	42.4	3.9	136.0
SBD250202	SBDH25059	27.0	30.0	39.8	75.7	8.3	28.6	5.1	1.0	4.6	0.7	4.7	0.9	3.1	0.4	2.6	0.5	25.7	201.6	36.8	3.1	107.0
SBD250203	SBDH25059	30.0	32.0	15.6	27.1	3.7	13.2	2.5	0.6	2.2	0.3	2.2	0.5	1.3	0.2	1.3	0.2	12.3	83.2	16.8	2.4	56.0
SBD250204	SBDH25054	9.0	12.0	39.9	81.6	9.1	33.4	6.1	1.1	5.3	0.8	5.5	1.1	3.2	0.5	3.0	0.5	32.0	223.1	42.5	4.3	94.0
SBD250206	SBDH25054	12.0	15.0	34.5	70.8	7.8	28.1	5.8	0.9	5.1	0.8	5.4	1.1	3.1	0.5	3.4	0.5	32.0	199.8	35.9	3.7	73.0
SBD250207	SBDH25054	15.0	18.0	34.5	67.7	7.6	27.2	5.1	1.1	4.9	0.7	5.1	1.0	3.1	0.5	3.0	0.5	31.5	193.2	34.8	3.8	85.0
SBD250208	SBDH25054	18.0	21.0	37.9	74.9	8.4	29.7	5.4	1.1	5.0	0.8	5.2	1.0	3.1	0.4	3.0	0.5	30.7	207.2	38.2	4.6	101.0
SBD250209	SBDH25054	21.0	24.0	47.1	96.7	10.7	38.1	7.0	1.4	6.2	1.0	6.5	1.3	4.0	0.5	3.8	0.6	38.7	263.6	48.8	5.7	132.0
SBD250210	SBDH25054	24.0	27.0	45.3	91.1	9.9	34.9	7.5	1.3	5.9	0.9	5.9	1.3	3.6	0.5	3.5	0.6	34.9	247.0	44.7	5.3	142.0
SBD250211	SBDH25054	27.0	30.0	45.4	92.3	10.0	36.3	7.3	1.4	5.8	0.9	5.4	1.2	3.5	0.5	3.3	0.6	33.8	247.5	46.2	4.4	154.0
SBD250212	SBDH25054	30.0	33.0	33.7	64.5	7.5	27.6	5.4	1.1	4.8	0.7	4.9	0.9	2.9	0.4	2.5	0.4	26.3	183.7	35.1	2.9	91.0
SBD250213	SBDH25054	33.0	35.0	16.9	31.9	4.1	16.1	3.1	0.7	2.7	0.4	2.4	0.5	1.6	0.2	1.5	0.3	15.2	97.5	20.2	1.6	48.0
SBD250214	SBDH25053	7.0	10.0	35.5	77.8	8.4	29.5	5.5	1.0	4.8	0.8	5.3	1.0	3.1	0.4	3.1	0.5	31.0	207.7	37.9	2.7	68.0
SBD250215	SBDH25053	10.0	13.0	41.5	80.7	9.8	34.3	6.4	1.3	5.9	0.9	6.0	1.2	3.5	0.5	3.5	0.5	35.8	231.8	44.1	2.7	85.0
SBD250216	SBDH25053	13.0	16.0	43.7	92.0	9.8	35.0	6.4	1.2	5.8	0.9	5.7	1.2	3.4	0.5	3.4	0.6	36.2	245.8	44.8	3.3	100.0
SBD250217	SBDH25053	16.0	19.0	40.1	81.6	9.3	32.5	6.7	1.2	5.5	0.8	5.5	1.0	3.2	0.5	2.9	0.5	31.2	222.6	41.8	3.3	92.0
SBD250218	SBDH25053	19.0	22.0	44.6	87.0	9.9	37.0	6.8	1.2	5.8	0.9	5.4	1.1	3.3	0.5	3.5	0.5	33.7	241.1	46.9	3.7	117.0
SBD250219	SBDH25053	22.0	25.0	23.5	46.9	5.3	19.1	3.9	0.8	3.1	0.6	3.3	0.7	1.9	0.3	2.2	0.4	21.0	132.9	24.4	2.5	66.0
SBD250221	SBDH25053	25.0	28.0	42.9	92.1	10.4	37.8	7.0	1.3	6.4	1.0	5.9	1.3	3.8	0.6	3.8	0.6	38.2	253.1	48.1	4.6	138.0
SBD250222	SBDH25053	28.0	31.0	43.6	94.2	10.1	36.6	6.7	1.4	5.9	1.0	6.2	1.1	3.4	0.6	3.7	0.5	35.3	250.3	46.7	3.7	120.0
SBD250223	SBDH25053	31.0	34.0	34.8	77.8	7.9	30.0	5.6	1.0	5.1	0.8	5.1	1.0	3.4	0.5	3.2	0.5	31.4	208.0	37.9	3.3	113.0
SBD250224	SBDH25053	34.0	37.0	41.0	84.4	8.7	30.6	5.8	1.2	5.1	0.8	5.0	1.0	3.1	0.4	3.3	0.5	30.2	221.1	39.3	4.4	188.0
SBD250225	SBDH25053	37.0	41.0	30.8	75.2	7.3	26.0	5.6	1.1	4.7	0.8	4.7	1.0	3.2	0.5	3.0	0.4	30.4	194.6	33.3	3.2	113.0
SBD250226	SBDH25063	10.0	13.0	34.5	68.8	7.9	28.1	5.3	0.9	4.7	0.8	4.5	0.9	2.8	0.4	2.6	0.4	27.2	189.8	36.0	2.4	59.0
SBD250227	SBDH25063	13.0	16.0	43.3	79.4	10.2	36.7	6.5	1.2	5.6	0.9	5.1	1.0	3.1	0.5	2.7	0.4	33.4	229.8	46.9	2.3	65.0
SBD250228	SBDH25063	16.0	19.0	31.1	69.8	7.3	26.7	5.2	0.9	4.1	0.6	4.1	0.7	2.6	0.3	2.3	0.4	24.4	180.6	34.0	1.9	58.0
SBD250229	SBDH25063	19.0	22.0	41.5	82.3	9.0	33.0	6.5	1.2	5.7	0.8	5.2	1.0	3.2	0.4	2.8	0.5	30.7	223.8	42.0	2.1	89.0
SBD250230	SBDH25063	22.0	25.0	39.1	74.4	8.8	32.4	5.7	1.1	5.0	0.8	5.0	1.0	3.0	0.4	2.7	0.5	29.1	208.9	41.2	2.1	99.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250231	SBDH25063	25.0	28.0	34.1	65.5	7.8	29.0	5.1	1.0	5.0	0.7	4.6	0.9	2.8	0.4	2.6	0.3	27.6	187.5	36.9	2.0	99.0
SBD250232	SBDH25063	28.0	31.0	40.2	81.9	9.8	37.0	6.4	1.5	6.6	1.0	5.9	1.2	3.6	0.5	3.3	0.5	37.1	236.5	46.8	2.8	111.0
SBD250233	SBDH25063	31.0	34.0	34.1	71.6	8.0	28.2	5.7	1.2	5.3	0.9	5.0	1.0	3.0	0.4	2.9	0.5	28.4	196.3	36.2	3.1	110.0
SBD250234	SBDH25063	34.0	37.0	26.9	73.3	6.4	22.6	4.6	1.0	4.3	0.7	4.4	0.8	2.5	0.4	2.8	0.4	23.9	175.0	29.1	2.9	135.0
SBD250235	SBDH25063	37.0	40.0	35.5	84.6	8.6	31.4	6.1	1.2	5.8	0.8	5.6	1.0	3.2	0.5	2.9	0.5	32.3	220.0	40.0	3.4	157.0
SBD250236	SBDH25063	40.0	43.0	40.8	89.4	9.7	35.3	7.1	1.4	6.1	1.0	6.1	1.2	3.6	0.5	3.4	0.5	34.8	241.1	45.1	3.1	127.0
SBD250237	SBDH25063	43.0	46.0	36.5	67.8	8.9	33.6	6.0	1.3	5.5	0.8	5.0	1.0	3.1	0.4	3.0	0.4	30.0	203.3	42.5	2.9	107.0
SBD250238	SBDH25063	46.0	49.0	32.7	62.9	7.1	24.5	5.0	1.0	4.2	0.7	4.3	0.9	2.8	0.4	2.9	0.5	24.6	174.6	31.6	3.6	111.0
SBD250241	SBDH25058	7.0	10.0	45.9	86.4	10.8	41.4	7.2	1.4	5.5	0.9	5.4	1.1	3.3	0.5	3.5	0.5	34.2	248.0	52.2	2.8	80.0
SBD250242	SBDH25058	10.0	13.0	42.2	78.2	9.9	35.2	6.3	1.1	5.2	0.8	5.1	1.1	3.1	0.5	2.9	0.5	33.8	225.9	45.1	2.6	75.0
SBD250243	SBDH25058	13.0	16.0	43.4	84.9	9.8	36.7	6.5	1.2	5.2	0.9	5.2	1.0	2.9	0.5	2.9	0.4	33.3	234.8	46.5	2.4	76.0
SBD250244	SBDH25058	16.0	19.0	35.3	69.9	7.9	29.2	5.7	1.1	4.5	0.7	4.7	0.9	2.8	0.4	2.6	0.4	29.3	195.5	37.1	2.0	75.0
SBD250245	SBDH25058	19.0	22.0	34.6	66.9	8.0	28.7	5.5	1.1	4.5	0.7	4.8	0.9	2.5	0.4	2.6	0.4	28.2	189.8	36.7	2.1	82.0
SBD250246	SBDH25058	22.0	25.0	43.5	82.3	10.0	37.4	6.8	1.3	5.6	0.9	5.4	1.2	3.1	0.5	3.2	0.5	34.8	236.4	47.4	2.6	107.0
SBD250247	SBDH25058	25.0	28.0	33.4	77.0	8.0	30.1	5.7	1.0	4.4	0.8	4.6	0.9	2.8	0.4	2.8	0.4	28.2	200.7	38.1	2.3	100.0
SBD250248	SBDH25058	28.0	31.0	38.9	89.7	9.8	36.6	7.3	1.5	5.7	0.9	5.9	1.1	3.3	0.5	3.2	0.5	36.1	241.0	46.4	2.6	123.0
SBD250249	SBDH25058	31.0	34.0	37.3	81.1	8.8	33.5	6.5	1.3	5.3	0.9	5.3	1.1	3.2	0.4	3.1	0.5	34.2	222.5	42.3	3.1	135.0
SBD250250	SBDH25058	34.0	37.0	34.1	76.8	7.5	26.7	5.2	1.0	4.2	0.8	4.6	1.0	2.8	0.4	2.9	0.4	28.8	197.1	34.2	3.1	138.0
SBD250251	SBDH25058	37.0	40.0	34.9	71.0	8.1	30.3	6.2	1.1	4.9	0.8	4.8	0.9	2.7	0.5	2.9	0.4	30.2	199.7	38.4	3.3	121.0
SBD250252	SBDH25058	40.0	43.0	39.4	87.5	9.1	33.5	6.9	1.3	5.0	0.9	5.2	1.1	3.1	0.5	3.3	0.4	32.1	229.2	42.6	3.5	145.0
SBD250253	SBDH25058	43.0	46.0	29.0	66.1	6.9	23.7	5.1	1.0	4.2	0.7	4.4	1.0	2.9	0.4	3.0	0.3	28.7	177.3	30.6	2.9	114.0
SBD250254	SBDH25058	46.0	50.0	38.0	90.3	8.7	33.5	6.7	1.5	5.7	1.0	5.6	1.2	3.3	0.5	3.2	0.5	35.6	235.2	42.2	3.4	149.0
SBD250255	SBDH25055	7.0	10.0	53.5	95.1	12.2	45.8	7.9	1.4	6.1	1.1	5.9	1.1	3.8	0.5	3.3	0.6	37.8	276.1	58.0	2.6	90.0
SBD250256	SBDH25055	10.0	13.0	44.7	91.6	10.5	38.1	7.6	1.4	5.7	1.0	5.6	1.2	3.5	0.5	3.1	0.4	36.1	251.0	48.6	2.5	77.0
SBD250257	SBDH25055	13.0	16.0	48.9	105.8	11.8	43.4	7.9	1.4	6.5	1.1	6.0	1.3	3.7	0.5	3.4	0.5	40.4	282.4	55.1	2.8	91.0
SBD250258	SBDH25055	16.0	19.0	49.5	98.3	11.8	42.9	8.0	1.5	6.5	1.0	5.8	1.2	3.5	0.5	3.3	0.5	38.0	272.3	54.7	2.7	101.0
SBD250259	SBDH25055	19.0	22.0	44.3	87.1	10.5	38.4	7.2	1.4	5.8	0.9	5.5	1.1	3.1	0.5	3.2	0.5	35.4	244.7	48.9	2.5	101.0
SBD250260	SBDH25055	22.0	25.0	39.1	80.6	9.1	33.1	6.1	1.1	4.7	0.7	4.9	1.0	2.6	0.5	3.1	0.4	31.9	218.9	42.2	2.4	105.0
SBD250261	SBDH25055	25.0	28.0	36.0	77.4	7.9	28.8	5.5	1.0	4.6	0.7	4.3	0.9	2.6	0.4	2.8	0.4	26.9	200.2	36.7	2.5	112.0
SBD250262	SBDH25055	28.0	31.0	30.6	80.5	7.5	28.8	5.3	1.0	4.7	0.7	4.3	0.9	2.7	0.4	2.6	0.4	28.2	198.6	36.3	2.3	106.0
SBD250263	SBDH25055	31.0	34.0	29.3	61.9	6.4	22.9	4.9	0.9	3.6	0.6	4.0	0.8	2.6	0.4	2.6	0.4	24.6	166.0	29.3	2.8	122.0
SBD250264	SBDH25055	34.0	37.0	42.9	100.2	10.3	36.3	7.0	1.4	5.9	0.9	5.9	1.2	3.5	0.5	3.8	0.5	37.3	257.8	46.5	3.7	164.0
SBD250266	SBDH25055	37.0	40.0	43.7	104.2	10.2	37.7	7.5	1.5	5.8	0.9	5.6	1.1	3.4	0.5	3.4	0.5	36.2	262.3	47.9	3.7	163.0
SBD250267	SBDH25055	40.0	43.0	30.1	68.8	7.3	27.5	5.4	1.1	4.4	0.8	4.3	0.9	2.7	0.4	2.9	0.4	29.1	186.1	34.8	3.1	120.0
SBD250268	SBDH25055	43.0	46.0	26.7	65.0	6.3	23.0	4.2	0.9	3.6	0.6	3.9	0.8	2.5	0.4	2.8	0.5	25.1	166.4	29.3	2.8	126.0
SBD250269	SBDH25055	46.0	49.0	31.7	68.9	7.5	26.6	5.0	1.1	4.6	0.7	4.3	0.8	2.6	0.3	2.5	0.4	26.0	183.2	34.1	2.8	118.0
SBD250270	SBDH25055	49.0	52.0	31.3	63.8	7.1	23.3	5.0	0.9	4.1	0.7	4.3	0.9	2.8	0.4	2.5	0.4	25.4	173.0	30.4	3.1	118.0
SBD250271	SBDH25055	52.0	55.0	16.8	42.4	3.9	12.4	2.6	0.6	2.5	0.5	2.9	0.7	2.4	0.3	2.2	0.4	19.3	109.8	16.3	2.6	102.0
SBD250272	SBDH25055	55.0	58.0	13.1	42.3	3.1	10.0	2.0	0.5	2.1	0.4	3.0	0.7	1.9	0.3	2.5	0.4	17.9	100.2	13.1	2.7	96.0
SBD250274	SBDH25055	58.0	59.0	27.4	50.1	5.7	17.3	3.1	0.6	2.9	0.6	3.5	0.7	2.0	0.4	2.8	0.4	21.2	138.7	23.0	2.8	86.0
SBD250275	SBDH25061	1.0	4.0	45.5	86.1	9.9	35.3	6.6	1.2	5.8	0.9	4.9	1.0	3.5	0.5	3.1	0.5	34.9	239.7	45.2	1.9	83.0
SBD250276	SBDH25061	4.0	7.0	61.3	155.4	14.6	49.6	10.1	1.7	8.4	1.3	7.3	1.5	4.5	0.6	3.9	0.5	47.1	367.7	64.1	2.0	82.0
SBD250277	SBDH25061	7.0	10.0	65.3	112.6	14.9	54.5	8.5	1.3	8.1	1.2	7.3	1.3	4.0	0.5	3.3	0.6	43.8	327.5	69.4	1.9	50.0
SBD250278	SBDH25061	10.0	13.0	41.3	86.5	9.4	30.8	5.8	1.2	5.2	0.9	5.4	1.1	3.5	0.4	3.3	0.4	33.4	228.5	40.2	2.2	45.0
SBD250279	SBDH25061	13.0	16.0	40.2	85.0	8.8	33.8	6.0	1.0	5.1	0.8	5.4	1.1	2.9	0.5	2.9	0.5	33.9	228.0	42.6	2.6	63.0
SBD250280	SBDH25061	16.0	19.0	44.7	99.4	10.3	36.6	6.9	1.3	6.0	1.0	5.3	1.1	3.3	0.5	3.0	0.5	34.4	254.2	47.0	2.9	81.0
SBD250281	SBDH25061	19.0	22.0	41.4	91.4	9.5	31.3	6.5	1.2	5.8	0.9	5.0	1.1	3.3	0.5	3.0	0.5	32.4	233.6	40.7	3.0	97.0
SBD250282	SBDH25061	22.0	25.0	45.7	91.3	10.5	35.9	7.0	1.3	6.3	1.0	5.8	1.2	3.6	0.5	3.1	0.5	37.3	251.0	46.4	3.0	105.0
SBD250283	SBDH25061	25.0	28.0	37.3	76.5	8.6	29.6	5.9	1.4	5.8	0.9	4.8	1.1	3.7	0.5	3.3	0.5	34.3	214.2	38.2	3.1	105.0
SBD250284	SBDH25061	28.0	31.0	41.2	77.9	9.1	32.0	6.3	1.2	5.7	1.0	5.8	1.1	3.8	0.6	3.5	0.5	37.8	227.3	41.1	3.6	107.0
SBD250285	SBDH25061	31.0	34.0	24.4	49.3	5.6	19.1	4.0	0.7	3.5	0.6	3.4	0.6	2.1	0.3	2.2	0.3	21.1	137.2	24.7	2.8	118.0
SBD250286	SBDH25061	34.0	37.0	36.4	73.2	8.3	27.6	5.6	1.0	5.2	0.9	5.3	1.1	3.3	0.5	3.2	0.5	33.0	205.1	35.9	3.4	104.0
SBD250287	SBDH25061	37.0	40.0	30.1	61.3	7.4	24.3	5.3	1.0	4.2	0.8	4.2	0.9	2.8	0.5	2.6	0.4	27.3	172.9	31.7	3.0	112.0
SBD250288	SBDH25061	40.0	43.0	23.0	45.0	5.2	17.7	3.5	0.7	3.4	0.5	3.5	0.8	2.3	0.4	2.5	0.4	22.7	131.7	22.9	2.7	80.0
SBD250289	SBDH25061	43.0	46.0	21.5	42.7	4.8	16.3	3.2	0.6	3.0	0.6	3.2	0.7	2.4	0.4	2.4	0.4	21.7	124.0	21.2	2.6	83.0
SBD250290	SBDH25061	46.0	50.0	30.5	53.9	5.5	17.5	3.0	0.6	2.7	0.5	3.0	0.7	2.1	0.4	2.3	0.4	18.7	141.8	23.0	3.1	113.0
SBD250291	SBDH25065	16.0	19.0	43.7	92.6	10.1	33.7	6.9	1.1	5.7	1.0	5.6	1.1	3.5	0.5	3.6	0.5	35.4	245.1	43.9	2.9	66.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6011	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250292	SBDH25065	19.0	22.0	36.7	79.8	8.3	26.5	5.2	1.0	4.5	0.8	4.5	0.9	3.1	0.4	2.9	0.4	29.7	204.7	34.8	2.7	89.0
SBD250293	SBDH25065	22.0	25.0	35.3	73.5	8.3	27.4	5.2	1.0	4.6	0.8	4.2	0.9	2.8	0.5	2.8	0.4	29.3	197.0	35.7	2.7	81.0
SBD250294	SBDH25065	25.0	28.0	34.8	73.2	7.9	25.4	5.3	0.9	4.8	0.8	4.6	0.9	2.6	0.4	2.6	0.4	31.4	196.0	33.3	2.8	88.0
SBD250295	SBDH25065	28.0	31.0	38.6	79.7	8.5	28.6	5.8	1.1	5.0	0.9	4.8	0.9	3.1	0.4	2.7	0.5	30.9	211.5	37.0	3.1	107.0
SBD250296	SBDH25065	31.0	34.0	42.1	85.7	9.3	31.1	6.5	1.2	5.8	0.9	5.2	1.1	3.4	0.5	3.1	0.5	33.4	229.7	40.4	3.3	121.0
SBD250297	SBDH25065	34.0	37.0	34.4	67.4	7.6	26.5	5.3	1.1	4.9	0.8	4.7	1.0	2.9	0.4	2.9	0.5	30.6	190.8	34.0	3.1	100.0
SBD250298	SBDH25065	37.0	40.0	40.2	79.1	9.0	30.0	6.9	1.2	5.5	0.9	5.6	1.1	3.3	0.5	3.4	0.6	34.2	221.5	39.0	3.5	118.0
SBD250299	SBDH25065	40.0	43.0	30.5	68.4	6.5	23.3	4.7	0.9	4.0	0.7	4.1	0.9	3.0	0.4	2.7	0.4	27.9	178.6	29.9	3.0	99.0
SBD250300	SBDH25065	43.0	46.0	37.6	78.9	8.9	30.9	5.9	1.1	5.6	0.9	5.3	1.1	3.3	0.5	3.4	0.6	35.4	219.5	39.8	3.5	117.0
SBD250301	SBDH25065	46.0	49.0	23.0	46.4	4.9	18.0	3.5	0.7	3.5	0.6	3.1	0.6	2.2	0.3	2.4	0.4	22.1	131.7	22.9	2.7	78.0
SBD250302	SBDH25065	49.0	52.0	18.9	38.2	4.3	13.3	2.8	0.5	2.4	0.5	2.4	0.6	1.7	0.3	1.9	0.3	16.6	104.7	17.6	2.3	71.0
SBD250304	SBDH25070	1.0	4.0	60.2	122.2	14.4	51.1	10.1	1.7	8.0	1.2	7.1	1.5	3.9	0.5	3.9	0.6	45.1	331.5	65.5	3.1	83.0
SBD250305	SBDH25070	4.0	7.0	50.2	101.7	12.4	45.8	8.0	1.4	6.6	1.0	6.1	1.3	3.5	0.6	3.3	0.5	38.6	281.0	58.3	2.3	73.0
SBD250306	SBDH25070	7.0	10.0	67.3	165.2	14.9	53.8	9.9	1.6	8.1	1.3	7.5	1.5	4.3	0.6	4.1	0.5	46.1	386.7	68.7	2.2	104.0
SBD250307	SBDH25070	10.0	13.0	76.9	157.8	18.6	69.9	12.9	2.1	10.6	1.6	9.2	1.9	5.0	0.7	4.5	0.7	58.5	430.9	88.5	2.2	93.0
SBD250308	SBDH25070	13.0	16.0	65.2	136.4	15.1	53.4	9.8	1.6	8.0	1.3	7.3	1.4	3.9	0.6	3.8	0.5	46.6	354.9	68.5	2.4	74.0
SBD250309	SBDH25070	16.0	19.0	53.9	107.2	12.7	45.1	8.0	1.4	7.2	1.1	6.9	1.4	3.9	0.5	3.7	0.5	40.6	294.4	57.9	2.3	92.0
SBD250310	SBDH25070	19.0	22.0	31.0	59.7	7.1	26.4	4.5	0.8	3.8	0.6	3.6	0.8	2.0	0.3	1.9	0.3	24.1	167.0	33.5	1.8	67.0
SBD250311	SBDH25070	22.0	25.0	51.0	100.7	11.6	42.5	7.7	1.4	6.8	1.1	6.4	1.4	3.6	0.5	3.5	0.5	40.4	279.0	54.0	2.8	122.0
SBD250312	SBDH25070	25.0	28.0	45.9	93.7	10.1	35.7	7.3	1.2	5.6	0.9	5.2	1.2	3.3	0.5	3.2	0.5	33.3	247.5	45.8	2.7	129.0
SBD250313	SBDH25070	28.0	31.0	46.7	106.6	12.4	47.1	9.2	1.6	7.5	1.2	6.7	1.5	4.1	0.6	3.8	0.6	43.7	293.3	59.6	2.9	128.0
SBD250314	SBDH25070	31.0	34.0	33.4	71.7	8.2	28.3	5.5	1.0	4.7	0.8	4.6	1.0	3.0	0.4	2.9	0.4	29.0	194.9	36.6	2.8	107.0
SBD250315	SBDH25070	34.0	37.0	25.1	50.9	5.6	20.1	4.1	0.6	3.4	0.6	3.6	0.8	2.2	0.4	2.4	0.3	22.9	142.9	25.7	2.4	92.0
SBD250316	SBDH25070	37.0	40.0	39.2	92.6	9.1	31.6	6.1	1.1	5.1	0.8	5.2	1.1	3.0	0.5	3.1	0.4	31.5	230.3	40.7	3.2	140.0
SBD250317	SBDH25070	40.0	43.0	29.1	58.7	7.0	24.4	5.0	0.9	4.2	0.7	4.2	0.8	2.3	0.4	2.8	0.4	24.9	165.6	31.3	3.1	114.0
SBD250318	SBDH25070	43.0	46.0	40.8	86.7	9.8	35.5	7.5	1.3	5.9	1.0	6.0	1.2	3.4	0.5	3.3	0.5	36.2	239.7	45.3	3.8	140.0
SBD250319	SBDH25070	46.0	50.0	41.3	85.7	9.8	35.2	7.2	1.3	5.8	0.9	6.0	1.3	3.2	0.5	3.2	0.5	35.6	237.4	45.0	3.4	123.0
SBD250321	SBDH25057	2.0	5.0	60.8	124.1	13.7	49.5	9.3	1.6	7.7	1.2	6.8	1.5	4.0	0.6	3.9	0.6	44.6	329.7	63.2	2.7	99.0
SBD250322	SBDH25057	5.0	8.0	32.0	53.9	7.4	26.1	4.7	0.9	3.7	0.6	3.4	0.7	2.0	0.3	2.0	0.3	21.1	159.2	33.5	1.3	44.0
SBD250323	SBDH25057	8.0	11.0	61.9	154.2	14.1	47.8	8.2	1.7	7.5	1.2	7.0	1.3	4.0	0.5	3.8	0.5	40.8	354.3	61.9	2.0	78.0
SBD250324	SBDH25057	11.0	14.0	43.3	86.8	9.5	34.5	5.8	1.1	4.9	0.9	4.6	1.0	2.8	0.4	2.7	0.4	30.6	229.3	44.1	1.9	63.0
SBD250325	SBDH25057	14.0	17.0	54.9	108.2	12.7	46.1	8.6	1.4	6.8	1.1	6.3	1.3	3.6	0.6	3.3	0.5	39.2	294.5	58.8	2.3	72.0
SBD250326	SBDH25057	17.0	20.0	47.9	97.4	11.3	39.3	7.6	1.4	5.9	1.0	5.8	1.2	3.3	0.6	3.4	0.5	36.8	263.3	50.6	2.4	79.0
SBD250327	SBDH25057	20.0	23.0	36.0	73.0	8.2	28.5	5.2	1.0	4.2	0.7	4.6	0.9	2.6	0.4	2.4	0.4	26.9	194.9	36.6	2.2	77.0
SBD250328	SBDH25057	23.0	26.0	37.6	77.9	8.2	29.5	5.8	1.0	4.8	0.8	5.0	1.0	2.9	0.5	3.0	0.4	31.7	210.1	37.7	3.0	103.0
SBD250329	SBDH25057	26.0	29.0	37.2	73.7	8.0	27.4	5.0	1.0	4.7	0.8	4.9	1.0	3.0	0.5	3.0	0.5	31.4	202.2	35.4	3.0	113.0
SBD250330	SBDH25057	29.0	32.0	31.9	60.3	6.3	20.9	4.0	0.7	3.5	0.6	3.8	0.9	2.5	0.4	2.7	0.5	25.3	164.2	27.2	2.9	115.0
SBD250332	SBDH25057	32.0	33.0	19.7	43.1	4.3	15.3	3.0	0.6	3.1	0.6	2.8	0.6	2.0	0.3	2.0	0.3	19.2	116.8	19.6	3.0	99.0
SBD250333	SBDH25056	4.0	7.0	35.1	72.8	8.2	30.9	5.6	1.2	5.3	0.8	5.1	1.0	3.2	0.4	2.9	0.5	31.1	204.3	39.1	1.8	54.0
SBD250334	SBDH25056	7.0	10.0	74.0	127.8	16.9	62.8	11.5	2.0	10.3	1.4	8.6	1.7	5.3	0.7	4.5	0.7	53.0	381.0	79.7	3.1	99.0
SBD250335	SBDH25056	10.0	13.0	48.1	92.4	10.9	40.8	7.7	1.4	6.6	0.9	5.8	1.2	3.3	0.4	3.2	0.5	36.4	259.9	51.8	2.6	83.0
SBD250336	SBDH25056	13.0	16.0	47.9	91.9	10.8	39.3	7.4	1.2	6.5	0.9	5.6	1.1	3.7	0.5	3.3	0.5	35.9	256.5	50.1	2.4	68.0
SBD250337	SBDH25056	16.0	19.0	55.7	108.3	12.4	44.1	8.2	1.6	7.6	1.0	6.5	1.3	4.0	0.6	3.6	0.5	40.5	296.0	56.5	3.2	97.0
SBD250338	SBDH25056	19.0	22.0	39.9	80.6	9.1	32.3	5.7	1.0	5.2	0.8	4.6	1.0	2.6	0.5	2.7	0.4	31.1	217.5	41.4	2.5	87.0
SBD250339	SBDH25056	22.0	25.0	43.9	84.9	10.0	36.4	6.7	1.4	6.4	1.0	5.6	1.0	3.4	0.5	2.9	0.5	34.9	239.6	46.4	2.9	104.0
SBD250341	SBDH25056	25.0	28.0	35.7	75.1	7.3	26.5	5.2	0.8	4.5	0.7	4.2	0.9	3.0	0.4	2.9	0.4	26.2	193.8	33.8	2.8	94.0
SBD250342	SBDH25056	28.0	31.0	42.2	103.7	10.5	39.5	7.5	1.6	7.0	1.0	6.1	1.3	3.9	0.5	3.3	0.6	38.1	266.9	50.0	3.2	137.0
SBD250343	SBDH25056	31.0	34.0	40.8	100.2	9.6	35.8	7.2	1.4	5.9	0.9	5.7	1.2	3.7	0.5	3.4	0.5	35.4	252.4	45.4	3.8	146.0
SBD250344	SBDH25056	34.0	37.0	34.0	82.4	7.9	29.9	5.9	1.1	5.3	0.8	4.5	1.0	2.9	0.5	2.9	0.5	28.7	208.4	37.8	3.7	134.0
SBD250345	SBDH25056	37.0	40.0	33.5	76.9	8.4	30.0	6.0	1.2	5.4	0.9	4.9	1.0	3.1	0.5	3.0	0.5	30.0	205.2	38.4	3.5	125.0
SBD250346	SBDH25056	40.0	43.0	33.0	81.3	7.9	28.2	6.4	1.1	5.1	0.8	4.9	1.0	3.0	0.5	3.2	0.5	29.0	205.9	36.2	3.6	119.0
SBD250347	SBDH25056	43.0	46.0	29.2	68.4	7.5	28.5	5.0	1.1	5.2	0.8	4.3	1.0	2.7	0.4	2.8	0.4	25.7	182.9	35.9	3.4	110.0
SBD250348	SBDH25056	46.0	49.0	36.0	78.5	8.6	31.1	5.5	1.3	5.4	0.9	5.1	1.1	3.5	0.5	3.2	0.5	33.1	214.2	39.7	3.7	119.0
SBD250349	SBDH25056	49.0	53.0	29.3	62.9	7.1	26.2	5.3	1.1	4.8	0.8	4.6	1.0	2.9	0.4	2.5	0.4	27.0	176.4	33.4	3.9	118.0
SBD250350	SBDH25052	16.0	19.0	55.5	114.9	13.1	48.4	8.5	1.7	8.0	1.2	6.7	1.4	3.8	0.6	4.0	0.5	42.4	310.6	61.5	2.9	103.0
SBD250351	SBDH25052	19.0	22.0	35.3	67.4	7.5	28.1	5.3	1.0	4.7	0.7	4.4	0.9	2.8	0.4	2.6	0.4	28.3	189.8	35.6	2.5	78.0
SBD250352	SBDH25052	22.0	25.0	40.1	81.1	9.7	35.5	7.1	1.4	6.4	1.0	5.2	1.2	3.3	0.5	3.7	0.5	34.4	231.0	45.2	3.3	100.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250353	SBDH25052	25.0	28.0	40.8	88.3	9.4	33.4	6.4	1.3	5.7	1.0	5.5	1.2	3.5	0.5	3.2	0.5	36.3	237.2	42.8	3.5	126.0
SBD250354	SBDH25052	28.0	31.0	34.5	73.8	8.4	30.8	6.2	1.2	5.3	0.9	5.1	1.0	3.4	0.5	2.9	0.5	30.7	205.1	39.2	3.3	104.0
SBD250355	SBDH25052	31.0	34.0	37.1	77.8	8.9	31.5	5.9	1.3	5.7	0.9	5.9	1.2	3.9	0.5	3.9	0.6	38.0	223.2	40.4	4.0	127.0
SBD250356	SBDH25052	34.0	36.0	33.9	79.4	8.2	29.9	5.9	1.0	5.4	0.9	4.8	1.0	3.0	0.4	2.9	0.5	31.1	208.2	38.1	3.5	124.0
SBD250357	SBDH25052	36.0	38.0	32.0	66.9	7.2	27.2	5.2	0.9	4.7	0.7	4.5	1.0	3.1	0.4	2.8	0.4	28.1	185.0	34.3	3.2	114.0
SBD250358	SBDH25052	38.0	40.0	16.8	35.9	3.8	13.6	2.8	0.6	2.8	0.4	2.7	0.6	1.8	0.3	2.0	0.3	17.3	101.7	17.4	2.4	93.0
SBD250359	SBDH25052	40.0	43.0	33.0	77.4	7.8	28.9	5.9	1.0	4.9	0.8	5.1	1.1	3.2	0.5	3.1	0.5	32.4	205.6	36.8	3.4	143.0
SBD250360	SBDH25052	43.0	46.0	40.2	84.1	9.7	35.7	6.7	1.3	5.5	0.9	5.9	1.2	3.5	0.5	3.6	0.5	35.6	235.0	45.4	4.0	152.0
SBD250361	SBDH25052	46.0	49.0	43.4	93.6	9.6	33.4	6.3	1.1	4.9	0.8	5.1	1.1	3.1	0.5	3.1	0.5	29.8	236.2	43.0	3.9	153.0
SBD250362	SBDH25052	49.0	53.0	48.0	97.5	10.1	32.7	6.2	1.2	4.9	0.8	4.7	1.0	3.3	0.5	3.5	0.5	29.0	243.8	42.7	3.9	140.0
SBD250363	SBDH25037	14.0	17.0	56.8	108.5	13.4	51.4	8.7	1.7	8.3	1.3	6.7	1.4	4.0	0.6	3.8	0.5	44.8	311.9	64.8	3.4	98.0
SBD250364	SBDH25037	17.0	20.0	43.6	90.7	9.4	32.5	6.4	1.0	5.6	0.8	5.0	1.1	3.2	0.5	3.1	0.4	30.2	233.5	41.9	3.0	83.0
SBD250365	SBDH25037	20.0	23.0	46.0	91.8	10.8	40.6	6.8	1.5	6.9	1.0	5.9	1.2	3.7	0.5	3.0	0.5	35.7	255.7	51.4	3.2	102.0
SBD250366	SBDH25037	23.0	26.0	35.5	68.5	8.2	30.4	5.4	1.0	4.9	0.8	4.6	0.9	2.9	0.4	2.7	0.4	28.3	195.0	38.6	2.9	121.0
SBD250367	SBDH25037	26.0	29.0	47.9	116.2	11.7	43.6	7.6	1.5	6.9	1.1	6.7	1.4	3.8	0.6	3.8	0.6	40.1	293.3	55.3	3.7	134.0
SBD250368	SBDH25037	29.0	32.0	33.7	79.1	8.6	31.8	5.8	1.1	5.9	0.9	5.8	1.2	3.4	0.5	3.6	0.5	34.3	216.1	40.4	3.5	112.0
SBD250369	SBDH25037	32.0	35.0	29.9	66.3	6.8	24.7	4.8	1.0	4.4	0.7	4.4	0.9	3.0	0.4	2.9	0.4	25.7	176.3	31.5	3.5	105.0
SBD250371	SBDH25037	35.0	38.0	26.9	62.8	6.2	21.3	4.1	0.9	3.8	0.7	4.1	0.9	2.6	0.4	2.9	0.4	24.4	162.2	27.6	3.1	94.0
SBD250372	SBDH25037	38.0	41.0	42.5	91.9	10.3	37.8	7.2	1.2	5.1	0.9	5.2	1.0	3.3	0.4	3.1	0.5	28.7	239.0	48.1	4.0	91.0
SBD250373	SBDH25037	41.0	44.0	42.9	72.6	8.9	31.7	5.6	1.1	4.8	0.8	4.5	0.9	2.8	0.4	2.9	0.4	26.3	206.6	40.7	3.7	58.0
SBD250374	SBDH25037	44.0	46.0	31.8	48.3	5.6	18.2	3.0	0.5	2.5	0.4	2.8	0.6	1.8	0.3	1.9	0.4	16.1	134.2	23.8	3.1	49.0
SBD250375	SBDH25037	46.0	49.0	41.5	67.1	8.3	28.7	4.4	0.7	3.2	0.5	2.7	0.6	1.7	0.3	2.1	0.3	17.7	179.5	37.0	3.6	47.0
SBD250376	SBDH25037	49.0	52.0	70.6	135.7	18.2	73.6	11.7	2.1	7.3	0.8	4.3	0.8	2.2	0.3	2.5	0.3	21.3	351.8	91.8	4.4	52.0
SBD250377	SBDH25037	52.0	56.0	79.5	145.0	20.5	82.9	14.6	2.3	8.9	1.1	6.2	1.0	2.8	0.4	2.6	0.4	28.6	396.8	103.5	5.2	57.0
SBD250378	SBDH25037	56.0	59.0	30.3	56.0	6.9	27.3	5.0	1.1	4.3	0.7	4.1	0.8	2.4	0.3	2.6	0.4	22.4	164.4	34.2	3.2	37.0
SBD250379	SBDH25037	59.0	62.0	30.3	52.8	6.2	23.6	4.2	0.7	4.1	0.6	3.6	0.8	2.6	0.4	2.5	0.4	23.9	156.7	29.8	3.3	46.0
SBD250380	SBDH25037	62.0	65.0	72.7	141.9	20.7	85.7	15.6	2.9	13.5	1.6	9.0	1.5	3.8	0.5	3.1	0.4	46.6	419.4	106.4	3.4	59.0
SBD250381	SBDH25037	65.0	68.0	34.0	64.4	8.2	33.2	6.3	1.2	5.8	0.8	4.4	0.8	2.5	0.3	2.3	0.3	25.1	189.7	41.4	3.1	67.0
SBD250382	SBDH25037	68.0	71.0	33.4	65.6	7.2	26.5	5.0	0.8	4.4	0.7	4.6	0.9	2.6	0.4	2.6	0.4	30.2	185.3	33.6	3.1	81.0
SBD250383	SBDH25037	71.0	74.0	70.4	137.6	15.3	56.1	10.7	2.3	12.4	2.0	12.5	2.7	7.8	1.1	6.6	0.9	98.7	437.0	71.4	6.7	83.0
SBD250384	SBDH25030	16.0	19.0	49.7	97.8	11.2	42.5	7.6	1.5	6.7	1.0	6.3	1.4	3.7	0.5	3.8	0.5	38.1	272.2	53.6	3.4	97.0
SBD250385	SBDH25030	19.0	22.0	50.1	97.4	11.1	40.0	7.3	1.4	6.2	1.0	6.0	1.3	3.8	0.5	3.6	0.5	36.6	266.9	51.1	3.1	112.0
SBD250386	SBDH25030	22.0	25.0	40.7	84.6	9.4	33.9	5.6	1.2	5.6	0.9	5.7	1.1	3.2	0.5	3.2	0.5	32.1	228.3	43.3	2.8	107.0
SBD250387	SBDH25030	25.0	28.0	31.7	60.4	7.5	26.2	4.8	0.9	4.1	0.6	3.9	0.8	2.3	0.4	2.6	0.4	25.0	171.5	33.8	2.8	118.0
SBD250388	SBDH25030	28.0	31.0	40.0	87.2	9.3	35.7	7.2	1.4	6.1	1.0	6.8	1.2	3.8	0.5	3.8	0.6	37.3	242.1	45.0	3.5	124.0
SBD250389	SBDH25030	31.0	34.0	39.4	85.3	8.4	29.2	5.0	1.1	4.5	0.7	5.2	1.0	3.0	0.5	3.5	0.5	29.1	216.2	37.6	3.5	129.0
SBD250390	SBDH25030	34.0	37.0	41.6	109.9	11.7	42.7	8.5	1.9	7.9	1.2	7.1	1.4	4.4	0.6	3.6	0.5	42.3	285.4	54.4	3.8	131.0
SBD250391	SBDH25030	37.0	40.0	26.6	62.4	6.3	24.6	4.3	0.9	4.1	0.8	3.8	0.8	2.3	0.4	2.5	0.4	24.3	164.4	30.9	3.2	107.0
SBD250392	SBDH25030	40.0	43.0	32.3	67.3	7.8	28.7	6.2	1.2	5.1	0.9	5.0	1.1	3.1	0.4	2.8	0.5	29.8	192.1	36.5	4.1	120.0
SBD250393	SBDH25030	43.0	45.0	38.2	89.4	10.0	38.5	8.2	1.7	6.9	1.1	6.5	1.4	3.8	0.5	3.4	0.5	38.4	248.5	48.5	5.5	142.0
SBD250394	SBDH25030	45.0	48.0	40.1	78.4	8.9	29.4	5.8	1.0	4.2	0.7	4.6	0.9	2.7	0.4	2.9	0.5	27.2	207.8	38.3	4.6	146.0
SBD250395	SBDH25030	48.0	51.0	33.5	66.3	7.9	27.8	5.2	1.0	4.4	0.7	4.6	0.9	2.6	0.4	2.7	0.4	25.4	183.8	35.7	4.1	123.0
SBD250396	SBDH25030	51.0	53.0	34.7	66.8	8.0	28.0	5.3	1.1	4.2	0.8	4.6	1.0	3.2	0.5	3.0	0.5	28.3	190.0	36.0	4.7	126.0
SBD250397	SBDH25031	12.0	15.0	37.8	75.8	9.1	31.1	6.1	1.2	5.1	0.8	5.1	1.1	3.0	0.4	3.0	0.4	32.1	212.2	40.2	3.0	72.0
SBD250398	SBDH25031	15.0	18.0	27.0	51.8	6.4	22.4	4.0	0.8	4.0	0.6	4.2	0.9	2.6	0.4	2.4	0.3	25.7	153.4	28.8	2.5	64.0
SBD250399	SBDH25031	18.0	21.0	42.3	81.2	9.4	32.9	6.3	1.1	5.0	0.9	5.5	1.1	3.2	0.5	3.4	0.5	32.5	225.8	42.3	3.5	108.0
SBD250400	SBDH25031	21.0	24.0	29.0	60.7	6.2	23.7	4.3	0.7	3.7	0.7	4.1	0.8	2.3	0.4	2.5	0.4	24.9	164.4	29.9	2.9	88.0
SBD250401	SBDH25031	24.0	27.0	35.2	73.9	8.2	30.2	5.4	1.1	4.6	0.8	4.7	1.0	2.9	0.4	3.1	0.5	29.7	201.8	38.4	3.5	113.0
SBD250402	SBDH25031	27.0	30.0	39.9	88.9	8.4	30.9	6.2	1.2	5.4	0.9	5.4	1.0	3.3	0.4	3.0	0.5	32.9	228.2	39.3	3.8	131.0
SBD250403	SBDH25031	30.0	33.0	48.0	109.3	12.1	44.1	9.2	1.7	7.6	1.2	6.9	1.4	4.0	0.6	3.8	0.6	42.0	292.6	56.2	5.0	156.0
SBD250404	SBDH25031	33.0	36.0	44.2	107.4	9.9	36.0	7.1	1.4	6.0	1.0	6.0	1.2	3.5	0.5	3.4	0.5	35.4	263.4	45.9	5.2	164.0
SBD250405	SBDH25031	36.0	39.0	41.3	96.9	8.8	28.0	5.1	0.9	4.4	0.7	4.2	1.0	2.9	0.4	2.5	0.5	27.0	224.6	36.8	5.0	164.0
SBD250406	SBDH25031	39.0	42.0	45.0	85.4	10.0	31.1	5.5	1.1	4.1	0.7	4.7	0.9	3.0	0.4	3.1	0.4	26.8	222.4	41.1	4.9	161.0
SBD250407	SBDH25031	42.0	45.0	41.9	82.3	8.7	28.2	5.3	1.0	4.3	0.7	4.8	1.0	2.8	0.4	2.9	0.4	25.7	210.4	36.9	4.5	139.0
SBD250408	SBDH25031	45.0	48.0	37.1	80.2	7.8	24.4	5.0	0.8	3.7	0.7	4.5	1.0	2.8	0.5	3.4	0.5	27.9	200.1	32.1	3.6	130.0
SBD250409	SBDH25031	48.0	51.0	40.0	107.4	8.6	29.5	6.3	1.3	5.0	0.8	5.3	1.1	3.2	0.5	3.5	0.6	30.2	243.3	38.1	3.9	109.0
SBD250410	SBDH25031	51.0	53.0	63.1	150.5	17.5	64.0	13.2	2.7	10.6	1.8	10.4	2.0	5.5	0.8	5.0	0.8	56.8	404.5	81.6	4.6	95.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250411	SBDH25034	12.0	15.0	57.0	115.6	12.9	47.0	8.8	1.5	7.1	1.1	6.6	1.4	3.8	0.5	3.4	0.6	40.0	307.3	59.9	3.5	106.0
SBD250412	SBDH25034	15.0	18.0	49.1	98.5	11.2	41.4	8.6	1.4	6.5	1.1	6.3	1.4	3.7	0.5	3.6	0.5	40.1	274.2	52.7	3.3	108.0
SBD250413	SBDH25034	18.0	21.0	39.9	78.7	9.2	32.1	5.8	1.1	5.3	0.8	5.0	1.1	3.1	0.4	3.0	0.4	31.1	217.1	41.3	3.0	102.0
SBD250414	SBDH25034	21.0	24.0	34.9	72.0	8.1	29.3	6.0	1.1	4.9	0.8	4.7	0.9	2.7	0.4	2.6	0.4	28.2	197.1	37.4	3.0	115.0
SBD250415	SBDH25034	24.0	27.0	38.8	97.3	8.5	30.9	5.9	1.4	5.5	1.0	5.7	1.2	3.6	0.5	3.4	0.5	33.8	238.1	39.4	3.6	128.0
SBD250416	SBDH25034	27.0	30.0	42.1	86.5	10.3	36.0	6.9	1.5	6.1	1.0	5.9	1.2	3.6	0.5	3.3	0.6	37.7	243.2	46.3	3.7	123.0
SBD250417	SBDH25034	30.0	33.0	36.4	70.0	7.9	25.7	5.2	0.9	4.3	0.7	4.4	1.0	2.7	0.4	3.1	0.4	25.5	188.5	33.5	3.8	136.0
SBD250419	SBDH25034	33.0	36.0	36.6	66.5	8.2	28.1	4.7	0.9	4.1	0.7	4.2	0.9	3.2	0.5	3.2	0.5	27.3	189.6	36.3	3.8	150.0
SBD250420	SBDH25034	36.0	39.0	39.8	76.5	8.7	26.8	5.2	0.9	3.8	0.7	4.3	0.9	2.9	0.4	2.9	0.4	24.3	198.4	35.5	4.3	161.0
SBD250421	SBDH25034	39.0	42.0	46.1	84.4	9.7	30.7	5.7	1.0	4.5	0.7	4.8	0.9	2.7	0.4	3.0	0.4	26.0	221.1	40.4	4.4	164.0
SBD250422	SBDH25034	42.0	45.0	38.8	82.8	8.5	28.2	6.0	1.2	5.1	0.9	4.9	1.0	2.9	0.4	3.1	0.4	29.5	213.6	36.7	4.0	142.0
SBD250423	SBDH25034	45.0	48.0	37.8	73.9	8.3	27.1	5.7	1.1	4.7	0.8	5.1	1.0	2.8	0.4	2.9	0.5	28.1	200.2	35.3	3.6	135.0
SBD250424	SBDH25034	48.0	51.0	42.5	90.0	9.6	34.4	7.1	1.4	5.9	1.0	6.1	1.1	3.6	0.5	3.5	0.5	33.4	240.5	44.0	4.0	146.0
SBD250425	SBDH25034	51.0	53.0	56.3	100.1	11.6	37.2	6.0	1.1	5.0	0.9	5.2	1.1	3.0	0.4	3.0	0.5	31.2	262.6	48.8	3.1	91.0
SBD250426	SBDH25038	10.0	13.0	50.5	107.0	11.6	45.1	8.5	1.5	7.4	1.2	7.0	1.4	4.2	0.6	3.9	0.5	45.3	295.8	56.7	4.3	96.0
SBD250427	SBDH25038	13.0	16.0	50.2	99.5	11.9	42.1	8.1	1.5	6.5	1.0	6.1	1.2	3.6	0.5	3.3	0.4	37.5	273.3	54.0	3.3	104.0
SBD250428	SBDH25038	16.0	19.0	40.2	86.2	9.4	33.2	6.4	1.1	5.5	0.9	5.4	1.1	3.3	0.5	3.1	0.4	34.7	231.4	42.6	2.9	94.0
SBD250429	SBDH25038	19.0	22.0	45.9	89.8	10.5	37.7	7.1	1.4	5.7	1.0	5.4	1.1	3.6	0.5	3.2	0.5	36.7	250.1	48.2	3.6	112.0
SBD250430	SBDH25038	22.0	25.0	36.0	76.2	8.6	32.3	6.6	1.2	5.2	0.8	5.0	1.1	3.0	0.4	3.0	0.4	31.1	211.0	40.9	3.1	105.0
SBD250431	SBDH25038	25.0	28.0	38.7	82.7	8.3	28.8	5.6	1.0	4.6	0.6	4.5	1.0	2.9	0.4	2.8	0.4	28.1	210.3	37.1	3.5	125.0
SBD250432	SBDH25038	28.0	31.0	38.1	78.5	8.6	29.9	5.7	1.2	4.9	0.8	5.1	1.0	3.0	0.4	2.8	0.5	30.9	211.4	38.5	3.5	127.0
SBD250433	SBDH25038	31.0	34.0	43.2	99.4	10.7	39.0	7.4	1.5	6.6	1.0	6.4	1.3	3.9	0.5	3.5	0.5	38.0	262.8	49.6	4.0	131.0
SBD250434	SBDH25038	34.0	37.0	39.1	101.7	10.1	37.4	8.3	1.6	6.5	1.1	6.4	1.3	3.6	0.5	3.2	0.5	37.2	258.3	47.5	4.5	160.0
SBD250435	SBDH25038	37.0	40.0	35.9	82.1	8.9	33.5	7.1	1.5	5.4	1.0	5.5	1.2	3.1	0.5	3.2	0.5	33.9	223.1	42.3	4.2	130.0
SBD250436	SBDH25038	40.0	43.0	37.6	81.4	8.1	29.9	6.1	1.2	4.7	0.8	5.0	1.1	3.2	0.5	3.3	0.5	30.4	213.7	38.0	3.8	139.0
SBD250437	SBDH25038	43.0	46.0	41.4	85.5	9.9	35.7	6.6	1.3	5.8	1.0	5.6	1.2	3.3	0.5	3.5	0.5	34.9	236.6	45.6	3.7	143.0
SBD250438	SBDH25038	46.0	49.0	27.3	60.2	6.5	24.7	5.0	0.8	4.1	0.7	4.1	0.9	2.3	0.4	2.4	0.4	24.0	163.6	31.2	3.0	100.0
SBD250439	SBDH25038	49.0	51.0	33.2	78.2	7.9	28.7	5.8	1.1	5.1	0.8	4.9	1.0	3.1	0.5	2.9	0.5	29.6	203.3	36.6	3.3	133.0
SBD250440	SBDH25038	51.0	53.0	25.7	52.5	6.1	21.7	4.5	0.8	3.9	0.7	4.3	0.9	3.1	0.4	2.8	0.5	27.2	155.1	27.8	2.6	110.0
SBD250441	SBDH25045	12.0	15.0	51.6	98.9	12.7	48.6	8.6	1.5	7.6	1.2	6.6	1.3	4.1	0.6	3.6	0.5	41.9	289.3	61.3	2.7	91.0
SBD250442	SBDH25045	15.0	18.0	59.3	114.9	13.2	49.6	8.9	1.6	7.5	1.2	7.0	1.4	3.8	0.6	3.4	0.5	42.2	315.0	62.8	3.3	110.0
SBD250443	SBDH25045	18.0	21.0	49.5	99.9	11.4	39.7	7.8	1.4	6.6	1.0	6.1	1.3	3.6	0.5	3.3	0.6	36.8	269.6	51.1	3.1	112.0
SBD250444	SBDH25045	21.0	24.0	42.7	88.3	9.7	33.7	6.0	1.3	5.5	1.0	5.1	1.1	3.1	0.5	3.1	0.5	31.6	233.2	43.4	2.7	116.0
SBD250445	SBDH25045	24.0	27.0	34.8	76.5	7.5	26.2	5.0	1.1	4.7	0.7	4.7	1.0	2.9	0.4	2.9	0.4	28.6	197.5	33.8	3.1	112.0
SBD250446	SBDH25045	27.0	30.0	40.6	94.5	9.8	36.7	7.1	1.4	6.1	1.0	5.8	1.2	3.5	0.5	3.2	0.5	33.7	245.4	46.5	2.9	120.0
SBD250447	SBDH25045	30.0	33.0	45.2	106.9	11.2	41.2	8.6	1.7	6.6	1.1	6.8	1.4	4.1	0.5	3.6	0.5	40.0	279.3	52.4	3.5	141.0
SBD250448	SBDH25045	33.0	36.0	42.7	102.2	10.1	38.0	7.9	1.4	6.1	1.0	5.7	1.2	3.5	0.5	3.1	0.4	35.2	259.0	48.2	3.9	149.0
SBD250449	SBDH25045	36.0	39.0	38.0	81.7	9.0	34.8	6.6	1.3	5.7	0.9	5.6	1.1	3.4	0.5	3.2	0.5	32.3	224.5	43.8	3.4	128.0
SBD250450	SBDH25045	39.0	42.0	40.6	89.2	10.4	38.3	7.6	1.6	6.8	1.0	7.1	1.2	3.8	0.5	3.8	0.5	40.6	252.9	48.6	3.6	145.0
SBD250451	SBDH25045	42.0	45.0	37.8	80.5	9.1	32.8	6.5	1.4	5.6	0.9	5.8	1.2	3.3	0.5	3.0	0.4	33.8	222.5	41.9	3.5	127.0
SBD250452	SBDH25045	45.0	48.0	30.5	57.4	6.9	24.7	5.0	0.9	4.2	0.7	4.1	0.8	2.5	0.4	2.4	0.4	23.1	164.0	31.7	3.1	116.0
SBD250453	SBDH25045	48.0	51.0	30.8	72.0	7.8	29.6	5.2	1.2	5.1	0.9	5.3	1.1	3.0	0.5	3.0	0.5	29.3	195.3	37.4	3.1	117.0
SBD250454	SBDH25045	51.0	53.0	31.5	69.8	7.5	28.1	5.3	1.1	4.4	0.8	4.8	0.9	2.9	0.4	2.6	0.5	26.8	187.2	35.6	3.3	122.0
SBD250455	SBDH25039	14.0	17.0	44.9	89.2	9.8	35.3	6.3	1.2	5.8	1.0	5.6	1.2	3.8	0.5	3.4	0.5	35.9	244.5	45.1	3.5	110.0
SBD250456	SBDH25039	17.0	20.0	41.3	90.0	9.8	34.6	6.5	1.2	5.4	0.9	5.3	1.1	3.1	0.4	3.2	0.5	33.0	236.4	44.5	3.1	112.0
SBD250457	SBDH25039	20.0	23.0	32.1	66.3	7.4	28.6	5.3	1.0	4.8	0.7	4.7	1.0	2.9	0.4	2.9	0.4	28.7	187.3	36.0	2.7	95.0
SBD250458	SBDH25039	23.0	26.0	45.7	92.4	12.1	45.5	8.6	1.7	7.5	1.1	7.0	1.5	4.1	0.6	3.6	0.6	43.9	275.9	57.6	3.2	122.0
SBD250459	SBDH25039	26.0	29.0	44.0	105.2	10.8	41.2	8.1	1.6	6.8	1.1	6.5	1.3	3.9	0.6	3.8	0.6	39.2	274.5	52.0	3.3	120.0
SBD250460	SBDH25039	29.0	32.0	39.4	80.2	9.3	34.3	6.6	1.2	5.5	0.9	6.0	1.3	3.5	0.5	3.6	0.6	36.3	229.2	43.5	3.6	116.0
SBD250461	SBDH25039	32.0	35.0	35.7	135.1	7.8	25.4	5.1	0.9	4.4	0.8	4.9	1.0	3.3	0.5	3.3	0.5	30.2	259.0	33.2	3.6	137.0
SBD250462	SBDH25039	35.0	37.0	43.4	259.2	9.8	35.1	7.1	1.4	6.5	1.1	7.0	1.4	4.1	0.7	4.3	0.6	40.3	422.0	44.9	3.8	103.0
SBD250463	SBDH25039	37.0	39.0	53.4	116.6	11.9	38.8	6.3	1.1	5.0	0.8	5.4	1.1	3.0	0.5	3.1	0.4	32.5	279.9	50.7	3.0	72.0
SBD250464	SBDH25028	16.0	19.0	41.2	87.3	9.3	32.3	6.1	1.0	4.9	0.9	5.4	1.1	3.5	0.5	3.6	0.5	35.3	233.0	41.6	4.7	112.0
SBD250465	SBDH25028	19.0	22.0	40.8	82.2	8.8	31.0	6.5	1.1	5.2	0.8	4.5	1.0	2.8	0.4	2.9	0.5	30.4	219.0	39.9	5.0	134.0
SBD250466	SBDH25028	22.0	25.0	38.0	78.6	9.0	32.8	5.9	1.2	5.4	0.9	5.2	1.1	3.2	0.5	3.3	0.5	33.9	219.3	41.7	4.4	117.0
SBD250467	SBDH25028	25.0	28.0	45.3	111.3	11.1	41.8	7.6	1.6	7.0	1.2	6.5	1.3	3.9	0.5	3.6	0.6	42.0	285.3	52.9	4.0	136.0
SBD250468	SBDH25028	28.0	31.0	51.5	115.6	12.7	46.5	7.7	1.8	7.3	1.2	6.6	1.3	3.9	0.6	3.6	0.6	43.0	303.9	59.2	4.5	150.0

Sample_ID	HOLEID	From	To	La2O3	CeO2	Pr6011	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250469	SBDH25028	31.0	34.0	43.2	92.3	9.9	35.1	6.8	1.5	5.6	1.0	6.0	1.1	3.4	0.5	3.3	0.5	34.5	244.7	45.0	4.1	146.0
SBD250471	SBDH25028	34.0	37.0	41.5	89.9	9.2	32.7	5.8	1.3	5.3	0.9	5.5	1.0	3.2	0.5	3.3	0.5	32.6	233.4	41.9	4.4	155.0
SBD250472	SBDH25028	37.0	40.0	32.8	72.1	7.3	26.8	5.0	0.9	4.3	0.8	4.5	0.9	2.6	0.4	2.8	0.5	26.9	188.6	34.2	3.6	125.0
SBD250473	SBDH25028	40.0	43.0	32.3	68.1	7.5	28.3	5.5	1.2	4.7	0.8	4.9	0.9	3.0	0.4	2.8	0.5	29.6	190.5	35.8	3.3	128.0
SBD250474	SBDH25028	43.0	46.0	44.8	94.7	10.6	38.8	7.5	1.6	6.6	1.1	6.5	1.4	3.9	0.5	3.4	0.6	39.4	261.5	49.4	4.4	172.0
SBD250475	SBDH25028	46.0	48.0	37.5	78.7	8.9	33.0	6.9	1.4	5.8	1.0	5.2	1.1	3.3	0.5	3.4	0.5	36.1	223.3	41.9	3.6	147.0
SBD250476	SBDH25028	48.0	51.0	32.7	68.2	7.9	28.2	5.3	1.2	5.0	0.8	4.6	1.0	2.9	0.5	2.9	0.5	29.3	191.1	36.1	3.5	135.0
SBD250477	SBDH25028	51.0	53.0	27.6	66.9	6.3	21.2	4.0	0.9	3.7	0.7	4.7	1.0	2.7	0.5	3.0	0.5	25.9	169.6	27.5	3.5	122.0
SBD250478	SBDH25023	10.0	13.0	38.9	78.7	8.8	33.4	5.6	1.3	5.5	0.9	5.0	1.0	2.9	0.5	2.6	0.4	33.4	219.0	42.2	2.5	75.0
SBD250479	SBDH25023	13.0	16.0	44.3	88.9	9.9	35.9	5.3	1.1	5.9	0.9	5.4	1.2	3.1	0.5	3.0	0.5	35.9	242.1	45.9	2.8	100.0
SBD250480	SBDH25023	16.0	19.0	53.4	109.7	12.3	42.5	7.3	1.4	6.9	1.1	7.3	1.4	4.3	0.7	3.9	0.6	46.2	299.0	54.7	3.8	134.0
SBD250481	SBDH25023	19.0	22.0	49.3	102.1	10.9	38.8	7.1	1.3	6.1	1.1	6.4	1.3	3.9	0.6	3.6	0.5	40.9	274.0	49.8	3.6	137.0
SBD250482	SBDH25023	22.0	25.0	39.3	77.9	7.8	27.5	4.9	1.0	4.7	0.8	4.7	0.9	2.8	0.4	2.8	0.4	30.4	206.3	35.3	3.0	132.0
SBD250483	SBDH25023	25.0	28.0	33.3	62.3	7.6	28.3	4.9	1.1	5.2	0.8	4.7	0.9	2.9	0.4	2.7	0.4	30.2	185.8	35.9	2.6	101.0
SBD250484	SBDH25023	28.0	31.0	47.9	106.6	11.2	40.5	7.1	1.5	6.5	1.0	5.9	1.3	3.5	0.5	3.6	0.6	38.0	275.8	51.7	3.5	145.0
SBD250485	SBDH25023	31.0	34.0	55.8	135.1	14.4	58.0	9.4	2.2	9.2	1.4	8.3	1.6	4.8	0.7	4.3	0.6	59.7	365.5	72.4	3.8	202.0
SBD250486	SBDH25023	34.0	37.0	50.4	101.8	11.6	43.2	7.5	1.5	7.1	1.1	6.3	1.3	3.5	0.5	3.4	0.5	39.6	279.4	54.7	3.9	174.0
SBD250487	SBDH25023	37.0	40.0	47.4	92.1	10.6	38.1	7.5	1.5	6.5	1.0	5.9	1.3	3.6	0.5	3.4	0.5	38.6	258.7	48.7	4.5	190.0
SBD250488	SBDH25023	40.0	43.0	33.1	66.5	8.1	29.0	5.2	1.0	4.1	0.7	4.0	0.8	2.5	0.4	2.6	0.4	22.5	180.7	37.1	3.4	125.0
SBD250489	SBDH25023	43.0	46.0	32.3	69.2	7.1	24.1	3.7	0.8	3.3	0.6	3.9	0.8	2.1	0.4	2.6	0.4	21.3	172.4	31.2	3.2	115.0
SBD250490	SBDH25023	46.0	49.0	33.3	76.8	7.0	22.0	4.2	0.7	3.3	0.6	3.8	0.8	2.5	0.4	2.6	0.4	22.9	181.3	29.0	3.2	107.0
SBD250491	SBDH25023	49.0	51.0	45.9	128.4	9.3	32.7	5.7	1.1	5.1	0.8	5.0	1.0	3.0	0.5	3.3	0.5	30.1	272.2	42.0	3.8	108.0
SBD250492	SBDH25023	51.0	53.0	76.3	139.4	17.7	62.5	10.7	2.0	8.5	1.4	8.4	1.6	4.5	0.7	4.4	0.6	51.0	389.8	80.2	5.3	111.0
SBD250493	SBDH25021	12.0	15.0	28.4	53.8	6.4	23.1	4.2	0.8	3.8	0.6	3.8	0.7	2.3	0.4	2.6	0.4	25.3	156.6	29.5	2.4	65.0
SBD250494	SBDH25021	15.0	18.0	24.3	51.0	5.4	20.9	3.5	0.8	3.3	0.5	3.1	0.6	1.9	0.3	2.0	0.3	20.6	138.5	26.3	2.1	84.0
SBD250495	SBDH25021	18.0	21.0	45.0	84.1	10.5	38.7	7.2	1.4	5.7	0.9	5.9	1.2	3.2	0.5	3.6	0.5	36.6	245.3	49.2	3.1	130.0
SBD250496	SBDH25021	21.0	24.0	35.5	82.3	7.2	29.5	5.5	1.1	5.2	0.7	5.5	1.0	3.1	0.5	3.5	0.6	33.1	214.3	36.7	3.1	111.0
SBD250497	SBDH25021	24.0	27.0	46.1	109.8	10.3	34.4	7.2	1.4	6.1	0.9	5.2	1.1	3.3	0.5	3.7	0.6	31.1	261.7	44.7	3.9	151.0
SBD250498	SBDH25021	27.0	30.0	49.1	98.6	11.0	37.4	6.7	1.6	6.9	1.1	6.4	1.2	3.7	0.5	3.7	0.6	38.5	267.0	48.4	4.0	155.0
SBD250499	SBDH25021	30.0	33.0	44.8	94.0	10.5	37.6	7.8	1.6	6.7	1.0	6.2	1.2	3.8	0.5	3.8	0.6	38.7	258.8	48.1	3.7	138.0
SBD250500	SBDH25021	33.0	36.0	33.4	71.7	7.9	27.3	5.1	1.1	5.1	0.7	4.7	1.0	3.0	0.4	2.9	0.6	26.4	191.3	35.2	3.5	138.0
SBD250501	SBDH25021	36.0	39.0	44.6	97.0	10.6	36.3	6.7	1.6	6.3	1.0	6.3	1.3	4.2	0.6	3.8	0.6	36.3	257.2	46.9	4.3	160.0
SBD250502	SBDH25021	39.0	42.0	35.8	75.3	8.2	26.5	5.0	1.0	4.8	0.8	4.4	0.9	2.7	0.4	3.1	0.6	26.0	195.5	34.6	3.7	146.0
SBD250503	SBDH25021	42.0	45.0	24.2	52.7	5.3	16.6	3.4	0.7	3.0	0.5	3.2	0.7	1.7	0.3	2.2	0.4	19.2	133.9	21.9	2.4	99.0
SBD250504	SBDH25021	45.0	48.0	41.8	97.4	9.5	32.5	6.3	1.4	6.1	1.0	6.1	1.2	3.6	0.5	3.6	0.6	37.8	249.5	42.0	4.2	146.0
SBD250505	SBDH25021	48.0	51.0	48.1	109.6	12.1	44.7	8.0	1.6	6.8	1.1	6.1	1.3	3.8	0.5	3.6	0.5	37.8	285.6	56.8	3.7	123.0
SBD250506	SBDH25021	51.0	54.0	102.3	270.2	35.2	141.1	28.5	4.1	18.2	2.1	10.5	1.7	4.5	0.7	4.2	0.6	51.6	675.5	176.3	7.5	107.0
SBD250507	SBDH25021	54.0	56.0	179.4	448.4	61.3	240.3	46.4	8.2	30.1	3.6	16.5	2.2	5.7	0.8	4.5	0.6	63.7	1111.8	301.5	10.1	115.0
SBD250508	SBDH25019	8.0	11.0	47.0	95.1	11.3	37.1	7.7	1.5	6.9	1.2	6.5	1.3	3.8	0.6	3.5	0.7	38.7	262.8	48.4	2.8	92.0
SBD250509	SBDH25019	11.0	14.0	48.9	96.7	11.4	40.9	8.0	1.3	6.4	1.1	5.8	1.1	3.9	0.5	3.7	0.6	39.4	269.8	52.4	2.9	94.0
SBD250510	SBDH25019	14.0	17.0	26.3	50.6	5.5	21.7	4.1	0.8	4.0	0.6	3.7	0.7	2.2	0.3	2.2	0.4	24.5	147.6	27.2	2.8	54.0
SBD250511	SBDH25019	17.0	20.0	40.2	82.1	9.2	33.4	6.4	1.1	6.2	0.9	5.4	1.0	3.4	0.4	3.1	0.5	34.9	228.3	42.5	3.9	97.0
SBD250512	SBDH25019	20.0	23.0	27.2	49.4	5.8	20.1	4.0	0.7	3.4	0.6	3.4	0.7	2.3	0.3	2.4	0.4	22.6	143.3	25.9	3.1	106.0
SBD250513	SBDH25019	23.0	26.0	49.5	125.3	12.0	45.8	9.1	1.8	7.9	1.3	6.8	1.4	4.2	0.6	4.2	0.7	45.0	315.7	57.9	4.2	126.0
SBD250514	SBDH25019	26.0	29.0	43.7	81.9	10.0	36.6	6.4	1.2	5.8	1.0	5.9	1.1	3.5	0.5	3.3	0.8	34.7	236.4	46.7	3.9	116.0
SBD250515	SBDH25019	29.0	32.0	56.5	120.5	13.9	51.1	9.3	1.9	8.6	1.4	8.5	1.5	4.5	0.6	4.1	0.6	48.6	331.8	65.0	4.3	151.0
SBD250516	SBDH25019	32.0	35.0	42.1	95.4	10.1	34.9	7.7	1.3	6.5	1.1	5.7	1.1	3.8	0.6	3.5	0.5	35.8	250.2	45.0	3.9	135.0
SBD250517	SBDH25019	35.0	38.0	46.9	101.3	11.0	37.8	7.9	1.6	6.9	1.0	6.6	1.2	4.1	0.6	3.9	0.8	38.4	269.9	48.8	3.8	157.0
SBD250519	SBDH25019	38.0	41.0	43.5	90.7	10.4	34.4	7.2	1.5	6.1	1.0	5.9	1.2	3.5	0.5	3.3	0.6	34.2	244.1	44.8	3.9	164.0
SBD250520	SBDH25019	41.0	44.0	32.4	70.6	7.2	25.9	5.3	1.2	4.8	0.8	4.0	1.0	3.0	0.5	2.9	0.5	27.3	187.2	33.0	3.0	121.0
SBD250521	SBDH25015	10.0	13.0	37.8	74.4	8.8	30.9	7.2	0.9	5.4	0.8	5.6	1.1	3.4	0.4	3.3	0.5	33.3	213.9	39.7	3.1	72.0
SBD250522	SBDH25015	13.0	16.0	34.2	68.3	7.9	25.5	5.1	0.8	5.4	0.8	5.2	1.0	3.1	0.4	3.4	0.6	31.5	193.2	33.5	2.9	72.0
SBD250523	SBDH25015	16.0	19.0	46.7	92.4	10.3	37.0	6.5	1.1	6.3	1.0	6.0	1.2	4.0	0.6	3.6	0.5	39.7	257.0	47.3	3.5	104.0
SBD250524	SBDH25015	19.0	22.0	26.2	48.0	5.9	19.8	4.0	0.6	3.6	0.5	3.3	0.6	2.2	0.3	2.0	0.4	19.7	137.2	25.7	2.5	88.0
SBD250525	SBDH25015	22.0	25.0	43.0	92.9	8.7	32.2	6.5	1.1	6.0	1.0	5.5	1.0	3.4	0.5	3.4	0.7	33.0	238.9	40.9	3.8	137.0
SBD250526	SBDH25015	25.0	28.0	44.6	88.8	11.4	38.6	7.7	1.5	6.8	1.1	6.6	1.3	4.3	0.5	4.3	0.6	40.4	258.5	50.0	4.3	116.0
SBD250527	SBDH25015	28.0	31.0	25.1	56.3	5.6	21.5	4.0	0.8	4.2	0.7	4.3	0.9	3.0	0.5	3.2	0.5	26.8	157.2	27.1	3.2	83.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250528	SBDH25015	31.0	34.0	25.3	53.9	5.4	20.3	3.6	0.8	4.3	0.7	3.7	0.8	2.6	0.4	2.5	0.5	26.3	151.2	25.7	3.1	92.0
SBD250529	SBDH25015	34.0	36.0	55.2	129.6	16.0	65.0	13.0	2.5	10.2	1.3	6.0	1.0	3.0	0.4	3.1	0.5	29.5	336.2	81.0	4.3	72.0
SBD250530	SBDH25015	36.0	38.0	48.7	98.4	12.4	51.2	12.1	2.4	10.5	1.2	6.3	1.1	3.0	0.4	2.8	0.5	30.6	281.5	63.6	4.6	81.0
SBD250531	SBDH25012	10.0	13.0	33.1	73.9	7.3	24.4	5.5	1.0	3.8	0.7	4.3	0.9	2.6	0.4	2.7	0.4	27.0	188.1	31.7	2.4	61.0
SBD250532	SBDH25012	13.0	16.0	47.3	90.2	10.2	37.8	7.1	1.2	6.3	0.9	6.8	1.3	3.8	0.5	3.5	0.6	40.1	257.7	48.0	3.9	89.0
SBD250533	SBDH25012	16.0	19.0	48.8	93.0	11.0	40.6	7.8	1.1	7.2	1.0	7.1	1.3	4.3	0.6	4.7	0.6	50.7	279.8	51.6	4.1	124.0
SBD250534	SBDH25012	19.0	22.0	43.9	89.8	10.4	39.1	7.7	1.4	6.3	0.9	6.0	1.2	3.9	0.5	3.7	0.7	39.9	255.3	49.5	3.7	126.0
SBD250535	SBDH25012	22.0	25.0	31.1	58.8	6.9	26.8	4.5	0.8	4.6	0.7	5.2	1.1	3.5	0.5	3.1	0.5	33.1	181.1	33.7	3.1	111.0
SBD250536	SBDH25012	25.0	28.0	17.1	33.3	3.8	12.2	2.4	0.5	2.2	0.3	2.4	0.5	1.7	0.3	1.8	0.3	15.6	94.5	16.0	2.1	90.0
SBD250537	SBDH25012	28.0	31.0	31.4	71.1	8.2	28.3	6.4	1.0	5.5	0.9	5.5	1.1	4.1	0.5	3.4	0.5	35.9	204.0	36.6	3.6	105.0
SBD250538	SBDH25012	31.0	34.0	35.8	71.2	9.0	32.0	5.8	1.1	5.4	0.8	5.5	1.0	3.0	0.4	3.1	0.5	34.2	208.7	40.9	3.5	110.0
SBD250539	SBDH25012	34.0	37.0	48.0	96.3	11.4	39.5	6.8	1.4	6.7	1.0	5.7	1.1	4.0	0.5	3.3	0.4	38.1	264.4	50.9	4.0	144.0
SBD250540	SBDH25012	37.0	40.0	40.7	89.2	10.2	38.6	7.5	1.8	6.1	1.0	6.6	1.2	3.7	0.5	2.8	0.5	36.2	246.7	48.8	3.9	115.0
SBD250541	SBDH25012	40.0	43.0	35.9	76.5	7.6	29.0	6.8	1.2	4.6	0.7	5.3	0.9	3.0	0.4	2.9	0.5	30.9	206.2	36.7	3.8	128.0
SBD250542	SBDH25012	43.0	46.0	26.2	51.5	5.7	21.8	3.7	0.9	3.3	0.6	3.6	0.8	2.4	0.4	2.6	0.4	24.6	148.6	27.5	3.1	107.0
SBD250543	SBDH25012	46.0	48.0	29.6	58.7	7.1	24.8	4.8	0.9	4.5	0.7	4.1	0.8	2.7	0.3	2.4	0.4	28.2	169.9	31.9	2.9	93.0
SBD250544	SBDH25012	48.0	50.0	28.1	53.8	6.3	23.2	4.5	0.9	3.8	0.7	4.0	0.7	2.4	0.3	2.4	0.5	22.9	154.5	29.5	3.2	91.0
SBD250545	SBDH25012	50.0	53.0	36.2	70.9	8.2	27.9	5.6	0.8	4.3	0.7	4.4	0.9	2.7	0.4	2.3	0.4	23.5	189.2	36.1	3.3	129.0
SBD250546	SBDH25002	8.0	11.0	35.1	81.8	8.1	27.3	4.3	1.1	4.7	0.8	5.3	1.2	4.2	0.5	3.6	0.7	37.8	216.4	35.4	3.3	78.0
SBD250547	SBDH25002	11.0	14.0	44.8	85.6	10.1	37.2	6.8	1.6	7.2	1.2	7.4	1.6	4.6	0.8	5.0	0.8	49.3	263.9	47.3	3.7	96.0
SBD250548	SBDH25002	14.0	17.0	51.3	99.4	11.6	39.1	6.9	1.5	6.8	1.0	6.9	1.5	5.1	0.7	4.6	0.8	49.0	286.2	50.7	4.4	109.0
SBD250549	SBDH25002	17.0	20.0	53.2	105.2	11.8	44.2	7.5	1.4	7.3	1.2	8.3	1.6	4.5	0.7	4.5	0.7	47.0	299.1	56.0	4.6	111.0
SBD250550	SBDH25002	20.0	23.0	46.2	89.6	10.5	33.6	6.4	1.3	6.6	1.0	7.1	1.4	4.3	0.6	4.6	0.6	45.5	259.3	44.0	4.0	116.0
SBD250551	SBDH25002	23.0	26.0	27.3	51.0	6.1	21.7	4.5	0.8	3.4	0.6	4.0	0.8	2.2	0.4	2.6	0.4	23.4	149.1	27.8	2.8	89.0
SBD250552	SBDH25002	26.0	29.0	26.6	44.3	6.1	21.3	4.0	0.8	3.8	0.6	4.0	0.8	2.5	0.4	2.6	0.4	24.1	142.3	27.5	2.8	86.0
SBD250553	SBDH25002	29.0	32.0	35.5	71.0	7.8	31.1	5.1	0.9	5.1	0.7	4.3	0.9	2.6	0.4	2.6	0.5	28.7	197.2	38.9	3.2	112.0
SBD250554	SBDH25002	32.0	35.0	38.2	71.2	8.6	27.2	5.3	1.1	4.8	0.8	4.9	1.0	2.7	0.4	2.9	0.5	28.7	198.5	35.8	3.5	166.0
SBD250555	SBDH25002	35.0	38.0	33.8	68.5	7.3	25.0	5.1	0.8	4.2	0.7	4.3	0.9	2.9	0.4	3.0	0.5	28.2	185.6	32.3	3.4	138.0
SBD250556	SBDH25002	38.0	41.0	30.7	68.2	6.7	21.5	4.5	1.1	3.6	0.6	3.6	0.8	2.1	0.4	2.8	0.4	24.1	171.1	28.2	3.5	105.0
SBD250557	SBDH25002	41.0	44.0	33.2	66.6	6.7	22.4	4.4	0.9	3.4	0.6	4.3	0.7	2.6	0.4	2.8	0.4	23.4	172.6	29.1	3.4	91.0
SBD250558	SBDH25002	44.0	47.0	29.4	58.8	6.7	19.7	3.4	0.6	3.0	0.7	4.6	0.8	3.0	0.4	3.4	0.5	25.3	160.3	26.4	3.2	71.0
SBD250559	SBDH25002	47.0	50.0	25.1	57.6	5.5	18.2	3.2	0.6	2.4	0.5	3.1	0.7	2.3	0.4	2.4	0.3	20.8	143.2	23.7	3.2	52.0
SBD250560	SBDH25004	8.0	11.0	49.0	94.5	10.7	39.4	8.2	1.6	6.5	1.0	6.8	1.3	4.6	0.6	4.4	0.7	43.7	272.9	50.1	3.5	85.0
SBD250561	SBDH25004	11.0	14.0	36.4	73.7	8.3	28.8	5.2	1.0	5.5	0.8	5.4	1.1	3.4	0.5	2.9	0.6	33.1	206.6	37.1	3.2	78.0
SBD250562	SBDH25004	14.0	17.0	45.6	87.1	10.0	36.4	6.9	1.3	6.3	0.9	6.6	1.3	3.9	0.5	4.0	0.6	39.7	251.1	46.4	3.5	103.0
SBD250563	SBDH25004	17.0	20.0	34.0	62.8	7.9	27.2	4.8	0.8	4.1	0.7	4.9	1.0	3.4	0.4	3.0	0.6	31.6	187.3	35.1	3.0	94.0
SBD250564	SBDH25004	20.0	23.0	43.2	83.2	10.1	36.4	5.9	1.2	5.3	0.9	4.9	1.0	3.2	0.5	3.3	0.6	34.4	233.8	46.4	3.8	155.0
SBD250565	SBDH25004	23.0	26.0	40.7	83.2	9.8	32.1	6.8	1.2	5.2	0.9	4.9	0.9	3.1	0.4	3.0	0.5	30.7	223.4	41.9	3.1	107.0
SBD250566	SBDH25004	26.0	27.0	29.7	54.2	6.8	23.0	3.6	0.7	3.6	0.6	4.2	0.8	2.4	0.4	3.1	0.5	25.1	158.6	29.7	3.6	54.0
SBD250567	SBDH25005	8.0	11.0	43.6	80.5	10.6	37.6	5.9	1.1	5.9	0.9	5.8	1.1	3.3	0.5	3.4	0.6	35.6	236.4	48.2	2.7	79.0
SBD250568	SBDH25005	11.0	14.0	32.8	65.2	6.9	24.3	5.0	0.9	4.1	0.7	3.9	0.9	2.9	0.4	2.4	0.4	27.3	178.1	31.2	2.9	85.0
SBD250569	SBDH25005	14.0	17.0	24.9	45.7	5.4	18.9	4.3	0.7	3.2	0.6	3.6	0.7	2.1	0.3	1.9	0.2	22.0	134.4	24.3	2.6	53.0
SBD250570	SBDH25005	17.0	20.0	41.5	81.3	9.4	34.6	6.5	1.3	5.8	0.8	5.7	1.1	3.6	0.5	3.5	0.7	34.5	231.0	44.1	3.8	100.0
SBD250571	SBDH25005	20.0	23.0	43.5	81.9	9.3	32.2	6.6	1.1	5.4	0.9	5.9	1.3	3.5	0.6	4.0	0.5	40.8	237.4	41.5	3.7	117.0
SBD250572	SBDH25005	23.0	26.0	46.7	87.6	11.7	42.0	6.9	1.7	6.8	1.1	6.6	1.3	4.4	0.6	3.7	0.7	43.9	265.8	53.7	4.4	134.0
SBD250573	SBDH25005	26.0	29.0	46.9	98.3	10.6	38.8	6.9	1.4	6.2	1.0	6.4	1.2	3.7	0.5	3.1	0.6	35.0	260.6	49.4	4.8	149.0
SBD250574	SBDH25005	29.0	32.0	49.4	102.6	11.9	38.7	7.4	1.3	6.0	1.0	6.6	1.2	3.9	0.5	3.5	0.7	39.2	273.9	50.6	4.9	138.0
SBD250575	SBDH25005	32.0	35.0	47.0	91.9	10.7	37.6	6.7	1.5	6.1	1.0	5.6	1.2	3.8	0.5	3.3	0.5	35.0	252.4	48.2	4.2	131.0
SBD250576	SBDH25005	35.0	38.0	49.3	114.7	10.6	33.7	5.8	1.2	4.7	0.8	4.9	1.0	2.9	0.4	3.3	0.5	27.9	261.6	44.4	4.3	94.0
SBD250577	SBDH25005	38.0	39.0	45.6	84.4	10.5	32.2	7.0	1.4	4.9	0.8	5.0	0.9	3.0	0.4	3.4	0.5	30.1	230.2	42.7	4.0	58.0
SBD250579	SBDH25069	14.0	17.0	61.5	111.5	14.1	48.3	9.2	1.5	7.7	1.2	7.5	1.5	4.7	0.7	4.0	0.6	47.0	321.0	62.4	3.2	72.0
SBD250580	SBDH25069	17.0	20.0	55.9	111.8	13.7	45.5	8.0	1.6	7.7	1.1	7.0	1.3	4.2	0.6	4.0	0.7	45.5	308.6	59.1	3.2	97.0
SBD250581	SBDH25069	20.0	23.0	55.4	111.5	12.8	46.2	8.8	1.6	7.3	1.1	7.1	1.4	4.7	0.6	4.3	0.8	42.9	306.6	59.0	3.5	107.0
SBD250582	SBDH25069	23.0	26.0	50.4	97.3	11.1	40.2	7.6	1.6	7.0	1.0	6.9	1.2	3.9	0.4	3.7	0.5	36.3	269.2	51.3	3.3	119.0
SBD250583	SBDH25069	26.0	29.0	45.4	88.6	10.0	34.1	6.9	1.3	5.5	0.9	5.7	1.2	3.8	0.5	3.6	0.6	37.6	245.5	44.1	3.8	114.0
SBD250584	SBDH25069	29.0	32.0	31.2	58.7	6.7	22.6	4.3	0.8	3.5	0.6	3.4	0.7	2.4	0.3	2.0	0.4	22.1	159.9	29.4	2.5	99.0
SBD250585	SBDH25069	32.0	35.0	25.3	49.5	5.4	19.7	3.4	0.8	3.1	0.5	3.3	0.6	2.1	0.3	2.0	0.3	19.4	135.7	25.1	2.7	93.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6011	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250586	SBDH25069	35.0	37.0	38.1	64.1	7.3	24.8	3.9	0.9	3.2	0.7	4.4	0.8	2.9	0.4	3.1	0.4	24.9	180.0	32.2	3.3	146.0
SBD250587	SBDH25064	10.0	13.0	76.2	140.7	17.4	63.5	10.0	2.0	9.5	1.4	9.0	1.8	5.9	0.7	5.1	0.7	57.4	401.3	80.9	3.5	83.0
SBD250588	SBDH25064	13.0	16.0	76.0	138.2	17.4	61.9	9.7	2.1	9.8	1.3	9.1	1.8	5.2	0.7	4.8	0.9	52.1	391.0	79.3	3.7	101.0
SBD250589	SBDH25064	16.0	19.0	72.6	137.0	16.7	57.5	10.5	1.8	9.0	1.5	9.0	1.7	5.0	0.7	4.7	0.7	51.4	379.9	74.2	3.9	105.0
SBD250590	SBDH25064	19.0	22.0	57.5	109.8	13.3	45.8	8.4	1.5	7.1	1.1	6.9	1.3	4.5	0.5	3.9	0.6	44.3	306.7	59.1	3.3	96.0
SBD250591	SBDH25064	22.0	25.0	42.9	85.4	10.0	34.5	6.5	1.4	5.9	0.7	5.5	1.1	3.2	0.5	3.4	0.6	32.6	234.1	44.5	3.2	96.0
SBD250592	SBDH25064	25.0	28.0	50.1	98.5	11.5	41.3	7.7	1.7	6.2	1.0	6.2	1.2	3.7	0.5	3.7	0.7	38.4	272.4	52.8	4.0	128.0
SBD250593	SBDH25064	28.0	31.0	30.4	51.7	6.0	19.4	3.1	0.8	2.5	0.4	3.0	0.7	2.5	0.3	2.4	0.4	21.3	144.9	25.4	3.3	92.0
SBD250594	SBDH25064	31.0	34.0	18.1	29.7	3.4	12.0	2.7	0.4	2.2	0.4	2.8	0.5	1.9	0.3	2.2	0.4	17.8	94.7	15.4	2.9	58.0
SBD250595	SBDH25060	14.0	17.0	48.8	102.4	12.1	40.1	8.2	1.1	6.2	1.0	6.0	1.2	3.3	0.5	3.1	0.5	39.2	273.9	52.2	2.9	69.0
SBD250596	SBDH25060	17.0	20.0	56.9	105.4	12.1	44.7	7.0	1.4	6.6	1.1	6.1	1.3	3.8	0.6	3.6	0.5	39.9	291.0	56.7	4.1	93.0
SBD250597	SBDH25060	20.0	23.0	63.4	123.5	14.3	52.4	10.3	1.8	8.3	1.3	7.8	1.7	5.0	0.6	4.4	0.6	48.0	343.2	66.6	4.2	113.0
SBD250598	SBDH25060	23.0	25.0	56.2	109.0	13.1	48.6	10.1	1.7	8.3	1.3	7.6	1.6	4.7	0.6	4.4	0.5	45.7	313.6	61.7	4.2	112.0
SBD250599	SBDH25060	25.0	27.0	22.6	41.5	5.0	17.8	3.0	0.6	2.9	0.5	3.0	0.7	1.5	0.2	1.9	0.3	19.3	120.9	22.9	2.3	57.0
SBD250600	SBDH25035	16.0	19.0	48.1	95.0	10.3	37.8	7.6	1.2	6.7	1.0	5.7	1.3	3.5	0.5	3.5	0.6	36.1	258.7	48.1	3.2	105.0
SBD250601	SBDH25035	19.0	22.0	41.2	71.7	8.9	31.7	6.5	1.1	5.0	0.9	4.8	0.9	3.2	0.4	3.2	0.4	30.5	210.4	40.6	3.1	105.0
SBD250602	SBDH25035	22.0	25.0	36.8	88.2	8.0	27.2	5.0	1.1	5.2	0.9	4.8	1.0	3.1	0.4	3.0	0.5	30.9	216.1	35.2	2.9	154.0
SBD250603	SBDH25035	25.0	28.0	41.2	88.9	9.3	34.1	5.6	1.4	5.6	0.9	5.5	1.1	3.1	0.5	3.5	0.5	34.7	235.7	43.3	3.8	144.0
SBD250604	SBDH25035	28.0	31.0	26.4	59.8	6.7	26.0	5.1	1.1	5.0	0.8	4.4	0.9	3.1	0.4	2.6	0.4	28.1	170.5	32.7	3.1	145.0
SBD250605	SBDH25035	31.0	34.0	24.2	60.8	6.3	25.5	4.3	1.1	4.4	0.7	4.2	0.9	2.5	0.4	2.4	0.5	25.9	164.0	31.9	3.0	111.0
SBD250606	SBDH25035	34.0	37.0	29.3	68.9	6.2	19.8	4.6	0.7	3.3	0.6	3.4	0.8	2.8	0.4	3.0	0.4	23.4	167.6	26.0	3.7	116.0
SBD250607	SBDH25035	37.0	40.0	33.4	70.3	8.2	27.9	4.8	0.8	4.1	0.7	4.5	0.9	2.6	0.4	2.8	0.3	22.1	183.7	36.0	3.7	116.0
SBD250608	SBDH25035	40.0	43.0	38.8	75.4	9.4	32.8	6.1	1.3	4.8	0.6	4.3	1.0	2.7	0.4	2.6	0.4	26.4	207.1	42.1	3.7	113.0
SBD250609	SBDH25040	8.0	11.0	79.6	169.5	17.5	63.6	10.6	1.9	10.1	1.5	8.6	1.8	5.3	0.7	5.0	0.7	55.7	432.3	81.1	3.0	69.0
SBD250610	SBDH25040	11.0	14.0	79.9	151.7	17.3	66.5	12.1	1.9	9.8	1.6	9.2	1.9	5.1	0.7	4.9	0.8	54.5	417.8	83.8	3.8	82.0
SBD250611	SBDH25040	14.0	17.0	55.9	105.3	12.9	46.2	9.6	1.5	8.0	1.2	7.4	1.6	5.0	0.6	4.7	0.7	47.0	307.5	59.1	3.5	86.0
SBD250612	SBDH25040	17.0	20.0	33.8	60.7	7.2	28.6	4.6	0.9	4.4	0.7	4.1	0.8	2.7	0.4	2.2	0.5	27.8	179.5	35.8	2.4	72.0
SBD250613	SBDH25040	20.0	23.0	59.7	117.1	13.5	48.2	9.8	1.9	7.8	1.2	7.6	1.5	4.4	0.7	4.0	0.7	45.7	323.7	61.7	3.9	107.0
SBD250614	SBDH25040	23.0	26.0	56.8	104.4	12.3	45.7	8.8	1.6	7.2	1.2	7.0	1.4	4.0	0.6	4.2	0.6	45.6	301.3	58.0	3.7	102.0
SBD250615	SBDH25040	26.0	29.0	38.8	71.5	8.4	29.5	5.8	0.9	4.8	0.9	5.1	1.0	3.9	0.4	3.5	0.6	31.5	206.6	37.9	3.4	84.0
SBD250616	SBDH25040	29.0	32.0	43.3	83.7	10.6	41.6	8.4	1.5	6.1	1.0	4.7	1.0	3.1	0.4	2.8	0.4	31.0	239.4	52.2	3.1	83.0
SBD250617	SBDH25040	32.0	35.0	67.6	126.5	16.7	69.4	13.3	2.4	10.3	1.5	6.9	1.4	3.9	0.5	3.2	0.5	38.5	362.4	86.1	4.6	88.0
SBD250618	SBDH25040	35.0	38.0	116.8	203.3	30.9	133.0	27.8	6.5	33.4	4.6	20.1	3.4	7.3	0.7	3.9	0.6	107.6	700.0	163.9	13.4	52.0
SBD250619	SBDH25041	10.0	13.0	84.8	159.7	19.0	69.5	12.5	2.4	10.7	1.7	11.1	2.2	6.5	0.9	6.4	0.9	64.9	453.2	88.5	4.2	71.0
SBD250620	SBDH25041	13.0	16.0	54.8	93.5	11.9	46.1	7.9	1.4	7.1	1.1	7.2	1.4	4.5	0.6	4.1	0.5	42.0	284.2	57.9	3.6	61.0
SBD250621	SBDH25041	16.0	19.0	54.1	101.7	11.3	41.9	7.8	1.6	6.9	1.2	6.4	1.3	4.3	0.5	3.9	0.5	38.6	282.0	53.1	3.8	109.0
SBD250622	SBDH25041	19.0	22.0	47.3	93.2	10.6	37.4	7.4	1.3	6.1	0.9	5.7	1.1	3.4	0.5	3.2	0.5	33.9	252.7	48.1	3.3	90.0
SBD250623	SBDH25041	22.0	25.0	38.1	73.9	9.4	31.6	6.8	1.2	5.6	0.8	5.5	1.1	3.9	0.5	3.3	0.5	32.9	215.1	41.0	3.3	90.0
SBD250624	SBDH25041	25.0	27.0	26.7	42.9	6.2	20.5	4.6	0.7	3.2	0.5	3.3	0.6	2.0	0.3	1.7	0.3	19.0	132.5	26.7	2.4	68.0
SBD250625	SBDH25041	27.0	29.0	29.2	49.1	6.2	23.3	4.5	0.9	3.7	0.6	3.4	0.7	2.2	0.3	2.1	0.3	21.2	147.7	29.5	2.7	63.0
SBD250626	SBDH25046	10.0	13.0	48.2	95.3	11.0	37.0	6.4	1.3	6.2	0.9	5.9	1.2	3.7	0.5	3.6	0.4	38.0	259.5	47.9	2.8	39.0
SBD250627	SBDH25046	13.0	16.0	44.2	80.8	9.7	33.4	6.9	1.3	5.8	0.9	5.2	1.1	2.9	0.4	3.2	0.5	33.1	229.6	43.1	2.7	50.0
SBD250628	SBDH25046	16.0	19.0	32.8	65.4	7.2	24.6	4.9	0.9	4.6	0.6	3.8	0.9	2.6	0.3	2.6	0.3	27.4	179.1	31.8	3.7	87.0
SBD250629	SBDH25046	19.0	22.0	32.6	55.2	7.9	26.9	5.0	1.1	4.4	0.8	4.6	0.9	2.9	0.4	2.9	0.5	29.1	175.1	34.8	3.3	68.0
SBD250630	SBDH25046	22.0	25.0	20.9	38.8	4.7	17.3	2.8	0.6	2.9	0.4	2.7	0.6	1.6	0.2	1.4	0.2	16.0	111.2	22.0	2.7	75.0
SBD250632	SBDH25046	25.0	27.0	25.4	59.2	5.8	19.5	3.4	0.5	3.1	0.4	2.7	0.5	1.5	0.2	1.4	0.3	16.6	140.6	25.3	2.5	42.0
SBD250633	SBDH25047	11.0	14.0	66.4	120.4	15.0	51.3	9.1	1.5	7.7	1.3	7.4	1.6	5.3	0.7	5.0	0.6	47.6	341.0	66.3	3.4	61.0
SBD250634	SBDH25047	14.0	17.0	40.0	68.2	8.7	33.8	5.5	1.3	5.3	0.8	4.6	0.9	3.1	0.4	2.3	0.5	29.1	204.5	42.5	2.8	64.0
SBD250635	SBDH25047	17.0	20.0	61.2	117.6	13.1	50.9	9.7	1.6	8.3	1.4	8.0	1.5	4.7	0.7	5.3	0.7	51.0	335.7	64.0	5.1	79.0
SBD250636	SBDH25047	20.0	23.0	42.5	79.5	9.1	35.5	6.3	1.1	5.1	0.9	5.8	1.2	3.4	0.5	3.9	0.5	34.9	230.2	44.6	3.5	72.0
SBD250637	SBDH25047	23.0	26.0	37.1	67.8	8.3	28.7	5.3	1.0	4.7	0.7	4.3	0.9	2.2	0.3	2.9	0.4	27.8	192.3	37.0	3.4	77.0
SBD250638	SBDH25047	26.0	29.0	40.9	85.1	9.5	34.8	7.4	1.3	5.8	0.9	6.2	1.3	3.6	0.5	3.6	0.6	35.9	237.3	44.3	5.0	104.0
SBD250639	SBDH25029	7.0	9.0	68.1	184.9	15.8	55.9	10.5	1.7	8.3	1.3	8.3	1.6	4.8	0.5	4.4	0.6	49.1	415.9	71.7	3.2	72.0
SBD250640	SBDH25029	9.0	12.0	32.1	70.0	7.5	26.2	4.9	0.8	3.1	0.6	3.4	0.7	2.0	0.3	1.8	0.3	20.7	174.4	33.8	2.1	32.0
SBD250641	SBDH25029	17.0	20.0	35.2	73.0	8.6	28.8	5.3	0.9	3.8	0.5	3.3	0.6	1.8	0.2	2.0	0.4	19.6	184.1	37.4	2.1	35.0
SBD250642	SBDH25029	20.0	23.0	43.2	91.6	10.2	37.0	7.1	1.0	5.3	0.8	4.2	0.9	2.2	0.3	2.0	0.3	25.5	231.6	47.2	2.5	52.0
SBD250643	SBDH25029	23.0	26.0	40.6	96.7	11.0	37.8	6.7	1.2	5.6	0.8	4.9	0.9	2.6	0.4	2.4	0.4	27.6	239.7	48.7	1.9	42.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6011	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250644	SBDH25029	26.0	29.0	33.1	74.3	8.1	27.5	5.0	0.7	3.8	0.6	4.0	0.8	2.3	0.3	2.4	0.3	24.0	187.3	35.6	2.0	46.0
SBD250645	SBDH25029	29.0	31.0	15.4	32.3	3.6	14.2	1.8	0.4	1.7	0.3	1.3	0.3	0.9	0.1	0.9	0.1	8.5	81.8	17.8	0.8	10.0
SBD250646	SBDH25029	31.0	33.0	19.0	37.6	4.8	15.2	1.9	0.3	1.6	0.2	1.6	0.3	0.8	0.1	0.9	0.1	8.6	92.8	20.0	0.6	8.0
SBD250647	SBDH25027	6.0	9.0	56.5	100.0	12.0	42.9	7.1	1.5	6.7	1.0	6.9	1.3	3.9	0.7	3.8	0.6	38.6	283.6	54.9	2.9	81.0
SBD250648	SBDH25027	10.0	12.0	39.6	85.0	8.7	30.7	5.1	1.1	5.2	0.8	5.3	1.1	3.3	0.5	2.8	0.4	29.7	219.4	39.4	3.1	67.0
SBD250649	SBDH25027	13.0	15.0	52.2	99.6	11.8	43.0	7.8	1.3	5.5	0.9	5.8	1.0	3.0	0.4	2.8	0.4	33.1	268.7	54.8	3.2	52.0
SBD250650	SBDH25027	15.0	16.0	58.8	115.2	13.0	45.6	8.9	1.4	6.4	1.1	6.7	1.2	3.5	0.5	3.5	0.4	34.4	300.7	58.6	4.5	79.0
SBD250651	SBDH25027	16.0	18.0	60.6	122.3	14.0	49.5	8.7	1.6	8.5	1.4	8.5	1.8	5.5	0.8	4.7	0.7	71.5	360.2	63.5	6.5	132.0
SBD250652	SBDH25027	18.0	21.0	27.0	69.2	5.4	21.0	4.7	1.0	5.9	1.0	7.9	1.9	5.4	0.7	4.4	0.6	62.6	218.8	26.4	4.5	118.0
SBD250653	SBDH25027	21.0	23.0	27.8	72.8	5.9	21.2	3.9	1.1	6.2	1.3	8.1	1.8	5.5	0.7	5.0	0.8	69.8	232.1	27.1	5.2	125.0
SBD250654	SBDH25027	23.0	26.0	41.0	97.9	8.6	31.7	7.0	1.3	8.5	1.4	9.5	2.1	7.0	0.9	5.9	0.9	88.0	311.8	40.3	9.6	276.0
SBD250655	SBDH25027	26.0	29.0	49.0	92.0	10.4	41.3	7.4	1.5	7.5	1.4	8.1	1.8	5.2	0.7	5.2	0.8	64.9	297.1	51.7	10.0	355.0
SBD250656	SBDH25027	29.0	32.0	114.3	168.9	25.4	98.2	17.5	3.5	12.8	1.8	11.1	2.4	6.2	0.8	5.6	0.9	79.1	548.6	123.6	24.8	480.0
SBD250657	SBDH25027	32.0	35.0	105.6	168.3	26.1	120.7	33.5	8.5	46.0	6.4	39.0	7.3	19.9	2.5	14.5	2.0	320.0	920.3	146.8	35.0	192.0
SBD250658	SBDH25027	35.0	37.0	26.4	50.0	6.7	27.4	5.8	1.4	6.1	0.9	5.3	1.2	3.7	0.5	3.2	0.5	55.6	194.8	34.1	8.3	49.0
SBD250659	SBDH25018	8.0	11.0	81.0	170.7	18.0	65.7	10.6	1.5	9.2	1.1	6.4	1.1	3.3	0.4	2.2	0.3	32.6	404.2	83.7	4.9	70.0
SBD250660	SBDH25018	11.0	14.0	78.6	164.0	17.2	61.7	9.9	1.5	7.8	1.0	5.9	1.0	2.9	0.4	2.1	0.3	31.5	385.8	78.9	4.8	68.0
SBD250661	SBDH25018	14.0	17.0	50.1	100.6	10.8	40.0	6.4	1.5	5.7	1.0	6.1	1.1	3.6	0.5	2.9	0.5	33.3	264.1	50.8	5.2	50.0
SBD250662	SBDH25018	17.0	20.0	54.7	109.8	11.6	41.1	8.1	1.2	5.9	0.8	5.0	0.9	2.3	0.3	2.1	0.3	27.3	271.4	52.6	4.0	41.0
SBD250663	SBDH25018	20.0	23.0	24.5	56.9	6.4	23.1	5.8	1.1	5.0	0.9	5.9	1.2	3.1	0.5	3.0	0.3	34.9	172.6	29.4	2.6	206.0
SBD250664	SBDH25018	23.0	25.0	6.9	16.1	2.4	9.1	3.2	1.1	4.0	0.7	4.7	1.0	3.0	0.4	2.6	0.4	29.2	84.8	11.5	0.6	302.0
SBD250665	SBDH25018	25.0	27.0	7.2	17.8	2.5	11.9	3.4	1.0	4.4	0.9	5.0	1.1	3.5	0.5	3.4	0.5	32.8	95.9	14.4	0.7	315.0
SBD250666	SBDH25036	14.0	17.0	116.7	245.7	28.8	109.1	18.3	3.7	15.3	2.2	13.0	2.3	6.8	0.9	5.8	0.9	67.6	636.9	137.8	5.7	93.0
SBD250667	SBDH25036	17.0	20.0	95.7	206.4	25.7	98.2	18.3	3.5	15.5	2.2	13.1	2.4	7.5	1.0	7.2	1.0	79.5	577.2	123.9	8.5	129.0
SBD250668	SBDH25036	20.0	23.0	127.8	264.1	31.7	120.1	20.1	4.1	17.3	2.4	13.2	2.5	7.4	1.0	5.6	0.9	81.7	699.9	151.8	5.9	105.0
SBD250669	SBDH25036	23.0	26.0	83.4	183.0	23.3	96.6	18.1	3.9	17.3	2.3	13.6	2.6	7.1	0.8	5.4	0.7	80.8	539.0	119.9	6.5	115.0
SBD250670	SBDH25036	26.0	29.0	69.3	138.8	16.5	56.9	10.6	1.8	9.8	1.3	8.3	1.6	5.3	0.6	4.3	0.6	53.6	379.4	73.4	4.4	101.0
SBD250671	SBDH25036	29.0	32.0	74.1	151.1	17.2	62.6	11.3	2.0	9.2	1.5	8.6	1.7	4.8	0.6	4.6	0.8	50.5	400.6	79.9	4.2	107.0
SBD250672	SBDH25036	32.0	35.0	75.3	149.3	17.7	64.4	11.6	2.5	10.9	1.4	9.0	1.7	4.9	0.7	4.6	0.6	49.3	403.9	82.1	3.7	100.0
SBD250673	SBDH25036	35.0	37.0	64.3	127.1	14.9	54.0	8.5	2.1	8.7	1.4	7.3	1.5	4.6	0.6	3.8	0.6	48.4	347.6	68.9	3.9	88.0
SBD250674	SBDH25036	37.0	39.0	63.1	120.9	13.8	51.9	8.2	2.0	8.2	1.3	6.7	1.2	4.4	0.5	3.8	0.4	41.8	328.2	65.7	3.7	89.0
SBD250675	SBDH25050	18.0	21.0	66.3	124.1	15.3	54.5	8.7	1.5	7.5	1.1	7.5	1.4	4.3	0.5	3.7	0.6	40.1	337.1	69.8	3.5	73.0
SBD250676	SBDH25050	21.0	24.0	91.4	167.7	20.1	69.9	11.9	2.1	11.0	1.7	10.0	2.1	5.8	0.7	5.4	0.8	59.7	460.2	89.9	5.1	104.0
SBD250677	SBDH25050	24.0	27.0	48.4	94.0	10.6	38.5	7.1	1.1	6.0	0.9	6.1	1.0	3.4	0.4	3.4	0.5	34.0	255.3	49.1	2.8	58.0
SBD250678	SBDH25050	27.0	30.0	25.6	51.6	6.0	19.4	2.8	0.6	2.9	0.5	3.4	0.6	2.0	0.3	1.7	0.3	18.7	136.2	25.3	1.5	46.0
SBD250679	SBDH25050	30.0	31.0	55.0	157.2	14.7	54.0	11.1	2.2	10.2	1.8	11.2	1.9	6.4	0.8	5.0	0.9	56.5	388.8	68.7	2.6	137.0
SBD250689	SBDH25072A	0.0	3.0	25.3	46.6	5.7	20.9	3.4	0.8	3.2	0.5	3.0	0.5	1.8	0.2	1.5	0.3	16.9	130.4	26.6	1.6	43.0
SBD250690	SBDH25072A	3.0	6.0	39.5	77.9	9.6	35.3	6.4	1.5	6.0	1.0	6.1	1.1	3.4	0.4	3.3	0.5	36.1	228.1	44.9	2.4	126.0
SBD250691	SBDH25072A	6.0	9.0	48.9	121.1	13.8	53.0	10.1	2.1	8.8	1.3	7.6	1.4	4.9	0.6	4.2	0.7	46.0	324.4	66.7	2.9	155.0
SBD250692	SBDH25072A	9.0	12.0	38.2	75.3	9.6	34.5	6.8	1.2	5.4	0.8	5.5	0.9	3.4	0.4	3.4	0.5	31.0	217.0	44.1	3.2	199.0
SBD250693	SBDH25072A	12.0	15.0	36.6	81.9	8.8	33.1	6.6	1.3	5.2	0.8	5.2	1.0	3.5	0.5	3.4	0.5	31.7	220.2	42.0	3.2	156.0
SBD250694	SBDH25072A	15.0	18.0	30.3	71.6	7.7	27.5	4.5	1.1	4.4	0.8	4.9	0.9	3.5	0.4	3.2	0.5	25.7	186.9	35.2	3.6	156.0
SBD250695	SBDH25072A	18.0	21.0	28.0	74.2	7.5	24.5	4.3	0.9	4.3	0.7	4.6	0.9	3.0	0.4	2.6	0.5	25.5	182.0	32.0	3.9	137.0
SBD250696	SBDH25072A	21.0	24.0	30.1	93.0	6.7	24.5	5.7	0.9	4.4	0.8	5.5	1.1	3.3	0.5	3.5	0.6	26.7	207.3	31.2	5.2	141.0
SBD250697	SBDH25072A	24.0	27.0	30.3	109.7	7.9	28.2	5.9	1.4	5.7	0.9	5.6	1.1	3.2	0.5	3.9	0.6	30.9	235.5	36.1	5.5	148.0
SBD250698	SBDH25072A	27.0	30.0	29.4	82.7	6.8	21.8	4.1	1.0	4.3	0.7	4.9	0.9	3.3	0.5	3.6	0.5	30.4	194.9	28.6	5.9	152.0
SBD250699	SBDH25072A	30.0	33.0	36.5	74.1	9.4	32.3	6.7	1.4	5.9	0.9	5.7	1.1	3.7	0.5	3.7	0.6	31.1	213.5	41.7	6.4	162.0
SBD250700	SBDH25072A	33.0	36.0	26.7	37.6	6.6	22.2	4.1	0.9	3.6	0.6	4.1	0.8	2.4	0.3	2.4	0.4	22.6	135.5	28.8	5.3	178.0
SBD250701	SBDH25072A	36.0	39.0	33.4	62.9	7.7	22.6	3.8	0.9	3.7	0.5	2.6	0.6	1.7	0.2	1.7	0.3	18.8	161.6	30.4	4.2	113.0
SBD250702	SBDH25072A	39.0	42.0	16.4	26.5	2.9	8.7	1.8	0.3	1.5	0.3	2.1	0.4	1.6	0.2	1.6	0.3	15.5	80.2	11.6	4.8	139.0
SBD250703	SBDH25072A	42.0	45.0	145.4	137.6	16.5	42.3	5.1	0.8	3.2	0.4	2.7	0.5	1.5	0.2	1.6	0.2	14.5	372.7	58.8	5.5	161.0
SBD250704	SBDH25072A	45.0	48.0	92.9	97.2	11.3	29.6	3.7	0.7	2.6	0.4	2.6	0.6	1.7	0.3	1.9	0.3	16.0	261.7	40.9	5.4	155.0
SBD250705	SBDH25072A	48.0	50.0	43.4	57.4	6.2	18.7	3.2	0.5	2.6	0.5	3.2	0.7	2.1	0.4	2.4	0.3	20.3	161.8	24.9	6.0	159.0
SBD250706	SBDH25077	8.0	11.0	54.7	83.4	13.3	48.2	8.3	1.6	7.9	1.2	6.7	1.4	4.2	0.6	3.5	0.5	45.5	281.0	61.5	3.9	157.0
SBD250707	SBDH25077	11.0	14.0	38.5	70.5	7.9	26.6	5.3	1.1	4.6	0.8	5.0	1.0	3.4	0.4	3.2	0.4	29.5	198.2	34.5	4.2	172.0
SBD250708	SBDH25077	14.0	17.0	38.2	83.8	7.5	24.8	4.8	0.9	3.7	0.6	4.9	0.9	2.9	0.4	3.0	0.4	24.3	201.0	32.3	4.2	154.0
SBD250709	SBDH25077	17.0	20.0	36.4	132.7	7.9	26.5	5.8	1.2	4.7	0.9	5.5	1.1	3.4	0.5	3.4	0.6	28.2	258.6	34.3	4.7	153.0

Sample ID	HOLEID	From	To	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	Nd+Pr Ox	U3O8	V
SBD250769	SBDH25093	25.0	28.0	28.6	61.1	6.8	23.8	4.4	0.8	4.5	0.9	5.7	1.4	4.2	0.7	4.9	0.8	39.0	187.5	30.6	5.1	91.0
SBD250770	SBDH25093	28.0	31.0	29.3	47.0	5.3	16.9	3.2	0.6	3.2	0.6	4.6	1.0	3.6	0.6	3.8	0.6	29.5	149.9	22.2	4.9	87.0
SBD250771	SBDH25093	31.0	34.0	29.0	42.5	4.9	14.7	2.5	0.6	2.9	0.7	4.8	1.1	3.7	0.6	4.6	0.8	33.7	147.1	19.6	5.5	108.0
SBD250772	SBDH25093	34.0	37.0	29.2	38.9	4.8	13.8	2.6	0.4	2.5	0.6	4.3	1.1	3.6	0.6	4.1	0.6	31.1	138.4	18.6	5.4	99.0
SBD250773	SBDH25093	37.0	40.0	28.3	39.9	4.6	13.8	2.7	0.5	3.3	0.8	5.3	1.3	4.4	0.7	5.1	0.8	36.6	148.1	18.4	6.7	88.0
SBD250774	SBDH25093	40.0	42.0	48.4	79.8	8.9	28.1	4.6	0.8	4.4	0.9	5.8	1.4	4.4	0.7	4.6	0.7	37.3	230.9	37.0	7.0	113.0
SBD250775	SBDH25093	42.0	44.0	60.3	136.4	13.5	46.4	8.9	1.4	7.2	1.4	8.7	2.0	6.0	0.9	6.5	1.0	57.0	357.6	59.9	7.9	83.0
SBD250776	SBDH25098	16.0	19.0	55.1	106.5	12.4	43.6	7.7	1.4	6.8	1.1	6.3	1.4	4.1	0.6	3.7	0.5	41.4	292.6	56.1	2.6	98.0
SBD250777	SBDH25098	19.0	22.0	106.0	211.3	23.7	85.3	15.1	2.6	13.2	2.3	13.1	2.7	8.2	1.1	7.5	1.1	83.8	577.2	109.0	4.5	137.0
SBD250778	SBDH25098	22.0	25.0	96.3	241.4	21.8	78.8	13.6	2.4	13.6	2.3	13.3	2.8	8.0	1.1	7.2	1.2	85.2	589.1	100.7	4.9	93.0
SBD250779	SBDH25098	25.0	28.0	100.7	229.7	22.8	78.5	14.0	2.5	12.7	2.2	12.7	2.7	8.3	1.3	8.2	1.3	86.6	584.3	101.3	5.4	75.0
SBD250780	SBDH25098	28.0	31.0	56.9	112.2	12.9	45.3	7.5	1.4	7.5	1.2	7.2	1.5	4.6	0.7	4.8	0.6	46.5	310.5	58.1	4.1	148.0
SBD250781	SBDH25098	31.0	34.0	69.7	145.0	15.7	55.8	9.7	1.7	8.9	1.4	8.9	1.9	5.5	0.8	5.8	0.8	57.4	388.8	71.5	4.8	97.0
SBD250782	SBDH25098	34.0	37.0	57.5	119.8	13.4	46.4	8.3	1.6	7.3	1.2	7.4	1.6	4.9	0.7	4.9	0.8	46.2	321.9	59.8	4.6	114.0
SBD250783	SBDH25098	37.0	40.0	54.1	111.2	11.6	40.2	7.1	1.2	6.1	1.0	7.2	1.6	4.7	0.7	4.8	0.8	47.5	299.7	51.8	4.4	104.0
SBD250784	SBDH25098	40.0	43.0	58.8	114.2	13.5	48.6	7.4	1.6	7.1	1.2	7.5	1.6	4.9	0.7	5.0	0.8	46.6	319.5	62.1	4.2	77.0
SBD250785	SBDH25098	43.0	46.0	51.1	101.1	11.2	38.7	6.9	1.4	6.6	1.1	6.7	1.4	4.7	0.7	4.7	0.6	42.2	279.1	49.9	4.2	90.0
SBD250786	SBDH25098	46.0	49.0	29.0	61.8	5.8	19.5	3.9	0.7	4.0	0.8	5.3	1.3	4.4	0.7	4.8	0.7	38.2	180.9	25.3	4.8	104.0
SBD250787	SBDH25098	49.0	52.0	28.7	64.4	5.4	18.1	3.4	0.7	3.2	0.6	4.3	1.0	3.2	0.5	4.2	0.6	30.1	168.5	23.5	4.8	121.0
SBD250788	SBDH25098	52.0	55.0	53.8	90.4	8.9	27.2	4.5	0.8	3.5	0.7	4.1	0.9	2.7	0.4	3.1	0.5	26.3	227.8	36.1	4.5	150.0

Appendix 4 JORC Code, 2012 Edition - Table 1

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.	Aircore (AC) drilling was used to collect one metre bulk samples in buckets. Samples passed through an in-line cyclone prior being collected in the bucket. Each drilled sample was placed onto tarped ground in ordered rows by the drill crew under BSN supervision. Representative material (fines and chips) of each metre drilled were collected and placed in numbered chip trays. Samples for geochemical analyses were primarily collected as composite samples of 3 metres from the bulk samples in zones of interest (clay horizons). Depending on lithological factors, composite samples of 1, 2 or 4 metres have been occasionally collected. Composite samples were collected scooping the relevant one-metre bulk sample piles to collect a sub-sample of approximate equal volume from each one-metre sample pile. The composite sample was placed into a pre-numbered paper geochemistry bag. In addition to composite samples, one metre archive samples were also collected from each bulk sample pile. These samples are currently stored in BSN's storage in Mount Isa.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Composite samples of generally 3 m length were collected from the bulk samples in zones of interest (clay horizons). Samples were sieved and/or speared as per industry standards and care taken to create samples of the same weight (<1 kg). When small amounts of water were encountered in the hole, samples continued to be collected with care taken to obtain as representative a sample possible. Notes were made on log sheets where water was intersected in a drillhole.
	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.	Composite samples were prepped at ALS Mount Isa laboratory with pulverising a 500 g split to 85% passing 75 microns (PUL-32m). The prepped samples were then shipped to ALS Brisbane for analyses comprising of Lithium Borate fusion with an ICP-MS finish (ME-MS81).
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.).	Aircore drilling was conducted by United Drilling Services using a Hanjin 8-TM mounted rig on Isuzu FSS 4x4 carrier. 3" rods were used for the program. Drillholes were all vertical.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results	Sample recovery was qualitatively assessed by the geologist monitoring the bulk samples.



	assessed.	
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The cyclone and bulk buckets were regularly cleaned to ensure no material build up. Sample material was checked for any potential downhole contamination. The drilling sample recoveries/quality are acceptable and are appropriately representative for the style of mineralisation at an early-stage exploration level.
	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.	No grade versus sample recovery biases, or biases relating the loss or gain of fines have been identified.
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 aircore drillholes have been geologically logged on site for lithologies, colour, weathering, oxidation and other features of note. Due to the nature of the drilling technique and resultant sample, no geotechnical information has been recorded.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Geological logging is considered qualitative in nature. Chip trays were photographed dry.
	The total length and percentage of the relevant intersections logged.	All aircore drillholes were logged in full by Basin Energy geologists.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Aircore drilling was completed during this program.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Based on geological logging, aircore samples were scooped directly from the one-metre bulk sample pile into assay bags. Two, three and four metre composites were collected and send to ALS laboratory in Mount Isa for multielement analyses.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sampling protocol implemented for the composite samples is appropriate to industry standards in relation to aircore sampling. Composite samples were prepped at ALS Mount Isa laboratory with pulverising a 500 g split to 85% passing 75 microns (PUL-32m) prior freighting to ALS Brisbane for analyses.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QAQC procedures involve the use of Certified Reference Material (CRM) standards and field duplicate samples at an insertion rate of 1:25. Laboratory QAQC protocols included the use of ALS laboratory standards, blanks and duplicates.
	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.	Field QAQC procedures involve the use of Certified Reference Material (CRM) standards and field duplicate samples at an insertion rate of 1:25.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes for the samples are appropriate for the grain size and lithology type of the material.
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.	The analytical technique involved Lithium Borate fusion with an ICP-MS finish for multi-element analysis (ME-MS81). The sample preparation and analysis methods are considered industry standard for the style of mineralisation being tested.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the	No geophysical tools or portable XRF instruments were utilised to determine assay values. A calibrated RS 111 was used to scan bulk sample piles whilst detailed logging occurred.



	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.	Internal laboratory control procedures involve duplicate assaying of randomly selected assay pulps as well as internal laboratory standards and blanks. All these data are reported to the Company.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Data were not verified by independent company.
	The use of twinned holes.	No holes were twinned for this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected in the field using Excel templates on a Panasonic Toughbook laptop or printed logging sheets. All data, included verified assay data from the laboratory are stored on company storage drives.
	Discuss any adjustment to assay data.	Where uranium was reported, Basin has converted this to uranium oxide by applying the following formulae: $U \text{ ppm} * 1.17924 = U_3O_8 \text{ ppm}$ Regarding rare earth elements, the element values were converted to oxides. The conversion formulas for each element are included in the list below: $Ce \text{ ppm} * 1.2284 = CeO_2 \text{ ppm}$ $Dy \text{ ppm} * 1.1477 = Dy_2O_3 \text{ ppm}$ $Er \text{ ppm} * 1.435 = Er_2O_3 \text{ ppm}$ $Eu \text{ ppm} * 1.1579 = Eu_2O_3 \text{ ppm}$ $Gd \text{ ppm} * 1.1526 = Gd_2O_3 \text{ ppm}$ $Ho \text{ ppm} * 1.1455 = Ho_2O_3 \text{ ppm}$ $La \text{ ppm} * 1.1728 = La_2O_3 \text{ ppm}$ $Lu \text{ ppm} * 1.1371 = Lu_2O_3 \text{ ppm}$ $Nd \text{ ppm} * 1.1664 = Nd_2O_3 \text{ ppm}$ $Pr \text{ ppm} * 1.2082 = Pr_6O_{11} \text{ ppm}$ $Sm \text{ ppm} * 1.1596 = Sm_2O_3 \text{ ppm}$ $Tb \text{ ppm} * 1.1762 = Tb_4O_7 \text{ ppm}$ $Tm \text{ ppm} * 1.1421 = Tm_2O_3 \text{ ppm}$ $Y \text{ ppm} * 1.2699 = Y_2O_3 \text{ ppm}$ $Yb \text{ ppm} * 1.1387 = Yb_2O_3 \text{ ppm}$ Rare earth oxide is the industry accepted form for reporting rare earth elements. The following calculations are used for compiled rare earth oxides into their reporting and evaluation groups: $TREO \text{ (Total Rare Earth Oxide)} = CeO_2 + Dy_2O_3 + Er_2O_3 + Eu_2O_3 + Gd_2O_3 + Ho_2O_3 + La_2O_3 + Lu_2O_3 + Nd_2O_3 + Pr_6O_{11} + Sm_2O_3 + Tb_4O_7 + Tm_2O_3 + Y_2O_3 + Yb_2O_3$ $LREO \text{ (Light Rare Earth Oxide)} = CeO_2 + La_2O_3 + Nd_2O_3 + Pr_6O_{11} + Sm_2O_3$ $HREO \text{ (Heavy Rare Earth Oxide)} = Dy_2O_3 + Er_2O_3 + Eu_2O_3 + Gd_2O_3 + Ho_2O_3 + Lu_2O_3 + Tb_4O_7 + Tm_2O_3 + Y_2O_3 + Yb_2O_3$
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.	No Mineral Resource or Ore Reserve are reported. Drillhole collars are located using a handheld Garmin GPSMAP 67i. Nomimal accuracy is 3 m.
	Specification of the grid system used.	Drillholes are reported in GDA94 MGA Zone 54 grid system.



	Quality and adequacy of topographic control.	The topographic control is considered adequate at this stage of the program.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drillholes were approximately spaced from 1 kilometre to several kilometres apart.
	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.	No Mineral Resource or Ore Reserve are reported.
	Whether sample compositing has been applied.	Two, three and four metre composite samples were collected on all drillholes for multi-element analyses.
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.	The reported historical drillholes have been oriented vertically to intersect favourable lithologies, structures at a high angle based on projections from field mapping and geophysical imaging interpretation.
	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 drill orientation is not expected to have introduced any sampling bias.
Sample security	The measures taken to ensure sample security.	Aircore samples were collected by BSN personnel and dropped off to ALS laboratory in Mount Isa for preparation prior analyses. The prepped samples were freighted by ALS to the ALS laboratory in Brisbane for analyses. Sample freight used ALS's chain of custody protocols, which are considered industry standards.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits were undertaken by Basin Energy or any independent parties.

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 results reported in this announcement refer to aircore holes drilled on the Sybella-Barkly Project on EPMs 28331, 28332, 28334, 28335, 28336, 28337, 28339 and 28340 which are located in northwest Queensland, Australia. The Sybella-Barkly Project was granted 'Exploration Project Status' (ref: PROJ 0254) by the Queensland Government on 30 November 2023. The Sybella-Barkly Project is 100% owned and operated by Basin Energy Ltd. The tenements overlies the native title areas of the three registered native title groups: the (1) Indjalandji-Dhidhanu people, and the (2), Bularnu Waluwarra Wangkayujuru people. An ancillary exploration access agreement has been established with the Indjalandji-Dhidhanu native title party (Indjalandji-Dhidhanu Aboriginal Corporation RNTBC). Exploration access to the native title lands of the Bularnu Waluwarra Wangkayujuru people are currently covered by the 'expedited procedure' of the Queensland 'native title protection conditions' (NTPCs). Active 'conduct and compensation agreements' (CCAs) between Basin Energy Ltd and pastoral title holders within the Sybella-Barkly Project area are currently in place with Ardmore and Barkly Downs stations. The tenements where aircore drilling activities occurred are covered by one Environmental Authority Permits: P-EA-100224474. The following protected areas partially overly the Sybella-Barkly Project area: (1) Endangered regional ecosystems along selected perennial water ways,



		(2) Strategic environmental area (SEA) designated precincts along selected perennial waterways. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. All tenements are in good standing and no known impediments exists.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has been negligible mineral exploration activity targeting the near surface geology across most of the project area and none targeting REEs. Four shallow auger holes and a single diamond drillhole were drilled in 1977 following up on radiometric uranium anomalies along the western margin of the outcropping Mount Isa Inlier in the northern part of the Sybella-Barkly Project area. A Joint Venture Between Summit Resources and Newland Resources Limited held 17 tenements across the project area between 2006-2009. The exploration target was roll-front uranium and unconformity uranium (Hamlyn, 2008 – CR54235). The high-resolution Fugro Tempest AEM survey identified an array of shallow conductive anomalies interpreted to be palaeochannels conducive to roll-front uranium targeting; however, these anomalies were never drilled. Aeon Metals Ltd was awarded a CEI grant (CEI0147 – round 4) to drill deep IOCG targets to the northwest of the project area. They intercepted 5-10 metres of clay overlying Palaeozoic dolomite (Murday et al., 2021 - CR127433). NeoDys Ltd re-analysed in 2022 Sybella granite samples from Geoscience Australia's national rock archive, confirming REE prospectivity on the project. Additionally, assays of 130 soil/creek samples confirmed broad-scale REE surface anomalies within NeoDys' tenure. In 2023, NeoDys conducted a shallow proof-of-concept auger drilling program in the Sybella granite demonstrating the presence of LREE enrichment within the near surface regolith of the Sybella granite. NeoDys' auger drilling across the Sybella has defined similar levels of rare earth anomalism (including 5 m @ 1,951 ppm TREO with 578 ppm Nd+Pr oxide, incl. 3 m @ 705 ppm Nd+Pr oxide.). Drill targets were located along strike of Red Metal's Sybella bulk granite REE discovery.
Geology	Deposit type, geological setting and style of mineralisation.	The Mount Isa Inlier is a large region of Palaeoproterozoic to Mesoproterozoic continental crust in northwest Queensland and is located along the eastern margin of the North Australia Craton. The Sybella Batholith is a large composite granitic belt which outcrops as a semi-continuous, NS-trending linear body (180 x 30 km) within the western fold belt of the Mount Isa Inlier. Granites of the Sybella Batholith typically have A-type geochemical compositions and exhibit moderate to extreme enrichment in high field strength elements (e.g. Zr, U, Th, REE's, Y, Nb, and Ta). The Neoproterozoic to early Palaeozoic Georgina Basin overlies the western margin of the Mount Isa Inlier. The project area overlies the eastern margin of the Oban Sub-Basin. The basin architecture in the region is interpreted to be relatively shallow and structurally complex with numerous basement highs, and probable graben and half graben features. The Georgina Basin sedimentary units within the project area from part of the Narpa Group and are dominantly composed of limestone and dolomite, as well as lesser amounts laminated shale, siltstone, chert and phosphorite in near-shore facies along the eastern margin of the basin. Surface sediments in the project area include Tertiary to Quaternary sand- and clay-dominated colluvial and alluvial flood, channel and aeolian deposits. Basin Energy's exploration team considers that the Sybella Barkly Project potentially hosts four mineral deposit styles: 1. Granite-hosted, bulk tonnage, weak-acid soluble rare earth fluoro carbonate deposits similar in style to Red Metal Ltd's adjacent Sybella REE project. This deposit style occurs in rare earth element-enriched granitic rocks such as the various plutons of the Sybella Batholith. 2. Large, shallow, bulk tonnage, REE mineralisation hosted in clay-rich alluvial deposits underlying the Barkly Tableland. These alluvial deposits are composed of sedimentary material derived from the long-term erosion of REE-enriched Sybella Batholith granite source rocks.



		3. 'Honeymoon-style' palaeochannel uranium deposits within the sedimentary units underlying the Barkly Tableland. The ultimate source rocks for the sediment-hosted uranium are the U-rich granites of the Sybella Batholith. 4. 'Valhalla-style' shear hosted uranium mineralisation along the northern margin of the Sybella Batholith and within the granite itself. EPMs 28331, 28332, 28334, 28335, 28336, 28337, 28339 and 28340 are prospective for 'Honeymoon-style' palaeochannel uranium deposits and large, shallow, bulk tonnage, REE mineralisation hosted in clay-rich alluvial deposits underlying the Barkly Tableland.
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: - o easting and northing of the drill hole collar - o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - o dip and azimuth of the hole - o down hole length and interception depth - o hole length.	Tables comprising the collar details and significant mineralised intercepts are included in Appendix 2 and 3 of this announcement.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	All material information has been provided in this announcement.
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.	Exploration drill results are reported by length weighted average grades.
	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.	Short intervals of high grade that have a material impact on overall intersections are reported as separate (included) intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalence have been reported.
Relationship between mineralisation widths and intercepts lengths	These relationships are particularly important in the reporting of Exploration Results.	Downhole lengths are reported, true width is not known.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Mineralised intersections are suspected to be sub-horizontal, however, this remains to be conclusively tested.
	If it is not known and only the down hole lengths are	Drilling was early stage exploration in nature, with insufficient data to establish true widths of mineralisation observed.



	reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Maps and tables have been included in the body of this announcement.
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.	It is the Competent Person's opinion that a balanced summary of exploration results has been reported.
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.	All relevant and material exploration data for the target areas discussed have been reported or referenced.
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).	1. RC drill program to test the depth continuity of anomalous REE mineralisation identified in shallow auger drilling. 2. Mapping and rock chip sampling of the Northern Sybella Batholith granites (Keithys Granite and the Kitty Plain Microgranite) and the adjacent country rocks to test for the presence of Valhalla-style U-mineralisation and/or associated alteration halos. 3. AEM of the southern extension of the Barkly Tableland palaeochannel system.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Maps including the location of the assayed historical drillholes are included in the body of this announcement.

