ASX RELEASE

AMERICAN RARE EARTHS **ABN 83 003 453 503**

16 NOVEMBER 2026

AMERICAN RARE EARTHS COMPLETES 2026 FEASIBILITY DRILLING AT HALLECK CREEK WITH UP TO 200 METERS OF CONTINUOUS MINERALIZATION FROM SURFACE

Certified, QA/QC verified assay results from all eighteen HQ core holes of the 2026 Feasibility Study drilling program at the Cowboy State Mine, Red Mountain, confirm thick and continuous rare earth mineralization from at or near surface. Four of the twelve newly reported holes are mineralized above the resource cut-off grade from at or near surface to the end of the hole at approximately 200 m, headlined by 199.95 m at 4,242 ppm TREO from surface in HC26-RM060. Across the completed program, 1,318 sample intervals average 3,327 ppm TREO (median 3,971 ppm), with 84% exceeding the Company's 1,000 ppm TREO Cowboy State Mine resource cut-off grade.

HIGHLIGHTS

- **All eighteen holes of the 2026 Feasibility Study drilling program at the Cowboy State Mine are now reported, completing a 2,879.6 m HQ core program within the Halleck Creek Rare Earths Project**
- **Twelve new holes add 932 sample intervals, more than tripling the 2026 assay dataset to 1,318 samples**
- **Four new holes (HC26-RM057, HC26-RM058, HC26-RM060 and HC26-RM061) are mineralized from at or near surface to the end of the hole at approximately 200 m. Significant intervals in the new holes (1,000 ppm TREO cut-off) include:**
  - **HC26-RM060: 199.95 m at 4,242 ppm TREO from surface (to end of hole)**
  - **HC26-RM058: 199.91 m at 4,159 ppm TREO from surface (to end of hole)**
  - **HC26-RM059: 199.50 m at 4,149 ppm TREO from surface**
  - **HC26-RM063: 168.31 m at 4,311 ppm TREO from 31.60 m**
  - **HC26-RM067: 46.50 m at 5,291 ppm TREO from 46.54 m**
  - **HC26-RM066: 27.36 m at 5,059 ppm TREO from 2.74 m**
- **Full program average grade of 3,327 ppm TREO and median grade of 3,971 ppm TREO, with 84% (1,108 of 1,318) of samples above the 1,000 ppm TREO resource cut-off grade**
- **Magnet rare earth oxides (MREO) average 925 ppm across the program, or 27.8% of TREO, with NdPr oxides making up 22.7% of TREO**
- **Highest individual result of the program of 13,871 ppm TREO over 0.80 m from 124.07 m in HC26-RM065**

American Rare Earths Limited **(ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) ("ARR" or "the Company")** is pleased to report certified assay results from ALS Global for the remaining twelve HQ core holes (HC26-RM057 to HC26-RM068) from the 2026 Feasibility Study drilling program at the Cowboy State Mine area of the Halleck Creek Rare Earths Project in Wyoming. Results for the first six holes (HC26-RM051 to HC26-RM056) were reported on 21 September 2026. With this release, certified results for all eighteen holes and 2,879.6 m of drilling have been reported, completing the 2026 program.

The results reported herein represent certified, laboratory verified analytical data for all eighteen HQ core holes drilled within the Cowboy State Mine development area at Red Mountain. Every reported value has been reconciled sample by sample to the certified ALS laboratory files, reviewed under the Company's QA/QC procedures and converted from certified elemental assays to rare earth oxide form using stoichiometric conversion factors consistent with the Company's Halleck Creek technical documentation. The completed dataset provides the drilling foundation for the updated Mineral Resource Estimate supporting the Feasibility Study.

HIGHLIGHTS — COMPLETE 2026 FEASIBILITY DRILLING PROGRAM

- Certified assay results have now been received for all eighteen HQ core holes (HC26-RM051 to HC26-RM068) completed within the Cowboy State Mine development area at Red Mountain, completing the analytical dataset for the 2026 Feasibility Study drilling program.
- This release reports twelve new holes (HC26-RM057 to HC26-RM068), comprising 932 new sample intervals over 1,999.1 m. Together with the six holes reported on 21 September 2026, the program dataset now totals 1,318 primary geological sample intervals over 2,788.4 m of sampled core. QA/QC samples are excluded from the reported statistics.
- The twelve new holes average 3,257 ppm TREO with a median grade of 4,028 ppm TREO, and 80% (750 of 932) of the new samples exceed the 1,000 ppm TREO resource cut-off grade. Across the full program, samples average 3,327 ppm TREO (median 3,971 ppm TREO), with 84% (1,108 of 1,318) above the cut-off.
- Nine of the eighteen holes were drilled to approximately 200 m. Broad intervals in HC26-RM057, HC26-RM058, HC26-RM060 and HC26-RM061 extend from at or near surface to the end of the hole and finish in mineralization, as shown in Table 2.
- Higher grade zones are present within the broad mineralized envelope, including
    - 46.50 m at 5,291 ppm TREO from 46.54 m in HC26-RM067,
    - 27.36 m at 5,059 ppm TREO from 2.74 m in HC26-RM066 and,
    - The highest individual result of the program, 13,871 ppm TREO over 0.80 m from 124.07 m in HC26-RM065.
- Magnet rare earth oxides (MREO) average 925 ppm, or 27.8% of TREO, and NdPr oxides make up 22.7% of TREO across the program. Average ThO2 and UO2 grades across the 1,318 samples are low, at 60 ppm and 9 ppm respectively.

- Core recovery averaged 96.2% across 1,226 logged runs (2,876.5 m), providing a high-quality sample base for resource estimation (recovery is lower in the near-surface weathered zone; see Appendix A).
- Holes HC26-RM066 to HC26-RM068 returned lower average grades (1,168 to 2,246 ppm TREO), reflecting longer intervals of intrusive units other than the main mineralized host. These holes provide useful information on the boundaries of the host unit for the geological model, and all results are reported in full.

2026 DRILL ASSAY RESULTS

Table 1 summarizes the results for all the 2026 drilling campaign. Table 2 lists the significant mineralized intervals calculated on the same basis as the 21 September 2026 release. Results reported for the first time are shaded.

Table 1 — Assay Summary by Drill Hole, 2026 HQ Core Program (ppm unless noted)

Drill Hole	Status	Samples	Sampled (m)	TREO Mean	TREO Min	TREO Max	MREO Mean	LREO Mean	HREO Mean
HC26-RM051	Prev.	57	128.0	3,469	844	9,084	995	2,912	557
HC26-RM052	Prev.	61	116.7	3,347	450	5,268	934	2,923	424
HC26-RM053	Prev.	63	119.4	3,046	123	7,717	855	2,690	356
HC26-RM054	Prev.	51	118.0	3,553	442	4,836	997	3,124	428
HC26-RM055	Prev.	57	117.9	3,744	843	5,382	1,045	3,201	543
HC26-RM056	Prev.	97	189.3	3,726	224	6,939	1,038	3,355	371
HC26-RM057	New	88	194.7	3,536	218	7,575	973	3,043	493
HC26-RM058	New	84	196.8	3,904	389	5,108	1,083	3,412	492
HC26-RM059	New	96	196.4	3,807	401	6,712	1,040	3,319	488
HC26-RM060	New	96	198.6	3,791	332	5,291	1,052	3,272	519
HC26-RM061	New	97	196.7	3,288	89	4,788	910	2,835	453
HC26-RM062	New	87	199.6	2,963	249	5,699	833	2,499	463
HC26-RM063	New	80	198.1	4,061	230	5,046	1,123	3,492	568
HC26-RM064	New	85	194.0	3,841	224	4,815	1,065	3,307	534
HC26-RM065	New	56	120.0	2,238	193	13,871	627	1,939	299
HC26-RM066	New	58	116.7	2,091	10	6,814	586	1,782	308
HC26-RM067	New	65	118.7	2,246	5	7,659	628	1,932	314
HC26-RM068	New	40	69.0	1,168	335	5,670	317	971	197
All: previously reported		**386**	**789.2**	**3,497**	**123**	**9,084**	**981**	**3,060**	**438**
All: new holes		**932**	**1999.1**	**3,257**	**5**	**13,871**	**903**	**2,807**	**450**
All: 2026 program		**1,318**	**2788.4**	**3,327**	**5**	**13,871**	**926**	**2,881**	**446**

Samples are primary geological sample intervals; QA/QC samples are excluded. Mean, minimum and maximum are simple (not length-weighted) statistics, consistent with the 21 September 2026 release. MREO = Pr6O11 + Nd2O3 + Sm2O3 + Tb4O7 + Dy2O3. HREO includes Y2O3.

Table 2 — Significant Mineralized Intervals, 1,000 ppm TREO Cut-off

Drill Hole	Status	From (m)	To (m)	Interval (m)	Samples	TREO	MREO	NdPr	LREO	HREO	TREO Max
HC26-RM051	Prev.	0.00	99.44	99.44	45	3,796	1,088	880	3,213	583	9,084
HC26-RM051	Prev.	102.19	128.02	25.83	11	2,837	863	649	2,158	679	3,385
HC26-RM052	Prev.	5.79	108.42	102.63	53	3,854	1,079	888	3,373	480	5,268
HC26-RM052	Prev.	116.33	124.97	8.64	4	3,525	919	797	3,265	260	4,689

Drill Hole	Status	From (m)	To (m)	Interval (m)	Samples	TREO	MREO	NdPr	LREO	HREO	TREO Max
HC26-RM053	Prev.	3.96	69.89	65.93	31	3,669	1,073	888	3,215	454	4,363
HC26-RM053	Prev.	84.37	124.76	40.39	18	3,864	1,016	861	3,546	318	7,717
HC26-RM054	Prev.	0.00	12.10	12.10	5	3,077	846	694	2,683	394	3,330
HC26-RM054	Prev.	14.33	92.75	78.42	33	4,084	1,151	947	3,585	499	4,836
HC26-RM054	Prev.	96.56	122.03	25.47	10	3,754	1,045	882	3,401	353	4,423
HC26-RM055	Prev.	4.88	12.55	7.67	7	3,630	1,012	817	3,060	570	3,928
HC26-RM055	Prev.	15.00	125.02	110.02	46	4,221	1,179	959	3,628	593	5,382
HC26-RM056	Prev.	8.84	199.95	191.11	94	3,951	1,101	929	3,570	381	6,939
HC26-RM057	New	1.48	199.92	198.44	88	3,717	1,023	832	3,202	516	7,575
HC26-RM058	New	0.00	199.91	199.91	84	4,159	1,155	947	3,641	518	5,108
HC26-RM059	New	0.00	199.50	199.50	96	4,149	1,133	925	3,625	524	6,712
HC26-RM060	New	0.00	199.95	199.95	96	4,242	1,180	961	3,664	578	5,291
HC26-RM061	New	0.00	199.95	199.95	97	3,703	1,025	837	3,195	508	4,788
HC26-RM062	New	0.00	156.72	156.72	66	3,631	1,027	824	3,052	579	5,699
HC26-RM062	New	162.83	171.57	8.74	3	2,765	789	650	2,380	385	4,355
HC26-RM062	New	196.50	202.98	6.48	5	1,914	529	442	1,685	229	4,771
HC26-RM063	New	0.00	28.27	28.27	11	4,346	1,224	993	3,715	631	4,650
HC26-RM063	New	31.60	199.91	168.31	67	4,311	1,189	968	3,714	597	5,046
HC26-RM064	New	5.49	28.07	22.58	10	4,262	1,141	930	3,678	584	4,651
HC26-RM064	New	31.39	170.50	139.11	57	4,197	1,172	952	3,616	582	4,789
HC26-RM064	New	172.51	199.50	26.99	13	4,383	1,213	990	3,802	580	4,815
HC26-RM065	New	5.49	33.50	28.01	11	4,217	1,197	981	3,646	571	5,833
HC26-RM065	New	86.00	102.71	16.71	11	2,101	596	489	1,807	294	6,091
HC26-RM065	New	119.69	124.87	5.18	5	4,358	1,173	1,004	3,965	393	13,871
HC26-RM066	New	2.74	30.10	27.36	14	5,059	1,447	1,210	4,403	655	6,814
HC26-RM066	New	50.31	57.50	7.19	4	3,098	850	702	2,655	443	5,168
HC26-RM066	New	59.65	72.35	12.70	6	4,037	1,121	927	3,460	577	5,488
HC26-RM066	New	121.13	124.17	3.04	2	1,094	290	233	919	175	1,104
HC26-RM067	New	46.54	93.04	46.50	27	5,291	1,509	1,249	4,637	654	7,659
HC26-RM068	New	17.45	22.45	5.00	2	1,083	279	223	901	182	1,154
HC26-RM068	New	48.80	56.05	7.25	5	1,185	325	259	973	212	1,702
HC26-RM068	New	62.85	74.37	11.52	8	2,936	815	673	2,553	383	5,670

Sample-length-weighted averages of certified assays at a 1,000 ppm TREO cut-off (the cut-off of the current Cowboy State Mine Mineral Resource, ASX release 19 November 2025), with up to 2.0 m of internal dilution (including unsampled core) and a minimum interval of 3.0 m. Intervals are downhole lengths; true widths are not known. Intervals ending at the hole depth in Table 3 finish in mineralization.

Collar information for all eighteen 2026 drill holes is presented in Table 3. The 2026 collar coordinates are provisional pending a final instrument survey, so some collars plot above or below the topographic surface on the cross sections (Figures 4 to 6). The provisional locations are considered adequate for reporting Exploration Results.

Table 3 — 2026 Drill Hole Collar Information

Drill Hole	Status	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Azimuth (°)	Dip (°)
HC26-RM051	Prev.	474,847	4,631,848	1,798	128.02	285	-55
HC26-RM052	Prev.	474,848	4,631,850	1,798	124.96	350	-55
HC26-RM053	Prev.	474,807	4,631,970	1,847	124.96	075	-55
HC26-RM054	Prev.	474,805	4,631,971	1,847	124.96	000	-90

Drill Hole	Status	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Azimuth (°)	Dip (°)
HC26-RM055	Prev.	474,804	4,631,970	1,847	125.02	240	-55
HC26-RM056	Prev.	474,773	4,632,039	1,859	199.94	145	-55
HC26-RM057	New	474,770	4,632,037	1,859	199.92	220	-55
HC26-RM058	New	474,768	4,632,038	1,859	199.91	000	-90
HC26-RM059	New	474,771	4,632,041	1,859	199.95	310	-55
HC26-RM060	New	474,665	4,631,981	1,914	199.94	000	-90
HC26-RM061	New	474,666	4,631,979	1,914	199.95	090	-55
HC26-RM062	New	474,663	4,631,980	1,915	202.98	270	-55
HC26-RM063	New	474,578	4,632,177	1,971	199.95	350	-55
HC26-RM064	New	474,580	4,632,178	1,971	199.94	000	-90
HC26-RM065	New	474,419	4,632,258	1,893	124.87	130	-55
HC26-RM066	New	474,428	4,632,013	1,856	124.97	080	-55
HC26-RM067	New	474,498	4,631,918	1,838	124.97	040	-55
HC26-RM068	New	474,587	4,631,851	1,825	74.37	055	-55

NAD83 / UTM Zone 13N. Coordinates are provisional as-built locations pending final instrument survey. Depth is downhole length.

The locations and traces of the eighteen 2026 drill holes, together with the cross section lines, are shown in Figure 1. The 2026 holes are shown relative to previous ARR drilling at Red Mountain in Figure 2.

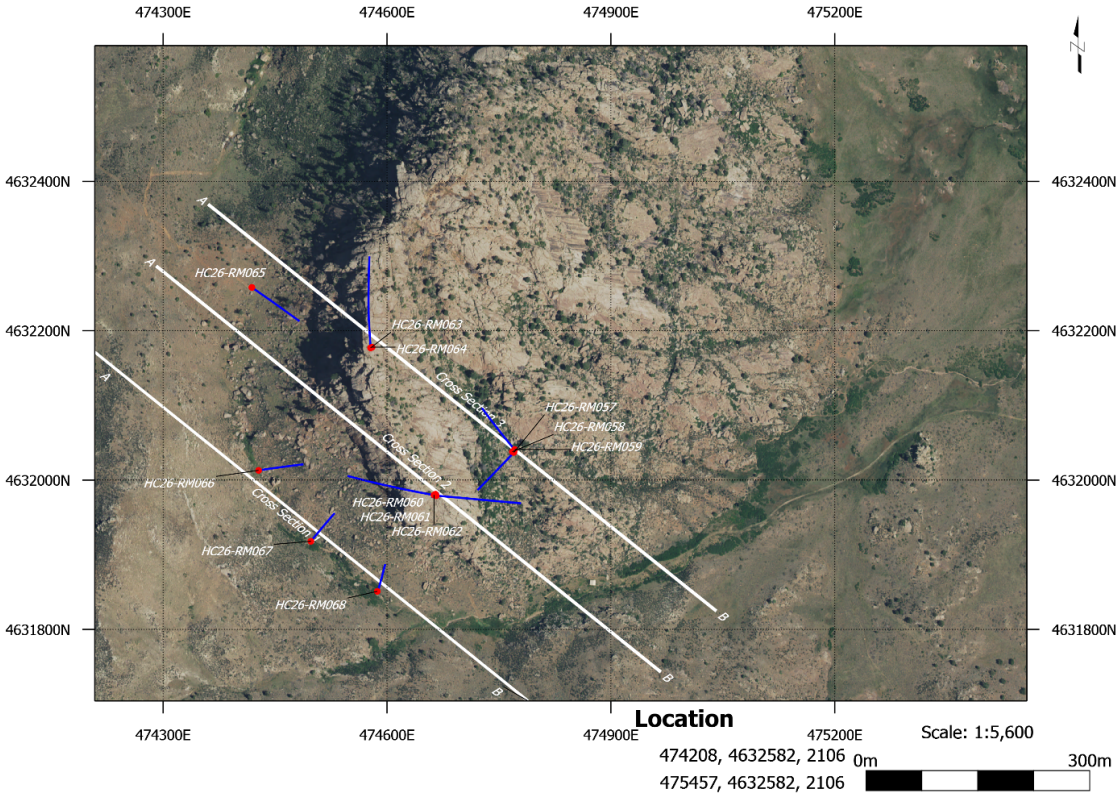


Figure 1 – Red Mountain 2026 drill-hole locations and traces, with cross-section lines A–B (Figures 4 to 6).

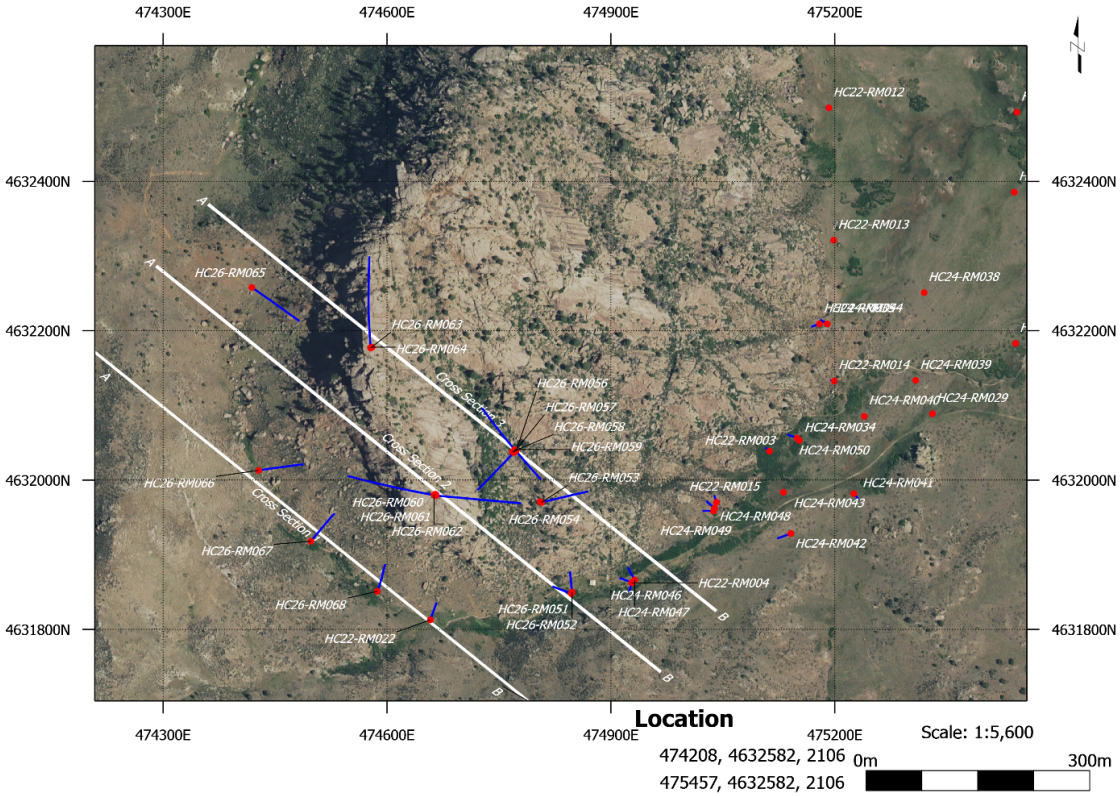


Figure 2 – 2026 drill holes relative to previous ARR drilling at Red Mountain.

The distribution of magnet rare earth oxides (MREO) within all 1,318 samples from the 2026 drill holes is shown in Figure 3.

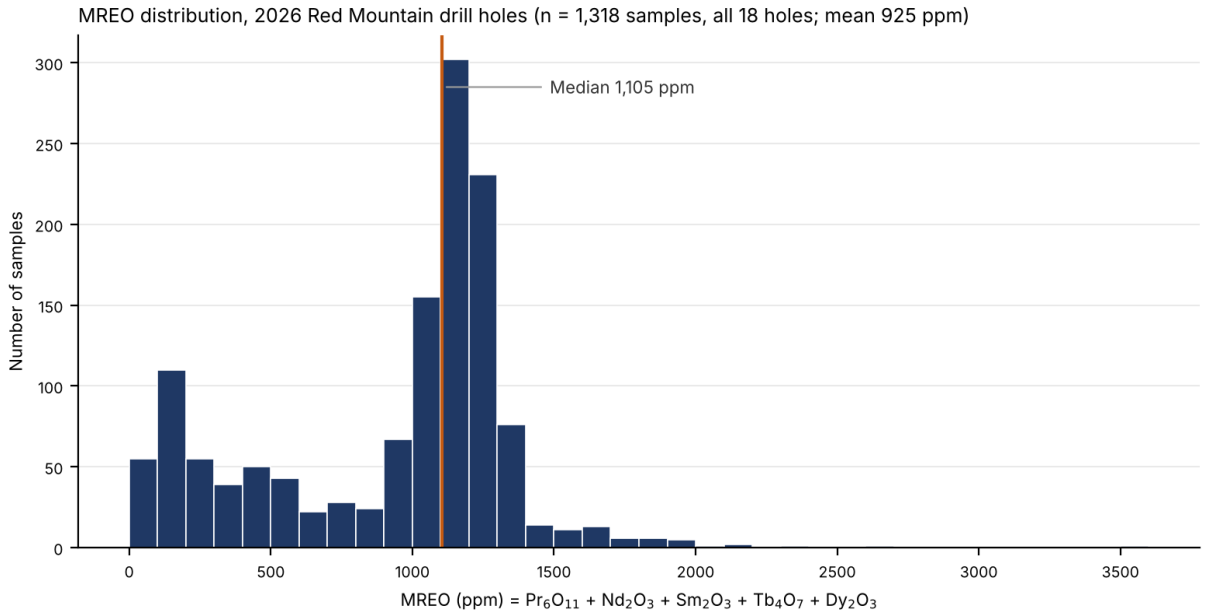


Figure 3 – Distribution of magnet rare earth oxides (MREO) in all 1,318 samples from the 2026 drill holes.

Cross sections showing downhole TREO distribution in the 2026 drill holes are shown in Figures 4 to 6.

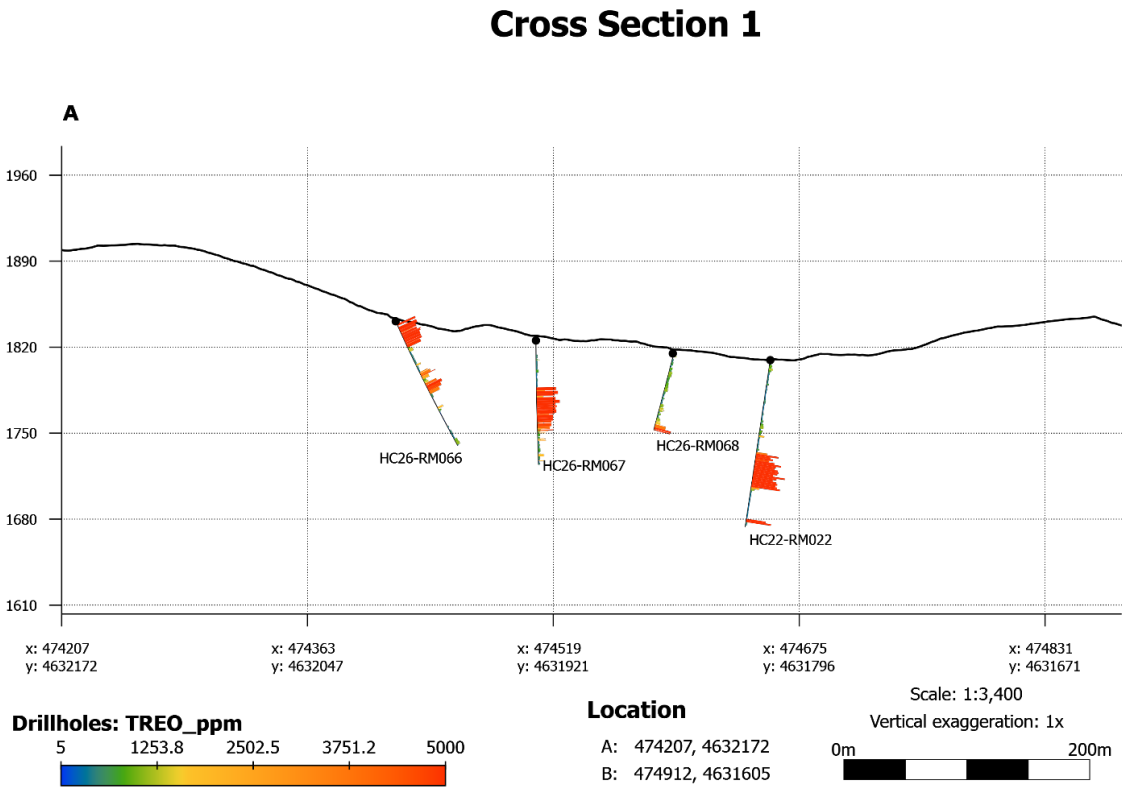


Figure 4 – Cross-section 1 showing downhole TREO for HC26-RM066, HC26-RM067 and HC26-RM068. 2026 collars are shown at provisional locations (see Table 3).

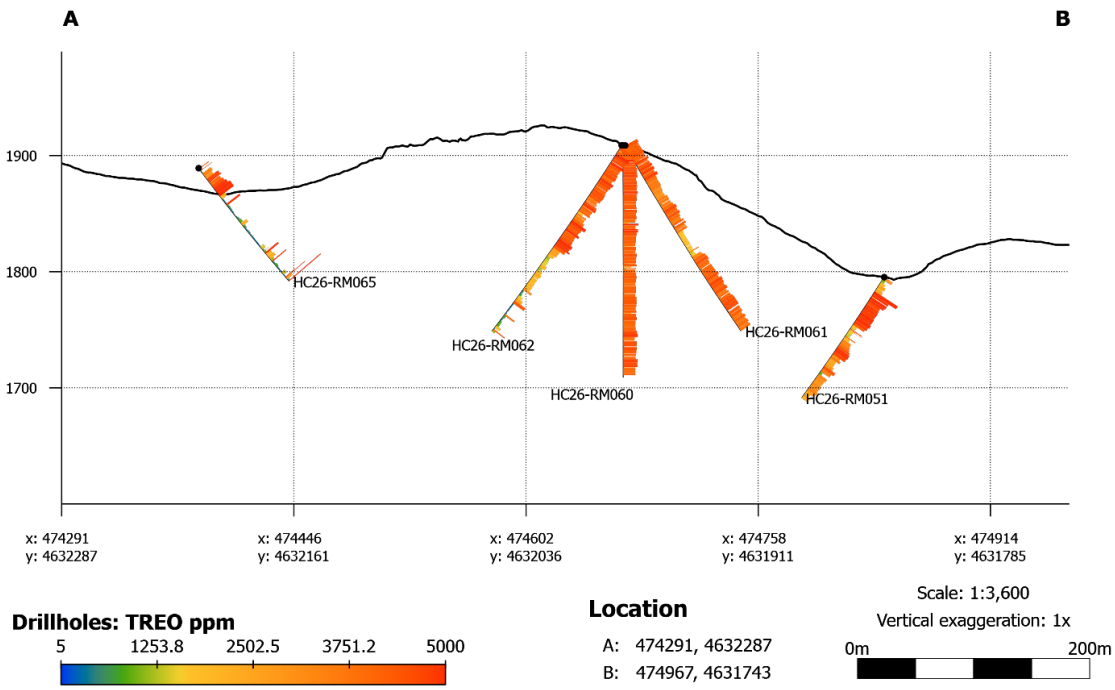


Figure 5 – Cross-section 2 showing downhole TREO for HC26-RM051, HC26-RM060, HC26-RM061, HC26-RM062 and HC26-RM065. 2026 collars are shown at provisional locations (see Table 3).

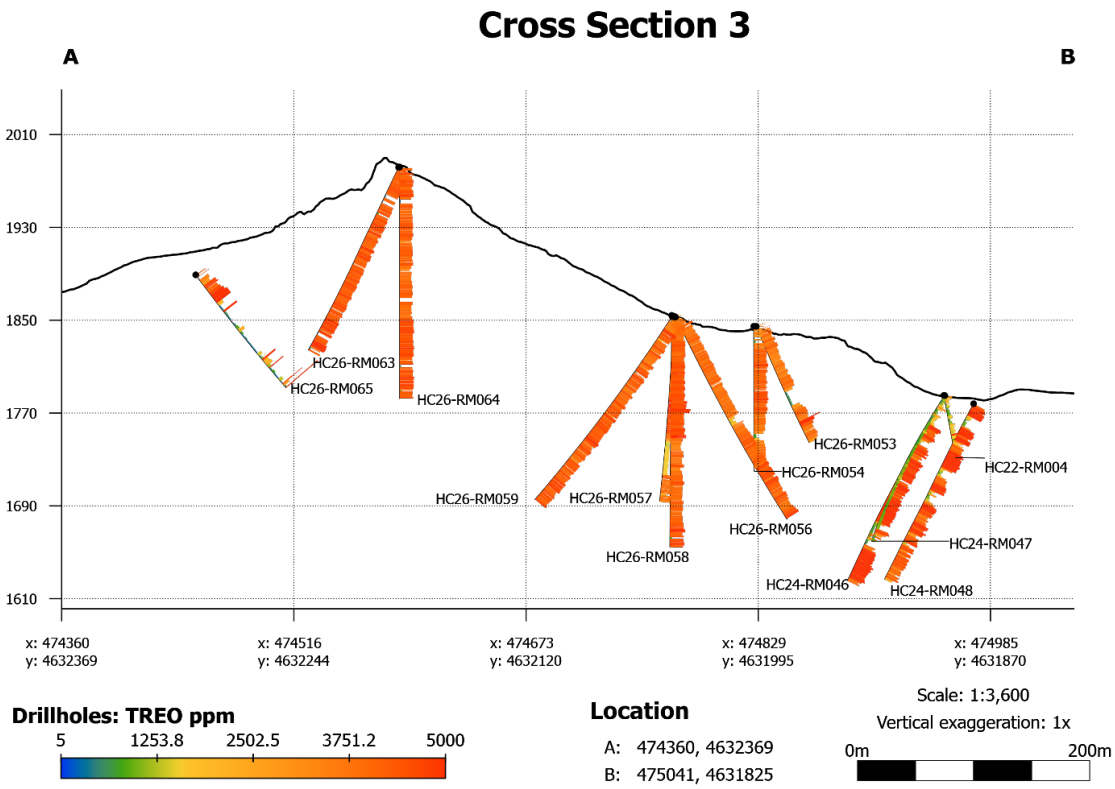


Figure 6 – Cross-section 3 showing downhole TREO for HC26-RM053, HC26-RM054, HC26-RM056 to HC26-RM059 and HC26-RM063 to HC26-RM065, with previous holes HC22-RM004 and HC24-RM046 to HC24-RM048. 2026 collars are shown at provisional locations (see Table 3).

CONSISTENCY WITH THE HALLECK CREEK RESOURCE

The completed 2026 drilling results are consistent with, and build on, the broad grade distribution and mineralization at or near surface represented in the existing Cowboy State Mine geological model and Mineral Resource Estimate:

- Across all eighteen holes, the 1,318 geological sample intervals returned an average grade of 3,327 ppm TREO and a median grade of 3,971 ppm TREO, with 84% (1,108 of 1,318) above the 1,000 ppm TREO cut-off used for the current Cowboy State Mine Mineral Resource. The average grade of the twelve new holes (3,257 ppm TREO) is in line with the first six holes (3,497 ppm TREO), demonstrating consistent grade across the drilled area.
- Nine of the eighteen holes were drilled to approximately 200 m, and four of the new holes are mineralized above the cut-off from at or near surface to the end of the hole. This thickness and continuity of mineralization from surface supports the conceptual open pit development approach described in the September 2026 Scoping Study[1].

[1] ASX Announcement dated 30 September 2026

- Higher grade mineralization is also present within the broad mineralized envelope, including 46.50 m at 5,291 ppm TREO in HC26-RM067 and a maximum individual result of 13,871 ppm TREO over 0.80 m in HC26-RM065. These results add to the understanding of the distribution of higher grade material within the Red Mountain portion of the Cowboy State Mine.
- The lower grade results in HC26-RM065 to HC26-RM068 define areas where non-host intrusive units are present. This information will be used to refine the geological model and resource domains.

PROJECT OBJECTIVES AND FEASIBILITY STUDY IMPACT

The 2026 program comprised eighteen HQ core holes for 2,879.6 m on Red Mountain, drilled by Boart Longyear between 14 May and 23 August 2026, with Dahrouge Geological Consulting managing on site logging and sample preparation. The holes were drilled from five pads hosting two to four holes each and from four single hole sites, all within the existing Cowboy State Mine resource area.

The holes were designed to increase geological confidence in areas relevant to the early mining sequence for the Cowboy State Mine and to support Mineral Resource classification for the Feasibility Study. The broad, continuous mineralization intersected across the program provides a strong basis for refining the geological model and evaluating Mineral Resource classification within these areas. Density, metallurgical, geotechnical and hydrogeological data from the 2026 program are also being generated for the Feasibility Study.

NEXT STEPS

With all 2026 assays received, ARR's technical team is incorporating the results into the updated Cowboy State Mine geological model and Mineral Resource Estimate for the Feasibility Study and the Whole of Property Development Assessment (WPDA), together with geological logging and lithological interpretation from the program.

A final instrument survey of the 2026 collars will be completed before the data are used for resource estimation.

MANAGEMENT COMMENTARY

"Completing the 2026 Feasibility Study drilling program with results of this quality is an important milestone for the Cowboy State Mine. Four of the new holes are mineralized from at or near surface to the end of the hole at approximately 200 metres, including 199.95 metres at 4,242 ppm TREO in HC26-RM060, and 84% of all samples across the program exceed our 1,000 ppm TREO resource cut-off. That is the kind of thick, consistent mineralization from surface that supports the open pit development approach in our Scoping Study, and we now have a complete dataset to carry into the updated Mineral Resource Estimate and the Feasibility Study."

- Mark Wall, Chief Executive Officer, American Rare Earths

"With all eighteen holes reported, the consistency we saw in the first tranche has held up across the full program. The twelve new holes returned a median grade of 4,028 ppm TREO, core recovery averaged 96.2%, and results have been reconciled to the certified assays. The holes that intersected other intrusive units are valuable as well, because they help us define the boundaries of the mineralized host as we build and increase the confidence in the updated geological model for the Feasibility Study."

- Andrew Conover, Chief Development Officer, American Rare Earths

This announcement has been authorized for release by the Board of American Rare Earths Limited.

ABOUT THE HALLECK CREEK RARE EARTHS PROJECT

The Halleck Creek Rare Earths Project is located in Albany and Platte Counties, Wyoming, approximately 70 km northeast of Laramie and 30 km southwest of Wheatland. It hosts an allanite-dominant, near-surface REE system with a current JORC Mineral Resource Estimate of 2.63 billion tonnes at 3,292 ppm TREO for 8.65 million tonnes of contained rare earth oxides[2]. Halleck Creek is being advanced through ARR's wholly-owned U.S. subsidiary, Wyoming Rare (USA) Inc.

ABOUT AMERICAN RARE EARTHS LIMITED

American Rare Earths (**ASX: ARR | OTCQX: ARRNF | ADR: AMRRY**) is developing a portfolio of U.S. rare earth assets anchored by the Halleck Creek Rare Earths Project in Wyoming, together with the La Paz project in Arizona and additional exploration projects at Beaver Creek in Wyoming and Searchlight in Nevada. The Company's strategy is to build a domestic mine-to-oxide platform supplying critical rare earth oxides, including the NdPr magnet feed and strategic heavy rare earths, to U.S. defense, energy-transition and advanced-manufacturing customers. Further information is available at www.americanree.com.

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CAUTIONARY STATEMENT AND JORC DISCLOSURE

The Exploration Results in this announcement are based on certified ALS laboratory results for 1,318 primary sample intervals from eighteen HQ core holes. QA/QC samples are excluded from the reported statistics. Elemental assays were converted to oxides using the factors in Appendix B; TREO is the sum of 15 rare earth oxides (Sc2O3, ThO2 and UO2 excluded) and MREO is Pr6O11 + Nd2O3 + Sm2O3 + Tb4O7 + Dy2O3, consistent with the 21 September 2026 release. Cerium is reported as CeO2 (factor 1.2284).

[2] ASX Announcement dated 4 February 2025

Significant mineralized intervals were calculated using a 1,000 ppm TREO cut-off, allowing up to 2.0 m of internal dilution (including unsampled core) and requiring a minimum reported interval of 3.0 m; interval grades are sample length weighted averages.

Mineral Resource information referred to in this release is drawn from the Company's ASX releases of 4 February 2025 and 19 November 2025 and the September 2026 Scoping Study. The Company confirms that it is not aware of any new information or data that materially affects the information in those releases. The Scoping Study is a preliminary assessment and is not sufficient to support Ore Reserves or to provide assurance of an economic development case.

Forward-looking statements in this release, including references to Feasibility Study activities, Mineral Resource updates and resource classification objectives, are subject to risks and uncertainties, and actual results may differ materially.

COMPETENT PERSON STATEMENT

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Paul Richardson, M.Sc., a Registered Member of the Society for Mining, Metallurgy & Exploration (SME-RM No. 04193107). Mr Richardson is a Senior Resource Geologist with Dahrouge Geological Consulting USA Ltd., a consultant to American Rare Earths Limited, and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Richardson consents to the inclusion in this announcement of the matters based on his information in the form and context in which they appear.

Appendix A — JORC Code (2012 Edition) Table 1

Section 1 — Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	This release reports certified assay results for all eighteen holes of the 2026 Feasibility Study HQ core drilling program at the Cowboy State Mine development area, Red Mountain (HC26-RM051 to HC26-RM068). Results for HC26-RM051 to HC26-RM056 were previously reported (ASX release, 21 September 2026); HC26-RM057 to HC26-RM068 are reported for the first time. Core was sampled at nominal 3 m intervals honouring lithological contacts. The reporting population comprises 1,318 primary geological sample intervals (2,788.4 m) analysed under eight ALS work orders (TF26219862, TF26227061, TF26258056, TF26258061, TF26278726, TF26278736, TF26297700 and TF26348414). QA/QC samples (25 certified reference materials, 23 blanks and 22 field duplicates) are excluded from exploration-result statistics.
Drilling techniques	All holes were drilled as HQ-diameter diamond core by Boart Longyear using an LF70 core rig between 14 May and 23 August 2026, for a total of 2,879.6 m. Hole depths range from 74.4 m to 203.0 m. Four holes were drilled vertically and fourteen were drilled at −55°; azimuths are listed in Table 3. All reported intervals are downhole lengths.
Drill sample recovery	Core recovery was logged by run for all eighteen holes. Across 1,226 logged runs (2,876.5 m), average recovery is 96.2%, ranging from 92.0% (HC26-RM052) to 98.5% (HC26-RM063) by hole. Recovery is lower in the near-surface weathered zone (56.9% average over the upper 6 m). Where recovery within a run was incomplete, sample intervals reflect the recovered core. No relationship between recovery and grade has been identified.
Logging	All core was geologically and geotechnically logged in full (lithology, alteration, mineralisation, structure, RQD and recovery by run) by ARR/Dahrouge Geological Consulting geologists.
Sub-sampling techniques and sample preparation	Core was sampled at nominal 3 m intervals honouring lithological contacts. Samples were prepared at ALS Twin Falls, ID (weighing, crushing to 70% passing 2 mm, rotary split, pulverising to 85% passing 75 µm) and analysed at ALS. Field duplicates (22 pairs) were collected to monitor sampling precision. Half core was submitted for assay, with the remaining core retained. For field-duplicate samples, the half core was split into two quarter-core samples, submitted as the original and the duplicate.
Quality of assay data and laboratory tests	REE (La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y), Th, U and Sc were determined by ALS method ME-MS81 (lithium borate fusion, ICP-MS), a total-digestion method appropriate for REE hosted in allanite. Whole-rock oxides were determined by ME-ICP06 with OA-GRA05 (LOI). Elemental assays were converted to oxides using stoichiometric factors (Appendix B); cerium is reported as CeO2 (factor 1.2284).
Verification of sampling and assaying	Certified reference materials CDN-RE-1201 and CDN-RE-1202 (25 insertions), a silica blank (23 insertions) and field duplicates (22 pairs) were inserted into the sample stream. Blanks returned no evidence of significant contamination. CRM results show a small, persistent positive bias for light REE of generally less than 5% (Nd and Pr most affected), consistent with ALS ME-MS81 performance on these standards in prior Halleck Creek programs; the batches were reviewed by the Competent Person and accepted without re-assay. Field-duplicate precision for TREO (CV 10.4%; 77% of pairs within 20% relative difference; the adopted quarter-core criterion of 90% of pairs within ±30% is met for all reporting elements except Ce and LREO, at 86.4%) is consistent with quarter-core sampling of disseminated allanite mineralisation; ALS pulp duplicates indicate analytical precision of about 2–3%. Signed ALS certificates are on file for all eight work orders, and every reported value was recalculated directly from the certified results (1,318 of 1,318 samples, maximum difference 0.005 ppm TREO). No independent (umpire) laboratory checks or twinned holes have been completed for this program.
Location of data points	Collar coordinates are in NAD83 / UTM Zone 13N. The 2026 collar coordinates are provisional as-built locations; a final instrument survey of the 2026 collars has not been completed. Downhole survey data for the 2026 holes are recorded in the Project database. The provisional collar accuracy is considered adequate for reporting Exploration Results but must be replaced by surveyed coordinates before use in Mineral Resource estimation.
Data spacing and distribution	The 2026 holes were drilled from five multi-hole pads (two to four holes each) and four single-hole sites on Red Mountain, within the existing Cowboy State Mine resource area. No sample compositing has been applied; Appendix B reports every individual certified sample interval.
Orientation of data in relation to geological structure	Mineralisation is disseminated allanite within the Red Mountain Pluton and is not known to be strongly structurally controlled at deposit scale. Holes were drilled at a range of orientations from shared pads. No sampling bias attributable to drilling orientation has been identified.
Sample security	Samples were tagged with ALS barcoded tickets, recorded on cut sheets and remained under Company/contractor control until dispatched to ALS in six dispatches between June and August 2026.
Audits or reviews	Dahrouge Geological Consulting has independently compiled the 2026 assay data into the Project database and reconciled every sample to the ALS certificates. No external audit has been completed.

Section 2 — Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	The holes are within ARR's Halleck Creek claim position (Red Mountain, Cowboy State Mine development area), held through the Company's wholly owned subsidiary Wyoming Rare (USA) Inc. No known impediments exist.
Exploration done by other parties	The area has been explored and drilled by ARR since 2022 and is included in the Company's current JORC Mineral Resource Estimate.
Geology	REE mineralisation occurs in allanite disseminated through the Red Mountain Pluton (clinopyroxene quartz monzonite and fayalite monzonite). HC26-RM066 to HC26-RM068 intersected substantial intervals logged as other intrusive units, which account for their lower average grades.
Drill hole information	Collar location, elevation, depth, azimuth and dip for all eighteen holes are given in Table 3. All sample results are reported in Appendix B. No drill-hole information has been excluded.
Data aggregation methods	Significant intervals use a 1,000 ppm TREO cut-off (the cut-off of the current Cowboy State Mine Mineral Resource), allowing up to 2.0 m of internal dilution (including unsampled core) and requiring a minimum interval of 3.0 m. Interval grades are sample-length-weighted averages. No top-cutting has been applied. The method reproduces all intervals in the 21 September 2026 release.
Relationship between mineralisation widths and intercept lengths	Mineralisation is broad and disseminated; the relationship between hole orientation and mineralisation geometry is not established. All intervals are downhole lengths; true widths are not known.
Diagrams	Figure 1 shows the 2026 drill-hole locations, traces and cross-section lines, and Figure 2 shows the 2026 holes relative to previous drilling. Figure 3 shows the distribution of MREO in the 2026 samples. Figures 4 to 6 are cross-sections showing downhole TREO for all eighteen 2026 holes.
Balanced reporting	All 1,318 primary sample intervals from all eighteen holes are reported in Appendix B, with a per-hole summary (Table 1) and cut-off-based significant intervals (Table 2). Lower-grade holes (HC26-RM065 to HC26-RM068) are reported on the same basis as higher-grade holes.
Other substantive exploration data	Average ThO2 and UO2 grades across the 1,318 samples are 60 ppm and 9 ppm respectively. Density, metallurgical, geotechnical and hydrogeological data from the 2026 program are being generated for the Feasibility Study and are not reported here.
Further work	The 2026 results will be incorporated into the Cowboy State Mine geological model and an updated Mineral Resource Estimate supporting the Feasibility Study and the Whole of Property Development Assessment (WPDA).

SECTIONS 3 AND 4 (ESTIMATION AND REPORTING OF MINERAL RESOURCES / ORE RESERVES) ARE NOT APPLICABLE TO THIS ANNOUNCEMENT.

Appendix B — 2026 Drill Hole Assay Results (All Samples)

Oxide ppm = certified elemental ppm × factor: La2O3 1.1728, CeO2 1.2284, Pr6O11 1.2082, Nd2O3 1.1664, Sm2O3 1.1596, Eu2O3 1.1579, Gd2O3 1.1526, Tb4O7 1.1762, Dy2O3 1.1477, Ho2O3 1.1455, Er2O3 1.1435, Tm2O3 1.1421, Yb2O3 1.1387, Lu2O3 1.1371, Y2O3 1.2699. TREO = LREO + HREO (15 oxides). Hole prefix HC26- omitted. Shaded rows are reported for the first time. From, To and Length in metres; oxides in ppm.

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM051	N963001	0.00	2.40	2.40	616.9	1406.5	157.7	603.0	101.7	9.6	75.6	10.3	55.8	10.0	24.8	3.0	17.8	2.6	243.8	3,339	929	2,886	453
RM051	N963002	2.40	5.50	3.10	186.5	420.1	51.4	198.3	34.9	6.7	26.7	4.0	22.1	4.1	10.9	1.4	9.1	1.4	113.7	1,091	311	891	200
RM051	N963003	5.50	7.95	2.45	234.6	601.9	81.5	352.3	76.5	11.8	65.6	9.6	53.1	9.7	24.9	3.1	18.4	2.8	246.4	1,792	573	1,347	445
RM051	N963004	7.95	10.96	3.01	354.2	909.0	114.5	487.6	100.4	12.7	81.3	12.0	66.8	12.5	30.9	3.8	23.0	3.5	323.8	2,536	781	1,966	570
RM051	N963005	10.96	12.23	1.27	310.8	724.8	87.6	346.4	65.6	10.0	52.4	7.7	42.1	7.8	19.4	2.3	14.5	2.2	201.3	1,895	549	1,535	360
RM051	N963006	12.23	15.00	2.77	371.8	926.2	115.6	467.7	95.1	12.6	77.0	11.3	60.8	11.5	28.5	3.4	20.5	3.1	293.4	2,498	751	1,976	522
RM051	N963007	15.00	18.02	3.02	1729.9	3869.5	453.1	1720.4	274.8	18.1	191.3	25.2	127.4	22.4	53.2	6.2	36.8	5.5	549.9	9,084	2,601	8,048	1,036
RM051	N963008	18.02	20.07	2.05	1243.2	2727.1	310.5	1172.2	178.6	15.6	120.5	15.3	76.0	13.1	30.8	3.7	22.1	3.6	311.1	6,243	1,753	5,632	612
RM051	N963009	20.07	20.73	0.66	306.1	726.0	88.2	353.4	68.5	11.2	54.9	7.9	42.8	7.7	18.8	2.3	15.5	2.5	182.2	1,888	561	1,542	346
RM051	N963010	20.73	23.50	2.77	1196.3	2641.1	306.9	1157.1	183.8	15.6	129.1	16.4	81.7	14.3	34.0	3.9	23.6	3.7	346.7	6,154	1,746	5,485	669
RM051	N963011	23.50	25.22	1.72	1114.2	2456.8	283.9	1088.3	173.9	15.5	125.1	16.1	81.3	14.2	34.1	3.9	23.9	3.7	334.0	5,769	1,643	5,117	652
RM051	N963012	25.22	28.02	2.80	845.6	1971.6	227.1	879.5	146.7	12.3	104.4	13.5	69.3	12.3	29.0	3.3	19.5	3.0	293.4	4,630	1,336	4,070	560
RM051	N963013	28.02	30.68	2.66	900.7	2057.6	235.0	892.3	144.4	13.6	102.9	13.7	70.2	12.4	30.0	3.6	21.5	3.3	304.8	4,806	1,356	4,230	576
RM051	N963014	30.68	33.39	2.71	927.7	2088.3	239.2	921.5	150.8	14.9	108.3	14.3	71.8	13.0	31.6	3.7	22.0	3.5	313.7	4,924	1,398	4,327	597
RM051	N963015	33.39	36.56	3.17	907.8	2039.1	232.6	892.3	144.4	14.0	102.8	13.3	69.9	12.3	30.8	3.5	21.4	3.4	304.8	4,792	1,352	4,216	576
RM051	N963016	36.56	39.32	2.76	931.2	2119.0	240.4	936.6	151.3	14.8	108.7	14.1	74.9	13.0	32.0	3.9	22.8	3.5	322.6	4,989	1,417	4,379	610
RM051	N963017	39.32	42.15	2.83	911.3	2076.0	239.8	907.5	149.6	14.5	109.0	14.6	75.1	13.2	32.1	3.8	22.6	3.4	326.4	4,899	1,387	4,284	615
RM051	N963018	42.15	45.00	2.85	972.3	2235.7	254.9	977.4	160.0	14.4	111.7	14.8	74.9	13.3	33.0	3.9	22.6	3.5	331.4	5,224	1,482	4,600	624
RM051	N963019	45.00	48.00	3.00	900.7	2063.7	234.4	897.0	146.1	13.4	102.3	13.7	70.5	12.8	30.4	3.6	21.7	3.4	308.6	4,822	1,362	4,242	580
RM051	N963021	48.00	49.90	1.90	796.3	1848.7	207.2	793.1	129.3	12.0	92.5	12.3	63.6	11.4	27.3	3.2	19.6	3.1	279.4	4,299	1,206	3,775	524
RM051	N963022	49.90	52.35	2.45	293.2	656.0	75.9	288.1	52.0	6.8	41.1	6.1	34.2	6.5	17.3	2.3	14.6	2.2	185.4	1,682	456	1,365	317
RM051	N963023	52.35	53.65	1.30	238.1	529.4	61.9	232.1	44.4	5.6	36.9	5.5	30.8	6.1	15.8	1.9	12.5	1.9	165.1	1,388	375	1,106	282
RM051	N963024	53.65	54.27	0.62	974.6	2125.1	228.9	828.1	115.6	9.5	69.3	8.2	37.5	6.2	14.8	1.8	11.2	1.8	160.0	4,593	1,218	4,272	320
RM051	N963025	54.27	54.50	0.23	225.8	519.6	63.7	248.4	49.3	7.7	41.0	6.1	34.3	6.5	17.3	2.2	13.8	2.2	180.3	1,418	402	1,107	311
RM051	N963026	54.50	54.76	0.26	1064.9	2235.7	251.3	872.5	129.9	10.3	82.1	9.3	39.4	7.1	17.6	2.3	14.0	2.2	181.0	4,919	1,302	4,554	365
RM051	N963027	54.76	55.50	0.74	410.5	907.8	102.3	375.6	69.7	8.8	58.1	7.9	39.5	7.8	20.6	2.8	16.1	2.3	203.2	2,233	595	1,866	367
RM051	N963028	55.50	55.66	0.16	981.6	2014.6	222.3	760.5	115.7	9.3	76.8	9.0	40.9	7.6	18.7	2.4	14.0	2.2	195.6	4,471	1,148	4,095	376
RM051	N963029	55.66	58.50	2.84	267.4	611.7	67.3	242.6	46.6	5.7	40.3	5.9	31.8	6.4	17.6	2.4	15.2	2.2	176.5	1,540	394	1,236	304
RM051	N963030	58.50	61.48	2.98	231.6	534.4	60.6	216.9	42.9	5.1	36.2	5.1	28.1	5.6	15.7	2.3	13.9	2.1	165.7	1,366	354	1,086	280
RM051	N963031	61.48	62.27	0.79	837.4	1756.6	203.6	725.5	117.1	10.5	85.8	10.4	47.3	8.4	21.1	2.6	15.1	2.2	204.4	4,048	1,104	3,640	408
RM051	N963032	62.27	65.15	2.88	372.9	842.7	93.6	333.6	61.8	6.3	47.3	6.8	34.4	7.1	18.5	2.6	16.1	2.4	193.0	2,039	530	1,705	334
RM051	N963033	65.15	68.09	2.94	646.2	1406.5	161.3	580.9	97.4	8.2	70.3	8.7	40.6	7.5	18.4	2.5	14.2	2.1	188.6	3,253	889	2,892	361
RM051	N963034	68.09	70.30	2.21	718.9	1541.6	177.0	639.2	109.3	10.5	78.7	10.2	48.1	8.7	21.6	2.7	16.4	2.4	218.4	3,604	984	3,186	418
RM051	N963035	70.30	72.00	1.70	779.9	1689.0	194.5	704.5	120.6	9.9	89.2	11.3	53.3	9.9	23.9	3.1	17.9	2.7	240.7	3,950	1,084	3,489	462
RM051	N963036	72.00	73.94	1.94	910.1	1953.2	225.3	811.8	133.3	12.2	100.6	12.6	57.5	10.5	25.0	3.1	18.5	2.7	250.8	4,527	1,241	4,034	494
RM051	N963037	73.94	75.90	1.96	978.1	2094.4	244.1	876.0	149.6	12.5	110.1	13.8	63.8	11.7	27.9	3.5	19.0	2.8	279.4	4,887	1,347	4,342	544
RM051	N963038	75.90	78.07	2.17	979.3	2106.7	247.7	900.5	160.6	14.1	121.6	15.7	74.3	13.6	33.5	4.0	22.6	3.2	327.6	5,025	1,399	4,395	630
RM051	N963039	78.07	81.03	2.96	595.8	1535.5	206.6	858.5	207.6	14.7	201.7	28.9	147.5	28.3	69.8	8.4	47.1	6.5	707.3	4,664	1,449	3,404	1,260
RM051	N963041	81.03	83.03	2.00	357.7	985.2	134.1	570.4	143.2	11.9	140.6	20.6	106.5	20.4	49.9	6.1	34.8	5.0	504.1	3,091	975	2,191	900
RM051	N963042	83.03	85.04	2.01	439.8	1197.7	161.9	685.8	170.5	13.4	162.5	23.8	119.4	23.1	57.2	7.0	38.1	5.7	579.1	3,685	1,161	2,656	1,029
RM051	N963043	85.04	87.89	2.85	314.3	832.9	108.6	449.1	108.1	12.0	100.4	14.5	72.3	14.1	35.3	4.4	24.8	3.7	353.0	2,448	753	1,813	635
RM051	N963044	87.89	90.89	3.00	326.0	851.3	109.2	450.2	103.0	12.8	97.5	13.9	70.2	13.5	34.1	4.3	24.8	3.7	341.6	2,456	747	1,840	616
RM051	N963045	90.89	93.57	2.68	382.3	1013.4	134.7	552.9	131.6	12.8	126.8	17.9	90.4	17.6	43.0	5.3	29.8	4.3	438.1	3,001	928	2,215	786
RM051	N963046	93.57	96.52	2.95	587.6	1523.2	198.8	824.6	192.5	13.2	176.3	25.2	126.8	24.5	59.2	7.2	40.8	6.1	608.3	4,414	1,368	3,327	1,088
RM051	N963047	96.52	99.44	2.92	566.5	1351.2	163.7	632.2	132.2	9.9	113.7	15.7	76.7	14.6	36.1	4.5	26.1	4.0	359.4	3,506	1,020	2,846	661

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM051	N963048	99.44	102.19	2.75	159.5	345.2	41.2	154.0	30.4	6.2	24.9	3.5	17.6	3.6	10.3	1.5	9.2	1.3	99.8	908	247	730	178
RM051	N963049	102.19	105.02	2.83	612.2	1369.7	163.1	604.2	113.1	10.4	87.4	11.7	56.8	11.0	27.3	3.4	20.0	3.0	270.5	3,364	949	2,862	501
RM051	N963050	105.02	107.79	2.77	489.1	1127.7	140.8	547.0	114.5	12.6	101.2	14.0	70.6	13.3	33.7	4.3	24.7	4.0	326.4	3,024	887	2,419	605
RM051	N963051	107.79	110.69	2.90	407.0	1038.0	132.9	528.4	117.1	12.0	107.0	15.4	79.1	15.4	38.5	5.0	28.1	4.3	374.6	2,903	873	2,223	679
RM051	N963052	110.69	113.53	2.84	365.9	1019.6	139.6	589.0	151.9	12.7	145.8	21.4	110.6	21.3	53.1	6.5	37.1	5.4	539.7	3,220	1,013	2,266	954
RM051	N963053	113.53	116.44	2.91	333.1	948.3	132.9	569.2	145.5	13.3	145.2	21.2	108.2	20.9	51.3	6.2	34.5	4.9	510.5	3,045	977	2,129	916
RM051	N963054	116.44	119.24	2.80	455.1	1154.7	152.8	633.4	150.2	12.3	142.3	20.3	101.0	19.2	46.3	5.7	31.5	4.7	455.9	3,385	1,058	2,546	839
RM051	N963055	119.24	121.53	2.29	355.4	910.2	118.0	480.6	108.9	13.0	103.3	14.7	74.7	14.3	36.6	4.4	26.0	4.0	345.4	2,609	797	1,973	636
RM051	N963056	121.53	123.59	2.06	219.9	601.9	81.7	348.8	88.3	12.0	87.4	12.6	65.5	12.7	31.6	4.0	22.4	3.3	308.6	1,901	597	1,340	560
RM051	N963057	123.59	124.05	0.46	149.5	320.6	38.2	138.8	28.1	5.0	23.7	3.4	16.8	3.5	9.3	1.3	8.2	1.2	97.0	844	225	675	169
RM051	N963058	124.05	126.00	1.95	361.2	913.9	114.9	451.4	100.0	10.8	89.1	12.3	62.8	12.0	30.2	3.8	21.6	3.2	297.2	2,484	741	1,941	543
RM051	N963059	126.00	128.02	2.02	301.4	769.0	98.2	401.2	90.9	11.2	85.9	12.1	59.7	11.3	27.1	3.4	19.9	3.2	267.9	2,162	662	1,661	502
RM052	N963061	1.63	3.09	1.46	467.9	1077.3	129.9	463.1	92.4	8.8	67.5	9.8	50.7	9.4	22.9	3.0	18.2	2.8	244.5	2,668	746	2,231	438
RM052	N963062	5.79	6.37	0.58	147.2	427.5	61.3	255.4	65.8	9.5	56.4	8.3	45.7	8.9	21.2	2.9	16.7	2.7	220.3	1,350	436	957	393
RM052	N963063	7.62	7.78	0.16	151.3	420.1	62.7	262.4	65.9	12.0	56.4	8.3	44.9	8.4	20.9	2.8	16.8	2.8	214.6	1,350	444	962	388
RM052	N963064	7.78	8.33	0.55	53.7	140.0	19.6	76.9	19.2	3.9	16.9	2.7	14.6	2.9	7.9	1.1	6.9	1.1	82.4	450	133	309	140
RM052	N963065	8.33	10.28	1.95	330.7	841.5	112.1	432.7	98.6	12.3	76.5	11.1	58.8	11.1	26.9	3.4	20.3	3.2	273.0	2,312	713	1,816	497
RM052	N963066	10.28	11.66	1.38	394.1	981.5	126.3	475.9	106.6	12.2	82.8	11.9	62.1	11.6	28.2	3.5	21.6	3.4	285.7	2,607	783	2,084	523
RM052	N963067	11.89	13.62	1.73	288.5	766.5	102.5	410.6	96.4	11.6	82.9	12.1	64.2	11.9	29.2	3.6	21.2	3.1	289.5	2,194	686	1,664	529
RM052	N963068	13.72	16.63	2.91	1012.1	2266.4	274.3	969.3	171.6	14.4	114.2	14.6	70.3	12.4	29.5	3.7	21.2	3.4	290.8	5,268	1,500	4,694	575
RM052	N963069	16.63	17.65	1.02	817.4	1781.2	215.1	732.5	122.3	11.0	78.0	9.7	47.9	8.5	20.7	2.7	15.8	2.6	210.8	4,076	1,127	3,669	408
RM052	N963070	17.65	18.76	1.11	464.4	1061.3	129.3	460.7	85.2	9.6	59.5	8.2	40.9	7.5	18.4	2.4	14.5	2.3	183.5	2,548	724	2,201	347
RM052	N963071	19.81	21.46	1.65	717.8	1627.6	201.2	720.8	135.1	12.9	94.5	12.3	62.5	10.9	25.8	3.0	18.3	2.8	253.3	3,899	1,132	3,402	497
RM052	N963072	22.10	23.28	1.18	778.7	1750.5	216.3	771.0	144.9	13.6	100.4	13.6	65.3	11.6	27.3	3.3	19.0	3.0	269.2	4,188	1,211	3,661	526
RM052	N963073	23.28	23.69	0.41	404.6	923.8	110.4	387.2	69.1	6.3	48.0	6.4	31.2	5.6	14.2	1.8	10.3	1.7	143.5	2,164	604	1,895	269
RM052	N963074	23.69	26.69	3.00	819.8	1830.3	224.7	794.3	144.9	13.3	98.9	12.8	61.6	10.7	25.5	3.0	18.2	2.8	252.7	4,314	1,238	3,814	500
RM052	N963075	26.69	29.57	2.88	813.9	1799.6	218.7	771.0	139.7	12.2	91.6	12.1	59.2	10.4	24.9	3.1	18.1	2.9	255.3	4,233	1,201	3,743	490
RM052	N963076	29.57	31.16	1.59	843.2	1848.7	225.9	796.6	140.9	12.6	96.9	12.9	62.7	11.3	26.8	3.4	19.6	3.1	269.2	4,374	1,239	3,855	519
RM052	N963077	31.16	32.64	1.48	741.2	1621.5	197.5	709.2	128.7	11.4	90.5	12.0	59.1	10.7	24.9	3.2	18.7	3.0	254.0	3,886	1,107	3,398	487
RM052	N963078	32.64	35.38	2.74	160.7	449.6	65.1	260.1	68.9	7.9	61.8	10.0	57.2	11.4	29.2	3.9	22.8	3.4	298.4	1,510	461	1,004	506
RM052	N963079	35.66	37.88	2.22	636.8	1412.7	170.4	605.4	106.7	10.1	73.8	10.2	50.3	9.3	22.5	3.0	17.8	2.6	230.5	3,362	943	2,932	430
RM052	N963081	37.88	40.82	2.94	826.8	1799.6	221.7	772.2	135.1	11.9	90.6	11.8	58.0	10.5	24.8	3.3	18.9	3.0	257.8	4,246	1,199	3,755	491
RM052	N963082	40.82	41.96	1.14	774.0	1701.3	208.4	729.0	129.9	12.0	89.2	11.7	56.0	9.9	24.5	3.0	18.3	2.8	239.4	4,010	1,135	3,543	467
RM052	N963083	42.37	45.35	2.98	755.3	1676.8	206.0	734.8	138.6	12.3	95.5	12.6	62.0	11.1	26.1	3.2	18.6	3.0	262.9	4,019	1,154	3,511	507
RM052	N963084	45.35	47.63	2.28	718.9	1621.5	200.6	713.8	135.1	11.7	98.9	13.3	64.7	11.5	27.4	3.4	19.9	3.0	278.1	3,922	1,128	3,390	532
RM052	N963085	47.63	48.13	0.50	344.8	804.6	95.8	344.1	64.6	5.6	46.0	6.5	32.5	5.9	14.3	1.9	11.0	1.7	147.9	1,927	543	1,654	273
RM052	N963086	48.13	48.26	0.13	784.6	1781.2	221.7	795.5	152.5	13.1	114.0	15.5	77.0	14.1	32.8	4.1	23.0	3.5	330.2	4,363	1,262	3,735	627
RM052	N963087	48.26	51.01	2.75	741.2	1676.8	204.8	722.0	135.7	11.4	96.9	13.3	65.7	11.8	28.1	3.4	19.6	2.9	287.0	4,021	1,141	3,480	540
RM052	N963088	51.01	51.19	0.18	81.9	183.7	23.9	90.5	20.5	2.6	17.1	2.4	13.0	2.6	7.4	1.1	6.9	1.2	77.7	532	150	400	132
RM052	N963089	51.19	53.34	2.15	727.1	1609.2	195.1	690.5	128.1	11.0	87.5	11.9	58.6	10.7	26.3	3.3	18.8	2.8	261.6	3,843	1,084	3,350	492
RM052	N963090	53.34	55.17	1.83	891.3	1965.4	239.2	834.0	153.7	13.1	106.5	14.5	70.7	12.9	31.3	3.9	22.0	3.3	313.7	4,676	1,312	4,084	592
RM052	N963091	55.17	58.06	2.89	886.6	2002.3	245.3	864.3	159.4	13.6	112.2	15.1	73.9	13.5	34.0	4.1	23.2	3.6	331.4	4,782	1,358	4,158	625
RM052	N963092	58.06	61.06	3.00	856.1	1879.5	230.2	818.8	151.3	12.9	106.5	14.6	73.3	13.2	31.3	3.9	22.7	3.5	318.7	4,537	1,288	3,936	601
RM052	N963093	61.06	63.44	2.38	784.6	1756.6	213.3	765.2	140.9	12.6	101.1	13.9	68.8	12.7	30.5	3.6	21.0	3.2	303.5	4,231	1,202	3,661	571
RM052	N963094	63.44	65.84	2.40	833.9	1867.2	227.8	809.5	149.6	13.6	108.2	14.8	73.5	13.5	31.6	4.0	22.6	3.5	322.6	4,496	1,275	3,888	608
RM052	N963095	65.84	66.97	1.13	572.3	1246.8	138.3	562.2	98.6	12.2	89.0	12.8	59.9	12.0	26.0	3.7	19.0	3.0	273.0	3,129	872	2,618	511
RM052	N963096	66.97	69.95	2.98	587.6	1227.2	134.1	524.9	87.7	10.9	75.8	10.3	47.6	9.2	20.1	3.0	16.3	2.6	217.2	2,974	805	2,561	413
RM052	N963097	69.95	72.94	2.99	874.9	1768.9	196.3	758.2	118.3	12.0	91.4	12.2	53.9	10.3	21.7	3.2	17.1	3.0	236.8	4,178	1,139	3,717	462
RM052	N963098	72.94	75.90	2.96	805.7	1682.9	187.9	737.2	124.1	11.8	102.9	13.8	63.0	12.3	25.0	3.6	18.4	3.3	279.4	4,071	1,126	3,538	533
RM052	N963099	75.90	78.77	2.87	804.5	1670.6	186.7	723.2	122.9	12.1	103.5	14.5	66.5	13.3	28.1	3.9	20.0	3.3	303.5	4,077	1,114	3,508	569

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM052	N963101	78.77	81.72	2.95	954.7	1971.6	219.9	855.0	142.1	13.3	118.7	16.1	74.8	14.7	30.6	4.2	22.0	3.7	328.9	4,770	1,308	4,143	627
RM052	N963102	81.72	82.44	0.72	910.1	1879.5	209.6	823.5	136.8	12.6	110.1	15.1	69.7	13.6	28.2	3.9	20.1	3.1	303.5	4,539	1,255	3,959	580
RM052	N963103	82.44	84.37	1.93	824.5	1719.8	187.9	747.7	124.1	11.2	101.3	14.3	64.7	12.7	26.8	3.6	19.2	3.2	297.2	4,158	1,139	3,604	554
RM052	N963104	84.37	86.75	2.38	920.6	1897.9	212.6	834.0	138.0	12.3	115.8	15.6	70.8	13.6	27.1	3.8	19.7	3.2	301.0	4,586	1,271	4,003	583
RM052	N963105	86.75	86.97	0.22	334.3	738.3	78.9	312.6	52.6	4.7	45.0	6.1	28.4	5.7	12.0	1.7	9.4	1.6	128.3	1,759	479	1,517	243
RM052	N963106	86.97	89.30	2.33	839.7	1750.5	193.3	758.2	126.4	12.0	104.9	13.9	63.5	11.7	24.1	3.2	17.1	2.8	256.5	4,178	1,155	3,668	510
RM052	N963107	89.30	91.24	1.94	328.4	718.6	79.7	317.3	55.9	7.5	50.4	7.8	39.4	8.2	19.4	2.9	16.8	2.9	213.3	1,868	500	1,500	369
RM052	N963108	91.24	91.79	0.55	304.9	641.2	66.8	254.3	44.1	4.8	38.7	5.5	26.7	5.4	12.1	1.8	9.6	1.6	131.4	1,549	397	1,311	238
RM052	N963109	91.79	94.77	2.98	935.9	1910.2	207.2	795.5	121.8	11.7	89.0	10.9	47.1	8.6	17.7	2.5	13.6	2.3	193.0	4,367	1,182	3,971	396
RM052	N963110	94.77	97.27	2.50	865.5	1738.2	187.9	722.0	108.4	12.2	75.5	9.0	38.0	6.7	13.7	2.0	11.2	2.1	149.2	3,942	1,065	3,622	320
RM052	N963111	97.27	98.83	1.56	993.4	2033.0	217.5	835.1	120.6	12.4	81.8	9.7	39.1	7.1	14.5	2.0	12.0	2.2	154.3	4,535	1,222	4,200	335
RM052	N963112	98.83	98.95	0.12	687.3	1412.7	151.0	585.5	93.5	10.4	75.5	10.4	47.7	9.5	20.7	3.2	18.1	3.3	221.0	3,350	888	2,930	420
RM052	N963113	98.95	101.91	2.96	955.8	1965.4	212.0	806.0	116.5	12.3	82.1	9.8	40.6	7.5	15.8	2.3	12.9	2.4	165.7	4,407	1,185	4,056	351
RM052	N963114	101.91	104.85	2.94	910.1	1848.7	201.2	766.3	107.7	12.0	73.1	8.6	35.2	6.3	13.0	1.9	11.2	2.0	141.0	4,138	1,119	3,834	304
RM052	N963115	104.85	106.84	1.99	1138.8	2272.5	241.0	911.0	123.5	12.9	83.8	9.4	37.1	6.5	12.8	1.9	10.3	2.0	137.2	5,001	1,322	4,687	314
RM052	N963116	106.84	108.42	1.58	289.7	615.4	65.6	251.9	39.2	8.9	30.8	4.3	20.1	4.0	9.4	1.5	8.8	1.5	100.2	1,451	381	1,262	189
RM052	N963117	108.42	111.42	3.00	122.6	264.1	30.6	130.1	22.9	6.8	21.1	3.0	14.6	3.0	7.7	1.3	7.3	1.3	80.8	717	201	570	147
RM052	N963118	111.42	114.20	2.78	123.7	266.6	31.1	131.2	23.4	6.5	21.2	3.0	15.0	3.1	7.5	1.2	7.1	1.3	83.7	726	204	576	150
RM052	N963119	114.20	116.33	2.13	124.3	271.5	31.4	130.1	22.5	6.5	21.5	3.0	15.0	3.2	7.7	1.2	7.3	1.3	83.6	730	202	580	150
RM052	N963121	116.33	118.82	2.49	238.1	497.5	52.7	200.0	28.8	9.0	22.5	2.9	13.2	2.7	6.2	1.0	6.0	1.1	66.2	1,148	298	1,017	131
RM052	N963122	118.82	120.67	1.85	1030.9	2039.1	213.3	792.0	103.0	12.4	67.9	7.6	31.1	5.8	12.7	1.9	11.3	2.0	134.6	4,466	1,147	4,178	287
RM052	N963123	120.67	122.86	2.19	1067.3	2112.8	223.5	837.5	114.1	12.2	78.4	9.2	38.0	7.1	14.8	2.2	13.4	2.5	156.2	4,689	1,222	4,355	334
RM052	N963124	122.86	124.97	2.11	959.4	1934.7	206.0	778.0	108.3	12.6	72.4	8.7	35.7	6.5	14.4	2.1	12.2	2.1	145.4	4,298	1,137	3,986	312
RM053	N963125	0.00	0.36	0.36	709.5	1394.2	157.1	598.4	97.4	9.2	76.8	10.5	48.0	9.2	18.5	2.7	14.3	2.2	212.7	3,361	911	2,957	404
RM053	N963126	0.91	1.03	0.12	711.9	1351.2	153.4	582.0	94.5	8.7	77.2	10.5	48.0	9.4	20.4	2.9	15.3	2.5	219.7	3,308	888	2,893	415
RM053	N963127	1.68	1.94	0.26	545.4	1088.4	124.4	489.9	84.2	8.9	72.2	10.1	46.8	9.1	20.0	2.8	15.1	2.3	209.5	2,729	755	2,332	397
RM053	N963128	3.96	4.25	0.29	906.6	1830.3	201.8	766.3	125.8	11.1	102.9	13.9	61.4	12.0	25.5	3.6	18.4	3.1	280.6	4,363	1,169	3,831	533
RM053	N963129	4.27	4.56	0.29	503.1	991.3	136.5	520.2	96.4	9.4	71.9	10.0	49.4	9.1	21.3	2.6	15.0	2.2	222.2	2,661	812	2,248	413
RM053	N963130	5.18	5.34	0.16	550.0	1093.3	151.6	577.4	102.7	9.4	78.7	10.8	55.7	9.9	23.9	2.9	16.8	2.5	244.5	2,930	898	2,475	455
RM053	N963131	5.49	5.79	0.30	669.7	1382.0	178.2	682.3	120.6	11.9	90.1	12.2	62.0	10.8	26.4	3.1	17.9	2.8	265.4	3,535	1,055	3,033	503
RM053	N963132	6.10	7.62	1.52	752.9	1541.6	199.3	754.7	132.8	12.2	99.7	13.9	70.6	12.5	29.4	3.6	20.4	3.1	306.1	3,953	1,171	3,381	571
RM053	N963133	7.92	9.66	1.74	751.8	1609.2	203.0	774.5	135.1	12.6	98.0	14.0	70.2	12.8	30.5	3.9	22.4	3.2	321.3	4,063	1,197	3,474	589
RM053	N963134	10.06	12.88	2.82	736.5	1584.6	199.3	759.3	136.3	12.0	98.8	14.1	70.8	12.8	30.5	3.9	22.3	3.3	321.3	4,006	1,180	3,416	590
RM053	N963135	12.88	15.86	2.98	621.6	1357.4	169.8	657.9	118.3	11.2	87.7	12.8	64.8	12.1	29.2	3.6	21.0	3.0	297.2	3,467	1,023	2,925	543
RM053	N963136	15.86	18.75	2.89	810.4	1689.0	209.0	783.8	135.7	12.4	95.9	13.4	68.3	12.4	29.5	3.8	21.6	3.1	309.9	4,198	1,210	3,628	570
RM053	N963137	18.75	21.66	2.91	653.3	1382.0	177.0	678.8	125.8	12.3	95.4	13.4	70.7	12.8	30.2	3.7	21.5	3.2	311.1	3,591	1,066	3,017	574
RM053	N963138	21.66	24.13	2.47	794.0	1670.6	209.6	788.5	138.0	11.9	99.3	14.2	70.2	13.0	31.2	3.9	22.3	3.2	321.3	4,191	1,221	3,601	591
RM053	N963139	24.13	25.76	1.63	810.4	1664.5	211.4	792.0	135.1	12.0	97.2	13.3	66.9	12.0	29.3	3.6	20.9	3.1	297.2	4,169	1,219	3,613	555
RM053	N963141	25.76	25.92	0.16	527.8	1140.0	145.6	556.4	103.4	11.9	80.9	11.9	60.3	11.1	26.8	3.3	18.6	2.7	273.0	2,974	878	2,473	500
RM053	N963142	25.92	28.67	2.75	677.9	1424.9	178.8	677.7	116.0	11.2	84.3	11.8	59.9	10.9	27.0	3.3	19.9	3.0	273.0	3,580	1,044	3,075	504
RM053	N963143	28.67	31.59	2.92	688.4	1443.4	180.6	683.5	119.4	11.3	87.7	12.5	62.3	11.6	28.0	3.6	20.6	3.0	288.3	3,644	1,058	3,115	529
RM053	N963144	31.59	34.43	2.84	599.3	1308.3	163.7	619.4	113.8	10.7	86.7	12.3	64.2	12.0	28.8	3.6	20.3	3.1	294.6	3,341	973	2,804	536
RM053	N963145	34.43	36.14	1.71	616.9	1332.8	169.2	653.2	118.9	11.2	92.8	13.2	69.1	12.6	30.1	3.7	21.1	3.0	309.9	3,458	1,023	2,891	567
RM053	N963146	36.14	38.18	2.04	616.9	1326.7	167.3	638.0	115.6	10.3	89.0	12.7	65.5	11.5	27.9	3.3	18.6	2.7	279.4	3,385	999	2,865	521
RM053	N963147	38.18	39.33	1.15	525.4	1142.4	144.4	551.7	98.7	9.3	72.4	10.0	50.7	9.1	21.6	2.6	14.5	2.1	215.9	2,871	856	2,463	408
RM053	N963148	39.33	42.22	2.89	646.2	1394.2	173.4	663.7	118.3	10.6	89.2	12.2	59.7	10.5	23.8	2.8	16.2	2.4	248.9	3,472	1,027	2,996	476
RM053	N963149	42.22	45.22	3.00	715.4	1517.1	193.3	736.0	128.7	11.0	96.5	12.8	62.7	10.8	24.2	2.9	16.6	2.6	253.3	3,784	1,134	3,291	493
RM053	N963150	45.22	47.06	1.84	666.1	1406.5	180.0	694.0	127.6	11.5	96.9	12.9	62.3	10.6	23.8	2.8	15.9	2.5	240.0	3,554	1,077	3,074	479
RM053	N963151	47.06	49.22	2.16	622.8	1345.1	169.2	653.2	117.1	11.6	89.4	11.7	54.8	9.3	20.2	2.4	13.8	2.2	205.7	3,328	1,006	2,907	421
RM053	N963152	49.22	49.39	0.17	67.7	149.3	18.8	69.6	13.3	1.4	9.4	1.4	7.5	1.5	4.3	0.6	3.8	0.7	44.7	394	111	319	75

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM053	N963153	49.39	52.36	2.97	726.0	1553.9	194.5	744.2	129.3	12.2	94.6	11.6	52.5	8.7	19.1	2.3	14.5	2.4	191.1	3,757	1,132	3,348	409
RM053	N963154	52.36	55.34	2.98	670.8	1412.7	174.0	650.9	104.8	11.8	69.2	8.3	39.1	6.6	15.7	2.0	13.0	2.2	152.4	3,333	977	3,013	320
RM053	N963155	55.34	58.34	3.00	810.4	1676.8	204.8	755.8	115.0	12.4	72.5	8.9	39.8	6.8	16.1	2.2	14.1	2.4	158.7	3,897	1,124	3,563	334
RM053	N963156	58.34	61.34	3.00	830.3	1701.3	208.4	757.0	113.4	12.3	68.7	8.3	37.2	6.3	14.5	1.9	12.0	1.9	149.2	3,923	1,124	3,610	312
RM053	N963157	61.34	64.25	2.91	878.4	1818.0	219.9	802.5	117.7	12.0	70.0	8.0	35.4	5.6	12.3	1.7	9.8	1.8	127.6	4,121	1,183	3,837	284
RM053	N963158	64.25	67.25	3.00	855.0	1695.2	204.8	739.5	103.2	10.6	56.9	6.1	25.3	4.0	9.6	1.2	7.5	1.3	96.5	3,817	1,079	3,598	219
RM053	N963159	67.25	69.89	2.64	632.1	1296.0	151.0	533.0	70.7	9.3	37.5	4.2	18.4	3.2	7.6	1.1	6.4	1.0	81.2	2,853	777	2,683	170
RM053	N963161	70.10	71.75	1.65	82.2	174.4	22.5	88.9	17.1	7.5	13.4	2.0	11.2	2.3	6.1	0.9	5.8	0.9	66.5	502	142	385	117
RM053	N963162	71.75	73.12	1.37	88.7	183.0	23.3	88.4	17.5	4.3	14.6	2.1	12.3	2.7	7.8	1.2	7.1	1.1	81.5	536	144	401	135
RM053	N963163	73.30	73.40	0.10	15.9	36.6	4.7	18.2	4.3	0.8	3.8	0.7	4.3	0.9	2.7	0.5	2.9	0.5	26.3	123	32	80	43
RM053	N963164	73.40	76.24	2.84	107.4	231.6	25.5	108.7	22.1	7.4	18.2	2.6	14.6	2.9	8.2	1.1	7.2	1.3	80.9	640	173	495	144
RM053	N963165	76.24	79.00	2.76	104.8	235.8	26.6	115.4	23.3	8.1	19.5	2.7	15.1	3.0	8.8	1.2	8.2	1.4	86.5	660	183	506	154
RM053	N963166	79.00	79.50	0.50	64.7	151.7	17.4	74.5	17.6	4.2	15.9	2.6	14.6	2.8	8.2	1.2	8.3	1.3	86.1	471	127	326	145
RM053	N963167	79.50	81.00	1.50	101.6	235.2	26.7	117.8	24.9	8.1	20.4	2.9	16.8	3.4	8.8	1.3	8.7	1.4	96.1	674	189	506	168
RM053	N963168	81.00	82.36	1.36	105.5	224.2	23.9	97.2	19.1	8.9	14.8	2.2	11.6	2.4	6.3	0.9	6.3	1.0	68.1	592	154	470	122
RM053	N963169	82.36	83.17	0.81	109.3	238.9	26.7	113.1	22.8	9.0	19.0	2.9	15.4	3.0	7.9	1.2	7.5	1.2	84.8	663	181	511	152
RM053	N963170	83.17	84.05	0.88	94.5	203.9	22.1	90.8	19.0	8.9	15.3	2.3	12.4	2.5	6.7	0.9	6.4	1.1	69.5	556	147	430	126
RM053	N963171	84.05	84.37	0.32	148.4	326.8	33.4	137.1	26.1	9.2	21.4	3.1	16.8	3.3	9.2	1.3	8.7	1.5	93.7	840	216	672	168
RM053	N963172	84.37	87.32	2.95	638.0	1277.5	127.5	487.6	74.7	11.8	46.7	5.7	25.5	4.2	9.6	1.3	8.5	1.5	102.0	2,822	721	2,605	217
RM053	N963173	87.32	90.32	3.00	754.1	1566.2	155.9	601.9	91.4	11.3	56.0	6.7	30.3	5.0	12.1	1.6	10.3	1.7	122.4	3,427	886	3,169	257
RM053	N963174	90.32	93.32	3.00	901.9	1873.3	189.1	733.7	113.1	12.1	69.8	8.3	37.5	6.2	15.1	1.9	12.5	2.1	148.6	4,125	1,082	3,811	314
RM053	N963175	93.32	96.32	3.00	919.5	1897.9	190.9	744.2	116.0	12.6	74.2	8.8	39.3	6.6	15.3	2.0	12.6	2.2	154.3	4,196	1,099	3,868	328
RM053	N963176	96.32	98.14	1.82	843.2	1719.8	175.2	670.7	107.4	11.5	66.8	7.9	36.7	6.1	14.8	1.8	12.6	2.0	146.7	3,823	998	3,516	307
RM053	N963177	98.14	98.33	0.19	160.1	366.1	39.0	160.4	33.0	6.2	28.0	4.1	22.0	4.1	10.5	1.4	8.8	1.4	108.1	953	259	759	194
RM053	N963178	98.33	99.72	1.39	837.4	1713.6	174.6	673.0	105.4	12.0	66.4	7.8	34.9	5.9	14.2	1.9	11.7	2.1	144.8	3,806	996	3,504	302
RM053	N963179	99.72	101.58	1.86	751.8	1547.8	156.5	603.0	96.8	10.8	64.2	8.1	37.8	6.4	16.2	2.1	13.0	2.1	161.3	3,478	902	3,156	322
RM053	N963181	101.58	102.53	0.95	1653.7	3525.5	369.7	1376.3	218.0	13.4	133.1	15.5	68.5	11.6	27.4	3.5	22.7	3.9	274.3	7,717	2,048	7,143	574
RM053	N963182	102.53	105.53	3.00	1147.0	2383.1	241.6	939.0	146.7	13.0	87.8	10.3	46.0	7.8	17.9	2.3	14.9	2.5	183.5	5,243	1,384	4,857	386
RM053	N963183	105.53	108.44	2.91	953.5	1965.4	200.0	773.3	122.3	12.6	75.0	8.8	39.5	6.6	15.9	2.0	12.9	2.2	160.0	4,350	1,144	4,015	336
RM053	N963184	108.44	111.44	3.00	806.9	1627.6	167.9	657.9	104.0	11.8	67.3	8.1	38.0	6.5	15.9	2.0	12.7	2.2	156.2	3,685	976	3,364	321
RM053	N963185	111.44	113.00	1.56	768.2	1584.6	160.7	628.7	99.5	11.1	63.9	7.7	35.9	6.0	14.9	1.9	11.5	2.0	147.3	3,544	933	3,242	302
RM053	N963186	113.00	113.77	0.77	457.4	948.3	94.6	368.6	63.2	8.7	44.0	5.9	28.2	5.0	11.9	1.6	9.5	1.6	128.9	2,177	560	1,932	245
RM053	N963187	113.77	116.63	2.86	805.7	1682.9	171.0	666.0	110.5	12.0	71.9	8.7	40.5	6.8	16.0	2.1	13.0	2.3	162.6	3,772	997	3,436	336
RM053	N963188	116.63	119.44	2.81	879.6	1805.8	184.8	730.2	119.4	12.2	75.8	9.0	41.1	6.9	15.9	2.1	13.4	2.4	166.4	4,065	1,085	3,720	345
RM053	N963189	119.44	122.33	2.89	772.9	1603.1	163.1	649.7	104.9	11.8	68.7	8.5	38.2	6.5	15.0	1.9	11.9	2.0	154.3	3,612	964	3,294	319
RM053	N963190	122.33	124.76	2.43	595.8	1253.0	126.9	502.7	87.4	10.0	60.2	7.6	35.9	6.3	14.6	1.8	10.9	1.8	148.6	2,864	761	2,566	298
RM054	N963191	0.00	0.62	0.62	612.2	1253.0	148.6	596.0	104.1	9.9	75.2	10.0	51.8	8.9	22.5	2.6	15.5	2.3	234.3	3,147	911	2,714	433
RM054	N963192	1.83	3.96	2.13	580.5	1265.3	133.5	520.2	87.7	8.2	62.4	8.0	42.8	7.3	18.4	2.2	13.1	2.0	186.7	2,938	792	2,587	351
RM054	N963193	4.42	7.33	2.91	649.7	1394.2	152.2	605.4	102.3	9.6	76.2	10.0	52.8	9.0	22.5	2.7	16.0	2.3	225.4	3,330	923	2,904	426
RM054	N963194	7.62	9.46	1.84	557.1	1222.3	130.5	516.7	88.8	8.5	64.4	8.8	46.6	8.0	20.8	2.5	14.6	2.2	203.8	2,895	791	2,515	380
RM054	N963195	10.82	12.10	1.28	577.0	1240.7	131.7	529.5	88.7	8.5	66.6	8.9	47.9	8.2	21.4	2.6	15.5	2.3	211.4	2,961	807	2,568	393
RM054	N963196	12.10	14.06	1.96	101.8	233.4	28.6	120.1	27.0	5.2	23.5	3.6	20.5	3.5	9.3	1.1	7.2	1.0	91.0	677	200	511	166
RM054	N963197	14.33	14.54	0.21	214.0	518.4	53.3	209.9	36.8	5.9	30.1	4.3	23.6	4.1	11.1	1.3	8.1	1.2	103.4	1,226	328	1,032	193
RM054	N963198	14.54	15.72	1.18	668.5	1474.1	158.9	634.5	109.7	9.5	80.3	11.0	57.4	9.8	25.5	3.1	18.3	2.5	252.7	3,516	971	3,046	470
RM054	N963199	15.85	17.20	1.35	710.7	1547.8	167.3	671.9	115.7	10.0	83.2	11.3	59.2	10.0	25.6	3.0	18.3	2.6	257.8	3,695	1,025	3,213	481
RM054	N963201	17.37	19.97	2.60	694.3	1498.7	164.9	661.4	113.2	10.2	84.4	11.3	61.8	10.6	27.9	3.3	19.1	2.8	275.6	3,639	1,013	3,132	507
RM054	N963202	20.12	23.12	3.00	816.3	1775.0	195.1	787.3	136.8	11.2	99.9	13.5	72.1	12.5	33.6	4.0	23.0	3.5	325.1	4,309	1,205	3,711	599
RM054	N963203	23.12	26.12	3.00	762.3	1768.9	196.9	775.7	134.5	12.1	107.5	13.9	78.6	13.2	35.2	4.0	24.1	3.5	330.2	4,261	1,200	3,638	622
RM054	N963204	26.12	29.12	3.00	772.9	1676.8	185.5	745.3	131.6	11.8	96.8	12.6	70.1	11.9	31.1	3.8	22.1	3.2	306.1	4,081	1,145	3,512	569
RM054	N963205	29.12	32.09	2.97	831.5	1787.3	196.3	790.8	136.3	11.9	99.1	13.2	71.3	11.9	30.9	3.7	22.1	3.3	309.9	4,320	1,208	3,742	577

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM054	N963206	32.09	34.97	2.88	908.9	1971.6	215.7	867.8	147.8	12.4	108.8	14.4	76.8	13.1	34.0	4.0	23.1	3.3	342.9	4,745	1,323	4,112	633
RM054	N963207	34.97	36.79	1.82	805.7	1787.3	195.1	787.3	139.7	11.7	100.3	13.3	72.5	12.4	32.0	3.7	21.4	3.0	326.4	4,312	1,208	3,715	597
RM054	N963208	36.79	37.15	0.36	289.7	694.0	76.4	319.6	63.5	7.5	52.6	7.8	44.4	7.7	21.6	2.8	16.9	2.6	221.0	1,828	512	1,443	385
RM054	N963209	37.15	40.10	2.95	794.0	1867.2	203.0	806.0	140.9	12.0	102.5	13.7	73.0	11.8	30.4	3.5	21.2	2.9	307.3	4,389	1,237	3,811	578
RM054	N963210	40.10	42.99	2.89	707.2	1676.8	183.0	732.5	132.8	11.6	100.6	13.2	72.5	11.8	31.0	3.6	20.8	2.7	302.2	4,002	1,134	3,432	570
RM054	N963211	42.99	45.13	2.14	715.4	1689.0	187.9	750.0	136.8	12.0	105.7	14.2	79.0	12.8	31.9	3.6	22.3	3.0	321.3	4,085	1,168	3,479	606
RM054	N963212	45.13	47.02	1.89	723.6	1713.6	187.3	747.7	136.3	12.0	102.8	13.3	73.3	11.6	29.5	3.4	19.8	2.8	297.2	4,074	1,158	3,508	566
RM054	N963213	47.02	49.59	2.57	767.0	1830.3	197.5	800.1	149.6	12.4	109.7	14.5	76.8	12.5	31.3	3.5	21.4	2.9	308.6	4,338	1,239	3,745	594
RM054	N963214	49.59	52.11	2.52	716.6	1689.0	185.5	753.5	136.8	11.8	104.7	13.6	70.7	11.2	28.4	3.1	19.4	2.7	280.6	4,028	1,160	3,481	546
RM054	N963215	52.11	53.59	1.48	763.5	1805.8	198.8	811.8	149.0	13.1	115.3	14.0	74.7	11.4	29.2	3.1	18.9	2.8	271.8	4,283	1,248	3,729	554
RM054	N963216	53.59	55.14	1.55	697.8	1658.3	184.8	748.8	140.9	11.9	108.0	13.5	69.5	10.9	26.9	3.1	19.0	2.9	264.1	3,961	1,158	3,431	530
RM054	N963217	55.14	55.75	0.61	72.2	165.8	20.1	78.6	15.2	1.6	13.1	1.6	9.7	1.7	5.2	0.8	4.6	0.7	50.4	442	125	352	90
RM054	N963218	55.75	58.75	3.00	832.7	1947.0	216.3	867.8	157.1	12.8	113.4	13.7	70.1	11.2	26.9	3.1	20.6	2.8	274.3	4,570	1,325	4,021	549
RM054	N963219	58.75	61.74	2.99	830.3	1947.0	212.6	851.5	147.8	13.4	106.2	12.6	66.1	10.2	26.1	3.0	19.5	2.8	256.5	4,506	1,291	3,989	516
RM054	N963221	61.74	63.66	1.92	901.9	2094.4	229.6	909.8	154.8	12.1	107.7	13.2	67.6	10.8	27.3	3.3	21.2	3.1	279.4	4,836	1,375	4,290	546
RM054	N963222	63.66	66.66	3.00	832.7	1947.0	212.0	844.5	142.1	12.8	102.1	12.6	65.5	10.7	26.9	3.1	21.9	3.0	267.9	4,505	1,277	3,978	527
RM054	N963223	66.66	69.64	2.98	737.7	1725.9	188.5	754.7	131.0	12.6	94.0	11.6	61.5	10.1	25.5	3.3	20.3	2.9	260.3	4,040	1,147	3,538	502
RM054	N963224	69.64	72.60	2.96	837.4	1965.4	212.6	832.8	143.2	13.5	99.7	12.3	64.7	10.8	28.1	3.4	22.3	3.1	273.0	4,523	1,266	3,991	531
RM054	N963225	72.60	75.54	2.94	806.9	1848.7	202.4	790.8	129.3	12.6	90.5	10.9	58.6	9.3	24.0	3.0	19.5	2.9	241.9	4,251	1,192	3,778	473
RM054	N963226	75.54	78.54	3.00	700.2	1615.3	175.8	694.0	113.2	12.2	81.5	9.9	53.1	8.3	22.9	2.8	18.4	2.7	224.8	3,735	1,046	3,298	437
RM054	N963227	78.54	81.48	2.94	747.1	1713.6	186.1	727.8	120.0	12.2	83.2	10.0	51.5	8.2	21.0	2.6	17.2	2.6	201.9	3,905	1,095	3,495	410
RM054	N963228	81.48	84.48	3.00	760.0	1756.6	191.5	746.5	121.8	12.3	80.3	9.4	47.6	7.2	19.5	2.5	16.9	2.7	185.4	3,960	1,117	3,576	384
RM054	N963229	84.48	87.48	3.00	702.5	1633.8	174.6	674.2	106.7	11.6	66.0	7.6	37.2	5.9	14.2	1.8	13.0	1.9	137.8	3,589	1,000	3,292	297
RM054	N963230	87.48	90.29	2.81	783.4	1744.3	186.7	711.5	99.7	11.0	54.1	5.4	24.7	3.6	10.1	1.2	8.7	1.4	98.9	3,745	1,028	3,526	219
RM054	N963231	90.29	92.75	2.46	675.5	1523.2	153.4	579.7	75.8	10.0	40.8	4.2	20.4	3.1	8.4	1.1	7.8	1.1	83.7	3,188	834	3,008	181
RM054	N963232	92.75	94.22	1.47	100.7	241.4	31.1	136.5	27.8	9.4	23.2	3.2	18.9	3.5	10.8	1.5	10.0	1.6	103.6	723	217	537	186
RM054	N963233	94.22	96.56	2.34	132.5	286.2	34.1	149.3	28.4	9.1	23.5	3.3	20.1	3.7	11.7	1.5	11.4	1.7	111.5	828	235	631	197
RM054	N963234	96.56	98.15	1.59	374.1	764.1	83.2	319.6	51.1	9.3	40.1	5.7	32.0	5.5	15.6	2.1	14.2	2.3	149.2	1,868	492	1,592	276
RM054	N963235	98.15	101.11	2.96	679.0	1541.6	164.3	633.4	91.7	10.4	60.4	6.9	35.7	5.5	14.7	1.8	13.6	2.1	143.5	3,405	932	3,110	295
RM054	N963236	101.11	104.02	2.91	726.0	1670.6	174.0	674.2	99.7	11.4	62.9	7.1	35.7	5.6	14.5	1.8	11.8	2.0	135.9	3,633	991	3,344	289
RM054	N963237	104.02	105.65	1.63	772.9	1762.8	186.7	724.3	110.4	12.0	66.7	7.5	36.1	5.7	14.3	1.8	12.2	2.0	142.9	3,858	1,065	3,557	301
RM054	N963238	105.65	107.82	2.17	787.0	1793.5	192.1	750.0	115.5	12.3	71.1	7.8	38.3	6.0	16.0	1.9	12.8	1.9	148.6	3,955	1,104	3,638	317
RM054	N963239	107.82	110.75	2.93	777.6	1768.9	187.3	722.0	112.6	12.0	70.2	7.7	37.2	5.8	15.4	1.9	12.5	1.9	149.8	3,883	1,067	3,568	314
RM054	N963241	110.75	113.75	3.00	783.4	1787.3	191.5	745.3	115.8	13.1	75.0	8.3	41.2	6.5	16.2	1.9	12.9	1.9	158.1	3,958	1,102	3,623	335
RM054	N963242	113.75	116.47	2.72	815.1	1861.0	202.4	793.1	131.0	12.7	88.1	9.9	48.5	7.7	18.9	2.3	14.5	2.2	191.1	4,199	1,185	3,803	396
RM054	N963243	116.47	119.38	2.91	846.8	1928.6	212.0	835.1	140.3	14.0	99.6	11.6	58.0	9.1	22.1	2.6	16.3	2.4	224.8	4,423	1,257	3,963	460
RM054	N963244	119.38	122.03	2.65	676.7	1480.2	171.6	670.7	119.4	13.8	103.0	12.2	63.2	10.1	23.3	2.8	18.1	2.5	245.7	3,613	1,037	3,119	495
RM055	N963245	0.00	0.43	0.43	602.8	1369.7	157.1	593.7	105.6	11.8	83.5	10.9	58.3	9.5	23.3	2.9	17.6	2.5	239.4	3,289	926	2,829	460
RM055	N963246	1.83	2.05	0.22	455.1	863.6	118.4	453.7	81.3	9.4	68.7	8.8	48.2	8.1	20.0	2.4	14.3	2.2	210.2	2,364	710	1,972	392
RM055	N963247	4.88	7.74	2.86	703.7	1504.8	175.8	681.2	118.3	12.7	104.2	13.1	75.9	12.1	29.9	3.6	23.5	3.2	320.0	3,782	1,064	3,184	598
RM055	N963248	7.92	10.74	2.82	676.7	1467.9	173.4	667.2	116.5	13.1	103.8	13.7	75.6	12.8	31.6	3.9	24.7	3.5	328.9	3,713	1,046	3,102	612
RM055	N963249	10.97	11.24	0.27	748.3	1596.9	182.4	685.8	112.4	12.5	93.5	11.9	64.8	10.9	26.3	3.3	19.9	2.9	288.3	3,860	1,057	3,326	534
RM055	N963250	11.24	11.43	0.19	410.5	894.3	105.1	415.2	83.5	9.0	79.5	11.3	67.8	12.0	31.0	4.0	26.1	3.6	336.5	2,489	683	1,909	581
RM055	N963251	11.43	11.67	0.24	795.2	1695.2	187.3	688.2	104.6	9.9	81.8	10.1	55.7	9.0	22.9	3.0	17.5	2.5	245.7	3,928	1,046	3,470	458
RM055	N963252	11.67	11.89	0.22	498.4	1060.1	120.8	453.7	78.4	9.2	65.9	8.7	49.1	8.8	22.8	3.0	19.2	2.6	243.2	2,644	711	2,211	432
RM055	N963253	11.89	12.55	0.66	622.8	1326.7	142.6	524.9	80.0	9.4	62.8	8.0	42.9	7.2	18.2	2.4	16.0	2.2	201.3	3,067	798	2,697	370
RM055	N963254	12.55	13.90	1.35	139.6	289.9	35.6	137.6	26.3	4.6	25.1	3.9	23.6	4.4	11.8	1.7	10.7	1.5	126.4	843	227	629	214
RM055	N963255	14.02	15.00	0.98	137.8	288.7	35.9	142.9	30.7	5.0	29.3	4.4	27.4	5.2	13.3	1.8	11.6	1.7	141.6	877	241	636	241
RM055	N963256	15.00	18.00	3.00	701.3	1535.5	178.2	695.2	121.8	12.8	102.3	13.2	73.1	12.2	30.8	3.8	24.1	3.3	322.6	3,830	1,081	3,232	598
RM055	N963257	18.00	20.96	2.96	748.3	1633.8	188.5	716.2	127.6	12.5	105.8	14.1	75.4	13.1	33.0	4.1	25.4	3.6	341.6	4,043	1,122	3,414	629

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM055	N963258	20.96	23.84	2.88	743.6	1615.3	185.5	717.3	125.8	13.0	105.3	13.8	76.9	12.9	32.5	4.0	24.4	3.5	334.0	4,008	1,119	3,388	620
RM055	N963259	23.84	25.88	2.04	741.2	1621.5	187.3	729.0	131.0	12.8	108.5	14.1	80.3	13.6	34.2	4.3	27.2	3.7	360.6	4,069	1,142	3,410	659
RM055	N963261	26.21	29.01	2.80	792.8	1756.6	198.8	761.7	135.1	13.2	106.6	13.9	77.2	13.2	32.3	4.1	25.7	3.4	342.9	4,277	1,187	3,645	633
RM055	N963262	29.26	31.67	2.41	734.2	1615.3	184.8	716.2	123.5	12.8	99.0	13.3	72.8	12.7	30.8	3.9	23.7	3.4	320.0	3,966	1,111	3,374	592
RM055	N963263	32.31	32.95	0.64	272.1	586.0	72.7	283.4	53.5	7.9	44.5	6.0	32.3	5.8	14.2	1.8	11.3	1.6	156.2	1,549	448	1,268	281
RM055	N963264	32.95	35.87	2.92	788.1	1750.5	201.8	778.0	138.6	12.8	111.3	14.9	79.4	13.4	34.9	4.3	26.0	3.9	360.6	4,319	1,213	3,657	662
RM055	N963265	35.87	38.84	2.97	726.0	1590.8	183.0	712.7	121.2	12.8	98.0	12.9	71.0	12.0	30.2	3.7	22.7	3.0	306.1	3,906	1,101	3,334	572
RM055	N963266	38.84	41.13	2.29	642.7	1406.5	158.3	601.9	101.2	11.8	81.4	10.2	56.1	9.2	22.7	3.0	18.1	2.7	238.7	3,364	928	2,911	454
RM055	N963267	41.50	44.50	3.00	825.6	1787.3	204.2	775.7	131.6	13.7	99.0	12.3	65.2	11.1	26.9	3.2	21.4	3.1	283.2	4,264	1,189	3,724	539
RM055	N963268	44.50	47.46	2.96	947.6	2076.0	235.6	902.8	153.7	13.1	117.0	14.9	79.7	13.1	31.4	4.0	24.3	3.3	327.6	4,944	1,387	4,316	629
RM055	N963269	47.46	49.80	2.34	908.9	1965.4	224.7	853.8	140.9	14.0	110.0	13.4	74.3	12.5	29.9	3.7	23.7	3.5	320.0	4,699	1,307	4,094	605
RM055	N963270	49.80	52.24	2.44	982.8	2149.7	244.1	925.0	154.2	14.2	119.3	14.8	80.5	13.2	32.1	4.0	25.7	3.6	345.4	5,109	1,418	4,456	653
RM055	N963271	52.24	54.68	2.44	819.8	1775.0	204.8	782.6	135.1	14.2	104.9	13.5	74.9	12.5	30.6	3.8	23.8	3.5	320.0	4,319	1,211	3,717	602
RM055	N963272	54.68	54.89	0.21	268.6	561.4	68.0	257.8	42.6	4.3	32.9	4.3	21.6	3.9	9.6	1.4	8.6	1.3	107.6	1,394	394	1,198	195
RM055	N963273	54.89	57.71	2.82	833.9	1830.3	210.2	807.1	138.6	13.7	108.7	14.0	75.1	12.8	32.3	3.8	23.1	3.1	321.3	4,428	1,245	3,820	608
RM055	N963274	57.71	60.30	2.59	771.7	1670.6	190.9	734.8	124.7	13.3	99.2	12.8	72.7	11.9	28.9	3.6	22.1	3.0	304.8	4,065	1,136	3,493	572
RM055	N963275	60.30	62.32	2.02	706.0	1560.1	178.8	688.2	119.4	13.0	96.0	12.5	67.9	11.8	30.0	3.5	21.4	3.0	306.1	3,818	1,067	3,253	565
RM055	N963276	62.79	65.72	2.93	709.5	1566.2	179.4	708.0	125.8	13.6	103.0	13.7	76.9	13.2	32.4	4.1	25.1	3.5	344.1	3,919	1,104	3,289	630
RM055	N963277	65.72	68.72	3.00	767.0	1682.9	194.5	757.0	132.8	14.2	107.2	14.2	76.5	13.5	33.9	4.3	25.4	3.5	353.0	4,180	1,175	3,534	646
RM055	N963278	68.72	71.70	2.98	794.0	1885.6	206.0	831.6	150.2	13.4	123.9	15.9	91.0	14.8	39.2	4.6	26.8	3.8	381.0	4,582	1,295	3,867	714
RM055	N963279	71.70	74.65	2.95	1019.2	2309.4	253.7	993.8	166.4	14.1	121.0	14.6	79.1	13.1	33.4	3.9	24.9	3.6	331.4	5,382	1,508	4,742	639
RM055	N963281	74.65	76.11	1.46	839.7	1922.5	209.6	816.5	140.9	13.9	107.5	13.3	70.6	11.9	31.1	3.4	22.1	3.3	306.1	4,512	1,251	3,929	583
RM055	N963282	76.11	77.89	1.78	912.4	2082.1	228.3	897.0	157.1	14.2	118.1	15.0	78.8	13.1	33.2	3.9	24.3	3.3	334.0	4,915	1,376	4,277	638
RM055	N963283	78.03	80.92	2.89	788.1	1818.0	196.3	783.8	136.8	12.7	103.8	13.5	72.7	12.6	32.9	3.7	23.5	3.2	322.6	4,324	1,203	3,723	601
RM055	N963284	81.08	82.77	1.69	733.0	1701.3	191.5	775.7	145.5	13.7	120.5	15.8	88.1	15.1	39.3	4.5	27.7	3.8	389.9	4,265	1,217	3,547	718
RM055	N963285	82.77	84.16	1.39	475.0	1162.1	132.3	563.4	119.4	13.6	107.1	14.5	86.0	15.1	39.5	4.5	27.9	3.5	384.8	3,148	916	2,452	696
RM055	N963286	84.16	86.76	2.60	462.1	1148.5	134.1	585.5	125.8	13.3	115.1	15.5	90.9	15.8	40.7	4.5	26.6	3.5	396.2	3,178	952	2,456	722
RM055	N963287	86.76	87.38	0.62	215.2	484.0	55.9	223.9	40.0	3.9	28.5	3.5	20.7	3.5	9.4	1.1	7.3	1.1	94.7	1,193	344	1,019	174
RM055	N963288	87.38	90.38	3.00	809.2	1848.7	198.8	787.3	133.9	13.4	102.2	12.6	71.5	12.0	31.2	3.5	20.8	3.0	307.3	4,356	1,204	3,778	578
RM055	N963289	90.38	93.28	2.90	838.5	1910.2	208.4	817.6	141.5	13.6	107.4	13.7	72.7	12.5	31.8	3.7	22.3	3.2	312.4	4,509	1,254	3,916	593
RM055	N963290	93.28	95.83	2.55	672.0	1547.8	166.1	660.2	117.7	12.3	93.4	11.9	67.0	11.3	27.9	3.1	20.1	2.8	280.6	3,694	1,023	3,164	530
RM055	N963291	95.83	96.56	0.73	548.9	1234.5	129.9	507.4	86.0	10.6	71.3	9.5	53.3	9.1	24.5	2.9	18.4	2.3	234.3	2,943	786	2,507	436
RM055	N963292	96.56	99.56	3.00	783.4	1781.2	192.1	761.7	127.6	13.4	102.7	12.8	67.9	11.5	29.2	3.1	19.4	2.6	278.1	4,187	1,162	3,646	541
RM055	N963293	99.56	102.47	2.91	870.2	1959.3	214.5	832.8	139.7	13.8	107.7	13.3	72.0	11.9	28.9	3.3	20.5	2.8	290.8	4,581	1,272	4,017	565
RM055	N963294	102.47	105.46	2.99	894.9	2020.7	215.1	843.3	139.7	12.9	106.3	12.9	68.5	11.3	28.1	3.1	18.7	2.7	276.8	4,655	1,280	4,114	542
RM055	N963295	105.46	108.10	2.64	849.1	1947.0	204.8	794.3	136.3	12.2	102.5	12.6	68.4	10.8	27.0	3.2	19.0	2.7	274.3	4,464	1,216	3,931	533
RM055	N963296	108.10	111.04	2.94	837.4	1854.9	196.3	775.7	130.5	12.5	100.7	12.5	67.0	10.8	27.4	2.9	19.4	2.6	264.1	4,315	1,182	3,795	520
RM055	N963297	111.04	113.62	2.58	726.0	1646.1	177.0	703.3	121.8	12.6	97.3	12.3	68.9	11.3	27.4	3.0	18.8	2.6	269.2	3,898	1,083	3,374	523
RM055	N963298	113.62	114.85	1.23	340.1	739.5	84.6	334.8	58.4	8.7	49.3	6.8	42.7	7.3	20.4	2.4	16.5	2.4	208.3	1,922	527	1,557	365
RM055	N963299	114.85	117.61	2.76	903.1	2026.9	219.3	857.3	146.7	13.4	113.8	14.2	77.6	12.5	31.2	3.4	20.9	2.9	307.3	4,750	1,315	4,153	597
RM055	N963301	117.61	120.00	2.39	912.4	2082.1	222.3	886.5	155.4	13.8	121.0	15.4	83.7	13.4	33.3	3.6	21.8	3.0	331.4	4,899	1,363	4,259	640
RM055	N963302	120.00	122.20	2.20	855.0	1965.4	210.8	835.1	144.9	13.6	111.5	14.1	78.6	12.5	32.5	3.3	20.4	3.0	308.6	4,609	1,284	4,011	598
RM055	N963303	122.20	122.43	0.23	302.6	713.7	85.5	361.6	76.3	7.9	65.9	9.1	53.4	9.4	25.6	3.1	20.6	2.7	250.8	1,988	586	1,540	449
RM055	N963304	122.43	125.02	2.59	882.0	2026.9	221.7	878.3	152.5	13.9	119.3	15.3	82.3	13.4	32.8	3.4	21.8	2.9	325.1	4,792	1,350	4,161	630
RM056	N963305	0.00	0.20	0.20	327.2	781.3	88.0	358.1	70.5	8.7	58.9	8.1	47.7	8.2	21.6	2.6	15.9	2.1	206.4	2,005	572	1,625	380
RM056	N963306	2.74	2.96	0.22	275.6	551.5	68.5	272.9	50.1	7.3	43.0	5.8	34.2	5.8	15.7	1.8	11.6	1.6	151.1	1,497	432	1,219	278
RM056	N963307	5.79	5.99	0.20	223.4	587.2	59.6	251.9	48.7	7.1	42.0	6.1	34.5	6.0	15.6	1.9	12.0	1.8	148.6	1,446	401	1,171	276
RM056	N963308	8.84	10.78	1.94	817.4	1842.6	196.3	782.6	133.3	12.4	102.2	12.6	67.1	11.9	30.0	3.4	20.8	2.7	293.4	4,329	1,192	3,772	556
RM056	N963309	10.97	11.14	0.17	636.8	1443.4	156.5	619.4	108.0	9.7	85.4	10.8	61.5	10.2	26.6	3.0	19.4	2.4	265.4	3,459	956	2,964	495
RM056	N963310	11.14	11.50	0.36	286.2	614.2	70.7	282.3	54.4	7.2	47.4	6.7	38.0	6.9	18.5	2.3	15.2	2.1	184.8	1,637	452	1,308	329

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM056	N963311	11.89	14.50	2.61	707.2	1621.5	174.0	691.7	119.4	11.8	94.2	11.8	66.3	11.1	27.7	3.3	20.1	2.9	275.6	3,839	1,063	3,314	525
RM056	N963312	14.50	16.90	2.40	642.7	1467.9	160.7	634.5	111.1	11.0	87.5	11.1	63.0	10.5	27.2	3.1	18.9	2.7	262.9	3,515	980	3,017	498
RM056	N963313	16.90	19.16	2.26	736.5	1566.2	178.2	705.7	126.4	11.4	96.1	12.3	64.8	11.2	28.9	3.3	20.3	2.8	273.0	3,837	1,087	3,313	524
RM056	N963314	19.16	20.50	1.34	729.5	1517.1	170.4	670.7	119.4	10.9	87.6	11.0	56.2	9.0	22.8	2.6	15.7	2.2	213.3	3,639	1,028	3,207	432
RM056	N963315	20.50	23.44	2.94	768.2	1621.5	185.5	733.7	125.2	11.1	95.2	12.6	67.4	11.4	28.7	3.4	20.7	2.7	278.1	3,965	1,124	3,434	531
RM056	N963316	23.44	26.00	2.56	835.0	1719.8	198.1	775.7	139.2	11.6	99.8	13.5	73.6	12.3	29.9	3.4	21.0	3.0	298.4	4,234	1,200	3,668	567
RM056	N963317	26.00	28.44	2.44	723.6	1517.1	174.6	690.5	121.8	11.0	92.9	11.9	67.4	11.1	28.0	3.2	19.8	2.9	274.3	3,750	1,066	3,228	523
RM056	N963318	28.44	28.69	0.25	60.8	125.3	14.9	59.1	12.5	1.4	11.9	1.8	10.7	2.0	5.7	0.8	5.4	0.7	58.8	372	99	273	99
RM056	N963319	28.69	31.65	2.96	756.5	1584.6	183.7	720.8	129.9	11.5	96.1	12.9	69.5	11.9	30.1	3.3	20.8	3.0	287.0	3,922	1,117	3,375	546
RM056	N963321	31.65	33.10	1.45	809.2	1682.9	196.3	771.0	136.3	12.0	101.7	13.2	71.5	12.3	30.8	3.6	21.2	3.0	295.9	4,161	1,188	3,596	565
RM056	N963322	33.22	36.09	2.87	769.4	1596.9	185.5	739.5	131.6	11.8	99.8	13.1	71.4	12.2	31.6	3.5	21.0	3.0	294.6	3,985	1,141	3,423	562
RM056	N963323	36.27	37.50	1.23	693.1	1480.2	172.8	683.5	122.9	11.4	96.4	13.1	72.5	12.1	30.8	3.6	21.2	2.8	297.2	3,713	1,065	3,153	561
RM056	N963324	37.50	39.15	1.65	790.5	1652.2	192.1	762.8	135.1	11.9	104.0	13.8	74.1	12.5	31.6	3.7	20.9	2.8	302.2	4,110	1,178	3,533	578
RM056	N963325	39.32	42.05	2.73	805.7	1646.1	191.5	757.0	137.4	11.4	105.7	14.0	76.8	12.7	32.4	3.6	21.8	3.0	306.1	4,125	1,177	3,538	587
RM056	N963326	42.05	44.94	2.89	772.9	1615.3	187.3	741.8	132.8	11.7	102.7	13.8	75.3	13.2	31.6	3.6	21.5	3.0	309.9	4,036	1,151	3,450	586
RM056	N963327	44.94	47.57	2.63	718.9	1547.8	178.2	706.8	131.6	11.4	97.7	13.1	73.7	12.4	31.7	3.3	21.1	3.1	303.5	3,854	1,103	3,283	571
RM056	N963328	47.57	50.15	2.58	769.4	1621.5	186.7	744.2	136.3	12.0	106.6	14.2	78.5	13.0	31.1	3.6	20.6	3.1	303.5	4,044	1,160	3,458	586
RM056	N963329	50.15	50.35	0.20	296.7	671.9	76.1	305.6	55.4	5.3	44.0	5.9	32.7	5.5	13.7	1.6	10.2	1.4	130.2	1,656	476	1,406	250
RM056	N963330	50.35	52.00	1.65	845.6	1768.9	204.2	808.3	141.5	11.7	107.8	14.5	75.5	12.5	30.2	3.4	19.4	2.7	290.8	4,337	1,244	3,768	569
RM056	N963331	52.00	54.00	2.00	781.1	1633.8	187.9	759.3	135.1	11.8	104.3	13.8	72.0	12.2	29.2	3.2	19.1	2.6	287.0	4,052	1,168	3,497	555
RM056	N963332	54.00	56.53	2.53	794.0	1646.1	192.1	761.7	138.0	12.2	106.2	14.1	72.0	12.1	28.4	3.1	18.4	2.5	275.6	4,076	1,178	3,532	545
RM056	N963333	56.69	58.96	2.27	748.3	1560.1	183.0	733.7	132.8	12.0	106.3	13.8	73.8	11.5	27.3	2.9	17.8	2.6	266.7	3,893	1,137	3,358	535
RM056	N963334	58.96	60.90	1.94	720.1	1510.9	175.8	705.7	131.6	11.7	102.6	13.2	67.5	10.6	24.7	2.7	16.3	2.3	242.6	3,738	1,094	3,244	494
RM056	N963335	60.90	63.68	2.78	785.8	1621.5	190.9	767.5	142.6	12.1	110.0	13.2	65.2	10.4	23.3	2.6	16.9	2.5	231.1	3,996	1,179	3,508	487
RM056	N963336	63.68	66.60	2.92	869.0	1787.3	204.8	816.5	138.6	12.2	100.7	12.0	55.9	8.8	21.1	2.3	15.3	2.3	200.6	4,248	1,228	3,816	431
RM056	N963337	66.75	67.50	0.75	731.8	1510.9	172.8	684.7	112.5	11.1	79.1	9.2	45.0	6.9	16.2	2.0	13.0	2.0	160.6	3,558	1,024	3,213	345
RM056	N963338	67.50	68.25	0.75	32.6	79.6	10.1	38.7	7.8	0.9	6.9	1.0	5.7	1.0	3.3	0.5	3.1	0.5	32.1	224	63	169	55
RM056	N963339	68.25	70.98	2.73	811.6	1682.9	193.3	750.0	123.5	12.2	83.7	9.7	47.2	7.5	18.1	2.1	14.2	2.2	175.3	3,933	1,124	3,561	372
RM056	N963341	70.98	73.90	2.92	743.6	1517.1	175.2	682.3	110.3	11.6	76.1	8.9	43.6	6.9	17.0	2.2	14.0	2.1	158.7	3,570	1,020	3,228	341
RM056	N963342	73.90	76.54	2.64	785.8	1609.2	182.4	713.8	112.3	11.6	76.5	9.0	43.6	6.8	17.6	2.1	14.8	2.2	161.9	3,750	1,061	3,404	346
RM056	N963343	76.54	79.13	2.59	851.5	1719.8	196.9	772.2	119.4	11.7	79.9	9.0	44.8	7.1	17.7	2.2	15.0	2.3	164.4	4,014	1,142	3,660	354
RM056	N963344	79.13	81.99	2.86	808.1	1621.5	185.5	729.0	114.1	11.7	75.5	8.8	41.9	6.7	16.5	2.1	13.3	2.1	156.2	3,793	1,079	3,458	335
RM056	N963345	81.99	84.90	2.91	797.5	1627.6	184.3	717.3	110.5	11.2	71.3	8.1	38.2	6.1	15.0	1.8	12.5	1.9	147.9	3,751	1,058	3,437	314
RM056	N963346	84.90	85.85	0.95	813.9	1682.9	187.9	730.2	109.9	11.4	72.5	8.2	38.6	6.1	14.9	1.9	12.3	2.0	147.3	3,840	1,075	3,525	315
RM056	N963347	85.95	87.88	1.93	836.2	1762.8	189.7	731.3	110.4	12.1	65.1	7.7	34.4	5.6	12.5	1.7	11.4	1.8	137.2	3,920	1,074	3,630	290
RM056	N963348	87.88	90.32	2.44	804.5	1713.6	184.8	713.8	105.6	11.8	62.9	7.5	34.0	5.4	12.9	1.7	10.6	1.8	137.8	3,809	1,046	3,522	286
RM056	N963349	90.32	93.23	2.91	846.8	1744.3	193.3	729.0	107.2	11.2	71.1	7.9	39.7	6.4	17.0	1.9	12.6	2.0	156.2	3,947	1,077	3,621	326
RM056	N963350	93.23	95.57	2.34	823.3	1695.2	186.1	704.5	101.7	11.1	66.0	7.6	37.4	5.9	15.4	1.9	11.5	1.8	145.4	3,815	1,037	3,511	304
RM056	N963351	95.57	95.83	0.26	572.3	1216.1	135.3	531.9	99.2	10.8	80.9	11.7	64.3	10.5	25.7	3.0	18.5	2.6	246.4	3,029	842	2,555	474
RM056	N963352	95.83	98.06	2.23	824.5	1701.3	186.1	705.7	105.4	11.3	72.3	8.8	45.5	7.4	19.6	2.2	14.0	2.2	179.1	3,885	1,051	3,523	362
RM056	N963353	98.06	98.65	0.59	991.0	1922.5	210.2	781.5	114.0	11.9	75.6	9.0	46.4	7.7	19.7	2.4	14.8	2.2	184.1	4,393	1,161	4,019	374
RM056	N963354	98.76	99.33	0.57	743.6	1517.1	160.7	615.9	89.9	10.6	54.8	7.0	34.4	6.0	14.1	1.9	12.2	1.9	151.1	3,421	908	3,127	294
RM056	N963355	99.33	101.59	2.26	437.4	921.3	96.9	374.4	58.1	9.4	37.8	4.9	25.0	4.7	12.0	1.7	10.9	1.7	123.9	2,120	559	1,888	232
RM056	N963356	101.59	102.52	0.93	288.5	625.3	66.7	261.3	43.5	8.7	30.3	4.3	23.4	4.5	11.7	1.7	11.4	1.9	125.0	1,508	399	1,285	223
RM056	N963357	102.52	103.27	0.75	158.9	369.8	44.8	194.8	38.0	8.0	30.2	4.2	24.1	4.6	12.3	1.8	12.1	2.0	125.7	1,031	306	806	225
RM056	N963358	103.27	106.26	2.99	369.4	807.1	83.2	314.9	50.9	8.9	38.1	5.6	29.7	5.5	14.4	2.0	12.9	2.3	149.2	1,894	484	1,626	269
RM056	N963359	106.26	106.60	0.34	382.3	873.4	96.9	401.2	79.3	9.8	65.1	10.3	54.4	9.8	23.9	3.2	20.1	3.2	251.4	2,284	642	1,833	451
RM056	N963361	106.60	107.50	0.90	870.2	1793.5	196.3	755.8	116.5	10.8	78.8	10.8	52.7	9.3	21.6	2.8	17.4	2.7	226.7	4,166	1,132	3,732	434
RM056	N963362	107.50	108.00	0.50	432.8	926.2	99.4	377.9	61.0	7.6	42.5	5.9	30.2	5.3	13.4	1.8	11.2	1.8	139.7	2,157	574	1,897	259
RM056	N963363	108.00	109.32	1.32	767.0	1603.1	169.8	648.5	96.8	11.3	65.0	8.7	43.8	7.5	17.6	2.4	14.8	2.4	189.2	3,648	968	3,285	363

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM056	N963364	109.42	111.57	2.15	819.8	1682.9	178.2	682.3	100.1	10.8	61.7	7.8	37.9	6.5	15.1	2.1	13.0	2.1	167.0	3,787	1,006	3,463	324
RM056	N963365	111.57	114.37	2.80	798.7	1664.5	177.0	671.9	98.9	10.9	61.0	7.6	37.0	6.4	14.6	2.0	12.6	1.9	156.2	3,721	992	3,411	310
RM056	N963366	114.37	117.30	2.93	860.8	1775.0	189.1	720.8	103.3	10.9	60.5	7.7	35.4	6.1	14.8	1.9	12.6	2.0	155.6	3,956	1,056	3,649	307
RM056	N963367	117.30	119.35	2.05	921.8	1904.0	204.8	776.8	109.3	10.9	61.5	7.2	33.3	5.7	13.6	1.8	11.6	1.9	147.3	4,212	1,131	3,917	295
RM056	N963368	119.35	121.45	2.10	916.0	1885.6	203.0	775.7	109.2	10.9	61.4	7.0	32.5	5.3	12.2	1.8	10.9	1.8	132.1	4,165	1,127	3,889	276
RM056	N963369	121.62	124.66	3.04	966.4	1990.0	217.5	824.6	116.5	10.9	65.7	7.5	34.2	5.7	13.3	1.8	11.6	2.0	142.9	4,411	1,200	4,115	296
RM056	N963370	124.66	127.53	2.87	955.8	1959.3	211.4	810.6	114.9	11.1	64.3	7.6	34.3	5.7	13.6	1.8	11.8	1.9	143.5	4,348	1,179	4,052	296
RM056	N963371	127.71	130.50	2.79	971.1	1990.0	213.8	807.1	114.1	11.1	63.3	7.5	34.9	5.9	13.7	1.9	12.3	1.9	150.5	4,399	1,178	4,096	303
RM056	N963372	130.50	133.37	2.87	871.4	1799.6	193.3	733.7	102.7	10.6	58.4	7.0	32.0	5.4	13.3	1.7	11.2	1.9	137.8	3,980	1,069	3,701	279
RM056	N963373	133.37	136.25	2.88	829.2	1744.3	187.3	725.5	107.2	10.8	67.7	8.6	41.8	7.1	17.0	2.3	14.2	2.4	179.7	3,945	1,070	3,593	351
RM056	N963374	136.25	138.00	1.75	824.5	1695.2	180.6	695.2	101.7	11.1	60.7	7.7	37.9	6.5	15.4	2.1	13.2	2.0	163.8	3,818	1,023	3,497	320
RM056	N963375	138.00	139.80	1.80	884.3	1830.3	198.8	759.3	110.3	11.1	63.6	7.5	33.5	5.5	12.6	1.7	10.9	1.8	136.5	4,068	1,109	3,783	285
RM056	N963376	139.90	141.00	1.10	886.6	1842.6	199.3	767.5	111.9	11.3	64.5	7.4	33.7	5.8	13.2	1.8	11.6	1.8	144.1	4,103	1,120	3,808	295
RM056	N963377	141.00	143.69	2.69	938.2	1940.9	209.6	815.3	114.2	12.1	66.7	7.9	35.2	6.0	13.9	1.8	11.6	1.9	147.9	4,323	1,182	4,018	305
RM056	N963378	143.69	146.48	2.79	897.2	1873.3	201.2	782.6	113.5	12.7	66.7	7.7	35.0	5.8	12.8	1.7	11.2	1.8	141.6	4,165	1,140	3,868	297
RM056	N963379	146.48	147.86	1.38	770.5	1603.1	173.4	681.2	98.6	12.2	58.4	7.1	32.6	5.4	13.0	1.7	11.3	1.8	139.1	3,609	993	3,327	283
RM056	N963381	147.86	150.78	2.92	1005.1	2088.3	224.7	883.0	130.5	12.4	68.1	7.8	35.6	6.0	13.7	1.9	11.4	1.8	144.1	4,634	1,282	4,332	303
RM056	N963382	150.78	153.43	2.65	903.1	1879.5	207.2	792.0	113.5	12.5	71.1	8.1	38.3	6.1	14.6	1.8	11.5	1.7	138.4	4,199	1,159	3,895	304
RM056	N963383	153.43	156.00	2.57	974.6	2033.0	224.7	851.5	122.9	12.1	75.0	8.8	41.1	6.5	15.8	1.8	12.5	1.9	147.9	4,530	1,249	4,207	323
RM056	N963384	156.00	158.20	2.20	955.8	2039.1	223.5	858.5	123.5	12.8	79.9	8.6	42.5	6.6	15.9	1.9	12.1	1.9	154.3	4,537	1,257	4,200	337
RM056	N963385	158.20	161.08	2.88	984.0	2008.4	228.3	871.3	125.2	12.6	79.2	9.1	43.7	7.1	16.6	1.9	13.1	2.0	159.4	4,562	1,278	4,217	345
RM056	N963386	161.08	162.88	1.80	758.8	1621.5	180.0	687.0	99.5	12.6	68.1	7.8	37.9	6.0	14.7	1.7	11.4	1.7	137.2	3,646	1,012	3,347	299
RM056	N963387	162.88	165.75	2.87	1016.8	2106.7	236.8	913.3	132.2	13.4	87.0	10.1	48.9	7.4	17.2	2.1	13.4	2.1	167.0	4,774	1,341	4,406	369
RM056	N963388	165.75	167.09	1.34	971.1	2020.7	228.3	876.0	129.3	12.8	86.3	10.0	47.7	7.4	18.2	2.1	14.1	2.2	167.6	4,594	1,291	4,225	368
RM056	N963389	167.09	170.00	2.91	877.3	1854.9	207.8	815.3	126.4	12.7	85.6	9.9	47.2	7.3	17.6	2.0	12.8	1.9	163.2	4,242	1,207	3,882	360
RM056	N963390	170.00	172.38	2.38	865.5	1830.3	203.0	796.6	118.9	13.4	76.7	8.9	42.5	6.7	16.1	1.9	12.3	1.9	150.5	4,145	1,170	3,814	331
RM056	N963391	172.52	172.80	0.28	818.6	1738.2	190.9	731.3	105.9	12.7	65.1	7.5	36.3	5.6	13.9	1.7	11.1	1.9	134.6	3,875	1,072	3,585	290
RM056	N963392	172.80	175.50	2.70	901.9	1842.6	207.8	796.6	111.8	12.7	69.7	7.8	37.8	5.9	14.1	1.7	11.4	1.8	135.2	4,159	1,162	3,861	298
RM056	N963393	175.50	178.00	2.50	808.1	1682.9	187.3	717.3	102.6	11.3	64.1	7.3	34.1	5.5	13.2	1.6	10.4	1.7	127.6	3,775	1,049	3,498	277
RM056	N963394	178.00	180.96	2.96	971.1	1977.7	224.7	856.1	124.1	12.5	76.7	8.7	41.8	6.7	17.0	2.0	12.9	2.1	158.7	4,493	1,255	4,154	339
RM056	N963395	180.96	181.27	0.31	852.6	1793.5	196.9	760.5	110.0	11.5	70.3	8.2	40.3	6.6	16.9	2.1	13.3	2.0	162.6	4,047	1,116	3,714	334
RM056	N963396	181.27	182.58	1.31	933.5	1947.0	216.3	828.1	119.4	12.5	75.3	8.5	41.3	6.5	15.8	2.0	12.5	2.0	152.4	4,373	1,214	4,044	329
RM056	N963397	182.58	184.09	1.51	883.1	1805.8	204.2	771.0	110.4	12.2	67.9	7.5	36.7	6.0	14.5	1.7	11.2	1.8	128.3	4,062	1,130	3,774	288
RM056	N963398	184.09	185.45	1.36	890.2	1873.3	206.6	794.3	114.8	12.5	70.8	8.0	38.9	6.1	15.1	1.8	12.1	2.0	139.1	4,186	1,163	3,879	306
RM056	N963399	185.62	188.50	2.88	803.4	1689.0	187.3	718.5	103.2	10.5	65.1	7.7	37.0	6.0	15.9	1.9	12.6	1.9	146.0	3,806	1,054	3,501	305
RM056	N963401	188.50	191.18	2.68	788.1	1646.1	182.4	702.2	101.0	11.2	62.9	7.2	34.4	5.5	13.4	1.7	10.9	1.8	128.3	3,697	1,027	3,420	277
RM056	N963402	191.18	193.94	2.76	891.3	1836.5	205.4	789.6	112.1	12.8	68.2	7.8	36.3	5.9	14.0	1.8	11.6	1.8	134.0	4,129	1,151	3,835	294
RM056	N963403	193.94	196.90	2.96	946.5	1965.4	218.7	839.8	123.5	13.8	76.9	8.6	42.0	6.5	16.0	1.9	13.2	2.0	147.3	4,422	1,233	4,094	328
RM056	N963404	196.90	197.90	1.00	1033.2	2155.8	245.3	953.0	135.1	13.0	86.9	9.7	45.7	7.5	18.0	2.1	14.3	2.3	167.6	4,889	1,389	4,522	367
RM056	N963405	197.90	199.25	1.35	1033.2	2131.3	240.4	920.3	131.0	12.4	80.8	9.1	42.7	6.7	16.5	2.0	12.6	2.1	154.3	4,795	1,344	4,456	339
RM056	N963406	199.25	199.95	0.70	1471.9	3058.7	345.6	1347.2	191.9	13.6	121.0	13.6	66.1	10.7	26.9	3.3	21.3	3.3	243.8	6,939	1,964	6,415	524
RM057	N963407	1.48	2.44	0.96	530.1	1024.5	128.1	473.6	89.8	9.7	68.1	9.7	47.2	9.0	22.0	2.6	15.3	2.2	203.2	2,635	748	2,246	389
RM057	N963408	2.44	3.27	0.83	722.4	1320.5	174.0	641.5	117.1	11.2	87.0	12.2	57.5	10.8	25.7	3.0	18.3	2.7	248.9	3,453	1,002	2,976	477
RM057	N963409	3.66	5.00	1.34	808.1	1566.2	196.9	715.0	131.0	11.6	96.2	13.5	63.0	12.3	29.2	3.3	19.6	3.0	279.4	3,948	1,120	3,417	531
RM057	N963410	5.00	6.55	1.55	789.3	1572.3	189.1	696.3	128.1	11.3	92.5	12.9	61.3	11.6	28.2	3.3	19.8	3.0	270.5	3,890	1,088	3,375	514
RM057	N963411	6.71	9.22	2.51	701.3	1345.1	167.9	615.9	114.5	10.7	83.3	11.9	55.3	10.6	25.7	3.1	17.8	2.7	247.0	3,413	965	2,945	468
RM057	N963412	9.45	11.00	1.55	770.5	1510.9	186.7	684.7	125.8	11.3	92.8	13.3	62.2	12.1	29.0	3.4	20.3	3.1	278.1	3,804	1,073	3,279	526
RM057	N963413	11.00	12.93	1.93	750.6	1467.9	180.6	662.5	119.4	11.1	90.8	12.7	59.5	11.7	27.4	3.3	19.1	2.9	261.6	3,681	1,035	3,181	500
RM057	N963414	13.11	15.73	2.62	796.3	1547.8	189.1	697.5	125.8	11.6	93.6	13.3	62.1	11.8	28.5	3.3	19.3	2.8	266.7	3,869	1,088	3,357	513
RM057	N963415	15.73	18.67	2.94	762.3	1510.9	184.8	676.5	121.8	11.2	91.6	13.0	60.8	11.9	28.7	3.3	19.2	2.8	275.6	3,775	1,057	3,256	518

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM057	N963416	18.67	20.50	1.83	729.5	1431.1	176.4	652.0	121.2	11.5	92.0	13.2	61.6	12.0	28.6	3.5	19.9	2.8	280.6	3,636	1,024	3,110	526
RM057	N963417	20.50	22.09	1.59	722.4	1394.2	173.4	647.4	122.3	10.9	92.2	13.3	63.1	12.3	29.6	3.4	20.2	3.0	281.9	3,590	1,019	3,060	530
RM057	N963418	22.25	25.00	2.75	730.6	1437.2	178.2	661.4	124.1	11.0	92.3	13.2	63.0	12.1	29.2	3.4	19.9	2.8	278.1	3,656	1,040	3,132	525
RM057	N963419	25.00	27.50	2.50	866.7	1670.6	207.2	750.0	139.7	12.3	102.1	14.5	68.1	12.8	30.5	3.6	21.2	3.0	289.5	4,192	1,179	3,634	558
RM057	N963421	27.50	30.30	2.80	851.5	1621.5	199.3	724.3	132.8	12.0	98.5	14.1	65.0	12.4	29.4	3.5	20.4	3.1	280.6	4,068	1,135	3,529	539
RM057	N963422	30.30	30.46	0.16	127.3	250.6	30.7	108.6	20.2	1.6	15.4	2.3	11.5	2.2	6.2	0.8	4.9	0.7	60.7	644	173	537	106
RM057	N963423	30.46	33.22	2.76	845.6	1670.6	201.8	733.7	132.2	12.0	98.0	13.7	64.2	12.0	29.2	3.4	19.8	2.9	275.6	4,115	1,145	3,584	531
RM057	N963424	33.22	36.03	2.81	870.2	1707.5	206.6	751.2	137.4	12.6	104.2	14.4	66.1	12.8	30.4	3.6	20.6	3.0	285.7	4,226	1,176	3,673	553
RM057	N963425	36.03	39.00	2.97	892.5	1732.0	212.6	761.7	138.0	12.3	104.0	14.6	66.7	12.9	31.0	3.6	20.9	3.1	288.3	4,294	1,194	3,737	557
RM057	N963426	39.00	42.00	3.00	952.3	1830.3	222.3	801.3	143.8	12.8	102.6	14.3	66.0	12.5	30.0	3.5	20.6	3.0	288.3	4,504	1,248	3,950	554
RM057	N963427	42.00	44.10	2.10	853.8	1615.3	200.0	730.2	132.2	11.8	93.8	13.0	61.4	11.7	27.3	3.3	19.0	2.8	269.2	4,045	1,137	3,531	513
RM057	N963428	44.10	46.50	2.40	768.2	1486.4	182.4	662.5	123.5	11.4	93.4	13.4	63.5	12.1	30.0	3.4	19.8	2.9	279.4	3,752	1,045	3,223	529
RM057	N963429	46.50	48.17	1.67	900.7	1744.3	211.4	761.7	136.3	12.0	100.3	14.1	65.2	12.3	30.1	3.4	20.8	3.0	287.0	4,303	1,189	3,754	548
RM057	N963430	48.31	50.95	2.64	897.2	1719.8	211.4	766.3	139.7	12.4	105.0	14.7	68.9	13.1	31.6	3.7	21.6	3.0	301.0	4,309	1,201	3,734	575
RM057	N963431	50.95	52.40	1.45	887.8	1842.6	200.0	760.5	125.2	13.3	114.3	14.9	80.0	13.2	33.6	4.2	23.2	3.4	321.3	4,437	1,181	3,816	621
RM057	N963432	52.40	54.36	1.96	769.4	1676.8	179.4	692.8	120.6	13.7	109.6	14.2	76.2	13.2	32.8	3.9	23.0	3.3	309.9	4,039	1,083	3,439	600
RM057	N963433	54.56	56.72	2.16	856.1	1830.3	199.3	760.5	127.0	14.1	111.8	14.2	76.0	13.3	32.7	4.0	23.6	3.5	323.8	4,390	1,177	3,773	617
RM057	N963434	57.00	60.00	3.00	889.0	1861.0	204.2	772.2	130.5	13.8	114.5	15.1	81.7	13.7	34.9	4.5	23.9	3.8	337.8	4,500	1,204	3,857	644
RM057	N963435	60.00	63.00	3.00	907.8	1885.6	207.8	787.3	131.6	14.3	115.8	14.5	81.4	13.6	34.6	4.0	23.9	3.6	339.1	4,565	1,223	3,920	645
RM057	N963436	63.00	65.72	2.72	856.1	1818.0	202.4	767.5	129.3	13.1	111.5	15.2	80.5	13.5	34.6	4.2	25.5	3.6	340.3	4,415	1,195	3,773	642
RM057	N963437	65.72	68.49	2.77	791.6	1670.6	186.7	708.0	125.2	13.1	106.6	13.8	76.5	13.0	33.0	4.0	22.0	3.6	330.2	4,098	1,110	3,482	616
RM057	N963438	68.49	71.50	3.01	714.2	1560.1	171.0	659.0	115.8	12.7	101.4	13.2	74.7	12.0	30.9	3.9	21.5	3.2	308.6	3,802	1,034	3,220	582
RM057	N963439	71.50	74.44	2.94	703.7	1517.1	165.5	638.0	113.8	11.9	94.0	12.4	66.9	11.2	29.5	3.6	21.5	3.1	280.6	3,673	997	3,138	535
RM057	N963441	74.44	77.32	2.88	825.6	1775.0	194.5	746.5	121.2	13.3	104.3	13.7	72.2	12.1	32.4	3.9	21.5	3.2	304.8	4,244	1,148	3,663	581
RM057	N963442	77.32	79.31	1.99	783.4	1689.0	190.9	736.0	129.3	13.3	104.8	13.9	76.0	12.8	32.7	4.2	22.3	3.4	322.6	4,135	1,146	3,529	606
RM057	N963443	79.31	79.75	0.44	126.1	261.6	30.4	119.6	23.7	5.2	23.7	3.2	19.2	3.3	9.2	1.2	7.6	1.1	94.1	729	196	561	168
RM057	N963444	79.75	82.52	2.77	749.4	1615.3	183.0	719.7	121.8	13.6	106.0	13.3	72.7	12.1	31.7	3.8	21.4	3.2	307.3	3,974	1,110	3,389	585
RM057	N963445	82.52	85.47	2.95	810.4	1811.9	204.2	796.6	135.7	14.4	112.6	14.3	78.4	13.1	32.5	4.0	21.8	3.4	328.9	4,382	1,229	3,759	623
RM057	N963446	85.47	88.43	2.96	873.7	1928.6	218.7	850.3	144.4	13.4	118.1	15.3	80.5	13.5	35.3	4.3	24.6	3.6	337.8	4,662	1,309	4,016	646
RM057	N963447	88.43	91.19	2.76	1231.4	2567.4	287.6	1103.4	179.2	14.1	140.0	17.2	94.3	15.7	38.3	4.8	26.2	3.9	387.3	6,111	1,682	5,369	742
RM057	N963448	91.19	91.85	0.66	26.3	64.0	8.0	33.6	8.3	0.9	8.6	1.3	8.9	1.6	4.7	0.7	4.6	0.7	45.6	218	60	140	78
RM057	N963449	91.85	94.70	2.85	1154.0	2426.1	275.5	1062.6	185.0	14.1	159.1	20.5	115.3	18.7	47.2	5.6	31.1	4.7	464.8	5,984	1,659	5,103	881
RM057	N963450	94.70	96.70	2.00	1095.4	2389.2	265.8	1047.4	176.3	13.3	144.7	18.5	98.9	16.8	42.4	5.3	27.9	4.4	422.9	5,769	1,607	4,974	795
RM057	N963451	96.70	98.33	1.63	1489.5	3034.2	355.2	1376.3	242.4	14.8	198.3	25.5	136.6	22.6	58.5	7.0	39.3	5.9	568.9	7,575	2,136	6,498	1,077
RM057	N963452	98.45	100.96	2.51	1507.0	3071.0	338.3	1283.0	200.0	15.1	152.1	19.1	99.2	16.1	40.7	4.9	27.8	4.3	406.4	7,185	1,940	6,399	786
RM057	N963453	100.96	103.78	2.82	890.2	1940.9	215.7	839.8	143.8	13.7	118.7	15.7	85.2	14.4	36.0	4.5	24.7	3.7	359.4	4,706	1,300	4,030	676
RM057	N963454	103.78	106.50	2.72	887.8	1947.0	218.7	846.8	146.7	13.7	114.0	15.1	81.6	13.5	34.5	4.3	23.0	3.6	337.8	4,688	1,309	4,047	641
RM057	N963455	106.50	109.50	3.00	930.0	1965.4	222.9	851.5	139.2	13.9	113.7	14.6	78.8	13.4	33.2	3.9	22.7	3.3	316.2	4,723	1,307	4,109	614
RM057	N963456	109.50	112.39	2.89	813.9	1781.2	202.4	787.3	132.2	12.7	105.6	13.9	74.8	12.7	32.1	3.9	21.5	2.9	320.0	4,317	1,211	3,717	600
RM057	N963457	112.39	115.45	3.06	885.5	1934.7	215.7	850.3	144.9	13.3	110.4	14.6	78.5	13.1	34.4	4.2	22.9	3.2	334.0	4,660	1,304	4,031	629
RM057	N963458	115.45	118.41	2.96	851.5	1854.9	209.6	810.6	141.5	13.4	111.6	14.8	81.4	13.5	32.6	4.2	22.2	3.4	339.1	4,504	1,258	3,868	636
RM057	N963459	118.41	119.79	1.38	871.4	1910.2	212.0	825.8	141.5	13.1	112.6	15.1	81.1	13.6	35.7	4.2	23.7	3.4	336.5	4,600	1,276	3,961	639
RM057	N963461	119.79	120.14	0.35	290.9	638.8	75.4	300.9	57.2	7.1	50.0	6.8	39.8	7.2	19.9	2.5	15.2	2.4	191.1	1,705	480	1,363	342
RM057	N963462	120.14	122.00	1.86	1035.6	2192.7	239.8	922.6	149.0	13.3	105.3	12.7	65.7	10.4	26.3	2.8	16.2	2.4	256.5	5,051	1,390	4,540	512
RM057	N963463	122.00	124.03	2.03	917.1	2014.6	223.5	865.5	142.1	13.9	107.7	13.2	67.5	11.5	28.1	3.1	17.4	2.7	266.7	4,695	1,312	4,163	532
RM057	N963464	124.03	125.70	1.67	823.3	1805.8	201.8	778.0	128.7	12.4	97.2	11.7	62.1	9.5	23.4	2.8	15.3	2.4	233.7	4,208	1,182	3,738	470
RM057	N963465	125.70	125.88	0.18	280.3	598.2	72.4	288.1	59.5	7.9	51.9	7.2	42.8	7.8	20.9	2.8	16.1	2.6	206.4	1,665	470	1,298	366
RM057	N963466	125.88	128.05	2.17	762.3	1689.0	192.7	680.0	117.7	12.6	83.2	10.6	57.2	8.7	21.4	2.5	15.7	2.2	212.7	3,869	1,058	3,442	427
RM057	N963467	128.05	130.50	2.45	829.2	1793.5	190.9	649.7	93.5	8.9	57.6	6.7	33.4	5.4	13.4	1.8	11.9	1.7	143.5	3,841	974	3,557	284
RM057	N963468	130.50	130.87	0.37	314.3	665.8	77.6	275.3	55.3	7.3	41.6	6.3	37.9	6.4	18.5	2.5	15.5	2.2	181.0	1,707	452	1,388	319

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM057	N963469	130.87	132.30	1.43	960.5	1940.9	207.8	666.0	97.3	8.2	55.0	6.9	35.5	5.7	15.0	2.0	13.4	1.7	162.6	4,178	1,013	3,873	306
RM057	N963470	132.30	134.92	2.62	294.4	611.7	71.9	253.1	47.3	6.2	37.2	5.3	29.9	5.3	14.8	2.0	14.3	1.9	160.6	1,556	408	1,278	278
RM057	N963471	135.03	137.00	1.97	268.6	571.2	67.8	236.8	43.7	5.7	34.7	5.3	29.7	5.3	14.6	1.9	13.1	1.9	154.3	1,455	383	1,188	266
RM057	N963472	137.00	137.87	0.87	141.3	303.4	37.9	133.6	27.8	4.5	22.5	3.7	21.4	3.6	11.2	1.4	10.4	1.5	113.2	837	224	644	193
RM057	N963473	137.87	140.48	2.61	269.7	567.5	67.1	237.9	45.2	5.8	39.1	5.9	34.8	6.4	17.9	2.5	16.6	2.1	189.2	1,508	391	1,187	320
RM057	N963474	140.48	143.47	2.99	283.8	583.5	70.1	242.6	48.1	6.0	36.6	5.4	31.7	5.7	15.3	2.2	14.5	2.1	167.0	1,515	398	1,228	286
RM057	N963475	143.47	146.13	2.66	289.7	609.3	71.0	251.9	47.2	6.6	36.4	5.5	31.6	5.7	15.2	2.0	13.9	1.9	164.4	1,552	407	1,269	283
RM057	N963476	146.13	148.15	2.02	307.3	637.5	75.2	263.6	49.5	5.6	34.2	5.1	28.4	5.1	13.9	1.8	12.9	1.8	144.1	1,586	422	1,333	253
RM057	N963477	148.15	149.46	1.31	313.1	643.7	75.6	264.8	49.3	5.4	33.7	4.8	27.8	5.0	13.4	1.9	13.0	1.6	140.3	1,593	422	1,347	247
RM057	N963478	149.66	152.33	2.67	313.1	656.0	77.1	274.1	50.8	5.4	33.4	5.0	28.6	4.9	13.5	1.8	12.9	1.8	144.8	1,623	436	1,371	252
RM057	N963479	152.33	155.09	2.76	299.1	620.3	73.6	255.4	45.6	6.3	37.3	5.5	31.8	5.8	15.6	2.1	13.9	1.9	161.3	1,576	412	1,294	282
RM057	N963481	155.09	157.94	2.85	297.9	625.3	73.3	258.9	47.9	6.3	37.5	5.3	31.7	5.4	15.2	2.1	12.9	2.0	158.7	1,580	417	1,303	277
RM057	N963482	157.94	159.85	1.91	292.0	609.3	71.4	251.9	46.1	6.3	37.6	5.6	32.0	5.6	15.3	2.1	13.9	2.0	161.9	1,553	407	1,271	282
RM057	N963483	159.85	161.85	2.00	290.9	609.3	72.5	254.3	48.1	6.1	37.8	5.4	30.2	5.5	14.9	2.2	14.1	2.0	165.1	1,558	410	1,275	283
RM057	N963484	162.00	164.73	2.73	303.8	636.3	72.7	249.6	46.1	6.0	35.7	5.1	29.3	5.5	14.9	1.9	13.6	1.9	156.2	1,579	403	1,309	270
RM057	N963485	164.73	167.71	2.98	306.1	635.1	73.5	257.8	49.0	5.9	37.8	5.5	33.3	5.7	16.1	2.1	13.5	2.0	165.1	1,608	419	1,321	287
RM057	N963486	167.71	169.84	2.13	307.3	644.9	77.8	277.6	55.3	7.2	43.0	6.7	39.7	7.0	19.9	2.7	17.4	2.4	203.8	1,713	457	1,363	350
RM057	N963487	169.84	172.63	2.79	798.7	1750.5	195.7	680.0	113.8	11.2	74.9	9.7	50.7	8.0	19.9	2.4	15.4	2.2	203.8	3,937	1,050	3,539	398
RM057	N963488	172.63	173.81	1.18	932.4	2039.1	236.2	838.6	153.1	14.4	110.9	15.0	78.4	13.0	30.3	3.5	22.6	3.1	313.7	4,804	1,321	4,199	605
RM057	N963489	174.50	177.53	3.03	733.0	1609.2	191.5	688.2	130.5	13.6	99.6	13.8	74.4	12.0	29.7	3.6	22.0	2.8	307.3	3,931	1,098	3,352	579
RM057	N963490	177.70	180.54	2.84	656.8	1504.8	177.6	648.5	125.2	12.5	100.5	14.2	77.9	13.2	32.6	4.2	24.1	3.2	328.9	3,724	1,044	3,113	611
RM057	N963491	180.54	183.50	2.96	734.2	1652.2	189.7	687.0	127.6	12.8	94.7	13.8	72.7	12.2	31.0	3.8	23.7	3.1	314.9	3,973	1,091	3,391	583
RM057	N963492	183.50	185.54	2.04	711.9	1590.8	184.8	664.9	126.4	13.0	94.5	13.5	72.8	12.5	31.8	4.0	24.1	3.6	314.9	3,864	1,062	3,279	585
RM057	N963493	185.78	188.70	2.92	743.6	1664.5	195.1	692.8	131.0	13.6	95.4	13.1	74.9	12.5	31.1	4.0	23.9	3.3	317.5	4,016	1,107	3,427	589
RM057	N963494	188.70	190.57	1.87	715.4	1578.5	185.5	670.7	121.8	12.3	89.6	12.8	67.4	11.1	28.0	3.4	21.6	2.9	281.9	3,803	1,058	3,272	531
RM057	N963495	190.57	192.18	1.61	295.6	653.5	82.5	304.4	61.2	8.4	45.9	7.0	41.2	7.5	21.3	3.0	19.2	2.8	204.4	1,758	496	1,397	361
RM057	N963496	192.18	194.90	2.72	676.7	1529.4	177.0	635.7	118.3	11.9	82.3	11.4	63.7	10.5	26.5	3.3	19.8	2.6	265.4	3,634	1,006	3,137	497
RM057	N963497	195.22	197.06	1.84	775.2	1732.0	198.8	724.3	127.6	13.0	90.0	12.4	67.6	11.0	27.0	3.4	20.9	2.8	279.4	4,085	1,131	3,558	528
RM057	N963498	197.06	199.92	2.86	635.7	1443.4	169.2	606.5	115.7	12.1	78.3	11.0	60.7	10.0	25.0	3.1	19.4	2.9	255.3	3,448	963	2,970	478
RM058	N963499	0.00	0.79	0.79	598.1	1296.0	148.6	529.5	100.9	11.2	76.1	10.6	59.8	10.3	25.6	3.0	20.3	2.8	250.8	3,144	849	2,673	470
RM058	N963501	1.22	2.26	1.04	457.4	862.3	112.8	442.1	82.1	9.4	67.1	9.1	53.9	8.9	22.8	2.6	17.4	2.3	211.4	2,362	700	1,957	405
RM058	N963502	3.66	4.38	0.72	709.5	1738.2	165.5	629.9	104.5	9.9	72.8	9.3	51.4	8.7	23.0	2.7	18.1	2.4	203.8	3,750	961	3,348	402
RM058	N963503	4.38	6.15	1.77	369.4	781.3	87.5	335.9	58.0	5.6	46.0	6.1	35.5	6.3	17.0	2.3	15.1	2.2	161.3	1,930	523	1,632	297
RM058	N963504	6.15	6.73	0.58	648.6	1431.1	151.6	586.7	103.1	9.4	74.3	9.8	54.5	8.9	23.9	2.8	17.9	2.7	212.7	3,338	906	2,921	417
RM058	N963505	6.86	9.82	2.96	742.4	1627.6	178.2	699.8	122.3	12.3	95.4	12.5	69.7	11.5	28.5	3.2	22.1	3.2	262.9	3,892	1,083	3,370	521
RM058	N963506	9.82	12.78	2.96	788.1	1744.3	192.1	753.5	133.9	12.3	100.4	13.1	73.5	12.1	30.8	3.5	22.7	3.3	280.6	4,164	1,166	3,612	552
RM058	N963507	12.78	13.00	0.22	274.4	583.5	66.5	250.8	44.1	6.0	34.9	4.8	26.3	4.5	11.9	1.5	10.2	1.3	112.6	1,433	392	1,219	214
RM058	N963508	13.00	16.00	3.00	749.4	1701.3	183.0	715.0	125.8	11.9	96.2	12.6	68.5	11.0	28.6	3.1	21.6	3.1	256.5	3,988	1,105	3,475	513
RM058	N963509	16.15	18.40	2.25	726.0	1658.3	180.0	696.3	125.2	12.2	95.5	12.5	68.5	10.9	28.8	3.1	21.5	3.1	245.1	3,887	1,083	3,386	501
RM058	N963510	18.40	19.17	0.77	730.6	1676.8	184.8	722.0	129.3	12.0	93.3	12.2	67.1	10.9	27.0	3.4	21.5	3.0	255.3	3,949	1,115	3,444	506
RM058	N963511	19.35	22.20	2.85	708.4	1615.3	176.4	683.5	126.4	11.1	91.9	11.8	67.5	10.6	27.4	3.3	22.0	2.9	242.6	3,801	1,066	3,310	491
RM058	N963512	22.20	25.06	2.86	816.3	1836.5	200.0	793.1	138.6	12.0	99.7	13.2	70.0	11.2	28.6	3.2	21.0	2.9	256.5	4,303	1,215	3,784	518
RM058	N963513	25.06	26.52	1.46	873.7	1996.2	214.5	844.5	154.8	12.6	109.3	14.0	75.9	12.4	30.9	3.6	23.2	3.1	279.4	4,648	1,304	4,084	564
RM058	N963514	26.52	26.66	0.14	67.8	141.3	15.9	61.0	13.1	1.3	9.9	1.6	9.7	1.6	5.4	0.7	5.5	0.8	53.1	389	101	299	90
RM058	N963515	26.66	28.36	1.70	826.8	1854.9	205.4	806.0	145.5	11.9	100.6	13.1	69.8	11.4	29.0	3.5	22.4	3.3	265.4	4,369	1,240	3,839	530
RM058	N963516	28.50	31.22	2.72	812.8	1854.9	201.8	797.8	138.0	12.1	99.0	12.6	69.2	11.1	29.5	3.5	23.5	3.2	262.9	4,332	1,219	3,805	526
RM058	N963517	31.22	33.71	2.49	723.6	1652.2	181.8	722.0	129.9	12.1	96.1	12.6	70.6	11.6	28.7	3.5	23.0	3.1	267.9	3,939	1,117	3,410	529
RM058	N963518	33.71	34.43	0.72	575.8	1302.1	146.8	596.0	114.6	11.6	83.3	11.1	63.2	10.6	27.4	3.3	22.0	3.0	256.5	3,228	932	2,735	492
RM058	N963519	34.43	37.31	2.88	794.0	1793.5	191.5	765.2	136.3	11.9	99.1	12.6	71.4	11.7	29.2	3.4	22.3	3.2	262.9	4,208	1,177	3,680	528
RM058	N963521	37.31	40.17	2.86	802.2	1768.9	195.7	757.0	137.4	12.2	97.6	12.8	70.3	11.8	29.6	3.4	23.2	3.1	266.7	4,192	1,173	3,661	531

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM058	N963522	40.17	43.08	2.91	852.6	1910.2	207.2	804.8	139.7	12.6	102.0	13.1	72.2	11.7	30.0	3.5	23.6	3.4	274.3	4,461	1,237	3,915	546
RM058	N963523	43.08	45.88	2.80	884.3	1983.9	212.6	836.3	144.9	13.1	103.8	13.2	73.5	11.7	31.8	3.6	23.7	3.6	270.5	4,611	1,281	4,062	548
RM058	N963524	45.88	48.59	2.71	829.2	1830.3	200.6	779.2	132.2	12.6	98.3	12.7	70.1	11.3	29.5	3.3	22.7	3.3	267.9	4,303	1,195	3,771	532
RM058	N963525	48.59	50.18	1.59	916.0	2008.4	224.1	858.5	146.1	12.4	99.2	12.8	69.1	11.3	28.4	3.5	21.4	3.1	264.1	4,678	1,311	4,153	525
RM058	N963526	50.18	50.62	0.44	99.6	214.4	25.1	93.0	16.5	1.7	11.6	1.8	9.3	1.6	4.7	0.6	4.3	0.5	41.0	526	146	448	77
RM058	N963527	50.62	53.43	2.81	849.1	1916.3	206.6	810.6	139.2	12.3	99.0	13.1	69.7	11.4	30.3	3.4	23.3	3.1	271.8	4,459	1,239	3,922	537
RM058	N963528	53.43	56.27	2.84	817.4	1824.2	195.7	766.3	137.4	13.3	100.3	13.2	72.8	11.9	29.5	3.5	24.3	3.3	270.5	4,284	1,185	3,741	542
RM058	N963529	56.27	59.03	2.76	908.9	1990.0	217.5	846.8	139.2	12.8	99.7	12.6	67.5	10.9	27.9	3.2	21.1	3.0	256.5	4,618	1,284	4,102	515
RM058	N963530	59.03	61.80	2.77	852.6	1867.2	206.6	783.8	137.4	12.5	97.5	12.7	67.1	10.8	28.2	3.2	21.5	2.9	256.5	4,361	1,208	3,848	513
RM058	N963531	61.80	64.72	2.92	887.8	1959.3	215.1	844.5	144.4	12.8	103.0	12.9	73.1	11.7	30.2	3.4	23.1	3.0	270.5	4,595	1,290	4,051	544
RM058	N963532	64.72	67.42	2.70	840.9	1842.6	199.3	783.8	135.1	11.7	94.5	11.9	66.1	10.4	27.2	3.1	21.1	2.8	248.3	4,299	1,196	3,802	497
RM058	N963533	67.42	70.28	2.86	892.5	1977.7	213.8	848.0	145.5	12.9	101.5	12.9	71.0	11.5	28.4	3.3	22.0	3.2	261.6	4,606	1,291	4,078	528
RM058	N963534	70.28	73.20	2.92	869.0	1922.5	212.6	813.0	150.2	12.5	103.3	13.4	73.2	12.1	30.5	3.5	22.0	3.1	271.8	4,513	1,262	3,967	546
RM058	N963535	73.20	75.77	2.57	813.9	1897.9	206.6	778.0	131.6	11.9	95.3	12.8	63.6	11.6	27.3	3.3	19.7	2.7	261.6	4,338	1,193	3,828	510
RM058	N963536	75.77	77.28	1.51	870.2	2002.3	220.5	832.8	140.3	12.9	99.7	13.2	67.3	11.6	28.4	3.3	20.4	2.8	279.4	4,605	1,274	4,066	539
RM058	N963537	77.42	80.42	3.00	863.2	1922.5	215.7	823.5	136.3	13.3	104.4	13.3	70.1	12.0	29.0	3.6	21.9	3.1	281.9	4,514	1,259	3,961	553
RM058	N963538	80.42	83.13	2.71	955.8	2137.4	232.6	869.0	147.3	13.1	102.6	13.3	68.6	11.9	29.2	3.4	22.1	3.0	289.5	4,899	1,331	4,342	557
RM058	N963539	83.13	86.06	2.93	846.8	1897.9	211.4	799.0	130.5	12.3	96.5	12.7	64.3	11.3	27.9	3.2	20.4	2.8	265.4	4,402	1,218	3,886	517
RM058	N963541	86.06	88.96	2.90	803.4	1830.3	203.6	787.3	131.0	12.2	97.7	13.5	67.8	11.6	28.8	3.5	21.1	2.9	283.2	4,298	1,203	3,756	542
RM058	N963542	88.96	91.65	2.69	835.0	1861.0	206.6	795.5	135.7	12.7	100.3	12.9	68.2	12.1	30.1	3.5	21.2	3.0	295.9	4,394	1,219	3,834	560
RM058	N963543	91.65	94.43	2.78	849.1	1928.6	209.0	808.3	138.6	13.4	103.7	14.2	73.5	12.5	32.5	3.8	22.6	3.2	307.3	4,520	1,244	3,934	587
RM058	N963544	94.43	97.35	2.92	769.4	1811.9	194.5	740.7	130.5	13.0	97.5	13.3	68.5	12.2	29.4	3.6	21.3	2.9	285.7	4,194	1,148	3,647	548
RM058	N963545	97.35	100.17	2.82	887.8	1977.7	219.3	839.8	144.9	13.3	111.1	15.0	79.2	13.8	34.3	4.0	25.2	3.4	325.1	4,694	1,298	4,070	624
RM058	N963546	100.17	103.11	2.94	842.1	1953.2	215.1	820.0	136.3	13.1	102.3	13.4	69.2	12.1	29.2	3.4	22.3	3.0	290.8	4,525	1,254	3,967	559
RM058	N963547	103.11	105.92	2.81	995.7	2186.6	241.6	921.5	153.7	13.5	111.1	15.1	75.8	13.5	33.6	3.9	22.9	3.1	316.2	5,108	1,408	4,499	609
RM058	N963548	105.92	108.92	3.00	754.1	1652.2	185.5	699.8	122.9	12.9	92.3	11.9	62.9	10.9	26.6	3.2	19.1	2.7	261.6	3,919	1,083	3,415	504
RM058	N963549	108.92	111.57	2.65	690.8	1492.5	166.1	646.2	108.2	13.1	89.8	11.3	60.8	10.2	26.3	3.0	19.1	2.7	248.9	3,589	993	3,104	485
RM058	N963550	111.57	114.43	2.86	641.5	1375.8	154.1	585.5	99.3	12.8	77.2	9.9	54.2	9.0	23.4	2.6	17.2	2.3	226.0	3,291	903	2,856	435
RM058	N963551	114.43	116.68	2.25	646.2	1437.2	161.9	624.0	108.9	12.1	83.2	10.6	57.8	9.9	26.0	2.8	19.0	2.6	235.6	3,438	963	2,978	460
RM058	N963552	117.04	119.93	2.89	799.9	1768.9	196.3	750.0	132.8	12.7	100.7	12.9	70.2	11.7	29.9	3.4	21.5	3.0	280.6	4,194	1,162	3,648	547
RM058	N963553	119.93	122.65	2.72	829.2	1787.3	204.8	767.5	128.7	12.8	104.5	13.3	71.5	11.9	29.2	3.4	20.8	3.0	294.6	4,282	1,186	3,717	565
RM058	N963554	122.65	125.43	2.78	706.0	1510.9	172.8	673.0	117.7	11.6	91.5	11.6	62.1	10.8	27.0	3.0	18.7	2.5	260.3	3,680	1,037	3,180	499
RM058	N963555	125.43	128.35	2.92	761.1	1627.6	183.7	697.5	116.0	12.7	89.1	11.0	58.6	9.9	24.6	2.8	18.0	2.6	245.7	3,861	1,067	3,386	475
RM058	N963556	128.35	131.06	2.71	885.5	1897.9	215.7	803.6	135.1	12.7	95.3	12.1	64.4	10.6	26.6	3.2	19.1	2.5	269.2	4,453	1,231	3,938	516
RM058	N963557	131.06	133.91	2.85	650.9	1382.0	157.1	608.9	100.4	12.0	80.2	9.9	52.8	8.8	23.1	2.5	16.0	2.1	221.6	3,328	929	2,899	429
RM058	N963558	133.91	136.91	3.00	730.6	1596.9	181.8	692.8	118.3	11.8	90.7	11.4	63.0	10.6	27.4	2.9	19.1	2.5	259.1	3,819	1,067	3,321	498
RM058	N963559	136.91	139.91	3.00	809.2	1732.0	198.1	748.8	124.1	11.7	93.9	11.6	61.2	9.8	26.1	2.9	18.2	2.5	249.5	4,100	1,144	3,612	487
RM058	N963561	139.91	142.91	3.00	805.7	1750.5	196.9	750.0	127.6	12.6	86.4	11.1	60.3	10.0	25.7	2.9	18.6	2.6	250.2	4,111	1,146	3,631	480
RM058	N963562	142.91	145.87	2.96	870.2	1897.9	218.1	818.8	142.6	13.7	106.3	13.4	73.2	12.1	32.6	3.7	22.4	3.0	314.9	4,543	1,266	3,948	595
RM058	N963563	145.87	147.59	1.72	788.1	1744.3	196.9	739.5	122.3	12.7	95.7	11.8	65.0	10.5	26.3	2.9	18.9	2.6	262.9	4,100	1,135	3,591	509
RM058	N963564	147.59	147.78	0.19	167.1	358.7	44.7	169.1	35.4	7.8	35.4	4.9	30.9	5.5	15.6	1.9	11.9	1.7	151.1	1,042	285	775	267
RM058	N963565	147.78	150.74	2.96	794.0	1676.8	191.5	725.5	118.3	12.6	90.1	11.7	62.9	10.5	27.0	3.0	20.1	2.7	267.9	4,015	1,110	3,506	509
RM058	N963566	150.74	153.70	2.96	785.8	1664.5	190.9	698.7	120.6	11.9	84.6	11.9	60.8	10.8	25.7	3.3	19.1	3.1	270.5	3,962	1,083	3,460	502
RM058	N963567	153.70	156.66	2.96	792.8	1646.1	191.5	704.5	123.5	12.0	89.6	12.5	64.5	11.3	27.3	3.4	19.9	3.1	283.2	3,985	1,097	3,458	527
RM058	N963568	156.66	159.62	2.96	790.5	1621.5	190.9	695.2	121.8	11.9	86.8	12.1	62.9	10.8	26.5	3.3	18.3	2.9	269.2	3,924	1,083	3,420	505
RM058	N963569	159.62	162.47	2.85	887.8	1799.6	210.8	772.2	132.2	12.3	90.5	12.2	62.8	10.9	26.1	3.3	18.7	3.0	273.0	4,315	1,190	3,803	513
RM058	N963570	162.47	165.31	2.84	833.9	1664.5	200.0	729.0	127.0	12.3	91.4	12.5	63.4	10.8	26.0	3.3	19.1	2.9	260.3	4,056	1,132	3,554	502
RM058	N963571	165.31	167.95	2.64	863.2	1787.3	209.6	761.7	129.3	12.1	88.6	12.1	61.1	10.7	25.5	3.2	17.5	2.9	262.9	4,248	1,174	3,751	497
RM058	N963572	167.95	168.64	0.69	829.2	1725.9	204.8	740.7	131.0	12.3	93.7	12.8	65.9	11.6	28.0	3.5	19.5	3.1	285.7	4,168	1,155	3,632	536
RM058	N963573	168.86	169.52	0.66	770.5	1578.5	187.3	680.0	116.5	11.3	83.7	11.2	57.2	9.8	24.4	3.0	17.1	2.7	247.0	3,800	1,052	3,333	467

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM058	N963574	169.52	169.70	0.18	67.0	151.1	19.9	79.1	20.5	2.6	19.1	3.3	18.6	3.5	9.1	1.3	7.8	1.1	90.8	495	141	338	157
RM058	N963575	169.70	172.65	2.95	794.0	1639.9	192.7	705.7	122.3	12.2	84.8	11.7	59.9	10.3	25.2	3.0	17.8	2.6	257.8	3,940	1,092	3,455	485
RM058	N963576	172.65	175.60	2.95	837.4	1756.6	206.0	746.5	128.7	11.9	86.0	11.7	59.5	10.4	25.5	3.1	17.1	2.9	262.9	4,166	1,152	3,675	491
RM058	N963577	175.60	178.52	2.92	828.0	1682.9	203.0	730.2	127.6	12.5	91.6	12.5	63.9	10.9	26.4	3.3	19.1	3.0	267.9	4,083	1,137	3,572	511
RM058	N963578	178.52	181.45	2.93	870.2	1830.3	214.5	797.8	137.4	12.7	98.0	13.3	66.2	11.4	27.7	3.6	19.9	3.0	288.3	4,394	1,229	3,850	544
RM058	N963579	181.45	184.33	2.88	920.6	1922.5	225.3	820.0	139.2	12.6	98.3	13.2	67.7	11.7	28.2	3.5	19.6	3.0	288.3	4,574	1,265	4,028	546
RM058	N963581	184.33	187.18	2.85	1021.5	2088.3	244.1	886.5	150.2	13.5	102.6	13.8	69.5	11.9	28.4	3.5	19.9	3.2	292.1	4,949	1,364	4,390	558
RM058	N963582	187.18	189.96	2.78	815.1	1689.0	198.8	729.0	126.4	12.4	91.8	12.5	64.2	11.3	27.7	3.4	19.0	3.1	278.1	4,082	1,131	3,558	523
RM058	N963583	189.96	191.27	1.31	924.2	1910.2	225.9	818.8	143.2	13.0	99.8	13.6	69.1	11.9	28.8	3.6	20.1	3.0	302.2	4,587	1,271	4,022	565
RM058	N963584	191.27	192.38	1.11	151.3	326.8	37.7	137.1	26.6	2.2	19.1	2.8	15.6	2.9	7.6	1.0	6.5	0.9	79.0	817	220	679	138
RM058	N963585	192.38	195.30	2.92	891.3	1854.9	218.1	783.8	137.4	12.4	96.8	13.3	69.4	12.1	29.4	3.5	20.6	3.1	307.3	4,454	1,222	3,886	568
RM058	N963586	195.30	198.15	2.85	961.7	1996.2	233.8	844.5	145.5	12.8	101.5	13.9	70.7	12.3	29.6	3.6	20.5	3.2	301.0	4,751	1,308	4,182	569
RM058	N963587	198.15	199.91	1.76	843.2	1811.9	209.6	766.3	139.7	12.9	96.2	13.3	69.3	12.3	29.2	3.7	20.8	3.2	309.9	4,342	1,198	3,771	571
RM059	N963588	0.00	0.15	0.15	416.3	911.5	108.6	409.4	81.3	10.4	63.4	9.3	52.1	8.9	22.5	2.8	16.1	2.6	218.4	2,334	661	1,927	406
RM059	N963589	1.22	3.52	2.30	733.0	1566.2	184.8	671.9	121.8	10.9	86.0	12.0	63.5	11.0	27.3	3.3	18.3	2.9	275.6	3,788	1,054	3,278	511
RM059	N963590	4.27	6.44	2.17	757.6	1529.4	187.3	673.0	121.2	10.4	88.8	12.6	65.1	11.2	27.0	3.3	19.1	3.1	273.0	3,782	1,059	3,268	513
RM059	N963591	6.44	6.66	0.22	144.3	305.9	36.4	134.1	25.5	2.4	18.7	2.7	14.8	2.6	6.8	1.0	6.1	1.0	69.0	771	214	646	125
RM059	N963592	6.66	9.48	2.82	707.2	1486.4	174.6	645.0	113.0	10.1	80.9	11.3	56.9	9.8	23.7	2.9	16.6	2.7	240.0	3,581	1,001	3,126	455
RM059	N963593	9.48	12.27	2.79	668.5	1412.7	167.3	610.0	109.0	9.6	77.7	10.6	54.2	9.3	22.2	2.8	15.9	2.5	231.8	3,404	951	2,968	437
RM059	N963594	12.27	15.24	2.97	927.7	1977.7	235.0	871.3	157.7	11.4	116.4	15.8	81.0	13.9	33.7	4.1	23.8	3.8	337.8	4,811	1,361	4,169	642
RM059	N963595	15.24	15.65	0.41	1360.5	2849.9	345.6	1224.7	205.3	12.0	140.6	19.1	92.5	15.5	36.7	4.4	26.2	4.0	374.6	6,712	1,887	5,986	726
RM059	N963596	15.65	16.07	0.42	351.8	802.1	95.1	363.9	74.0	7.8	58.3	8.6	46.4	8.7	21.7	2.9	16.3	2.7	215.3	2,076	588	1,687	389
RM059	N963597	16.07	19.07	3.00	890.2	1879.5	221.7	792.0	133.3	11.0	88.4	11.9	60.9	10.5	24.9	3.1	17.3	2.7	259.1	4,406	1,220	3,917	490
RM059	N963598	19.07	21.93	2.86	823.3	1781.2	204.8	757.0	131.0	11.2	90.9	12.1	61.6	10.6	25.4	3.1	18.1	2.8	260.3	4,194	1,167	3,697	496
RM059	N963599	21.93	22.46	0.53	737.7	1547.8	177.6	646.2	112.8	8.8	73.9	10.2	52.5	9.3	21.9	2.9	16.6	2.7	237.5	3,658	999	3,222	436
RM059	N963601	22.46	23.60	1.14	317.8	679.3	80.6	293.9	60.4	6.9	51.2	7.8	44.5	8.7	23.0	3.0	18.1	2.8	225.4	1,823	487	1,432	391
RM059	N963602	23.60	25.43	1.83	837.4	1725.9	198.1	680.0	117.7	9.8	80.9	10.9	55.1	9.8	23.6	2.9	16.8	2.5	238.7	4,010	1,062	3,559	451
RM059	N963603	25.43	27.82	2.39	815.1	1713.6	196.9	690.5	121.2	11.8	93.3	12.8	64.0	11.4	26.3	3.1	18.4	2.7	260.3	4,042	1,085	3,537	504
RM059	N963604	27.82	28.54	0.72	894.9	1861.0	219.9	740.7	127.0	12.2	93.9	12.5	61.1	10.9	25.5	3.0	17.4	2.6	248.9	4,331	1,161	3,843	488
RM059	N963605	28.65	31.37	2.72	906.6	1885.6	216.9	753.5	132.2	12.3	96.7	13.1	65.4	11.5	27.0	3.3	18.5	2.9	269.2	4,415	1,181	3,895	520
RM059	N963606	31.37	33.89	2.52	762.3	1633.8	187.3	649.7	114.1	11.6	85.1	11.6	58.1	10.1	24.2	3.0	16.6	2.5	236.8	3,807	1,021	3,347	460
RM059	N963607	33.89	34.27	0.38	357.7	729.7	84.1	296.3	54.5	5.3	41.8	5.9	30.8	5.7	13.9	1.7	10.5	1.6	137.8	1,777	471	1,522	255
RM059	N963608	34.27	37.09	2.82	893.7	1867.2	217.5	757.0	135.7	12.5	104.1	14.2	73.1	13.1	30.9	3.8	21.9	3.3	302.2	4,450	1,197	3,871	579
RM059	N963609	37.09	39.80	2.71	784.6	1609.2	186.1	650.9	116.5	11.6	90.6	12.6	63.7	11.6	28.0	3.3	19.6	2.9	273.0	3,864	1,030	3,347	517
RM059	N963610	39.80	42.63	2.83	750.6	1596.9	182.4	631.0	115.5	12.1	91.5	12.8	66.2	12.0	28.7	3.5	20.4	3.0	278.1	3,805	1,008	3,276	528
RM059	N963611	42.63	45.43	2.80	668.5	1394.2	167.3	593.7	113.2	11.9	89.2	12.5	65.1	11.8	28.6	3.5	19.8	3.0	284.5	3,467	952	2,937	530
RM059	N963612	45.43	48.36	2.93	903.1	1836.5	220.5	778.0	132.8	12.2	96.6	13.1	65.1	11.6	27.7	3.3	19.1	2.9	288.3	4,411	1,209	3,871	540
RM059	N963613	48.36	50.18	1.82	754.1	1523.2	181.8	668.4	117.7	11.2	88.9	12.2	61.8	11.1	27.0	3.1	18.5	2.7	275.6	3,757	1,042	3,245	512
RM059	N963614	50.18	51.50	1.32	669.7	1382.0	158.9	572.7	96.1	8.6	70.2	9.2	46.3	8.2	19.0	2.4	13.5	2.0	203.2	3,262	883	2,879	383
RM059	N963615	51.50	54.39	2.89	851.5	1781.2	206.0	752.3	130.5	11.8	98.1	13.3	67.1	11.9	28.4	3.3	19.6	3.1	289.5	4,267	1,169	3,721	546
RM059	N963616	54.39	57.04	2.65	926.5	1891.7	232.6	806.0	138.6	12.1	101.0	13.5	66.7	11.7	27.9	3.3	19.3	3.0	297.2	4,551	1,257	3,995	556
RM059	N963617	57.04	57.96	0.92	116.0	245.1	27.7	102.9	19.8	4.0	16.5	2.6	13.8	2.8	7.2	1.0	5.8	1.0	73.9	640	167	511	129
RM059	N963618	57.96	58.46	0.50	736.5	1572.3	174.0	652.0	109.5	9.2	78.6	10.7	52.6	9.4	21.9	2.7	15.8	2.4	233.7	3,681	999	3,244	437
RM059	N963619	58.46	58.80	0.34	81.9	181.8	22.0	86.3	18.3	1.9	15.1	2.4	12.4	2.5	6.3	0.9	5.5	0.8	65.3	503	141	390	113
RM059	N963621	58.80	60.45	1.65	866.7	1799.6	209.6	746.5	127.0	10.8	94.4	12.7	62.3	11.0	26.1	3.1	18.6	2.7	271.8	4,263	1,158	3,749	513
RM059	N963622	60.45	62.21	1.76	944.1	1922.5	231.4	818.8	139.2	12.5	101.9	13.8	70.9	12.3	29.6	3.5	21.2	3.3	306.1	4,631	1,274	4,056	575
RM059	N963623	62.33	64.15	1.82	901.9	1787.3	213.8	773.3	132.2	11.7	95.2	13.1	64.4	11.5	28.0	3.3	19.9	3.0	294.6	4,353	1,197	3,809	545
RM059	N963624	64.15	64.33	0.18	235.7	485.2	56.4	204.7	37.7	6.0	30.5	4.5	23.8	4.5	11.4	1.4	9.0	1.4	114.3	1,227	327	1,020	207
RM059	N963625	64.33	66.91	2.58	865.5	1768.9	210.2	753.5	129.3	11.3	95.3	13.1	66.5	11.7	28.4	3.4	19.5	2.9	292.1	4,272	1,173	3,727	544
RM059	N963626	66.91	69.83	2.92	872.6	1756.6	206.6	745.3	127.0	11.1	92.0	12.5	62.1	11.0	26.1	3.1	18.0	2.8	271.8	4,218	1,153	3,708	510

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM059	N963627	69.83	70.22	0.39	259.2	540.5	64.5	241.4	48.6	6.8	42.1	6.3	33.5	6.1	15.0	1.8	10.9	1.7	155.6	1,434	394	1,154	280
RM059	N963628	70.22	73.06	2.84	862.0	1762.8	206.6	748.8	129.3	11.8	95.5	13.2	65.9	11.6	27.7	3.3	19.4	2.8	290.8	4,252	1,164	3,709	542
RM059	N963629	73.06	74.35	1.29	750.6	1523.2	181.8	649.7	113.0	11.3	85.2	11.9	59.3	10.7	25.5	3.0	17.9	2.8	264.1	3,710	1,016	3,218	492
RM059	N963630	74.35	76.91	2.56	733.0	1517.1	178.2	638.0	111.4	11.1	83.7	11.5	58.1	10.3	24.4	3.0	17.3	2.6	257.8	3,657	997	3,178	480
RM059	N963631	76.91	79.21	2.30	901.9	1830.3	214.5	785.0	133.3	12.3	98.1	13.3	68.5	12.0	29.4	3.5	20.1	3.1	302.2	4,428	1,215	3,865	563
RM059	N963632	79.35	82.10	2.75	792.8	1603.1	190.9	683.5	119.4	12.2	90.6	12.5	62.8	11.3	26.6	3.2	19.2	3.0	280.6	3,912	1,069	3,390	522
RM059	N963633	82.10	84.79	2.69	819.8	1701.3	198.8	712.7	123.5	11.9	93.3	12.9	64.3	11.3	27.2	3.2	19.2	2.8	280.6	4,083	1,112	3,556	527
RM059	N963634	84.79	87.48	2.69	787.0	1621.5	189.1	685.8	121.2	12.0	93.0	12.9	66.9	11.7	28.1	3.4	20.0	2.9	290.8	3,946	1,076	3,405	542
RM059	N963635	87.48	90.16	2.68	921.8	1904.0	223.5	802.5	139.2	12.4	103.4	14.3	72.8	12.7	30.4	3.6	20.9	3.1	316.2	4,581	1,252	3,991	590
RM059	N963636	90.16	93.06	2.90	795.2	1603.1	192.7	692.8	123.5	12.4	96.4	13.5	68.4	12.3	29.4	3.5	20.3	3.2	299.7	3,966	1,091	3,407	559
RM059	N963637	93.06	95.55	2.49	889.0	1824.2	218.7	779.2	133.9	12.5	98.3	13.5	67.9	11.9	28.4	3.4	20.1	3.1	297.2	4,401	1,213	3,845	556
RM059	N963638	95.55	97.05	1.50	897.2	1818.0	212.0	765.2	129.3	12.1	92.9	12.6	62.5	11.0	26.5	3.2	18.7	2.7	278.1	4,342	1,182	3,822	520
RM059	N963639	97.05	98.50	1.45	896.0	1824.2	215.1	778.0	133.3	12.6	97.2	13.2	65.7	11.7	27.6	3.3	19.7	3.0	287.0	4,387	1,205	3,847	541
RM059	N963641	98.60	100.50	1.90	910.1	1861.0	216.9	786.1	135.1	12.3	99.0	13.3	67.8	11.9	28.1	3.4	19.8	3.0	292.1	4,460	1,219	3,909	551
RM059	N963642	100.50	101.58	1.08	653.3	1320.5	157.7	577.4	103.7	11.4	79.8	11.1	57.5	10.4	25.0	3.1	18.4	2.7	260.3	3,292	907	2,812	480
RM059	N963643	101.68	104.66	2.98	940.6	1928.6	235.6	820.0	143.8	12.7	104.0	14.3	71.6	12.7	30.0	3.6	20.9	3.2	313.7	4,655	1,285	4,069	587
RM059	N963644	104.76	107.42	2.66	835.0	1664.5	200.0	722.0	127.6	12.4	94.9	13.0	65.3	11.7	28.4	3.4	19.6	3.0	295.9	4,097	1,128	3,549	548
RM059	N963645	107.42	110.15	2.73	907.8	1824.2	216.3	774.5	131.6	12.6	95.2	12.9	64.2	11.4	27.9	3.3	19.0	2.8	288.3	4,392	1,199	3,854	538
RM059	N963646	110.15	113.00	2.85	927.7	1897.9	222.9	762.8	141.5	13.1	93.1	13.3	65.7	11.8	28.0	3.5	20.6	3.1	269.2	4,474	1,206	3,953	521
RM059	N963647	113.00	116.02	3.02	959.4	1953.2	231.4	794.3	149.0	13.5	95.5	13.6	67.7	12.3	29.4	3.5	20.3	3.2	276.8	4,623	1,256	4,087	536
RM059	N963648	116.02	119.00	2.98	870.2	1811.9	210.2	716.2	136.3	12.9	92.9	13.2	65.2	11.7	28.2	3.5	19.9	3.0	262.9	4,258	1,141	3,745	513
RM059	N963649	119.00	121.63	2.63	863.2	1811.9	209.6	729.0	140.9	13.3	95.9	13.6	68.9	12.4	30.3	3.7	20.9	3.1	273.0	4,290	1,162	3,755	535
RM059	N963651	121.63	124.34	2.71	899.5	1861.0	216.9	750.0	140.3	13.1	93.3	13.1	66.2	11.8	28.8	3.5	20.4	3.0	265.4	4,386	1,186	3,868	519
RM059	N963652	124.34	127.27	2.93	904.2	1873.3	219.3	751.2	144.9	13.0	97.7	13.8	68.6	12.4	30.3	3.6	21.2	3.2	279.4	4,436	1,198	3,893	543
RM059	N963653	127.27	130.04	2.77	1023.9	2106.7	246.5	846.8	155.4	13.8	102.1	14.1	69.8	12.4	30.2	3.7	20.8	3.1	281.9	4,931	1,333	4,379	552
RM059	N963654	130.04	132.28	2.24	926.5	1928.6	223.5	764.0	147.3	13.4	96.7	13.7	68.2	12.2	30.3	3.8	20.4	3.1	275.6	4,527	1,217	3,990	537
RM059	N963655	132.28	133.43	1.15	720.1	1517.1	176.4	614.7	123.5	12.6	90.6	13.1	67.9	12.3	29.7	3.6	21.1	3.0	278.1	3,684	996	3,152	532
RM059	N963656	133.43	133.72	0.29	747.1	1560.1	178.8	625.2	121.2	11.3	84.5	12.3	63.7	11.9	29.9	3.8	22.1	3.3	276.8	3,752	1,001	3,232	520
RM059	N963657	133.72	136.40	2.68	829.2	1713.6	201.2	690.5	134.5	12.5	89.8	12.6	63.7	11.4	27.4	3.4	19.2	2.9	260.3	4,072	1,102	3,569	503
RM059	N963658	136.40	139.38	2.98	931.2	1947.0	226.5	780.3	145.5	13.6	96.5	13.3	66.7	11.6	28.2	3.5	20.1	2.9	267.9	4,555	1,232	4,031	524
RM059	N963659	139.38	141.20	1.82	857.3	1787.3	209.0	718.5	141.5	14.2	101.4	14.3	72.5	13.2	31.1	3.8	21.4	3.0	287.0	4,276	1,156	3,714	562
RM059	N963661	141.43	144.03	2.60	771.7	1639.9	192.7	674.2	136.3	12.9	98.0	14.1	73.0	13.1	31.8	3.9	22.3	3.2	293.4	3,980	1,090	3,415	566
RM059	N963662	144.03	146.88	2.85	880.8	1824.2	213.3	733.7	140.9	13.4	96.9	13.8	68.8	12.6	30.4	3.7	21.1	3.1	276.8	4,333	1,170	3,793	541
RM059	N963663	146.88	149.80	2.92	751.8	1596.9	183.0	635.7	125.2	13.1	90.7	13.2	66.5	12.0	29.2	3.6	20.8	3.0	265.4	3,810	1,024	3,293	518
RM059	N963664	149.80	151.78	1.98	696.6	1437.2	167.3	579.7	110.4	11.6	78.3	11.1	55.4	10.0	25.0	3.0	17.5	2.6	227.3	3,433	924	2,991	442
RM059	N963665	151.78	151.94	0.16	330.7	689.1	80.1	292.8	70.5	10.1	62.4	10.4	57.7	11.1	28.8	3.7	21.2	3.2	257.8	1,930	512	1,463	466
RM059	N963666	151.94	154.90	2.96	901.9	1848.7	217.5	747.7	142.6	13.8	98.9	14.0	70.5	12.5	31.0	3.8	21.7	3.2	288.3	4,416	1,192	3,858	558
RM059	N963667	154.90	157.88	2.98	898.4	1824.2	213.8	745.3	143.8	13.7	98.4	14.0	71.6	12.9	30.9	3.9	21.7	3.2	284.5	4,380	1,189	3,826	555
RM059	N963668	157.88	159.38	1.50	879.6	1842.6	214.5	731.3	139.2	13.2	97.3	13.6	68.4	12.4	30.1	3.6	20.9	3.0	275.6	4,345	1,167	3,807	538
RM059	N963669	159.72	162.32	2.60	873.7	1787.3	211.4	736.0	143.8	13.8	99.8	14.1	71.5	13.1	32.5	3.8	22.3	3.3	302.2	4,329	1,177	3,752	576
RM059	N963670	162.32	164.99	2.67	767.0	1596.9	188.5	662.5	133.3	13.6	93.3	13.3	67.3	12.4	30.0	3.7	21.4	3.1	278.1	3,884	1,065	3,348	536
RM059	N963671	164.99	167.41	2.42	898.4	1897.9	222.3	764.0	145.5	13.2	102.7	14.5	71.4	12.9	31.2	3.9	21.5	3.2	287.0	4,489	1,218	3,928	561
RM059	N963672	167.41	167.62	0.21	372.9	760.4	86.9	297.4	54.1	3.9	34.1	4.6	22.7	4.0	10.0	1.4	7.6	1.1	96.1	1,757	466	1,572	186
RM059	N963673	167.62	169.50	1.88	837.4	1805.8	209.6	736.0	143.2	13.0	101.5	14.4	73.1	13.3	32.3	3.9	22.4	3.4	294.6	4,304	1,176	3,732	572
RM059	N963674	169.50	172.44	2.94	826.8	1732.0	199.3	677.7	127.0	13.1	87.5	12.4	61.2	11.1	26.9	3.4	18.4	2.9	248.9	4,048	1,078	3,563	486
RM059	N963675	172.44	175.10	2.66	948.8	2002.3	235.0	810.6	153.7	13.6	104.8	14.6	74.5	13.3	32.5	4.1	22.0	3.4	302.2	4,735	1,288	4,150	585
RM059	N963676	175.10	175.40	0.30	471.5	985.2	113.2	383.8	70.2	6.9	48.6	6.7	33.2	6.1	15.1	2.0	11.3	1.6	139.7	2,295	607	2,024	271
RM059	N963677	175.40	178.00	2.60	934.7	1990.0	233.2	803.6	149.6	13.3	100.3	14.1	69.4	12.7	30.6	3.9	21.4	3.2	278.1	4,658	1,270	4,111	547
RM059	N963678	178.00	180.68	2.68	923.0	1959.3	228.9	796.6	150.2	13.9	102.0	14.5	71.3	12.9	30.6	3.8	22.0	3.3	280.6	4,613	1,262	4,058	555
RM059	N963679	180.68	182.44	1.76	986.3	2063.7	242.8	846.8	153.7	13.4	101.9	13.8	66.3	11.9	29.4	3.5	20.3	3.0	262.9	4,820	1,323	4,293	526

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM059	N963681	182.44	182.55	0.11	66.8	142.5	18.1	69.9	14.2	2.0	12.0	1.8	9.8	1.9	4.7	0.7	4.2	0.7	51.8	401	114	311	90
RM059	N963682	182.55	185.50	2.95	771.7	1652.2	194.5	730.2	127.0	12.6	93.6	12.4	62.4	11.1	25.2	3.3	18.6	2.6	261.6	3,979	1,127	3,476	503
RM059	N963683	185.50	187.00	1.50	812.8	1738.2	204.2	752.3	131.0	12.7	100.6	13.6	69.5	12.3	27.9	3.6	21.4	3.1	284.5	4,188	1,171	3,638	549
RM059	N963684	187.00	189.00	2.00	921.8	1928.6	229.6	832.8	142.6	13.7	101.0	13.5	68.8	12.3	27.7	3.6	20.3	3.2	288.3	4,608	1,287	4,055	552
RM059	N963685	189.00	189.30	0.30	98.0	213.7	26.7	101.6	21.0	2.0	18.1	2.8	15.7	3.2	8.0	1.1	7.6	1.2	84.3	605	168	461	144
RM059	N963686	189.30	192.06	2.76	874.9	1842.6	217.5	795.5	142.1	13.4	101.7	14.0	70.1	12.5	28.4	3.6	21.1	3.4	290.8	4,431	1,239	3,873	559
RM059	N963687	192.06	195.00	2.94	852.6	1805.8	210.8	773.3	132.8	13.3	96.7	13.1	65.4	11.6	25.7	3.4	19.9	3.0	264.1	4,291	1,195	3,775	516
RM059	N963688	195.00	197.54	2.54	817.4	1732.0	203.6	748.8	131.0	13.1	96.0	12.9	66.3	11.8	27.1	3.6	20.8	3.0	274.3	4,162	1,163	3,633	529
RM059	N963689	197.54	199.50	1.96	934.7	1928.6	229.6	829.3	140.9	13.4	100.8	13.4	66.9	12.0	27.3	3.5	20.2	3.1	274.3	4,598	1,280	4,063	535
RM060	N963690	0.00	2.56	2.56	717.8	1517.1	175.2	666.0	120.6	11.4	89.9	12.9	67.1	12.2	30.0	3.7	20.1	3.1	297.2	3,744	1,042	3,197	548
RM060	N963691	2.56	4.19	1.63	614.5	1369.7	156.5	603.0	114.9	11.0	89.2	13.2	68.2	12.3	30.5	3.8	21.2	3.1	304.8	3,416	956	2,859	557
RM060	N963692	4.19	4.32	0.13	66.4	157.8	18.7	74.0	17.4	2.8	16.8	2.8	15.8	3.1	8.4	1.2	7.5	1.2	88.4	482	129	334	148
RM060	N963693	4.32	6.95	2.63	878.4	1854.9	206.6	780.3	136.8	12.0	99.3	14.1	71.5	12.7	30.5	3.7	21.1	3.1	311.1	4,436	1,209	3,857	579
RM060	N963694	6.95	9.47	2.52	928.9	1947.0	220.5	830.5	144.4	12.1	103.2	14.9	74.5	13.2	31.4	3.8	21.4	3.2	326.4	4,675	1,285	4,071	604
RM060	N963695	9.47	12.27	2.80	775.2	1658.3	189.7	716.2	127.6	11.5	93.1	13.5	67.7	12.3	29.7	3.6	20.5	3.0	301.0	4,023	1,115	3,467	556
RM060	N963696	12.27	14.14	1.87	1096.6	2229.6	263.4	906.3	168.1	13.8	108.9	15.9	76.5	13.8	34.1	3.9	23.1	3.3	334.0	5,291	1,430	4,664	627
RM060	N963697	14.33	14.90	0.57	991.0	1928.6	229.6	795.5	152.5	12.9	100.4	15.0	73.2	13.1	33.0	3.9	22.9	3.4	331.4	4,706	1,266	4,097	609
RM060	N963698	14.90	15.00	0.10	484.4	958.1	109.7	366.3	62.6	4.6	38.4	5.6	26.3	4.7	11.8	1.5	9.3	1.4	124.1	2,209	570	1,981	228
RM060	N963699	15.00	16.35	1.35	1016.8	1959.3	231.4	789.6	144.9	12.6	96.5	14.0	68.5	12.1	29.7	3.5	20.7	3.1	299.7	4,702	1,248	4,142	560
RM060	N963701	16.35	16.57	0.22	105.0	228.5	27.7	100.0	23.4	2.8	18.5	3.1	16.6	3.2	8.5	1.1	7.1	1.1	86.2	633	171	485	148
RM060	N963702	16.57	19.50	2.93	900.7	1775.0	209.0	737.2	138.0	12.9	96.6	14.3	69.1	12.4	30.0	3.5	20.7	3.1	306.1	4,329	1,168	3,760	569
RM060	N963703	19.50	22.47	2.97	979.3	1897.9	225.3	790.8	146.7	12.7	99.2	14.5	70.3	12.4	30.8	3.7	21.4	3.1	308.6	4,617	1,248	4,040	577
RM060	N963704	22.47	25.24	2.77	987.5	1904.0	228.9	785.0	146.7	13.3	98.9	14.3	69.7	12.3	30.3	3.5	20.7	3.1	294.6	4,613	1,245	4,052	561
RM060	N963705	25.24	27.97	2.73	991.0	1977.7	231.4	804.8	149.6	13.0	97.9	14.3	69.2	12.3	29.7	3.5	20.9	3.0	304.8	4,723	1,269	4,155	569
RM060	N963706	27.97	30.77	2.80	893.7	1768.9	210.2	741.8	140.3	12.7	97.6	14.6	71.8	13.1	32.3	3.7	22.0	3.3	313.7	4,340	1,179	3,755	585
RM060	N963707	30.77	33.62	2.85	971.1	1854.9	222.3	772.2	145.5	12.7	97.4	14.4	69.8	12.3	30.9	3.5	21.6	3.2	306.1	4,538	1,224	3,966	572
RM060	N963708	33.62	36.50	2.88	992.2	1910.2	227.8	790.8	146.1	12.8	95.9	14.0	66.2	12.0	28.8	3.4	19.4	2.8	289.5	4,612	1,245	4,067	545
RM060	N963709	36.50	39.30	2.80	937.1	1842.6	216.3	751.2	142.1	12.9	95.7	14.2	69.9	12.4	31.3	3.6	22.0	3.2	307.3	4,462	1,194	3,889	573
RM060	N963710	39.30	39.57	0.27	397.6	906.6	99.6	348.8	69.1	7.0	48.3	7.5	37.1	6.9	16.9	2.1	12.6	1.8	174.6	2,136	562	1,822	315
RM060	N963711	39.57	42.11	2.54	1016.8	2008.4	236.2	834.0	155.4	13.5	103.6	15.1	74.4	13.2	32.6	3.9	22.7	3.3	328.9	4,862	1,315	4,251	611
RM060	N963712	42.11	42.31	0.20	97.2	208.2	24.9	89.5	20.2	2.1	16.5	2.8	14.7	2.9	7.9	1.1	6.9	1.1	82.5	579	152	440	138
RM060	N963713	42.31	45.19	2.88	918.3	1818.0	217.5	750.0	142.6	13.0	96.0	14.2	69.7	12.5	30.6	3.5	20.8	3.1	298.4	4,408	1,194	3,846	562
RM060	N963714	45.19	48.11	2.92	931.2	1836.5	219.9	765.2	147.8	13.2	98.5	14.8	71.3	12.8	32.7	3.8	22.1	3.2	314.9	4,488	1,219	3,901	587
RM060	N963715	48.11	50.90	2.79	864.4	1689.0	204.2	727.8	139.2	12.6	95.5	14.3	69.1	12.2	30.8	3.6	21.5	3.2	299.7	4,187	1,155	3,625	563
RM060	N963716	50.90	53.48	2.58	864.4	1713.6	206.0	727.8	139.2	12.5	94.2	14.2	68.9	12.3	30.2	3.6	21.4	3.2	301.0	4,212	1,156	3,651	561
RM060	N963717	53.48	55.00	1.52	900.7	1775.0	213.8	765.2	146.1	13.0	98.2	14.5	69.9	12.5	31.8	3.7	21.6	3.3	314.9	4,384	1,210	3,801	583
RM060	N963718	55.00	55.30	0.30	123.7	258.0	28.3	93.0	16.4	1.9	10.2	1.5	7.7	1.5	4.1	0.5	3.5	0.6	41.9	593	147	519	73
RM060	N963719	55.30	58.05	2.75	935.9	1830.3	221.1	783.8	144.9	12.8	96.4	14.2	68.3	12.1	30.5	3.6	21.4	3.2	297.2	4,476	1,232	3,916	560
RM060	N963721	58.05	60.86	2.81	860.8	1725.9	208.4	737.2	142.6	13.0	96.7	14.5	71.3	12.8	30.9	3.8	22.1	3.4	314.9	4,258	1,174	3,675	583
RM060	N963722	60.86	63.52	2.66	893.7	1787.3	214.5	762.8	146.7	12.7	97.0	14.1	69.9	12.6	31.9	3.8	22.4	3.3	313.7	4,386	1,208	3,805	581
RM060	N963723	63.52	66.38	2.86	835.0	1646.1	196.9	678.8	129.9	11.6	87.4	12.9	62.0	11.1	27.7	3.2	19.3	3.0	271.8	3,997	1,081	3,487	510
RM060	N963724	66.38	67.47	1.09	369.4	809.5	86.6	302.1	59.6	6.8	42.2	6.8	35.1	6.7	18.4	2.4	15.0	2.3	186.7	1,950	490	1,627	322
RM060	N963725	67.47	68.94	1.47	1090.7	2100.6	250.1	866.6	158.9	13.7	102.0	14.8	69.5	12.4	30.8	3.5	20.6	3.1	306.1	5,043	1,360	4,467	577
RM060	N963726	68.94	69.06	0.12	391.7	872.2	94.8	324.3	61.8	5.0	40.3	5.9	28.1	5.0	13.0	1.6	10.0	1.5	133.3	1,989	515	1,745	244
RM060	N963727	69.06	72.00	2.94	823.3	1609.2	196.9	705.7	138.0	13.4	97.7	14.9	73.0	13.0	32.8	3.8	23.2	3.5	317.5	4,066	1,128	3,473	593
RM060	N963728	72.00	74.97	2.97	1049.7	2002.3	239.8	850.3	157.7	13.9	106.3	15.7	73.3	13.2	33.0	3.9	22.5	3.4	328.9	4,914	1,337	4,300	614
RM060	N963729	74.97	78.00	3.03	896.0	1799.6	218.1	765.2	150.2	13.4	101.0	15.1	74.1	13.3	33.0	3.8	23.0	3.5	328.9	4,438	1,223	3,829	609
RM060	N963730	78.00	80.92	2.92	828.0	1695.2	196.3	760.5	125.2	13.0	104.3	14.1	73.2	13.4	31.7	3.8	21.7	3.3	306.1	4,190	1,169	3,605	585
RM060	N963731	80.92	84.00	3.08	855.0	1738.2	201.8	759.3	127.0	12.8	102.6	13.6	71.2	12.7	30.8	3.8	21.2	3.1	301.0	4,254	1,173	3,681	573
RM060	N963732	84.00	86.81	2.81	785.8	1639.9	187.3	718.5	119.4	12.1	97.4	13.0	67.3	11.9	28.7	3.5	19.8	2.9	281.9	3,989	1,105	3,451	538

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM060	N963733	86.81	87.03	0.22	246.3	544.2	58.6	218.7	36.5	4.2	28.8	4.0	20.9	3.9	9.8	1.3	7.1	1.0	97.3	1,282	339	1,104	178
RM060	N963734	87.03	87.37	0.34	688.4	1406.5	158.3	587.9	94.7	9.4	74.2	9.4	49.4	9.0	21.3	2.6	15.1	2.3	210.8	3,339	900	2,936	404
RM060	N963735	87.37	90.53	3.16	872.6	1781.2	202.4	758.2	120.6	12.0	98.5	12.9	66.0	11.6	28.2	3.4	19.9	3.0	279.4	4,270	1,160	3,735	535
RM060	N963736	90.53	93.37	2.84	801.0	1646.1	190.3	729.0	122.3	12.6	102.3	14.0	72.1	13.0	31.0	3.8	22.1	3.3	303.5	4,066	1,128	3,489	578
RM060	N963737	93.37	96.17	2.80	916.0	1836.5	213.3	809.5	130.5	12.8	105.5	13.8	71.6	12.9	31.0	3.8	21.5	3.2	303.5	4,485	1,239	3,906	580
RM060	N963738	96.17	98.87	2.70	863.2	1744.3	201.2	767.5	127.0	12.6	104.9	14.0	71.8	13.0	31.3	3.8	21.9	3.3	307.3	4,287	1,181	3,703	584
RM060	N963739	98.87	101.61	2.74	838.5	1713.6	199.3	766.3	126.4	13.0	104.0	13.6	72.0	12.7	30.9	3.8	20.9	3.2	299.7	4,218	1,178	3,644	574
RM060	N963741	101.61	101.74	0.13	47.6	100.0	11.7	45.6	9.7	0.8	10.1	1.8	11.0	2.3	6.7	1.0	6.5	1.1	76.1	332	80	215	117
RM060	N963742	101.74	102.59	0.85	823.3	1670.6	195.1	738.3	120.6	11.8	96.6	13.0	66.2	12.0	28.1	3.4	19.9	2.9	278.1	4,080	1,133	3,548	532
RM060	N963743	102.72	104.30	1.58	900.7	1799.6	209.0	792.0	131.0	13.0	110.0	14.4	73.9	13.1	31.6	3.8	21.9	3.2	306.1	4,423	1,220	3,832	591
RM060	N963744	104.30	105.75	1.45	490.2	1040.5	117.3	443.2	71.4	6.8	56.3	7.3	37.6	6.7	16.1	1.9	11.4	1.7	158.7	2,467	677	2,163	305
RM060	N963745	105.75	106.13	0.38	842.1	1713.6	199.3	764.0	124.1	12.2	101.5	13.3	67.8	12.1	29.0	3.5	20.0	3.0	287.0	4,193	1,169	3,643	550
RM060	N963746	106.13	106.55	0.42	181.8	399.2	43.3	158.1	25.7	2.9	20.1	2.8	14.7	2.7	6.9	0.9	5.4	0.8	70.0	935	244	808	127
RM060	N963747	106.55	109.39	2.84	787.0	1578.5	189.1	725.5	122.3	12.7	101.7	13.6	72.2	12.8	30.9	3.8	21.9	3.2	309.9	3,985	1,123	3,402	583
RM060	N963748	109.39	112.23	2.84	855.0	1725.9	202.4	772.2	128.7	12.2	104.2	13.8	72.0	13.1	31.0	3.8	21.2	3.3	301.0	4,259	1,189	3,684	575
RM060	N963749	112.23	115.00	2.77	883.1	1775.0	207.2	785.0	130.5	12.4	103.6	13.9	72.7	13.0	31.4	3.8	21.8	3.3	307.3	4,364	1,209	3,781	583
RM060	N963750	115.00	117.96	2.96	831.5	1701.3	198.1	748.8	124.1	11.8	98.5	13.1	70.3	12.5	30.0	3.6	21.2	3.2	295.9	4,164	1,155	3,604	560
RM060	N963751	117.96	120.91	2.95	770.5	1584.6	185.5	715.0	120.6	12.0	101.0	13.8	72.1	13.1	31.3	3.8	22.4	3.3	307.3	3,956	1,107	3,376	580
RM060	N963752	121.01	123.88	2.87	836.2	1695.2	196.3	750.0	125.8	12.0	101.5	13.5	70.7	12.6	29.7	3.7	21.0	3.3	298.4	4,170	1,156	3,604	566
RM060	N963753	123.88	125.51	1.63	828.0	1695.2	197.5	757.0	125.8	12.1	104.5	13.9	74.0	13.3	31.3	3.9	22.4	3.4	312.4	4,195	1,168	3,604	591
RM060	N963754	125.51	127.22	1.71	852.6	1725.9	200.0	762.8	125.2	12.1	104.4	13.6	71.4	12.9	31.3	3.8	21.6	3.3	298.4	4,239	1,173	3,667	573
RM060	N963755	127.22	127.36	0.14	185.3	415.2	46.9	180.8	33.2	3.7	28.6	3.9	21.8	4.1	9.9	1.3	7.8	1.1	102.0	1,045	286	861	184
RM060	N963756	127.36	127.56	0.20	771.7	1560.1	178.8	667.2	108.0	9.3	86.0	11.3	58.2	10.4	25.0	3.1	17.8	2.6	252.7	3,762	1,023	3,286	477
RM060	N963757	127.56	127.77	0.21	164.8	377.1	43.7	172.0	31.3	3.1	28.0	3.9	20.5	4.0	9.8	1.3	7.8	1.2	93.7	962	272	789	173
RM060	N963758	127.77	130.39	2.62	779.9	1615.3	187.9	737.2	124.7	12.2	104.2	14.1	74.4	13.4	32.5	3.9	22.6	3.4	316.2	4,042	1,138	3,445	597
RM060	N963759	130.39	133.20	2.81	886.6	1787.3	204.8	778.0	128.1	12.4	104.7	13.9	72.1	12.9	31.4	3.8	22.0	3.3	304.8	4,366	1,197	3,785	581
RM060	N963761	133.20	136.80	3.60	887.8	1775.0	206.0	785.0	131.0	12.6	107.4	14.3	74.7	13.5	32.5	3.9	23.0	3.4	317.5	4,388	1,211	3,785	603
RM060	N963762	136.80	138.97	2.17	871.4	1762.8	204.8	778.0	131.0	12.4	106.6	14.5	73.7	13.2	32.6	3.9	22.7	3.3	323.8	4,355	1,202	3,748	607
RM060	N963763	138.97	141.97	3.00	802.2	1658.3	191.5	740.7	124.7	12.5	104.5	14.1	73.7	13.3	31.2	3.9	22.7	3.3	313.7	4,110	1,145	3,517	593
RM060	N963764	141.97	144.10	2.13	877.3	1781.2	203.0	782.6	128.7	11.8	103.8	13.6	71.0	12.5	29.9	3.6	21.1	3.2	299.7	4,343	1,199	3,773	570
RM060	N963765	144.10	144.89	0.79	521.9	1077.3	132.9	502.7	86.2	10.2	71.3	9.5	52.0	9.0	23.1	2.8	15.3	2.2	212.7	2,729	783	2,321	408
RM060	N963766	144.89	147.73	2.84	794.0	1707.5	208.4	787.3	142.1	12.9	115.8	15.2	82.5	13.9	36.6	4.5	25.9	3.5	340.3	4,290	1,235	3,639	651
RM060	N963767	147.73	150.48	2.75	853.8	1799.6	220.5	831.6	139.2	13.3	113.5	14.5	80.0	13.4	36.0	4.4	25.1	3.4	326.4	4,475	1,286	3,845	630
RM060	N963768	150.48	153.47	2.99	763.5	1615.3	201.8	762.8	136.3	13.0	107.8	14.4	77.1	13.1	35.1	4.2	24.3	3.3	316.2	4,088	1,192	3,480	608
RM060	N963769	153.47	156.44	2.97	744.7	1572.3	200.0	739.5	131.0	13.0	104.1	13.6	74.4	12.4	34.3	3.9	24.6	3.3	309.9	3,981	1,159	3,388	593
RM060	N963770	156.44	159.44	3.00	779.9	1646.1	204.2	768.7	131.6	12.8	104.8	13.8	72.3	12.5	33.5	4.1	24.0	3.0	309.9	4,121	1,191	3,530	591
RM060	N963771	159.44	162.43	2.99	919.5	1879.5	232.6	858.5	138.0	13.4	106.6	13.5	72.9	12.3	32.7	4.1	22.6	2.9	297.2	4,606	1,315	4,028	578
RM060	N963772	162.43	165.31	2.88	967.6	2002.3	244.1	900.5	151.3	13.6	110.1	14.3	76.9	13.0	34.1	4.2	23.8	3.3	322.6	4,882	1,387	4,266	616
RM060	N963773	165.31	168.25	2.94	721.3	1517.1	189.7	705.7	125.2	12.6	101.5	13.1	72.0	12.1	33.2	3.8	21.7	3.0	294.6	3,826	1,106	3,259	568
RM060	N963774	168.58	170.82	2.24	866.7	1805.8	223.5	832.8	141.5	14.1	112.4	14.9	81.6	13.5	35.3	4.3	24.7	3.2	327.6	4,502	1,294	3,870	632
RM060	N963775	170.82	173.10	2.28	836.2	1762.8	219.3	824.6	146.7	13.5	112.5	14.9	82.5	14.2	37.5	4.5	26.3	3.7	350.5	4,450	1,288	3,790	660
RM060	N963776	173.10	173.43	0.33	72.1	141.3	15.7	53.2	8.9	2.6	8.0	1.1	6.8	1.3	3.8	0.5	3.4	0.5	39.1	358	86	291	67
RM060	N963777	173.43	176.18	2.75	850.3	1768.9	223.5	836.3	143.8	14.4	114.0	14.8	84.4	14.3	37.9	4.5	25.9	3.5	356.8	4,493	1,303	3,823	670
RM060	N963778	176.18	178.82	2.64	824.5	1738.2	214.5	799.0	140.3	13.7	110.2	14.5	80.7	14.1	36.6	4.5	25.4	3.4	334.0	4,353	1,249	3,716	637
RM060	N963779	178.92	179.19	0.27	901.9	1922.5	236.2	909.8	151.3	14.1	113.3	14.8	81.6	13.8	38.2	4.5	24.9	3.4	336.5	4,767	1,394	4,122	645
RM060	N963781	179.19	179.48	0.29	351.8	751.8	92.4	358.1	63.0	6.8	53.9	7.3	40.6	7.0	19.3	2.3	14.1	1.9	172.7	1,943	561	1,617	326
RM060	N963782	179.48	181.20	1.72	810.4	1701.3	207.8	788.5	135.7	13.4	109.2	14.5	77.9	13.6	36.1	4.6	26.9	3.5	328.9	4,272	1,224	3,644	629
RM060	N963783	181.53	184.07	2.54	779.9	1627.6	201.8	754.7	129.9	13.4	108.3	14.3	81.8	13.8	35.7	4.3	24.7	3.2	322.6	4,116	1,182	3,494	622
RM060	N963784	184.07	186.90	2.83	903.1	1885.6	233.8	873.6	151.3	14.2	118.7	15.6	85.3	14.8	39.3	4.8	26.6	3.5	356.8	4,727	1,360	4,047	680
RM060	N963785	186.90	189.10	2.20	896.0	1879.5	233.2	850.3	150.8	14.0	117.0	15.5	83.9	14.4	37.6	4.7	25.9	3.1	346.7	4,672	1,334	4,010	663

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM060	N963786	189.10	190.95	1.85	930.0	1910.2	238.0	879.5	149.0	14.1	114.0	15.1	82.8	14.2	38.4	4.4	24.4	3.4	346.7	4,764	1,364	4,107	657
RM060	N963787	191.11	193.07	1.96	767.0	1603.1	200.6	737.2	126.4	12.6	101.0	13.5	74.3	12.5	34.1	4.2	23.1	3.0	312.4	4,025	1,152	3,434	591
RM060	N963788	193.07	196.03	2.96	749.4	1566.2	195.7	718.5	125.8	12.9	103.2	13.6	76.9	13.1	35.5	4.3	23.9	3.1	327.6	3,970	1,131	3,356	614
RM060	N963789	196.03	197.98	1.95	774.0	1609.2	200.0	750.0	132.2	13.9	104.3	14.1	78.0	13.3	36.0	4.4	25.2	3.2	325.1	4,083	1,174	3,465	617
RM060	N963790	197.98	199.95	1.97	748.3	1584.6	193.3	726.7	127.6	13.4	104.7	13.9	77.8	13.8	36.3	4.4	24.9	3.3	335.3	4,008	1,139	3,380	628
RM061	N963791	0.00	3.00	3.00	878.4	1805.8	217.5	797.8	138.0	13.1	110.8	14.6	77.9	13.6	36.0	4.2	23.2	3.0	325.1	4,459	1,246	3,837	622
RM061	N963792	3.00	5.28	2.28	785.8	1646.1	201.2	745.3	132.8	12.6	107.8	14.6	80.2	13.7	36.8	4.3	24.6	3.2	334.0	4,143	1,174	3,511	632
RM061	N963793	5.28	5.41	0.13	124.3	259.2	30.4	108.5	18.8	2.1	15.6	2.1	12.1	2.4	6.7	0.8	5.5	0.7	67.0	656	172	541	115
RM061	N963794	5.41	7.99	2.58	818.6	1658.3	201.8	747.7	131.0	12.4	105.9	14.2	77.1	13.3	34.4	4.2	23.0	3.2	328.9	4,174	1,172	3,557	617
RM061	N963795	7.99	10.93	2.94	830.3	1719.8	206.6	768.7	126.4	13.8	103.5	13.8	74.4	12.4	33.9	3.9	22.5	2.8	308.6	4,241	1,190	3,652	589
RM061	N963796	10.93	13.98	3.05	863.2	1744.3	214.5	789.6	135.7	14.1	111.8	15.2	81.4	14.2	36.8	4.5	25.7	3.0	342.9	4,397	1,236	3,747	650
RM061	N963797	13.98	17.00	3.02	774.0	1590.8	198.1	747.7	136.3	13.3	110.4	14.8	82.8	14.0	36.9	4.5	24.4	3.1	344.1	4,095	1,180	3,447	648
RM061	N963798	17.00	17.87	0.87	792.8	1646.1	202.4	747.7	132.8	12.6	110.4	14.6	82.2	13.9	37.3	4.6	24.8	3.2	342.9	4,168	1,180	3,522	647
RM061	N963799	17.87	18.05	0.18	361.2	826.7	88.9	377.9	66.7	8.5	53.6	8.6	46.9	9.0	22.8	3.2	17.7	2.5	239.4	2,134	589	1,721	412
RM061	N963801	18.05	18.29	0.24	667.3	1449.5	166.1	699.8	120.0	11.4	88.4	12.8	66.0	11.9	27.9	3.5	19.7	2.7	301.0	3,648	1,065	3,103	545
RM061	N963802	18.29	18.43	0.14	466.8	1119.1	114.5	474.7	78.8	6.9	57.2	7.9	40.4	7.3	17.1	2.4	12.8	1.9	187.3	2,595	716	2,254	341
RM061	N963803	18.43	20.42	1.99	912.4	1916.3	218.1	913.3	151.9	13.6	113.0	16.2	84.5	15.2	35.0	4.3	24.1	3.3	367.0	4,788	1,384	4,112	676
RM061	N963804	20.42	21.86	1.44	768.2	1646.1	182.4	785.0	131.0	12.4	97.9	14.2	73.5	13.1	30.8	3.9	20.8	3.0	332.7	4,115	1,186	3,513	602
RM061	N963805	21.86	22.32	0.46	69.0	148.0	15.9	62.8	11.7	0.8	9.1	1.4	7.9	1.5	4.2	0.7	4.5	0.6	47.6	386	100	307	78
RM061	N963806	22.32	25.20	2.88	817.4	1713.6	195.1	827.0	139.2	12.7	104.3	15.1	77.2	14.2	32.9	4.0	22.3	3.0	342.9	4,321	1,254	3,692	629
RM061	N963807	25.20	27.94	2.74	885.5	1879.5	212.6	900.5	147.3	13.4	109.6	15.8	79.8	14.4	33.4	4.2	22.9	3.2	345.4	4,667	1,356	4,025	642
RM061	N963808	27.94	28.89	0.95	782.3	1646.1	184.3	772.2	128.7	12.9	100.7	14.3	73.6	13.8	30.8	3.9	21.1	2.9	323.8	4,111	1,173	3,513	598
RM061	N963809	28.89	31.68	2.79	920.6	1910.2	215.7	897.0	144.4	13.6	103.6	14.8	76.0	13.7	31.2	3.9	20.9	3.0	334.0	4,703	1,348	4,088	615
RM061	N963810	31.68	31.82	0.14	75.9	171.4	19.7	87.5	19.5	3.2	16.9	2.9	15.6	3.1	8.1	1.1	6.5	0.9	85.0	517	145	374	143
RM061	N963811	31.82	34.45	2.63	812.8	1695.2	189.1	773.3	128.1	13.0	94.0	13.5	70.5	12.5	28.5	3.6	19.8	2.9	307.3	4,164	1,175	3,598	566
RM061	N963812	34.45	37.44	2.99	967.6	1953.2	215.7	884.1	143.2	13.1	103.3	14.6	71.5	12.9	30.0	3.8	21.0	3.0	317.5	4,754	1,329	4,164	591
RM061	N963813	37.44	40.00	2.56	706.0	1492.5	168.5	727.8	128.1	12.8	94.4	13.9	72.5	13.3	31.0	3.9	20.8	3.0	325.1	3,814	1,111	3,223	591
RM061	N963814	40.00	41.65	1.65	614.5	1492.5	153.4	659.0	122.9	13.3	95.7	14.2	75.4	13.8	32.1	4.0	21.9	3.1	340.3	3,656	1,025	3,042	614
RM061	N963815	41.65	44.60	2.95	640.4	1382.0	158.9	676.5	126.4	12.8	101.8	14.9	77.2	13.9	32.4	4.1	22.8	3.0	345.4	3,612	1,054	2,984	628
RM061	N963816	44.60	47.58	2.98	690.8	1480.2	166.1	701.0	119.4	13.2	92.5	13.5	68.9	12.4	29.4	3.6	20.1	2.8	303.5	3,718	1,069	3,158	560
RM061	N963817	47.58	49.50	1.92	570.0	1369.7	141.4	610.0	112.7	12.6	89.2	13.2	67.7	12.3	29.5	3.6	19.4	2.7	299.7	3,354	945	2,804	550
RM061	N963818	49.50	49.68	0.18	147.8	343.9	38.3	167.4	33.0	3.4	26.6	4.1	21.5	4.0	9.6	1.3	7.5	1.0	106.2	916	264	730	185
RM061	N963819	49.68	52.28	2.60	486.7	1200.2	132.3	597.2	124.7	12.8	109.3	16.5	87.3	16.5	38.4	4.8	26.1	3.5	405.1	3,261	958	2,541	720
RM061	N963821	52.28	55.00	2.72	471.5	1152.2	123.8	533.0	101.3	11.7	82.4	12.3	64.7	11.5	27.7	3.6	19.1	2.7	293.4	2,911	835	2,382	529
RM061	N963822	55.00	58.00	3.00	536.0	1253.0	130.5	550.5	97.5	10.4	73.1	11.0	55.5	10.4	24.2	3.1	16.9	2.4	255.3	3,030	845	2,567	462
RM061	N963823	58.00	59.88	1.88	717.8	1517.1	168.5	697.5	113.1	11.9	81.5	11.6	59.6	10.7	24.6	3.2	17.1	2.4	269.2	3,706	1,050	3,214	492
RM061	N963824	60.05	62.68	2.63	727.1	1498.7	164.9	671.9	107.0	11.0	75.8	10.8	53.0	9.5	21.8	2.7	15.5	2.2	236.2	3,608	1,008	3,170	439
RM061	N963825	62.68	63.29	0.61	144.3	319.4	33.7	134.1	22.6	3.0	15.7	2.4	12.4	2.3	5.7	0.8	4.8	0.7	63.4	765	205	654	111
RM061	N963826	63.29	65.97	2.68	668.5	1560.1	155.3	653.2	108.2	10.7	76.2	10.7	53.1	9.7	21.4	2.7	14.2	2.0	227.9	3,574	980	3,145	429
RM061	N963827	66.14	69.00	2.86	767.0	1590.8	175.2	737.2	125.8	11.9	94.9	14.1	70.8	12.9	30.2	3.8	20.8	2.8	314.9	3,973	1,123	3,396	577
RM061	N963828	69.00	71.85	2.85	906.6	1873.3	204.2	838.6	139.7	12.4	103.5	14.8	76.5	13.6	32.9	4.1	22.6	3.1	337.8	4,584	1,274	3,962	621
RM061	N963829	71.85	74.61	2.76	794.0	1676.8	186.1	776.8	129.3	12.2	95.5	14.2	72.1	13.1	31.1	3.8	20.4	2.7	323.8	4,152	1,178	3,563	589
RM061	N963830	74.61	75.19	0.58	785.8	1652.2	181.2	747.7	122.3	11.8	93.3	13.5	68.5	12.5	29.0	3.7	20.3	2.6	308.6	4,053	1,133	3,489	564
RM061	N963831	75.29	78.04	2.75	857.3	1805.8	197.5	831.6	135.1	12.4	98.5	14.1	73.7	13.5	31.0	3.9	20.9	3.0	335.3	4,434	1,252	3,827	606
RM061	N963832	78.04	81.00	2.96	734.2	1535.5	170.4	718.5	122.9	12.0	92.9	13.5	71.0	12.8	30.0	3.8	20.3	2.8	320.0	3,861	1,096	3,281	579
RM061	N963833	81.00	84.00	3.00	701.3	1455.7	161.3	654.4	109.5	10.4	80.9	11.3	56.0	10.2	23.0	2.9	15.4	2.2	245.1	3,539	992	3,082	457
RM061	N963834	84.00	85.57	1.57	879.6	1799.6	200.6	740.7	129.3	11.3	91.8	12.3	62.7	10.3	25.8	3.1	16.3	2.3	241.9	4,227	1,145	3,750	478
RM061	N963835	85.57	86.64	1.07	103.6	222.9	23.6	81.3	12.9	1.6	9.1	1.2	7.1	1.3	3.8	0.5	3.2	0.4	36.3	509	126	444	64
RM061	N963836	86.64	88.44	1.80	918.3	1916.3	212.0	772.2	132.8	11.4	91.2	11.9	59.5	9.8	23.8	2.8	14.8	2.0	223.5	4,402	1,188	3,952	451
RM061	N963837	88.44	90.14	1.70	771.7	1590.8	173.4	635.7	108.1	10.3	73.1	9.5	47.3	7.6	18.5	2.2	11.7	1.7	177.8	3,639	974	3,280	360

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM061	N963838	90.14	90.36	0.22	173.0	328.0	36.6	125.4	18.0	2.6	11.5	1.5	6.9	1.1	2.9	0.3	2.3	0.4	32.9	743	188	681	62
RM061	N963839	90.36	91.21	0.85	822.1	1596.9	183.0	684.7	109.9	10.4	73.4	9.3	46.3	7.6	17.4	2.0	12.3	1.7	189.2	3,766	1,033	3,397	370
RM061	N963841	91.21	91.40	0.19	242.8	512.2	58.4	214.6	36.0	2.9	24.4	3.3	16.4	2.9	7.3	1.0	5.8	0.8	79.0	1,208	329	1,064	144
RM061	N963842	91.40	93.27	1.87	877.3	1670.6	191.5	690.5	101.9	8.9	61.1	7.7	36.1	6.0	13.9	1.6	10.2	1.4	152.4	3,831	1,028	3,532	299
RM061	N963843	93.27	95.94	2.67	356.5	745.6	84.6	319.6	55.0	6.4	41.8	6.1	33.9	6.3	16.1	2.2	13.9	2.1	179.1	1,869	499	1,561	308
RM061	N963844	95.94	98.00	2.06	324.9	699.0	79.1	299.8	51.3	6.2	38.5	5.8	33.4	6.0	15.9	2.3	14.1	2.0	179.7	1,758	469	1,454	304
RM061	N963845	98.00	99.56	1.56	316.7	665.8	77.2	291.6	50.9	6.1	37.2	5.7	33.0	6.0	16.2	2.2	13.5	2.0	171.4	1,696	459	1,402	293
RM061	N963846	99.67	102.00	2.33	340.1	710.0	80.7	304.4	52.2	6.5	38.8	5.8	31.9	6.0	16.1	2.1	13.6	1.9	174.0	1,784	475	1,487	297
RM061	N963847	102.00	104.00	2.00	323.7	680.5	78.5	296.3	52.8	6.3	38.6	5.7	33.0	6.0	15.8	2.2	13.6	2.0	174.0	1,729	466	1,432	297
RM061	N963848	104.00	106.06	2.06	330.7	701.4	80.2	304.4	52.4	6.0	39.9	5.9	32.7	6.2	16.1	2.1	13.6	2.0	177.8	1,771	476	1,469	302
RM061	N963849	106.06	107.60	1.54	323.7	683.0	79.6	306.8	54.6	6.1	40.7	6.1	34.1	6.2	16.5	2.2	14.5	2.0	180.3	1,756	481	1,448	309
RM061	N963850	108.20	111.18	2.98	312.0	659.6	74.4	282.3	48.9	6.5	37.6	5.7	32.0	6.2	16.6	2.2	14.1	1.9	173.3	1,673	443	1,377	296
RM061	N963851	111.40	113.36	1.96	300.2	642.5	74.1	282.3	49.0	6.0	38.3	5.6	30.6	5.8	15.8	2.2	13.0	1.9	168.3	1,635	442	1,348	287
RM061	N963852	113.36	114.18	0.82	775.2	1553.9	183.7	689.3	106.3	10.1	67.8	8.1	36.6	5.8	13.2	1.6	8.8	1.3	146.0	3,608	1,024	3,308	299
RM061	N963853	114.18	116.00	1.82	236.9	513.5	59.7	236.8	45.1	5.9	37.1	5.5	33.5	6.2	16.1	2.1	13.6	1.9	172.7	1,387	381	1,092	295
RM061	N963854	116.00	117.93	1.93	289.7	611.7	70.7	265.9	46.6	5.5	35.7	5.5	31.1	5.7	15.0	1.9	12.8	1.9	166.4	1,566	420	1,285	281
RM061	N963855	117.93	120.02	2.09	657.9	1308.3	157.1	603.0	106.7	12.0	84.8	11.9	62.5	10.7	25.8	3.0	16.6	2.4	264.1	3,327	941	2,833	494
RM061	N963856	120.02	121.21	1.19	707.2	1418.8	166.1	639.2	115.5	12.5	89.4	12.8	69.2	12.3	29.3	3.5	19.5	2.7	311.1	3,609	1,003	3,047	562
RM061	N963857	121.21	121.31	0.10	67.3	140.7	17.5	68.1	12.9	2.3	10.0	1.6	8.9	1.7	4.2	0.6	3.7	0.6	49.4	389	109	306	83
RM061	N963858	121.31	123.91	2.60	845.6	1676.8	195.7	745.3	127.0	12.7	98.7	13.9	73.8	13.0	32.3	3.8	21.9	3.0	335.3	4,199	1,156	3,590	608
RM061	N963859	123.91	124.06	0.15	9.2	20.1	2.9	11.9	3.4	0.9	3.3	0.6	3.7	0.8	2.2	0.4	3.0	0.5	26.5	89	22	47	42
RM061	N963861	124.06	126.95	2.89	931.2	1799.6	207.2	775.7	131.0	12.7	97.3	13.7	71.7	12.5	30.8	3.7	21.2	2.9	323.8	4,435	1,199	3,845	590
RM061	N963862	127.10	127.92	0.82	948.8	1830.3	213.8	793.1	135.1	12.7	102.6	14.8	76.0	13.3	32.7	3.8	22.6	3.2	337.8	4,541	1,233	3,921	619
RM061	N963863	127.92	128.03	0.11	292.0	608.1	67.5	250.8	43.1	5.8	32.4	4.7	25.4	4.6	11.4	1.4	8.4	1.2	118.7	1,476	392	1,262	214
RM061	N963864	128.03	130.96	2.93	862.0	1689.0	184.8	667.2	109.8	11.5	81.3	11.6	58.6	10.7	24.7	3.0	16.8	2.5	261.6	3,995	1,032	3,513	482
RM061	N963865	130.96	132.14	1.18	794.0	1572.3	175.2	643.9	109.7	11.9	85.1	12.3	64.4	11.9	27.9	3.4	19.2	2.9	285.7	3,820	1,005	3,295	525
RM061	N963866	132.14	132.85	0.71	110.8	241.4	27.4	104.2	19.7	2.6	16.1	2.5	13.3	2.6	6.5	0.9	5.7	0.8	68.7	623	167	504	120
RM061	N963867	132.85	135.80	2.95	849.1	1652.2	185.5	692.8	117.7	11.6	90.5	13.5	67.6	12.5	29.4	3.5	19.9	3.1	297.2	4,046	1,077	3,497	549
RM061	N963868	135.80	139.01	3.21	860.8	1682.9	184.8	690.5	121.8	12.0	96.5	14.3	74.3	13.7	32.0	3.8	21.6	3.2	320.0	4,132	1,086	3,541	591
RM061	N963869	139.01	142.00	2.99	866.7	1695.2	189.7	724.3	124.7	12.1	96.2	13.9	71.5	12.9	30.6	3.6	21.2	3.3	314.9	4,181	1,124	3,601	580
RM061	N963870	142.00	144.64	2.64	967.6	1867.2	209.6	781.5	129.3	12.6	99.0	14.1	70.7	12.8	30.4	3.8	21.4	3.2	307.3	4,530	1,205	3,955	575
RM061	N963871	144.64	147.50	2.86	806.9	1603.1	179.4	675.4	115.7	11.4	90.8	12.9	66.1	12.1	28.9	3.4	19.7	3.0	290.8	3,920	1,049	3,380	539
RM061	N963872	147.50	150.50	3.00	976.9	1922.5	216.9	810.6	137.4	12.7	104.1	14.8	76.1	13.9	32.3	3.9	22.7	3.5	332.7	4,681	1,256	4,064	616
RM061	N963873	150.50	153.48	2.98	923.0	1830.3	207.8	772.2	131.6	12.5	101.5	14.2	73.6	13.4	31.2	3.7	21.8	3.4	321.3	4,461	1,199	3,865	597
RM061	N963874	153.48	156.50	3.02	832.7	1689.0	190.3	718.5	122.9	12.4	94.6	13.5	68.1	12.4	29.9	3.5	20.9	3.1	301.0	4,113	1,113	3,553	559
RM061	N963875	156.50	159.50	3.00	917.1	1830.3	206.0	781.5	129.3	12.4	100.5	14.2	70.7	12.8	29.7	3.6	21.5	3.3	312.4	4,445	1,202	3,864	581
RM061	N963876	159.50	162.00	2.50	727.1	1474.1	166.1	634.5	109.3	10.5	83.8	12.0	61.2	11.2	26.5	3.3	19.4	3.0	279.4	3,621	983	3,111	510
RM061	N963877	162.00	163.53	1.53	799.9	1670.6	187.9	715.0	123.5	11.8	93.9	13.4	68.9	12.8	29.9	3.6	21.3	3.2	295.9	4,051	1,109	3,497	554
RM061	N963878	163.53	164.14	0.61	104.6	232.2	25.9	99.7	17.9	1.7	13.7	2.0	11.3	2.3	5.8	0.8	5.0	0.8	57.9	582	157	480	101
RM061	N963879	164.14	166.89	2.75	808.1	1670.6	189.1	709.2	121.8	11.3	93.8	13.2	67.1	12.1	28.4	3.3	20.3	3.0	284.5	4,036	1,100	3,499	537
RM061	N963881	166.89	169.72	2.83	907.8	1811.9	209.0	783.8	133.9	11.8	98.4	13.8	69.3	12.7	29.6	3.6	20.9	3.2	303.5	4,413	1,210	3,846	567
RM061	N963882	169.72	172.65	2.93	930.0	1885.6	214.5	816.5	136.8	11.9	98.4	13.9	72.0	13.0	30.1	3.6	21.1	3.4	304.8	4,555	1,254	3,983	572
RM061	N963883	172.65	175.55	2.90	927.7	1897.9	215.7	801.3	136.8	11.9	102.0	14.1	72.9	12.9	30.1	3.6	20.8	3.2	303.5	4,554	1,241	3,979	575
RM061	N963884	175.55	177.55	2.00	924.2	1897.9	214.5	804.8	135.1	11.9	99.0	13.8	69.2	12.4	28.1	3.4	20.2	3.0	293.4	4,531	1,237	3,976	554
RM061	N963885	178.92	181.76	2.84	851.5	1732.0	199.3	754.7	129.3	11.8	96.8	13.2	66.9	11.9	27.6	3.3	19.1	2.9	274.3	4,195	1,163	3,667	528
RM061	N963886	181.97	184.97	3.00	872.6	1732.0	198.1	760.5	129.3	11.9	93.5	12.8	63.5	11.4	26.3	3.1	18.7	2.8	266.7	4,203	1,164	3,693	511
RM061	N963887	184.97	187.91	2.94	726.0	1504.8	169.2	656.7	111.5	11.1	84.1	11.5	58.4	10.4	23.4	2.8	17.0	2.7	241.9	3,632	1,007	3,168	463
RM061	N963888	187.91	190.54	2.63	860.8	1750.5	199.3	753.5	125.2	11.6	89.3	11.8	56.5	10.0	22.1	2.6	15.8	2.4	231.8	4,143	1,146	3,689	454
RM061	N963889	190.54	193.27	2.73	755.3	1535.5	173.4	661.4	107.6	11.6	77.1	10.2	49.4	8.6	19.5	2.4	14.8	2.4	202.6	3,631	1,002	3,233	398
RM061	N963890	193.27	195.96	2.69	863.2	1750.5	195.7	731.3	113.1	11.4	76.1	9.7	46.5	8.1	18.7	2.2	14.1	2.3	187.9	4,031	1,096	3,654	377

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM061	N963891	195.96	197.08	1.12	769.4	1560.1	172.8	645.0	99.6	10.9	66.2	8.5	41.7	7.3	17.1	2.1	14.1	2.3	174.0	3,591	968	3,247	344
RM061	N963892	197.21	199.95	2.74	833.9	1670.6	186.1	689.3	106.9	11.6	70.4	8.6	39.3	6.9	15.6	1.9	12.6	2.2	157.5	3,813	1,030	3,487	327
RM062	N963893	0.00	2.05	2.05	792.8	1621.5	185.5	699.8	122.3	11.8	92.2	13.3	69.1	12.7	29.9	3.6	20.4	3.0	308.6	3,986	1,090	3,422	564
RM062	N963894	2.05	3.25	1.20	878.4	1775.0	202.4	754.7	129.3	12.2	99.6	14.0	71.3	13.1	31.0	3.7	20.9	3.0	311.1	4,320	1,172	3,740	580
RM062	N963895	3.25	5.22	1.97	907.8	1842.6	207.2	775.7	131.6	12.6	99.2	14.0	73.7	13.3	31.2	3.7	20.9	3.1	325.1	4,462	1,202	3,865	597
RM062	N963896	5.22	5.63	0.41	275.6	619.1	65.8	247.3	44.0	4.9	35.0	5.3	29.3	5.6	14.4	1.8	10.7	1.7	146.7	1,507	392	1,252	255
RM062	N963897	5.63	8.52	2.89	821.0	1689.0	190.3	723.2	122.3	12.3	94.5	13.2	68.4	12.2	28.4	3.4	19.2	2.8	295.9	4,096	1,117	3,546	550
RM062	N963898	8.52	11.40	2.88	972.3	2076.0	238.6	897.0	154.8	14.4	115.3	15.5	81.0	14.0	34.5	4.1	23.5	3.6	345.4	4,990	1,387	4,339	651
RM062	N963899	11.40	14.20	2.80	876.1	1873.3	218.1	806.0	143.2	13.9	111.8	15.2	80.2	14.8	35.7	4.0	23.6	3.7	339.1	4,559	1,263	3,917	642
RM062	N963901	14.20	16.64	2.44	869.0	1830.3	215.7	806.0	141.5	13.7	110.8	14.6	77.2	14.0	33.0	4.0	23.9	3.3	334.0	4,491	1,255	3,862	628
RM062	N963902	17.07	19.61	2.54	974.6	2069.8	240.4	907.5	157.7	14.1	116.4	15.3	80.8	14.1	35.2	4.1	23.8	3.4	342.9	5,000	1,402	4,350	650
RM062	N963903	19.61	22.50	2.89	824.5	1744.3	207.8	776.8	139.2	13.0	102.7	13.8	73.1	12.6	31.7	4.0	22.7	3.5	318.7	4,288	1,211	3,693	596
RM062	N963904	22.50	25.36	2.86	795.2	1701.3	198.8	754.7	137.4	12.6	105.2	14.1	77.8	13.6	33.5	3.9	23.8	3.6	320.0	4,195	1,183	3,587	608
RM062	N963905	25.36	28.27	2.91	833.9	1793.5	210.8	803.6	144.4	13.1	111.8	15.5	81.7	14.6	35.2	4.4	24.6	3.9	356.8	4,448	1,256	3,786	662
RM062	N963906	28.27	31.26	2.99	839.7	1854.9	216.3	822.3	147.3	14.0	113.1	15.8	82.1	15.0	35.2	4.3	24.9	3.8	351.8	4,540	1,284	3,880	660
RM062	N963907	31.26	34.20	2.94	721.3	1553.9	186.7	708.0	129.9	13.3	107.4	14.6	77.7	14.0	34.8	4.1	24.4	3.6	322.6	3,916	1,117	3,300	616
RM062	N963908	34.20	37.03	2.83	935.9	1996.2	235.0	887.6	150.8	14.2	118.1	15.8	83.7	14.4	35.8	4.3	25.7	3.6	361.9	4,883	1,373	4,205	677
RM062	N963909	37.03	39.69	2.66	879.6	1861.0	219.3	836.3	146.7	14.5	115.8	16.1	83.1	14.6	35.7	4.2	26.2	3.9	344.1	4,601	1,301	3,943	658
RM062	N963910	39.69	42.64	2.95	801.0	1695.2	204.2	779.2	142.6	13.7	113.4	15.4	83.3	14.9	35.9	4.3	26.2	3.5	350.5	4,283	1,225	3,622	661
RM062	N963911	42.98	45.85	2.87	772.9	1676.8	200.0	765.2	136.3	13.7	111.9	15.2	80.9	13.9	35.0	4.1	24.5	3.7	347.9	4,202	1,197	3,551	651
RM062	N963912	45.85	48.72	2.87	843.2	1818.0	213.8	808.3	145.5	13.3	111.7	15.5	82.0	14.2	35.3	4.2	24.5	3.4	355.6	4,489	1,265	3,829	660
RM062	N963913	48.72	51.71	2.99	860.8	1836.5	212.6	800.1	145.5	13.6	114.3	15.5	82.3	14.2	35.2	4.4	24.8	3.6	349.2	4,513	1,256	3,856	657
RM062	N963914	51.71	54.59	2.88	813.9	1744.3	202.4	761.7	136.3	13.0	108.8	14.9	77.9	14.7	34.5	4.2	25.1	3.6	340.3	4,296	1,193	3,659	637
RM062	N963915	54.59	57.24	2.65	650.9	1400.4	167.9	638.0	119.4	12.9	100.6	13.8	76.1	13.8	34.6	4.1	24.7	3.7	339.1	3,600	1,015	2,977	623
RM062	N963916	57.24	58.07	0.83	762.3	1621.5	188.5	705.7	129.3	12.8	103.2	14.4	77.5	13.8	36.0	4.2	25.2	3.5	337.8	4,036	1,115	3,407	628
RM062	N963917	58.07	58.35	0.28	40.8	85.6	10.0	37.2	7.5	1.2	7.4	1.2	6.9	1.5	3.8	0.6	3.6	0.6	41.5	249	63	181	68
RM062	N963918	58.35	59.50	1.15	696.6	1504.8	176.4	670.7	127.0	11.6	104.0	14.5	79.0	14.2	35.7	4.2	24.5	3.5	354.3	3,821	1,068	3,175	645
RM062	N963919	59.74	61.29	1.55	874.9	1873.3	211.4	794.3	143.8	12.8	110.5	15.2	82.3	14.8	36.6	4.3	25.2	3.8	373.4	4,577	1,247	3,898	679
RM062	N963921	61.29	64.16	2.87	944.1	1977.7	227.1	838.6	149.0	12.3	111.9	15.1	80.5	14.4	35.7	4.2	23.9	3.5	358.1	4,796	1,310	4,137	659
RM062	N963922	64.16	64.46	0.30	412.8	872.2	100.3	372.1	67.4	8.3	53.1	7.2	40.2	7.0	18.7	2.2	12.4	1.9	180.3	2,156	587	1,825	331
RM062	N963923	64.46	67.29	2.83	765.8	1596.9	189.7	716.2	130.5	12.6	104.8	14.7	79.7	14.1	35.8	4.2	25.2	3.5	350.5	4,044	1,131	3,399	645
RM062	N963924	67.29	68.92	1.63	768.2	1596.9	186.7	690.5	125.2	12.0	96.4	13.2	70.6	12.7	31.3	3.8	22.1	3.3	318.7	3,952	1,086	3,368	584
RM062	N963925	68.92	70.38	1.46	839.7	1750.5	202.4	755.8	131.6	12.6	103.6	13.6	72.4	12.7	31.3	3.9	22.0	3.2	304.8	4,260	1,176	3,680	580
RM062	N963926	70.38	72.59	2.21	322.5	691.6	81.2	312.6	63.8	7.6	55.2	8.8	51.1	9.7	25.4	3.3	20.1	3.0	260.3	1,916	517	1,472	445
RM062	N963927	72.59	74.15	1.56	741.2	1553.9	178.2	666.0	113.1	11.0	82.6	10.6	57.2	9.9	24.0	2.8	17.5	2.3	245.7	3,716	1,025	3,252	464
RM062	N963928	74.15	74.61	0.46	419.9	879.5	98.6	372.1	67.0	7.9	57.9	8.7	52.0	9.8	27.3	3.4	21.4	3.0	262.9	2,291	598	1,837	454
RM062	N963929	74.61	77.61	3.00	750.6	1486.4	164.9	580.9	90.2	9.2	64.9	8.5	44.4	8.0	19.9	2.5	15.1	2.3	201.3	3,449	889	3,073	376
RM062	N963930	77.61	80.42	2.81	824.5	1695.2	193.9	705.7	122.9	12.9	96.4	13.0	68.9	12.0	30.6	3.5	20.6	2.9	301.0	4,104	1,104	3,542	562
RM062	N963931	80.42	83.35	2.93	1091.9	2235.7	262.2	969.3	181.5	13.3	146.4	20.4	108.6	19.6	48.8	5.7	33.4	4.9	472.4	5,614	1,542	4,741	873
RM062	N963932	83.35	86.28	2.93	837.4	1781.2	214.5	816.5	147.8	14.9	123.9	16.8	91.7	16.1	39.6	4.8	27.8	4.4	388.6	4,526	1,287	3,797	729
RM062	N963933	86.28	89.24	2.96	822.1	1830.3	205.4	793.1	129.3	12.2	94.9	13.4	66.9	11.7	28.7	3.4	21.1	3.0	285.7	4,321	1,208	3,780	541
RM062	N963934	89.24	91.24	2.00	1025.0	2186.6	251.3	936.6	151.3	13.1	104.8	14.9	72.0	12.7	30.6	3.6	22.0	3.2	309.9	5,138	1,426	4,551	587
RM062	N963935	91.24	94.24	3.00	794.0	1713.6	201.2	776.8	129.9	12.4	95.1	14.0	66.8	11.9	28.7	3.4	20.6	3.0	297.2	4,169	1,189	3,615	553
RM062	N963936	94.24	97.19	2.95	802.2	1775.0	206.0	790.8	132.2	13.0	98.0	14.1	68.8	12.5	29.9	3.6	21.6	3.1	302.2	4,273	1,212	3,706	567
RM062	N963937	97.19	100.13	2.94	835.0	1830.3	214.5	811.8	136.8	13.1	101.4	14.7	71.5	12.6	30.4	3.6	22.0	3.2	316.2	4,417	1,249	3,828	589
RM062	N963938	100.13	103.13	3.00	1023.9	2186.6	248.9	942.5	153.7	13.9	112.4	16.1	80.6	14.7	34.5	4.1	25.2	3.4	351.8	5,212	1,442	4,555	657
RM062	N963939	103.13	106.06	2.93	986.3	2063.7	239.8	881.8	141.5	13.5	103.4	14.7	73.2	12.8	30.9	3.8	22.4	3.3	316.2	4,907	1,351	4,313	594
RM062	N963941	106.06	107.28	1.22	1208.0	2401.5	267.0	986.8	157.1	13.5	113.0	16.5	82.2	14.7	35.1	4.2	23.8	3.2	372.1	5,699	1,510	5,020	678
RM062	N963942	107.28	110.27	2.99	536.0	1412.7	183.0	810.6	185.5	14.8	172.9	27.6	145.2	27.3	65.6	7.5	43.8	6.0	669.2	4,308	1,352	3,128	1,180
RM062	N963943	110.27	113.24	2.97	277.9	856.2	112.8	513.2	125.8	11.6	117.6	18.9	101.6	18.9	46.1	5.5	32.1	4.6	474.9	2,718	872	1,886	832

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM062	N963944	113.24	116.24	3.00	285.0	880.8	113.0	501.6	118.3	12.0	106.3	17.2	93.9	17.6	42.5	5.2	30.9	4.4	444.5	2,673	844	1,899	774
RM062	N963945	116.24	119.24	3.00	300.2	757.9	89.2	367.4	78.5	12.3	66.6	10.6	55.4	10.4	25.2	3.1	19.2	2.8	256.5	2,055	601	1,593	462
RM062	N963946	119.24	122.24	3.00	138.4	389.4	51.0	229.8	52.3	12.5	46.7	7.3	39.6	7.6	19.0	2.3	15.9	2.3	189.8	1,204	380	861	343
RM062	N963947	122.24	125.24	3.00	173.0	479.1	61.1	268.3	61.1	12.5	51.2	8.3	44.9	8.4	20.9	2.7	17.6	2.7	214.6	1,426	444	1,043	384
RM062	N963948	125.24	128.24	3.00	180.0	506.1	66.1	293.9	66.2	12.3	57.5	9.2	48.7	9.2	22.9	2.9	18.1	2.6	229.8	1,526	484	1,112	413
RM062	N963949	128.24	131.24	3.00	320.2	799.7	90.6	365.1	70.7	13.4	58.0	9.0	46.9	8.6	21.8	2.8	17.8	2.6	220.3	2,048	582	1,646	401
RM062	N963950	131.24	133.84	2.60	156.0	423.8	54.0	234.4	51.3	11.6	45.3	7.4	39.0	7.3	18.8	2.5	15.4	2.4	193.7	1,263	386	919	343
RM062	N963951	133.84	134.24	0.40	97.7	245.1	29.1	115.9	23.2	3.8	20.8	3.6	20.1	4.1	12.5	1.9	14.6	2.5	127.0	722	192	511	211
RM062	N963952	134.24	137.15	2.91	259.2	690.4	84.1	355.8	71.3	13.7	59.9	9.5	49.8	9.1	23.0	3.0	19.2	2.9	237.5	1,888	571	1,461	428
RM062	N963953	137.15	140.05	2.90	380.0	928.7	102.5	403.6	75.7	13.7	60.4	9.2	48.7	8.9	22.3	2.8	18.6	2.8	229.8	2,308	640	1,890	417
RM062	N963954	140.05	142.09	2.04	289.7	721.1	84.2	339.4	66.8	13.7	54.3	8.6	43.4	8.1	20.8	2.7	17.3	2.7	210.2	1,883	542	1,501	382
RM062	N963955	142.09	142.46	0.37	94.3	226.0	25.4	95.4	17.9	3.6	15.2	2.4	13.2	2.6	7.2	1.0	6.5	1.0	73.8	585	154	459	127
RM062	N963956	142.46	145.16	2.70	260.4	718.6	89.7	384.9	79.1	15.2	65.7	10.2	55.2	10.1	25.5	3.2	20.4	3.1	252.7	1,994	619	1,533	461
RM062	N963957	145.16	147.95	2.79	259.2	705.1	87.3	368.6	76.0	15.6	61.4	9.5	49.9	9.4	23.6	3.0	18.9	3.0	238.7	1,929	591	1,496	433
RM062	N963958	147.95	150.79	2.84	268.6	737.0	90.7	390.7	80.0	14.9	66.5	10.4	53.4	10.2	25.2	3.2	20.1	3.2	255.3	2,029	625	1,567	462
RM062	N963959	150.79	153.60	2.81	280.3	760.4	92.5	391.9	78.0	15.0	67.0	10.2	53.6	10.1	25.6	3.3	20.1	3.0	254.0	2,065	626	1,603	462
RM062	N963961	153.60	155.00	1.40	321.4	797.2	90.6	365.1	68.3	14.4	52.8	7.9	42.4	7.9	19.8	2.6	16.7	2.6	197.5	2,007	574	1,643	365
RM062	N963962	155.00	156.72	1.72	635.7	1351.2	151.6	573.9	89.8	16.0	66.7	9.6	47.3	8.7	22.2	2.8	17.8	2.8	220.3	3,216	872	2,802	414
RM062	N963963	156.72	158.61	1.89	93.5	214.4	22.9	79.3	13.6	1.5	9.1	1.4	7.0	1.3	3.5	0.5	3.5	0.5	38.6	491	124	424	67
RM062	N963964	158.61	159.87	1.26	105.7	242.6	25.7	91.5	15.7	1.7	11.4	1.9	10.1	1.9	5.4	0.7	4.8	0.7	57.1	577	145	481	96
RM062	N963965	160.32	160.66	0.34	76.5	172.0	18.2	63.3	10.3	1.5	7.3	1.2	6.2	1.2	3.3	0.5	3.2	0.4	35.6	401	99	340	60
RM062	N963966	160.66	162.83	2.17	109.2	271.5	33.5	138.8	27.8	5.9	22.5	3.5	17.6	3.3	8.5	1.1	7.4	1.1	86.9	739	221	581	158
RM062	N963967	162.83	165.77	2.94	266.2	631.4	70.2	296.3	54.0	12.2	42.4	6.0	32.8	6.1	14.5	2.0	13.1	2.0	156.8	1,606	459	1,318	288
RM062	N963968	165.77	168.70	2.93	397.6	947.1	107.5	456.1	78.8	14.2	61.1	8.4	44.8	7.9	19.2	2.5	15.9	2.4	205.7	2,369	696	1,987	382
RM062	N963969	168.70	171.57	2.87	853.8	1861.0	206.0	822.3	125.8	16.0	87.5	11.1	57.7	10.0	23.9	3.1	19.7	3.0	254.0	4,355	1,223	3,869	486
RM062	N963970	171.57	174.46	2.89	51.0	116.6	14.5	66.1	13.3	8.7	11.3	1.5	9.0	1.7	4.4	0.7	4.6	0.7	46.1	350	105	262	89
RM062	N963971	174.46	177.33	2.87	42.6	97.8	12.5	55.4	12.3	8.4	10.5	1.5	8.7	1.6	4.4	0.6	4.6	0.8	42.9	305	91	221	84
RM062	N963972	177.33	179.99	2.66	39.5	92.0	12.0	56.7	11.4	8.6	10.1	1.4	8.6	1.6	4.1	0.6	4.6	0.8	41.5	294	90	212	82
RM062	N963973	181.66	183.44	1.78	48.2	110.1	14.2	65.5	13.6	8.4	11.9	1.7	9.4	1.8	4.6	0.7	5.1	0.8	47.6	344	104	252	92
RM062	N963974	183.44	184.83	1.39	764.7	1689.0	187.3	754.7	120.0	14.2	82.9	10.6	54.6	9.3	22.4	3.0	18.9	2.9	239.4	3,974	1,127	3,516	458
RM062	N963975	184.83	187.64	2.81	124.3	278.9	32.7	137.6	23.1	9.2	18.3	2.3	12.7	2.4	6.1	0.9	5.8	1.0	58.5	714	209	597	117
RM062	N963976	187.76	190.71	2.95	64.3	148.0	18.3	79.9	15.7	8.1	12.4	1.7	10.1	1.9	4.7	0.7	5.1	0.8	50.3	422	126	326	96
RM062	N963977	190.71	193.71	3.00	130.8	298.5	35.2	145.8	26.1	8.9	20.6	2.7	15.1	2.9	7.1	1.0	7.0	1.1	72.1	775	225	636	139
RM062	N963978	193.71	196.50	2.79	161.3	361.1	42.0	171.5	28.8	8.8	21.5	2.9	16.1	2.8	7.0	1.0	6.8	1.1	74.3	907	261	765	142
RM062	N963979	196.50	198.84	2.34	365.9	827.9	89.0	352.3	54.4	9.6	36.0	4.5	22.9	4.2	10.0	1.4	8.8	1.5	102.3	1,891	523	1,690	201
RM062	N963981	198.84	199.79	0.95	37.6	87.7	11.2	53.0	11.6	9.2	9.7	1.4	7.8	1.5	4.1	0.6	4.2	0.7	40.8	281	85	201	80
RM062	N963982	199.95	200.41	0.46	350.7	809.5	87.5	345.3	55.5	9.3	37.9	4.9	26.3	4.9	11.7	1.6	10.2	1.5	119.6	1,876	519	1,648	228
RM062	N963983	200.41	201.40	0.99	969.9	2082.1	224.1	871.3	130.5	10.4	85.2	11.1	58.8	10.4	24.4	3.3	20.0	3.1	266.7	4,771	1,296	4,278	493
RM062	N963984	201.40	202.98	1.58	192.9	461.9	51.0	214.0	37.6	8.5	28.7	4.0	22.5	4.0	10.0	1.4	8.8	1.4	104.4	1,151	329	957	194
RM063	N963985	0.00	2.05	2.05	889.0	1897.9	224.7	843.3	146.1	13.7	106.7	15.5	80.3	14.3	34.2	4.3	24.5	3.4	351.8	4,650	1,310	4,001	649
RM063	N963986	2.05	3.10	1.05	782.3	1695.2	197.5	745.3	128.7	13.0	98.2	14.4	74.5	13.2	32.3	4.0	22.9	3.5	331.4	4,156	1,160	3,549	607
RM063	N963987	3.35	6.19	2.84	843.2	1793.5	212.0	796.6	139.7	13.7	104.5	15.2	80.9	13.9	34.0	4.1	24.5	3.6	353.0	4,433	1,245	3,785	647
RM063	N963988	6.19	9.14	2.95	789.3	1701.3	200.0	761.7	138.6	13.9	106.5	15.4	82.4	14.3	35.1	4.2	24.6	3.7	350.5	4,241	1,198	3,591	651
RM063	N963989	9.14	11.89	2.75	812.8	1719.8	204.8	775.7	138.0	13.6	102.2	15.0	77.9	13.9	33.6	4.1	24.0	3.5	339.1	4,278	1,211	3,651	627
RM063	N963990	11.89	14.71	2.82	763.5	1615.3	191.5	732.5	127.6	13.8	98.5	14.8	76.4	13.6	32.6	4.0	23.5	3.3	339.1	4,050	1,143	3,430	620
RM063	N963991	14.71	17.65	2.94	825.6	1750.5	204.2	783.8	135.1	13.7	104.0	15.3	78.0	13.9	34.0	4.1	23.1	3.3	339.1	4,328	1,216	3,699	628
RM063	N963992	17.65	20.63	2.98	859.7	1836.5	216.9	815.3	137.4	13.5	100.3	14.6	77.5	13.5	33.2	4.0	23.0	3.5	330.2	4,479	1,262	3,866	613
RM063	N963993	20.63	23.62	2.99	891.3	1854.9	219.3	827.0	144.4	13.9	106.5	15.5	80.8	14.0	35.0	4.2	24.3	3.4	349.2	4,584	1,287	3,937	647
RM063	N963994	23.62	26.40	2.78	823.3	1750.5	208.4	787.3	136.8	13.7	103.6	15.2	77.2	13.9	32.8	4.0	22.7	3.3	331.4	4,324	1,225	3,706	618
RM063	N963995	26.40	28.27	1.87	792.8	1682.9	198.8	750.0	131.0	13.3	102.1	14.9	77.6	13.6	33.0	4.0	22.6	3.3	332.7	4,173	1,172	3,556	617

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM063	N963996	28.27	30.03	1.76	37.9	82.8	9.7	34.6	7.3	0.7	5.7	1.0	5.8	1.1	3.1	0.5	3.4	0.6	35.9	230	58	172	58
RM063	N963997	30.03	31.60	1.57	74.7	160.9	17.8	63.2	11.4	1.1	8.0	1.3	6.9	1.4	4.1	0.6	4.2	0.6	43.9	400	101	328	72
RM063	N963998	31.60	34.53	2.93	775.2	1664.5	193.9	740.7	129.3	13.3	96.0	13.9	73.7	13.1	31.9	3.9	21.7	3.2	323.8	4,098	1,152	3,504	594
RM063	N963999	34.53	37.21	2.68	771.7	1652.2	195.7	752.3	129.9	13.4	102.0	14.8	79.1	13.7	33.6	4.2	23.8	3.4	337.8	4,128	1,172	3,502	626
RM063	N964001	37.21	38.25	1.04	822.1	1719.8	201.2	768.7	133.9	13.3	101.0	14.7	76.0	13.1	31.9	3.9	22.9	3.2	322.6	4,248	1,194	3,646	603
RM063	N964002	38.40	41.34	2.94	791.6	1719.8	200.0	752.3	131.0	13.0	99.3	14.3	75.4	13.1	31.7	3.8	22.2	3.3	330.2	4,201	1,173	3,595	606
RM063	N964003	41.34	44.27	2.93	853.8	1861.0	213.3	801.3	138.0	13.5	100.2	14.7	75.6	13.0	31.0	4.0	22.1	3.1	323.8	4,468	1,243	3,867	601
RM063	N964004	44.50	47.50	3.00	859.7	1824.2	211.4	799.0	133.9	13.4	100.7	14.5	75.5	12.8	30.9	3.8	22.2	3.2	314.9	4,420	1,234	3,828	592
RM063	N964005	47.50	48.80	1.30	112.0	248.1	30.2	121.9	25.1	3.5	21.6	3.6	20.0	3.6	10.0	1.4	8.3	1.2	96.9	707	201	537	170
RM063	N964006	48.80	51.79	2.99	818.6	1738.2	203.0	762.8	129.3	12.7	96.9	14.2	75.1	13.2	32.0	3.9	22.6	3.2	326.4	4,252	1,184	3,652	600
RM063	N964007	51.79	54.68	2.89	867.9	1842.6	216.9	810.6	139.2	14.2	105.7	15.3	82.8	14.5	35.1	4.2	24.3	3.4	345.4	4,522	1,265	3,877	645
RM063	N964008	54.68	57.48	2.80	829.2	1750.5	206.0	780.3	135.7	13.4	100.7	14.9	78.6	13.8	33.3	3.9	23.2	3.3	335.3	4,322	1,215	3,702	620
RM063	N964009	57.48	60.48	3.00	885.5	1922.5	224.7	839.8	144.4	14.9	107.2	15.3	79.3	14.2	33.6	4.1	23.7	3.3	341.6	4,654	1,304	4,017	637
RM063	N964010	60.48	63.39	2.91	873.7	1867.2	217.5	823.5	140.3	14.4	106.4	15.2	80.0	13.9	34.2	4.2	23.5	3.3	346.7	4,564	1,276	3,922	642
RM063	N964011	63.39	65.35	1.96	821.0	1768.9	204.8	773.3	133.3	14.0	101.7	15.1	77.1	13.8	33.2	4.0	23.8	3.4	336.5	4,324	1,204	3,701	623
RM063	N964012	65.68	68.53	2.85	871.4	1934.7	206.0	832.8	144.4	14.7	114.6	14.9	82.1	13.6	35.9	3.9	23.8	3.3	351.8	4,648	1,280	3,989	658
RM063	N964013	68.53	69.00	0.47	857.3	1885.6	205.4	811.8	139.7	14.7	109.3	14.4	80.2	13.2	34.3	3.7	22.4	3.2	339.1	4,534	1,252	3,900	634
RM063	N964014	69.19	72.10	2.91	736.5	1621.5	177.0	709.2	127.0	13.5	98.8	13.2	73.2	12.0	31.9	3.4	21.2	3.0	321.3	3,963	1,100	3,371	591
RM063	N964015	72.10	74.37	2.27	863.2	1904.0	204.2	822.3	140.9	14.7	108.2	14.2	76.7	12.7	32.1	3.6	22.3	3.0	328.9	4,551	1,258	3,935	616
RM063	N964016	74.37	76.93	2.56	796.3	1744.3	190.9	764.0	132.8	14.2	101.0	13.2	75.4	12.1	32.5	3.5	22.0	3.0	328.9	4,234	1,176	3,628	606
RM063	N964017	76.93	79.19	2.26	804.5	1762.8	189.1	765.2	131.0	13.9	103.0	13.9	76.4	12.5	33.0	3.7	22.2	3.1	327.6	4,262	1,176	3,653	610
RM063	N964018	79.19	82.16	2.97	741.2	1633.8	179.4	719.7	125.8	13.8	101.2	13.3	73.9	12.3	32.1	3.5	21.1	3.0	318.7	3,993	1,112	3,400	593
RM063	N964019	82.30	85.24	2.94	908.9	1977.7	216.9	866.6	146.1	14.7	110.2	14.5	80.6	13.2	33.9	3.8	22.8	3.1	341.6	4,755	1,325	4,116	638
RM063	N964021	85.24	88.10	2.86	772.9	1676.8	184.8	738.3	128.7	13.5	99.6	13.1	73.0	12.1	32.3	3.5	21.1	3.0	321.3	4,094	1,138	3,502	592
RM063	N964022	88.10	90.95	2.85	872.6	1861.0	205.4	828.1	144.4	14.7	110.9	14.5	81.1	13.0	34.8	3.9	23.3	3.2	349.2	4,560	1,274	3,912	649
RM063	N964023	90.95	93.93	2.98	916.0	1959.3	214.5	849.1	143.8	14.1	107.0	14.1	77.0	12.5	33.2	3.6	21.8	3.1	341.6	4,711	1,299	4,083	628
RM063	N964024	93.93	96.71	2.78	775.2	1707.5	185.5	741.8	128.1	13.9	100.7	13.2	74.1	12.4	32.3	3.5	20.9	2.9	317.5	4,130	1,143	3,538	592
RM063	N964025	96.71	99.59	2.88	789.3	1707.5	186.1	768.7	135.1	14.8	106.2	14.1	79.3	12.8	33.5	3.6	22.7	3.2	340.3	4,217	1,183	3,587	630
RM063	N964026	99.59	101.26	1.67	831.5	1787.3	194.5	779.2	135.1	13.5	102.5	13.1	72.3	11.7	30.9	3.4	20.8	2.9	311.1	4,310	1,194	3,728	582
RM063	N964027	101.26	102.02	0.76	44.0	91.3	10.6	40.2	8.4	0.9	7.0	1.0	6.0	1.1	3.3	0.4	2.9	0.4	33.6	251	66	194	57
RM063	N964028	102.02	103.11	1.09	789.3	1670.6	180.0	715.0	121.2	11.6	89.3	11.9	66.8	10.9	30.6	3.4	21.9	3.1	309.9	4,035	1,095	3,476	559
RM063	N964029	103.11	106.11	3.00	836.2	1799.6	196.3	795.5	136.8	13.4	102.8	13.3	74.3	11.9	31.4	3.5	21.4	2.9	320.0	4,359	1,216	3,764	595
RM063	N964030	106.11	108.93	2.82	867.9	1873.3	203.0	822.3	139.2	13.9	105.6	13.9	75.8	12.7	32.5	3.6	22.0	3.1	327.6	4,516	1,254	3,906	611
RM063	N964031	108.93	111.66	2.73	803.4	1781.2	193.3	786.1	136.8	14.4	104.9	14.3	78.5	13.0	33.2	3.7	22.1	3.1	334.0	4,322	1,209	3,701	621
RM063	N964032	111.66	114.52	2.86	802.2	1781.2	190.9	782.6	135.1	14.2	108.5	14.3	78.5	12.8	33.6	3.8	23.7	3.2	337.8	4,322	1,202	3,692	630
RM063	N964033	114.52	117.51	2.99	866.7	1867.2	203.0	818.8	141.5	15.0	109.0	14.1	77.6	13.1	34.1	3.7	22.9	3.2	336.5	4,526	1,255	3,897	629
RM063	N964034	117.51	120.50	2.99	801.0	1756.6	190.3	766.3	134.5	14.2	106.5	13.9	76.7	12.8	33.4	3.7	22.3	3.0	334.0	4,269	1,182	3,649	620
RM063	N964035	120.50	123.50	3.00	876.1	1928.6	206.0	835.1	141.5	14.8	109.4	14.2	78.4	13.1	33.9	3.8	23.0	3.1	330.2	4,611	1,275	3,987	624
RM063	N964036	123.50	126.50	3.00	858.5	1879.5	203.0	814.1	136.8	14.8	109.3	14.1	76.2	12.7	33.5	3.6	22.2	3.2	325.1	4,507	1,244	3,892	615
RM063	N964037	126.50	129.53	3.03	788.1	1744.3	190.3	759.3	131.6	14.4	105.0	13.6	76.7	12.7	33.4	3.6	22.0	3.2	325.1	4,223	1,171	3,614	610
RM063	N964038	129.53	132.50	2.97	798.7	1781.2	190.3	764.0	132.8	13.8	102.6	13.4	74.0	12.0	32.1	3.5	22.0	3.0	325.1	4,269	1,174	3,667	602
RM063	N964039	132.50	135.43	2.93	889.0	1947.0	207.2	839.8	143.2	14.8	110.1	14.2	77.9	12.7	33.4	3.7	22.8	3.1	328.9	4,648	1,282	4,026	622
RM063	N964041	135.43	138.22	2.79	799.9	1762.8	191.5	774.5	134.5	14.4	104.2	13.9	77.5	12.4	32.8	3.6	21.8	3.2	328.9	4,276	1,192	3,663	613
RM063	N964042	138.22	141.18	2.96	781.1	1725.9	186.1	750.0	131.6	14.3	101.9	13.7	74.3	12.5	33.3	3.6	22.5	3.0	327.6	4,181	1,156	3,575	607
RM063	N964043	141.18	144.07	2.89	843.2	1842.6	201.8	808.3	138.6	14.4	107.8	13.9	78.8	12.8	33.5	3.7	23.1	3.2	339.1	4,465	1,241	3,835	630
RM063	N964044	144.07	146.87	2.80	894.9	1953.2	211.4	863.1	145.5	14.8	108.9	13.9	78.0	12.8	33.3	3.6	22.8	3.2	334.0	4,693	1,312	4,068	625
RM063	N964045	146.87	149.13	2.26	864.4	1904.0	203.6	828.1	140.3	14.2	104.2	13.6	75.4	12.1	32.3	3.5	21.6	3.1	323.8	4,544	1,261	3,940	604
RM063	N964046	149.13	150.30	1.17	768.2	1689.0	187.3	761.7	131.0	13.9	101.7	13.2	73.6	11.9	31.8	3.5	21.2	3.0	304.8	4,116	1,167	3,537	578
RM063	N964047	150.30	151.05	0.75	66.0	125.3	14.0	52.5	9.9	3.9	10.4	1.6	10.8	2.0	5.0	0.6	4.1	0.6	51.6	358	89	268	91
RM063	N964048	151.05	154.06	3.01	819.8	1879.5	196.9	771.0	129.9	14.4	101.8	13.5	74.9	13.1	32.3	3.7	22.3	3.2	316.2	4,392	1,186	3,797	595

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM063	N964049	154.06	155.17	1.11	917.1	2088.3	218.1	849.1	139.2	15.1	104.4	13.8	77.6	13.3	32.6	3.7	22.7	3.3	321.3	4,819	1,298	4,212	608
RM063	N964050	155.45	158.30	2.85	770.5	1768.9	190.3	738.3	128.1	14.9	99.2	13.3	76.5	13.6	32.8	3.8	22.6	3.3	322.6	4,199	1,147	3,596	603
RM063	N964051	158.30	161.30	3.00	796.3	1836.5	194.5	766.3	130.5	14.7	101.9	13.6	76.3	13.3	32.7	3.8	22.7	3.1	321.3	4,328	1,181	3,724	603
RM063	N964052	161.30	164.30	3.00	917.1	2088.3	218.1	852.6	140.9	15.2	105.9	13.9	77.1	13.4	32.8	3.8	22.8	3.2	327.6	4,833	1,303	4,217	616
RM063	N964053	164.30	167.26	2.96	896.0	2057.6	215.7	832.8	138.6	15.2	104.9	13.7	77.3	13.6	33.3	3.9	23.5	3.2	327.6	4,757	1,278	4,141	616
RM063	N964054	167.26	170.12	2.86	885.5	2020.7	212.0	821.1	136.3	15.2	104.2	13.6	76.7	13.4	32.9	3.8	22.7	3.3	322.6	4,684	1,260	4,076	608
RM063	N964055	170.12	173.12	3.00	887.8	2057.6	215.1	832.8	136.8	15.4	107.1	14.3	79.9	13.7	33.3	3.9	23.1	3.2	330.2	4,754	1,279	4,130	624
RM063	N964056	173.12	175.29	2.17	803.4	1842.6	194.5	744.2	129.3	14.8	100.4	13.2	75.5	12.9	32.6	3.8	23.1	3.4	322.6	4,316	1,157	3,714	602
RM063	N964057	175.29	175.73	0.44	160.1	347.6	39.5	152.2	27.1	2.6	20.8	3.0	17.8	3.2	8.8	1.2	7.8	1.1	90.4	883	240	727	157
RM063	N964058	175.73	178.66	2.93	906.6	2057.6	215.7	841.0	137.4	15.1	105.2	13.6	76.7	13.1	32.0	3.8	22.3	3.0	314.9	4,758	1,284	4,158	600
RM063	N964059	178.66	181.65	2.99	880.8	2020.7	209.0	820.0	139.7	15.3	110.2	14.5	79.5	13.9	33.3	3.9	23.6	3.4	323.8	4,692	1,263	4,070	621
RM063	N964061	181.65	184.36	2.71	819.8	1873.3	196.9	760.5	125.2	14.5	97.4	12.8	71.4	12.5	31.1	3.4	20.7	3.1	288.3	4,331	1,167	3,776	555
RM063	N964062	184.36	187.24	2.88	809.2	1854.9	197.5	762.8	131.0	14.7	100.2	13.2	75.1	13.2	31.8	3.7	22.4	3.0	317.5	4,350	1,180	3,756	595
RM063	N964063	187.24	190.14	2.90	935.9	2088.3	222.9	864.3	144.4	15.4	106.3	13.9	78.3	13.7	33.3	3.9	23.2	3.2	331.4	4,878	1,324	4,256	623
RM063	N964064	190.14	193.14	3.00	958.2	2205.0	229.6	888.8	144.9	15.8	109.0	14.1	79.9	13.6	33.5	3.8	23.1	3.3	323.8	5,046	1,357	4,426	620
RM063	N964065	193.14	194.84	1.70	906.6	2076.0	219.9	857.3	144.9	15.2	110.4	14.9	81.8	14.4	35.6	4.0	24.9	3.5	342.9	4,852	1,319	4,205	648
RM063	N964066	195.07	196.34	1.27	673.2	1523.2	164.3	649.7	112.5	13.4	89.1	12.0	68.9	11.9	30.1	3.5	20.6	2.9	289.5	3,665	1,007	3,123	542
RM063	N964067	196.34	198.16	1.82	75.1	158.5	17.6	62.2	10.5	1.2	7.9	1.1	7.3	1.5	4.2	0.6	4.1	0.5	45.5	398	99	324	74
RM063	N964068	198.16	199.91	1.75	787.0	1811.9	190.9	736.0	124.1	13.8	96.0	12.6	71.3	12.5	30.3	3.5	21.3	3.1	299.7	4,214	1,135	3,650	564
RM064	N964069	0.91	3.02	2.11	763.5	1750.5	185.5	736.0	126.4	13.8	100.4	13.5	75.4	13.4	33.3	3.9	22.8	3.2	317.5	4,159	1,137	3,562	597
RM064	N964070	5.49	6.71	1.22	871.4	1977.7	210.2	815.3	138.6	14.8	106.4	14.2	80.0	13.9	34.2	4.0	24.4	3.4	340.3	4,649	1,258	4,013	636
RM064	N964071	7.01	7.71	0.70	667.3	1510.9	163.7	641.5	113.9	13.3	92.7	12.4	72.1	13.1	32.1	3.8	23.2	3.1	322.6	3,686	1,004	3,097	588
RM064	N964072	7.71	8.00	0.29	88.4	189.2	21.9	85.2	16.9	1.6	13.1	2.0	11.8	2.3	6.2	0.9	6.1	0.8	62.5	509	138	402	107
RM064	N964073	8.00	11.00	3.00	769.4	1762.8	187.3	717.3	120.6	13.6	93.8	12.6	72.1	12.5	31.4	3.6	21.9	3.0	309.9	4,132	1,110	3,557	574
RM064	N964074	11.00	14.00	3.00	847.9	1947.0	205.4	788.5	132.2	13.8	101.9	13.6	78.2	13.8	33.3	3.9	23.9	3.4	335.3	4,542	1,218	3,921	621
RM064	N964075	14.00	17.00	3.00	835.0	1891.7	198.8	767.5	131.0	13.8	100.5	13.6	75.1	13.3	32.1	3.7	22.4	3.3	325.1	4,427	1,186	3,824	603
RM064	N964076	17.00	20.00	3.00	733.0	1664.5	178.2	695.2	122.9	13.6	95.1	12.9	73.1	12.8	32.3	3.7	21.8	3.0	311.1	3,973	1,082	3,394	579
RM064	N964077	20.00	23.00	3.00	842.1	1916.3	203.0	766.3	131.6	14.2	101.2	13.5	78.4	13.9	33.9	3.9	23.6	3.3	330.2	4,475	1,193	3,859	616
RM064	N964078	23.00	25.98	2.98	884.3	2033.0	210.2	799.0	131.6	14.1	99.9	13.2	75.5	13.1	32.4	3.8	22.6	3.1	314.9	4,651	1,230	4,058	593
RM064	N964079	25.98	28.07	2.09	742.4	1670.6	176.4	656.7	108.4	12.4	80.9	10.8	61.8	10.8	26.4	3.1	18.9	2.7	270.5	3,853	1,014	3,355	498
RM064	N964081	28.07	30.00	1.93	44.5	89.8	10.5	38.5	7.9	0.8	6.3	0.9	6.3	1.3	3.9	0.6	4.0	0.6	41.8	258	64	191	67
RM064	N964082	30.00	31.39	1.39	66.6	134.5	16.3	58.9	10.8	1.2	8.3	1.2	7.7	1.5	4.5	0.6	4.9	0.7	48.3	366	95	287	79
RM064	N964083	31.39	33.50	2.11	809.2	1719.8	193.9	769.8	134.5	13.8	99.7	12.5	71.8	11.9	32.0	3.6	22.8	3.2	312.4	4,211	1,183	3,627	584
RM064	N964084	33.50	35.45	1.95	847.9	1799.6	204.2	790.8	139.7	13.9	102.5	12.6	73.6	12.3	31.9	3.6	22.9	3.3	312.4	4,371	1,221	3,782	589
RM064	N964085	35.45	37.39	1.94	797.5	1689.0	195.1	744.2	131.0	13.3	100.0	12.5	73.0	12.3	31.7	3.7	23.6	3.1	314.9	4,145	1,156	3,557	588
RM064	N964086	37.49	40.32	2.83	771.7	1646.1	187.3	722.0	128.1	12.8	91.6	11.5	66.7	11.2	29.3	3.4	21.7	3.0	289.5	3,996	1,116	3,455	541
RM064	N964087	40.54	41.98	1.44	813.9	1719.8	196.3	754.7	133.3	13.7	99.3	12.3	70.6	12.0	30.3	3.5	22.1	3.0	299.7	4,185	1,167	3,618	567
RM064	N964088	41.98	42.33	0.35	43.9	87.8	10.8	40.5	8.5	0.9	6.9	1.1	7.1	1.3	4.2	0.6	4.4	0.7	43.3	262	68	191	70
RM064	N964089	42.33	45.05	2.72	832.7	1768.9	199.3	776.8	133.3	13.4	98.8	12.3	69.9	11.7	29.9	3.5	22.1	3.0	307.3	4,283	1,192	3,711	572
RM064	N964090	45.05	48.00	2.95	801.0	1701.3	196.9	780.3	136.3	14.2	105.2	13.2	74.8	12.5	32.6	3.7	24.0	3.1	322.6	4,222	1,202	3,616	606
RM064	N964091	48.00	51.00	3.00	850.3	1811.9	206.0	802.5	139.7	14.1	103.0	12.9	75.8	12.7	32.7	3.7	24.3	3.4	327.6	4,421	1,237	3,810	610
RM064	N964092	51.00	54.02	3.02	843.2	1793.5	204.2	792.0	139.7	14.5	102.9	12.8	75.5	12.8	33.3	3.8	23.3	3.2	335.3	4,390	1,224	3,773	617
RM064	N964093	54.02	57.00	2.98	794.0	1707.5	194.5	769.8	137.4	13.9	104.0	12.8	74.6	12.5	32.8	3.8	23.5	3.2	322.6	4,207	1,189	3,603	604
RM064	N964094	57.00	60.00	3.00	860.8	1848.7	208.4	809.5	144.9	14.5	104.9	13.0	77.0	12.8	32.6	3.8	24.0	3.3	335.3	4,494	1,253	3,872	621
RM064	N964095	60.00	63.00	3.00	788.1	1676.8	192.1	768.7	135.1	14.4	102.6	13.1	74.3	12.4	32.6	3.8	23.9	3.4	323.8	4,165	1,183	3,561	604
RM064	N964096	63.00	64.59	1.59	710.7	1523.2	175.2	687.0	125.2	13.6	95.0	12.0	70.0	11.7	31.8	3.5	22.2	3.1	312.4	3,797	1,069	3,221	575
RM064	N964097	64.59	65.22	0.63	353.0	733.4	88.0	342.9	60.9	6.9	47.3	6.2	37.3	6.3	17.6	2.0	14.3	2.0	175.9	1,894	535	1,578	316
RM064	N964098	65.22	67.97	2.75	744.7	1596.9	184.8	743.0	133.9	13.6	98.9	12.3	71.2	11.9	31.7	3.6	22.7	3.1	308.6	3,981	1,145	3,403	578
RM064	N964099	67.97	71.00	3.03	801.0	1719.8	197.5	782.6	135.7	13.6	99.9	12.4	70.2	11.7	30.4	3.5	22.9	3.1	309.9	4,214	1,199	3,637	578
RM064	P259301	71.00	74.00	3.00	811.6	1744.3	200.6	806.0	140.3	14.4	103.7	13.0	73.5	12.3	32.1	3.7	23.3	3.0	314.9	4,297	1,233	3,703	594

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM064	P259302	74.00	77.00	3.00	804.5	1744.3	201.8	803.6	145.5	14.1	106.8	13.3	76.8	12.9	33.4	3.8	24.8	3.5	334.0	4,323	1,241	3,700	623
RM064	P259303	77.00	79.97	2.97	731.8	1596.9	189.7	760.5	140.3	14.8	107.2	13.6	78.3	13.1	34.8	3.9	24.8	3.3	336.5	4,050	1,182	3,419	630
RM064	P259304	79.97	81.78	1.81	826.8	1793.5	209.0	809.5	140.3	13.9	102.2	12.7	73.1	12.5	32.7	3.6	23.1	3.2	318.7	4,375	1,245	3,779	596
RM064	P259305	81.78	82.25	0.47	375.3	777.6	93.8	373.3	67.6	7.0	52.0	6.7	41.5	7.6	22.0	2.7	18.5	2.5	218.4	2,066	583	1,687	379
RM064	P259306	82.25	85.00	2.75	846.8	1836.5	210.8	824.6	145.5	13.9	102.9	12.5	73.3	12.3	31.9	3.7	22.9	3.3	317.5	4,459	1,267	3,864	594
RM064	P259307	85.00	88.00	3.00	689.6	1492.5	177.0	711.5	128.1	13.2	98.3	12.4	71.6	12.0	31.6	3.6	23.3	3.1	312.4	3,780	1,101	3,199	582
RM064	P259308	88.00	89.63	1.63	593.4	1283.7	155.3	638.0	118.3	13.0	92.1	11.7	68.2	11.9	31.2	3.6	23.5	3.0	301.0	3,348	991	2,789	559
RM064	P259309	89.63	90.30	0.67	41.4	76.8	9.2	35.9	7.3	1.0	6.3	0.8	5.5	1.0	3.0	0.4	3.0	0.4	31.9	224	59	171	53
RM064	P259310	90.30	93.00	2.70	741.2	1596.9	187.9	750.0	133.3	13.6	98.8	12.3	69.5	11.7	30.8	3.7	23.1	3.1	302.2	3,978	1,153	3,409	569
RM064	P259311	93.00	95.24	2.24	703.7	1535.5	181.2	736.0	137.4	14.0	101.2	12.8	72.7	12.1	32.0	3.6	24.5	3.4	321.3	3,891	1,140	3,294	598
RM064	P259312	95.36	98.02	2.66	694.3	1498.7	177.6	708.0	129.9	13.2	95.0	11.8	67.1	11.6	30.4	3.5	22.6	3.3	297.2	3,764	1,094	3,208	556
RM064	P259313	98.02	100.00	1.98	771.7	1670.6	195.1	771.0	138.6	13.9	104.5	12.9	73.2	12.4	32.9	3.8	24.6	3.4	322.6	4,151	1,191	3,547	604
RM064	P259314	100.00	102.00	2.00	776.4	1670.6	194.5	775.7	136.8	13.4	100.0	12.3	70.8	11.7	31.0	3.5	23.7	3.3	302.2	4,126	1,190	3,554	572
RM064	P259315	102.00	104.39	2.39	792.8	1719.8	201.2	800.1	142.6	14.4	105.9	13.1	75.5	12.3	32.8	3.8	24.3	3.5	321.3	4,263	1,233	3,657	607
RM064	P259316	104.52	107.54	3.02	748.3	1738.2	189.7	758.2	138.6	13.3	105.2	14.3	76.1	12.7	33.6	3.9	25.2	3.6	317.5	4,178	1,177	3,573	605
RM064	P259317	107.54	110.53	2.99	789.3	1824.2	197.5	772.2	139.7	13.9	106.5	14.3	75.1	12.4	32.9	3.8	24.3	3.7	313.7	4,323	1,199	3,723	600
RM064	P259318	110.53	113.00	2.47	744.7	1732.0	191.5	743.0	136.3	14.4	105.7	14.1	76.2	12.2	32.7	3.8	24.7	3.6	308.6	4,144	1,161	3,548	596
RM064	P259319	113.00	116.00	3.00	727.1	1670.6	184.3	719.7	131.6	13.6	100.2	13.7	75.9	12.3	33.3	3.6	23.6	3.5	311.1	4,024	1,125	3,433	591
RM064	P259321	116.00	119.03	3.03	775.2	1793.5	195.1	765.2	138.6	13.3	105.3	13.9	76.1	12.5	33.4	3.7	23.8	3.5	314.9	4,268	1,189	3,668	600
RM064	P259322	119.03	121.94	2.91	713.1	1633.8	178.8	698.7	124.1	13.2	98.4	13.3	72.4	11.8	32.0	3.6	23.0	3.4	299.7	3,919	1,087	3,348	571
RM064	P259323	121.94	125.00	3.06	720.1	1646.1	180.0	705.7	124.1	13.0	94.4	13.1	70.5	11.6	31.0	3.5	22.5	3.2	292.1	3,931	1,093	3,376	555
RM064	P259324	125.00	126.50	1.50	758.8	1744.3	189.7	733.7	131.6	13.0	100.7	13.7	73.5	12.0	31.9	3.6	23.1	3.5	302.2	4,135	1,142	3,558	577
RM064	P259325	126.50	128.76	2.26	674.4	1541.6	170.4	667.2	120.0	12.8	93.1	12.9	69.2	11.3	30.9	3.4	21.8	3.1	288.3	3,720	1,040	3,174	547
RM064	P259326	128.93	131.59	2.66	767.0	1768.9	192.7	748.8	132.8	13.4	102.1	13.8	74.5	12.0	32.5	3.6	23.0	3.4	304.8	4,193	1,163	3,610	583
RM064	P259327	131.59	134.57	2.98	904.2	2051.4	214.5	807.1	137.4	13.4	102.7	13.7	74.4	11.9	32.3	3.5	22.7	3.3	308.6	4,701	1,247	4,115	586
RM064	P259328	134.57	137.50	2.93	850.3	1953.2	205.4	789.6	138.6	13.2	101.2	13.5	72.7	12.0	31.3	3.5	22.7	3.3	304.8	4,515	1,220	3,937	578
RM064	P259329	137.50	140.50	3.00	877.3	2002.3	213.8	817.6	141.5	13.5	103.0	13.8	74.7	12.3	33.0	3.5	22.6	3.1	311.1	4,643	1,262	4,053	591
RM064	P259330	140.50	143.50	3.00	898.4	2076.0	216.9	831.6	143.2	14.2	106.8	14.5	77.3	12.7	34.0	3.7	23.0	3.2	321.3	4,777	1,284	4,166	611
RM064	P259331	143.50	146.50	3.00	821.0	1879.5	198.8	773.3	135.1	13.6	101.2	13.5	72.9	11.9	32.0	3.6	22.1	3.3	307.3	4,389	1,194	3,808	581
RM064	P259332	146.50	149.54	3.04	815.1	1861.0	201.2	774.5	137.4	14.5	107.0	14.5	76.3	12.8	34.2	3.8	23.7	3.4	325.1	4,404	1,204	3,789	615
RM064	P259333	149.54	151.69	2.15	856.1	1959.3	209.0	803.6	140.3	14.2	105.3	14.1	75.3	11.9	32.5	3.6	22.5	3.1	307.3	4,558	1,242	3,968	590
RM064	P259334	151.79	154.50	2.71	846.8	1922.5	203.0	801.3	138.0	13.9	102.6	13.8	74.5	12.1	32.1	3.6	22.5	3.1	311.1	4,501	1,231	3,911	589
RM064	P259335	154.50	157.50	3.00	908.9	2076.0	217.5	832.8	144.4	14.6	107.4	14.3	75.8	12.7	33.4	3.7	23.3	3.3	321.3	4,789	1,285	4,180	610
RM064	P259336	157.50	160.54	3.04	867.9	1971.6	206.6	786.1	135.1	13.7	99.6	13.3	70.5	11.4	29.7	3.3	20.6	3.0	290.8	4,523	1,212	3,967	556
RM064	P259337	160.54	163.50	2.96	879.6	2020.7	213.3	820.0	140.9	14.8	107.0	14.0	76.0	12.3	32.5	3.7	22.6	3.1	312.4	4,673	1,264	4,074	598
RM064	P259338	163.50	166.48	2.98	789.3	1793.5	190.3	737.2	129.9	13.7	97.9	13.1	69.5	11.2	29.0	3.3	20.6	3.0	283.2	4,185	1,140	3,640	544
RM064	P259339	166.48	166.92	0.44	471.5	1007.3	108.5	411.7	72.4	8.6	58.0	8.3	46.1	7.9	23.3	2.9	17.9	2.7	224.8	2,472	647	2,071	400
RM064	P259341	166.92	169.00	2.08	821.0	1861.0	197.5	757.0	131.6	14.2	100.6	13.5	70.7	11.6	30.2	3.4	21.6	3.1	294.6	4,332	1,170	3,768	564
RM064	P259342	169.00	170.50	1.50	844.4	1953.2	205.4	794.3	136.3	13.2	102.5	13.1	71.6	11.7	31.3	3.4	21.6	3.0	290.8	4,496	1,221	3,934	562
RM064	P259343	170.50	171.30	0.80	81.5	170.1	18.9	67.7	11.8	1.7	8.9	1.3	8.0	1.5	4.2	0.6	4.2	0.6	44.6	426	108	350	76
RM064	P259344	171.45	172.51	1.06	100.6	203.3	21.4	74.1	11.9	1.7	8.4	1.2	7.4	1.3	4.0	0.5	3.7	0.6	41.5	482	116	411	70
RM064	P259345	172.51	174.38	1.87	789.3	1805.8	192.7	732.5	128.1	13.3	95.5	12.5	67.6	11.0	29.5	3.2	20.3	3.1	284.5	4,189	1,133	3,648	541
RM064	P259346	174.65	177.62	2.97	863.2	1947.0	205.4	776.8	131.0	13.6	96.8	13.2	69.5	11.4	30.2	3.4	21.5	3.1	293.4	4,480	1,196	3,923	556
RM064	P259347	177.62	180.65	3.03	836.2	1885.6	202.4	755.8	129.9	14.4	96.5	13.1	71.0	11.4	30.6	3.4	21.2	3.0	292.1	4,367	1,172	3,810	557
RM064	P259348	180.65	182.00	1.35	921.8	2094.4	219.9	838.6	145.5	14.3	104.7	13.8	73.8	12.3	32.3	3.5	22.8	3.3	313.7	4,815	1,292	4,220	594
RM064	P259349	182.00	183.53	1.53	874.9	2014.6	214.5	828.1	143.2	14.2	109.0	14.6	79.2	13.1	35.0	3.9	24.4	3.4	331.4	4,704	1,280	4,075	628
RM064	P259350	183.79	186.63	2.84	896.0	1904.0	236.2	841.0	157.1	14.4	107.8	14.6	76.7	13.9	33.3	4.0	23.9	3.4	341.6	4,668	1,326	4,034	633
RM064	P259351	186.84	189.50	2.66	913.6	1922.5	240.4	843.3	153.1	14.9	107.0	14.2	76.3	13.5	32.7	3.9	22.9	3.2	332.7	4,694	1,327	4,073	621
RM064	P259352	189.50	191.29	1.79	869.0	1879.5	232.6	821.1	146.7	14.5	106.6	14.5	78.6	14.0	33.9	4.0	23.7	3.5	341.6	4,584	1,294	3,949	635
RM064	P259353	191.41	192.66	1.25	850.3	1793.5	225.3	789.6	140.9	13.5	102.1	13.5	72.9	12.8	30.4	3.9	21.5	3.1	312.4	4,386	1,242	3,800	586

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM064	P259354	192.66	193.40	0.74	160.1	325.5	40.2	144.6	28.2	4.8	22.9	3.5	20.4	4.0	10.9	1.3	8.0	1.1	110.6	886	237	699	188
RM064	P259355	193.40	196.00	2.60	836.2	1793.5	217.5	781.5	137.4	13.1	96.5	12.9	67.5	12.1	28.9	3.5	20.4	3.0	292.1	4,316	1,217	3,766	550
RM064	P259356	196.00	197.97	1.97	777.6	1701.3	212.6	750.0	136.3	14.0	101.5	13.6	73.2	13.3	32.0	3.8	22.7	3.2	332.7	4,188	1,186	3,578	610
RM064	P259357	197.97	199.50	1.53	862.0	1842.6	227.1	803.6	146.1	14.4	103.3	14.4	76.5	13.5	33.0	4.1	23.3	3.3	341.6	4,509	1,268	3,882	628
RM065	P259358	0.00	0.77	0.77	745.9	1566.2	200.0	720.8	132.2	13.1	93.3	12.6	69.0	12.7	31.1	3.8	23.8	3.6	311.1	3,939	1,135	3,365	574
RM065	P259359	2.44	2.84	0.40	898.4	1904.0	241.0	849.1	147.8	14.1	101.0	13.3	71.4	12.4	30.2	3.8	22.2	3.3	307.3	4,619	1,323	4,040	579
RM065	P259361	5.49	8.53	3.04	641.5	1388.1	171.6	612.4	109.1	11.0	75.2	10.5	57.7	10.5	26.8	3.4	21.8	3.3	273.0	3,416	961	2,923	493
RM065	P259362	8.53	11.50	2.97	534.8	1155.9	143.2	499.2	86.0	9.7	60.9	8.5	46.8	8.8	22.5	3.0	19.5	3.0	234.9	2,837	784	2,419	418
RM065	P259363	11.50	14.50	3.00	928.9	1916.3	236.2	831.6	144.4	12.3	99.3	12.9	70.9	12.7	32.0	4.0	25.9	3.8	320.0	4,651	1,296	4,057	594
RM065	P259364	14.50	15.34	0.84	932.4	2014.6	258.6	934.3	171.0	14.1	123.3	16.4	88.1	15.9	38.9	4.8	29.8	4.3	394.9	5,042	1,468	4,311	731
RM065	P259365	15.34	15.72	0.38	175.3	385.7	49.9	180.8	35.7	6.8	27.4	4.1	22.9	4.3	11.4	1.4	10.2	1.5	119.1	1,037	293	827	209
RM065	P259366	15.72	18.62	2.90	769.4	1652.2	200.6	705.7	120.0	12.3	86.0	11.5	61.6	11.3	28.7	3.8	25.1	3.6	298.4	3,990	1,099	3,448	542
RM065	P259367	18.62	21.50	2.88	859.7	1830.3	228.3	815.3	146.7	14.0	105.2	13.5	74.5	13.2	32.7	4.1	24.8	3.8	328.9	4,495	1,278	3,880	615
RM065	P259368	21.50	24.50	3.00	928.9	2045.3	259.8	935.5	168.7	16.3	122.2	16.1	85.4	15.5	37.2	4.5	27.9	3.8	374.6	5,042	1,465	4,338	703
RM065	P259369	24.50	27.50	3.00	1125.9	2389.2	303.3	1092.9	191.9	16.7	133.1	17.1	88.4	15.8	37.9	4.7	28.9	4.1	383.5	5,833	1,694	5,103	730
RM065	P259370	27.50	30.53	3.03	1141.1	2376.9	299.6	1060.3	186.7	15.6	132.6	17.2	91.7	16.7	38.8	4.8	29.7	4.2	388.6	5,805	1,656	5,065	740
RM065	P259371	30.53	33.50	2.97	371.8	814.4	101.7	361.6	65.2	9.8	49.3	6.5	35.1	6.4	16.5	2.0	13.4	1.9	164.4	2,020	570	1,715	305
RM065	P259372	33.50	36.53	3.03	50.1	115.5	17.1	70.2	15.4	7.8	12.8	1.9	10.6	2.1	5.4	0.8	5.4	0.9	54.4	370	115	268	102
RM065	P259373	36.53	38.84	2.31	60.4	137.6	18.6	74.4	16.1	7.8	13.5	1.9	10.9	2.2	5.6	0.8	5.5	0.9	55.9	412	122	307	105
RM065	P259374	38.84	40.47	1.63	1213.8	2419.9	287.6	960.0	155.4	11.2	103.0	13.5	71.5	12.5	30.5	3.7	23.1	3.0	320.0	5,629	1,488	5,037	592
RM065	P259375	40.47	43.50	3.03	96.3	210.1	28.3	106.1	23.0	8.2	17.5	2.5	14.3	2.8	7.3	1.0	6.4	1.1	71.9	597	174	464	133
RM065	P259376	43.50	46.10	2.60	84.7	186.1	25.3	96.9	19.7	8.4	16.3	2.3	13.2	2.4	6.6	0.9	6.0	1.0	64.8	534	157	413	122
RM065	P259377	46.10	46.46	0.36	44.2	99.0	13.2	50.0	11.5	4.5	10.5	1.6	9.8	1.9	5.1	0.7	5.3	0.8	54.6	313	86	218	95
RM065	P259378	46.46	49.47	3.01	58.6	130.2	18.5	72.1	15.4	7.6	13.1	1.8	10.0	1.9	5.4	0.7	5.0	0.8	52.5	394	118	295	99
RM065	P259379	49.47	52.50	3.03	165.4	345.2	44.1	163.9	30.5	8.8	22.5	3.1	17.4	3.2	8.5	1.2	7.4	1.1	82.3	905	259	749	156
RM065	P259381	52.50	53.49	0.99	46.2	102.1	15.0	61.9	13.6	7.8	11.8	1.7	10.0	1.9	5.4	0.7	5.4	1.0	53.1	338	102	239	99
RM065	P259382	53.64	56.50	2.86	98.9	213.1	28.1	104.4	20.8	8.0	16.9	2.3	12.7	2.4	6.5	0.9	6.5	1.0	64.5	587	168	465	122
RM065	P259383	56.50	59.46	2.96	154.2	337.8	44.3	160.4	32.1	8.1	25.5	3.6	20.9	3.7	9.5	1.3	8.3	1.3	97.3	908	261	729	180
RM065	P259384	59.74	62.50	2.76	423.4	922.5	111.9	389.6	69.6	9.4	47.7	6.3	34.4	6.0	15.0	2.0	12.8	2.1	156.2	2,209	612	1,917	292
RM065	P259385	62.50	65.50	3.00	119.6	265.3	31.3	131.8	24.7	7.9	18.6	2.6	14.6	2.6	7.4	0.9	6.1	1.0	68.5	703	205	573	130
RM065	P259386	65.50	68.50	3.00	44.3	102.5	13.1	60.0	12.9	7.8	10.8	1.5	8.6	1.7	5.0	0.7	4.9	0.9	45.3	320	96	233	87
RM065	P259387	68.50	70.00	1.50	90.0	199.6	23.7	98.0	18.6	7.8	14.1	1.9	11.3	2.1	5.6	0.7	4.8	0.8	54.1	533	154	430	103
RM065	P259388	70.00	71.80	1.80	74.4	165.8	20.7	84.9	17.0	7.7	13.8	2.0	11.8	2.0	5.9	0.7	5.3	0.8	54.4	467	136	363	104
RM065	P259389	71.93	74.48	2.55	43.2	98.5	12.8	57.4	11.9	7.4	10.4	1.6	9.3	1.7	5.0	0.6	4.8	0.8	46.6	312	93	224	88
RM065	P259390	74.48	77.46	2.98	52.1	121.7	15.6	68.8	14.1	7.8	12.6	1.9	10.3	1.9	6.1	0.8	5.2	0.9	54.4	374	111	272	102
RM065	P259391	77.46	80.16	2.70	43.4	101.2	13.2	60.4	12.2	7.6	10.4	1.4	9.0	1.7	4.6	0.6	4.8	0.8	46.1	317	96	230	87
RM065	P259392	80.16	83.04	2.88	49.8	113.4	14.3	64.0	13.3	7.3	10.9	1.6	9.3	1.8	5.0	0.7	5.1	0.8	47.8	345	103	255	90
RM065	P259393	83.04	86.00	2.96	39.5	94.1	12.6	55.6	11.6	7.8	10.6	1.5	8.8	1.7	4.9	0.7	4.7	0.8	45.0	300	90	213	86
RM065	P259394	86.00	88.96	2.96	254.5	572.4	66.5	268.3	46.4	8.9	32.9	4.4	23.6	4.2	11.2	1.4	8.4	1.4	110.1	1,415	409	1,208	207
RM065	P259395	88.96	89.74	0.78	75.1	170.8	20.4	89.6	17.3	7.6	14.0	2.0	11.7	2.3	6.3	0.9	6.2	1.0	60.7	486	141	373	113
RM065	P259396	89.74	90.42	0.68	60.5	141.3	17.2	77.3	17.1	6.5	14.8	2.1	13.6	2.5	7.2	1.0	6.4	0.9	70.3	439	127	313	125
RM065	P259397	90.42	90.88	0.46	101.9	229.7	27.3	114.9	22.9	7.5	19.9	3.0	18.3	3.3	9.8	1.4	8.4	1.3	94.1	664	186	497	167
RM065	P259398	90.88	91.20	0.32	423.4	918.8	101.0	396.6	74.1	8.3	64.3	9.8	58.2	10.7	30.5	4.0	24.9	3.5	298.4	2,427	640	1,914	513
RM065	P259399	91.20	92.47	1.27	127.8	292.4	35.2	147.0	27.7	8.5	23.1	3.3	19.1	3.4	9.1	1.2	7.5	1.1	86.9	793	232	630	163
RM065	P259401	92.47	93.94	1.47	1008.6	2327.8	261.0	1045.1	173.9	14.3	123.9	16.2	88.0	14.9	37.9	4.5	26.6	3.6	375.9	5,522	1,584	4,816	706
RM065	P259402	93.94	96.94	3.00	351.8	812.0	92.5	370.9	63.9	10.3	48.1	6.0	32.8	5.8	15.0	1.9	11.2	1.6	146.0	1,970	566	1,691	279
RM065	P259403	96.94	99.63	2.69	426.9	984.0	108.3	423.4	69.8	10.6	51.6	6.8	37.0	6.4	17.3	2.1	13.6	2.0	161.3	2,321	645	2,012	309
RM065	P259404	99.63	101.84	2.21	205.2	463.1	53.6	219.3	37.1	8.7	29.2	3.9	21.8	3.8	10.6	1.3	9.0	1.5	99.4	1,167	336	978	189
RM065	P259405	101.84	102.71	0.87	1243.2	2628.8	298.4	1112.8	172.8	12.8	117.0	15.7	76.3	13.3	32.1	3.9	24.6	3.6	335.3	6,091	1,676	5,456	635
RM065	P259406	102.71	105.63	2.92	68.0	152.3	19.2	80.7	16.2	7.9	13.8	2.0	10.4	2.0	5.3	0.8	5.3	0.9	54.5	439	129	336	103

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM065	P259407	105.63	108.56	2.93	130.2	291.1	35.5	144.1	25.6	9.1	20.7	2.9	14.5	2.8	7.1	0.9	6.5	1.1	70.0	762	223	627	135
RM065	P259408	108.56	111.54	2.98	46.8	106.5	14.4	62.5	12.3	8.1	11.8	1.7	9.3	1.8	4.7	0.8	5.2	0.9	49.5	336	100	243	94
RM065	P259409	111.54	114.46	2.92	33.2	77.0	11.1	48.6	10.3	7.9	9.6	1.4	7.6	1.5	4.1	0.5	4.3	0.8	38.7	257	79	180	77
RM065	P259410	114.46	117.43	2.97	256.8	554.0	64.3	243.8	38.5	9.3	26.5	3.6	17.1	3.0	7.8	1.0	6.8	1.1	82.4	1,316	367	1,157	159
RM065	P259411	117.43	119.69	2.26	25.2	55.3	7.7	35.6	7.9	8.1	6.8	1.0	6.0	1.1	3.0	0.5	3.0	0.5	31.0	193	58	132	61
RM065	P259412	119.69	120.28	0.59	809.2	1756.6	193.9	724.3	110.0	10.2	77.5	10.2	50.7	8.8	22.2	2.7	16.3	2.5	226.7	4,022	1,089	3,594	428
RM065	P259413	120.28	120.80	0.52	1712.3	3599.2	412.0	1563.0	233.1	17.1	163.1	21.0	103.9	18.2	44.1	5.5	32.2	4.8	435.6	8,365	2,333	7,520	846
RM065	P259414	120.80	122.48	1.68	421.0	955.7	109.2	431.6	72.2	8.8	52.9	7.3	37.4	6.7	16.2	2.1	13.2	2.0	170.2	2,307	658	1,990	317
RM065	P259415	122.48	124.07	1.59	92.0	207.0	26.0	106.5	18.3	8.9	15.3	2.2	10.8	2.1	5.2	0.7	4.3	0.7	52.3	552	164	450	103
RM065	P259416	124.07	124.87	0.80	3236.9	6375.4	714.0	2426.1	310.8	19.2	183.8	21.6	97.9	16.4	37.9	4.6	27.2	3.9	394.9	13,871	3,570	13,063	807
RM066	P259417	2.74	4.52	1.78	1202.1	2776.2	335.9	1230.5	187.3	16.7	132.0	17.8	90.1	16.1	39.3	4.9	29.6	4.4	414.0	6,497	1,862	5,732	765
RM066	P259418	5.79	8.62	2.83	1184.5	2714.8	333.5	1236.4	187.3	16.1	135.4	18.0	91.7	16.6	40.9	5.1	30.3	4.5	436.9	6,452	1,867	5,656	795
RM066	P259419	8.62	11.16	2.54	1041.5	2419.9	298.4	1080.1	162.9	16.1	119.9	15.8	79.8	14.3	34.6	4.3	26.1	3.8	368.3	5,686	1,637	5,003	683
RM066	P259421	11.16	11.67	0.51	770.5	1793.5	219.9	817.6	125.2	13.5	92.2	12.2	62.8	11.3	27.9	3.5	21.1	3.1	302.2	4,277	1,238	3,727	550
RM066	P259422	11.89	14.03	2.14	1023.9	2352.4	283.9	1049.8	158.3	14.4	112.7	14.9	76.0	13.5	33.3	4.2	24.9	3.7	358.1	5,524	1,583	4,868	656
RM066	P259423	14.03	14.65	0.62	1290.1	2935.9	350.4	1283.0	189.6	16.7	136.0	18.0	90.0	15.9	39.0	4.8	28.1	4.2	412.7	6,814	1,931	6,049	765
RM066	P259424	14.65	16.11	1.46	1140.0	2677.9	323.8	1218.9	186.7	16.7	140.6	18.8	95.5	17.1	41.5	5.2	30.2	4.4	445.7	6,363	1,844	5,547	816
RM066	P259425	16.11	19.02	2.91	1049.7	2456.8	294.8	1105.8	171.6	14.8	125.1	17.1	87.8	15.8	39.2	4.9	29.6	4.4	435.6	5,853	1,677	5,079	774
RM066	P259426	19.02	20.86	1.84	1032.1	2383.1	294.8	1075.4	167.0	15.3	127.4	17.4	89.0	16.4	40.5	5.1	30.1	4.3	433.0	5,731	1,644	4,952	778
RM066	P259427	21.03	22.72	1.69	1043.8	2383.1	290.0	1066.1	167.6	14.3	127.9	17.5	91.9	16.9	42.4	5.3	31.4	4.7	457.2	5,760	1,633	4,951	810
RM066	P259428	22.72	23.04	0.32	866.7	1897.9	218.7	786.1	115.6	10.1	84.0	11.5	59.2	10.7	27.1	3.4	20.1	3.0	294.6	4,409	1,191	3,885	524
RM066	P259429	23.04	25.82	2.78	892.5	2051.4	248.9	914.5	144.4	13.4	110.4	15.3	79.3	14.5	36.5	4.7	27.8	4.0	393.7	4,951	1,402	4,252	700
RM066	P259430	25.82	27.04	1.22	142.5	339.0	39.3	149.3	26.8	8.8	22.1	3.2	17.3	3.2	8.7	1.2	7.7	1.2	91.9	862	236	697	165
RM066	P259431	27.13	30.10	2.97	252.2	572.4	66.5	249.6	43.6	9.2	34.6	4.8	25.9	4.8	12.6	1.7	10.0	1.6	135.9	1,425	390	1,184	241
RM066	P259432	30.18	33.18	3.00	48.1	112.8	14.8	61.9	12.3	8.0	11.2	1.6	8.9	1.7	4.6	0.7	4.6	0.8	48.9	341	100	250	91
RM066	P259433	33.18	35.98	2.80	69.3	170.1	21.1	85.0	17.2	8.2	14.9	2.2	12.2	2.3	6.5	0.9	5.8	0.9	67.2	484	138	363	121
RM066	P259434	35.98	38.91	2.93	58.6	146.2	18.1	75.8	15.8	8.2	14.5	2.1	11.8	2.3	6.3	0.9	5.9	0.9	65.4	433	124	314	118
RM066	P259435	38.91	41.90	2.99	81.9	195.3	23.0	90.0	17.2	8.5	14.7	2.1	11.7	2.3	5.9	0.9	5.5	0.9	63.8	524	144	407	116
RM066	P259436	41.90	42.73	0.83	46.2	112.0	14.6	62.6	13.0	7.5	11.3	1.7	9.4	1.8	5.2	0.7	5.0	0.8	55.0	347	101	248	98
RM066	P259437	42.73	44.09	1.36	303.8	654.7	74.5	265.9	48.8	6.7	41.3	6.4	36.0	6.9	18.5	2.5	16.1	2.4	205.1	1,690	432	1,348	342
RM066	P259438	44.09	44.30	0.21	46.2	115.6	15.8	68.2	14.3	8.1	13.3	2.0	11.2	2.2	5.9	0.9	6.0	1.0	64.8	376	112	260	115
RM066	P259439	44.50	47.36	2.86	69.2	169.5	20.1	80.6	15.9	8.6	13.9	2.0	11.0	2.1	5.9	0.8	5.6	0.9	60.1	466	130	355	111
RM066	P259441	47.36	50.31	2.95	48.5	116.9	15.5	65.1	13.2	8.2	11.9	1.7	9.5	1.8	5.0	0.7	5.1	0.9	52.2	356	105	259	97
RM066	P259442	50.31	51.18	0.87	545.4	1218.6	141.4	514.4	83.6	10.6	66.3	9.1	47.3	8.7	21.8	2.8	17.1	2.6	238.7	2,928	796	2,503	425
RM066	P259443	51.51	53.93	2.42	649.7	1480.2	179.4	632.2	103.1	11.1	81.3	11.3	58.0	10.7	27.0	3.5	21.1	3.1	292.1	3,564	984	3,045	519
RM066	P259444	53.93	54.50	0.57	974.6	2198.8	262.2	943.6	143.2	11.0	105.9	14.3	73.1	13.2	32.7	4.2	24.1	3.4	363.2	5,168	1,436	4,522	645
RM066	P259445	54.50	57.50	3.00	441.0	990.1	114.2	417.6	68.1	9.3	53.6	7.5	38.6	7.0	18.1	2.3	14.3	2.1	195.6	2,379	646	2,031	348
RM066	P259446	57.50	59.65	2.15	139.6	337.8	40.0	154.6	29.2	8.1	26.2	3.9	21.5	4.1	11.1	1.5	9.7	1.5	121.5	910	249	701	209
RM066	P259447	59.65	60.43	0.78	201.1	495.1	60.4	240.3	48.6	7.8	44.8	6.8	38.7	7.7	20.3	2.8	16.8	2.5	228.6	1,422	395	1,045	377
RM066	P259448	60.43	61.28	0.85	190.0	463.1	57.3	226.9	49.3	4.5	48.0	7.6	43.3	8.3	21.6	2.8	15.9	2.1	248.3	1,389	384	987	402
RM066	P259449	61.57	63.50	1.93	743.6	1676.8	200.6	723.2	115.8	12.0	92.9	12.9	66.8	12.0	30.1	3.8	22.4	3.3	317.5	4,033	1,119	3,460	574
RM066	P259450	63.70	66.35	2.65	1020.3	2321.7	279.1	1011.3	153.1	13.4	117.6	15.8	80.5	14.6	36.3	4.5	27.4	4.1	388.6	5,488	1,540	4,785	703
RM066	P259451	66.35	69.35	3.00	870.2	1977.7	237.4	849.1	129.3	10.8	98.1	13.5	70.5	12.8	32.5	4.1	25.2	3.7	360.6	4,696	1,300	4,064	632
RM066	P259452	69.35	72.35	3.00	668.5	1449.5	180.6	611.2	105.3	9.2	79.0	11.5	60.5	11.2	28.2	3.7	22.4	3.4	285.7	3,530	969	3,015	515
RM066	P259453	72.35	75.35	3.00	68.3	151.7	17.3	57.9	14.3	0.8	13.9	3.1	21.1	4.7	15.4	2.6	17.6	2.6	177.8	569	114	309	260
RM066	P259454	75.35	76.00	0.65	77.9	160.9	17.2	51.4	11.8	0.8	11.3	2.5	17.6	3.9	13.2	2.2	15.1	2.1	148.6	536	100	319	217
RM066	P259455	76.00	78.97	2.97	10.2	21.1	2.5	9.1	1.9	0.3	1.8	0.3	2.2	0.5	1.6	0.3	1.8	0.3	18.5	72	16	45	28
RM066	P259456	78.97	81.97	3.00	1.6	3.2	0.4	1.4	0.3	0.1	0.3	0.1	0.3	0.1	0.1	0.0	0.2	0.0	2.0	10	2	7	3
RM066	P259457	81.97	84.13	2.16	1.6	3.4	0.4	1.6	0.3	0.1	0.3	0.0	0.3	0.1	0.2	0.0	0.1	0.0	1.6	10	3	7	3
RM066	P259458	85.04	85.74	0.70	6.0	10.9	1.2	4.0	0.7	0.1	0.7	0.1	0.6	0.1	0.3	0.1	0.4	0.1	4.1	29	7	23	6

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM066	P259459	85.74	87.29	1.55	356.5	777.6	95.7	342.9	61.0	6.8	48.1	6.9	36.6	6.9	17.7	2.3	13.6	2.1	174.6	1,949	543	1,634	316
RM066	P259460	88.09	89.47	1.38	155.4	337.8	40.4	145.2	29.3	3.8	24.6	3.9	22.4	4.5	11.8	1.7	10.2	1.5	120.6	913	241	708	205
RM066	P259461	89.92	90.48	0.56	74.8	172.0	21.3	80.0	15.8	3.5	13.7	2.1	11.4	2.2	5.8	0.8	4.8	0.7	61.0	470	131	364	106
RM066	P259462	90.74	93.74	3.00	19.7	40.7	4.8	16.3	3.5	0.5	3.1	0.6	3.6	0.7	2.3	0.3	2.6	0.4	27.8	127	29	85	42
RM066	P259463	93.74	96.74	3.00	4.8	10.2	1.2	4.2	0.8	0.1	0.6	0.1	0.6	0.1	0.4	0.1	0.4	0.1	3.7	27	7	21	6
RM066	P259464	96.74	99.74	3.00	10.1	21.4	2.8	10.3	2.8	0.4	2.7	0.5	3.0	0.6	1.9	0.3	2.2	0.4	21.5	81	19	47	34
RM066	P259465	99.74	102.00	2.26	8.7	15.7	1.7	5.8	1.1	0.2	1.1	0.2	1.1	0.2	0.9	0.1	0.9	0.1	10.7	49	10	33	16
RM066	P259466	102.00	103.03	1.03	4.7	8.7	1.0	3.6	0.7	0.1	0.6	0.1	0.6	0.1	0.5	0.1	0.5	0.1	5.2	27	6	19	8
RM066	P259468	103.33	105.26	1.93	3.8	7.1	0.9	3.0	0.6	0.1	0.6	0.1	0.5	0.1	0.3	0.1	0.3	0.1	4.1	22	5	15	6
RM066	P259469	105.26	106.76	1.50	86.1	191.6	21.4	67.8	11.0	1.6	7.6	1.1	6.0	1.2	3.3	0.5	3.1	0.5	34.8	438	107	378	60
RM066	P259470	106.76	109.26	2.50	10.1	22.4	3.0	11.2	2.5	0.5	2.3	0.4	2.0	0.4	1.1	0.2	1.1	0.2	11.3	69	19	49	19
RM066	P259471	109.26	112.26	3.00	72.7	172.6	22.1	86.5	18.3	7.1	15.2	2.3	12.9	2.5	6.8	1.0	6.5	1.1	67.6	495	142	372	123
RM066	P259472	112.26	115.26	3.00	60.8	137.6	17.4	67.8	13.7	7.9	12.1	1.8	10.3	2.0	5.5	0.8	5.2	0.9	51.0	395	111	297	98
RM066	P259473	115.26	118.16	2.90	49.6	114.0	15.8	63.8	13.8	8.4	12.6	1.9	11.0	2.1	5.9	0.8	5.6	1.0	57.5	364	106	257	107
RM066	P259474	118.16	121.13	2.97	171.2	374.7	44.8	163.3	31.0	8.4	25.5	3.8	20.9	4.0	10.8	1.4	8.9	1.4	102.2	972	264	785	187
RM066	P259475	121.13	122.97	1.84	218.7	452.1	52.9	185.5	32.6	8.7	24.0	3.5	18.3	3.5	8.9	1.2	8.0	1.3	85.0	1,104	293	942	162
RM066	P259476	122.97	124.17	1.20	202.3	422.6	49.8	175.5	34.1	7.5	26.2	4.0	21.7	4.2	11.1	1.5	9.1	1.4	108.1	1,079	285	884	195
RM066	P259477	124.17	124.97	0.80	43.8	97.8	13.5	55.5	12.1	8.0	10.8	1.6	9.0	1.9	5.0	0.7	4.9	0.8	49.0	314	92	223	92
RM067	P259478	0.00	0.25	0.25	173.0	371.0	44.5	161.0	31.1	5.9	25.1	3.8	20.8	3.9	10.2	1.3	8.4	1.3	100.7	962	261	780	182
RM067	P259479	2.51	4.60	2.09	0.9	1.6	0.2	0.8	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.8	5	1	4	1
RM067	P259481	4.72	7.69	2.97	2.8	5.4	0.6	2.5	0.4	0.1	0.3	0.1	0.3	0.1	0.2	0.0	0.2	0.0	2.3	15	4	12	3
RM067	P259482	7.69	10.69	3.00	2.0	3.6	0.4	1.6	0.3	0.1	0.3	0.1	0.3	0.1	0.2	0.0	0.1	0.0	2.2	11	3	8	3
RM067	P259483	10.69	13.43	2.74	15.3	30.6	3.4	10.7	1.8	0.3	1.4	0.2	1.2	0.2	0.7	0.1	0.7	0.1	8.1	75	17	62	13
RM067	P259484	13.43	13.99	0.56	11.1	22.6	2.7	9.3	1.7	0.3	1.5	0.2	1.3	0.3	0.7	0.1	0.7	0.1	7.4	60	15	48	13
RM067	P259485	13.99	15.98	1.99	82.0	192.2	23.9	88.8	18.3	4.6	14.8	2.3	12.6	2.4	6.5	0.9	6.0	1.0	64.0	520	146	405	115
RM067	P259486	16.15	17.43	1.28	71.4	165.2	19.7	79.9	16.2	3.7	14.8	2.2	12.6	2.3	6.5	0.9	5.2	0.7	65.5	467	131	352	114
RM067	P259487	17.98	19.26	1.28	104.0	232.8	26.6	98.0	17.5	4.0	15.2	2.3	12.2	2.3	6.5	0.8	4.8	0.7	63.8	591	156	479	113
RM067	P259488	19.51	19.93	0.42	197.0	464.3	50.3	194.2	40.0	7.0	34.8	5.6	32.8	6.0	16.1	2.2	13.1	1.9	160.6	1,226	323	946	280
RM067	P259489	19.93	22.93	3.00	60.5	140.0	17.1	70.7	14.8	8.2	12.8	2.0	11.3	2.1	5.8	0.9	5.6	0.9	57.8	410	116	303	107
RM067	P259490	22.93	25.93	3.00	66.6	155.4	19.2	76.3	16.8	8.3	14.9	2.3	13.0	2.5	6.6	0.9	5.9	0.9	61.6	451	128	334	117
RM067	P259491	25.93	28.93	3.00	60.9	138.8	17.0	69.2	14.9	8.9	12.6	2.0	10.8	2.0	5.7	0.7	5.4	0.9	56.1	406	114	301	105
RM067	P259492	28.93	31.93	3.00	139.6	310.8	35.9	133.0	23.8	9.2	18.8	2.8	15.3	3.0	7.8	1.1	6.8	1.2	75.3	784	211	643	141
RM067	P259493	31.93	34.89	2.96	45.7	106.6	13.3	55.4	12.5	9.0	10.5	1.5	8.9	1.6	4.7	0.7	4.8	0.8	46.0	322	92	234	89
RM067	P259494	34.89	37.68	2.79	34.7	81.9	10.5	47.7	10.4	9.2	8.9	1.4	7.9	1.4	4.2	0.6	4.2	0.7	39.2	263	78	185	78
RM067	P259495	37.68	40.54	2.86	65.9	159.7	20.1	82.0	17.5	10.2	16.0	2.4	13.5	2.6	7.0	0.9	6.6	1.0	69.7	475	136	345	130
RM067	P259496	40.54	43.54	3.00	41.9	98.3	12.7	53.1	11.2	9.6	9.8	1.5	8.9	1.5	4.4	0.6	4.4	0.8	44.5	303	87	217	86
RM067	P259497	43.54	46.54	3.00	47.9	110.8	13.6	56.8	12.5	9.1	10.1	1.6	8.8	1.7	4.7	0.7	4.7	0.8	49.9	334	93	242	92
RM067	P259498	46.54	49.43	2.89	1202.1	2800.8	326.2	1172.2	194.8	20.3	142.9	19.0	97.0	16.7	41.2	5.1	29.5	4.5	397.5	6,470	1,809	5,696	774
RM067	P259499	49.43	50.30	0.87	561.8	1217.3	137.1	510.9	84.2	8.7	59.9	8.0	40.3	7.0	17.7	2.3	14.8	2.1	175.9	2,848	780	2,511	337
RM067	P259501	50.30	53.34	3.04	1366.3	3107.8	364.9	1283.0	207.0	21.3	150.4	19.9	99.5	17.1	42.8	5.2	30.5	4.5	394.9	7,115	1,974	6,329	786
RM067	P259502	53.34	55.04	1.70	1089.5	2469.1	300.8	1123.2	191.3	20.0	139.5	19.1	94.7	16.3	39.8	4.9	28.5	4.2	388.6	5,929	1,729	5,174	755
RM067	P259503	55.04	56.50	1.46	383.5	884.5	92.4	332.4	61.6	7.6	46.8	7.2	40.3	7.7	20.1	2.8	17.1	2.6	221.0	2,127	534	1,754	373
RM067	P259504	56.50	59.42	2.92	1202.1	2690.2	327.4	1164.1	187.9	18.2	130.2	17.0	85.7	14.8	36.6	4.7	27.4	4.0	354.3	6,265	1,782	5,572	693
RM067	P259505	59.42	62.42	3.00	1448.4	3316.7	398.7	1434.7	230.8	22.3	160.2	20.5	105.7	17.8	43.7	5.3	32.1	4.8	417.8	7,659	2,190	6,829	830
RM067	P259506	62.42	65.04	2.62	1145.8	2641.1	305.7	1160.6	193.7	20.8	134.8	17.5	91.6	15.8	38.4	4.7	28.7	4.4	382.2	6,186	1,769	5,447	739
RM067	P259507	65.04	66.52	1.48	1231.4	2923.6	343.1	1259.7	206.4	22.2	141.2	18.7	96.1	16.4	39.9	4.9	28.7	4.2	388.6	6,725	1,924	5,964	761
RM067	P259508	66.75	69.46	2.71	1172.8	2665.6	306.9	1154.7	189.6	21.3	132.6	17.4	89.0	15.1	36.9	4.7	27.4	4.0	369.5	6,207	1,758	5,490	718
RM067	P259509	69.46	72.46	3.00	1219.7	2751.6	333.5	1224.7	198.3	21.4	134.3	17.7	89.5	15.8	38.1	4.6	28.4	4.3	379.7	6,462	1,864	5,728	734
RM067	P259510	72.46	73.49	1.03	1076.6	2481.4	291.2	1091.8	181.5	20.0	126.8	17.1	90.0	15.6	39.0	4.8	28.2	4.2	393.7	5,862	1,672	5,122	739
RM067	P259511	73.49	74.34	0.85	695.5	1646.1	188.5	741.8	130.5	14.4	96.1	13.1	68.9	12.1	29.5	3.8	23.9	3.3	302.2	3,970	1,143	3,402	567

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM067	P259512	74.34	77.34	3.00	965.2	2205.0	261.0	1001.9	168.7	20.0	120.5	16.1	83.8	14.3	35.0	4.4	25.7	3.8	354.3	5,280	1,532	4,602	678
RM067	P259513	77.34	80.34	3.00	935.9	2174.3	254.9	987.9	166.4	19.1	119.3	16.1	82.6	14.5	36.1	4.4	26.2	3.8	365.7	5,207	1,508	4,519	688
RM067	P259514	80.34	82.20	1.86	833.9	1934.7	232.6	895.8	157.7	18.6	118.7	16.5	85.6	14.8	36.6	4.5	27.6	4.1	363.2	4,745	1,388	4,055	690
RM067	P259515	82.20	82.94	0.74	117.9	261.6	27.6	91.1	14.0	2.0	9.0	1.2	6.8	1.3	3.3	0.5	2.9	0.4	35.4	575	141	512	63
RM067	P259516	82.94	85.94	3.00	824.5	1897.9	228.3	897.0	159.4	17.8	121.6	16.5	87.3	15.0	37.2	4.7	28.0	4.0	365.7	4,705	1,389	4,007	698
RM067	P259517	85.94	87.74	1.80	722.4	1707.5	198.1	776.8	139.7	15.9	102.6	14.1	72.2	13.1	31.8	3.9	22.7	3.3	316.2	4,140	1,201	3,545	596
RM067	P259518	87.74	88.14	0.40	283.8	685.5	79.5	323.1	62.7	7.4	49.2	6.7	36.3	6.3	15.5	1.9	11.6	1.6	157.5	1,728	508	1,435	294
RM067	P259519	88.14	88.78	0.64	635.7	1541.6	190.3	774.5	157.1	13.9	126.8	18.1	97.4	16.8	42.2	4.9	27.6	3.8	426.7	4,078	1,237	3,299	778
RM067	P259521	88.78	89.35	0.57	164.2	406.6	49.7	196.5	39.4	5.4	35.7	5.0	26.5	4.8	12.2	1.5	9.0	1.2	129.5	1,087	317	856	231
RM067	P259522	89.35	90.24	0.89	1001.6	2260.3	271.9	999.6	153.7	14.7	124.5	16.1	80.0	14.2	33.7	4.1	24.1	3.5	345.4	5,347	1,521	4,687	660
RM067	P259523	90.24	90.78	0.54	202.9	432.4	45.2	154.6	22.4	3.1	16.1	2.1	10.3	1.8	4.7	0.7	3.9	0.6	48.9	950	235	857	92
RM067	P259524	90.78	91.30	0.52	734.2	1566.2	183.0	608.9	88.4	10.8	67.8	8.6	43.6	8.0	20.0	2.6	16.2	2.5	201.3	3,562	933	3,181	381
RM067	P259525	91.30	92.35	1.05	120.2	276.4	30.7	113.0	19.8	4.3	17.3	2.5	13.6	2.5	6.8	0.9	5.5	0.8	72.4	687	180	560	127
RM067	P259526	92.35	93.04	0.69	519.5	1072.4	117.7	410.6	66.9	6.5	52.6	7.4	38.8	7.2	18.1	2.3	14.0	2.1	193.0	2,529	641	2,187	342
RM067	P259527	93.04	96.12	3.08	128.4	299.7	33.4	123.1	22.4	4.2	20.4	3.0	16.4	3.0	8.0	1.1	6.6	1.0	85.0	756	198	607	149
RM067	P259528	96.62	98.27	1.65	114.7	265.3	29.4	108.7	20.2	3.8	18.0	2.6	14.2	2.7	7.0	0.9	5.8	0.8	76.5	671	175	538	132
RM067	P259529	98.27	98.80	0.53	399.9	829.2	94.4	334.8	53.9	6.7	44.7	6.1	31.8	5.8	14.7	1.9	11.8	1.7	156.8	1,994	521	1,712	282
RM067	P259530	98.80	99.55	0.75	558.3	1167.0	123.8	428.1	60.8	6.3	45.3	5.7	28.7	5.0	12.5	1.6	10.3	1.6	131.4	2,586	647	2,338	248
RM067	P259531	99.55	99.95	0.40	194.7	418.9	45.5	158.6	27.5	4.8	24.2	3.5	19.3	3.7	9.9	1.4	8.8	1.3	105.7	1,028	254	845	183
RM067	P259532	100.28	100.81	0.53	511.3	1111.7	128.7	472.4	78.0	10.8	66.5	8.9	46.4	8.3	21.0	2.6	16.2	2.4	214.6	2,700	734	2,302	398
RM067	P259533	100.81	103.80	2.99	74.7	173.8	19.4	72.7	14.3	3.0	12.8	1.9	11.2	2.1	5.8	0.8	4.8	0.7	62.1	460	120	355	105
RM067	P259534	104.38	105.45	1.07	127.8	280.1	30.9	110.8	20.8	6.7	19.2	2.9	16.3	3.1	8.7	1.1	7.3	1.1	90.9	728	182	570	157
RM067	P259535	105.45	108.45	3.00	91.5	208.8	23.0	82.2	15.0	3.2	14.3	2.1	11.7	2.3	6.2	0.8	5.2	0.8	67.0	534	134	421	114
RM067	P259536	108.45	111.45	3.00	131.3	303.4	33.6	120.7	22.1	3.5	20.6	3.1	16.4	3.2	8.5	1.1	6.7	1.0	88.8	764	196	611	153
RM067	P259537	111.45	112.17	0.72	106.3	241.4	26.2	93.7	16.9	2.9	15.6	2.3	12.7	2.5	6.7	0.9	5.7	0.8	71.6	606	152	484	122
RM067	P259538	112.47	112.67	0.20	54.0	120.4	14.5	54.6	10.7	3.0	10.3	1.5	8.1	1.6	4.2	0.6	3.6	0.5	46.0	333	89	254	79
RM067	P259539	113.69	114.23	0.54	180.6	389.4	41.1	145.2	24.6	3.2	20.9	3.0	16.7	3.1	8.3	1.1	7.0	1.0	88.8	934	231	781	153
RM067	P259541	114.23	116.68	2.45	349.5	695.3	73.6	244.9	48.6	2.9	47.7	8.2	50.0	10.0	27.0	3.4	19.2	2.5	269.2	1,852	425	1,412	440
RM067	P259542	116.68	119.59	2.91	110.0	245.7	25.7	90.8	17.1	2.7	15.6	2.4	13.5	2.6	7.2	1.0	6.2	0.9	77.8	619	150	489	130
RM067	P259543	119.59	120.60	1.01	51.7	114.1	13.5	52.1	10.2	2.7	9.5	1.5	8.2	1.6	4.3	0.6	3.8	0.6	46.1	320	86	242	79
RM067	P259544	120.60	121.20	0.60	439.8	891.8	97.3	334.8	56.8	5.4	49.9	7.5	41.8	8.0	21.5	3.0	18.6	2.7	224.8	2,204	538	1,820	383
RM067	P259545	121.20	123.10	1.90	38.4	86.0	10.4	41.8	7.9	2.7	7.9	1.1	6.2	1.2	3.1	0.4	2.7	0.4	35.0	245	67	184	61
RM067	P259546	123.10	124.97	1.87	88.2	199.6	21.8	80.4	14.6	3.0	13.6	1.9	10.9	2.0	5.6	0.8	4.7	0.7	58.7	506	129	404	102
RM068	P259547	0.00	0.30	0.30	178.8	390.6	41.8	149.3	25.9	4.2	24.1	3.4	19.1	3.6	9.8	1.3	8.3	1.2	101.1	963	239	786	176
RM068	P259548	2.74	3.48	0.74	253.3	513.5	54.4	183.7	30.3	3.5	25.8	3.7	21.0	4.0	10.9	1.5	9.3	1.4	113.9	1,230	293	1,035	195
RM068	P259549	5.23	8.23	3.00	79.2	183.7	20.4	74.1	14.0	2.9	12.7	1.9	10.6	2.0	5.6	0.7	4.8	0.7	59.0	472	121	371	101
RM068	P259550	8.23	11.23	3.00	119.0	270.3	29.4	104.3	18.5	3.2	17.1	2.5	13.8	2.7	7.2	1.0	6.0	0.9	78.0	674	168	541	132
RM068	P259551	11.23	13.20	1.97	55.0	123.5	14.6	54.7	10.4	2.7	9.7	1.4	7.8	1.5	4.1	0.6	3.5	0.5	44.8	335	89	258	77
RM068	P259552	13.41	15.53	2.12	140.7	320.6	35.9	131.8	26.4	3.1	25.2	4.0	22.3	4.4	11.7	1.5	10.0	1.4	121.9	861	220	655	206
RM068	P259553	15.53	17.45	1.92	120.8	271.5	28.9	102.3	17.5	2.5	15.9	2.4	13.3	2.5	6.8	0.9	5.6	0.8	70.6	662	164	541	121
RM068	P259554	17.45	19.45	2.00	217.6	460.6	50.9	188.4	34.6	4.0	28.7	4.2	22.2	4.2	11.1	1.5	9.0	1.4	115.8	1,154	300	952	202
RM068	P259555	19.45	22.45	3.00	202.9	421.3	46.6	165.6	30.3	3.0	23.5	3.4	18.4	3.5	9.2	1.3	7.5	1.1	97.4	1,035	264	867	168
RM068	P259556	22.45	25.45	3.00	134.9	303.4	32.6	115.6	21.3	2.5	17.2	2.7	14.8	2.8	7.9	1.0	6.3	0.9	83.4	747	187	608	140
RM068	P259557	25.45	28.45	3.00	119.6	272.7	30.3	107.8	20.5	2.4	16.2	2.5	13.7	2.7	7.2	0.9	5.8	0.8	76.2	679	175	551	128
RM068	P259558	28.45	31.31	2.86	149.5	332.9	37.0	135.3	27.0	2.9	22.9	3.6	19.9	3.9	10.8	1.4	8.7	1.3	111.5	869	223	682	187
RM068	P259559	31.31	34.14	2.83	171.8	384.5	42.4	152.8	29.1	3.1	24.2	3.7	20.5	3.9	10.4	1.4	8.5	1.3	108.1	966	248	781	185
RM068	P259561	34.14	36.63	2.49	195.3	432.4	50.1	189.0	37.5	4.3	31.9	4.7	25.3	4.8	12.6	1.6	9.6	1.6	128.9	1,130	307	904	225
RM068	P259562	36.63	39.59	2.96	98.8	225.4	26.3	102.1	19.4	8.3	16.0	2.3	12.4	2.4	6.5	0.9	6.1	1.0	64.5	592	162	472	120
RM068	P259563	39.59	41.32	1.73	54.8	124.7	16.2	65.4	13.9	8.7	12.3	1.8	9.8	1.9	5.5	0.8	5.2	0.9	52.7	374	107	275	99
RM068	P259564	41.32	42.85	1.53	51.1	118.4	15.5	63.6	14.1	7.9	12.7	1.9	10.5	2.1	5.7	0.8	5.5	0.9	58.0	369	106	263	106

Hole	Sample	From	To	Len.	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO	LREO	HREO
RM068	P259565	42.85	43.70	0.85	146.0	320.6	34.3	121.3	21.9	5.5	18.4	2.9	16.0	3.2	9.2	1.3	8.1	1.3	93.6	804	196	644	160
RM068	P259566	43.70	46.23	2.53	63.5	139.4	17.3	68.1	14.4	7.9	12.7	2.0	10.8	2.1	5.9	0.8	5.6	0.9	57.5	409	113	303	106
RM068	P259567	46.23	48.80	2.57	69.8	158.5	18.6	70.1	14.3	4.4	12.6	1.9	10.8	2.1	6.0	0.8	5.3	0.9	60.7	437	116	331	105
RM068	P259568	48.80	51.20	2.40	213.4	448.4	49.5	180.2	31.2	7.7	25.6	3.5	18.3	3.4	9.2	1.2	8.2	1.3	89.5	1,091	283	923	168
RM068	P259569	51.20	51.95	0.75	161.3	361.1	39.9	147.6	26.7	7.1	22.0	3.2	17.5	3.2	8.8	1.2	7.4	1.2	88.5	897	235	737	160
RM068	P259570	52.12	53.84	1.72	223.4	508.6	60.9	237.9	46.9	8.4	40.6	5.7	29.7	5.6	14.4	1.8	10.8	1.7	144.1	1,340	381	1,078	263
RM068	P259571	54.18	54.62	0.44	286.2	633.9	78.8	312.6	63.2	11.2	54.8	7.5	38.5	7.0	17.3	2.0	12.3	1.8	175.3	1,702	501	1,375	328
RM068	P259572	54.62	56.05	1.43	194.1	443.4	52.6	202.9	39.2	9.2	32.9	4.7	24.4	4.5	11.3	1.5	9.2	1.5	116.8	1,148	324	932	216
RM068	P259573	56.05	57.16	1.11	76.1	174.4	20.8	81.8	17.1	8.0	15.0	2.2	12.2	2.4	6.4	0.9	5.8	1.0	63.9	488	134	370	118
RM068	P259574	57.16	57.73	0.57	68.1	152.9	18.4	70.5	14.5	3.7	12.1	1.9	9.9	1.9	5.2	0.7	4.4	0.6	56.6	422	115	324	97
RM068	P259575	57.73	59.10	1.37	150.7	351.3	41.2	161.6	32.2	8.3	27.8	4.0	21.6	4.0	10.6	1.4	8.7	1.4	106.4	931	261	737	194
RM068	P259576	59.10	60.05	0.95	105.4	237.7	26.7	102.4	19.9	7.2	16.9	2.6	14.1	2.7	7.4	1.1	6.5	1.1	74.2	626	166	492	134
RM068	P259577	60.05	61.13	1.08	77.9	172.6	18.6	61.4	11.3	1.5	8.8	1.3	7.5	1.5	4.2	0.6	4.0	0.6	47.8	419	100	342	78
RM068	P259578	61.13	62.32	1.19	94.1	216.8	25.0	95.8	19.5	7.0	16.8	2.5	13.9	2.7	7.3	1.0	6.5	1.1	72.6	583	157	451	131
RM068	P259579	62.32	62.85	0.53	174.8	396.8	44.0	163.3	30.0	4.0	23.7	3.4	18.0	3.3	8.3	1.1	6.7	1.0	89.5	968	259	809	159
RM068	P259581	62.85	64.90	2.05	181.8	452.1	55.2	222.2	44.8	9.3	38.0	5.3	27.3	4.9	12.3	1.6	9.3	1.4	127.0	1,192	355	956	236
RM068	P259582	64.90	65.60	0.70	275.6	572.4	63.3	226.9	41.3	4.7	33.1	5.0	27.2	5.4	15.0	2.0	12.5	1.9	154.3	1,441	364	1,180	261
RM068	P259583	65.84	68.08	2.24	304.9	625.3	67.5	237.9	42.9	4.8	34.0	5.1	28.4	5.5	15.0	2.1	13.2	1.9	158.7	1,547	382	1,279	269
RM068	P259584	68.08	68.31	0.23	279.1	609.3	71.5	276.4	53.2	8.3	45.5	6.5	34.3	6.4	16.7	2.3	13.2	2.0	173.3	1,598	442	1,290	309
RM068	P259585	68.58	71.58	3.00	720.1	1553.9	184.3	647.4	107.4	14.0	79.3	10.2	50.7	8.9	21.6	2.6	15.4	2.3	218.4	3,636	1,000	3,213	423
RM068	P259586	71.58	73.12	1.54	1124.7	2426.1	287.6	1047.4	163.5	16.5	121.6	15.6	75.4	13.2	31.0	3.8	22.4	3.4	317.5	5,670	1,589	5,049	620
RM068	P259587	73.12	73.44	0.32	126.1	289.9	33.7	123.6	21.7	2.9	17.9	2.5	12.7	2.4	6.3	0.8	5.1	0.8	61.1	708	194	595	113
RM068	P259588	73.44	74.37	0.93	1025.0	2327.8	288.8	1081.3	171.6	16.0	130.8	16.9	80.8	14.5	34.5	4.2	24.4	3.8	336.5	5,557	1,639	4,894	663