AMERICAN RARE EARTHS ABN 83 003 453 503

ASX RELEASE

1 October 2024

DRILLING RESULTS CONFIRM HIGHER GRADE EXTENDING TO THE WEST COWBOY STATE MINE AREA

Highlights

- Assay results for 12 core and RC holes received following the completion of the 2024 drilling campaign
- Assays confirm high-grade ore in the western portion of the Cowboy State Mine (CSM) deposit
- Significant intercepts include:
  - HC24-RM044: 172.4m @ 3,716 ppm TREO
  - HC24-RM036: 51.0m @ 3,390 ppm TREO
  - HC24-RM040: 30.0m @ 2,203 ppm TREO
- Additional four drill holes planned to target higher-grade zones into Red Mountain

American Rare Earths (**ASX: ARR | OTCQX: ARRNF | ADR: AMRRY**) ("**ARR**" or the "Company") is pleased to announce the latest assay results from its 2024 drilling campaign at the Cowboy State Mine ("**CSM"**) area, held by its wholly owned subsidiary, Wyoming Rare (USA) Inc. (**WRI**). The CSM area marks the first phase in the multi-stage development of the larger Halleck Creek deposit in Wyoming, which boasts a 2.34 billion tonne JORC resource containing 7.48 million tonnes of total rare earth oxides[1].

The 2024 drilling campaign confirms the presence of higher-grade ore in the western section of the Cowboy State Mine (CSM) deposit, particularly near Red Mountain. As part of this effort, WRI intentionally defined the eastern boundary of the Red Mountain Pluton (RMP), where lower assay results were observed, as summarized in Appendix B.

With the eastern extent of the CSM deposit now defined, additional drilling will focus on higher-grade zones near Red Mountain. This area includes drill hole HC24-RM035, which reported an impressive average grade of 4,393 ppm TREO over 299.1 metres[2]. The 2024 drill campaign was completed under budget, allowing for four additional reverse circulation (RC) holes to be drilled before demobilising the rigs. These new holes, totalling approximately 730 metres, are expected to be completed within the next week.

Chris Gibbs, CEO, commented:

"We are very pleased with the 2024 drilling campaign results, which have defined the eastern portion of the Cowboy State Mine (CSM) deposit and confirmed that higher-grade material is concentrated to the west, within the Red Mountain area. These additional drill holes will help us update our resource model and define mine plans for CSM. As the first phase of our development program, CSM has the potential to be the next rare earth mine built in the USA, outside of Mountain Pass. With 2.34 billion tonnes of JORC resources at Halleck Creek, we believe this project has the potential to be one of the largest rare earth developments in North America, supporting the nation's growing demand for critical minerals."

Technical Summary

ALS Global provided results for 603 samples from 4 HQ core and 7 reverse circulation drill holes. The complete assay results from these holes are listed in Appendix B below. Figure 1 shows the locations of each drill hole, as well as a summary of mineralised thickness. The locations of each drill hole are listed in Table A. Figure 3 illustrates TREO grade along drill holes with assay data.

1 ASX Announcement 7 February 2024
2 ASX Announcement 3 September 2024

WRI are reviewing the REE geochemistry to refine lithological components of the RMP. Anderson (2003) highlighted variations in Europium (Eu) anomalies and LREE/HREE ratios (La/Yb) between the units within the Red Mountain Pluton, which can be used to distinguish lithotypes that are otherwise visually similar. Historical literature indicates that the clinopyroxene quartz monzonite exhibits moderate to large negative Eu anomalies, whereas Eu values in the biotite hornblende syenite and fayalite monzonite range from moderately negative to slightly positive. These distinctions are further supported by La/Yb values, with the CQM showing the highest LREE enrichment compared to the BHS and FM. These distinctions will be further examined through additional whole-rock geochemical analysis.

Geological maps and modelling domains are being updated based on this analysis and subsequent rock type designations. Geologists redefined the extent of the RMP relative to the Sybille intrusive body, and the non-REE bearing mesoproterozoic granites to the east based on the drilling data.

Based on the solid results in drill holes HC24-RM035 and HC24-RM044, it was decided that four additional RC holes to be drilled into Red Mountain. The drill holes will utilise locations from previous exploration programs to drill four holes up to 182 metres (600 feet) in length each, with angles at -55 degrees and -75 degrees to explore for higher-grade RMP within Red Mountain (Figure 2).

FTE's RC drill rig remains at site, allowing the company to extend the drilling program in a cost-effective manner. Drilling of the additional holes is expected to be completed in early October.

This announcement is authorised for release by the CEO of American Rare Earths.

Further information
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Competent Persons Statement:
The information in this document is based on company work performed in July and August 2024. This work was reviewed and approved for release by Mr Dwight Kinnes (Society of Mining Engineers #4063295RM) who is employed by American Rare Earths and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Kinnes consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

Previously Released Information:

ARR confirms it is not aware of any new information or data that materially affects the information included in the original market announcements, and, in the case of the JORC Resource, that all material assumptions and technical parameters underpinning the JORC Resource in the relevant market announcements continue to apply and have not materially changed. ARR confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcements.

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) owns Wyoming Rare (USA) Inc. which is focused on the development of the Halleck Creek Project, WY. It also owns La Paz, AZ rare earth deposit. Both can potentially become the largest and most sustainable rare earth projects in North America. The Company is developing environmentally friendly and cost-effective extraction and processing methods to meet the rapidly increasing demand for resources essential to the clean energy transition and US national security. The Company continues to evaluate other exploration opportunities and is collaborating with US Government-supported R&D to develop efficient processing and separation techniques of (REEs) elements to help ensure a renewable future.

Table A - Surveyed Collar Coordinates of 2024 Exploration Holes

DHID	Easting	Northing	Collar	Total Length	Azimuth	Dip	Hole Type
HC24-RM023	475,676.93	4,632,562.21	1,752.98	120.0	0	-90	HQ
HC24-RM024	475,679.87	4,632,435.06	1,753.73	302.0	0	-90	HQ
HC24-RM025	475,440.72	4,632,385.57	1,759.08	101.0	0	-90	HQ
HC24-RM027	475,768.50	4,632,463.33	1,751.62	100.0	90	-65	HQ
HC24-RM029	475,330.83	4,632,088.88	1,765.04	80.0	115	-65	HQ
HC24-RM034	475,152.53	4,632,053.15	1,771.07	150.1	0	-90	HQ
HC24-RM035	475,179.48	4,632,209.27	1,767.95	300.9	250	-45	HQ
HC24-RM042	475,141.20	4,631,928.38	1,775.65	50.0	250	-45	HQ
HC24-RM043	475,131.20	4,631,983.57	1,773.35	150.0	0	-90	HQ
HC24-RM044	475,189.93	4,632,209.13	1,767.33	175.0	300	-45	HQ
HC24-RM045	475,830.25	4,632,723.27	1,744.85	57.0	160	-65	HQ
Total HQ				**1,586.0**			
HC24-RM026	475,678.12	4,632,713.30	1,748.62	81.0	0	-90	RC
HC24-RM028	475,532.08	4,632,718.96	1,756.76	81.0	0	-90	RC
HC24-RM030	475,604.24	4,632,641.98	1,752.99	81.0	270	-65	RC
HC24-RM031	475,505.78	4,632,601.62	1,756.16	81.0	0	-90	RC
HC24-RM032	475,681.62	4,632,270.04	1,755.35	81.0	0	-90	RC
HC24-RM033	475,475.08	4,632,248.37	1,760.32	81.0	0	-90	RC
HC24-RM036	475,560.30	4,632,436.00	1,756.87	81.0	0	-90	RC
HC24-RM037	475,442.22	4,632,182.97	1,761.76	81.0	0	-90	RC
HC24-RM038	475,319.73	4,632,251.02	1,764.13	81.0	350	-65	RC
HC24-RM039	475,308.41	4,632,133.48	1,765.68	81.0	0	-90	RC
HC24-RM040	475,239.63	4,632,085.39	1,768.07	111.0	0	-90	RC
HC24-RM041	475,225.51	4,631,981.84	1,770.78	111.0	140	-55	RC
Total RC				**1,032.0**			
Grand Total				**2,618.0**			

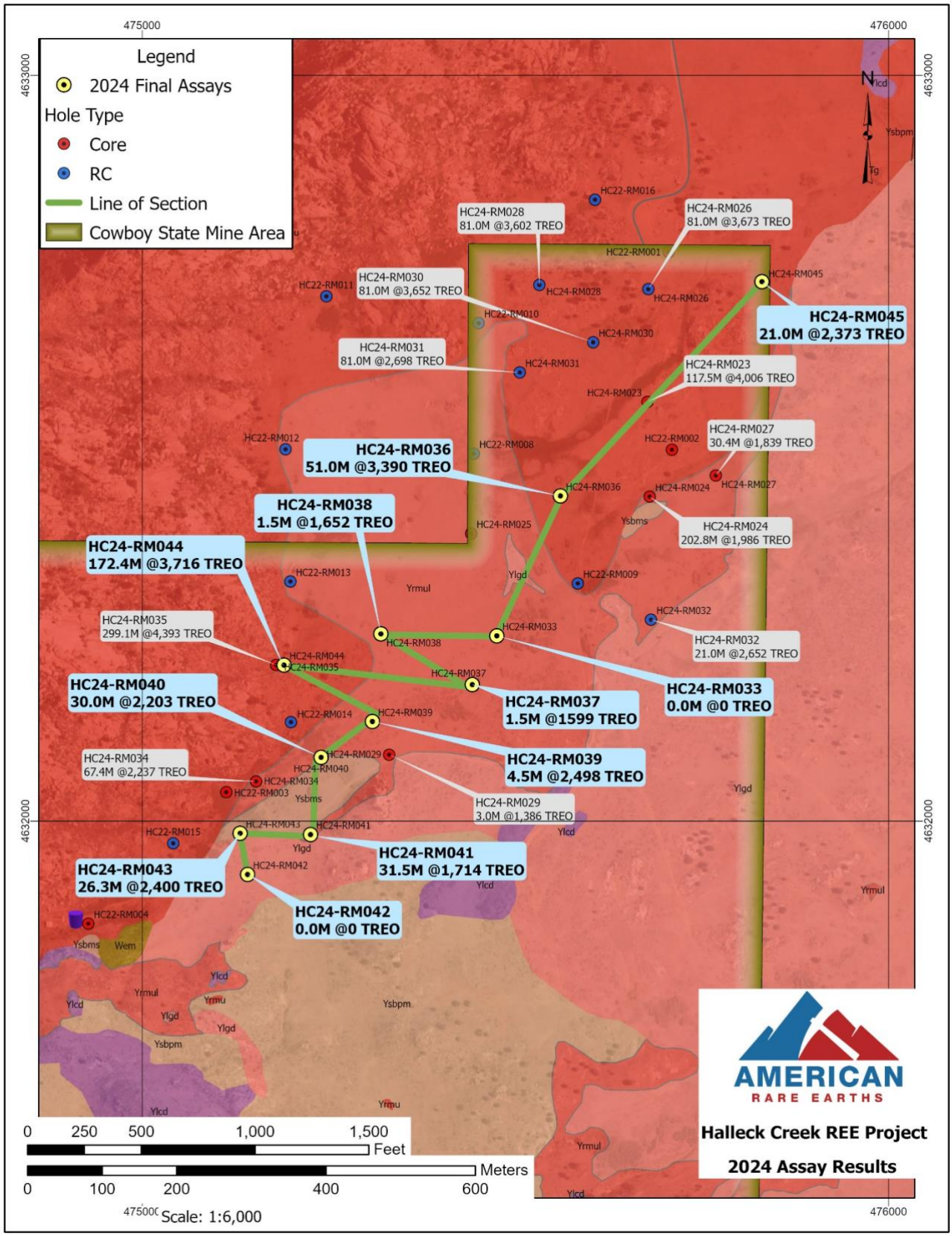

Figure 1 – 2024 Drill Hole Locations and Assay Summaries

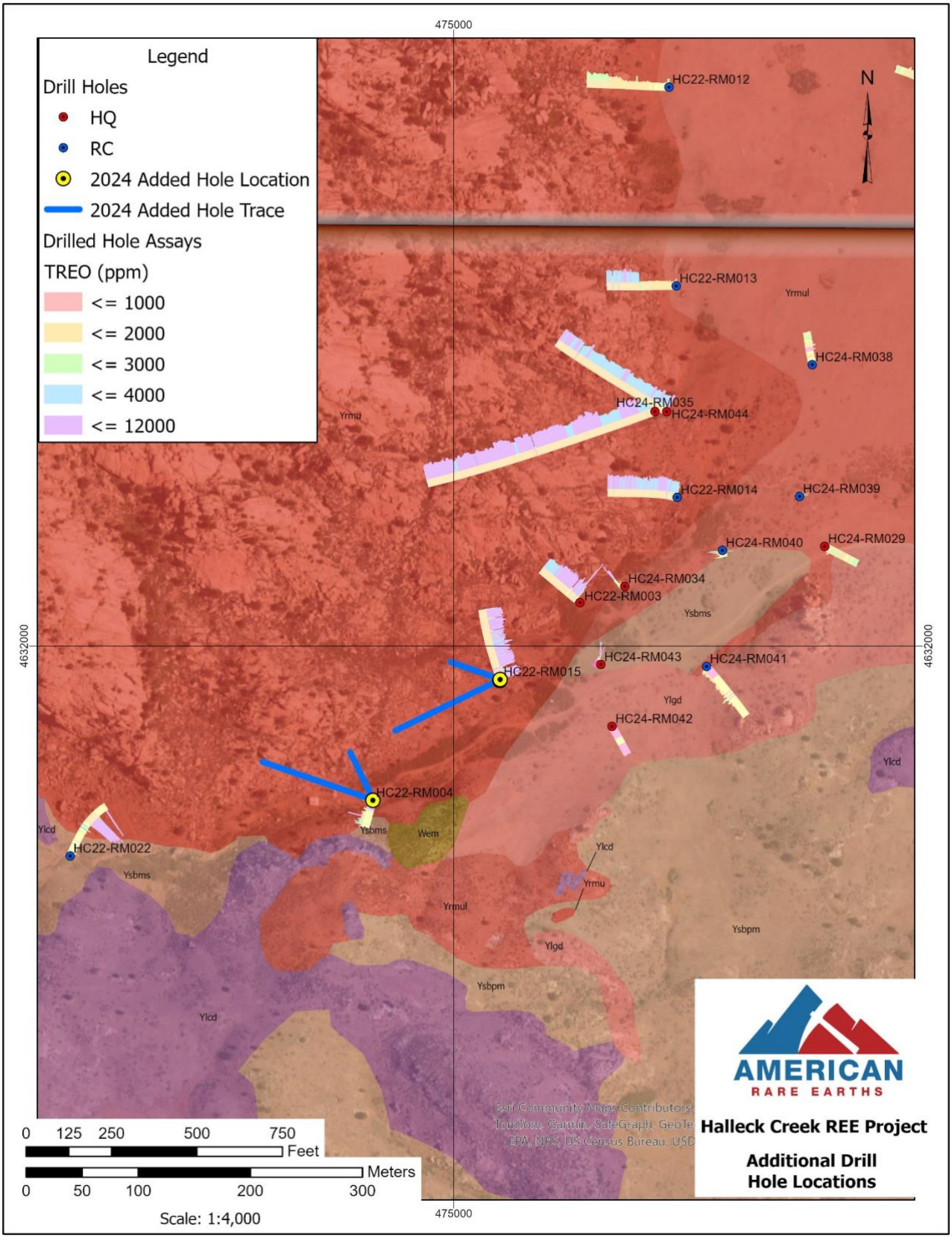

Figure 2 – Locations of Additional Drill Holes

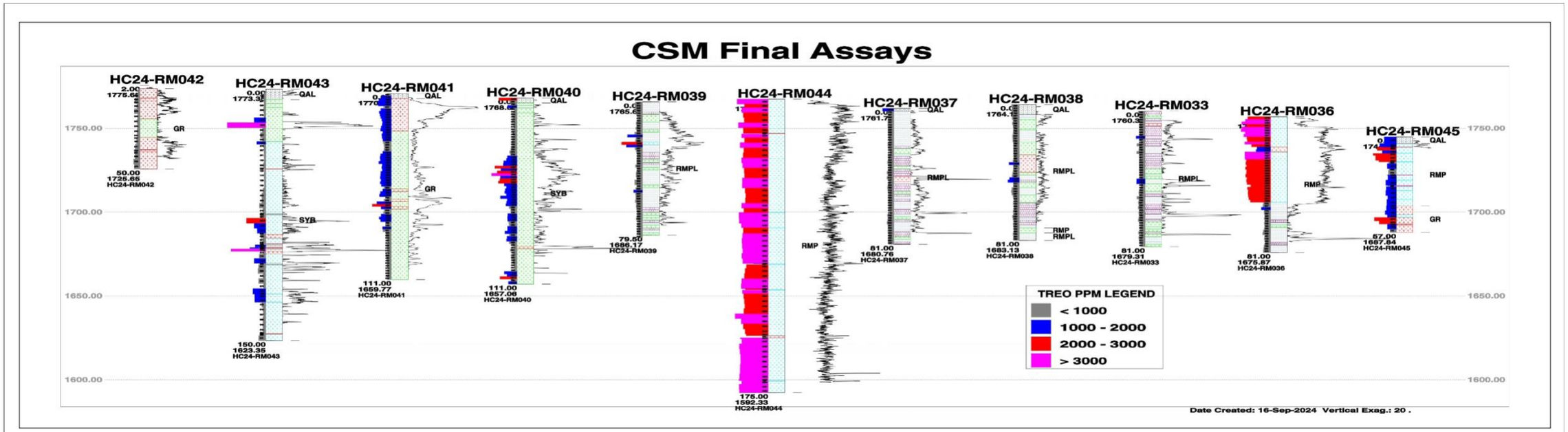

Figure 3 – Fence Diagram of 2024 Interim Assays

APPENDIX A – JORC TABLE 1

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	WRI drilled 23 drill holes in the Cowboy State Mine area. 11 HQ holes completed with a total length of 1,585 meters (5,309 feet). 672 core samples have been collected, logged and shipped to ALS global for splitting and assay. 12 reverse circulation holes completed with a total length of 1,031 metres (3,381 feet). 689 RC samples were collected, logged and shipped to ALS global for assay.
	Include reference to measures taken to ensure sample represe6ntivity and the appropriate calibration of any measurement tools or systems used.	RC samples were collected every 1.5 meters. Core samples were collected every 3 meters, or at lithological contacts observed in core.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The Red Mountain Pluton (RMP) of the Halleck Creek Rare Earths Project is a distinctly layered monzonitic to syenitic body which exhibits significant and widespread REE enrichment. Enrichment is dependent on allanite abundance, a sorosilicate of the epidote group. Allanite occurs in all three units of the RMP, the clinopyroxene quartz monzonite, the biotite-hornblende quartz syenite, and the fayalite monzonite, in variable abundances.
	In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	RC samples were collected using a rotary splitter to prepare three samples across each 1.5 meter interval. Each sample was logged by geologists and given a unique sample ID and prepared for assay Core samples were logged in detail by geologists for lithology, alteration and geotechnical attributes. Homogenous lithology was broken into 3m samples. Shorter samples were collected at lithologic contacts observed in core.

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or another type, whether the core is oriented and if so, by what method, etc.).*	WRI drilled 12 reverse circulation drill holes with samples collected using a rotary splitter. WRI drilled 11 HQ core holes. Angle holes were oriented
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Core recoveries were calculated by WRI geologists.
	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	Core recoveries were calculated by WRI geologists.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	There is not a relationship between sample recovery and sample bias. Allanite occurs as phenocrysts in a plutonic body.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	All rock samples were geologically and geotechnically logged WRI geologists familiar with the deposit. Lithology, alteration, geotechnical parameters were recorded for each sample.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of rock samples are quantitative adhering to methods established by WRI.
	The total length and percentage of the relevant intersections logged.	Rare earth mineralization occurs across the rocks of the RMP. All lengths of RMP material are relevant.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	ALS global is splitting the core into two halves.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC samples were collected using a rotary splitter into three samples.

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All core samples were dry. Sample preparation: 1kg samples split to 250g for pulverising to -75 microns. Sample analysis: 0.5g charge assayed by ICP-MS technique.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	WRI geologists added blanks, CRM and identified duplicate samples across each drill hole using establish company standards.
	Measures are taken to ensure that the sampling is representative of the in situ material collected, including, for instance, results for field duplicate/second-half sampling.	WRI geologists added blanks, CRM and identified duplicate samples across each drill hole using establish company standards.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Allanite is generally well distributed across the core and the sample sizes are representative of the fine grain size of the Allanite.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	ALS uses a 5-acid digestion and 32 elements by lithium borate fusion and ICP-MS (ME-MS71h). For quantitative results of all elements, including those encapsulated in resistive minerals. These assays include all rare earth elements.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	XRF readings were collected for qualitative indications in the field. XRF was not used for quantitative purposes.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	WRI geologists added blanks, CRM and identified duplicate samples across each drill hole using establish company standards.

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Surface samples have not yet been verified by independent personnel.
	The use of twinned holes.	n/a
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was performed by ARR personnel and checked by ARR geologists. All field logs were scanned and uploaded to company file servers. All photographs were also uploaded to the file server daily. All scanned documents are cross-referenced and directly available from the database. Assay data from the surface samples was imported into the database directly from electronic spreadsheets sent to ARR from ALS.
	Discuss any adjustment to assay data.	Assay data is stored in the database in elemental form. Reporting of oxide values are calculated in the database using the molar mass of the element and the oxide.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill hole locations were surveyed by a professional land surveyor.
	Specification of the grid system used.	The grid system used to compile data was NAD83 Zone 13N.
	Quality and adequacy of topographic control.	Topography control is +/- 10 ft (3 m).
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drill hole locations vary between 100 and 300 meters.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Geostatistical analysis of previous drilling data indicates that the drill hole spaced defined for the 2024 program is appropriate for minor resource and reserve estimation procedures.

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
	Whether sample compositing has been applied.	Composite have not been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Mineralization at Halleck Creek is a function of fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralization is not structurally controlled and exploration drilling to date does not reveal any preferential mineralization related to geologic structures.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	n/a
Sample security	*The measures are taken to ensure sample security.*	All samples were in the direct control of company geologists until dispatched to ALS Global. Transport to ALS is handling using licenced and bonded carriers.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	ARR controls 365 unpatented federal lode claims and 4 Wyoming State mineral licenses covering 8,124 acres (3,288 ha).
	The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.	No impediments to holding the claims exist. To maintain the claims an annual holding fee of $165/claim is payable to the BLM. To maintain the State leases minimum rental payments of $1/acre for 1-5 years; $2/acre for 6-10 years; and $3/acre if held for 10 years or longer.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Prior to sampling by WIM on behalf of Blackfire Minerals and Zenith there was no previous sampling by any other groups within the ARR claim and Wyoming State Lease blocks.
Geology	*Deposit type, geological setting and style of mineralisation.*	The REE's occur within Allanite which occurs as a variable constituent of the Red Mountain Pluton. The occurrence can be characterised as a disseminated type rare earth deposit.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	Appendix B contains the assay results received to date from ALS
	easting and northing of the drill hole collar	The surveyed locations and orientations of the drill holes are included in the release.
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	downhole length and interception depth	
	Hole length.	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the	n/a

Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	No cut-offs have been applied to the data
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Assays are representative of each sample.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Allanite mineralization observed at Halleck Creek occurs uniformly throughout the CQM and BHS rocks of within the Red Mountain Pluton. Therefore, the geometry of mineralisation does not vary with drill hole orientation or angle within homogeneous rock types.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.*	Location information is presented the text above
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.*	ALS Global performed analytical analysis of each sample. The tables above show extents of mineralized thickness in each hole received to date.

Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported, including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	In hand specimen this rock is a red colored, hard and dense granite with areas of localised fracturing. The rock shows significant iron staining and deep weathering. Microscopic description: In hand specimen the samples represent light colored, fairly coarse-grained granitic rock composed of visible secondary iron oxide, amphibole, opaques, clear quartz and pink to white colored feldspar. All of the specimens show moderate to strong weathering and fracturing. Allanite content is variable from trace to 2%. Rare Earths are found within the Allanite. Historical metallurgical testing consisted of concentrating the Allanite by both gravity and magnetic separation. The current program employs sequential high gradient magnetic separation and flotation to produce a concentrate suitable for downstream rare earth elements extraction.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further drilling is planned to increase the area of the project, and to increase confidence levels of resources. Geological mapping and surface sampling will also be performed to define and prioritize drilling targets.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional drilling is planned in new exploration areas and to increase resource confidence levels.

Appendix B - 2024 Assay Results

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM033	0.00	4.92	RC	947	206	309	741	135	323	42	200	41	114	8	30	4	22	4	11	2	9	2	5106	49	15	5
HC24-RM033	4.92	9.84	RC	742	156	230	586	112	263	32	149	30	85	9	22	3	16	3	8	1	8	1	3472	37	11	4
HC24-RM033	9.84	14.76	RC	725	152	228	573	110	254	32	148	29	82	10	21	3	16	3	8	1	7	1	3242	36	11	4
HC24-RM033	14.76	19.69	RC	723	156	228	567	106	251	32	149	29	86	9	22	3	15	3	8	1	8	1	3120	37	10	3
HC24-RM033	19.69	24.61	RC	758	157	234	601	116	270	33	152	30	86	9	22	3	16	3	8	1	8	1	3093	33	15	3
HC24-RM033	24.61	29.53	RC	819	161	246	658	131	301	36	159	31	89	8	23	3	17	3	8	1	8	1	3282	33	18	4
HC24-RM033	29.53	34.45	RC	760	171	241	589	106	263	33	156	31	93	8	25	3	18	3	10	1	9	1	4039	43	15	6
HC24-RM033	34.45	39.37	RC	737	167	240	570	99	251	33	155	32	93	8	24	3	17	3	9	1	8	1	4093	44	13	5
HC24-RM033	39.37	44.29	RC	774	176	251	598	105	263	34	163	33	97	9	25	3	18	3	9	1	9	2	4390	50	14	5
HC24-RM033	44.29	49.21	RC	835	193	271	642	112	284	37	174	35	103	9	28	4	21	4	11	1	10	2	4957	54	15	5
HC24-RM033	49.21	54.13	RC	1265	240	378	1025	189	488	54	248	46	133	8	35	5	25	5	13	2	12	2	6011	59	19	7
HC24-RM033	54.13	59.06	RC	787	175	247	612	112	274	34	160	32	99	7	24	3	18	3	9	1	9	2	4701	46	20	7
HC24-RM033	59.06	63.98	RC	656	150	214	506	89	222	29	137	29	82	8	21	3	16	3	8	1	7	1	4039	42	13	5
HC24-RM033	63.98	68.90	RC	1160	267	387	893	148	392	56	248	49	147	8	40	5	29	6	15	2	13	2	6673	92	13	6
HC24-RM033	68.90	73.82	RC	799	166	245	633	125	283	37	157	31	90	10	24	3	17	3	9	1	8	1	3404	52	17	7
HC24-RM033	73.82	78.74	RC	902	194	277	708	140	316	41	176	35	106	10	27	4	21	4	10	1	9	2	3796	57	17	5
HC24-RM033	78.74	83.66	RC	1175	208	345	967	203	445	54	225	40	113	9	32	4	22	4	11	2	9	2	4431	68	20	5
HC24-RM033	83.66	88.58	RC	806	185	260	621	112	274	38	164	33	98	10	28	4	21	4	10	1	8	1	4039	58	10	6
HC24-RM033	88.58	93.50	RC	779	172	246	607	115	268	36	157	31	93	10	25	3	19	3	9	1	8	1	3715	54	9	3
HC24-RM033	93.50	98.43	RC	787	177	247	610	116	270	36	157	31	95	10	26	4	19	4	9	1	8	1	3688	53	10	4
HC24-RM033	98.43	103.35	RC	804	180	252	624	117	278	37	160	32	97	11	26	3	20	4	9	1	8	1	3850	56	10	4
HC24-RM033	103.35	108.27	RC	802	176	252	626	117	279	37	160	33	96	10	25	3	19	4	9	1	8	1	3661	53	13	5
HC24-RM033	108.27	113.19	RC	795	174	252	621	116	275	37	160	33	94	10	25	3	19	4	9	1	8	1	3688	53	10	4
HC24-RM033	113.19	118.11	RC	763	166	237	597	116	265	35	152	29	90	10	24	3	18	3	9	1	7	1	3458	47	12	5
HC24-RM033	118.11	123.03	RC	763	166	236	597	117	265	35	149	31	89	11	24	3	18	3	9	1	7	1	3296	48	13	4
HC24-RM033	123.03	127.95	RC	778	167	243	611	119	270	36	155	31	91	10	24	3	18	3	9	1	7	1	3431	52	12	4
HC24-RM033	127.95	132.87	RC	747	159	234	588	115	259	34	150	30	86	10	23	3	17	3	8	1	7	1	3188	50	11	3
HC24-RM033	132.87	137.80	RC	1200	213	339	987	211	464	53	219	40	117	10	31	4	23	4	11	2	9	2	3282	44	23	8
HC24-RM033	137.80	142.72	RC	1205	204	332	1001	223	472	54	213	39	113	9	30	4	22	4	11	1	9	1	2472	35	32	9
HC24-RM033	142.72	147.64	RC	522	115	158	407	81	183	23	100	20	60	9	16	2	13	2	6	1	5	1	1756	32	22	9
HC24-RM033	147.64	152.56	RC	562	122	168	440	90	197	25	107	21	65	10	17	2	13	2	6	1	5	1	1756	30	22	9
HC24-RM033	152.56	157.48	RC	722	164	227	558	106	245	33	145	29	90	10	23	3	17	3	9	1	7	1	2918	37	11	5

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM033	157.48	162.40	RC	899	189	280	710	137	317	42	180	34	102	10	29	4	20	4	10	1	8	1	3107	49	13	5
HC24-RM033	162.40	167.32	RC	793	198	260	595	104	256	35	164	36	109	10	29	4	21	4	10	1	9	1	2438	66	9	4
HC24-RM033	167.32	172.24	RC	1159	249	365	910	169	408	53	233	47	137	10	37	5	27	5	13	2	11	2	2931	77	11	5
HC24-RM033	172.24	177.17	RC	889	196	277	693	133	308	40	178	34	110	8	29	4	21	4	10	1	8	1	2330	70	14	7
HC24-RM033	177.17	182.09	RC	985	210	318	775	141	343	47	203	41	115	9	32	4	23	4	11	1	9	2	2823	76	14	6
HC24-RM033	182.09	187.01	RC	872	208	270	664	124	296	39	170	35	117	8	28	4	22	4	11	2	10	2	2823	81	7	5
HC24-RM033	187.01	191.93	RC	951	224	288	727	139	328	43	181	36	127	8	30	4	24	5	12	2	10	2	3053	81	11	5
HC24-RM033	191.93	196.85	RC	810	204	248	606	115	269	36	155	31	116	8	27	4	22	4	11	1	9	2	2641	84	6	5
HC24-RM033	196.85	201.77	RC	909	217	285	692	128	307	41	180	36	121	8	30	4	24	4	12	2	10	2	2688	76	12	6
HC24-RM033	201.77	206.69	RC	667	109	166	558	137	269	29	106	17	63	3	14	2	12	2	6	1	5	1	940	25	71	14
HC24-RM033	206.69	211.61	RC	910	206	273	704	140	318	41	171	34	115	8	28	4	23	4	11	2	9	2	2418	71	19	7
HC24-RM033	211.61	216.54	RC	953	223	306	730	130	322	45	194	39	123	9	33	4	24	5	12	2	9	2	2688	72	8	5
HC24-RM033	216.54	221.46	RC	472	112	144	360	71	158	21	91	19	58	11	15	2	11	2	6	1	5	1	2492	25	10	5
HC24-RM033	221.46	226.38	RC	694	157	224	537	99	234	32	143	29	84	11	23	3	17	3	8	1	6	1	2188	48	11	5
HC24-RM033	226.38	231.30	RC	662	139	207	523	99	235	29	134	26	76	7	20	3	15	3	7	1	6	1	2485	31	31	11
HC24-RM033	231.30	236.22	RC	508	108	157	400	78	178	22	103	19	55	11	15	2	11	2	5	1	5	1	2850	17	12	5
HC24-RM033	236.22	241.14	RC	929	200	300	729	130	324	41	195	39	112	8	29	4	21	4	11	1	9	1	3553	46	16	6
HC24-RM033	241.14	246.06	RC	561	126	178	435	81	191	24	117	22	68	9	18	2	13	2	6	1	6	1	2438	28	10	4
HC24-RM033	246.06	250.98	RC	910	144	270	766	161	353	41	180	31	76	9	22	3	15	3	7	1	7	1	3418	32	16	5
HC24-RM033	250.98	255.91	RC	734	150	232	584	111	260	33	152	28	80	9	22	3	16	3	8	1	7	1	3661	37	13	6
HC24-RM033	255.91	260.83	RC	781	156	240	625	123	281	34	157	30	85	9	22	3	16	3	9	1	7	1	3742	36	14	7
HC24-RM033	260.83	265.75	RC	519	109	155	410	83	185	23	100	19	57	10	14	2	11	2	6	1	5	1	2600	23	11	4
HC24-RM036	0.00	4.92	RC	3256	284	898	2972	676	1437	166	603	90	142	11	57	7	32	5	14	2	12	2	1932	21	66	6
HC24-RM036	4.92	9.84	RC	3603	328	970	3275	738	1615	181	640	101	158	12	68	8	40	6	17	2	15	2	2290	22	73	6
HC24-RM036	9.84	14.76	RC	4150	352	1120	3798	887	1843	195	760	113	173	11	74	9	43	7	17	2	14	2	3012	27	85	7
HC24-RM036	14.76	19.69	RC	3495	276	933	3219	754	1572	166	635	92	134	11	57	7	33	6	13	2	11	2	2141	19	73	6
HC24-RM036	19.69	24.61	RC	4119	349	1133	3770	870	1818	198	773	111	171	12	73	9	42	7	17	2	14	2	3120	26	80	8
HC24-RM036	24.61	29.53	RC	4241	363	1154	3878	885	1892	201	783	117	177	12	77	9	44	8	17	2	15	2	3363	28	80	8
HC24-RM036	29.53	34.45	RC	3648	318	997	3330	758	1621	173	675	103	155	12	67	8	38	6	15	2	13	2	2891	26	70	7
HC24-RM036	34.45	39.37	RC	3853	317	1048	3536	814	1720	184	715	103	153	12	66	8	38	7	16	2	13	2	2823	19	73	7
HC24-RM036	39.37	44.29	RC	3399	276	923	3123	717	1523	163	631	89	132	12	58	7	33	6	13	2	11	2	2344	19	65	7
HC24-RM036	44.29	49.21	RC	3332	267	897	3065	714	1492	159	612	88	132	11	55	6	32	5	12	2	10	2	2303	19	62	6
HC24-RM036	49.21	54.13	RC	3711	308	1001	3403	783	1664	177	680	99	149	13	64	8	37	6	15	2	12	2	2580	23	70	8

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM036	54.13	59.06	RC	2754	235	729	2519	589	1235	130	495	70	116	8	47	6	28	5	12	1	10	2	1736	16	79	9
HC24-RM036	59.06	63.98	RC	1945	165	503	1780	406	895	90	339	50	84	6	31	4	20	3	8	1	7	1	1233	12	76	8
HC24-RM036	63.98	68.90	RC	2066	178	537	1888	429	946	96	365	52	92	6	34	4	20	4	9	1	7	1	1328	13	76	8
HC24-RM036	68.90	73.82	RC	3672	279	990	3393	790	1652	176	679	96	135	12	59	7	32	6	13	2	11	2	2445	19	71	9
HC24-RM036	73.82	78.74	RC	3678	286	999	3392	782	1652	177	681	100	138	12	61	7	34	6	13	2	11	2	2573	21	71	8
HC24-RM036	78.74	83.66	RC	3687	303	1012	3384	769	1646	176	691	102	147	12	65	7	36	6	14	2	12	2	2715	23	71	7
HC24-RM036	83.66	88.58	RC	3481	269	931	3212	748	1572	165	636	91	128	12	57	7	32	5	13	2	11	2	2310	21	67	8
HC24-RM036	88.58	93.50	RC	3559	278	956	3281	756	1609	170	654	92	134	11	59	7	33	6	13	2	11	2	2377	20	68	7
HC24-RM036	93.50	98.43	RC	3465	282	943	3183	732	1548	166	644	93	137	11	60	7	33	6	13	2	11	2	2479	22	68	8
HC24-RM036	98.43	103.35	RC	3594	298	968	3296	762	1609	170	660	95	145	12	62	7	36	6	14	2	12	2	2290	21	70	8
HC24-RM036	103.35	108.27	RC	3437	278	927	3159	737	1535	164	632	91	134	11	59	7	33	6	13	2	11	2	2303	20	67	7
HC24-RM036	108.27	113.19	RC	3476	283	942	3193	732	1560	166	643	92	135	12	60	7	34	6	14	2	11	2	2458	23	66	8
HC24-RM036	113.19	118.11	RC	3581	288	976	3293	761	1597	172	666	97	140	11	61	7	34	6	14	2	11	2	2634	25	69	8
HC24-RM036	118.11	123.03	RC	3402	265	915	3137	737	1523	163	624	90	127	11	56	7	31	5	13	2	11	2	2337	22	66	8
HC24-RM036	123.03	127.95	RC	3459	285	945	3174	728	1542	166	645	93	138	11	60	7	34	6	14	2	11	2	2715	25	66	8
HC24-RM036	127.95	132.87	RC	3383	285	920	3098	708	1511	161	628	90	138	11	59	7	34	6	14	2	12	2	2594	24	66	7
HC24-RM036	132.87	137.80	RC	2850	245	776	2605	593	1271	135	530	76	119	10	50	6	29	5	12	2	10	2	2202	21	66	9
HC24-RM036	137.80	142.72	RC	3322	266	896	3056	713	1486	159	611	87	128	11	55	7	32	5	13	2	11	2	2377	21	65	7
HC24-RM036	142.72	147.64	RC	3217	264	865	2953	688	1437	153	591	84	129	11	55	6	31	5	13	2	10	2	2364	20	65	7
HC24-RM036	147.64	152.56	RC	3235	275	882	2960	692	1425	155	600	88	133	12	57	7	32	6	13	2	11	2	2317	23	65	7
HC24-RM036	152.56	157.48	RC	3178	261	851	2917	678	1425	150	581	83	128	11	54	6	31	5	12	2	10	2	2188	22	63	6
HC24-RM036	157.48	162.40	RC	3140	261	844	2879	659	1413	147	576	84	128	11	54	6	31	5	12	2	10	2	2033	20	63	6
HC24-RM036	162.40	167.32	RC	2878	241	759	2637	616	1296	135	516	74	119	11	49	6	28	5	11	1	9	2	2087	18	56	7
HC24-RM036	167.32	172.24	RC	1030	198	318	832	160	380	46	206	40	107	10	30	4	22	4	10	1	9	1	2479	20	20	6
HC24-RM036	172.24	177.17	RC	1102	212	321	890	171	424	47	209	39	116	9	30	4	22	4	12	2	11	2	3296	29	21	6
HC24-RM036	177.17	182.09	RC	1326	230	375	1096	220	532	56	244	44	123	10	34	5	26	5	12	2	11	2	2999	30	24	6
HC24-RM036	182.09	187.01	RC	928	188	276	740	147	341	40	178	34	101	9	27	4	20	4	10	1	10	2	3039	30	18	7
HC24-RM036	187.01	191.93	RC	908	170	283	738	140	337	41	185	35	90	9	26	3	19	3	9	1	9	1	2742	26	17	5
HC24-RM036	191.93	196.85	RC	784	150	240	634	124	289	35	156	30	80	9	22	3	16	3	8	1	7	1	2918	30	15	4
HC24-RM036	196.85	201.77	RC	890	165	266	725	147	333	39	174	32	86	10	25	3	18	3	9	1	9	1	3363	29	16	4
HC24-RM036	201.77	206.69	RC	778	168	243	610	114	274	34	157	31	90	9	24	3	18	3	9	1	9	2	3445	36	13	5
HC24-RM036	206.69	211.61	RC	895	179	275	716	139	324	39	180	34	95	10	26	3	19	4	10	1	9	2	3728	33	14	4
HC24-RM036	211.61	216.54	RC	718	140	213	578	118	264	31	138	27	75	10	19	3	14	3	7	1	7	1	2607	24	15	4

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM036	216.54	221.46	RC	897	176	274	721	142	327	40	177	35	96	9	25	3	19	4	9	1	9	1	3512	34	15	4
HC24-RM036	221.46	226.38	RC	1055	137	274	918	199	462	45	182	30	73	7	20	3	14	3	8	1	7	1	1621	19	36	9
HC24-RM036	226.38	231.30	RC	1137	174	313	963	199	473	48	207	36	95	9	26	3	19	3	9	1	8	1	2526	29	22	5
HC24-RM036	231.30	236.22	RC	674	132	195	542	113	251	29	125	24	73	6	17	3	14	3	7	1	7	1	1594	17	47	16
HC24-RM036	236.22	241.14	RC	898	155	263	743	155	345	40	173	30	83	9	22	3	17	3	8	1	8	1	2425	22	20	5
HC24-RM036	241.14	246.06	RC	760	151	230	609	120	278	34	148	29	82	9	21	3	16	3	8	1	7	1	2438	27	15	5
HC24-RM036	246.06	250.98	RC	765	159	231	606	118	276	33	150	29	87	9	22	3	16	3	9	1	8	1	2465	26	16	5
HC24-RM036	250.98	255.91	RC	943	169	278	774	158	359	42	180	35	93	9	24	3	18	3	9	1	8	1	2931	30	19	5
HC24-RM036	255.91	260.83	RC	1012	204	306	808	157	370	45	197	39	113	9	28	4	21	4	11	2	10	2	2958	29	16	5
HC24-RM036	260.83	265.75	RC	1046	180	306	866	177	405	47	201	36	99	9	26	3	19	4	10	1	8	1	2303	18	24	7
HC24-RM037	0.00	4.92	RC	1599	215	445	1384	285	684	70	296	49	116	8	34	5	25	4	12	1	9	1	1341	16	30	4
HC24-RM037	4.92	9.84	RC	926	168	271	758	157	350	41	178	32	95	7	24	3	17	3	9	1	8	1	3363	33	20	4
HC24-RM037	9.84	14.76	RC	764	158	230	606	117	278	33	150	28	90	6	22	3	16	3	9	1	7	1	3377	36	17	4
HC24-RM037	14.76	19.69	RC	838	164	249	674	134	311	37	163	29	93	7	22	3	17	3	9	1	8	1	3512	40	18	4
HC24-RM037	19.69	24.61	RC	833	179	252	654	127	297	36	162	32	102	7	24	3	19	4	10	1	8	1	3593	39	17	4
HC24-RM037	24.61	29.53	RC	847	161	248	686	140	318	36	162	30	91	6	22	3	17	3	9	1	8	1	3728	40	19	5
HC24-RM037	29.53	34.45	RC	854	163	247	691	144	321	37	160	29	91	7	22	3	18	3	9	1	8	1	3674	38	20	5
HC24-RM037	34.45	39.37	RC	786	162	237	624	123	285	34	153	29	88	7	23	3	18	3	10	1	8	1	3742	39	18	5
HC24-RM037	39.37	44.29	RC	786	153	230	633	130	292	34	149	28	84	7	22	3	16	3	9	1	7	1	3674	36	19	5
HC24-RM037	44.29	49.21	RC	793	160	234	633	127	292	34	152	28	88	7	23	3	17	3	9	1	8	1	3593	38	19	6
HC24-RM037	49.21	54.13	RC	774	153	232	621	124	284	34	150	29	85	6	21	3	16	3	9	1	8	1	3499	40	18	7
HC24-RM037	54.13	59.06	RC	711	142	209	569	115	262	31	135	26	80	6	19	3	14	3	8	1	7	1	3309	36	24	7
HC24-RM037	59.06	63.98	RC	666	133	195	533	111	244	29	125	24	74	6	18	3	14	3	7	1	6	1	3120	33	20	6
HC24-RM037	63.98	68.90	RC	673	130	192	543	116	251	29	124	23	72	6	17	2	14	3	7	1	7	1	3445	37	22	7
HC24-RM037	68.90	73.82	RC	847	176	257	671	130	306	37	166	32	98	7	25	3	19	4	10	1	8	1	3688	39	19	6
HC24-RM037	73.82	78.74	RC	740	161	230	579	110	259	32	149	29	89	9	22	3	17	3	9	1	7	1	4147	28	15	6
HC24-RM037	78.74	83.66	RC	581	110	163	471	105	216	25	106	19	57	10	14	2	11	2	6	1	6	1	2715	24	20	7
HC24-RM037	83.66	88.58	RC	501	103	142	398	87	181	21	91	18	53	10	13	2	10	2	6	1	5	1	2681	28	18	7
HC24-RM037	88.58	93.50	RC	814	170	252	644	124	289	36	164	31	91	10	25	3	18	4	9	1	8	1	4296	60	12	5
HC24-RM037	93.50	98.43	RC	780	166	247	614	113	275	34	161	31	90	9	24	3	18	3	9	1	8	1	3931	54	11	4
HC24-RM037	98.43	103.35	RC	748	161	237	587	108	262	33	154	30	86	10	23	3	17	3	9	1	8	1	3809	50	11	4
HC24-RM037	103.35	108.27	RC	894	207	291	687	119	303	39	189	37	115	10	28	4	22	4	12	1	9	2	4039	51	8	3
HC24-RM037	108.27	113.19	RC	712	166	222	546	102	243	31	141	29	91	9	23	3	18	3	9	1	8	1	2675	27	12	5

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM037	113.19	118.11	RC	612	96	162	516	121	245	26	106	18	50	8	13	2	10	2	5	1	4	1	1567	16	22	7
HC24-RM037	118.11	123.03	RC	788	192	238	596	112	271	35	145	33	106	9	27	4	21	4	10	1	9	1	2864	56	10	4
HC24-RM037	123.03	127.95	RC	973	270	282	703	133	322	41	169	38	157	7	33	5	29	6	15	2	14	2	3026	64	7	5
HC24-RM037	127.95	132.87	RC	801	203	233	598	116	275	35	141	31	114	7	27	4	22	4	12	2	10	1	2627	55	16	8
HC24-RM037	132.87	137.80	RC	984	238	297	746	135	345	44	184	38	133	8	33	5	26	5	13	2	11	2	3485	33	20	8
HC24-RM037	137.80	142.72	RC	656	141	177	515	109	245	29	111	21	81	6	17	2	14	3	8	1	8	1	3309	29	36	8
HC24-RM037	142.72	147.64	RC	755	162	214	593	120	279	34	134	26	92	7	21	3	17	3	9	1	8	1	3647	34	19	6
HC24-RM037	147.64	152.56	RC	798	178	232	620	120	289	36	145	30	102	7	23	3	18	4	10	1	9	1	3566	35	17	6
HC24-RM037	152.56	157.48	RC	913	209	276	704	128	326	42	173	35	120	7	27	4	22	4	11	2	10	2	4512	34	19	7
HC24-RM037	157.48	162.40	RC	854	194	262	660	120	303	39	164	34	109	9	26	4	21	4	10	1	9	1	3647	27	19	6
HC24-RM037	162.40	167.32	RC	676	123	184	553	121	263	30	116	23	66	8	17	2	13	2	7	1	6	1	2573	15	28	8
HC24-RM037	167.32	172.24	RC	769	167	231	602	116	276	34	146	30	94	7	23	3	18	3	9	1	8	1	3431	35	21	7
HC24-RM037	172.24	177.17	RC	719	157	213	562	111	257	32	134	28	88	7	22	3	16	3	9	1	7	1	3404	31	24	8
HC24-RM037	177.17	182.09	RC	724	154	210	570	114	265	33	131	27	86	7	20	3	16	3	9	1	8	1	3755	33	22	7
HC24-RM037	182.09	187.01	RC	738	156	216	582	116	269	33	135	29	87	7	22	3	16	3	8	1	8	1	3620	36	20	6
HC24-RM037	187.01	191.93	RC	682	145	199	537	108	247	31	124	27	82	7	19	2	15	3	8	1	7	1	3526	36	18	5
HC24-RM037	191.93	196.85	RC	677	145	195	532	108	247	30	122	25	81	7	19	3	15	3	8	1	7	1	3688	36	18	6
HC24-RM037	196.85	201.77	RC	740	160	222	580	114	264	34	139	29	89	7	22	3	17	3	9	1	8	1	4228	34	17	6
HC24-RM037	201.77	206.69	RC	538	126	156	412	80	191	24	96	21	71	6	16	2	13	3	7	1	6	1	2242	23	35	11
HC24-RM037	206.69	211.61	RC	893	177	263	716	144	332	40	167	33	97	9	26	4	19	3	10	1	7	1	3363	35	19	5
HC24-RM037	211.61	216.54	RC	639	135	186	504	102	233	29	115	25	72	9	19	3	14	3	7	1	6	1	2864	30	18	5
HC24-RM037	216.54	221.46	RC	904	202	288	702	125	316	41	181	39	111	7	31	4	23	4	11	1	9	1	4998	51	16	5
HC24-RM037	221.46	226.38	RC	966	199	296	767	147	349	44	188	39	110	8	30	4	21	4	11	1	9	1	4782	49	18	6
HC24-RM037	226.38	231.30	RC	834	172	257	662	125	303	38	163	33	94	7	26	3	20	3	9	1	8	1	4228	45	17	5
HC24-RM037	231.30	236.22	RC	794	159	238	635	126	292	36	151	30	85	9	24	3	18	3	8	1	7	1	3593	42	20	6
HC24-RM037	236.22	241.14	RC	851	178	261	673	129	306	39	165	34	97	9	26	4	19	4	9	1	8	1	4350	48	19	6
HC24-RM037	241.14	246.06	RC	701	159	207	542	105	249	31	129	28	90	7	21	3	16	3	9	1	8	1	3336	35	24	11
HC24-RM037	246.06	250.98	RC	722	157	219	565	107	258	32	139	29	85	9	22	3	16	3	9	1	8	1	3715	37	15	5
HC24-RM037	250.98	255.91	RC	713	156	217	557	105	254	32	138	28	85	10	22	3	16	3	8	1	7	1	3350	33	17	5
HC24-RM037	255.91	260.83	RC	798	151	230	647	134	301	36	148	28	83	9	21	3	15	3	8	1	7	1	3026	30	22	6
HC24-RM037	260.83	265.75	RC	751	164	227	587	112	268	34	143	30	89	10	23	3	17	3	9	1	8	1	3742	39	17	5
HC24-RM038	0.00	4.92	RC	1140	173	317	967	219	453	52	208	35	92	10	27	3	19	4	9	1	7	1	1513	14	24	3
HC24-RM038	4.92	9.84	RC	981	157	273	824	182	388	43	182	29	83	12	23	3	16	3	8	1	7	1	1905	13	20	3

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM038	9.84	14.76	RC	1081	160	304	921	208	429	50	201	33	85	11	24	3	17	3	8	1	7	1	1857	15	22	4
HC24-RM038	14.76	19.69	RC	910	160	264	750	152	354	41	172	31	85	11	24	3	17	3	8	1	7	1	1851	13	15	4
HC24-RM038	19.69	24.61	RC	994	188	298	806	157	375	44	194	36	100	11	28	4	20	4	11	1	8	1	2810	20	16	5
HC24-RM038	24.61	29.53	RC	1037	180	299	857	174	407	47	194	35	96	11	27	4	19	4	9	1	8	1	2431	17	18	5
HC24-RM038	29.53	34.45	RC	900	170	262	730	144	346	40	170	30	91	11	24	4	18	3	9	1	8	1	2046	17	15	4
HC24-RM038	34.45	39.37	RC	1010	172	289	838	174	397	45	190	32	91	11	26	4	18	3	9	1	8	1	2303	17	19	5
HC24-RM038	39.37	44.29	RC	889	165	258	724	143	343	40	167	31	90	11	23	3	17	3	9	1	7	1	2236	20	17	5
HC24-RM038	44.29	49.21	RC	851	164	249	687	137	323	37	160	30	87	11	23	4	18	3	9	1	7	1	2344	16	16	5
HC24-RM038	49.21	54.13	RC	867	181	258	686	134	318	38	164	32	96	11	26	4	20	4	10	1	8	1	2823	17	13	4
HC24-RM038	54.13	59.06	RC	889	190	269	699	133	321	39	173	33	101	11	28	4	20	4	11	1	9	1	2526	23	13	4
HC24-RM038	59.06	63.98	RC	975	193	284	782	157	365	42	182	36	104	11	28	4	20	4	11	1	9	1	2783	31	15	4
HC24-RM038	63.98	68.90	RC	950	197	283	753	145	350	41	184	33	106	11	28	4	21	4	11	1	9	2	2567	24	13	4
HC24-RM038	68.90	73.82	RC	941	175	266	766	158	365	41	171	31	96	10	24	4	19	3	10	1	7	1	1959	16	17	4
HC24-RM038	73.82	78.74	RC	845	170	246	675	135	316	36	157	31	92	11	23	3	19	3	9	1	8	1	1851	12	15	4
HC24-RM038	78.74	83.66	RC	841	158	239	683	140	323	37	154	29	84	12	22	3	16	3	9	1	7	1	1918	18	15	5
HC24-RM038	83.66	88.58	RC	834	149	238	685	142	324	36	155	28	77	11	22	3	16	3	8	1	7	1	1979	16	15	5
HC24-RM038	88.58	93.50	RC	808	145	233	663	135	313	35	152	28	77	11	21	3	15	3	7	1	6	1	2013	18	15	5
HC24-RM038	93.50	98.43	RC	838	155	244	683	138	321	37	157	30	81	12	22	3	17	3	8	1	7	1	1884	21	15	5
HC24-RM038	98.43	103.35	RC	744	144	219	600	118	281	33	143	25	76	11	20	3	15	3	7	1	7	1	1837	15	13	4
HC24-RM038	103.35	108.27	RC	800	151	229	649	132	307	35	148	27	80	11	21	3	16	3	8	1	7	1	1614	19	15	5
HC24-RM038	108.27	113.19	RC	897	187	273	710	134	326	40	176	34	101	11	27	4	19	4	10	1	9	1	2310	20	15	5
HC24-RM038	113.19	118.11	RC	1467	277	459	1190	217	550	68	297	58	150	10	44	6	30	6	15	2	12	2	4876	41	20	7
HC24-RM038	118.11	123.03	RC	861	153	252	708	141	334	39	163	31	82	10	22	3	16	3	8	1	7	1	2458	20	15	5
HC24-RM038	123.03	127.95	RC	825	142	239	683	140	322	36	156	29	74	11	20	3	15	3	8	1	6	1	1857	14	14	4
HC24-RM038	127.95	132.87	RC	884	151	251	733	152	349	39	164	29	80	11	21	3	16	3	8	1	7	1	1972	16	16	4
HC24-RM038	132.87	137.80	RC	977	169	274	808	169	386	43	179	31	91	11	24	3	18	3	9	1	8	1	1857	19	18	5
HC24-RM038	137.80	142.72	RC	1041	172	294	869	182	414	47	190	36	93	11	25	3	18	3	9	1	8	1	1898	19	19	5
HC24-RM038	142.72	147.64	RC	1415	297	437	1118	206	516	63	278	55	163	10	43	6	35	6	17	2	13	2	4242	37	19	6
HC24-RM038	147.64	152.56	RC	1652	352	518	1300	232	596	74	334	64	196	9	52	7	39	7	20	3	16	3	5727	41	23	8
HC24-RM038	152.56	157.48	RC	853	159	247	694	140	326	39	160	29	87	10	22	3	16	3	8	1	8	1	1911	19	15	4
HC24-RM038	157.48	162.40	RC	870	158	245	712	150	337	38	159	28	84	11	23	3	17	3	8	1	7	1	1743	17	17	4
HC24-RM038	162.40	167.32	RC	1073	191	306	882	181	420	47	198	36	105	10	27	4	21	4	10	1	8	1	2411	18	19	6
HC24-RM038	167.32	172.24	RC	1153	206	322	947	198	453	50	210	36	113	10	29	4	22	4	12	2	9	1	2371	21	19	5

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM038	172.24	177.17	RC	1078	174	301	904	191	434	48	197	34	94	10	25	3	19	3	10	1	8	1	2046	13	20	5
HC24-RM038	177.17	182.09	RC	887	152	248	735	154	351	38	164	28	84	10	21	3	15	3	7	1	7	1	2168	14	19	5
HC24-RM038	182.09	187.01	RC	740	139	208	601	131	279	32	135	24	74	11	19	3	14	3	7	1	6	1	1959	14	17	5
HC24-RM038	187.01	191.93	RC	694	152	202	542	111	247	30	128	26	84	10	20	3	15	3	8	1	7	1	2519	16	14	5
HC24-RM038	191.93	196.85	RC	874	230	271	644	115	286	37	170	36	133	10	29	4	24	4	12	2	10	2	3228	20	13	5
HC24-RM038	196.85	201.77	RC	763	169	232	594	115	267	33	150	29	94	10	23	3	17	3	9	1	8	1	3242	19	12	5
HC24-RM038	201.77	206.69	RC	722	171	220	551	106	246	31	140	28	95	10	23	3	18	3	9	1	8	1	3485	27	11	4
HC24-RM038	206.69	211.61	RC	885	212	267	673	130	303	37	170	33	120	9	27	4	23	4	11	2	10	2	2837	26	13	5
HC24-RM038	211.61	216.54	RC	650	172	198	478	88	213	27	124	26	96	9	23	3	18	3	10	1	8	1	2283	22	13	5
HC24-RM038	216.54	221.46	RC	986	245	302	741	138	332	42	190	39	140	9	32	5	26	5	13	2	11	2	3661	34	14	5
HC24-RM038	221.46	226.38	RC	900	184	278	716	137	324	40	180	35	101	9	27	4	19	4	10	1	8	1	3580	35	14	5
HC24-RM038	226.38	231.30	RC	758	170	235	588	110	264	33	150	31	95	9	23	3	18	3	9	1	8	1	2891	27	14	5
HC24-RM038	231.30	236.22	RC	874	223	277	651	115	286	37	177	36	126	10	30	4	23	4	12	2	10	2	3391	30	9	4
HC24-RM038	236.22	241.14	RC	832	177	256	655	126	296	37	164	32	96	10	26	4	19	3	9	1	8	1	2931	31	15	5
HC24-RM038	241.14	246.06	RC	731	144	220	587	118	267	32	143	27	77	10	20	3	15	3	8	1	6	1	2499	27	13	4
HC24-RM038	246.06	250.98	RC	763	145	228	618	125	283	34	149	27	78	10	20	3	15	3	7	1	7	1	2540	28	14	4
HC24-RM038	250.98	255.91	RC	898	174	271	724	144	330	40	177	33	96	10	25	3	18	3	9	1	8	1	3242	31	14	4
HC24-RM038	255.91	260.83	RC	819	170	242	649	131	297	36	155	30	94	10	23	3	18	3	9	1	8	1	2398	24	14	4
HC24-RM038	260.83	265.75	RC	867	179	264	688	135	312	38	170	33	99	9	26	4	19	3	9	1	8	1	3336	29	16	5
HC24-RM039	0.00	4.92	RC	1029	184	294	845	178	397	48	187	35	100	8	27	4	20	4	10	1	9	1	2958	30	20	3
HC24-RM039	4.92	9.84	RC	1096	206	313	890	178	426	49	198	39	112	9	30	4	23	4	11	1	10	2	3512	36	18	3
HC24-RM039	9.84	14.76	RC	1015	205	303	810	158	375	46	193	38	112	8	30	4	22	4	12	1	10	2	3215	31	16	3
HC24-RM039	14.76	19.69	RC	945	189	282	756	150	349	43	177	37	104	8	27	4	21	4	10	1	9	1	2877	31	14	3
HC24-RM039	19.69	24.61	RC	900	198	273	702	131	322	41	174	34	109	9	28	4	20	4	11	2	9	2	2695	45	12	3
HC24-RM039	24.61	29.53	RC	737	157	215	580	115	269	33	137	26	86	9	22	3	16	3	9	1	7	1	1986	29	12	4
HC24-RM039	29.53	34.45	RC	612	122	174	490	103	228	27	112	20	65	9	16	2	13	2	7	1	6	1	1918	22	12	4
HC24-RM039	34.45	39.37	RC	725	118	199	607	132	290	33	131	21	62	9	17	2	12	2	6	1	6	1	1783	23	13	4
HC24-RM039	39.37	44.29	RC	931	145	250	786	174	380	42	163	27	77	9	21	3	15	3	8	1	7	1	1851	27	18	4
HC24-RM039	44.29	49.21	RC	819	145	229	674	142	321	37	148	26	78	8	21	3	15	3	8	1	7	1	2073	25	18	6
HC24-RM039	49.21	54.13	RC	951	164	270	787	165	372	43	176	31	88	9	24	3	17	4	9	1	8	1	2290	28	20	6
HC24-RM039	54.13	59.06	RC	833	148	229	685	147	327	37	149	25	80	9	20	3	15	3	8	1	8	1	2377	18	20	7
HC24-RM039	59.06	63.98	RC	1119	178	304	941	201	458	50	200	32	97	9	25	3	19	4	10	1	9	1	2715	25	24	7
HC24-RM039	63.98	68.90	RC	2159	234	579	1925	425	951	101	391	57	123	10	39	5	25	5	12	2	11	2	2661	27	40	8

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM039	68.90	73.82	RC	943	162	262	781	165	373	43	171	29	89	8	23	3	16	3	9	1	8	2	2310	26	22	7
HC24-RM039	73.82	78.74	RC	1025	171	281	854	181	413	46	184	30	92	8	24	3	18	4	10	1	9	2	2209	21	25	8
HC24-RM039	78.74	83.66	RC	3002	284	794	2718	597	1364	143	537	77	147	10	52	6	31	6	15	2	13	2	2810	25	54	8
HC24-RM039	83.66	88.58	RC	2334	266	639	2068	440	1024	109	430	65	138	9	47	6	29	6	14	2	13	2	2945	27	41	8
HC24-RM039	88.58	93.50	RC	1087	197	306	890	183	426	48	199	34	106	8	29	4	21	4	11	2	10	2	2418	23	25	6
HC24-RM039	93.50	98.43	RC	921	191	267	730	147	339	41	171	32	105	9	26	4	19	4	11	2	9	2	3039	30	16	6
HC24-RM039	98.43	103.35	RC	719	182	215	537	100	245	30	134	28	99	9	25	3	20	4	11	1	9	1	2073	29	14	5
HC24-RM039	103.35	108.27	RC	777	174	224	603	119	281	33	143	27	97	9	23	3	18	4	10	1	8	1	2073	26	17	6
HC24-RM039	108.27	113.19	RC	767	177	227	590	114	271	33	145	27	98	9	24	3	19	4	10	1	8	1	2587	29	18	7
HC24-RM039	113.19	118.11	RC	802	158	228	644	134	301	36	146	27	87	9	22	3	16	3	9	1	7	1	2702	28	15	5
HC24-RM039	118.11	123.03	RC	846	179	247	667	132	310	38	157	30	98	9	24	3	19	4	10	1	9	2	3728	31	14	5
HC24-RM039	123.03	127.95	RC	1015	172	287	843	178	399	46	187	33	95	9	24	3	18	4	9	1	8	1	2600	32	20	5
HC24-RM039	127.95	132.87	RC	748	153	214	595	120	280	33	136	26	84	9	21	3	16	3	8	1	7	1	1972	29	14	5
HC24-RM039	132.87	137.80	RC	849	142	230	707	155	340	38	149	25	76	8	20	3	15	3	8	1	7	1	2013	28	20	5
HC24-RM039	137.80	142.72	RC	930	165	259	765	161	365	42	167	30	91	8	24	3	17	3	9	1	8	1	2580	28	24	6
HC24-RM039	142.72	147.64	RC	920	160	260	760	161	359	41	169	30	87	9	23	3	17	3	9	1	7	1	2256	30	18	5
HC24-RM039	147.64	152.56	RC	791	154	225	637	130	301	36	144	26	87	7	21	3	16	3	8	1	7	1	1952	24	22	6
HC24-RM039	152.56	157.48	RC	1105	157	289	948	206	472	49	190	31	86	9	23	3	16	3	8	1	7	1	1736	22	26	4
HC24-RM039	157.48	162.40	RC	1101	190	294	911	194	447	48	188	34	107	8	25	4	20	4	11	1	9	1	2141	29	22	5
HC24-RM039	162.40	167.32	RC	769	148	220	621	127	292	34	142	26	79	10	21	3	15	3	8	1	7	1	2560	25	13	4
HC24-RM039	167.32	172.24	RC	996	168	273	828	178	397	45	178	30	91	10	25	3	17	3	9	1	8	1	2357	24	20	5
HC24-RM039	172.24	177.17	RC	1260	172	323	1088	243	542	56	213	34	95	9	26	3	17	3	9	1	8	1	1891	24	26	5
HC24-RM039	177.17	182.09	RC	1018	190	290	828	168	393	45	188	34	104	9	26	3	20	4	11	1	10	2	3391	24	18	5
HC24-RM039	182.09	187.01	RC	969	168	275	801	167	380	43	179	32	92	9	23	3	18	3	9	1	9	1	2438	19	17	4
HC24-RM039	187.01	191.93	RC	996	211	285	785	155	371	43	182	34	119	9	27	4	22	4	12	2	10	2	2073	24	14	4
HC24-RM039	191.93	196.85	RC	1061	205	297	856	179	405	46	191	35	116	9	26	4	21	4	12	1	10	2	2182	19	18	5
HC24-RM039	196.85	201.77	RC	870	177	251	693	139	324	38	161	31	97	9	25	3	18	4	10	1	9	1	2783	30	17	6
HC24-RM039	201.77	206.69	RC	922	197	264	725	145	341	40	167	32	112	8	25	4	21	4	11	2	9	1	2006	24	15	5
HC24-RM039	206.69	211.61	RC	857	204	261	653	121	297	38	164	33	112	9	27	4	22	4	11	2	11	2	3769	27	9	3
HC24-RM039	211.61	216.54	RC	750	157	222	593	117	274	33	141	28	84	9	22	3	17	3	9	1	8	1	2729	17	11	4
HC24-RM039	216.54	221.46	RC	657	112	182	545	120	257	29	117	22	59	8	15	2	12	2	6	1	6	1	1844	12	14	4
HC24-RM039	221.46	226.38	RC	707	134	203	573	119	269	31	129	25	74	7	18	3	15	2	7	1	6	1	1233	21	14	5
HC24-RM039	226.38	231.30	RC	883	138	246	745	162	355	40	161	27	73	9	19	3	15	3	7	1	7	1	1102	8	17	4

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM039	231.30	236.22	RC	523	125	152	398	80	181	22	96	19	68	7	17	2	13	2	7	1	7	1	2209	15	8	3
HC24-RM039	236.22	241.14	RC	733	150	205	583	121	275	32	131	24	83	8	20	3	15	3	8	1	8	1	1695	15	18	6
HC24-RM039	241.14	246.06	RC	635	141	185	494	99	227	28	117	23	78	8	19	3	14	3	7	1	7	1	1905	19	10	3
HC24-RM039	246.06	250.98	RC	619	135	179	484	97	225	26	112	24	75	7	18	3	14	2	7	1	7	1	1837	12	9	3
HC24-RM039	250.98	255.91	RC	748	138	207	610	130	291	33	132	24	75	7	18	3	15	3	7	1	8	1	1884	13	19	8
HC24-RM039	255.91	260.83	RC	441	113	130	328	63	149	18	81	17	62	6	15	2	12	2	6	1	6	1	1824	12	12	5
HC24-RM039	260.83	265.75	RC	433	100	117	333	70	158	18	72	15	57	3	12	2	10	2	6	1	6	1	958	7	35	15
HC24-RM040	0.00	4.92	RC	2582	195	700	2387	504	1211	124	478	70	95	9	40	5	23	4	9	1	8	1	1925	12	47	5
HC24-RM040	4.92	9.84	RC	1008	131	276	877	185	432	46	184	30	68	8	21	2	14	2	7	1	7	1	2067	12	18	3
HC24-RM040	9.84	14.76	RC	871	133	249	738	155	351	39	166	27	68	9	21	3	14	2	7	1	7	1	1965	14	13	3
HC24-RM040	14.76	19.69	RC	1328	160	374	1168	246	569	62	252	39	82	9	28	3	18	3	8	1	7	1	1884	18	23	4
HC24-RM040	19.69	24.61	RC	362	97	112	265	52	113	15	71	14	51	7	12	2	10	2	6	1	5	1	2087	18	4	2
HC24-RM040	24.61	29.53	RC	418	109	125	309	59	138	18	77	17	58	8	14	2	11	2	6	1	6	1	2296	15	7	3
HC24-RM040	29.53	34.45	RC	737	123	201	614	134	294	32	131	23	65	9	18	2	13	2	6	1	6	1	2580	11	13	4
HC24-RM040	34.45	39.37	RC	488	109	142	379	76	174	21	90	18	56	9	15	2	11	2	6	1	6	1	2290	15	7	3
HC24-RM040	39.37	44.29	RC	570	117	166	453	92	210	25	105	21	61	9	16	2	13	2	6	1	6	1	2148	17	9	3
HC24-RM040	44.29	49.21	RC	690	113	200	577	118	273	32	131	23	58	8	17	2	12	2	6	1	6	1	2357	13	8	2
HC24-RM040	49.21	54.13	RC	435	97	119	338	71	160	19	73	15	54	5	12	2	10	2	5	1	5	1	1621	12	24	9
HC24-RM040	54.13	59.06	RC	447	93	131	354	72	162	20	83	17	46	8	14	2	9	2	5	1	5	1	2195	15	6	2
HC24-RM040	59.06	63.98	RC	279	67	83	212	42	95	12	52	11	35	7	9	1	7	1	3	0	3	1	1972	7	2	1
HC24-RM040	63.98	68.90	RC	597	107	172	490	103	228	27	111	21	56	8	17	2	11	2	5	1	4	1	2256	4	8	2
HC24-RM040	68.90	73.82	RC	564	82	148	482	114	230	26	96	16	42	7	12	2	8	1	4	1	4	1	2648	9	12	3
HC24-RM040	73.82	78.74	RC	360	75	87	285	71	134	15	55	10	41	6	8	1	6	1	4	1	6	1	5187	8	9	4
HC24-RM040	78.74	83.66	RC	642	136	172	506	110	240	28	106	22	77	5	17	2	14	3	8	1	8	1	2107	21	24	6
HC24-RM040	83.66	88.58	RC	702	138	183	564	126	270	31	116	21	76	9	17	2	13	3	8	1	8	1	3782	12	14	9
HC24-RM040	88.58	93.50	RC	771	142	201	629	144	300	33	128	24	79	9	18	3	13	3	8	1	7	1	3445	6	16	6
HC24-RM040	93.50	98.43	RC	628	135	159	493	117	232	26	99	19	75	9	16	2	13	3	8	1	7	1	3161	9	11	5
HC24-RM040	98.43	103.35	RC	881	111	216	770	179	388	39	141	23	60	6	16	2	11	2	6	1	6	1	2587	21	34	8
HC24-RM040	103.35	108.27	RC	1048	122	242	926	225	473	46	157	25	66	7	16	2	12	2	7	1	8	1	3769	26	22	7
HC24-RM040	108.27	113.19	RC	939	212	216	727	178	355	38	134	22	130	6	18	3	19	4	14	2	14	2	2837	37	21	6
HC24-RM040	113.19	118.11	RC	1384	406	284	978	233	501	48	168	28	254	8	23	4	36	9	31	5	31	5	4093	27	27	7
HC24-RM040	118.11	123.03	RC	1522	373	341	1149	263	583	58	211	34	227	7	27	5	33	8	27	4	30	5	4323	25	34	7
HC24-RM040	123.03	127.95	RC	1921	697	378	1224	283	624	61	220	36	431	6	34	7	54	15	56	10	72	12	3661	63	38	7

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM040	127.95	132.87	RC	1970	345	459	1625	374	830	81	294	46	209	7	33	5	33	7	23	3	22	3	2695	20	44	6
HC24-RM040	132.87	137.80	RC	3169	916	661	2253	570	1117	112	394	60	577	9	55	11	84	21	71	10	68	10	4255	31	56	7
HC24-RM040	137.80	142.72	RC	2298	286	561	2012	477	1010	101	367	57	161	6	40	5	31	6	17	2	16	2	2472	23	59	8
HC24-RM040	142.72	147.64	RC	2819	440	657	2379	584	1188	119	425	63	263	8	45	7	43	10	30	4	26	4	3228	29	60	8
HC24-RM040	147.64	152.56	RC	3635	373	886	3262	801	1621	164	593	83	210	8	52	7	39	8	22	3	21	3	3296	28	86	8
HC24-RM040	152.56	157.48	RC	2350	295	558	2055	504	1027	102	367	55	170	7	36	5	29	6	19	3	17	3	2783	23	53	6
HC24-RM040	157.48	162.40	RC	2436	349	565	2087	514	1047	104	367	55	208	7	37	5	34	7	23	3	22	3	3350	18	53	6
HC24-RM040	162.40	167.32	RC	2653	449	608	2204	543	1101	110	393	57	269	8	42	6	42	10	32	5	30	5	3890	22	54	7
HC24-RM040	167.32	172.24	RC	1823	254	436	1569	358	803	79	285	44	149	7	29	4	24	5	16	2	15	3	3012	17	43	6
HC24-RM040	172.24	177.17	RC	1495	323	332	1172	271	602	58	208	33	196	8	25	4	29	7	23	3	24	4	4431	13	31	7
HC24-RM040	177.17	182.09	RC	1681	230	398	1451	337	742	73	260	39	129	9	27	4	22	5	15	2	15	2	3985	13	42	8
HC24-RM040	182.09	187.01	RC	1758	256	416	1502	344	771	75	269	43	147	7	31	4	25	5	16	2	16	3	2999	12	47	10
HC24-RM040	187.01	191.93	RC	1528	243	354	1285	297	661	64	228	35	141	8	25	4	23	5	16	2	16	3	3350	14	34	7
HC24-RM040	191.93	196.85	RC	2378	304	555	2074	514	1040	102	363	55	176	7	37	5	30	6	19	3	18	3	2702	23	49	6
HC24-RM040	196.85	201.77	RC	1389	209	321	1180	277	604	59	208	32	120	10	22	3	19	4	13	2	14	2	4093	12	30	6
HC24-RM040	201.77	206.69	RC	1474	250	331	1224	292	628	60	212	32	147	9	24	4	23	5	16	3	16	3	3282	19	27	7
HC24-RM040	206.69	211.61	RC	1588	188	368	1400	328	725	68	244	35	104	9	24	3	18	4	11	2	11	2	3174	17	33	6
HC24-RM040	211.61	216.54	RC	1127	221	250	906	215	463	45	157	26	131	7	19	3	19	5	16	2	16	3	2398	20	32	6
HC24-RM040	216.54	221.46	RC	893	204	196	689	173	341	36	119	20	123	7	17	3	18	4	14	2	14	2	2310	19	38	10
HC24-RM040	221.46	226.38	RC	878	315	186	563	143	269	28	104	19	197	4	21	4	31	7	22	3	22	4	1110	25	20	6
HC24-RM040	226.38	231.30	RC	1314	542	250	772	207	367	37	138	23	342	10	26	6	46	13	42	6	44	7	1938	27	18	5
HC24-RM040	231.30	236.22	RC	1368	604	253	764	208	362	37	133	24	384	11	27	6	53	14	48	7	47	7	2702	24	22	6
HC24-RM040	236.22	241.14	RC	1327	579	248	748	201	356	36	134	21	364	10	28	6	51	14	47	7	45	7	2452	27	24	6
HC24-RM040	241.14	246.06	RC	1171	564	209	607	162	289	30	107	19	362	8	23	5	48	13	45	7	46	7	2810	32	21	6
HC24-RM040	246.06	250.98	RC	1130	535	207	595	157	285	28	107	18	344	6	24	6	48	13	42	6	40	6	1668	23	16	5
HC24-RM040	250.98	255.91	RC	1353	317	300	1036	273	497	51	190	25	195	9	23	4	30	7	22	3	21	3	2290	21	32	5
HC24-RM040	255.91	260.83	RC	1352	439	281	913	236	441	45	166	25	276	9	25	5	40	10	33	5	31	5	2364	24	24	6
HC24-RM040	260.83	265.75	RC	1714	418	380	1296	331	629	65	240	31	257	9	28	5	39	9	31	4	31	5	2580	31	31	6
HC24-RM040	265.75	270.67	RC	1104	345	233	759	198	365	36	139	21	214	9	23	4	33	8	25	3	23	3	1871	19	25	6
HC24-RM040	270.67	275.59	RC	1409	489	287	920	245	440	45	166	24	315	9	28	6	46	11	35	5	30	4	1472	23	21	8
HC24-RM040	275.59	280.51	RC	1474	275	349	1199	301	579	60	227	32	160	9	26	4	26	6	19	3	19	3	3323	17	36	6
HC24-RM040	280.51	285.43	RC	1112	122	292	990	238	474	51	200	27	62	10	20	2	12	2	6	1	6	1	3391	1	25	5
HC24-RM040	285.43	290.35	RC	622	120	172	502	109	235	27	112	19	66	9	16	2	12	2	6	1	5	1	2702	10	10	5

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM040	290.35	295.28	RC	390	79	101	311	71	148	16	64	12	46	3	10	1	8	1	4	1	4	1	937	5	61	24
HC24-RM040	295.28	300.20	RC	964	150	255	814	190	387	42	169	26	81	9	22	3	15	3	8	1	7	1	2391	8	23	5
HC24-RM040	300.20	305.12	RC	481	99	136	382	82	176	20	88	16	52	8	13	2	10	2	5	1	5	1	1952	11	13	5
HC24-RM040	305.12	310.04	RC	658	146	195	512	103	232	28	124	25	79	9	20	3	15	3	8	1	7	1	2276	23	13	6
HC24-RM040	310.04	314.96	RC	769	161	229	608	123	276	34	148	27	87	11	22	3	17	3	8	1	8	1	2864	29	9	3
HC24-RM040	314.96	319.88	RC	513	115	149	398	82	181	22	95	18	62	7	17	2	12	2	6	1	5	1	1439	30	8	3
HC24-RM040	319.88	324.80	RC	515	121	143	394	83	182	21	90	18	66	8	16	2	12	2	7	1	6	1	1925	15	10	3
HC24-RM040	324.80	329.72	RC	354	97	105	257	50	114	14	66	13	51	7	13	2	10	2	5	1	5	1	2215	16	3	2
HC24-RM040	329.72	334.65	RC	345	93	102	252	50	111	14	64	13	49	7	12	2	9	2	5	1	5	1	2134	15	7	4
HC24-RM040	334.65	339.57	RC	371	94	111	277	56	122	16	69	14	50	7	11	2	10	2	5	1	5	1	2303	21	5	2
HC24-RM040	339.57	344.49	RC	1814	166	504	1648	380	787	89	345	47	81	10	32	4	19	3	8	1	7	1	2411	16	29	4
HC24-RM040	344.49	349.41	RC	1400	154	388	1246	281	597	67	265	36	78	8	28	3	17	3	8	1	7	1	1682	11	25	5
HC24-RM040	349.41	354.33	RC	2415	194	656	2221	511	1080	118	451	61	96	10	39	4	22	4	9	1	8	1	2485	12	43	7
HC24-RM040	354.33	359.25	RC	878	122	251	756	165	355	40	170	26	62	9	20	2	13	2	6	1	6	1	2377	17	13	3
HC24-RM040	359.25	364.17	RC	1221	150	348	1071	238	505	59	233	36	76	10	25	3	17	3	8	1	6	1	2546	16	19	3
HC24-RM041	0.00	4.92	RC	611	111	170	500	106	237	26	110	21	63	4	15	2	11	2	6	1	6	1	2958	15	18	4
HC24-RM041	4.92	9.84	RC	1356	198	375	1158	234	575	59	248	42	108	8	31	4	22	4	10	1	9	1	2661	25	33	6
HC24-RM041	9.84	14.76	RC	1750	224	489	1526	313	754	78	327	54	119	9	37	5	25	4	12	1	10	2	1059	29	39	7
HC24-RM041	14.76	19.69	RC	1927	250	535	1677	349	825	87	359	57	134	10	41	5	27	5	13	2	11	2	1986	31	46	6
HC24-RM041	19.69	24.61	RC	1884	216	514	1668	354	828	86	346	54	115	11	36	5	23	4	11	1	9	1	2485	28	42	5
HC24-RM041	24.61	29.53	RC	1102	134	279	968	215	491	48	185	29	73	5	20	3	14	3	7	1	7	1	2121	14	66	8
HC24-RM041	29.53	34.45	RC	1509	185	402	1324	280	666	67	267	44	102	7	29	4	20	4	9	1	8	1	1891	18	60	7
HC24-RM041	34.45	39.37	RC	1741	199	478	1542	327	763	79	324	49	103	10	34	4	22	4	11	1	9	1	1763	23	42	5
HC24-RM041	39.37	44.29	RC	1617	183	440	1434	307	711	73	297	46	96	10	31	4	20	3	9	1	8	1	2046	21	36	5
HC24-RM041	44.29	49.21	RC	1505	166	410	1339	286	665	68	276	44	86	9	29	4	18	3	8	1	7	1	2087	19	35	5
HC24-RM041	49.21	54.13	RC	1362	165	368	1197	258	593	62	244	40	85	10	28	4	18	3	8	1	7	1	2317	18	34	6
HC24-RM041	54.13	59.06	RC	1251	177	343	1074	226	529	55	226	38	93	10	27	4	20	4	9	1	8	1	3823	16	28	6
HC24-RM041	59.06	63.98	RC	1305	169	355	1136	243	560	58	237	38	88	11	27	4	18	3	9	1	7	1	3012	19	30	7
HC24-RM041	63.98	68.90	RC	1454	180	392	1274	271	635	64	261	43	93	11	30	4	20	3	9	1	8	1	3269	18	33	7
HC24-RM041	68.90	73.82	RC	1542	274	461	1268	246	598	70	299	55	148	9	43	6	31	6	15	2	12	2	3647	41	27	7
HC24-RM041	73.82	78.74	RC	1228	233	374	995	192	461	55	239	48	126	8	34	5	27	5	13	2	11	2	3012	35	20	7
HC24-RM041	78.74	83.66	RC	1360	262	415	1098	208	510	61	267	52	143	9	40	6	29	5	14	2	12	2	2742	39	22	7
HC24-RM041	83.66	88.58	RC	1326	271	411	1055	195	486	59	264	51	147	8	41	6	31	6	15	2	13	2	2641	42	19	7

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO3	Sc2O3	ThO2	UO2
HC24-RM041	88.58	93.50	RC	1214	232	369	982	186	457	55	239	45	126	8	36	5	25	5	13	1	11	2	2587	38	19	7
HC24-RM041	93.50	98.43	RC	1161	218	349	943	182	442	53	224	42	117	9	33	5	25	4	12	1	10	2	2600	28	20	5
HC24-RM041	98.43	103.35	RC	1047	203	317	844	164	389	46	206	39	111	9	30	4	22	4	11	1	10	1	2999	31	18	5
HC24-RM041	103.35	108.27	RC	1020	205	305	815	158	378	45	195	39	112	9	30	4	22	4	11	1	10	2	4471	30	20	6
HC24-RM041	108.27	113.19	RC	1076	208	321	868	166	407	48	207	40	114	9	31	4	22	4	11	1	10	2	4377	31	20	6
HC24-RM041	113.19	118.11	RC	1229	238	378	991	188	458	54	244	47	128	9	35	5	28	5	13	2	11	2	4174	37	19	5
HC24-RM041	118.11	123.03	RC	1523	309	483	1214	218	555	69	310	62	169	9	49	7	35	6	16	2	14	2	4201	54	19	6
HC24-RM041	123.03	127.95	RC	1605	307	497	1298	239	604	73	321	61	167	8	49	7	35	6	17	2	14	2	3134	49	21	6
HC24-RM041	127.95	132.87	RC	1571	301	496	1270	230	585	71	321	63	161	9	49	7	34	6	17	2	14	2	3404	52	20	5
HC24-RM041	132.87	137.80	RC	1807	310	558	1497	281	701	83	365	67	166	9	51	7	36	6	17	2	14	2	3012	51	27	5
HC24-RM041	137.80	142.72	RC	1297	238	389	1059	203	499	58	253	46	128	9	37	5	27	5	13	2	10	2	3296	38	21	5
HC24-RM041	142.72	147.64	RC	1355	260	420	1095	202	507	62	271	53	142	8	40	6	28	5	15	2	12	2	3174	44	28	6
HC24-RM041	147.64	152.56	RC	1268	245	388	1023	192	477	57	250	47	131	8	38	6	28	5	14	2	11	2	3418	41	20	6
HC24-RM041	152.56	157.48	RC	1490	265	450	1225	235	576	67	292	55	141	10	42	6	30	5	15	2	12	2	3039	45	22	5
HC24-RM041	157.48	162.40	RC	1518	252	457	1266	247	595	71	299	54	135	10	40	5	28	5	14	2	11	2	2972	40	26	5
HC24-RM041	162.40	167.32	RC	1578	265	475	1313	256	619	72	309	57	142	10	41	6	31	5	14	2	12	2	2627	40	26	5
HC24-RM041	167.32	172.24	RC	1468	240	437	1228	242	581	67	285	53	127	10	38	5	27	5	13	2	11	2	1493	32	26	5
HC24-RM041	172.24	177.17	RC	1594	243	470	1351	273	641	74	307	56	130	10	38	6	27	5	12	2	11	2	2236	33	31	5
HC24-RM041	177.17	182.09	RC	1425	214	405	1211	250	585	66	264	46	113	10	35	5	24	4	11	1	10	1	2472	26	29	5
HC24-RM041	182.09	187.01	RC	1037	149	284	888	192	431	47	187	31	78	10	22	3	16	3	8	1	7	1	2627	17	23	4
HC24-RM041	187.01	191.93	RC	1235	204	362	1031	207	488	55	236	45	111	10	31	4	22	4	11	1	9	1	1905	24	22	4
HC24-RM041	191.93	196.85	RC	1567	243	451	1324	271	635	71	294	53	130	8	38	5	28	5	14	2	11	2	2567	28	31	5
HC24-RM041	196.85	201.77	RC	1690	229	494	1461	300	698	78	327	58	120	10	39	5	26	4	12	1	10	2	2175	26	34	5
HC24-RM041	201.77	206.69	RC	629	124	182	505	100	238	27	117	23	69	7	17	2	13	2	6	1	6	1	2627	20	26	8
HC24-RM041	206.69	211.61	RC	1078	194	316	884	174	419	48	204	39	105	8	29	4	21	4	11	1	9	2	2317	32	25	6
HC24-RM041	211.61	216.54	RC	2059	291	560	1768	387	860	92	366	63	159	9	44	6	33	6	16	2	14	2	2438	23	42	6
HC24-RM041	216.54	221.46	RC	2731	368	733	2363	514	1165	123	481	80	208	10	54	8	41	7	20	2	16	2	2519	28	46	7
HC24-RM041	221.46	226.38	RC	1462	209	425	1253	258	599	68	280	48	109	10	35	5	24	4	11	1	9	1	2810	27	31	5
HC24-RM041	226.38	231.30	RC	1016	188	309	828	158	386	46	200	38	101	9	29	4	21	4	10	1	8	1	2411	25	20	5
HC24-RM041	231.30	236.22	RC	1116	204	333	912	178	429	49	215	41	109	10	31	5	23	4	11	1	9	1	2918	28	20	5
HC24-RM041	236.22	241.14	RC	1453	230	426	1223	235	592	66	280	50	120	9	38	5	25	5	13	2	11	2	2904	31	24	5
HC24-RM041	241.14	246.06	RC	1740	213	491	1527	317	748	81	327	54	108	11	37	5	24	4	11	1	10	2	2236	22	38	6
HC24-RM041	246.06	250.98	RC	1527	221	444	1306	257	634	71	293	51	114	10	37	5	24	4	12	2	11	2	2729	32	29	5

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM041	250.98	255.91	RC	846	161	252	685	137	316	38	163	31	87	8	24	3	17	3	9	1	8	1	2904	33	17	6
HC24-RM041	255.91	260.83	RC	641	137	189	504	101	231	28	121	23	76	6	18	3	14	3	8	1	7	1	2236	26	26	10
HC24-RM041	260.83	265.75	RC	1256	215	350	1041	213	506	55	226	41	117	8	31	5	23	4	12	2	11	2	2729	30	21	4
HC24-RM041	265.75	270.67	RC	1192	196	346	996	196	479	54	225	42	105	8	30	4	21	4	11	1	10	2	2891	31	25	6
HC24-RM041	270.67	275.59	RC	729	150	224	579	111	264	33	142	29	80	7	22	3	17	3	8	1	8	1	2290	22	12	4
HC24-RM041	275.59	280.51	RC	718	135	215	583	118	267	33	139	26	71	8	20	3	14	3	7	1	7	1	2344	22	13	4
HC24-RM041	280.51	285.43	RC	622	134	186	488	96	223	28	118	23	72	7	19	3	14	3	7	1	7	1	2310	22	12	4
HC24-RM041	285.43	290.35	RC	514	112	154	402	80	182	23	97	20	60	7	15	2	12	2	6	1	6	1	2458	18	9	3
HC24-RM041	290.35	295.28	RC	385	102	118	283	53	125	16	73	16	53	7	13	2	11	2	6	1	6	1	2357	16	3	2
HC24-RM041	295.28	300.20	RC	657	137	198	520	103	236	29	127	25	73	8	20	3	14	3	7	1	7	1	2641	28	12	4
HC24-RM041	300.20	305.12	RC	612	127	183	485	97	221	28	117	22	67	8	18	3	13	2	7	1	7	1	2195	24	12	4
HC24-RM041	305.12	310.04	RC	615	126	181	489	99	224	27	116	23	67	8	18	2	13	2	7	1	7	1	2182	21	12	4
HC24-RM041	310.04	314.96	RC	443	100	131	343	69	155	19	83	17	53	7	13	2	10	2	6	1	5	1	2188	17	7	3
HC24-RM041	314.96	319.88	RC	781	160	234	621	122	285	35	150	29	87	8	22	3	17	3	9	1	9	1	2931	30	14	4
HC24-RM041	319.88	324.80	RC	585	119	177	466	92	211	27	114	22	62	9	17	2	12	2	7	1	6	1	2019	21	9	3
HC24-RM041	324.80	329.72	RC	597	131	182	466	90	211	27	115	23	68	8	18	3	14	3	8	1	7	1	2283	17	8	3
HC24-RM041	329.72	334.65	RC	623	132	185	491	98	225	28	118	22	71	7	18	3	14	3	7	1	7	1	2080	20	13	5
HC24-RM041	334.65	339.57	RC	579	137	176	442	85	198	25	111	23	74	7	18	3	14	3	8	1	8	1	2107	19	10	3
HC24-RM041	339.57	344.49	RC	444	110	137	334	63	148	19	86	18	59	7	15	2	12	2	6	1	5	1	2168	18	4	2
HC24-RM041	344.49	349.41	RC	527	119	163	408	78	183	23	102	22	62	7	17	3	13	2	7	1	6	1	2168	16	7	3
HC24-RM041	349.41	354.33	RC	431	110	135	321	59	141	19	83	19	58	7	15	2	12	2	6	1	6	1	2290	17	3	2
HC24-RM041	354.33	359.25	RC	503	118	152	385	74	173	22	96	20	63	7	17	2	12	2	7	1	6	1	2141	16	5	2
HC24-RM041	359.25	364.17	RC	600	144	184	456	85	205	27	115	24	78	7	20	3	15	3	8	1	8	1	2364	21	8	3
HC24-RM041	0.00	4.92	RC	611	111	170	500	106	237	26	110	21	63	4	15	2	11	2	6	1	6	1	1112	15	18	4
HC24-RM041	4.92	9.84	RC	1356	198	375	1158	234	575	59	248	42	108	8	31	4	22	4	10	1	9	1	2317	25	33	6
HC24-RM041	9.84	14.76	RC	1750	224	489	1526	313	754	78	327	54	119	9	37	5	25	4	12	1	10	2	2972	29	39	7
HC24-RM042	6.56	16.40	HQ	280	52	75	228	55	104	13	48	8	27	5	7	1	5	1	3	0	3	0	604	8	7	5
HC24-RM042	16.40	25.00	HQ	377	69	101	308	72	143	16	65	12	38	5	9	1	7	1	4	0	3	1	774	10	9	3
HC24-RM042	25.00	30.94	HQ	747	122	203	625	145	292	33	132	23	68	5	17	2	13	2	7	1	6	1	1050	10	21	5
HC24-RM042	30.94	36.09	HQ	772	140	209	632	144	297	34	132	25	77	5	20	3	15	3	8	1	7	1	1181	10	22	4
HC24-RM042	36.09	45.93	HQ	477	63	125	414	98	199	22	81	14	34	4	10	1	7	1	3	0	3	0	562	7	15	3
HC24-RM042	45.93	55.77	HQ	815	94	216	721	172	346	37	145	21	48	4	16	2	11	2	5	1	4	1	525	8	27	4
HC24-RM042	55.77	66.17	HQ	348	62	92	286	67	135	15	59	10	32	5	8	1	7	1	4	0	3	1	766	8	9	4

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM042	66.17	75.46	HQ	421	121	126	300	59	131	17	77	16	64	7	15	2	14	2	7	1	8	1	2681	22	5	4
HC24-RM042	75.46	85.30	HQ	370	106	108	264	53	116	15	65	15	57	7	13	2	11	2	6	1	6	1	2398	17	3	2
HC24-RM042	85.30	95.14	HQ	433	117	127	316	64	141	18	77	16	62	8	14	2	14	2	7	1	6	1	2499	19	6	3
HC24-RM042	95.14	101.94	HQ	412	115	122	297	59	131	17	74	16	61	7	16	2	13	2	6	1	6	1	2431	22	4	2
HC24-RM042	101.94	104.99	HQ	420	92	116	328	72	152	18	72	14	48	6	12	2	10	2	5	1	5	1	940	12	10	3
HC24-RM042	104.99	114.83	HQ	507	84	136	423	98	200	23	87	15	43	5	12	2	9	2	5	1	4	1	643	9	14	3
HC24-RM042	114.83	125.98	HQ	686	79	180	607	143	295	33	117	19	40	3	15	2	9	1	4	1	3	1	592	6	27	4
HC24-RM042	125.98	129.95	HQ	872	88	230	784	186	381	41	152	24	43	3	18	2	11	2	4	1	3	1	455	6	25	4
HC24-RM042	129.95	134.51	HQ	792	81	211	711	171	341	39	139	21	41	3	16	2	10	2	4	0	3	0	440	5	24	5
HC24-RM042	134.51	144.36	HQ	718	73	189	645	152	314	34	126	19	37	3	15	2	8	1	3	1	3	0	426	7	23	4
HC24-RM042	144.36	154.20	HQ	949	101	248	848	195	419	45	164	25	52	4	18	2	12	2	5	1	4	1	632	7	29	5
HC24-RM042	154.20	164.04	HQ	812	75	211	737	171	366	39	140	21	37	3	14	2	9	1	4	1	3	1	398	6	26	4
HC24-RM043	6.56	20.47	HQ	237	73	66	164	33	73	10	39	9	40	4	9	1	7	2	4	1	4	1	1063	31	29	4
HC24-RM043	20.47	28.15	HQ	255	103	76	152	25	64	9	42	12	55	8	12	2	11	2	6	1	5	1	2060	42	3	2
HC24-RM043	28.15	36.09	HQ	248	106	76	142	22	57	9	42	12	57	8	13	2	11	2	6	1	5	1	2350	25	2	2
HC24-RM043	36.09	45.93	HQ	309	115	93	194	33	82	12	53	14	63	8	14	2	12	2	6	1	6	1	2182	27	3	2
HC24-RM043	45.93	55.77	HQ	254	104	77	150	24	62	9	43	12	57	7	12	2	11	2	6	1	5	1	2094	25	6	5
HC24-RM043	55.77	65.62	HQ	1652	226	477	1426	297	683	80	315	51	115	11	38	5	26	5	12	2	10	2	2431	22	23	4
HC24-RM043	65.62	75.46	HQ	5505	548	1540	4957	1114	2383	269	1036	155	276	18	105	13	67	12	29	4	21	3	3539	12	83	9
HC24-RM043	75.46	85.30	HQ	458	139	139	319	57	141	19	83	19	73	9	19	3	15	3	8	1	7	1	2330	20	5	2
HC24-RM043	85.30	95.14	HQ	751	149	218	602	123	280	34	139	26	78	9	23	3	16	3	8	1	7	1	2384	21	10	2
HC24-RM043	95.14	102.76	HQ	466	122	138	344	67	154	20	85	18	65	8	16	2	13	3	7	1	6	1	2161	21	6	2
HC24-RM043	102.76	108.27	HQ	1299	217	378	1082	219	515	61	244	43	114	9	35	5	25	5	11	2	9	2	2283	21	17	3
HC24-RM043	108.27	114.83	HQ	334	93	98	241	48	107	14	59	13	46	9	12	2	10	2	5	1	5	1	1736	16	4	2
HC24-RM043	114.83	124.67	HQ	248	72	69	176	37	78	10	42	9	37	8	8	1	7	1	4	1	4	1	790	12	5	3
HC24-RM043	124.67	134.51	HQ	243	66	66	177	39	79	10	40	9	33	8	8	1	6	1	4	1	3	1	973	9	5	3
HC24-RM043	134.51	144.36	HQ	214	63	58	151	32	68	8	35	8	33	7	7	1	6	1	3	1	3	1	927	10	4	3
HC24-RM043	144.36	154.20	HQ	316	78	87	238	52	108	13	54	11	41	7	9	1	8	2	4	1	4	1	828	11	10	5
HC24-RM043	154.20	156.17	HQ	174	51	48	123	27	54	7	29	6	24	8	6	1	5	1	3	0	3	0	805	10	2	2
HC24-RM043	156.17	156.66	HQ	565	128	147	437	98	207	24	91	17	75	5	14	2	13	3	7	1	7	1	602	9	30	11
HC24-RM043	156.66	164.04	HQ	188	54	51	134	30	59	7	31	7	26	8	6	1	5	1	3	0	3	1	648	12	3	2
HC24-RM043	164.04	173.88	HQ	212	57	58	155	34	69	9	36	7	28	8	7	1	5	1	3	0	3	1	774	17	3	2
HC24-RM043	173.88	183.73	HQ	204	55	55	149	33	67	8	34	7	27	8	6	1	5	1	3	0	3	1	905	11	3	2

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM043	183.73	193.57	HQ	195	52	53	143	32	64	8	32	7	24	8	6	1	5	1	3	0	3	1	850	10	3	2
HC24-RM043	193.57	203.41	HQ	403	90	114	313	66	144	18	71	14	45	9	11	2	9	2	5	1	5	1	1232	14	6	3
HC24-RM043	203.41	213.25	HQ	556	125	163	431	88	196	24	103	20	66	8	17	2	14	3	7	1	6	1	2290	19	8	3
HC24-RM043	213.25	223.10	HQ	556	133	168	423	82	190	25	104	22	71	8	18	3	14	3	7	1	7	1	2256	21	8	3
HC24-RM043	223.10	232.94	HQ	890	168	266	722	144	335	41	171	31	86	10	26	4	19	4	9	1	8	1	2702	17	14	4
HC24-RM043	232.94	242.78	HQ	375	105	116	270	49	118	16	71	16	55	8	14	2	11	2	6	1	5	1	2256	25	3	2
HC24-RM043	242.78	244.42	HQ	593	123	173	470	96	216	27	110	21	65	9	17	2	13	3	6	1	6	1	2256	18	9	3
HC24-RM043	244.42	247.21	HQ	724	142	218	582	114	269	34	138	27	76	5	22	3	16	3	8	1	7	1	865	27	11	3
HC24-RM043	247.21	252.62	HQ	753	175	223	578	114	264	33	139	28	94	9	24	4	19	4	10	1	9	1	2290	17	17	7
HC24-RM043	252.62	262.47	HQ	2745	339	772	2406	535	1147	130	512	82	175	12	62	8	40	7	17	2	14	2	3066	16	42	6
HC24-RM043	262.47	272.31	HQ	1661	260	481	1401	279	676	76	315	55	138	12	42	6	29	5	13	2	11	2	2864	21	22	4
HC24-RM043	272.31	282.15	HQ	1218	242	366	976	184	458	55	233	46	130	12	37	5	27	5	12	2	10	2	3296	21	17	5
HC24-RM043	282.15	284.71	HQ	741	157	216	584	118	270	33	137	26	87	9	21	3	17	3	8	1	7	1	2553	25	12	4
HC24-RM043	284.71	291.73	HQ	704	113	200	591	126	279	33	131	22	62	5	17	2	12	2	6	1	5	1	453	43	12	2
HC24-RM043	291.73	298.56	HQ	398	107	119	291	55	129	17	74	16	58	8	13	2	10	2	6	1	6	1	2256	33	5	2
HC24-RM043	298.56	301.74	HQ	333	102	95	231	45	103	13	58	12	56	7	11	2	10	2	6	1	6	1	2080	38	15	10
HC24-RM043	301.74	302.76	HQ	172	90	37	82	16	37	5	18	6	61	1	6	1	7	2	5	1	5	1	134	5	31	17
HC24-RM043	302.76	304.76	HQ	295	61	73	234	54	114	12	45	9	38	1	7	1	6	1	3	0	3	1	247	7	50	15
HC24-RM043	304.76	309.45	HQ	1521	276	452	1245	236	593	70	290	56	146	15	43	6	30	6	14	2	12	2	2769	24	20	9
HC24-RM043	309.45	310.10	HQ	1051	189	285	862	182	419	46	183	32	109	4	26	4	20	4	10	2	9	1	912	13	51	15
HC24-RM043	310.10	312.01	HQ	2276	441	711	1835	331	852	107	456	89	240	16	70	10	49	9	23	3	18	3	4498	36	22	7
HC24-RM043	312.01	312.93	HQ	417	70	109	347	80	166	19	69	13	40	2	9	1	7	1	4	1	4	1	600	11	50	16
HC24-RM043	312.93	317.42	HQ	4960	522	1413	4438	1000	2101	243	939	155	269	12	102	13	63	11	25	3	21	3	2958	25	84	9
HC24-RM043	317.42	322.64	HQ	381	86	111	295	59	136	17	70	13	48	4	11	2	9	2	4	1	4	1	400	47	6	2
HC24-RM043	322.64	331.36	HQ	931	155	274	776	161	361	43	178	33	81	9	25	3	17	3	8	1	7	1	1959	15	14	3
HC24-RM043	331.36	340.88	HQ	1640	207	457	1433	304	700	77	302	50	108	11	35	5	23	4	10	1	9	1	2242	15	28	5
HC24-RM043	340.88	343.44	HQ	392	73	99	319	76	152	17	63	11	41	5	8	1	7	1	4	1	4	1	2019	31	14	3
HC24-RM043	343.44	351.05	HQ	1023	153	290	870	181	419	47	190	33	79	9	25	3	17	3	8	1	7	1	2485	19	16	3
HC24-RM043	351.05	360.89	HQ	1106	148	317	958	201	459	52	209	37	78	8	24	3	16	3	7	1	7	1	2182	21	19	4
HC24-RM043	360.89	370.73	HQ	384	101	119	283	53	124	16	74	16	54	7	13	2	11	2	5	1	5	1	2391	25	5	2
HC24-RM043	370.73	380.58	HQ	1009	158	289	851	175	407	47	190	32	84	8	26	3	17	3	8	1	7	1	2519	22	16	3
HC24-RM043	380.58	390.42	HQ	324	90	99	234	44	102	14	61	13	47	7	11	2	9	2	5	1	5	1	2364	21	3	2
HC24-RM043	390.42	400.26	HQ	1837	332	553	1505	291	705	83	359	67	184	10	52	7	37	7	17	2	14	2	6497	20	25	6

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM043	400.26	400.75	HQ	1866	440	599	1426	238	650	81	376	81	241	10	70	10	51	10	23	3	19	3	5025	26	20	5
HC24-RM043	400.75	410.11	HQ	1565	332	479	1233	228	571	70	301	63	182	11	51	7	38	7	17	2	15	2	4282	17	24	6
HC24-RM043	410.11	416.77	HQ	1555	251	441	1304	267	630	72	283	52	134	10	40	6	28	5	13	2	11	2	3242	11	33	6
HC24-RM043	416.77	426.51	HQ	568	141	172	427	81	192	25	106	23	76	8	19	3	15	3	8	1	7	1	2411	19	9	4
HC24-RM043	426.51	436.35	HQ	374	99	115	275	52	120	16	72	15	54	7	12	2	10	2	5	1	5	1	2594	25	4	2
HC24-RM043	436.35	446.19	HQ	346	94	104	252	48	111	15	64	14	50	7	12	2	9	2	5	1	5	1	2229	19	7	3
HC24-RM043	446.19	456.04	HQ	401	94	119	307	61	138	17	76	15	50	7	12	2	9	2	5	1	5	1	2269	20	5	2
HC24-RM043	456.04	465.88	HQ	413	107	124	306	59	136	18	77	16	58	8	13	2	11	2	6	1	5	1	2485	20	5	2
HC24-RM043	465.88	475.72	HQ	375	94	111	281	56	125	16	70	14	50	7	12	2	9	2	5	1	5	1	2323	20	4	2
HC24-RM043	475.72	478.02	HQ	352	96	108	256	47	112	15	67	15	51	8	12	2	9	2	5	1	5	1	2472	22	3	2
HC24-RM043	478.02	479.33	HQ	555	137	156	418	87	192	23	95	21	80	5	16	2	15	2	8	1	7	1	1067	11	42	14
HC24-RM043	479.33	482.28	HQ	833	217	248	616	121	275	36	154	30	122	9	30	4	24	4	11	2	10	1	2263	23	14	7
HC24-RM043	482.28	492.13	HQ	1008	211	300	797	162	362	46	191	36	115	11	31	4	23	4	11	1	10	1	3026	17	13	3
HC24-RM044	0.00	9.84	HQ	4438	416	1220	4022	908	1953	215	823	123	206	13	88	10	49	8	21	2	16	3	3161	29	82	10
HC24-RM044	9.84	16.40	HQ	3395	304	923	3091	710	1499	164	623	95	153	12	61	7	34	6	15	2	12	2	2209	21	65	8
HC24-RM044	16.40	26.25	HQ	3783	325	1004	3458	786	1714	178	682	98	157	12	70	8	38	6	16	2	14	2	2168	21	74	8
HC24-RM044	26.25	36.09	HQ	3576	309	961	3267	751	1597	173	649	97	152	13	64	7	35	6	16	2	12	2	2107	21	71	7
HC24-RM044	36.09	45.93	HQ	3423	320	927	3103	708	1511	164	630	90	158	12	67	7	36	6	16	2	14	2	2121	23	67	7
HC24-RM044	45.93	55.77	HQ	4267	337	1134	3930	896	1947	208	771	108	163	13	74	8	39	6	16	2	14	2	2540	22	89	9
HC24-RM044	55.77	65.62	HQ	3559	334	960	3225	739	1572	172	647	95	165	13	69	8	38	6	17	2	14	2	2215	20	72	9
HC24-RM044	65.62	66.73	HQ	3537	314	953	3223	741	1572	171	646	93	159	11	62	7	36	6	16	2	13	2	2046	19	80	8
HC24-RM044	66.73	68.11	HQ	583	97	143	486	118	236	25	92	15	57	2	13	2	9	2	5	1	5	1	450	5	64	15
HC24-RM044	68.11	75.46	HQ	3811	315	1028	3496	822	1689	184	701	100	156	12	65	7	36	6	15	2	14	2	2249	20	84	8
HC24-RM044	75.46	85.30	HQ	3386	313	923	3073	708	1486	164	625	90	155	12	63	7	37	6	16	2	13	2	2019	20	69	7
HC24-RM044	85.30	95.14	HQ	4010	359	1088	3651	855	1757	193	741	105	182	12	73	9	40	7	17	2	15	2	2458	21	82	8
HC24-RM044	95.14	104.99	HQ	3496	331	936	3165	739	1535	167	633	91	166	12	67	8	37	6	17	2	14	2	2411	20	75	11
HC24-RM044	104.99	114.83	HQ	3586	328	956	3258	761	1585	170	645	97	168	12	64	7	37	6	16	2	14	2	2209	21	71	9
HC24-RM044	114.83	124.67	HQ	3810	335	1011	3475	803	1707	183	682	100	168	12	69	8	38	6	16	2	14	2	2357	22	77	7
HC24-RM044	124.67	134.51	HQ	3662	304	967	3358	799	1634	175	656	94	149	12	63	7	35	6	15	2	13	2	1979	19	74	7
HC24-RM044	134.51	144.36	HQ	3426	289	918	3137	741	1517	166	624	89	144	12	59	7	32	5	14	2	12	2	1945	18	69	7
HC24-RM044	144.36	154.20	HQ	3373	302	898	3071	710	1505	159	609	88	150	12	61	7	35	6	14	2	13	2	1830	19	66	6
HC24-RM044	154.20	164.04	HQ	3688	305	981	3383	797	1646	178	664	98	150	13	62	7	34	6	16	2	13	2	2168	18	73	7
HC24-RM044	164.04	173.88	HQ	3719	308	978	3411	786	1689	178	663	95	150	13	65	7	35	6	15	2	13	2	2080	20	74	9

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM044	173.88	183.73	HQ	3301	294	886	3007	688	1474	159	596	90	145	12	60	7	34	6	14	2	12	2	2148	19	67	8
HC24-RM044	183.73	193.57	HQ	3201	280	863	2921	679	1419	152	584	87	135	12	58	7	33	5	14	2	12	2	1722	17	66	7
HC24-RM044	193.57	203.41	HQ	3259	314	868	2945	676	1443	152	583	91	159	12	61	7	35	6	16	2	14	2	1959	20	60	6
HC24-RM044	203.41	213.25	HQ	3801	332	1032	3469	799	1683	187	698	102	164	13	70	7	38	6	17	2	13	2	2303	20	74	8
HC24-RM044	213.25	221.69	HQ	3478	309	935	3169	734	1542	165	635	93	152	12	65	7	35	6	15	2	13	2	2161	21	68	7
HC24-RM044	221.69	232.94	HQ	4176	368	1114	3808	878	1867	200	751	112	182	13	78	9	42	7	19	2	14	2	2661	25	81	8
HC24-RM044	232.94	242.78	HQ	4131	336	1106	3795	868	1867	198	751	111	168	12	71	8	38	6	16	2	13	2	2512	24	80	7
HC24-RM044	242.78	251.51	HQ	3820	368	1043	3452	795	1664	184	702	107	183	13	76	9	41	7	19	2	16	2	2756	21	72	7
HC24-RM044	251.51	262.47	HQ	3557	316	945	3241	742	1597	170	642	90	156	13	65	7	36	6	16	2	13	2	1986	17	68	7
HC24-RM044	262.47	272.31	HQ	3666	313	980	3353	776	1640	175	664	98	153	12	66	7	36	6	16	2	13	2	1999	19	70	10
HC24-RM044	272.31	282.15	HQ	3741	337	1026	3404	774	1652	182	695	101	165	12	70	8	40	7	17	2	14	2	2411	22	73	9
HC24-RM044	282.15	291.99	HQ	3717	333	1016	3384	763	1652	181	688	100	163	13	68	8	39	7	17	2	14	2	2107	18	71	9
HC24-RM044	291.99	301.84	HQ	3635	299	995	3336	749	1634	179	678	96	145	12	63	7	35	6	15	2	12	2	1905	20	69	7
HC24-RM044	301.84	311.68	HQ	3763	319	1024	3444	781	1683	184	698	98	159	12	66	8	36	6	15	2	13	2	2121	19	70	7
HC24-RM044	311.68	321.52	HQ	3640	311	993	3329	766	1615	178	672	98	151	12	65	8	37	6	15	2	13	2	2114	18	72	9
HC24-RM044	321.52	322.11	HQ	2106	243	579	1863	403	913	101	387	59	125	9	44	5	27	5	13	2	11	2	1513	16	47	13
HC24-RM044	322.11	323.46	HQ	660	90	177	570	126	278	31	117	18	50	2	13	2	9	2	5	1	5	1	423	4	78	24
HC24-RM044	323.46	331.36	HQ	3101	267	839	2834	632	1400	151	569	82	132	12	54	6	31	5	13	2	10	2	1743	14	60	9
HC24-RM044	331.36	341.21	HQ	3313	288	900	3025	686	1480	162	609	88	144	12	56	7	34	6	14	2	11	2	1803	16	66	8
HC24-RM044	341.21	351.05	HQ	3398	302	927	3096	694	1517	169	626	90	152	12	59	7	35	6	15	2	12	2	2067	17	64	7
HC24-RM044	351.05	360.89	HQ	3794	332	1029	3462	780	1701	187	695	99	163	13	67	8	40	7	17	2	13	2	2155	19	72	7
HC24-RM044	360.89	370.73	HQ	3845	330	1049	3515	799	1714	190	707	105	163	12	69	8	39	6	16	2	13	2	2209	21	71	7
HC24-RM044	370.73	372.54	HQ	3273	296	889	2977	673	1456	161	598	89	147	11	60	7	34	6	15	2	12	2	1891	18	67	10
HC24-RM044	372.54	373.59	HQ	984	135	268	849	188	412	47	174	28	73	3	21	3	16	3	7	1	7	1	624	6	56	14
HC24-RM044	373.59	380.58	HQ	3681	300	992	3381	773	1658	180	675	95	147	12	62	7	35	6	15	2	12	2	1905	17	70	8
HC24-RM044	380.58	390.42	HQ	3505	294	951	3211	724	1578	172	647	90	143	12	61	7	35	6	14	2	12	2	1878	14	67	7
HC24-RM044	390.42	400.26	HQ	3405	291	923	3114	698	1535	166	625	90	141	12	60	7	35	6	15	2	11	2	1925	17	64	7
HC24-RM044	400.26	410.11	HQ	3345	303	913	3042	686	1486	164	615	91	150	12	62	7	36	6	14	2	12	2	1979	20	63	7
HC24-RM044	410.11	419.95	HQ	3484	306	950	3178	722	1548	171	643	94	152	13	62	7	35	6	15	2	12	2	2040	17	65	7
HC24-RM044	419.95	429.79	HQ	4740	409	1298	4331	973	2119	232	877	130	201	14	83	10	49	8	21	3	17	3	2587	24	87	8
HC24-RM044	429.79	439.63	HQ	3844	345	1054	3499	792	1701	188	713	105	172	13	70	8	40	7	17	2	14	2	2567	20	70	7
HC24-RM044	439.63	449.48	HQ	3568	310	966	3258	733	1603	174	653	95	155	12	62	7	37	6	15	2	12	2	1959	14	64	6
HC24-RM044	449.48	459.32	HQ	3300	282	888	3018	684	1486	163	597	88	139	12	58	7	33	5	13	2	11	2	1803	17	63	6

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM044	459.32	462.60	HQ	3137	311	868	2826	632	1370	153	581	90	155	12	61	7	37	6	16	2	13	2	2134	16	58	10
HC24-RM044	462.60	466.80	HQ	292	71	74	221	49	106	12	45	9	43	1	8	1	7	1	4	1	4	1	173	3	44	14
HC24-RM044	466.80	469.16	HQ	3975	343	1083	3632	823	1775	196	732	106	171	13	69	8	41	7	17	2	13	2	2479	21	76	12
HC24-RM044	469.16	479.00	HQ	3776	350	1041	3426	759	1677	185	703	102	170	13	73	8	43	7	18	2	14	2	2560	20	73	8
HC24-RM044	479.00	488.85	HQ	4120	395	1135	3725	846	1800	201	764	114	199	13	78	9	47	8	20	2	16	3	3120	21	76	9
HC24-RM044	488.85	498.69	HQ	4034	351	1105	3683	841	1787	199	748	108	175	13	70	8	42	7	18	2	14	2	2479	18	76	8
HC24-RM044	498.69	508.53	HQ	3951	363	1088	3588	802	1750	193	734	109	183	12	72	9	43	7	18	2	15	2	3012	21	73	8
HC24-RM044	508.53	518.37	HQ	3939	376	1076	3563	797	1744	196	720	106	185	13	76	9	45	8	19	2	16	3	2958	20	76	9
HC24-RM044	518.37	528.22	HQ	4004	372	1102	3632	807	1775	197	743	110	187	13	74	9	43	7	19	2	16	2	2837	21	73	9
HC24-RM044	528.22	538.06	HQ	4009	379	1098	3630	829	1757	198	735	111	185	13	79	9	45	8	19	2	16	3	2648	16	79	10
HC24-RM044	538.06	547.90	HQ	4089	401	1126	3688	840	1781	200	753	114	192	13	85	10	49	8	20	3	18	3	2823	20	80	10
HC24-RM044	547.90	550.79	HQ	4170	405	1138	3765	861	1824	203	762	115	199	13	84	10	48	8	20	3	17	3	2850	20	77	10
HC24-RM044	550.79	551.25	HQ	944	191	257	753	164	357	42	160	30	108	3	27	4	21	4	11	2	10	1	686	6	89	33
HC24-RM044	551.25	557.74	HQ	3791	435	1062	3356	744	1615	184	701	112	213	13	87	11	54	9	23	3	19	3	3161	20	71	9
HC24-RM044	557.74	567.59	HQ	4140	443	1135	3697	833	1793	198	753	120	218	13	92	11	53	9	22	3	19	3	3039	22	77	9
HC24-RM044	567.59	574.15	HQ	4113	435	1147	3678	831	1763	199	765	120	214	13	90	11	52	9	22	3	18	3	3107	22	76	10
HC24-RM045	0.00	13.12	HQ	1713	456	557	1257	222	542	77	341	75	243	13	75	10	54	10	25	3	20	3	2904	29	19	4
HC24-RM045	13.12	19.85	HQ	2376	491	718	1885	355	881	108	454	87	267	13	79	11	58	10	27	3	20	3	3688	22	30	6
HC24-RM045	19.85	20.28	HQ	2011	336	538	1675	372	810	90	345	58	188	8	50	7	38	7	19	2	15	2	1607	23	38	7
HC24-RM045	20.28	26.25	HQ	2719	493	796	2226	447	1053	124	507	95	262	13	84	11	59	10	27	3	21	3	2756	21	37	7
HC24-RM045	26.25	32.28	HQ	2005	415	593	1590	311	744	91	370	74	222	12	66	9	49	9	23	3	19	3	1803	19	28	6
HC24-RM045	32.28	36.09	HQ	3296	577	972	2719	551	1278	156	621	113	312	12	97	13	69	12	31	4	24	3	4431	17	43	8
HC24-RM045	36.09	45.93	HQ	2949	622	906	2327	434	1076	136	570	111	334	12	106	14	75	13	33	4	27	4	4687	23	33	7
HC24-RM045	45.93	48.85	HQ	2481	689	808	1792	283	798	110	492	109	380	10	109	15	82	15	38	5	31	4	8105	42	20	8
HC24-RM045	48.85	52.49	HQ	1088	262	335	826	154	373	49	208	42	137	13	40	6	30	5	14	2	13	2	2783	21	12	4
HC24-RM045	52.49	62.34	HQ	1291	325	406	966	173	431	57	254	51	175	13	47	7	37	7	19	2	16	2	3931	26	14	5
HC24-RM045	62.34	65.62	HQ	1066	269	328	797	147	356	47	205	42	145	13	39	5	29	5	15	2	14	2	3377	20	16	7
HC24-RM045	65.62	74.74	HQ	1099	293	342	806	143	359	48	211	45	159	13	42	6	32	6	16	2	15	2	3363	20	13	6
HC24-RM045	74.74	75.07	HQ	1256	321	399	935	163	416	56	248	52	170	14	48	7	36	7	18	2	16	3	3242	26	12	4
HC24-RM045	75.07	84.84	HQ	1207	277	376	930	172	418	55	238	47	149	12	42	6	30	6	15	2	13	2	3201	29	12	4
HC24-RM045	84.84	94.91	HQ	1489	364	472	1125	194	506	69	296	60	201	13	54	7	40	7	19	3	17	3	3728	54	11	5
HC24-RM045	94.91	96.46	HQ	1176	292	369	884	155	398	54	229	48	159	11	44	6	32	6	16	2	14	2	3201	25	13	5
HC24-RM045	96.46	97.54	HQ	915	243	282	672	119	302	40	176	35	136	8	32	5	26	5	14	2	13	2	2249	16	33	13

DHID	From (ft)	To (ft)	Sample Type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	Sc2O3	ThO2	UO2
HC24-RM045	97.54	104.99	HQ	1447	330	453	1117	201	506	67	287	56	177	14	50	7	36	7	18	2	16	3	3715	25	16	5
HC24-RM045	104.99	114.83	HQ	1486	303	458	1183	228	536	70	294	55	163	9	46	6	33	6	17	2	18	3	5741	35	17	4
HC24-RM045	114.83	122.38	HQ	1219	250	370	969	189	441	56	238	45	133	13	37	5	26	5	14	2	13	2	3769	19	14	4
HC24-RM045	122.38	134.51	HQ	1337	293	410	1044	199	474	61	259	51	153	16	44	6	33	6	16	2	15	2	3971	19	14	4
HC24-RM045	134.51	135.43	HQ	1379	321	444	1058	185	472	64	281	56	168	16	49	7	36	7	17	2	16	3	4512	24	12	4
HC24-RM045	135.43	144.36	HQ	1388	297	442	1091	199	489	65	285	53	154	16	47	6	33	6	16	2	15	2	3931	25	12	4
HC24-RM045	144.36	151.80	HQ	1590	326	466	1264	251	590	72	295	56	177	13	49	7	36	7	18	2	15	2	3607	10	25	10
HC24-RM045	151.80	157.71	HQ	1283	301	383	982	191	447	56	240	48	163	15	45	6	33	6	16	2	13	2	3661	8	14	5
HC24-RM045	157.71	164.04	HQ	3134	296	861	2838	630	1388	155	580	85	148	12	60	7	34	6	14	2	11	2	2323	7	53	7
HC24-RM045	164.04	170.28	HQ	2447	306	676	2141	489	1018	116	448	70	161	12	52	7	35	6	16	2	13	2	3580	10	38	6
HC24-RM045	170.28	172.41	HQ	1234	272	341	962	215	441	54	213	39	156	8	34	5	30	6	16	2	13	2	1031	15	24	7
HC24-RM045	172.41	180.45	HQ	1274	239	368	1035	226	473	60	233	43	128	10	36	5	27	5	13	2	11	2	3404	19	19	5
HC24-RM045	180.45	187.01	HQ	859	196	253	663	140	296	38	157	32	107	11	28	4	22	4	10	1	8	1	2290	9	14	9