

## **MORE HIGH-GRADE RARE EARTHS AT KANGANKUNDE WITH BEST CONTINUOUS INTERSECTIONS YET**

***ALL HOLES HAVE LONG INTERSECTIONS OF HIGH-GRADE, NON-RADIOACTIVE RARE  
EARTHS ENDING IN MINERALISATION***

### **HIGHLIGHTS**

- Assay results reported from a further 11 RC holes and 3 diamond core holes with grades of up to 13.89% TREO
- Average grade of rare earths critical metal elements neodymium-praseodymium (NdPr) of 20% of TREO
- Assays returned are some of the best to date, with three holes averaging better than 3% over interval lengths of 150m or more from surface
- Significant intersections include:
  - ❖ KGKRC018: 184 metres from 4 metres to end of hole ('EOH') averaging 3.55% TREO
  - ❖ KGKRC037: 160 metres from surface to EOH averaging 3.04%
  - ❖ KGKRC039: 150 metres from surface to EOH averaging 3.02% TREO including:
    - 29 metres @ 4.70% TREO from surface
  - ❖ KGKRCDD09: 317.2 metres from surface averaging 2.70% TREO in including:
    - 184.2 metres @ 3.07% TREO from 132 metres
- KGKDD004: 245.4 metres from surface averaging 2.78% TREO in including:
  - 53.6 metres @ 3.13% TREO from 65.4 metres
  - 63.6 metres @ 3.03% TREO from 127 metres
  - 40.1 metres @ 3.34% TREO from 205.3 metres
- Mineralisation is again non-radioactive – low levels of radionuclides thorium and uranium throughout
- Phase 1 program has now concluded with over 14,000 metres of drilling completed; assays from 49 holes remain outstanding
- Phase 2 orebody extension program of 2x 1,000m holes has commenced with RC collars to 150m completed for each; diamond drilling underway
- On-track to reported maiden Mineral Resource Estimate under JORC 2012 code this quarter

**Lindian's Chief Executive Officer, Alistair Stephens commented:** *"These latest assay results are some of our highest grades to date with three holes averaging better than 3% TREO over continuous intervals of 150m or more from surface.*

*Since the commencement of this drilling program, Kangankunde has consistently delivered assays of +2.5% over extensive lengths with almost all holes ending in mineralisation, the NdPr ratio being over 20% and the material being non-radioactive. The results reinforce our firm belief that Kangankunde is rapidly emerging as one of the world's Tier 1 rare earths deposits.*

*These high-grade results are largely from the northern part of the central carbonatite, an area that is showing considerable promise, and for which further assays are pending. We are yet to define the depth and extremities of the mineralisation and with our Phase 2 program now well underway, we will likely get a better understanding of the extent of the orebody.*

*These latest results, and assays pending from the remaining 49 holes, will form part of the Mineral Resource Estimate due to be reported this quarter. As well as development drilling, metallurgical test work is ongoing, so too is work on the planned Phase 1 processing plant. We look forward to reporting more operational updates."*

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**--Lindian Resources Limited (ASX:LIN) ("Lindian" or "the Company")** is pleased to advise of the receipt further assays from the Phase 1 drilling program at the Kangankunde Rare Earths Project in Malawi.

The assays reported below are from eleven (11) reverse circulation (RC) drill holes (being holes **KGKRC017 and KGKRC018, KGKRC026, KGKRC32 to KGKRC035 and KGKRC037 to KGKRC040**).

The reported results include results from core drill holes (DD), **KGKDD003 and KGKDD004** and the core drilled extension of previously reported KGKRC009<sup>1</sup> now combined with the core extension and reported as **KGKRCDD009**.

All holes drilled have extensive intersections of mineralisation which are non-radioactive and having significant percentages of critical Rare Earths metal elements neodymium and praseodymium (NdPr).

## **DRILL ASSAY RESULTS**

The holes being reported in this announcement were designed to evaluate three areas:

- a) the northern area of the central carbonatite;
- b) the central western and eastern sides of the central carbonatite;
- c) the southern western area of central carbonatite complex; and
- d) the southern extent of the central carbonatite complex

### **1. Northern Area of Central Carbonatite**

Holes KGKRC18, KGKRC032, KGKRC034 and KGKRC037 are part of a radial pattern of holes testing the central northern area of the carbonatite complex.

KGKRC018 and KGKRC037 drilled were both drilled on 320 azimuths with 037 on a dip angle of -45° and 018 steeper at -60° dip. Both intersected extensive high grade carbonatite hosted mineralisation with KGKRC018 intersecting 184 metres at 3.55% TREO and KGKRC037 160 metres at 3.04% TREO. Figure 1 shows these holes in cross section with the previously reported KGKRC006 intersection of 300 metres at 2.30% TREO.

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<sup>1</sup> ASX:LIN Release 16 January 2023; "KANGANKUNDE DELIVERS MORE OUTSTANDING RARE EARTHS ASSAYS"

KGKRC018 was extended a further 113 metres with a core tail to a depth of 297 metres with samples currently being assayed.

Holes KGKRC032 and 034 were drilled to the east on azimuths of 046 and 076 and dips of -43 and -66 respectively. Both drill holes intersected strong mineralisation nearer surface with 032 intersecting 61 metres at 1.90% TREO from 2 metres, and KGKRC034 intersecting 22 metres at 2.87% TREO from 1 metre then 146 metres at 1.78% TREO from 35 metres hosted by carbonatite and mixed breccia rocks.

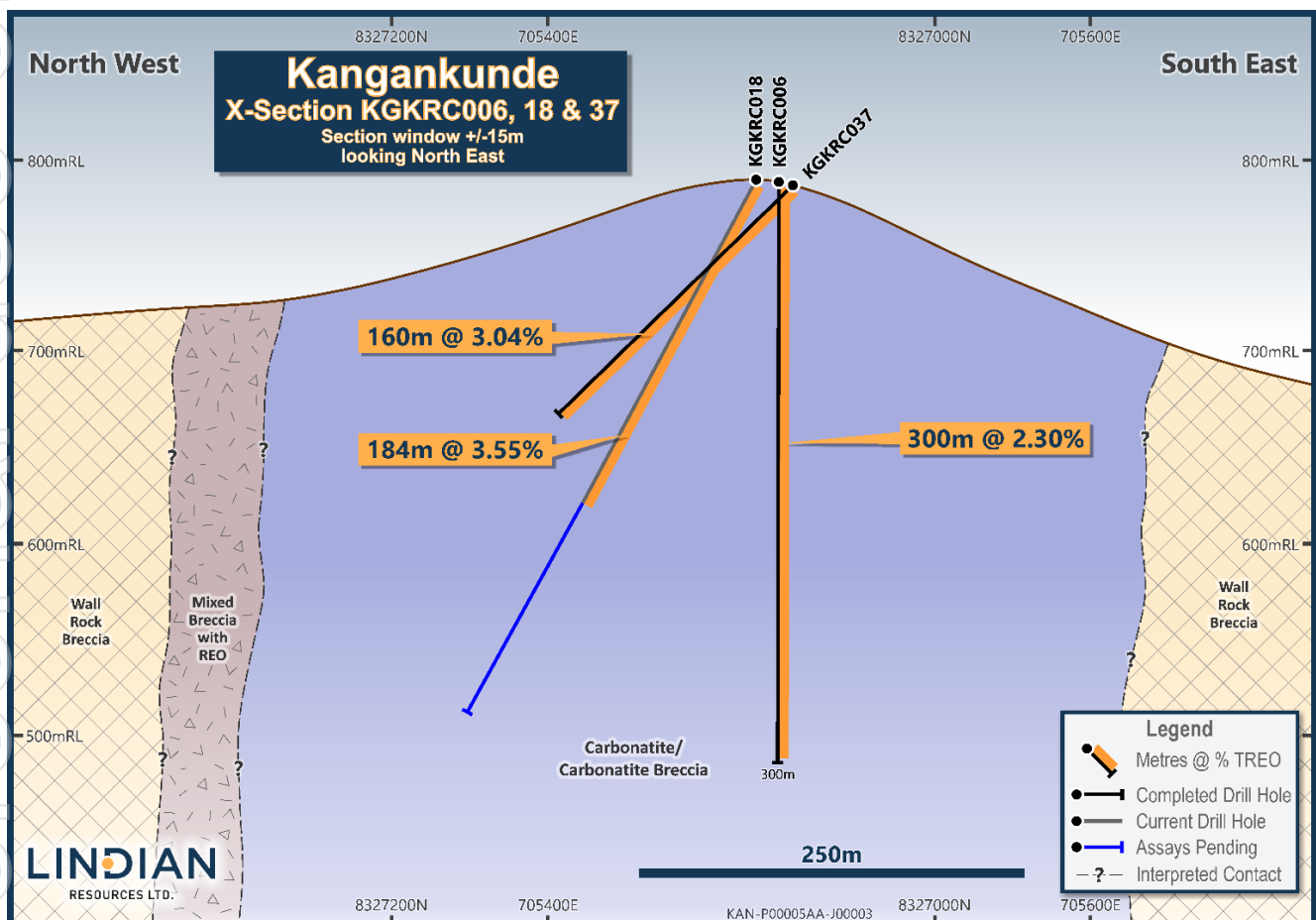


Figure 1: Cross section facing north east (refer A – A' in Figure 4) showing KGKRC018 and KGKRC037 in relation to the previously reported KGKRC006. 3

## 2. Western and Eastern Areas of Central Carbonatite Complex

Holes KGKDD001, KGKDD004, KGKRCDD009, KGKRC038 and KGKRC040 were drilled on section 8327050mN (Figure 2)

Holes KGKDD001, KGKRC038 and KGKRC040 were drilled testing the western margin and across the central area (DD001) of the central carbonatite. Holes KGKRC038 and 040 were drilled west at dips of -68 and -43 respectively. Both intersected carbonatite and mixed breccia rocks with 040 intersecting 167 metres at 2.68% TREO corresponding with the western carbonatite lens intersected 50 metres south in previously reported KGKRC005 and 007. KGKRC038 intersected more of the mixed breccia rock that separates the central carbonatite from the western lenses and returned an intersection of 181 metres at 1.76% TREO.

KGKDD001 was drilled from west to east across the main carbonatite area and intersected mostly carbonatite rocks with some zones of mixed breccia. The intersection from surface was 300 metres at 2.22% and links the western area of the main carbonatite with mineralised intersected further east.

Figure 2 is a north facing cross section illustrating holes KGKDD001, KGKRC0038 and KGKRC040 in relation to previously reported intersections and geometry.

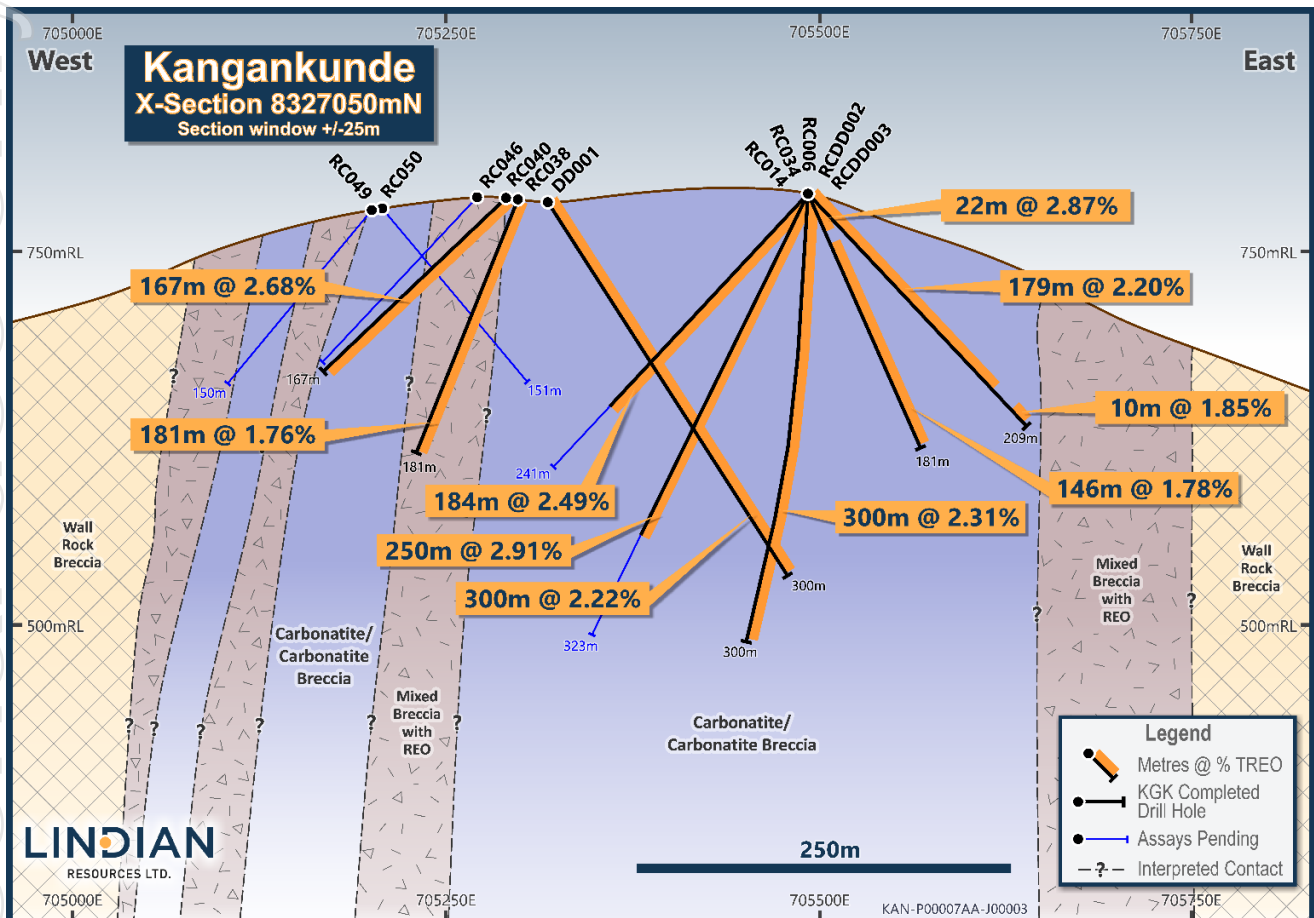


Figure 2: North facing cross section 8327050mN (refer B – B' in Figure 4) showing KGKDD001, KGKRC034, KGKRC038 and KGKRC040 in relation to the previously reported KGKRC002, KGKRC003, KGRC006, KHGKRC014.

Holes KGKDD003, KGKDD004, and KGKRCDD009 were drilled on an east-west section 8327000mN (Figure 4).

Holes KGKDD004 and KGKRCDD009 (core extension of previously reported KGKRC009) were both drilled to the east to test the eastern extents of the central carbonatite. Significant intersections of mineralisation in both holes with DD004 returning 245 metres at 2.78% TREO and KGKRCDD009 returning 317 metres at 2.70% TREO showing consistent mineralisation through the eastern side of the deposit.

KGKRCDD009 finished in carbonatite breccia and KGKDD004 intersected largely unmineralised carbonatite from 245 to 293 metres at which point it was terminated.

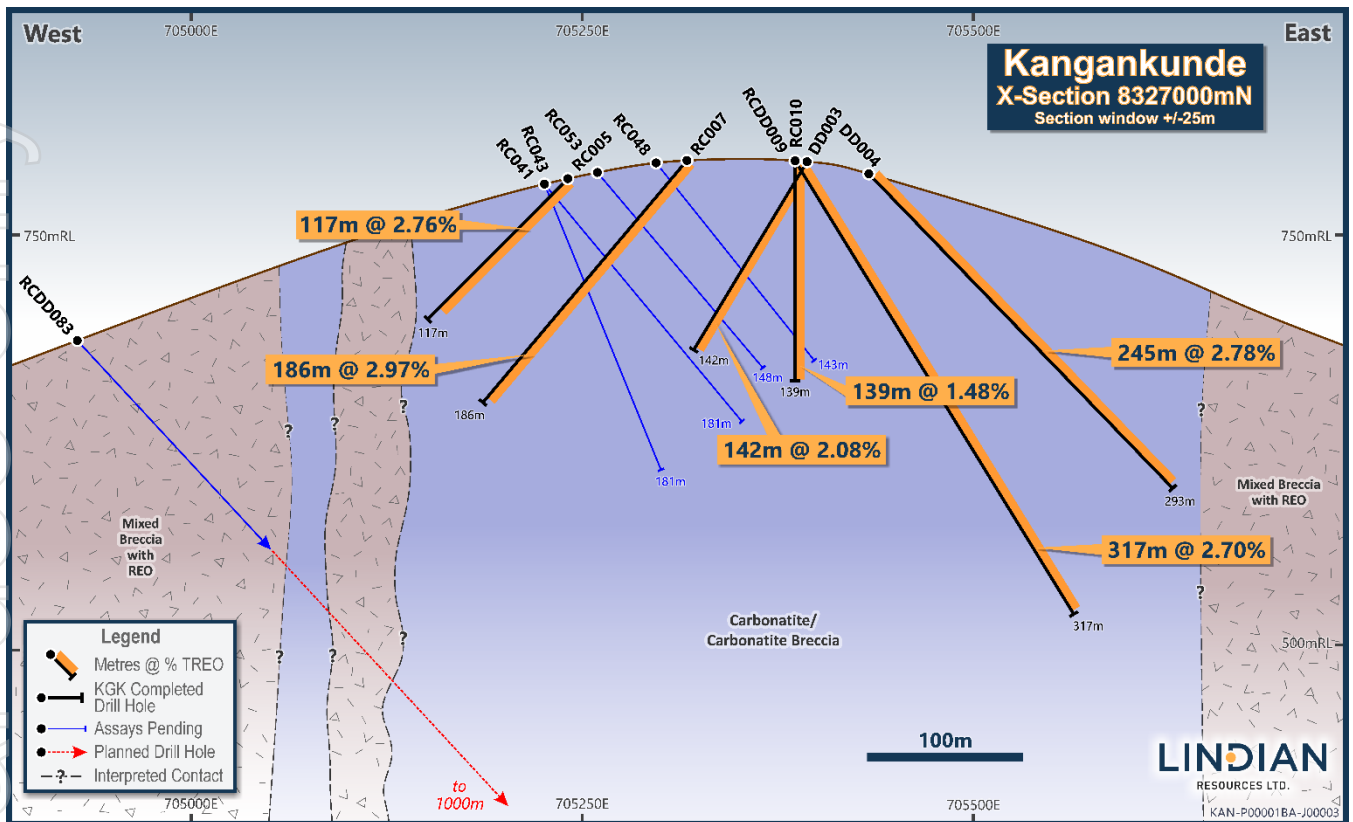


Figure 3: North facing cross section 8321000mN (refer C – C' in Figure 4) showing KGKDD003, KGKDD004, KGKRCDD009 with previously reported KGKRC0052, KGKRC007, KGKRC006 and KGKRC010

### 3. Southwestern Area of Central Carbonatite

Holes KGKRC017, KGKRC026, KGKRC033 and KGKRC035 were drilled to test the southwestern margin of the central carbonatite.

All holes intersected low-grade rare-earth mineralisation relative to the other areas of the deposit.

KGKRC017 (163 metres at 1.41% TREO from surface) intersected mineralised mixed breccia from surface to 85 metres depth followed by a carbonatite with abundant magnetite and low-grade rare earths.

Holes KGK026, 033 and 035 all intersected mineralised mixed breccia dominantly with sections of mineralised and unmineralised carbonatite.

The intersections from these holes in are shown in plan view on Figure 4.

### 4. South Central Carbonatite

Three drill holes were designed on a radial fan to test the carbonatite and locate the contact with the surrounding mixed breccia in the southern lode of the central carbonatite. This area has not been tested by historic drilling or trenching.

KGKRC039 is the only of the three holes drilled with data received to date. It intersected highly mineralised carbonatite and carbonatite breccia recording an interval of 150 metres at 3.02% TREO from surface including 29 metres at 4.70% TREO from surface.

This high grade intersection is very encouraging due to the relatively unknown geology of the southern area.

The intersection in KGKRC039 is shown in plan view on Figure 4.

Table 1 below lists the significant intersections reported in this announcement.

**Table 1: Significant rare earth intersections\***

Hole ID	From (m)	To (m)	Intersection (m)	TREO %	NdPrO** ppm	NdPrO% of TREO***
<b>KGKDD001</b>	<b>0</b>	<b>316.16</b>	<b>316.16</b>	<b>2.22</b>	<b>4,521</b>	<b>20.4%</b>
including	0	65.9	65.9	2.72	5,327	19.6%
	140	300.16	160.61	2.41	4,997	20.7%
<b>KGKDD003</b>	<b>0</b>	<b>141.9</b>	<b>141.9</b>	<b>2.08</b>	<b>4,359</b>	<b>21.0%</b>
including	62.3	78.4	16.1	2.50	5,330	21.3%
	85.9	111.9	26.0	2.99	6,188	20.7%
	117.2	127.2	10.0	2.70	4,921	18.2%
	134.1	141.9	7.80	5.68	10,457	18.4%
<b>KGKDD004</b>	<b>0</b>	<b>245.4</b>	<b>245.40</b>	<b>2.78</b>	<b>5,613</b>	<b>20.2%</b>
including	65.4	119	53.60	3.13	6,565	21.0%
	127	190.6	63.60	3.03	6,060	20.0%
	205.3	245.4	40.10	3.34	5,809	17.4%
<b>KGKRCDD009</b>	<b>0</b>	<b>317.2</b>	<b>317.2</b>	<b>2.70</b>	<b>5,467</b>	<b>20.2%</b>
including	38	129	91.00	2.48	5,476	22.1%
	132	316.2	184.20	3.07	5,940	19.3%
<b>KGKRC017</b>	<b>0</b>	<b>163</b>	<b>163</b>	<b>1.41</b>	<b>3,099</b>	<b>22.0%</b>
including	26	51	25	2.76	5,867	21.3%
<b>KGKRC018</b>	<b>4</b>	<b>188</b>	<b>184</b>	<b>3.55</b>	<b>7,124</b>	<b>20.1%</b>
<b>KGKRC026</b>	<b>0</b>	<b>168</b>	<b>168</b>	<b>1.21</b>	<b>2,745</b>	<b>22.7%</b>
<b>KGKRC032</b>	<b>2</b>	<b>63</b>	<b>61</b>	<b>1.90</b>	<b>3,734</b>	<b>19.7%</b>
<b>KGKRC033</b>	<b>0</b>	<b>169</b>	<b>169</b>	<b>2.05</b>	<b>4,446</b>	<b>21.7%</b>
including	42	145	103	2.38	5,053	21.2%
<b>KGKRC034</b>	<b>1</b>	<b>23</b>	<b>22</b>	<b>2.87</b>	<b>5,755</b>	<b>20.1%</b>
and	35	181	146	1.78	3,986	22.4%
<b>KGKRC035</b>	<b>0</b>	<b>147</b>	<b>147</b>	<b>1.28</b>	<b>3,083</b>	<b>24.1%</b>
<b>KGKRC037</b>	<b>0</b>	<b>160</b>	<b>160</b>	<b>3.04</b>	<b>6,209</b>	<b>20.4%</b>
<b>KGKRC038</b>	<b>0</b>	<b>181</b>	<b>181</b>	<b>1.76</b>	<b>3,302</b>	<b>18.8%</b>
including	0	38	38	2.01	3,806	18.9%
	52	87	32	2.07	4,058	19.6%
	127	143	16	2.00	3,437	17.2%
	173	181	8	2.28	3,759	16.5%
<b>KGKRC039</b>	<b>0</b>	<b>150</b>	<b>150</b>	<b>3.02</b>	<b>6,890</b>	<b>22.8%</b>
including	0	29	29	4.70	9,542	20.3%
<b>KGKRC040</b>	<b>0</b>	<b>167</b>	<b>167</b>	<b>2.68</b>	<b>4,600</b>	<b>17.2%</b>
including	0	44	44	2.46	4,596	18.7%
	62	73	11	2.36	4,345	18.4%
	83	103	20	3.12	4,689	15.0%
	113	167	54	3.59	5,918	16.5%

\* Bold text entire hole no cut-off applied; internal intersections accumulated at > 2% TREO cut-off.

\*\* NdPrO = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>, \*\*\* NdPrO% / TREO% x 100

### Neodymium and Praseodymium Ratio

The mineralisation is dominated by light rare earths cerium (Ce), lanthanum (La), neodymium (Nd) and praseodymium (Pr). The total of Nd+Pr content in oxide form constitutes on average of 20% of the TREO in all holes reported in this release.

### Non-Radioactive Mineralisation

Radionuclides uranium (U) and thorium (Th) continue to be low in all drilling. Table 2 shows the average content for the each of the reported drill holes. Detailed individual interval assays are shown in Appendix 2 of this release.

**Table 2: Average radionuclides thorium and uranium content of mineralisation**

Hole ID	From (m)	To (m)	Intersection (m)	Th ppm	U ppm
KGKDD001	0	300.61 (EOH)	300.61	44	10
KGKDD003	0	145.2 (EOH)	145.2	45	10
KGKDD004	0	293.39 (EOH)	293.39	63	6
KGKRCDD009	0	317.2 (EOH)	317.2	54	8
KGKRC017	0	163 (EOH)	163	40	9
KGKRC018	18	181 (EOH)	163	78	3
KGKRC026	0	168 (EOH)	168	53	9
KGKRC032	2	181 (EOH)	179	36	7
KGKRC033	0	169 (EOH)	169	33	4
KGKRC034	0	181 (EOH)	181	48	9
KGKRC035	0	147 (EOH)	147	48	8
KGKRC037	0	160 (EOH)	160	67	5
KGKRC038	0	181 (EOH)	181	23	3
KGKRC039	0	150 (EOH)	150	50	2
KGKRC040	0	167 (EOH)	167	30	2

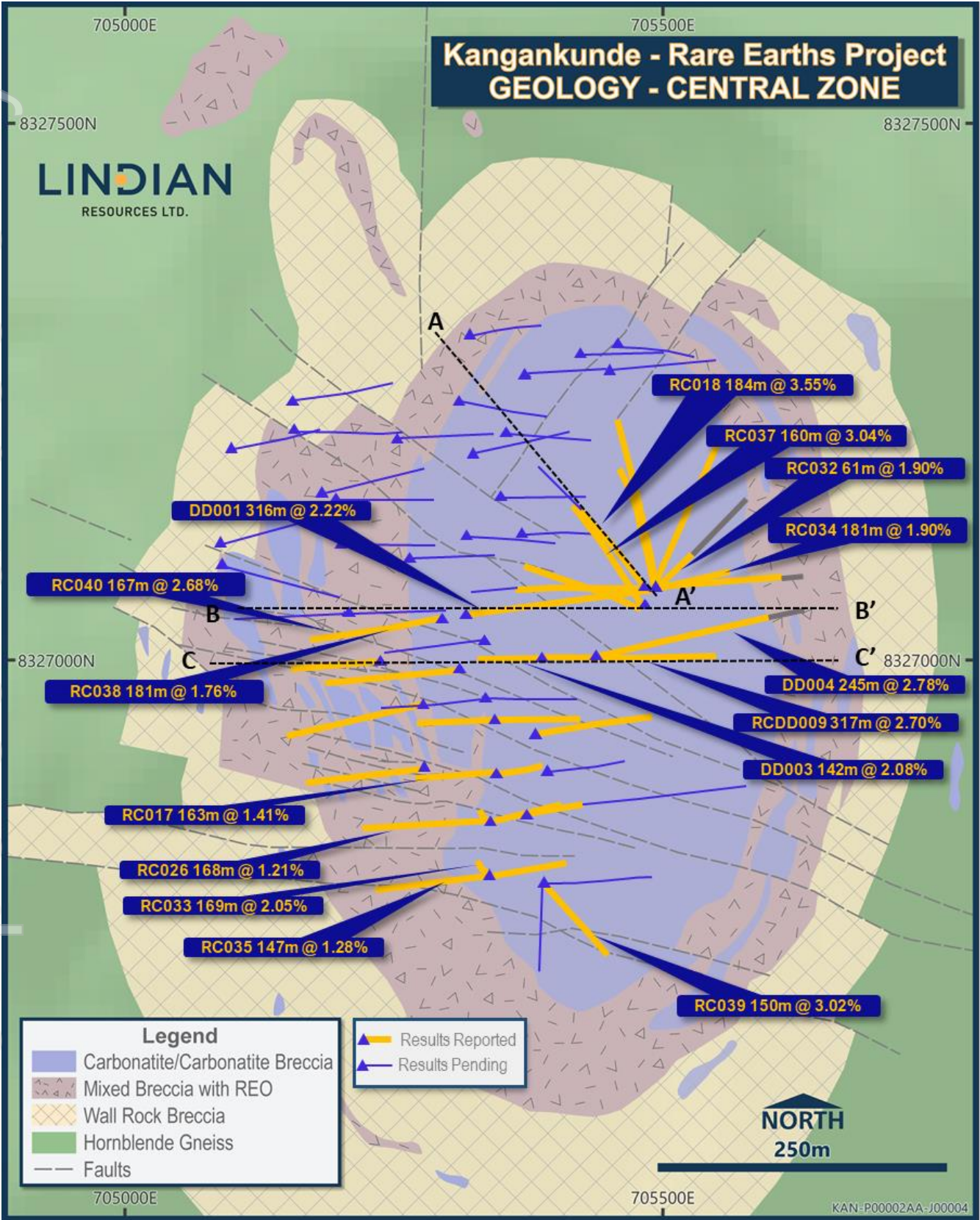


Figure 4 Kangankunde central carbonatite geology plan with drill intersections reported to date and pending hole locations.



**PHASE 1 PROGRAM STATUS**

The Phase 1 program has been completed with 81 RC holes for 12,520 metres and 10 core drill holes, including 6 core tails to RC holes for 1,642.7 metres. The program was designed to give initial data for resource evaluation and mine planning.

Two RC rigs have demobilised from site with the remaining core drilling rig conducting the Phase 2 depth extension drilling.

The status of the drill hole sampling and assay is as follows:

**Table 3: Completed drill hole sampling and assay status at 14th March 2023**

Hole Number	Reported	ALS Geochemistry (Australia)	ALS Geochemistry (South Africa)	In transit (Malawi to South Africa)	At Kangankunde Site
KGKRC001	✓				
KGKRC002	✓				
KGKRC003	✓				
KGKRC004	✓				
KGKRC005	✓				
KGKRC006	✓				
KGKRC007	✓				
KGKRC008	✓				
KGKRC009	✓				
KGKRC010	✓				
KGKRC011	✓				
KGKRC012	✓				
KGKRC013	✓				
KGKRC014	✓				
KGKRC015	✓				
KGKRC016	✓				
KGKRC017	✓				
KGKRC018	✓				
KGKRC019	✓				
KGKRC020	✓				
KGKRC021	✓				
KGKRC022	✓				
KGKRC023	✓				
KGKRC024	✓				
KGKRC025	✓				
KGKRC026	✓				
KGKRC027	✓				
KGKRC028	✓				
KGKRC029	✓				
KGKRC030	✓				
KGKRC031	✓				
KGKRC032	✓				

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Hole Number	Reported	ALS Geochemistry (Australia)	ALS Geochemistry (South Africa)	In transit (Malawi to South Africa)	At Kangankunde Site
KGKRC033	✓				
KGKRC034	✓				
KGKRC035	✓				
KGKRC036		✓			
KGKRC037	✓				
KGKRC038	✓				
KGKRC039	✓				
KGKRC040	✓				
KGKRC041		✓			
KGKRC042		✓			
KGKRC043		✓			
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KGKRC069				✓	
KGKRC070				✓	
KGKRC071				✓	
KGKRC072				✓	
KGKRC073					✓

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Hole Number	Reported	ALS Geochemistry (Australia)	ALS Geochemistry (South Africa)	In transit (Malawi to South Africa)	At Kangankunde Site
KGKRC074					✓
KGKRC075					✓
KGKRC076					✓
KGKRC077					✓
KGKRC078					✓
KGKRC079					✓
KGKRC080					✓
KGKRC081					✓
KGKRC082					✓
KGKRC083					✓
KGK DD001	✓				
KGK DD002	✓				
KGKDD003	✓				
KGKDD004	✓				
KGKRCDD001		✓			
KGKRCDD002		✓			
KGKRCDD003		✓			
KGKRCDD009	✓				
KGKRCDD018			✓		
KGKRCDD029				✓	

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## PREVIOUSLY REPORTED DRILL RESULTS

Table 4 below summarises previous drill results and the related ASX release date. **Error! Reference source not found.** 4 shows previously reported intersections and pending drill results with the planned deep exploration hole to be conducted in Phase 2 of the drilling program.

Table 4: Previously released drilling results;

Hole ID	From (m)	To (m)	Intersection (m)	TREO %	NdPrO% of TREO**	ASX release Date*
KGKDD002	0	31.62	31.62	2.26	17	9 <sup>th</sup> March 2023
and	62.17	188.17	126	2.82	17	9 <sup>th</sup> March 2023
KGKRC001	0	110	110	2.9	21	5 <sup>th</sup> January 2023
KGKRC002	0	250	250	2.9	21	5 <sup>th</sup> January 2023
KGKRC003	0	184	184	2.5	21	16 <sup>th</sup> January 2023
KGKRC004	0	97	97	2.8	20	16 <sup>th</sup> January 2023
KGKRC005	0	117	117	2.8	16	24 <sup>th</sup> January 2023
KGKRC006	0	300	300	2.3	20	16 <sup>th</sup> January 2023
KGKRC007	0	186	186	3.0	17	24 <sup>th</sup> January 2023
KGKRC008	0	272	272	2.1	19	16 <sup>th</sup> January 2023
KGKRC009	0	131	131	2.1	22	24 <sup>th</sup> January 2023
KGKRC010	0	138	138	1.5	22	24 <sup>th</sup> January 2023
KGKRC011	0	32	32	2.7	17	24 <sup>th</sup> January 2023
KGKRC012	0	210	210	1.9	20	6 <sup>th</sup> February 2023
KGKRC013	0	162	162	2.2	22	6 <sup>th</sup> February 2023
KGKRC014	0	179	179	2.2	23	6 <sup>th</sup> February 2023
KGKRC0015	0	160	160	2.04	19	9 <sup>th</sup> March 2023
KGKRC0019	0	56	56	1.78	19	9 <sup>th</sup> March 2023
KGKRC020	0	167	167	2.85	18	9 <sup>th</sup> March 2023
KGKRC021	0	89	89	1.26	19	9 <sup>th</sup> March 2023
KGKRC022	0	146	146	1.34	18	9 <sup>th</sup> March 2023
KGKRC023	0	28	28	2.87	20	9 <sup>th</sup> March 2023
KGKRC024	0	169	169	1.50	20	9 <sup>th</sup> March 2023
KGKRC0025	0	109	109	1.56	20	9 <sup>th</sup> March 2023
KGKRC027	0	79	79	2.63	22	9 <sup>th</sup> March 2023
and	110	170	60	2.45	22	9 <sup>th</sup> March 2023
KGKRC0028	0	169	169	1.74	22	9 <sup>th</sup> March 2023
KGKRC029	0	58	58	1.18	24	9 <sup>th</sup> March 2023
and	58	84	26	6.15	20	9 <sup>th</sup> March 2023
KGKRC030	0	188	188	1.61	21	9 <sup>th</sup> March 2023
KGKRC031	0	175	175	2.31	21	9 <sup>th</sup> March 2023

\*refer to Company website for the date of the ASX announcement for the reporting of exploration results

\*\* NdPrO% / TREO% x 100

## PROGRAM SUMMARY

The Kangankunde drilling programs are planned in separate phases with distinct target outcomes. The Company commenced drilling at Kangankunde in late October 2023 with the intention to undertake a drill program that will culminate in a mineral resources estimate during the upcoming quarter.

### **PHASE 1 DRILL PROGRAM (MINE DEFINITION)**

The Phase 1 program has now concluded with 12,520 metres of RC drilling completed (83 RC holes) and 1,642.7 metres of core drilling (4 diamond core holes) on the Kangankunde hill top. The program was designed to give initial data for resource evaluation and mine planning.

Two RC rigs have demobilised from site with the remaining core drilling rig conducting the Phase 2 depth extension drilling.

### **PHASE 2 DRILL PROGRAM (DEPTH EXTENSION)**

Drilling has commenced on the Phase 2 program with RC precollars completed to a downhole depth of 150 metres at two sites on the western side of the Central Carbonatite.

A core drilling rig has commenced drilling the first core from the base of one of the precollars.

The two drill holes, each planned to be 1,000 metres in length, are designed to test the E-W axes of the carbonatite between 300 metres and 800 metres below the hill top, approximately 500 metres below the current deepest drilling.

### **METALLURGY**

Preliminary metallurgical testwork has demonstrated a mineral concentrate of ~60% and a recovery of circa 70% using water-only, low-cost gravity and magnetic beneficiation techniques.

Lindian will continue to refine the use of gravity and magnetic separation techniques, and expects to further improve the REO recovery and REO concentrate grade, with finer grinding a key variable to be tested to improve recovery and concentrate grade

Refer ASX announcement of 11 April 2023.

### **MINERAL RESOURCE ESTIMATION**

Lindian expects to deliver its maiden Mineral Resource Estimate during the current quarter incorporating the drilling results from the Phase One Drill program and metallurgical work programs currently in progress.

-ENDS-

This ASX announcement was authorised for release by the Lindian Board.

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**Alistair Stephens (CEO)**

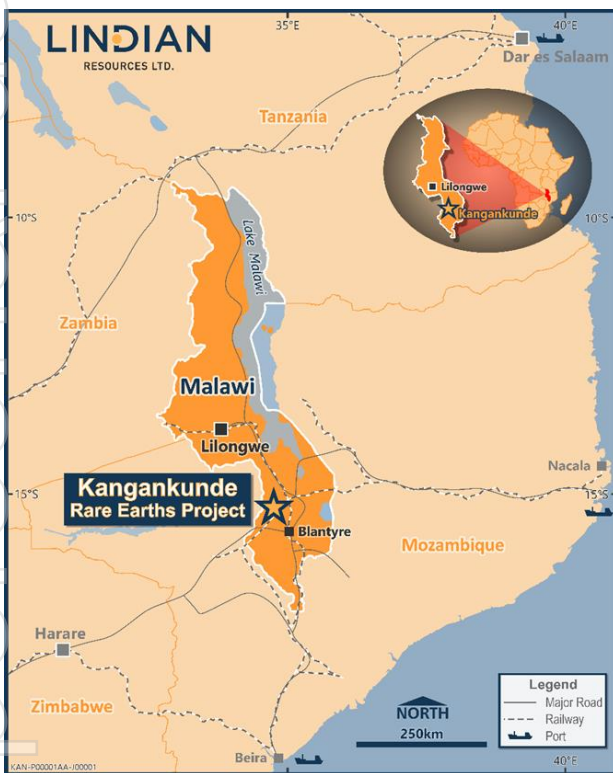
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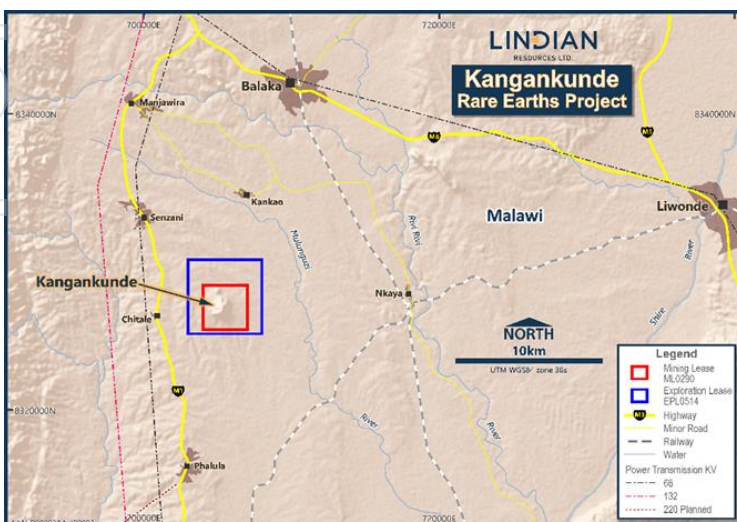
## About Lindian

### RARE EARTHS

Lindian Resources Limited will progressively acquire 100% of Malawian registered Rift Valley Resource Developments Limited and its 100% owned title to Exploration Licence EPL0514/18R and Mining Licence MML0290/22 (refer ASX announcement ASX:LIN dated 1 August 2022) issued under the Malawi Mines and Minerals Act 2018. The Exploration and Mining Licences have an Environmental and Social Impact Assessment Licence No.2:10:16 issued under the Malawi Environmental Management Act No. 19 of 2017. The Kangankunde Project, located within MML0290, has been subject to significant historic exploration by Lonrho Plc (Lonrho) in the 1970's and the French geoscience Bureau de Recherches Géologiques et Minières (BRGM) in the 1990's. The project has an underground adit (a horizontal drive with cross cuts extending at least 300 metre underground) and exploration sampling by trenching and drilling has identified significant non-radioactive monazite mineralisation over a footprint of at least 800m by 800m.



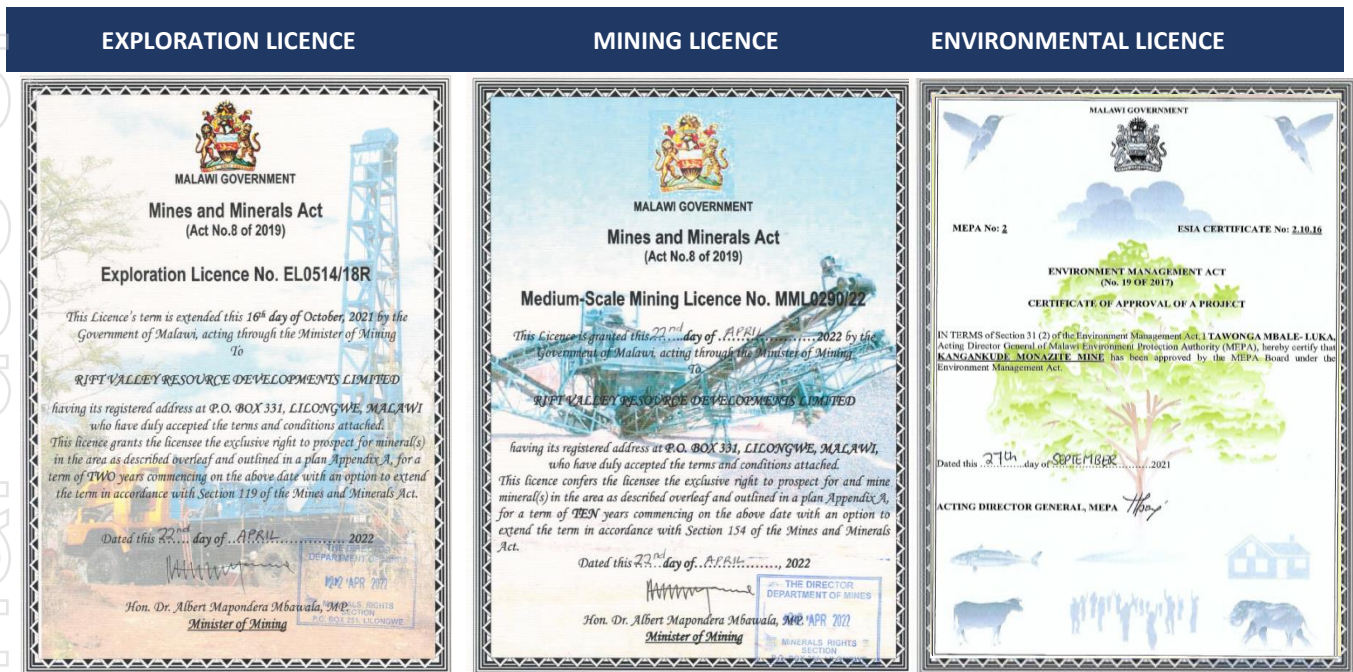
Malawi is a country in southern and eastern Africa that parallels the great Lake Malawi, the 5th largest freshwater lake in the world that fills part of the massive rift valley of the Africa continent. Malawi is a peaceful country known ubiquitously as “the warm heart of Africa”, with a government and legal system emanated from the English Westminster system (from colonial rule up to 1964). The Malawi economy is currently heavily reliant on agriculture, a small manufacturing sector and foreign aid. Over 80% of Malawians living in rural areas are engaged in traditional subsistence agriculture. The mining industry in Malawi is in its infancy with a new Mining Act introduced in 2019 expected to forge the way for significant expansion and growth. Having seen the impact of mining in neighbouring countries, the Malawi Government has placed mining as the primary growth sector to diversify the Malawi economy and improve living conditions for its people. A growing mining industry is the central plank of the current President’s plans for employment. Significant mineral endowment exists in the form of rare earths, uranium, niobium, tantalum, and graphite in a country substantially underexplored.



Kangankunde is located 90 kilometres north of the city of Blantyre, the main economic and commercial centre in Malawi. The town of Balaka, 15 kilometres to the north of Kangankunde, a regional trade centre, has a population of about 36,000 people. The project is located close to the main M1 highway, rail lines to ports and high voltage transmission lines.

### Tenure and licences

Lindian Resources Limited will progressively acquire 100% of Malawian registered Rift Valley Resource Developments Limited and its 100% owned title to Exploration Licence EPL0514/18R and Mining Licence MML0290/22 (refer ASX announcement ASX:LIN dated 1 August 2022) issued under the Malawi Mines and Minerals Act 2018. The Exploration and Mining Licences have an Environmental and Social Impact Assessment Licence No.2:10:16 issued under the Malawi Environmental Management Act No. 19 of 2017.



### BAUXITE

**Lindian Resources Limited** has over 1 billion tonnes of **Bauxite** resources (refer company website for access to resources statements and competent persons statements) in Guinea with the Gaoual, Lelouma and Woula projects. Guinean bauxite is known as the premier bauxite location in the world, having high grade and low impurities premium quality bauxite.

**Guinea** is a country in western Africa located on the Atlantic coast. Most of the country has a humid tropical climate. Its topography varies from coastal plains to inland mountains that account for about 60 per cent of the land area. Several of West Africa’s major rivers, in particular the Niger, Senegal and Gambia, all originate from these highlands, making Guinea the ‘water tower’ of West Africa. Its developing mixed economy is based on agriculture, mining, and trade. Over 80% of its population of ~12 million people are engaged in agriculture. Major crops include rice, bananas, cashews, cocoa and coffee. Its Atlantic shoreline supports a large-scale fishing industry and has developed large commercial harbors, such as Conakry and Kamsar. Guinea is endowed with huge deposits of mineral resources. It has extremely large high-quality deposits of bauxite (nearly one-third of the world’s total bauxite resources) and iron ore and is a gold and diamond producer. Mining currently contributes 25% of Guinea’s GDP. Thanks to these mineral resources, Guinea has the potential of being one of Africa’s richest countries. Guinea, under the name French Guinea, was a part of French West Africa achieved independence in 1958. It remained relatively stable politically until the 1990s when Guinea accommodated several hundred thousand war refugees from neighbouring Liberia and Sierra Leone, and since this time conflicts between those countries and Guinea have continued to flare up over the refugee population since. Recently in September 2021, Lt Col Doumouya, the commander of country’s special forces, overthrew the President in a military coup; establishing a National Committee of Reconciliation and Development with himself as chairman, ordering the release of political prisoners, and announcing an 18-month transition to democracy. In recent months, despite the current complex political landscape, tensions in the country have settled and life in Guinea has returned to normality.

## Forward Looking Statements

This announcement may include forward-looking statements, based on Lindian's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Lindian, which could cause actual results to differ materially from such statements. Lindian makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of the announcement.

## Competent Persons Statements

The information in this Report that relates to drilling, sampling, and assay results is based on information compiled by Mr. Alistair Stephens, who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Stephens is the Chief Executive Officer of Lindian Resources Limited. Mr. Stephens 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

Mr. Stephens consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Unless otherwise stated, where reference is made to previous releases of exploration results in this announcement, the Company conforms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results was prepared and first disclosed under the JORC Code 2012 and has been properly and extensively cross-referenced in the text to the date of the original announcement to the ASX.

### Appendix 1: Kangankunde Rare Earths Project Hole Details (Datum UTM WGS84 Zone 36S)

Drill Hole ID	Drill Type	UTM East (m.)	UTM North (m.)	Elevation (m.a.s.l.)	Hole Length EOH (m.)	Azimuth (Average)	Inclination (Average)
KGKDD001	DD	705315	8327039	785	300.61	083	-57
KGKDD003	DD	705393	8326999	800	145.21	271	-59
KGKDD004	DD	705433	8326998	791	293.39	077	-44
KGKRC017	RC	705345	8326893	794	163	265	-61
KGKRC018	RC	705479	8327069	788	181	320	-62
KGKRC026	RC	705336	8326849	792	168	266	-45
KGKRC032	RC	705500	8327067	787	181	046	-43
KGKRC033	RC	705341	8326798	798	169	067	-85
KGKRC034	RC	705491	8327061	787	181	076	-66
KGKRC035	RC	705333	8326797	797	147	260	-45
KGKRC037	RC	705483	8327049	786	160	325	-45
KGKRC038	RC	705296	8327040	785	181	254	-68
KGKRC039	RC	705391	8326785	796	150	138	-55
KGKRC040	RC	705290	8327036	786	167	261	-43
KGKRCDD009	RCDD	705386	8327001	800	317.2	089	-58

\* Planned hole orientations.



## Appendix 2: Analytical Results This Release

Note: NS= No sample

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
KGKDD001	0.0	2.0	10,543	19,839	1,891	5,622	387	61.4	108.8	7.7	25.1	2.8	5.6	0.5	3.1	0.4	68.6	3.86	58.1	3.8
	2.0	3.0	9,617	18,303	1,758	5,155	322	49.3	78.7	5.4	16.3	1.6	2.5	0.2	1.1	0.1	34.3	3.53	54.5	1.8
	3.0	4.0	9,852	17,873	1,685	4,957	349	57.4	102.5	7.2	22.6	2.1	3.1	0.3	1.0	0.2	47.0	3.50	131.5	0.6
	4.0	4.6	4,562	8,722	848	2,554	181	30.0	52.6	4.2	13.1	1.3	2.2	0.2	1.1	0.2	31.8	1.70	71.1	0.9
	4.6	5.2	7,166	13,942	1,365	4,071	274	42.3	69.0	4.9	15.2	1.6	2.3	0.2	1.0	0.2	34.3	2.70	42.7	1.5
	5.2	5.6	8,104	15,478	1,480	4,432	306	50.8	92.3	7.7	23.1	2.1	2.9	0.2	0.8	0.1	45.7	3.00	84.4	0.5
	5.6	6.3	11,904	20,453	1,867	5,330	373	59.5	102.6	7.7	25.6	2.6	3.7	0.3	1.7	0.2	59.7	4.02	64.9	1
	6.3	7.2	10,414	17,505	1,571	4,502	319	51.6	92.8	7.3	24.8	2.5	3.3	0.3	1.6	0.2	57.2	3.46	58.1	0.9
	7.2	7.6	20,700	34,027	3,021	8,550	574	94.8	157.9	10.1	31.0	3.1	4.1	0.3	1.3	0.2	63.5	6.72	88.7	1.3
	7.6	8.0	5,325	10,110	979	2,916	205	32.9	54.9	4.5	13.1	1.4	2.3	0.2	1.1	0.1	33.0	1.97	56	0.6
	8.0	9.0	4,504	8,758	864	2,659	202	34.5	68.6	6.5	21.5	2.1	3.2	0.2	1.4	0.2	49.5	1.72	90.7	1
	9.0	9.7	4,386	8,660	858	2,624	194	32.2	60.3	5.7	18.3	1.8	2.5	0.2	1.0	0.2	40.6	1.69	69.4	0.9
	9.7	10.2	4,750	9,606	959	2,928	199	31.8	55.4	4.2	13.5	1.2	1.8	0.2	1.0	0.1	27.9	1.86	58.3	0.8
	10.2	11.3	6,239	13,144	1,305	3,907	241	37.5	69.9	6.7	22.0	2.1	2.7	0.2	0.8	0.1	44.5	2.50	70.2	1.1
	11.3	12.3	6,134	12,468	1,250	3,779	256	40.0	64.9	4.6	14.4	1.4	1.8	0.2	0.9	0.1	31.8	2.40	45.8	2.3
	12.3	13.3	5,723	11,363	1,120	3,383	232	35.7	59.8	4.4	12.5	1.2	1.7	0.2	0.8	0.1	26.7	2.20	42.3	0.7
	13.3	14.1	10,156	19,409	1,879	5,575	363	57.6	99.8	8.4	26.9	2.4	3.2	0.2	0.8	0.2	54.6	3.76	103.5	0.8
	14.1	15.0	13,018	23,954	2,265	6,648	442	70.1	117.0	9.3	26.7	2.3	3.2	0.2	0.8	0.1	53.3	4.66	107.5	0.9
	15.0	15.5	6,192	11,780	1,126	3,324	226	37.9	73.5	6.8	22.2	1.9	2.5	0.2	1.0	0.1	44.5	2.28	101	0.5
	15.5	16.0	11,130	21,251	2,072	6,170	401	60.3	100.6	7.0	20.8	1.9	2.6	0.2	0.7	0.1	43.2	4.13	79.1	1
	16.0	16.5	5,020	9,901	977	2,928	189	28.8	45.9	2.7	8.5	0.8	1.0	0.1	0.5	0.1	17.8	1.91	23.4	0.7
	16.5	17.0	6,087	12,149	1,207	3,651	232	33.0	48.0	2.8	8.5	0.9	1.4	0.1	0.6	0.1	20.3	2.34	23.2	1
	17.0	17.6	8,503	16,706	1,649	4,981	330	50.8	85.4	6.4	20.2	2.1	2.9	0.2	1.3	0.2	45.7	3.24	67.6	1.5
	17.6	18.5	10,203	19,470	1,885	5,575	355	50.5	80.7	4.9	15.2	1.4	1.9	0.1	0.7	0.1	29.2	3.77	47.7	1.8
	18.5	19.3	5,629	11,535	1,166	3,604	244	36.1	55.3	3.4	8.8	0.9	1.5	0.1	0.7	0.1	19.1	2.23	27.9	1.3
	19.3	20.0	13,311	24,384	2,302	6,753	431	64.4	100.6	6.7	19.1	1.8	2.6	0.2	1.0	0.2	38.1	4.74	54.7	0.9
	20.0	20.5	6,450	12,591	1,232	3,697	241	36.5	58.9	4.2	14.2	1.2	1.7	0.1	0.8	0.1	29.2	2.44	36.3	0.8
	20.5	21.0	10,356	20,084	1,915	5,657	354	51.8	82.8	5.9	16.3	1.6	2.1	0.2	0.8	0.1	33.0	3.86	54.8	1.3
	21.0	21.5	8,257	16,276	1,595	4,747	311	46.6	72.3	4.6	13.5	1.3	2.2	0.2	0.7	0.1	30.5	3.14	37.8	2.9
	21.5	21.7	11,095	21,067	2,012	5,960	386	60.2	96.4	6.0	18.4	1.9	3.1	0.3	1.4	0.2	40.6	4.07	47.7	1.1
21.7	22.1	8,257	14,618	1,383	4,141	307	59.1	108.5	10.8	30.3	2.6	3.5	0.3	1.6	0.2	61.0	2.90	154	1.5	
22.1	23.0	7,365	14,004	1,341	3,966	257	45.9	75.3	5.4	14.5	1.6	2.2	0.2	1.1	0.1	30.5	2.71	39.7	3.5	
23.0	23.9	5,829	11,142	1,070	3,208	204	35.8	60.4	4.2	12.6	1.3	2.2	0.2	1.3	0.1	26.7	2.16	31.2	4.7	
23.9	24.6	13,077	23,524	2,338	6,509	442	67.4	122.2	9.6	28.8	2.6	3.8	0.3	1.0	0.2	57.2	4.62	81.9	1.8	
24.6	25.6	8,339	14,864	1,420	4,292	317	51.0	94.6	8.0	25.9	2.5	4.1	0.3	1.5	0.2	55.9	2.95	67.8	1.6	
25.6	26.3	4,691	8,808	859	2,601	170	25.1	49.6	4.6	14.8	1.4	2.1	0.2	1.0	0.1	31.8	1.73	62.3	5.4	
26.3	26.8	5,078	9,557	933	2,858	187	29.0	53.5	4.9	15.8	1.4	2.2	0.2	1.0	0.1	33.0	1.88	65.3	2.9	
26.8	27.6	7,905	14,925	1,444	4,269	274	39.7	71.6	5.7	17.2	1.6	2.3	0.2	0.8	0.1	35.6	2.90	75.9	1.4	
27.6	28.2	16,361	29,604	2,960	8,281	484	75.4	147.5	15.4	52.0	4.6	6.2	0.4	1.5	0.2	102.9	5.81	162.5	1.5	
28.2	28.5	8,432	16,706	1,758	4,864	288	38.9	67.0	5.7	18.5	1.8	2.5	0.2	0.8	0.1	39.4	3.22	49.7	0.8	
28.5	29.0	5,078	9,913	977	2,963	184	26.8	46.3	3.5	10.1	1.0	1.3	0.1	0.5	-0.1	19.1	1.92	45.3	1	
29.0	30.0	3,753	7,469	741	2,234	144	19.8	31.8	2.1	6.1	0.6	1.0	0.1	0.3	-0.1	11.4	1.44	18.6	-0.3	

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	30.0	31.0	5,336	10,343	1,020	3,068	187	25.7	42.7	2.7	7.4	0.7	0.9	0.1	0.5	0.1	14.0	2.00	22.4	-0.3
	31.0	32.0	4,832	9,336	925	2,823	174	24.7	41.0	2.9	8.4	0.8	1.0	0.1	0.3	0.1	15.2	1.82	25.2	0.3
	32.0	32.9	5,747	11,289	1,133	3,429	217	30.7	50.4	3.5	9.1	0.9	1.3	0.1	0.5	0.1	16.5	2.19	30.9	0.3
	32.9	33.4	2,662	5,602	579	1,825	130	20.0	36.9	3.4	11.4	1.3	2.1	0.2	1.3	0.2	33.0	1.09	42.7	0.3
	33.4	33.6	4,046	7,985	793	2,449	164	24.2	41.6	2.9	8.4	0.7	1.1	0.1	0.6	0.1	17.8	1.55	36.8	0.3
	33.6	34.8	7,893	14,495	1,377	4,164	296	46.9	85.9	7.2	21.6	2.2	3.3	0.3	1.5	0.3	50.8	2.84	69.1	0.8
	34.8	35.3	4,586	8,562	838	2,519	157	22.8	38.6	2.9	8.2	0.7	1.1	0.1	0.5	0.1	16.5	1.68	30.6	0.4
	35.3	36.0	6,052	11,314	1,101	3,301	218	32.7	59.1	4.6	12.7	1.2	1.7	0.1	0.6	0.1	24.1	2.21	49.9	0.4
	36.0	36.4	1,959	3,869	376	1,166	84	13.7	26.6	2.7	8.3	0.8	1.3	0.1	0.6	0.1	16.5	0.75	25.8	1
	36.4	37.1	7,858	14,004	1,347	4,094	300	48.3	89.8	7.5	22.4	2.0	2.7	0.2	0.9	0.1	41.9	2.78	77.6	1
	37.1	38.1	6,134	11,829	1,165	3,499	224	34.4	63.2	5.8	18.6	1.8	2.3	0.2	0.8	0.1	36.8	2.30	58.2	0.6
	38.1	38.5	5,970	10,920	1,070	3,254	239	38.4	73.2	6.2	20.7	2.1	3.3	0.3	1.4	0.2	49.5	2.16	55.2	1.2
	38.5	39.0	4,457	8,611	842	2,543	157	22.5	38.0	2.8	8.6	0.9	1.3	0.1	0.6	0.1	16.5	1.67	22.7	0.4
	39.0	39.3	3,882	7,456	729	2,199	136	20.3	34.8	3.5	11.3	1.0	1.5	0.1	0.7	0.1	24.1	1.45	31.1	0.6
	39.3	40.0	8,902	17,136	1,818	5,307	392	61.4	112.0	9.5	30.8	3.1	5.7	0.6	2.5	0.3	80.0	3.39	93.8	2.1
	40.0	40.6	10,391	19,409	1,981	5,494	375	59.4	112.5	9.7	33.4	3.5	6.3	0.6	2.6	0.3	92.7	3.80	108	2.4
	40.6	41.6	6,920	12,468	1,177	3,709	235	34.6	64.7	5.3	16.9	1.7	2.2	0.2	1.1	0.1	36.8	2.47	62.6	0.6
	41.6	42.2	15,188	25,674	2,477	6,893	443	69.4	129.1	9.8	33.5	3.3	5.3	0.4	1.8	0.3	86.4	5.10	104.5	1.1
	42.2	42.7	13,018	22,418	2,217	6,252	399	61.0	113.2	9.0	33.1	3.4	6.4	0.6	3.0	0.3	105.4	4.46	93.4	1.2
	42.7	43.8	11,904	21,128	2,126	5,995	384	58.8	114.5	10.2	34.7	3.7	5.8	0.5	2.6	0.4	100.3	4.19	95	1.1
	43.8	44.2	8,585	15,539	1,456	4,526	277	43.8	83.0	7.1	24.0	2.1	3.0	0.3	1.3	0.2	49.5	3.06	79.3	2
	44.2	45.2	5,817	10,405	985	3,079	192	28.8	53.1	4.6	15.2	1.4	2.4	0.2	1.1	0.1	36.8	2.06	49.4	2.7
	45.2	45.7	6,368	11,645	1,106	3,453	223	34.5	65.5	5.2	17.6	1.7	2.6	0.2	1.0	0.2	43.2	2.30	46.6	2
	45.7	46.3	7,717	13,390	1,244	3,791	231	35.1	62.8	5.0	15.7	1.7	2.6	0.3	1.0	0.2	41.9	2.65	51.2	1.2
	46.3	47.0	5,231	9,520	887	2,706	155	23.2	44.3	3.8	13.0	1.4	2.2	0.2	0.8	0.1	33.0	1.86	35.8	1.7
	47.0	48.0	5,735	10,110	961	3,126	240	41.3	85.3	8.4	37.0	4.1	8.4	0.9	6.0	0.9	123.2	2.05	76.4	2.9
	48.0	49.0	11,106	18,303	1,691	5,062	325	51.3	94.1	7.1	23.4	2.3	3.7	0.3	1.7	0.2	58.4	3.67	69.5	3
	49.0	49.7	747	1,505	167	615	66	14.4	37.9	5.4	31.1	4.5	11.1	1.3	7.9	1.0	148.6	0.34	29.6	6.5
	49.7	51.0	1,402	2,678	251	853	78	14.5	34.7	3.8	17.2	2.5	5.7	0.7	4.0	0.6	76.2	0.54	29.7	4.4
	51.0	51.6	12,138	19,532	1,704	5,155	328	51.9	94.9	7.1	21.1	2.0	3.5	0.3	1.7	0.3	52.1	3.91	76.5	6.3
	51.6	52.3	6,615	12,026	1,141	3,628	248	39.7	72.8	5.8	21.8	2.3	3.8	0.3	1.6	0.2	58.4	2.39	53.2	4
	52.3	53.0	8,925	15,048	1,353	4,059	239	37.8	70.5	5.8	18.6	1.8	3.0	0.3	1.4	0.2	45.7	2.98	60.3	1.4
	53.0	53.5	6,145	10,982	1,004	3,091	190	28.3	50.5	3.6	11.6	1.1	1.8	0.2	0.7	0.1	26.7	2.15	32.8	0.9
	53.5	54.4	6,626	11,400	1,048	3,208	198	31.7	60.2	5.3	19.6	1.9	3.3	0.3	1.6	0.2	55.9	2.27	52.1	1.2
	54.4	55.0	6,251	11,252	1,055	3,254	200	28.7	49.2	3.3	9.1	0.7	1.1	0.1	0.5	0.1	17.8	2.21	24	0.6
	55.0	55.6	8,749	15,724	1,462	4,561	278	40.0	68.6	4.5	12.6	1.1	1.6	0.1	0.6	0.1	24.1	3.09	36.3	1.2
	55.6	56.2	9,019	15,724	1,456	4,502	279	40.1	68.7	4.5	13.5	1.5	2.1	0.2	0.7	0.1	27.9	3.11	37.7	2.3
	56.2	57.1	4,386	7,788	729	2,234	130	18.5	32.7	3.2	14.8	1.6	2.5	0.2	0.8	0.1	36.8	1.54	21.1	1.4
	57.1	57.9	7,858	14,618	1,395	4,479	284	43.2	72.7	4.8	13.2	1.3	2.3	0.2	0.8	0.1	27.9	2.88	33	1.1
	57.9	58.3	5,336	9,950	969	3,103	201	30.2	50.8	3.3	9.0	0.8	1.3	0.1	0.5	-0.1	17.8	1.97	23.6	0.9
	58.3	58.8	8,831	15,662	1,462	4,479	271	39.3	71.0	5.0	15.0	1.4	2.2	0.2	0.8	0.1	34.3	3.09	45	1.1
	58.8	59.8	5,594	10,147	954	3,044	198	30.7	52.2	3.5	10.1	1.1	1.9	0.2	0.8	0.1	24.1	2.01	27.1	4
	59.8	60.5	6,943	13,758	1,420	4,327	276	42.0	67.9	4.8	13.8	1.4	2.2	0.1	0.6	0.1	29.2	2.69	47	1.4
	60.5	60.9	5,547	10,650	1,022	2,939	191	31.5	51.3	3.2	8.5	0.9	1.5	0.1	0.7	0.1	19.1	2.05	26	0.6
	60.9	61.4	5,078	9,397	892	2,636	168	29.1	48.5	3.4	10.3	1.0	1.6	0.1	0.5	-0.1	19.1	1.83	27.4	0.6
	61.4	61.7	17,240	29,727	2,767	7,185	436	72.8	122.8	9.4	26.7	2.3	3.1	0.2	0.9	0.1	45.7	5.76	100.5	0.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	61.7	62.2	9,664	18,180	1,764	5,074	315	52.3	90.0	8.3	24.2	2.3	3.5	0.3	1.1	0.3	54.6	3.52	71.5	1.7
	62.2	63.3	6,650	13,082	1,269	3,837	256	45.5	79.9	7.0	23.3	2.4	3.5	0.2	1.3	0.1	53.3	2.53	66.7	1.2
	63.3	64.3	6,673	12,653	1,205	3,429	222	37.3	65.2	5.0	14.0	1.4	1.8	0.1	0.8	0.1	30.5	2.43	54.1	1.1
	64.3	65.2	4,398	8,660	842	2,601	186	32.9	55.9	4.1	12.6	1.3	1.9	0.2	0.9	0.2	29.2	1.68	39.2	6.4
	65.2	65.9	7,002	13,082	1,220	3,558	230	37.3	64.0	4.8	15.3	1.5	1.7	0.2	0.8	0.1	30.5	2.52	49.3	3.4
	65.9	66.4	4,152	7,825	735	2,152	143	24.4	45.1	4.1	14.2	1.5	1.9	0.2	1.0	0.1	34.3	1.51	51.5	13.5
	66.4	67.0	1,894	3,906	347	1,005	77	13.8	30.2	4.5	16.5	2.0	3.0	0.5	1.8	0.3	45.7	0.73	57.4	26.1
	67.0	67.7	3,800	6,830	599	1,709	126	21.5	42.1	4.8	15.8	1.6	2.6	0.2	1.0	0.2	40.6	1.32	59.6	15.6
	67.7	68.7	2,768	5,945	567	1,750	159	26.6	52.3	5.2	20.4	2.8	6.8	0.7	4.0	0.6	80.0	1.14	31.7	7.6
	68.7	69.7	1,876	3,869	360	1,101	108	22.5	48.5	5.1	21.5	2.9	7.1	0.8	4.3	0.5	87.6	0.75	28.4	7.3
	69.7	70.7	4,093	7,886	713	2,088	146	23.2	40.3	3.2	10.3	1.3	2.6	0.2	1.4	0.2	31.8	1.50	32.3	17.4
	70.7	71.7	2,041	4,533	424	1,277	95	15.3	27.9	2.5	9.1	1.1	2.5	0.3	1.5	0.2	31.8	0.85	27.9	22.6
	71.7	72.7	2,093	4,594	434	1,301	110	18.4	35.5	3.0	11.4	1.5	3.4	0.3	1.6	0.2	41.9	0.86	29.9	37
	72.7	73.1	6,274	12,345	1,189	3,406	202	32.3	50.0	3.3	9.8	1.0	1.4	0.1	0.6	0.1	21.6	2.35	27.4	5.2
	73.1	74.7	4,363	9,139	904	2,694	172	26.5	40.7	3.0	7.7	0.8	1.0	0.1	0.7	0.1	16.5	1.74	22.9	5.6
	74.7	75.1	2,047	4,078	408	1,231	90	15.4	27.8	2.3	7.2	0.8	1.0	0.2	1.0	0.2	19.1	0.79	27.6	5.8
	75.1	75.7	2,129	4,127	413	1,271	117	25.1	59.0	7.6	30.8	4.2	8.0	0.9	5.6	0.8	106.7	0.83	72.7	14.2
	75.7	76.1	1,185	2,629	266	910	108	23.7	57.3	5.8	27.8	4.2	10.1	1.0	5.8	0.7	118.1	0.54	45.3	10.6
	76.1	77.0	977	2,402	261	958	129	29.3	70.0	7.3	34.6	5.0	11.9	1.3	7.0	0.8	142.2	0.50	55.4	14.8
	77.0	77.4	1,994	4,361	418	1,306	104	19.9	40.6	3.4	13.3	2.0	4.8	0.5	3.0	0.4	50.8	0.83	31.9	14.2
	77.4	77.8	9,852	19,716	2,030	5,645	382	61.8	118.1	10.2	40.7	5.0	10.0	0.9	5.6	0.8	146.0	3.80	72.7	6.6
	77.8	78.4	5,172	9,803	922	2,683	169	27.1	49.7	4.4	15.3	1.6	2.5	0.2	1.0	0.2	36.8	1.89	39.3	6.1
	78.4	79.1	8,890	15,908	1,426	4,024	249	40.5	75.3	6.7	23.2	2.3	3.7	0.3	1.3	0.2	55.9	3.07	70.5	2.5
	79.1	79.5	2,721	5,221	487	1,446	104	17.1	32.3	2.5	9.2	1.0	1.6	0.1	0.6	0.1	24.1	1.01	30.7	5
	79.5	80.5	1,648	3,513	330	1,026	86	16.3	33.0	2.7	11.5	1.4	3.2	0.3	1.8	0.2	39.4	0.67	22.5	5.7
	80.5	81.3	409	910	101	351	45	10.4	23.1	2.5	12.3	1.8	4.5	0.5	2.3	0.3	52.1	0.19	18.4	3.2
	81.3	82.1	1,372	2,960	288	960	102	21.5	44.6	4.2	17.7	2.3	5.5	0.6	3.8	0.5	68.6	0.59	29.9	7.4
	82.1	83.0	169	346	37	122	12	2.8	7.5	0.7	3.8	0.6	1.5	0.2	1.0	0.1	20.3	0.07	6.5	2.3
	83.0	84.0	40	76	8	24	2	0.6	1.5	0.2	0.6	0.1	0.2	-0.1	-0.2	-0.1	3.8	0.02	0.8	0.3
	84.0	85.0	7	11	1	5	0	-0.2	0.4	-0.1	-0.3	-0.1	-0.2	-0.1	-0.2	-0.1	-3.8	0.00	-0.3	-0.3
	85.0	85.3	746	1,812	189	651	79	16.9	38.8	3.8	17.6	2.5	5.5	0.6	3.2	0.4	66.0	0.36	31.6	4.7
	85.3	86.3	2,005	4,533	469	1,598	187	40.5	93.5	9.4	42.7	6.1	14.4	1.5	8.9	1.1	165.1	0.92	51.6	13.8
	86.3	87.3	1,172	2,764	288	1,025	136	31.0	75.0	7.6	36.0	5.0	11.8	1.3	7.3	0.9	137.2	0.57	54.3	14.8
	87.3	88.3	823	2,156	243	906	122	27.4	62.5	6.3	27.0	3.7	9.0	0.9	5.2	0.6	101.6	0.45	64	16.3
	88.3	88.9	530	1,357	174	696	124	29.1	71.8	7.6	37.1	5.4	12.5	1.3	7.1	0.9	148.6	0.32	46.6	9.1
	88.9	89.5	6,134	11,559	1,097	3,266	232	37.4	64.2	4.5	15.3	1.7	3.0	0.3	1.4	0.2	39.4	2.25	52.6	11.9
	89.5	90.5	2,023	4,349	436	1,411	145	29.9	64.8	6.3	28.2	4.1	10.0	1.1	6.4	0.8	116.8	0.86	38.1	10.1
	90.5	91.5	1,847	4,385	449	1,534	162	33.4	72.6	7.0	31.5	4.3	10.2	1.1	6.0	0.8	120.6	0.87	45.7	9.6
	91.5	92.1	2,580	5,208	499	1,627	172	38.1	86.0	8.9	40.5	6.2	14.5	1.6	9.3	1.2	170.2	1.05	56.3	10.8
	92.1	93.2	5,242	10,245	1,023	3,208	238	38.3	65.4	4.6	14.7	1.5	2.7	0.2	1.3	0.1	35.6	2.01	48.2	7.9
	93.2	94.3	5,805	11,461	1,118	3,359	223	32.4	57.3	4.6	15.2	1.5	2.4	0.2	0.9	0.1	34.3	2.21	44.2	4.4
	94.3	95.2	4,550	8,943	884	2,729	205	33.2	58.3	4.2	13.7	1.4	1.9	0.2	0.7	0.1	29.2	1.75	42.5	8.4
	95.2	95.8	7,658	15,355	1,583	5,214	426	68.3	112.8	7.1	21.7	1.9	2.7	0.2	1.0	0.1	38.1	3.05	76.5	2.9
	95.8	96.8	4,011	7,886	756	2,292	152	24.8	43.2	3.0	9.9	1.1	1.7	0.2	0.9	0.1	25.4	1.52	29.6	20.6
	96.8	97.1	2,979	5,773	544	1,586	101	15.4	26.1	2.0	7.1	0.7	1.3	0.1	0.7	0.1	16.5	1.11	26.2	28.5
	97.1	97.7	6,392	12,137	1,159	3,546	270	45.7	81.7	6.0	19.6	2.0	3.0	0.2	1.3	0.2	45.7	2.37	69	12

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	97.7	98.4	15,481	27,270	2,598	6,823	433	68.9	123.3	9.2	28.9	2.8	4.2	0.3	1.5	0.3	63.5	5.29	99	10.2
	98.4	98.7	4,762	9,004	824	2,315	147	27.6	50.7	4.2	14.2	1.6	2.3	0.2	0.9	0.2	35.6	1.72	45.7	18.1
	98.7	99.2	3,741	6,891	620	1,744	113	20.4	37.1	3.4	11.8	1.3	2.1	0.2	1.1	0.1	30.5	1.32	39.5	30.3
	99.2	99.4	5,407	9,975	947	2,753	185	34.3	60.3	4.9	16.1	1.6	2.2	0.2	1.0	0.1	34.3	1.94	41.2	8.8
	99.4	100.4	6,181	10,945	1,081	3,219	226	36.2	64.0	4.7	16.3	1.6	2.7	0.2	0.8	0.1	35.6	2.18	49.6	14.6
	100.4	101.4	4,081	7,530	747	2,251	172	28.5	53.0	4.1	13.3	1.4	1.9	0.2	0.9	0.1	33.0	1.49	44.2	9.3
	101.4	102.4	7,095	12,100	1,145	3,266	219	35.9	66.6	5.6	19.4	2.1	3.0	0.2	1.3	0.2	50.8	2.40	56.3	11.5
	102.4	102.9	5,395	9,962	952	2,776	187	32.5	62.8	6.0	23.8	2.6	3.4	0.3	1.1	0.2	57.2	1.95	65.7	14.2
	102.9	103.7	5,465	9,852	982	2,963	221	38.7	69.0	5.3	17.9	2.1	2.6	0.3	0.9	0.2	41.9	1.97	71	15.2
	103.7	104.7	5,981	11,142	1,138	3,511	271	45.9	83.0	6.3	20.3	2.2	2.6	0.3	1.1	0.2	44.5	2.22	71.8	13.5
	104.7	105.7	6,662	11,756	1,126	3,278	230	38.7	72.3	6.3	22.3	2.6	3.7	0.3	1.8	0.3	64.8	2.33	69.7	14.9
	105.7	106.0	8,139	15,294	1,528	4,537	313	51.3	86.8	6.3	17.9	1.8	2.3	0.2	1.1	0.2	39.4	3.00	86.9	26
	106.0	106.8	1,818	3,968	434	1,493	176	38.0	86.3	9.4	44.8	7.3	15.3	1.7	10.4	1.6	196.8	0.83	50.8	16.6
	106.8	107.3	6,310	11,780	1,173	3,558	269	43.4	84.7	7.1	26.4	3.1	4.9	0.4	1.9	0.3	74.9	2.33	91.1	14.4
	107.3	107.7	4,750	9,004	871	2,648	164	25.8	44.7	3.8	13.3	1.6	2.9	0.2	1.1	0.2	36.8	1.76	47.3	25.6
	107.7	108.7	3,835	7,383	721	2,269	159	25.7	47.7	4.2	17.2	2.2	4.5	0.4	2.5	0.3	57.2	1.45	48.4	21.6
	108.7	109.7	6,403	12,186	1,179	3,686	237	35.2	60.7	4.6	15.6	1.7	2.9	0.2	1.3	0.2	40.6	2.39	52.8	14.5
	109.7	110.7	5,325	10,736	1,089	3,511	248	40.5	72.8	5.8	18.6	1.9	2.9	0.2	1.0	0.2	41.9	2.11	76.7	12.4
	110.7	111.1	2,111	4,459	445	1,470	116	20.2	39.3	3.6	13.0	1.6	2.9	0.3	1.4	0.2	39.4	0.87	53.1	8
	111.1	112.0	7,307	15,109	1,559	4,607	292	44.7	72.3	5.0	16.2	1.6	2.6	0.2	1.0	0.1	36.8	2.91	58.3	17.5
	112.0	112.6	4,386	9,225	929	2,951	185	29.2	47.0	3.2	10.2	1.0	1.5	0.2	0.6	0.1	22.9	1.78	37.5	14.6
	112.6	113.2	2,475	5,344	544	1,785	125	20.8	33.3	2.1	6.5	0.8	1.3	0.2	0.7	0.1	19.1	1.04	20.9	8.1
	113.2	113.6	2,522	5,565	584	1,930	143	23.3	38.4	2.9	9.5	1.1	2.1	0.2	1.1	0.2	27.9	1.08	29.5	16.5
	113.6	114.0	3,296	7,088	736	2,403	177	29.9	49.3	3.5	10.6	1.2	2.4	0.2	1.4	0.1	27.9	1.38	35	20.3
	114.0	115.0	3,096	6,842	737	2,496	205	37.3	67.7	5.1	17.9	2.2	4.5	0.4	2.2	0.3	55.9	1.36	39.5	18.6
	115.0	115.6	2,275	5,049	542	1,866	172	32.1	62.0	5.4	19.2	2.2	3.9	0.4	2.2	0.3	58.4	1.01	42.7	19.2
	115.6	115.9	5,747	12,026	1,220	3,791	250	40.3	62.8	4.0	12.2	1.3	2.1	0.2	0.8	0.1	29.2	2.32	46.6	18.2
	115.9	116.4	2,082	4,705	499	1,703	156	29.6	56.5	4.4	17.8	2.5	5.4	0.6	3.4	0.4	69.8	0.93	40.4	23.1
	116.4	117.0	2,176	4,950	538	1,855	158	30.2	59.4	5.1	20.4	2.9	6.5	0.7	3.4	0.4	81.3	0.99	36.3	19
	117.0	117.2	4,808	11,658	1,299	4,409	328	52.2	82.5	5.0	13.7	1.3	2.1	0.2	0.9	0.1	30.5	2.27	54.6	10.8
	117.2	118.2	3,038	6,326	638	2,030	140	23.5	39.8	2.9	9.6	1.1	1.9	0.2	1.0	0.2	25.4	1.23	36	17.9
	118.2	118.5	2,838	5,945	610	2,000	145	22.9	35.7	2.3	7.2	0.9	1.7	0.2	0.9	0.1	19.1	1.16	24.4	11.7
	118.5	118.9	2,357	5,049	520	1,703	132	23.5	42.1	3.7	12.6	1.5	2.1	0.2	1.0	0.2	35.6	0.99	46.3	11.5
	118.9	119.9	5,571	11,891	1,208	3,861	268	46.2	86.6	7.3	26.3	3.1	5.2	0.5	2.6	0.3	76.2	2.31	71.2	16.8
	119.9	120.4	3,202	7,309	796	2,706	217	39.0	73.3	6.0	20.5	2.0	3.3	0.3	1.6	0.3	54.6	1.44	83.2	6.3
	120.4	121.3	4,093	8,230	893	2,974	225	36.4	62.0	4.5	15.4	1.7	3.1	0.3	1.8	0.3	44.5	1.66	57.6	17.7
	121.3	121.5	1,712	4,029	455	1,610	130	20.2	32.7	2.3	6.2	0.7	1.4	0.1	0.6	0.1	15.2	0.80	20.2	20.9
	121.5	122.5	1,472	3,206	338	1,117	85	13.6	23.1	1.9	6.5	0.7	1.4	0.1	0.7	0.1	17.8	0.63	18.4	25.1
	122.5	123.5	1,701	3,673	381	1,254	87	13.6	22.4	1.7	5.4	0.6	1.1	0.1	0.7	0.1	14.0	0.72	16.8	28.8
	123.5	124.5	1,777	3,599	362	1,157	80	11.9	21.9	1.7	6.2	0.8	1.7	0.2	0.9	0.2	20.3	0.70	19	23.7
	124.5	125.5	4,656	8,427	848	2,636	188	31.3	57.4	4.7	14.4	1.6	2.3	0.2	1.1	0.1	31.8	1.69	61.8	18.2
	125.5	126.5	2,346	4,594	459	1,441	105	16.7	29.6	2.3	8.0	0.9	1.5	0.2	1.0	0.1	20.3	0.90	25.8	23.8
	126.5	126.7	2,568	4,852	459	1,365	86	13.8	24.2	2.0	7.1	0.8	1.6	0.2	0.9	0.1	20.3	0.94	25.1	25.3
	126.7	127.0	2,639	5,270	540	1,755	131	22.0	42.0	3.6	10.8	1.2	1.8	0.2	0.8	0.1	26.7	1.04	54.2	24
	127.0	127.3	1,742	4,238	425	1,341	94	15.8	24.3	1.7	5.6	0.6	1.6	0.1	0.8	0.1	14.0	0.79	22.8	29.1
	127.3	128.1	3,260	7,407	791	2,601	188	31.2	49.9	3.9	10.7	0.9	1.7	0.1	0.8	0.1	21.6	1.44	36.4	17.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	128.1	129.0	2,193	5,061	511	1,580	115	21.3	37.9	3.0	9.6	1.2	2.3	0.2	1.4	0.3	27.9	0.96	20.2	24.7
	129.0	129.9	1,964	4,852	503	1,580	120	20.4	36.4	2.9	8.6	1.0	1.7	0.2	1.0	0.2	24.1	0.91	38.4	29.9
	129.9	130.4	4,691	9,127	841	2,315	125	20.2	35.3	2.9	9.5	1.1	2.3	0.3	1.1	0.2	25.4	1.72	31.2	25.3
	130.4	131.1	4,117	7,923	709	2,006	108	18.3	33.4	2.9	10.0	1.3	2.3	0.2	1.3	0.2	30.5	1.50	36.9	25.7
	131.1	131.8	2,756	5,614	533	1,528	88	15.5	25.7	2.3	7.1	0.8	1.6	0.2	0.8	0.1	21.6	1.06	25.9	28.6
	131.8	132.4	4,081	7,935	736	2,094	127	22.1	40.6	3.4	11.4	1.3	2.4	0.3	1.3	0.2	31.8	1.51	42.8	25.8
	132.4	132.9	1,349	2,936	280	795	47	8.1	15.2	1.2	4.4	0.6	1.3	0.1	0.7	0.1	14.0	0.55	12.2	29.6
	132.9	133.5	1,753	3,489	314	888	56	9.6	18.1	1.9	6.5	0.8	1.6	0.2	1.0	0.1	20.3	0.66	18	36.1
	133.5	134.0	2,316	4,668	429	1,242	77	13.7	23.7	2.2	7.8	1.0	1.9	0.2	1.1	0.2	26.7	0.88	23.9	30.2
	134.0	135.0	3,073	6,117	573	1,668	103	17.4	28.9	2.6	7.9	1.0	2.1	0.3	1.4	0.2	25.4	1.16	30.7	28.9
	135.0	136.0	3,120	6,461	616	1,866	115	17.7	28.7	2.4	7.2	0.8	1.5	0.1	0.9	0.1	17.8	1.23	25.9	36.7
	136.0	137.0	2,381	5,307	517	1,592	104	17.1	28.4	2.1	6.7	0.7	1.5	0.2	0.8	0.1	16.5	1.00	28.5	32.3
	137.0	138.0	3,284	6,597	646	1,948	130	25.4	51.2	5.4	18.3	2.3	4.0	0.4	2.4	0.4	55.9	1.28	55.9	22.3
	138.0	139.0	2,047	4,459	430	1,306	88	15.3	24.4	1.9	6.0	0.7	1.4	0.1	0.7	0.1	17.8	0.84	24.7	30.4
	139.0	140.0	2,346	4,754	439	1,271	83	13.9	24.3	2.0	6.9	0.9	1.6	0.1	0.8	0.1	20.3	0.90	28.8	28.3
	140.0	141.0	24,042	39,432	3,504	8,456	458	76.7	128.5	10.5	35.0	3.8	6.5	0.5	2.6	0.3	96.5	7.63	107.5	3
	141.0	142.0	16,302	27,025	2,368	6,042	326	56.3	103.3	10.6	40.2	5.0	8.8	0.9	4.4	0.5	132.1	5.24	95.5	2.7
	142.0	142.8	15,070	28,253	2,634	7,057	415	64.8	113.4	9.5	31.0	3.6	5.8	0.6	3.2	0.4	90.2	5.38	98.4	3
	142.8	143.7	2,862	5,687	526	1,522	100	16.4	27.0	2.4	9.6	1.0	2.1	0.2	0.9	0.1	26.7	1.08	27.3	24.3
	143.7	144.1	5,031	9,803	944	2,753	176	29.6	50.3	4.2	13.4	1.6	3.2	0.3	1.4	0.2	36.8	1.88	47.1	25.1
	144.1	144.5	11,845	22,725	2,102	5,879	357	55.8	92.0	6.9	18.6	1.7	3.2	0.2	1.0	0.2	39.4	4.31	80	9.2
	144.5	145.8	6,615	12,653	1,214	3,511	228	39.0	65.8	5.7	17.5	1.8	3.0	0.2	1.0	0.2	41.9	2.44	61.9	3.9
	145.8	146.5	2,475	5,110	486	1,470	96	15.3	26.4	2.4	9.2	1.1	2.2	0.2	1.1	0.2	26.7	0.97	25.3	22.3
	146.5	147.2	13,253	30,464	3,371	9,949	688	109.1	171.7	12.1	36.6	3.7	4.9	0.4	2.7	0.2	77.5	5.81	167	6.6
	147.2	147.5	5,794	12,468	1,287	3,931	262	42.4	69.9	5.4	17.9	2.1	3.7	0.3	1.9	0.3	52.1	2.39	52.3	4.1
	147.5	148.5	5,559	11,031	1,091	3,289	221	35.2	57.9	4.4	13.3	1.3	2.1	0.2	0.8	0.1	29.2	2.13	45	11.6
	148.5	149.5	2,439	5,516	569	1,755	117	19.5	28.5	2.3	7.5	0.8	1.5	0.1	0.8	0.2	17.8	1.05	28	28.7
	149.5	149.8	3,425	7,014	697	2,123	146	24.6	44.5	4.2	12.3	1.2	1.8	0.1	0.9	0.1	27.9	1.35	86.8	19
	149.8	150.3	6,228	12,001	1,128	3,348	203	33.5	62.4	5.1	16.1	1.6	2.4	0.2	0.8	0.1	35.6	2.31	63.8	1.4
	150.3	151.2	2,803	5,626	578	1,855	128	21.2	34.9	2.6	8.2	1.0	1.8	0.2	0.8	0.1	24.1	1.11	33.2	25.7
	151.2	151.6	1,074	2,291	216	672	43	7.8	14.1	1.3	5.1	0.7	1.6	0.1	0.8	0.2	17.8	0.43	19.6	38.6
	151.6	152.3	14,015	29,973	3,178	9,763	613	105.4	170.6	11.7	34.7	3.2	5.0	0.4	1.7	0.3	76.2	5.80	141.5	17.8
	152.3	153.3	7,717	15,908	1,698	4,852	318	53.6	86.9	6.0	17.5	1.9	3.1	0.3	1.4	0.2	44.5	3.07	77.2	20.6
	153.3	154.3	3,542	6,977	679	2,018	133	24.1	40.7	3.0	10.1	1.1	2.1	0.2	1.3	0.2	27.9	1.35	41.5	36.3
	154.3	155.0	1,835	3,513	324	935	57	10.4	18.0	1.6	6.8	0.8	1.5	0.2	1.0	0.2	21.6	0.67	23.8	33
	155.0	155.8	1,402	2,960	289	898	59	10.0	16.8	1.4	4.7	0.6	1.1	0.1	0.8	0.2	15.2	0.57	20.3	34.7
	155.8	156.6	2,932	6,240	652	2,035	139	24.3	47.3	5.1	18.4	2.0	3.2	0.3	1.7	0.2	50.8	1.22	54.4	14.8
	156.6	157.5	2,733	5,823	613	1,977	140	23.3	39.9	3.2	9.8	1.1	1.9	0.2	1.3	0.2	27.9	1.14	41.9	26
	157.5	157.8	2,791	6,081	638	2,070	142	23.2	35.5	2.2	6.0	0.6	1.0	0.1	0.6	0.1	12.7	1.18	28.9	24.4
	157.8	158.5	3,988	8,451	881	2,753	185	30.2	46.9	2.9	8.2	0.9	1.5	0.2	0.7	0.1	17.8	1.64	32.1	26.8
	158.5	159.0	6,908	14,495	1,474	4,421	275	42.8	68.0	4.4	14.1	1.4	2.2	0.2	0.9	0.1	30.5	2.77	51.9	21.3
	159.0	160.0	6,978	14,557	1,504	4,491	288	45.0	74.5	5.6	17.6	1.8	2.4	0.2	0.9	0.1	40.6	2.80	59.4	8.3
	160.0	161.0	3,167	6,670	692	2,239	158	25.8	42.2	3.2	10.8	1.1	1.9	0.2	0.7	0.1	27.9	1.30	34.7	21.4
	161.0	162.2	9,500	20,699	2,241	6,858	456	69.5	108.9	6.5	18.3	1.8	2.5	0.2	1.1	0.1	39.4	4.00	73	19
	162.2	163.0	7,916	16,153	1,637	4,817	296	46.0	75.8	5.3	16.9	1.6	2.4	0.2	0.8	0.1	38.1	3.10	54.4	5.4
	163.0	163.4	8,538	16,891	1,710	4,981	304	46.1	73.1	5.0	14.4	1.5	2.3	0.2	0.8	0.1	34.3	3.26	45.4	11.7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	163.4	164.0	3,202	6,805	706	2,292	164	26.4	41.6	2.8	9.4	1.1	1.7	0.2	1.0	0.2	25.4	1.33	32.6	27.3
	164.0	165.6	4,715	10,441	1,109	3,651	255	40.2	61.8	4.0	12.4	1.4	2.2	0.2	1.1	0.2	30.5	2.03	38.5	16.3
	165.6	166.3	5,477	11,940	1,226	3,896	270	44.8	77.0	5.8	18.9	1.8	2.6	0.3	1.4	0.2	41.9	2.30	57.7	5.3
	166.3	166.9	2,862	6,289	667	2,228	160	24.2	35.9	2.2	6.0	0.6	1.4	0.1	0.7	0.1	15.2	1.23	23.7	25.4
	166.9	167.7	5,887	12,653	1,347	4,339	317	50.5	81.1	5.5	17.0	1.7	2.5	0.2	1.3	0.2	38.1	2.47	51.6	16.9
	167.7	168.7	6,603	14,004	1,504	4,619	317	51.1	85.6	6.1	20.1	2.2	3.8	0.3	1.5	0.2	54.6	2.73	60.1	9.2
	168.7	169.3	8,386	17,198	1,800	5,260	315	46.9	69.4	4.6	12.7	1.5	2.2	0.2	1.3	0.2	30.5	3.31	35.9	10.3
	169.3	170.3	8,092	16,583	1,740	5,179	318	47.8	69.0	4.0	10.6	1.1	1.7	0.2	0.8	0.1	21.6	3.21	35.8	9.9
	170.3	171.3	3,859	8,329	867	2,823	199	30.8	45.9	3.1	9.6	1.2	1.8	0.2	0.8	0.1	22.9	1.62	34.6	17
	171.3	172.3	3,366	7,456	796	2,683	196	30.9	45.2	2.8	8.2	0.8	1.5	0.2	0.8	0.1	17.8	1.46	22.7	8.6
	172.3	173.3	2,897	6,191	638	2,088	146	23.5	36.5	2.7	8.5	1.0	1.7	0.2	0.7	0.1	20.3	1.21	25	11
	173.3	174.3	5,489	10,884	1,115	3,476	245	40.0	62.1	3.7	9.9	1.0	1.5	0.2	0.7	0.1	21.6	2.13	30.3	9.9
	174.3	175.3	8,632	16,829	1,764	4,911	302	46.4	70.5	4.5	11.6	1.2	1.9	0.2	0.9	0.1	25.4	3.26	36.2	13.6
	175.3	175.9	4,797	9,852	1,009	3,138	207	34.9	56.4	4.4	14.9	1.5	2.3	0.2	0.9	0.1	33.0	1.92	46.3	15.4
	175.9	176.4	6,697	14,372	1,613	4,759	310	49.6	77.3	5.3	16.3	1.7	2.9	0.2	1.1	0.2	39.4	2.79	45.8	6.6
	176.4	177.8	7,600	16,583	1,885	5,552	369	59.3	92.2	6.2	18.3	1.9	2.9	0.3	1.5	0.2	44.5	3.22	54.6	4.8
	177.8	178.2	5,149	11,031	1,172	3,744	249	40.0	63.1	3.9	11.7	1.1	1.5	0.2	0.7	0.1	24.1	2.15	38.4	11.8
	178.2	179.7	5,090	11,645	1,305	4,176	305	50.8	80.8	5.3	15.2	1.5	1.7	0.2	0.8	0.2	30.5	2.27	57.1	12.1
	179.7	180.7	4,093	8,795	941	3,033	214	35.1	56.3	3.9	13.1	1.2	2.1	0.2	0.8	0.1	29.2	1.72	40	11.2
	180.7	181.3	7,224	15,478	1,691	4,852	295	45.4	70.1	4.5	12.2	1.2	1.6	0.1	0.6	0.1	25.4	2.97	45.7	1.9
	181.3	182.8	5,629	11,965	1,263	3,861	261	42.8	69.4	4.6	13.1	1.2	1.8	0.1	0.6	0.1	26.7	2.31	49.6	3.8
	182.8	183.5	4,234	8,857	923	2,904	193	30.7	47.7	3.2	9.0	1.0	1.6	0.1	0.7	0.1	20.3	1.72	28.2	12.2
	183.5	184.0	5,313	10,970	1,128	3,499	233	36.1	57.6	3.6	10.7	1.1	1.7	0.1	0.7	0.1	24.1	2.13	36.7	13.1
	184.0	185.4	4,339	9,213	970	3,103	215	35.2	57.3	3.9	11.4	1.1	1.8	0.2	0.9	0.1	25.4	1.80	36.8	12.6
	185.4	186.7	3,765	7,862	820	2,589	172	27.1	42.2	2.7	7.7	0.9	1.4	0.2	0.8	0.1	17.8	1.53	23.1	15.5
	186.7	187.0	3,342	6,940	710	2,205	139	22.2	34.0	2.2	6.1	0.7	1.3	0.1	0.8	0.2	17.8	1.34	22.3	19.2
	187.0	188.6	4,797	9,938	1,023	3,126	204	30.6	46.9	2.9	8.3	0.9	1.6	0.2	0.8	0.1	20.3	1.92	20.6	7.1
	188.6	189.0	4,339	8,709	880	2,683	165	24.1	36.8	2.1	5.7	0.6	1.4	0.1	0.7	0.1	14.0	1.69	16.6	6.5
	189.0	189.8	4,468	9,078	915	2,904	183	26.5	37.9	2.3	6.5	0.7	1.3	0.2	0.8	0.1	15.2	1.76	20.2	13.9
	189.8	190.9	4,973	10,405	1,061	3,371	220	32.2	47.1	2.9	7.2	0.9	1.5	0.2	0.7	0.1	16.5	2.01	23.1	11
	190.9	191.7	3,577	7,469	765	2,508	176	26.1	39.0	2.6	6.9	0.8	1.5	0.1	0.8	0.1	16.5	1.46	24.5	27.1
	191.7	191.8	3,835	9,508	1,050	3,593	263	40.8	60.1	3.5	10.0	1.1	1.6	0.1	0.8	0.1	20.3	1.84	40.4	6
	191.8	192.7	3,835	8,599	904	2,963	204	32.1	48.8	3.4	10.4	1.0	1.6	0.2	0.8	0.2	22.9	1.66	47.4	19.2
	192.7	193.3	6,310	13,328	1,420	4,257	267	39.1	56.3	3.4	9.5	1.0	1.7	0.2	0.7	0.1	20.3	2.57	28.8	15.8
	193.3	193.7	2,328	5,000	520	1,744	128	20.0	31.0	2.0	5.7	0.7	1.3	0.2	0.8	0.1	15.2	0.98	18.3	30.5
	193.7	194.0	4,363	9,250	935	2,963	190	28.5	42.4	2.6	6.8	0.8	1.4	0.1	0.8	0.1	15.2	1.78	21.5	15
	194.0	194.6	4,527	9,250	925	2,916	187	29.2	43.1	2.8	7.6	0.9	1.4	0.2	0.8	0.1	17.8	1.79	23.5	13.2
	194.6	195.3	4,046	8,660	888	2,893	195	29.9	45.2	2.9	9.0	1.0	1.6	0.1	0.7	0.2	21.6	1.68	30.6	10.6
	195.3	196.1	6,321	13,820	1,528	4,689	308	47.6	67.9	4.0	10.8	1.1	1.8	0.2	0.9	0.2	24.1	2.68	40.5	14.2
	196.1	197.1	6,251	13,082	1,395	4,199	267	39.6	58.7	3.6	9.9	1.1	1.7	0.2	0.9	0.1	22.9	2.53	31.7	12.2
	197.1	198.1	7,131	14,434	1,498	4,467	302	45.6	70.3	4.6	13.3	1.5	2.3	0.2	1.1	0.2	30.5	2.80	39.7	3.5
	198.1	198.9	6,544	13,082	1,371	4,024	249	38.9	57.3	3.8	10.8	1.3	2.1	0.2	1.0	0.2	26.7	2.54	33.8	5.1
	198.9	199.9	4,668	9,938	1,012	3,196	200	31.0	47.0	3.1	9.3	1.0	1.5	0.2	0.8	0.1	20.3	1.91	27.2	5.5
	199.9	200.7	3,835	8,071	831	2,683	182	28.5	42.7	2.7	7.6	0.9	1.4	0.2	0.8	0.1	17.8	1.57	28.4	18.8
	200.7	201.9	4,011	8,218	830	2,613	170	26.8	38.4	2.6	7.8	0.9	1.7	0.2	0.9	0.1	20.3	1.59	22.8	17.9
	201.9	202.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

personal use only

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	202.9	204.0	5,454	11,080	1,164	3,779	268	42.4	67.8	4.6	12.9	1.2	2.3	0.2	1.1	0.2	27.9	2.19	41.2	7.3
	204.0	204.9	5,559	11,424	1,172	3,663	241	37.6	59.5	4.0	10.9	1.1	1.9	0.2	1.0	0.1	24.1	2.22	34.6	8.4
	204.9	205.3	5,465	10,540	1,057	3,324	230	35.9	60.4	4.2	11.7	1.1	1.9	0.2	0.9	0.1	25.4	2.08	34.6	16.6
	205.3	206.0	2,850	5,614	569	1,825	132	20.8	33.4	2.3	6.9	0.7	1.4	0.1	0.9	0.1	15.2	1.11	21.4	25.8
	206.0	206.9	3,706	7,223	736	2,356	166	26.8	42.9	2.9	8.2	0.9	1.8	0.1	0.9	0.1	17.8	1.43	26	18.8
	206.9	207.9	5,078	10,011	1,032	3,278	224	34.3	56.0	3.6	9.5	1.0	1.5	0.1	0.7	0.1	19.1	1.97	28.9	8.2
	207.9	208.9	4,937	10,061	1,044	3,336	226	34.2	54.6	3.4	9.0	0.8	1.6	0.1	0.7	0.1	19.1	1.97	26.6	11
	208.9	209.9	3,941	7,444	737	2,304	153	23.3	38.5	2.7	8.5	0.8	1.7	0.2	0.9	0.1	20.3	1.47	24.5	17.7
	209.9	210.5	3,354	6,633	667	2,123	144	21.9	33.8	2.1	6.5	0.7	1.5	0.2	0.7	0.1	15.2	1.30	18.3	10.7
	210.5	211.1	4,937	9,385	941	2,939	193	30.2	48.0	3.0	8.2	0.8	1.5	0.1	0.7	0.1	17.8	1.85	24.1	18.2
	211.1	211.6	9,042	17,873	1,921	5,657	373	55.9	86.9	5.3	14.6	1.5	2.4	0.2	1.1	0.1	27.9	3.51	40.3	15.4
	211.6	212.6	5,102	9,864	994	3,079	204	29.9	48.9	3.3	9.0	0.9	1.5	0.2	0.7	0.1	20.3	1.94	30.6	11.5
	212.6	213.6	6,357	12,161	1,214	3,814	267	41.2	69.4	4.7	14.0	1.4	2.3	0.2	1.0	0.1	31.8	2.40	46.9	9.5
	213.6	214.6	3,530	7,174	745	2,391	169	26.8	45.1	3.0	8.7	0.8	1.4	0.2	0.9	0.1	19.1	1.41	28.2	11.2
	214.6	215.6	4,937	10,257	1,067	3,418	234	37.6	62.4	4.3	12.1	1.1	1.6	0.1	0.6	0.1	21.6	2.01	49.5	2.5
	215.6	216.6	4,937	10,208	1,077	3,546	262	41.6	68.5	4.4	10.4	1.1	2.3	0.2	1.0	0.1	24.1	2.02	42	5
	216.6	217.6	3,929	8,083	808	2,554	168	26.8	41.7	3.0	8.6	1.0	1.5	0.2	0.8	0.1	20.3	1.56	31.2	16.3
	217.6	218.6	5,454	10,368	992	3,044	198	31.8	50.4	4.0	11.6	1.3	2.3	0.2	1.1	0.1	29.2	2.02	33.6	10
	218.6	219.6	4,421	8,844	884	2,799	180	27.8	41.0	2.7	7.9	0.9	1.4	0.1	0.6	0.1	19.1	1.72	27.3	11.3
	219.6	220.5	5,653	11,645	1,189	3,686	239	36.6	55.4	3.9	11.1	1.2	1.9	0.2	0.8	0.1	24.1	2.25	37.7	6.7
	220.5	221.2	2,967	6,486	661	2,129	141	22.1	34.1	2.2	7.9	0.9	1.5	0.2	0.9	0.1	19.1	1.25	19.7	1.5
	221.2	221.8	4,281	8,783	875	2,729	180	28.5	43.6	2.9	8.8	1.0	1.7	0.2	0.8	0.1	21.6	1.70	30.2	22.7
	221.8	222.3	1,923	3,992	395	1,254	84	13.3	20.8	1.4	4.6	0.6	1.1	0.1	0.8	0.1	14.0	0.77	17.2	33.6
	222.3	223.3	2,991	6,277	629	2,030	136	21.8	34.0	2.4	7.4	0.9	1.6	0.2	0.9	0.1	20.3	1.22	25.2	21.6
	223.3	224.3	5,149	10,945	1,116	3,534	247	37.9	57.1	3.3	9.8	1.0	1.7	0.2	0.7	0.2	21.6	2.11	28.6	4.4
	224.3	225.3	5,747	12,026	1,238	3,896	277	43.9	67.1	4.0	10.8	1.2	1.9	0.2	0.7	0.2	22.9	2.33	39.8	5.8
	225.3	226.0	6,298	13,267	1,347	4,199	278	43.3	65.9	4.2	11.4	1.2	1.8	0.2	0.8	0.1	24.1	2.55	37.9	3.9
	226.0	227.0	5,583	11,387	1,156	3,604	246	37.1	59.5	3.7	11.6	1.2	1.9	0.2	0.7	0.2	26.7	2.21	33.4	4.1
	227.0	227.7	7,353	15,171	1,625	4,829	333	51.1	79.3	4.3	12.3	1.2	1.9	0.2	0.9	0.1	24.1	2.95	48.9	10.2
	227.7	228.0	4,398	9,238	961	3,056	215	32.8	48.1	2.5	7.6	0.7	1.5	0.2	0.8	0.1	16.5	1.80	25.8	16.6
	228.0	228.5	5,536	10,626	1,044	3,219	218	34.4	50.6	3.0	8.4	0.9	1.6	0.2	0.8	0.1	19.1	2.08	25.5	5.7
	228.5	228.9	6,849	13,021	1,257	3,802	259	41.2	67.3	4.7	14.4	1.5	2.5	0.3	1.1	0.2	33.0	2.54	42.6	7.1
	228.9	229.4	8,690	17,136	1,758	5,051	334	50.8	80.9	4.8	13.5	1.4	2.1	0.2	0.8	0.1	27.9	3.32	48.5	6.2
	229.4	230.1	6,849	13,205	1,275	3,872	257	39.1	60.9	3.5	9.4	1.0	2.1	0.2	1.0	0.1	24.1	2.56	29.9	9.3
	230.1	231.1	9,898	20,514	2,145	6,334	436	67.4	104.2	5.9	16.8	1.7	2.9	0.3	1.4	0.2	38.1	3.96	57	2.4
	231.1	232.1	8,362	17,750	1,915	5,680	395	65.0	100.7	6.0	16.6	1.7	2.9	0.2	1.3	0.2	38.1	3.43	55.3	3
	232.1	233.1	7,846	15,724	1,655	4,817	324	49.9	77.7	5.1	16.9	1.8	2.7	0.3	1.4	0.2	45.7	3.06	50.7	5
	233.1	234.1	11,189	22,295	2,290	6,648	429	65.5	99.7	6.5	18.3	1.9	3.1	0.3	1.5	0.2	45.7	4.31	60.8	2.5
	234.1	234.8	16,595	32,798	3,347	10,031	626	97.3	150.4	8.9	25.0	2.4	3.7	0.3	1.1	0.2	52.1	6.37	75.5	9.1
	234.8	235.0	6,040	12,100	1,178	3,499	224	35.7	56.6	3.8	11.4	1.3	1.7	0.2	0.9	0.1	25.4	2.32	40.4	14.9
	235.0	236.3	12,373	22,725	2,126	6,065	375	56.3	80.6	4.5	11.1	1.1	1.5	0.2	0.7	0.1	20.3	4.38	37.9	14.4
	236.3	237.2	7,811	15,724	1,547	4,584	290	42.5	64.4	3.7	9.5	1.0	1.5	0.2	0.7	0.1	20.3	3.01	30.9	14.6
	237.2	238.0	8,280	17,198	1,728	5,155	330	50.4	75.4	5.0	14.6	1.5	2.2	0.2	0.8	0.1	30.5	3.29	46.1	6
	238.0	238.6	5,184	10,294	1,011	3,021	201	30.6	45.9	2.8	7.1	0.9	1.3	0.1	0.8	0.1	16.5	1.98	25.2	15.8
	238.6	239.3	9,910	21,067	2,132	6,450	399	60.3	85.1	4.9	12.7	1.4	1.9	0.2	1.0	0.1	25.4	4.02	40.2	3.7
	239.3	240.0	4,117	8,267	832	2,601	179	28.5	45.0	2.9	9.1	0.9	1.8	0.1	0.8	0.1	22.9	1.61	28.1	7.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	240.0	240.9	4,808	9,729	971	2,998	202	31.0	47.5	2.7	8.0	0.8	1.5	0.1	0.8	0.1	19.1	1.88	24.3	10.5
	240.9	241.6	5,430	10,564	1,032	3,126	200	29.3	44.4	2.4	6.9	0.8	1.5	0.1	0.7	0.1	17.8	2.05	19.8	6.1
	241.6	242.1	3,260	6,425	628	1,913	124	18.5	28.6	1.9	5.9	0.8	1.5	0.2	0.9	0.1	16.5	1.24	11.8	8
	242.1	242.6	5,676	10,761	1,034	3,091	192	28.1	41.3	2.5	7.6	0.8	1.5	0.1	0.7	0.1	17.8	2.09	19.4	9.1
	242.6	243.0	17,768	28,130	2,368	6,380	395	65.7	109.4	8.0	24.7	2.7	3.7	0.2	1.1	0.2	55.9	5.53	46.5	2.2
	243.0	243.6	6,521	10,871	945	2,578	165	27.0	43.9	3.8	12.7	1.7	2.6	0.3	1.3	0.2	35.6	2.12	22.2	17.1
	243.6	244.5	13,253	21,804	2,048	5,319	341	52.5	84.7	5.4	16.1	1.5	2.3	0.2	0.8	0.1	31.8	4.30	32.7	9.9
	244.5	245.5	5,020	9,582	913	2,753	177	25.1	39.9	2.4	7.6	0.9	1.7	0.2	0.8	0.1	19.1	1.85	17.9	6.6
	245.5	246.5	7,037	13,021	1,206	3,604	226	32.9	52.7	3.3	10.6	1.1	1.9	0.2	0.9	0.1	25.4	2.52	29.1	5.6
	246.5	247.5	6,145	11,522	1,085	3,219	199	27.4	42.5	2.6	6.7	0.8	1.3	0.2	0.8	0.1	17.8	2.23	19.3	7.4
	247.5	248.5	3,929	7,248	673	2,000	121	16.9	25.4	1.5	4.6	0.6	1.1	0.2	0.7	0.1	14.0	1.40	9.7	5.6
	248.5	249.5	4,679	8,562	799	2,368	150	23.0	36.5	2.5	7.4	0.9	1.7	0.2	1.0	0.1	20.3	1.67	20.4	5.3
	249.5	250.5	5,700	11,559	1,145	3,499	228	32.3	50.6	3.2	10.4	1.1	1.9	0.2	0.8	0.1	25.4	2.23	31.7	3.5
	250.5	251.5	8,632	17,628	1,867	5,202	321	44.9	66.3	4.1	10.4	1.0	1.6	0.1	0.7	0.1	21.6	3.38	34.2	2.6
	251.5	252.5	5,489	10,331	974	2,881	169	24.7	36.1	2.2	6.2	0.8	1.5	0.2	0.9	0.2	15.2	1.99	14.6	4.6
	252.5	253.0	7,529	14,372	1,371	4,082	250	36.0	54.6	3.3	8.5	0.8	1.6	0.2	0.7	0.1	17.8	2.77	22.1	5.7
	253.0	254.0	7,905	15,539	1,474	4,362	268	37.4	55.6	3.2	8.7	1.0	1.4	0.2	0.7	0.1	19.1	2.97	24	4.5
	254.0	255.0	6,873	12,898	1,206	3,569	227	33.7	53.8	3.6	11.5	1.3	2.1	0.2	0.8	0.1	26.7	2.49	32.4	7.7
	255.0	256.0	6,087	11,608	1,090	3,324	217	33.0	52.4	3.4	11.3	1.2	2.2	0.2	1.0	0.1	29.2	2.25	33.7	10.6
	256.0	257.0	4,339	8,181	767	2,269	151	22.6	35.6	2.6	9.4	1.1	2.1	0.2	1.1	0.2	25.4	1.58	20.3	13.9
	257.0	258.0	4,914	9,225	859	2,578	166	25.5	40.1	2.6	7.5	0.9	1.3	0.1	0.6	0.1	17.8	1.78	24.1	13.4
	258.0	259.0	4,973	9,250	860	2,601	165	24.1	37.0	2.2	7.0	0.8	1.5	0.1	0.8	0.1	17.8	1.79	18.2	11.2
	259.0	260.0	4,328	8,353	803	2,426	163	24.1	38.3	2.4	7.0	0.8	1.6	0.1	0.7	0.1	19.1	1.62	21.4	17.1
	260.0	261.0	4,199	8,378	806	2,484	178	28.4	54.2	4.8	16.1	1.5	2.1	0.2	1.0	0.1	39.4	1.62	58.7	2.5
	261.0	262.0	7,647	15,232	1,462	4,351	277	41.7	66.0	4.1	11.1	1.1	2.1	0.2	0.8	0.1	25.4	2.91	35	2.2
	262.0	263.0	7,342	14,986	1,468	4,502	298	41.8	66.5	4.0	11.3	1.2	1.9	0.2	0.8	0.1	24.1	2.87	31.2	2.3
	263.0	263.9	6,650	13,820	1,353	4,129	267	38.8	63.9	4.4	13.0	1.3	1.7	0.1	0.7	0.1	26.7	2.64	40.9	0.8
	263.9	264.9	8,092	17,136	1,843	5,202	344	48.8	79.0	4.8	13.5	1.3	2.1	0.2	0.7	0.1	27.9	3.28	44.9	1.1
	264.9	265.9	7,858	15,171	1,438	4,351	289	42.8	67.1	4.1	10.9	1.1	1.8	0.2	0.9	0.1	24.1	2.93	30	4.8
	265.9	266.9	17,299	33,044	3,383	9,774	573	83.1	123.9	6.9	18.4	1.9	2.7	0.2	0.9	0.1	35.6	6.43	47.9	1.3
	266.9	267.8	7,846	15,539	1,553	4,631	320	46.9	77.1	5.3	14.9	1.5	2.2	0.2	0.7	0.1	30.5	3.01	51.6	13.1
	267.8	268.8	7,049	14,925	1,486	4,631	311	45.7	73.1	4.5	13.1	1.3	2.2	0.2	0.9	0.2	29.2	2.86	43.8	4.3
	268.8	269.8	3,237	6,474	637	1,965	135	19.6	31.2	1.8	6.0	0.7	1.4	0.1	0.7	0.1	17.8	1.25	15.4	5.3
	269.8	270.8	7,389	14,065	1,347	4,082	282	41.8	65.7	3.8	10.8	1.2	1.8	0.2	1.0	0.1	26.7	2.73	29.8	6.1
	270.8	271.8	8,714	15,601	1,462	4,316	267	41.5	67.2	3.9	10.6	1.0	1.6	0.2	0.8	0.2	19.1	3.05	26.7	5.1
	271.8	272.8	6,955	12,407	1,174	3,488	216	33.2	56.5	3.8	10.9	1.1	1.6	0.2	0.9	0.1	24.1	2.44	27.9	3.9
	272.8	273.8	5,876	10,834	1,040	3,103	198	31.2	54.8	3.3	10.1	1.0	1.5	0.2	0.7	0.1	20.3	2.12	27	3.8
	273.8	274.8	7,729	14,372	1,547	4,257	282	46.4	71.2	4.5	13.1	1.2	2.3	0.2	0.9	0.1	25.4	2.84	35.1	4.6
	274.8	275.8	5,489	11,129	1,165	3,511	233	36.1	54.1	3.7	11.3	1.2	1.9	0.3	1.3	0.2	25.4	2.17	25.4	7.4
	275.8	276.8	2,475	4,742	481	1,429	95	14.6	23.5	1.5	5.2	0.5	1.4	0.1	0.8	0.1	14.0	0.93	13.9	6.9
	276.8	277.8	4,515	8,501	849	2,461	162	25.7	40.9	2.6	7.9	0.9	1.6	0.2	0.7	0.2	20.3	1.66	17.4	3.8
	277.8	278.6	4,386	8,169	816	2,379	159	25.5	39.2	2.6	7.8	0.9	1.8	0.2	0.8	0.1	20.3	1.60	16.6	1.3
	278.6	279.4	5,149	9,274	910	2,671	183	29.8	46.8	3.0	8.6	0.9	1.5	0.2	0.7	0.1	19.1	1.83	24.3	4
	279.4	279.9	12,314	22,173	2,271	6,439	385	58.0	85.9	5.1	14.5	1.4	2.6	0.2	1.1	0.2	31.8	4.38	36.1	6.6
	279.9	280.5	1,841	3,489	350	1,040	72	11.2	17.5	1.2	3.6	0.4	0.8	0.1	0.5	0.1	10.2	0.68	11.7	10.6
	280.5	281.1	5,946	11,436	1,149	3,348	212	31.8	48.8	3.0	9.9	0.9	1.6	0.1	0.8	0.1	20.3	2.22	26.3	3.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	281.1	281.9	8,761	15,109	1,408	4,094	253	40.9	68.7	4.2	11.8	1.1	1.9	0.2	0.8	0.1	25.4	2.98	37.2	3.8
	281.9	282.9	9,113	15,969	1,504	4,444	292	46.9	88.4	6.2	18.1	1.8	2.3	0.2	1.1	0.1	36.8	3.15	45.7	5.2
	282.9	283.9	4,891	9,127	912	2,846	198	32.5	58.4	4.0	12.1	1.2	1.9	0.2	0.9	0.2	27.9	1.81	44.4	6.7
	283.9	284.9	3,905	8,243	860	2,811	210	35.6	62.8	4.4	14.0	1.3	1.9	0.2	0.8	0.1	27.9	1.62	41.6	5.1
	284.9	285.9	5,289	10,036	1,012	3,184	227	37.4	64.3	4.3	11.4	1.2	1.9	0.2	0.7	0.1	24.1	1.99	34.8	7.8
	285.9	286.9	14,250	25,551	2,489	6,952	438	72.6	123.3	7.4	19.3	1.7	2.5	0.2	0.8	0.2	33.0	4.99	50.9	4.4
	286.9	287.9	10,778	18,795	1,764	5,202	347	56.6	101.2	6.6	19.1	1.7	2.7	0.2	0.9	0.2	36.8	3.71	51.3	4.3
	287.9	288.8	6,145	11,154	1,101	3,383	246	40.4	71.4	5.0	14.0	1.2	1.9	0.2	0.9	0.1	27.9	2.22	44.8	6.4
	288.8	289.6	7,506	13,820	1,359	4,129	281	47.4	83.1	5.5	16.5	1.6	2.6	0.3	1.4	0.2	36.8	2.73	53.5	7.2
	289.6	290.6	6,099	11,965	1,238	3,919	288	49.8	97.2	7.7	24.3	2.4	2.9	0.3	1.7	0.2	50.8	2.37	90.2	5
	290.6	291.2	2,486	5,221	512	1,592	106	17.1	33.0	2.5	8.4	0.8	1.6	0.1	0.7	0.1	17.8	1.00	21.6	7
	291.2	291.7	7,189	13,144	1,250	3,721	235	37.5	68.1	4.7	14.9	1.5	2.2	0.2	1.1	0.1	29.2	2.57	39.1	2.7
	291.7	292.5	11,200	20,637	1,963	5,785	361	55.6	92.4	5.4	14.0	1.4	2.1	0.2	0.8	0.2	26.7	4.01	31	2.9
	292.5	293.1	8,257	15,539	1,486	4,456	282	43.7	73.9	4.2	11.4	1.1	1.9	0.2	0.8	0.1	20.3	3.02	27.1	5.1
	293.1	294.5	3,905	7,579	750	2,333	159	25.4	42.9	2.5	7.2	0.8	1.4	0.1	0.9	0.1	15.2	1.48	15.4	4.2
	294.5	295.4	6,169	11,596	1,162	3,593	245	37.2	62.8	3.5	9.6	1.0	1.5	0.1	0.7	0.1	20.3	2.29	24	4.3
	295.4	296.0	5,594	11,756	1,244	4,001	293	47.0	81.7	5.3	15.2	1.4	1.7	0.1	0.7	0.1	26.7	2.31	55.9	1.6
	296.0	296.9	9,253	16,522	1,583	4,677	290	44.5	74.5	4.9	14.0	1.2	1.9	0.2	0.6	0.1	27.9	3.25	43.8	3.3
	296.9	297.9	3,518	7,346	748	2,368	152	22.1	38.6	2.9	8.4	0.8	1.5	0.1	0.6	0.1	17.8	1.42	27.1	2.8
	297.9	298.9	12,959	25,305	2,694	8,002	494	68.9	111.9	7.5	20.4	1.9	2.9	0.2	0.9	0.1	38.1	4.97	66.7	5.9
	298.9	299.8	4,633	9,016	910	2,799	187	26.5	45.2	3.1	9.3	0.9	1.8	0.2	1.1	0.1	21.6	1.77	24.5	9.2
	299.8	300.6	10,438	20,944	2,217	6,159	363	50.1	81.0	5.4	15.6	1.6	2.4	0.2	1.0	0.1	34.3	4.03	48.3	2.1
<b>KGKDD003</b>	0.0	1.0	2,475	5,638	598	2,012	172	28.5	50.0	3.4	11.9	1.5	3.2	0.3	2.1	0.3	36.8	1.10	43.6	29.1
	1.0	2.0	1,806	4,631	544	2,059	248	46.0	85.4	6.4	21.2	2.5	4.4	0.5	2.7	0.4	61.0	0.95	62.5	19.1
	2.0	3.0	993	2,678	317	1,207	139	26.6	49.3	3.7	12.4	1.5	3.2	0.3	2.2	0.3	39.4	0.55	46.5	25.5
	3.0	4.0	1,724	4,029	437	1,528	141	25.8	45.3	3.4	11.7	1.3	3.0	0.3	1.8	0.2	35.6	0.80	45.1	27
	4.0	5.0	1,929	4,680	530	1,925	188	30.5	50.9	3.1	9.0	0.9	1.4	0.2	0.9	0.1	19.1	0.94	43.7	23.2
	5.0	6.0	2,627	6,167	687	2,344	199	33.4	56.9	3.8	10.8	1.2	1.9	0.2	1.0	0.2	26.7	1.22	51.5	20.3
	6.0	7.0	1,853	4,521	495	1,697	145	25.9	46.2	3.5	11.9	1.2	2.1	0.2	1.3	0.2	29.2	0.88	57.1	23.5
	7.0	8.0	1,378	3,132	332	1,113	95	16.6	32.7	2.8	10.0	1.2	2.4	0.3	2.3	0.3	31.8	0.62	34.7	43.2
	8.0	9.0	1,255	3,182	359	1,306	136	24.4	44.7	3.2	11.9	1.3	3.1	0.3	2.3	0.4	36.8	0.64	30.5	28.8
	9.0	10.0	1,970	4,791	540	1,942	205	36.8	62.7	4.5	13.0	1.6	2.6	0.3	1.8	0.2	34.3	0.96	59.2	23.4
	10.0	11.0	3,342	6,670	651	2,012	147	24.7	41.6	3.1	9.9	1.1	1.9	0.2	1.6	0.2	30.5	1.29	39.1	25.5
	11.0	12.0	2,041	4,864	551	2,024	217	38.6	65.5	4.5	13.5	1.6	3.2	0.4	2.5	0.4	39.4	0.99	65.9	23.6
	12.0	13.0	992	2,432	286	1,100	146	28.7	52.9	3.9	13.8	1.8	3.7	0.5	2.9	0.4	48.3	0.51	49.6	17
	13.0	14.0	2,381	5,479	619	2,199	224	42.2	74.6	5.6	18.1	2.1	3.7	0.4	2.6	0.3	48.3	1.11	58.4	28.4
	14.0	15.0	3,988	8,390	912	3,091	276	50.7	91.3	7.1	23.6	2.5	4.5	0.5	2.3	0.4	59.7	1.69	96.8	26.4
	15.0	16.0	2,334	5,073	528	1,691	124	20.8	36.7	3.0	10.3	1.2	2.3	0.3	1.4	0.2	29.2	0.99	40.1	29.3
	16.0	17.0	8,550	17,628	1,849	5,832	405	65.2	108.7	8.1	23.3	2.4	3.8	0.3	1.7	0.2	53.3	3.45	87.7	13.6
	17.0	18.0	3,131	6,326	652	2,164	190	34.4	63.1	4.8	16.3	1.9	3.5	0.3	2.2	0.3	48.3	1.26	64.4	28.1
	18.0	19.0	2,439	5,307	558	1,872	151	27.7	50.7	4.6	15.4	2.1	3.4	0.5	3.4	0.4	57.2	1.05	44.7	18.8
	19.0	20.0	1,360	3,132	337	1,172	114	21.3	37.5	3.1	9.8	1.1	2.1	0.2	1.4	0.2	25.4	0.62	41.8	22.4
	20.0	21.0	4,633	11,068	1,183	3,919	325	54.4	90.8	6.4	18.0	1.9	2.7	0.2	1.3	0.2	39.4	2.13	68	9.8
	21.0	22.0	3,859	8,488	853	2,659	195	32.2	55.9	4.5	14.7	1.6	3.2	0.3	1.6	0.2	44.5	1.62	45.8	23.9
	22.0	23.0	6,427	12,898	1,317	4,106	292	48.6	81.5	6.2	20.0	2.1	3.3	0.4	1.7	0.3	52.1	2.53	64.5	21.8
	23.0	24.0	3,964	8,623	940	3,114	255	44.4	81.8	6.5	19.1	1.7	2.5	0.2	0.9	0.1	38.1	1.71	81.6	14.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	24.0	25.0	2,463	5,675	607	2,018	161	25.8	45.1	3.3	10.4	1.2	1.9	0.2	1.3	0.2	24.1	1.10	43.4	26.3
	25.0	26.0	2,111	4,889	529	1,855	180	34.9	65.8	5.2	17.7	2.0	3.9	0.4	3.2	0.4	52.1	0.97	59.2	30.8
	26.0	27.0	9,347	16,706	1,571	4,572	289	48.5	86.7	7.0	21.4	2.2	3.7	0.3	1.6	0.2	50.8	3.27	78.5	18.1
	27.0	28.0	2,170	5,196	584	2,018	184	34.6	61.2	5.2	17.2	2.0	4.4	0.6	3.4	0.6	59.7	1.03	63.4	23.1
	28.0	29.0	1,835	4,299	486	1,674	146	28.1	46.6	3.4	10.9	1.2	2.2	0.2	1.5	0.1	29.2	0.86	51.4	26.9
	29.0	30.0	3,941	7,456	739	2,245	161	30.9	53.3	4.2	11.9	1.4	2.3	0.3	1.3	0.2	30.5	1.47	54.8	27.8
	30.0	31.0	3,436	7,014	729	2,245	161	28.3	49.8	4.1	13.1	1.2	2.4	0.3	1.3	0.2	31.8	1.37	49.4	17.2
	31.0	32.0	2,510	5,516	594	1,925	153	27.6	46.3	3.8	11.5	1.3	1.8	0.2	1.0	0.2	29.2	1.08	45.4	23
	32.0	32.9	3,178	7,358	881	3,161	279	48.1	73.9	4.8	13.1	1.3	1.9	0.2	1.0	0.2	25.4	1.50	55.5	24
	32.9	33.9	3,882	8,341	886	2,881	217	37.5	62.8	5.0	14.0	1.3	2.1	0.2	0.9	0.1	30.5	1.64	55.6	17.8
	33.9	34.9	1,812	3,906	388	1,196	87	14.8	26.7	2.1	7.1	0.7	1.4	0.2	0.8	0.1	17.8	0.75	25.7	25.2
	34.9	35.9	3,425	7,395	830	2,799	233	40.4	68.6	4.7	13.7	1.4	1.8	0.2	0.7	0.1	26.7	1.48	52.7	14.9
	35.9	36.9	7,049	13,697	1,389	4,234	293	54.4	106.7	9.7	32.1	2.7	3.5	0.3	0.9	0.2	59.7	2.69	146	14.5
	36.9	37.9	3,014	6,707	730	2,414	186	35.7	78.2	8.6	26.4	2.2	2.4	0.2	0.7	0.1	43.2	1.32	136	4.6
	37.9	38.9	6,861	14,004	1,492	4,642	306	50.6	84.8	6.0	15.6	1.4	1.8	0.2	0.6	0.1	27.9	2.75	64.4	5.5
	38.9	39.9	3,448	7,076	736	2,321	163	24.8	43.2	3.4	11.4	1.1	2.2	0.2	0.9	0.2	26.7	1.39	32.5	16.4
	39.9	40.7	4,457	9,360	987	3,079	197	29.9	46.8	3.4	10.7	1.2	2.1	0.2	1.0	0.2	24.1	1.82	32.2	8.3
	40.7	41.2	3,038	6,388	662	2,065	152	25.2	45.2	3.4	11.1	1.2	2.1	0.2	1.3	0.2	26.7	1.24	39.6	19
	41.2	41.9	3,073	6,523	675	2,123	157	29.0	50.1	3.8	12.9	1.2	1.6	0.2	0.8	0.2	24.1	1.27	51.5	8
	41.9	42.6	3,155	6,891	752	2,484	202	34.6	55.0	4.2	11.5	1.2	2.1	0.2	0.8	0.2	25.4	1.36	41.4	21.3
	42.6	43.0	2,674	5,552	562	1,726	107	16.6	26.7	2.4	8.8	1.0	1.7	0.2	0.9	0.2	24.1	1.07	21.7	6.1
	43.0	44.0	5,160	10,183	1,028	3,079	183	28.1	43.9	3.3	11.6	1.1	1.8	0.1	0.9	0.1	25.4	1.98	33.9	7.4
	44.0	44.3	6,310	12,259	1,244	3,697	213	30.7	48.3	3.1	10.2	1.1	1.6	0.2	0.7	0.1	22.9	2.38	30.8	14.1
	44.3	44.9	7,260	15,232	1,649	5,202	346	55.1	86.7	5.9	15.3	1.5	2.5	0.2	1.1	0.1	33.0	2.99	52.7	14.2
	44.9	45.7	3,823	7,481	794	2,554	191	29.4	48.8	3.6	11.1	1.0	1.7	0.1	0.7	0.1	21.6	1.50	36.2	21.4
	45.7	46.6	3,038	6,302	675	2,164	155	27.0	45.1	3.2	9.4	1.0	2.1	0.3	1.4	0.2	25.4	1.24	38	21.9
	46.6	47.0	1,882	4,385	498	1,726	161	33.0	70.3	6.4	20.2	1.8	2.7	0.2	1.7	0.3	43.2	0.88	119	11.2
	47.0	48.0	2,064	4,607	498	1,685	135	24.8	45.9	4.3	17.0	2.1	5.2	0.7	4.0	0.7	66.0	0.92	38.8	22.3
	48.0	49.0	2,205	4,840	523	1,744	137	22.0	36.3	2.5	7.6	0.8	1.7	0.2	1.1	0.2	19.1	0.95	29.1	19.6
	49.0	50.0	3,260	7,297	807	2,624	191	31.4	49.2	3.2	9.1	0.8	1.7	0.1	0.7	0.1	19.1	1.43	34.9	27
	50.0	50.9	2,234	5,184	568	1,919	167	33.1	61.2	5.2	20.3	2.5	5.4	0.6	3.3	0.4	64.8	1.03	32.5	16.2
	50.9	51.9	2,369	4,987	517	1,680	139	27.3	53.8	4.9	23.4	3.3	7.9	0.9	5.1	0.9	91.4	0.99	39.8	7.3
	51.9	52.6	3,765	7,739	805	2,531	181	32.3	58.4	5.1	19.1	2.7	6.8	0.7	3.9	0.4	72.4	1.52	41	12
	52.6	53.6	3,378	7,493	800	2,624	187	30.8	49.9	3.4	11.0	1.2	2.4	0.2	1.4	0.1	29.2	1.46	34.6	14
	53.6	54.3	2,187	5,233	584	1,965	152	24.3	37.6	2.3	7.6	0.9	1.6	0.2	0.8	0.1	19.1	1.02	32.1	25.8
	54.3	54.9	2,744	6,228	674	2,239	169	27.8	46.5	3.4	10.2	1.1	2.2	0.3	1.4	0.2	27.9	1.22	34.6	14.8
	54.9	55.5	2,662	5,896	621	2,006	144	23.3	39.0	2.9	10.0	1.0	1.6	0.2	1.1	0.1	24.1	1.14	29.1	15.9
	55.5	56.3	8,761	18,979	2,036	6,334	379	59.5	100.7	8.0	22.0	2.0	2.9	0.2	0.9	0.1	41.9	3.67	90.9	5.2
	56.3	56.9	3,120	7,198	801	2,718	215	35.7	59.6	4.2	12.3	1.2	1.8	0.2	0.8	0.1	26.7	1.42	43.6	24
	56.9	57.3	3,577	7,935	883	2,951	216	36.0	58.0	4.5	13.4	1.3	2.1	0.2	1.0	0.1	30.5	1.57	39	19.1
	57.3	58.2	3,776	7,899	849	2,811	220	39.0	67.3	5.3	16.1	1.7	2.9	0.2	1.1	0.2	38.1	1.57	54.5	14.3
	58.2	58.9	3,554	7,690	838	2,788	213	36.4	64.7	4.6	13.1	1.3	1.9	0.2	1.1	0.1	33.0	1.52	49.3	14.1
	58.9	59.3	3,964	7,739	794	2,461	181	31.3	58.4	4.3	11.4	1.1	1.6	0.1	0.5	-0.1	24.1	1.53	46.9	3.9
	59.3	59.8	4,609	9,545	1,012	3,243	234	39.1	65.0	4.6	13.3	1.2	2.1	0.2	0.7	0.1	27.9	1.88	46.7	7.3
	59.8	60.3	2,615	5,847	642	2,152	183	33.5	62.7	5.2	17.1	1.8	3.2	0.3	1.8	0.2	43.2	1.16	53.1	16.5
	60.3	61.3	3,342	7,456	824	2,741	205	33.7	55.3	4.0	11.3	1.1	1.8	0.2	0.9	0.2	22.9	1.47	39.6	17.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	61.3	62.3	2,897	6,375	679	2,210	161	27.4	46.5	3.5	10.1	1.0	1.8	0.1	0.7	0.1	22.9	1.24	44.9	14.2
	62.3	63.3	12,842	21,067	1,921	5,470	343	57.7	101.8	8.7	27.4	2.8	3.9	0.3	1.4	0.2	63.5	4.19	68.7	4.2
	63.3	64.3	6,955	12,407	1,203	3,604	252	45.0	88.3	8.9	30.2	3.0	4.0	0.3	1.1	0.1	64.8	2.47	79.6	2.6
	64.3	65.0	4,398	9,213	975	3,161	237	41.2	75.2	5.9	19.5	1.8	3.0	0.3	1.3	0.2	40.6	1.82	75.3	3.3
	65.0	65.9	4,949	10,024	1,069	3,394	234	38.8	66.9	4.9	13.4	1.3	2.1	0.2	0.8	0.1	29.2	1.98	46.3	4.5
	65.9	66.5	7,295	14,004	1,462	4,584	337	55.6	99.7	7.8	21.4	1.9	2.6	0.2	1.1	0.1	41.9	2.79	74	2.7
	66.5	67.4	6,849	14,925	1,637	5,295	355	55.6	84.0	5.7	14.9	1.5	2.2	0.2	1.0	0.2	30.5	2.93	44.9	3.3
	67.4	68.1	7,213	15,232	1,649	5,330	386	61.8	96.6	6.2	16.2	1.5	2.3	0.2	0.8	0.1	30.5	3.00	49.1	8.9
	68.1	69.0	4,656	9,655	1,031	3,324	238	36.2	57.4	3.5	10.2	1.0	1.7	0.1	0.8	0.1	21.6	1.90	31.2	16.6
	69.0	70.0	4,222	8,697	907	2,881	208	37.2	67.8	6.4	23.0	2.9	5.6	0.6	2.7	0.3	76.2	1.71	44.7	6.3
	70.0	70.6	5,266	10,564	1,108	3,523	246	40.4	67.4	4.9	14.6	1.4	2.2	0.2	0.8	0.1	33.0	2.09	45	7.9
	70.6	71.1	6,650	13,328	1,395	4,386	303	50.4	82.3	5.8	17.2	1.6	2.6	0.2	0.8	0.1	35.6	2.63	47.4	2.9
	71.1	71.9	16,947	34,887	3,516	10,591	657	94.8	147.0	7.9	22.0	2.2	2.7	0.2	0.7	0.1	40.6	6.69	59.7	1.1
	71.9	72.9	5,360	10,982	1,155	3,616	238	38.2	59.9	4.1	12.5	1.2	1.6	0.2	0.8	0.1	26.7	2.15	33.3	2.5
	72.9	73.9	5,887	11,301	1,165	3,674	248	40.5	67.2	4.7	14.5	1.5	1.9	0.1	0.9	0.1	31.8	2.24	38.3	3.8
	73.9	74.8	2,756	5,945	636	2,076	157	24.4	41.0	2.6	7.6	0.7	1.4	0.1	0.6	0.1	15.2	1.17	26.2	13.1
	74.8	75.8	2,662	5,405	553	1,767	126	19.7	31.5	2.4	8.3	0.9	1.7	0.2	0.9	0.1	20.3	1.06	20.5	5.6
	75.8	76.5	10,778	20,760	2,006	5,914	363	55.0	83.5	5.4	17.2	1.7	2.7	0.2	1.0	0.1	39.4	4.00	42.3	1.1
	76.5	77.2	5,887	11,694	1,170	3,534	238	38.7	64.6	4.5	14.1	1.5	2.5	0.2	1.4	0.2	34.3	2.27	31.7	1.4
	77.2	77.7	3,167	5,970	598	1,884	160	30.2	55.3	4.2	15.0	1.9	3.9	0.4	2.6	0.3	48.3	1.19	29.2	4.1
	77.7	78.4	5,242	10,785	1,112	3,476	256	41.0	64.8	4.1	11.7	1.3	1.8	0.2	1.0	0.2	27.9	2.10	30.3	10.7
	78.4	79.2	2,334	4,778	494	1,545	114	18.34	31.2	2.1	6.8	0.9	1.5	0.1	0.8	0.1	19.1	0.93	16.6	6.3
	79.2	79.9	1,284	2,739	295	991	105	22.4	52.4	5.7	25.8	4.1	9.8	1.1	6.3	0.8	115.6	0.57	25.7	8
	79.9	80.9	1,613	3,440	370	1,207	102	18.5	34.5	2.8	10.2	1.5	3.0	0.3	1.9	0.3	38.1	0.68	19.2	3.8
	80.9	81.9	1,777	3,808	417	1,394	145	31.6	68.0	6.6	25.6	3.7	8.7	0.9	5.7	0.8	101.6	0.78	40	6.3
	81.9	82.9	1,093	2,260	243	828	93	22.5	53.9	6.4	29.5	4.5	10.3	1.0	5.9	0.8	125.7	0.48	30.7	7.5
	82.9	83.9	2,176	4,754	505	1,592	120	19.7	34.1	2.2	7.1	0.8	1.7	0.2	0.9	0.2	22.9	0.92	18.6	2.7
	83.9	84.4	3,776	7,923	807	2,484	168	26.8	40.7	2.6	6.7	0.7	1.0	0.1	0.6	-0.1	15.2	1.53	21.3	3
	84.4	85.1	3,870	7,456	742	2,263	162	26.3	42.7	2.7	8.8	1.1	1.6	0.2	0.7	0.1	24.1	1.46	21.4	4
	85.1	86.0	4,433	8,525	835	2,519	180	28.7	45.3	2.8	8.4	1.0	1.5	0.2	1.0	0.2	21.6	1.66	21.8	4.5
	86.0	86.9	4,515	10,417	1,124	3,686	254	39.1	58.9	3.3	9.5	1.0	1.8	0.2	0.9	0.1	19.1	2.01	21.3	1.5
	86.9	87.9	4,222	9,176	961	3,079	220	34.3	52.8	2.9	8.7	1.0	1.6	0.1	0.8	0.1	20.3	1.78	21.5	1.5
	87.9	88.7	3,366	7,334	771	2,461	171	27.2	43.3	2.6	8.0	0.9	1.6	0.2	0.9	0.1	19.1	1.42	18.9	2.4
	88.7	89.4	5,758	12,259	1,275	4,012	275	42.2	65.8	3.9	11.8	1.1	1.8	0.2	0.9	0.1	24.1	2.37	30.4	4.1
	89.4	89.9	4,492	9,655	1,012	3,231	226	34.6	51.5	2.9	7.8	0.7	1.1	0.1	0.5	0.1	15.2	1.87	22.8	1.1
	89.9	90.6	5,430	10,233	993	3,044	224	37.8	60.5	3.7	10.6	1.0	1.8	0.2	0.9	0.1	21.6	2.01	26.8	3.8
	90.6	91.0	7,189	14,925	1,565	4,876	332	51.1	78.2	4.3	11.7	1.1	1.5	0.1	0.5	-0.1	20.3	2.91	30.6	1.1
	91.0	91.8	3,905	8,230	853	2,718	191	29.0	43.9	2.6	7.1	0.7	1.1	0.1	0.6	0.1	14.0	1.60	16.6	1
	91.8	92.5	4,492	9,496	999	3,184	220	34.3	53.3	2.9	8.2	0.8	1.3	0.1	0.5	0.1	15.2	1.85	20.8	0.8
	92.5	93.3	3,460	7,309	758	2,379	170	27.4	43.8	2.5	6.9	0.7	0.9	0.1	0.5	0.1	14.0	1.42	17.4	0.6
	93.3	94.1	3,917	8,255	851	2,694	181	28.8	45.9	2.6	7.4	0.7	1.0	0.1	0.3	0.1	12.7	1.60	17.4	1
	94.1	95.1	7,142	14,557	1,480	4,537	293	45.7	70.9	4.2	11.9	1.2	1.9	0.2	0.8	0.1	22.9	2.82	26.5	1.1
	95.1	95.9	4,715	9,839	1,009	3,184	223	35.7	56.6	3.4	9.5	1.0	1.6	0.2	0.8	0.1	20.3	1.91	27.1	3.3
	95.9	96.2	3,554	7,137	723	2,210	159	25.2	42.4	2.4	7.6	0.9	1.1	0.1	0.6	0.1	17.8	1.39	18.2	0.7
	96.2	97.2	3,624	7,284	739	2,263	164	27.6	45.5	3.6	11.0	1.1	1.9	0.1	0.9	0.1	25.4	1.42	30.7	1.6
	97.2	97.9	4,832	9,483	939	2,869	209	35.1	65.1	5.8	20.4	2.2	3.3	0.3	1.5	0.2	49.5	1.85	49	2.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	97.9	98.4	4,152	7,985	781	2,327	153	25.5	45.0	3.3	11.4	1.3	2.1	0.2	1.3	0.2	30.5	1.55	25.3	2.6
	98.4	99.4	4,762	9,324	910	2,729	174	27.3	44.1	2.7	8.2	0.8	1.3	0.1	0.5	0.1	17.8	1.80	21.3	0.6
	99.4	100.3	9,488	17,689	1,788	5,435	386	61.4	104.1	6.7	19.1	1.8	3.0	0.3	0.9	0.1	35.6	3.50	53.8	6
	100.3	101.0	7,295	13,082	1,293	3,896	267	42.0	71.2	4.8	11.9	1.2	1.7	0.1	0.6	-0.1	20.3	2.60	32.2	5.5
	101.0	101.9	4,586	8,402	819	2,461	164	26.9	45.3	3.3	9.9	1.2	1.9	0.2	1.0	0.2	24.1	1.65	19.4	1.7
	101.9	102.5	7,799	14,065	1,389	4,211	276	44.0	77.5	5.1	16.1	1.7	2.6	0.2	0.8	0.1	33.0	2.79	30.7	1.6
	102.5	103.2	5,712	10,589	1,084	3,324	226	35.8	59.4	3.9	10.3	1.0	1.8	0.1	0.7	0.1	19.1	2.11	23.2	2.1
	103.2	103.6	3,366	6,486	656	2,024	143	22.2	37.1	2.4	7.4	0.9	1.4	0.2	1.0	0.2	19.1	1.28	15.4	1.9
	103.6	104.6	6,861	12,407	1,220	3,686	239	38.0	62.9	4.1	11.7	1.3	2.2	0.2	0.9	0.1	24.1	2.46	27.6	4
	104.6	105.6	15,950	28,130	2,634	7,570	501	83.7	134.3	8.2	23.0	2.3	3.7	0.3	1.6	0.2	44.5	5.51	65.5	2.3
	105.6	106.6	12,842	22,295	2,096	6,065	390	61.5	109.8	7.1	19.5	2.0	3.5	0.3	1.9	0.2	43.2	4.39	49.8	0.9
	106.6	107.4	18,823	35,255	3,576	10,673	733	114.4	190.2	11.3	29.2	2.7	4.2	0.3	1.7	0.1	55.9	6.95	82.1	1.2
	107.4	108.2	24,746	47,048	4,688	14,113	938	149.4	250.1	15.3	41.8	3.9	5.7	0.5	1.9	0.3	74.9	9.21	123.5	2.8
	108.2	108.9	16,654	31,447	3,250	9,390	623	94.6	156.2	9.1	24.1	2.4	3.1	0.3	1.4	0.2	43.2	6.17	77.4	1.6
	108.9	109.5	10,203	19,409	1,951	5,914	402	61.0	99.4	5.6	15.4	1.5	2.4	0.2	0.8	0.2	25.4	3.81	45.2	1.1
	109.5	110.5	18,706	36,483	3,625	10,976	772	124.5	204.6	12.1	28.9	2.7	3.1	0.2	1.1	0.1	47.0	7.10	91	3.3
	110.5	111.4	6,439	12,837	1,299	4,001	288	46.3	77.1	4.7	12.5	1.3	2.2	0.2	0.8	0.1	26.7	2.50	36.4	4.1
	111.4	111.9	6,028	12,051	1,214	3,744	264	42.8	67.9	4.0	10.7	1.0	1.6	0.1	0.8	0.1	21.6	2.35	35.9	16.7
	111.9	112.9	1,759	3,354	336	1,010	75	12.9	22.8	1.7	5.9	0.7	1.4	0.1	0.8	0.1	15.2	0.66	15.2	14.1
	112.9	113.9	1,712	3,341	338	1,093	106	22.7	48.3	4.7	20.0	3.1	6.8	0.7	4.6	0.6	85.1	0.68	25.5	11.7
	113.9	114.6	2,885	5,430	538	1,627	135	26.1	50.6	4.6	18.7	2.6	5.2	0.6	3.3	0.4	68.6	1.08	40.2	13.8
	114.6	115.4	4,703	9,029	877	2,566	176	29.5	49.9	3.3	8.8	1.0	1.7	0.1	0.9	0.1	20.3	1.75	30.7	7.9
	115.4	116.2	3,366	6,363	627	1,901	137	22.9	38.2	2.5	7.8	0.9	1.4	0.1	0.8	0.1	17.8	1.25	23.8	18.2
	116.2	117.2	4,457	8,009	761	2,234	157	26.9	41.8	2.9	8.3	0.9	1.5	0.1	0.7	0.2	20.3	1.57	32.3	4.8
	117.2	118.2	6,439	10,798	969	2,706	170	27.3	45.5	2.9	8.2	0.9	1.7	0.2	0.9	0.1	20.3	2.12	22.4	2
	118.2	118.6	6,310	10,491	939	2,636	164	25.9	42.3	2.7	7.4	0.8	1.4	0.1	0.7	0.1	19.1	2.06	19	1.9
	118.6	119.2	7,928	13,205	1,191	3,336	201	31.8	53.4	3.3	9.5	1.2	1.7	0.2	1.3	0.2	25.4	2.60	22.4	1.2
	119.2	120.2	7,201	12,051	1,090	3,068	195	30.3	49.0	2.9	8.5	0.7	1.0	0.1	0.5	0.1	16.5	2.37	23.4	1.5
	120.2	121.2	8,362	14,311	1,311	3,779	237	39.0	61.8	3.7	10.2	1.2	1.5	0.1	0.9	0.1	22.9	2.81	29.7	1.7
	121.2	122.2	8,081	13,758	1,263	3,604	223	35.6	57.4	3.6	8.3	1.0	1.4	0.2	0.6	0.1	19.1	2.71	25	0.6
	122.2	122.7	8,468	15,048	1,438	4,164	273	43.0	70.1	4.2	10.3	1.1	1.5	0.2	0.7	0.1	21.6	2.95	36.9	1.6
	122.7	123.0	7,119	12,653	1,170	3,394	220	34.3	54.1	3.4	8.2	0.9	1.4	0.1	0.7	0.1	17.8	2.47	24.5	0.6
	123.0	123.6	7,389	13,021	1,244	3,628	237	36.4	60.5	3.4	9.1	0.9	1.6	0.1	0.7	0.1	17.8	2.56	26.7	0.6
	123.6	124.6	8,761	15,416	1,450	4,257	275	42.6	68.6	4.0	10.2	1.1	1.6	0.1	0.7	0.1	22.9	3.03	29	1.9
	124.6	125.6	7,482	12,591	1,132	3,161	198	32.1	53.5	3.6	11.0	1.2	1.9	0.2	1.0	0.1	27.9	2.47	26.6	5
	125.6	126.3	14,132	24,015	2,247	6,520	442	74.0	122.2	7.4	20.0	1.9	3.1	0.2	1.0	0.2	41.9	4.76	53.7	1.8
	126.3	127.3	6,310	11,535	1,101	3,324	259	45.6	81.3	6.5	26.4	3.7	8.1	1.0	6.6	1.0	105.4	2.28	69.7	4.8
	127.3	128.3	1,941	3,550	361	1,162	133	31.0	68.4	7.2	30.9	4.7	11.2	1.5	9.3	1.3	137.2	0.74	58	6.4
	128.3	129.3	2,117	4,361	458	1,470	141	29.0	58.1	5.6	23.2	3.4	7.7	0.9	5.5	0.7	96.5	0.88	38.9	9.1
	129.3	129.9	1,572	2,838	292	986	109	24.8	53.3	5.3	22.8	3.4	7.8	0.9	5.1	0.6	99.1	0.60	36.8	6.3
	129.9	130.7	1,196	2,131	213	693	80	18.8	43.9	5.1	20.1	2.8	6.5	0.7	3.8	0.3	80.0	0.45	26.9	9.2
	130.7	131.3	2,522	5,258	558	1,825	177	36.2	76.2	7.5	30.5	4.3	8.8	0.8	4.7	0.7	118.1	1.06	54.8	8.7
	131.3	132.2	2,862	5,663	569	1,767	134	21.8	37.5	2.3	7.8	0.9	1.4	0.2	0.9	0.2	17.8	1.11	29.4	2.1
	132.2	132.8	2,475	4,938	501	1,540	108	17.8	31.0	2.0	7.2	0.9	1.7	0.2	1.0	0.1	20.3	0.96	15.1	1.3
	132.8	133.2	3,026	6,031	625	1,995	165	30.2	59.2	4.8	18.1	2.6	5.3	0.6	3.8	0.5	68.6	1.20	46.7	4.4
	133.2	133.7	1,959	3,783	382	1,213	109	23.3	49.6	5.0	23.2	3.7	8.5	1.0	6.3	0.9	104.1	0.77	42.2	5.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	133.7	134.1	2,780	5,380	540	1,726	157	32.3	68.2	6.6	30.1	4.4	9.7	1.1	5.9	0.8	123.2	1.09	47.4	2.9
	134.1	135.1	13,604	22,787	2,048	5,785	363	57.8	92.6	5.5	16.0	1.6	2.4	0.2	0.9	0.1	31.8	4.48	41	2.2
	135.1	135.9	19,703	34,518	3,214	9,308	593	96.6	151.0	8.8	23.4	2.2	2.9	0.3	1.1	0.2	44.5	6.77	72.3	4.2
	135.9	136.6	19,410	35,869	3,419	9,961	632	100.7	152.7	8.8	24.0	2.2	3.0	0.2	1.0	0.2	43.2	6.96	80	2.8
	136.6	137.6	12,901	23,033	2,175	6,380	408	67.7	107.5	6.8	22.0	2.3	3.2	0.3	0.9	0.1	47.0	4.52	57.8	2
	137.6	138.6	14,191	23,954	2,175	6,380	411	68.3	109.8	7.2	19.6	2.0	2.9	0.2	1.1	0.1	39.4	4.74	54.9	2
	138.6	139.3	6,134	10,896	1,011	3,033	201	32.2	53.4	3.6	12.4	1.3	2.2	0.2	1.4	0.2	33.0	2.14	27.9	2.1
	139.3	140.2	21,462	36,729	3,383	10,183	683	115.3	191.3	13.4	36.2	3.3	4.8	0.4	2.1	0.2	73.7	7.29	116.5	3
	140.2	141.1	26,857	44,959	4,047	11,839	780	130.3	219.0	14.8	39.0	3.7	5.3	0.4	2.3	0.3	81.3	8.90	118	5.1
	141.1	141.9	16,185	27,148	2,513	7,687	557	101.3	181.0	15.2	45.7	4.3	6.1	0.5	3.0	0.4	97.8	5.45	193.5	8.2
	141.9	142.9	715	1,247	120	363	32	6.4	13.8	1.6	7.7	1.3	3.4	0.4	2.7	0.4	38.1	0.26	30.9	3.7
	142.9	143.9	127	241	25	85	12	3.0	7.6	1.2	6.3	1.2	3.2	0.4	2.5	0.4	34.3	0.05	29.7	3
	143.9	144.9	118	228	24	80	11	3.1	8.4	1.1	6.1	1.0	3.4	0.5	4.0	0.6	33.0	0.05	19.2	2.9
	144.9	145.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
<b>KGKDD004</b>	0.0	3.0	6,415	13,082	1,414	4,362	351	59.8	117.6	10.9	46.6	6.8	16.4	2.0	10.5	1.4	207.0	2.61	116	12.2
	3.0	5.0	5,981	11,572	1,162	3,581	257	38.9	66.7	5.2	17.0	1.9	3.0	0.3	1.4	0.2	44.5	2.27	48.6	8.3
	5.0	6.0	5,747	11,203	1,130	3,476	256	40.5	71.8	5.8	17.5	1.6	2.2	0.2	0.8	0.1	35.6	2.20	54.9	10.2
	6.0	7.0	6,685	14,679	1,649	5,412	504	90.3	166.0	13.2	38.1	3.3	4.1	0.3	1.3	0.2	69.8	2.93	176	4.5
	7.0	8.0	8,362	17,382	1,855	5,657	392	57.1	92.3	6.3	18.3	1.8	3.0	0.2	1.0	0.1	40.6	3.39	54.4	5.5
	8.0	8.9	4,527	9,262	958	3,079	249	41.6	81.0	6.7	20.8	1.7	2.4	0.2	0.8	0.1	39.4	1.83	89.9	3.6
	8.9	9.8	12,314	22,848	2,271	6,683	429	63.9	107.5	7.5	21.4	2.1	2.6	0.4	0.9	0.3	40.6	4.48	80.9	4.2
	9.8	10.3	4,867	9,606	985	3,068	231	38.2	76.3	7.4	24.6	2.4	3.0	0.2	1.0	0.1	52.1	1.90	69.4	3.9
	10.3	11.2	5,465	10,675	1,086	3,383	256	40.6	77.2	7.1	22.0	2.1	2.7	0.2	0.9	0.1	45.7	2.11	69.2	3.4
	11.2	12.0	7,213	14,188	1,504	4,537	337	52.2	92.0	7.6	24.3	2.3	3.2	0.2	1.0	0.1	49.5	2.80	82.6	4.3
	12.0	13.0	6,251	12,530	1,335	4,152	322	51.3	86.5	6.7	21.6	2.1	3.0	0.2	1.0	0.1	44.5	2.48	72.2	4.1
	13.0	14.0	7,881	15,232	1,577	4,794	340	50.3	78.6	5.2	14.9	1.3	1.8	0.1	0.6	-0.1	29.2	3.00	53.1	3.5
	14.0	15.0	5,371	10,798	1,133	3,628	322	56.9	108.7	9.5	32.0	3.1	4.8	0.4	2.1	0.3	73.7	2.15	109.5	2
	15.0	15.7	6,228	12,591	1,353	4,082	337	56.5	103.9	8.4	24.7	2.2	3.1	0.2	1.3	0.1	48.3	2.48	104.5	2.1
	15.7	16.7	8,819	17,443	1,818	5,459	458	82.0	155.0	13.5	43.7	4.2	6.0	0.5	2.3	0.2	97.8	3.44	120	3.6
	16.7	17.7	4,609	9,827	1,080	3,628	336	57.1	106.9	8.5	26.3	2.6	3.9	0.3	2.1	0.3	58.4	1.97	88.3	2.4
	17.7	18.7	4,562	9,950	1,106	3,732	342	58.6	107.3	8.2	25.3	2.4	3.7	0.3	1.7	0.2	57.2	2.00	99.7	2.7
	18.7	19.3	2,310	5,282	597	2,065	209	41.6	90.9	7.7	21.4	1.8	2.4	0.2	0.9	0.1	40.6	1.07	134.5	1.4
	19.3	20.3	6,685	14,311	1,565	4,946	417	68.7	128.5	10.4	30.4	2.9	3.7	0.3	1.5	0.2	63.5	2.82	124	2.6
	20.3	21.3	5,559	12,530	1,456	4,922	470	77.7	138.3	10.5	31.1	2.7	3.9	0.3	1.4	0.2	64.8	2.53	148.5	2.1
	21.3	22.0	5,090	10,552	1,145	3,814	357	58.7	104.7	7.4	21.4	1.7	2.5	0.2	0.9	0.1	41.9	2.12	120.5	1.1
	22.0	22.8	4,937	11,510	1,347	4,421	411	66.0	112.3	7.2	17.6	1.6	2.1	0.2	0.6	-0.1	27.9	2.29	96.2	0.8
	22.8	23.8	965	2,432	283	1,001	103	16.9	29.1	1.6	4.4	0.3	0.5	-0.1	0.2	-0.1	7.6	0.48	47.2	0.5
	23.8	24.4	4,281	9,164	1,015	3,359	286	46.9	83.1	5.6	14.5	1.3	1.7	0.1	0.5	0.1	26.7	1.83	66.5	1.1
	24.4	25.4	3,847	8,673	1,000	3,511	357	65.0	127.4	9.6	25.4	2.1	2.9	0.2	1.0	0.1	44.5	1.77	174.5	1.3
	25.4	26.4	2,697	6,203	727	2,636	291	53.3	97.2	5.6	13.7	1.0	1.4	0.1	0.3	0.1	20.3	1.27	186	0.8
	26.4	27.2	2,029	4,656	538	1,930	209	38.9	76.8	6.0	17.2	1.6	2.4	0.2	1.0	0.2	34.3	0.95	92.4	0.8
	27.2	28.0	745	1,861	225	846	107	20.4	42.9	3.6	12.2	1.3	2.2	0.3	1.4	0.2	29.2	0.39	49.6	1
	28.0	29.0	2,152	4,766	536	1,890	197	36.7	72.8	5.5	15.4	1.4	1.9	0.2	0.7	0.1	30.5	0.97	120.5	1.1
	29.0	30.0	6,486	13,144	1,456	4,654	373	58.1	96.6	6.9	21.4	2.1	3.2	0.2	1.0	0.1	48.3	2.64	75	4.2
	30.0	31.0	8,245	16,092	1,685	5,074	346	48.8	78.0	5.4	15.8	1.6	2.5	0.2	1.0	0.1	38.1	3.16	43.6	2.7
	31.0	32.0	7,600	14,925	1,553	4,712	342	52.8	94.4	8.0	26.3	2.7	4.0	0.3	1.5	0.2	64.8	2.94	93.9	4

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm	
	32.0	33.0	5,465	10,466	1,051	3,196	210	31.3	54.3	4.9	18.0	1.9	2.7	0.2	1.3	0.1	44.5	2.05	45.7	5.1	
	33.0	34.0	4,773	9,299	944	2,916	205	31.2	53.9	4.5	15.7	1.7	2.6	0.2	1.3	0.1	40.6	1.83	49.8	4.4	
	34.0	35.0	9,242	17,812	1,818	5,319	359	53.7	94.2	8.7	31.5	3.1	4.5	0.3	1.4	0.2	74.9	3.48	87	5.5	
	35.0	36.9	7,236	14,311	1,510	4,537	334	51.4	97.5	9.4	32.8	3.3	4.7	0.3	1.7	0.1	78.7	2.82	86.7	3.9	
	36.9	37.3	5,489	10,650	1,057	3,184	202	33.2	58.2	4.5	15.4	1.5	2.4	0.3	0.7	0.2	34.3	2.07	46.8	2.3	
	37.3	38.2	6,063	11,670	1,148	3,429	212	35.4	68.1	7.1	25.7	2.4	3.4	0.2	0.9	0.1	58.4	2.27	63.1	2.9	
	38.2	38.7	2,580	4,963	494	1,499	95	16.1	28.4	2.5	9.8	1.0	1.8	0.2	0.9	0.2	27.9	0.97	24.8	10.3	
	38.7	39.4	5,970	11,965	1,220	3,732	235	37.8	63.4	5.5	16.1	1.7	2.3	0.2	0.9	0.1	38.1	2.33	48.6	4	
	39.4	40.2	6,087	12,161	1,232	3,732	231	37.1	59.9	4.5	13.8	1.4	2.3	0.2	0.9	0.1	31.8	2.36	38.5	6.2	
	40.2	41.2	10,532	19,654	1,957	5,529	341	55.8	100.9	9.2	32.8	3.3	4.7	0.3	1.6	0.2	77.5	3.83	82.5	3.2	
	41.2	41.9	4,996	10,527	1,144	3,791	291	52.2	95.7	8.9	32.8	3.1	4.6	0.3	1.3	0.1	73.7	2.10	88.7	2.8	
	41.9	42.8	7,565	14,495	1,468	4,234	253	42.2	71.5	6.1	18.0	1.7	2.7	0.2	0.8	0.1	41.9	2.82	54.9	3	
	42.8	43.8	11,845	22,234	2,235	6,357	377	61.8	106.0	8.8	27.5	2.7	4.1	0.3	1.1	0.1	59.7	4.33	73	2.9	
	43.8	44.8	5,078	11,719	1,335	4,666	405	71.3	118.1	7.5	20.3	2.0	2.9	0.2	1.0	0.1	43.2	2.35	98.8	2	
	44.8	45.8	6,544	12,898	1,287	3,896	249	40.4	69.9	5.2	16.2	1.6	2.5	0.2	0.7	0.1	36.8	2.50	50.2	4.9	
	45.8	46.8	5,371	10,159	994	2,974	187	31.6	56.3	4.6	14.8	1.4	2.1	0.2	0.7	0.1	33.0	1.98	51.6	1.5	
	46.8	47.6	5,911	11,031	1,079	3,243	217	38.3	69.9	6.2	18.5	1.8	2.4	0.2	0.9	0.2	41.9	2.17	70.1	1	
	47.6	48.3	4,527	8,783	875	2,613	158	24.4	39.1	3.0	10.3	1.1	2.1	0.2	0.8	0.1	26.7	1.71	22.8	8.5	
	48.3	49.3	4,433	8,869	912	2,858	195	32.2	55.6	5.1	16.9	1.7	2.9	0.2	1.0	0.1	39.4	1.74	47.6	4.2	
	49.3	50.0	5,008	9,827	1,002	3,126	209	34.9	63.2	5.8	19.9	2.0	2.7	0.3	1.0	0.1	44.5	1.93	60.7	5.1	
	50.0	51.0	6,779	13,574	1,408	4,199	252	39.1	63.4	4.7	15.5	1.6	2.2	0.2	0.9	0.1	35.6	2.64	44.6	5	
	51.0	52.0	6,427	12,468	1,238	3,756	229	36.6	60.4	5.0	16.6	1.7	2.7	0.2	0.9	0.1	39.4	2.43	44.2	3.3	
	52.0	53.0	8,491	16,215	1,631	4,712	282	45.6	78.2	6.4	20.0	1.9	2.9	0.2	0.9	0.1	43.2	3.15	56.6	5.7	
	53.0	54.0	5,219	9,962	996	3,021	195	33.6	59.6	5.3	16.9	1.8	2.4	0.2	1.0	0.2	39.4	1.96	60.1	4.7	
	54.0	55.0	6,920	13,451	1,359	4,082	260	44.0	85.3	8.0	27.3	2.4	3.4	0.2	1.3	0.1	57.2	2.63	85.6	2.7	
	55.0	56.0	5,477	10,884	1,113	3,464	247	44.6	89.8	9.0	30.1	2.6	3.4	0.2	1.0	0.1	61.0	2.14	97.8	2	
	56.0	57.0	9,758	17,505	1,728	4,946	313	53.4	100.5	9.8	33.3	3.1	4.2	0.3	1.3	0.2	71.1	3.45	94.4	2.3	
	57.0	57.9	6,216	12,591	1,341	4,152	304	53.5	95.8	7.4	22.8	2.2	3.1	0.3	1.0	0.1	52.1	2.48	87.8	2.4	
	57.9	58.9	9,347	17,812	1,818	5,342	382	68.7	133.7	11.9	38.8	4.0	5.6	0.4	1.9	0.2	91.4	3.51	121.5	2.6	
	58.9	59.9	6,638	13,144	1,341	4,152	289	50.5	87.1	6.3	18.9	1.8	2.6	0.2	0.8	0.1	41.9	2.58	65.5	2.9	
	59.9	60.9	6,826	14,065	1,534	4,689	361	64.5	115.8	9.0	27.8	2.6	3.7	0.2	1.1	0.1	53.3	2.78	95.3	2.2	
	60.9	61.9	8,268	17,996	1,981	6,252	493	90.4	154.5	10.3	27.5	2.5	3.3	0.2	0.7	0.1	48.3	3.53	123.5	1	
	61.9	62.4	13,370	28,499	3,069	10,136	795	148.2	273.2	21.3	64.2	6.1	8.2	0.6	2.5	0.4	133.3	5.65	264	1.4	
	62.4	65.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	65.4	65.9	14,484	30,833	3,395	10,929	767	126.8	212.1	15.3	45.7	4.3	6.4	0.5	2.1	0.2	91.4	6.09	155	5.5	
	65.9	66.9	7,084	13,942	1,414	4,211	292	44.9	77.9	6.2	19.3	1.8	2.5	0.2	0.8	0.1	39.4	2.71	57.3	6.4	
	66.9	67.9	7,189	14,741	1,553	4,806	372	54.5	88.9	6.1	17.9	1.6	2.3	0.2	0.8	0.1	33.0	2.89	73.4	5.1	
	67.9	68.4	22,459	38,449	3,576	10,521	676	100.6	160.8	10.8	30.5	2.9	4.4	0.3	1.5	0.2	61.0	7.61	93.9	2.7	
	68.4	68.8	5,160	10,110	1,004	3,103	220	32.4	52.7	3.7	11.5	1.3	1.9	0.2	1.3	0.2	27.9	1.97	29	6.7	
	68.8	69.4	5,723	11,780	1,195	3,744	264	39.5	69.2	6.3	30.1	5.0	11.8	1.5	8.8	1.2	147.3	2.30	49.4	12.4	
	69.4	69.9	7,729	15,969	1,661	5,027	329	47.6	75.2	4.8	13.0	1.4	2.4	0.2	1.3	0.2	29.2	3.09	38.1	7.2	
	69.9	70.9	7,365	14,864	1,547	4,596	312	45.9	75.5	5.1	14.5	1.6	2.3	0.2	1.0	0.1	30.5	2.89	45.5	5.9	
	70.9	71.5	7,283	14,065	1,426	4,141	281	42.3	71.0	5.0	14.5	1.4	2.2	0.2	0.6	0.1	29.2	2.74	50.2	7.2	
	71.5	72.3	14,250	25,919	2,465	7,138	444	68.2	113.5	7.6	20.9	1.9	3.2	0.3	1.4	0.1	40.6	5.05	65.8	3.7	
	72.3	72.6	5,348	10,933	1,114	3,499	237	33.9	52.3	3.2	8.5	0.9	1.5	0.1	0.8	0.1	19.1	2.13	27.5	8	
	72.6	73.1	7,307	14,741	1,516	4,502	318	48.5	81.4	5.6	16.6	1.6	2.9	0.2	0.9	0.1	35.6	2.86	55.5	3.7	

personal use only

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	73.1	73.4	4,996	10,073	1,014	3,138	213	31.2	50.1	3.2	9.1	0.9	1.6	0.1	0.7	0.1	19.1	1.95	29.2	7.7
	73.4	74.4	6,978	13,758	1,347	4,036	278	41.0	67.3	4.5	12.7	1.4	2.5	0.3	1.4	0.2	30.5	2.66	30.4	3.6
	74.4	75.3	7,471	15,539	1,619	4,957	349	49.9	81.4	5.1	15.4	1.6	2.7	0.3	1.4	0.2	34.3	3.01	41.4	4.3
	75.3	75.9	4,375	8,734	860	2,694	198	30.7	51.9	3.9	11.1	1.1	1.9	0.2	1.0	0.1	27.9	1.70	44.4	6
	75.9	76.6	9,136	18,610	1,933	5,715	387	56.4	92.4	6.4	18.7	1.8	2.9	0.3	1.3	0.1	40.6	3.60	55.7	1.7
	76.6	77.6	11,106	21,374	2,096	6,065	413	62.1	100.3	6.7	19.1	1.9	3.3	0.3	1.6	0.2	40.6	4.13	49.1	1.5
	77.6	78.4	10,203	19,286	1,885	5,424	356	52.5	83.7	5.4	14.6	1.4	2.3	0.2	0.9	0.1	29.2	3.73	42.3	2
	78.4	79.1	12,666	24,138	2,374	6,812	448	66.4	105.2	6.6	19.6	1.9	3.3	0.3	1.4	0.2	43.2	4.67	55.5	1.8
	79.1	80.1	6,685	13,144	1,275	3,907	270	40.1	63.9	4.1	12.1	1.3	2.1	0.2	0.9	0.1	25.4	2.54	28.5	1.4
	80.1	80.9	8,503	16,768	1,704	5,062	350	51.3	85.6	5.9	16.0	1.5	2.3	0.2	1.0	0.2	33.0	3.26	53.1	0.9
	80.9	81.9	9,406	18,856	1,921	5,669	379	55.4	85.3	5.3	14.5	1.5	2.3	0.2	1.0	0.2	29.2	3.64	39.3	3
	81.9	82.9	12,197	23,524	2,398	7,162	486	71.4	114.7	7.0	18.4	1.8	2.7	0.2	1.1	0.2	38.1	4.60	58.8	1.6
	82.9	83.9	7,025	14,249	1,480	4,514	321	48.5	81.0	5.3	14.5	1.3	1.9	0.2	0.6	0.1	26.7	2.78	63.6	1.8
	83.9	84.4	6,286	13,390	1,420	4,327	293	42.6	68.8	4.5	12.9	1.3	1.9	0.2	0.7	0.1	24.1	2.59	44.2	1.7
	84.4	85.1	9,230	18,795	1,951	5,867	395	54.5	83.6	4.9	13.2	1.2	1.9	0.2	0.9	0.1	24.1	3.64	35.2	0.8
	85.1	85.6	942	2,217	234	776	57	8.9	15.9	1.4	4.4	0.5	0.9	0.1	0.8	0.1	11.4	0.43	13.2	1
	85.6	86.6	9,031	18,426	1,891	5,785	413	60.9	99.2	6.7	17.0	1.8	2.7	0.3	1.1	0.2	34.3	3.58	51.4	1.5
	86.6	87.6	10,672	20,760	2,102	6,217	465	76.9	137.7	10.5	30.4	2.9	4.2	0.5	1.7	0.3	58.4	4.05	99.8	1.1
	87.6	88.6	10,227	20,944	2,108	6,555	468	77.8	127.4	8.0	22.5	2.3	3.3	0.3	1.1	0.2	45.7	4.06	67.4	2.9
	88.6	89.2	6,802	13,820	1,389	4,246	302	48.5	78.5	4.8	12.6	1.3	2.1	0.2	1.0	0.1	26.7	2.67	35.5	3.6
	89.2	89.8	18,941	36,361	3,576	10,509	683	108.0	169.4	10.0	25.1	2.4	3.4	0.2	1.0	0.1	44.5	7.04	82.1	1.7
	89.8	90.8	14,425	24,138	2,175	6,065	391	65.9	116.4	8.3	25.1	2.7	4.0	0.4	1.7	0.2	61.0	4.75	58.8	1.5
	90.8	91.8	8,315	15,601	1,492	4,409	291	47.8	79.5	5.1	14.5	1.4	2.3	0.2	0.9	0.2	31.8	3.03	36.6	3.4
	91.8	92.8	8,374	16,215	1,577	4,736	333	57.0	94.7	6.3	18.6	1.9	3.2	0.3	1.7	0.2	47.0	3.15	56	2.2
	92.8	93.6	8,210	16,461	1,631	4,899	318	51.2	79.3	4.7	11.8	1.2	2.3	0.2	1.1	0.1	29.2	3.17	33.7	2.7
	93.6	94.2	11,353	22,787	2,265	6,777	452	74.1	119.3	7.4	18.8	1.8	2.9	0.2	1.1	0.1	36.8	4.39	52.5	2.2
	94.2	95.2	7,095	14,004	1,377	4,176	275	43.8	69.0	4.1	11.1	1.1	1.5	0.2	1.0	0.1	22.9	2.71	28.8	5.2
	95.2	96.0	8,350	17,136	1,716	5,202	346	54.3	85.3	4.9	13.2	1.5	2.4	0.2	1.3	0.1	29.2	3.29	37.9	2.2
	96.0	97.0	5,559	10,970	1,091	3,278	222	35.4	55.1	3.5	9.5	0.9	1.7	0.2	0.9	0.1	20.3	2.12	21.3	3
	97.0	97.5	11,177	21,988	2,157	6,415	419	67.0	105.9	6.1	15.0	1.4	2.4	0.2	1.1	0.2	30.5	4.24	48.8	13.5
	97.5	98.1	10,977	22,173	2,211	6,730	465	74.0	118.1	6.8	17.7	1.7	2.5	0.2	1.3	0.1	34.3	4.28	55.5	10.6
	98.1	98.6	3,730	7,641	787	2,461	181	28.5	47.4	2.8	7.7	0.8	1.4	0.2	0.7	0.1	16.5	1.49	27.2	20.2
	98.6	99.3	2,381	5,184	546	1,750	140	23.7	40.9	2.7	8.7	1.0	1.9	0.2	1.4	0.2	22.9	1.01	31.7	20.7
	99.3	100.0	4,891	10,331	1,079	3,394	247	38.4	60.4	3.5	9.5	0.9	1.6	0.2	0.7	0.1	19.1	2.01	26.2	6.9
	100.0	100.9	7,787	17,443	1,885	6,042	457	73.8	122.2	7.7	19.4	1.7	2.4	0.2	1.0	0.1	34.3	3.39	84.3	1.9
	100.9	101.9	2,909	6,547	698	2,286	182	32.1	59.4	4.7	13.4	1.4	1.8	0.2	1.3	0.2	27.9	1.28	67.3	1.6
	101.9	102.2	10,966	21,866	2,187	6,625	472	78.3	131.4	8.9	24.0	2.2	3.9	0.3	1.5	0.2	50.8	4.24	91.6	2.9
	102.2	102.7	7,565	15,048	1,522	4,724	358	61.8	113.8	8.5	23.2	2.4	3.9	0.4	2.1	0.2	58.4	2.95	132.5	3.1
	102.7	103.2	11,060	20,821	2,012	5,937	401	65.7	112.7	7.7	22.0	2.0	2.9	0.3	1.5	0.2	45.7	4.05	83	9.8
	103.2	103.7	15,540	28,745	2,743	8,002	520	84.5	138.3	8.3	22.3	2.2	3.3	0.3	1.6	0.2	45.7	5.59	81.8	2.3
	103.7	104.4	7,635	14,864	1,480	4,491	312	49.2	80.1	5.2	13.8	1.5	2.6	0.2	1.1	0.2	30.5	2.90	42.4	7.1
	104.4	105.5	14,132	29,727	3,105	9,728	703	116.4	195.9	12.7	34.4	3.2	4.5	0.4	1.6	0.2	64.8	5.78	112	7.3
	105.5	106.3	4,445	9,029	912	2,834	207	36.0	66.6	5.3	17.3	2.1	4.0	0.5	2.6	0.3	49.5	1.76	32.2	7.4
	106.3	107.0	5,348	11,043	1,132	3,499	245	41.7	66.7	4.8	14.0	1.6	3.1	0.3	1.8	0.2	38.1	2.14	34	11.6
	107.0	107.5	14,836	30,341	3,105	9,623	706	117.5	195.9	12.9	36.2	3.7	6.5	0.6	3.1	0.4	83.8	5.91	98.7	4.9
	107.5	108.1	7,248	14,434	1,426	4,362	298	47.4	77.5	4.6	12.1	1.3	2.1	0.2	1.0	0.1	26.7	2.79	38.8	8.7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	108.1	108.9	6,075	12,653	1,335	4,281	339	56.0	93.9	5.9	16.0	1.5	2.4	0.2	1.1	0.1	31.8	2.49	54.6	9.6
	108.9	109.9	5,371	11,080	1,151	3,651	277	45.2	74.6	4.5	12.4	1.3	1.9	0.2	0.9	0.2	25.4	2.17	41.2	7.5
	109.9	110.9	4,961	10,073	1,031	3,289	237	36.8	58.7	3.9	9.8	1.1	1.7	0.3	1.1	0.2	21.6	1.97	29.8	5.2
	110.9	111.9	4,891	10,527	1,143	3,779	297	47.0	75.6	4.5	11.7	1.2	1.8	0.2	0.9	0.1	24.1	2.08	41	7.5
	111.9	112.6	4,433	9,704	1,070	3,604	290	44.9	72.5	4.5	11.1	1.2	1.9	0.2	1.1	0.1	24.1	1.93	38.4	6.7
	112.6	113.1	2,662	5,835	608	2,012	156	25.6	44.3	3.3	9.3	1.2	2.2	0.3	1.5	0.2	27.9	1.14	30.7	17.6
	113.1	114.0	4,750	9,741	991	3,126	239	39.5	65.2	4.4	12.6	1.3	2.3	0.2	1.1	0.1	27.9	1.90	43.3	7.9
	114.0	115.0	6,028	12,284	1,311	4,117	324	50.6	84.1	5.7	17.0	2.0	3.9	0.4	2.5	0.3	45.7	2.43	51.7	7.4
	115.0	116.0	7,776	15,908	1,631	4,911	354	57.3	94.9	6.5	17.7	1.9	3.1	0.3	1.6	0.2	41.9	3.08	58.3	11.8
	116.0	117.0	4,140	8,574	893	2,904	222	34.9	57.5	4.0	11.3	1.3	2.2	0.2	1.6	0.2	31.8	1.69	34.7	12.6
	117.0	118.0	6,075	12,653	1,402	4,292	326	51.8	85.1	5.9	16.3	1.8	3.1	0.3	1.6	0.2	39.4	2.50	52.2	8.2
	118.0	119.0	5,278	11,019	1,137	3,651	274	42.0	71.2	4.7	14.0	1.7	2.7	0.3	1.6	0.2	35.6	2.15	38.8	7
	119.0	119.7	4,515	9,102	947	3,068	234	38.2	64.2	4.6	14.2	1.9	3.4	0.4	2.2	0.3	44.5	1.80	33.8	11.6
	119.7	120.1	3,202	6,744	708	2,356	201	34.2	62.7	5.0	17.6	2.3	4.9	0.5	3.2	0.5	59.7	1.34	40.9	14.7
	120.1	120.7	1,132	2,715	304	1,116	142	33.4	81.7	9.2	41.7	6.6	14.9	1.9	12.3	1.6	189.2	0.58	52.1	23.3
	120.7	121.6	2,639	5,540	579	1,907	159	29.1	57.3	5.2	20.0	2.9	6.6	0.8	5.5	0.7	81.3	1.10	35.2	14.6
	121.6	122.2	3,084	6,437	672	2,187	191	36.1	76.9	7.5	31.2	4.8	10.4	1.2	7.6	1.0	132.1	1.29	42.3	18.7
	122.2	123.2	3,366	6,867	712	2,304	192	34.4	69.3	6.3	23.4	3.5	7.0	0.8	5.0	0.6	88.9	1.37	33.3	11.1
	123.2	124.0	1,208	2,850	312	1,112	130	28.3	69.5	7.7	34.4	5.6	11.7	1.4	9.0	1.2	147.3	0.59	38.2	15
	124.0	125.0	4,152	8,353	854	2,718	206	35.2	66.2	5.6	22.3	3.1	6.5	0.7	4.2	0.5	78.7	1.65	30	13.7
	125.0	126.0	3,683	7,420	762	2,473	197	34.0	64.0	5.5	19.7	2.8	6.2	0.7	3.6	0.4	73.7	1.47	30	13.9
	126.0	127.0	3,296	6,633	620	2,047	155	26.5	56.8	4.4	17.6	2.4	5.3	0.6	3.1	0.4	62.2	1.29	27.7	15.4
	127.0	128.0	8,819	18,672	2,036	6,497	448	69.8	113.3	7.4	20.8	2.5	4.5	0.5	2.4	0.3	58.4	3.68	60.5	10.7
	128.0	129.0	4,457	9,078	928	2,963	215	33.0	55.3	3.6	10.2	1.1	2.1	0.2	0.9	0.1	25.4	1.78	28.7	10.8
	129.0	130.0	2,709	5,737	613	2,094	192	35.4	69.3	6.0	23.5	3.3	7.0	0.9	5.4	0.6	94.0	1.16	42.9	11.8
	130.0	130.7	7,295	15,355	1,655	5,086	358	55.6	91.3	6.3	18.0	2.0	3.5	0.3	1.6	0.2	44.5	3.00	45	9.9
	130.7	131.7	5,149	11,056	1,161	3,709	249	37.8	61.4	4.3	12.3	1.4	2.7	0.2	1.5	0.2	35.6	2.15	26.1	7.5
	131.7	132.2	3,096	6,474	694	2,309	199	36.2	70.2	6.3	24.6	3.6	7.8	0.8	4.3	0.4	97.8	1.30	35.1	13
	132.2	133.2	5,008	10,663	1,138	3,732	283	44.2	76.7	6.3	22.3	3.0	6.2	0.7	4.4	0.5	81.3	2.11	38.1	12
	133.2	134.2	5,395	10,908	1,108	3,476	254	40.1	67.2	4.9	13.5	1.5	2.4	0.2	1.0	0.1	33.0	2.13	49.1	8.3
	134.2	134.8	2,275	4,742	500	1,685	152	28.5	56.9	5.0	18.4	2.6	5.5	0.6	3.9	0.5	69.8	0.95	37.7	7.5
	134.8	135.3	3,847	7,149	789	2,473	175	27.2	42.7	2.5	7.1	0.8	1.5	0.2	0.8	0.1	17.8	1.45	20.3	9.8
	135.3	135.8	2,967	6,375	702	2,414	219	37.2	62.9	4.5	13.5	1.7	3.3	0.3	2.2	0.3	41.9	1.28	37.7	9.6
	135.8	136.4	4,128	9,078	987	3,324	291	49.7	82.4	5.3	14.9	1.5	2.7	0.3	1.4	0.2	34.3	1.80	54.2	16.4
	136.4	137.2	4,527	9,839	1,058	3,499	292	49.1	83.5	5.6	16.2	1.6	2.5	0.3	1.1	0.2	35.6	1.94	60.7	7.9
	137.2	138.2	5,794	12,468	1,329	4,316	328	50.8	79.1	4.7	12.2	1.2	2.1	0.2	1.0	0.1	25.4	2.44	37.2	2.3
	138.2	139.2	5,360	11,486	1,208	3,896	286	43.9	70.7	4.1	11.0	1.1	2.1	0.2	0.9	0.1	24.1	2.24	33.2	0.6
	139.2	140.0	5,442	11,707	1,263	4,176	337	53.0	84.8	5.1	13.4	1.4	2.4	0.2	1.1	0.2	30.5	2.31	52.7	1
	140.0	140.9	11,482	23,033	2,290	6,928	465	71.9	112.6	7.2	19.2	1.9	3.1	0.3	1.4	0.1	44.5	4.45	58	3
	140.9	141.6	3,131	6,756	696	2,170	151	24.1	37.9	2.3	7.1	0.8	1.6	0.2	0.9	0.1	19.1	1.30	20.2	6.3
	141.6	142.2	2,428	5,147	521	1,610	110	16.8	27.1	1.7	5.4	0.7	1.1	0.1	0.7	0.1	15.2	0.99	12.5	6.4
	142.2	142.6	4,785	9,569	963	2,939	197	30.3	45.9	3.1	9.1	1.1	1.9	0.2	1.1	0.1	24.1	1.86	26.7	9.9
	142.6	143.5	6,943	14,557	1,613	4,957	385	60.1	104.7	6.9	18.9	1.8	3.0	0.3	1.1	0.2	38.1	2.87	66.9	2.1
	143.5	144.5	7,834	16,338	1,691	5,307	380	60.1	99.1	6.1	17.6	1.6	2.5	0.2	1.0	0.1	34.3	3.18	67.2	1.3
	144.5	145.3	5,125	10,405	1,041	3,173	212	34.3	58.8	4.5	15.0	1.6	2.5	0.2	1.3	0.2	39.4	2.01	36.2	2.9
	145.3	145.7	4,140	8,402	820	2,473	153	24.0	39.0	2.8	8.4	0.9	1.6	0.2	0.5	0.1	22.9	1.61	22.2	5.9

personal use only



Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	145.7	146.5	9,852	19,286	1,909	6,030	507	88.8	151.6	9.9	26.1	2.5	3.4	0.3	1.3	0.2	52.1	3.79	134	3.7
	146.5	147.1	9,535	17,935	1,691	4,934	330	55.8	94.3	7.0	21.0	2.2	3.1	0.2	1.1	0.2	48.3	3.47	74.6	2
	147.1	147.9	14,601	25,305	2,694	7,045	442	68.1	117.0	8.1	24.3	2.3	3.5	0.2	1.1	0.2	50.8	5.04	84.7	1.3
	147.9	148.9	8,327	16,706	1,667	5,132	341	52.8	85.1	5.7	15.8	1.7	2.4	0.2	1.3	0.2	35.6	3.24	51.7	2.9
	148.9	149.6	10,262	20,330	1,975	5,914	383	59.2	91.2	5.8	16.6	1.7	2.6	0.2	0.8	0.1	35.6	3.91	49.6	2.1
	149.6	150.6	20,172	35,746	3,298	9,343	598	99.2	168.3	11.3	31.7	3.0	4.4	0.4	1.3	0.2	66.0	6.95	106	2.3
	150.6	150.9	16,419	28,745	2,646	7,558	500	85.2	149.8	10.8	33.2	3.4	4.9	0.4	1.6	0.2	74.9	5.62	99.7	2.6
	150.9	151.6	16,478	29,604	2,743	7,990	544	87.8	142.9	9.7	26.5	2.6	4.4	0.3	1.6	0.2	58.4	5.77	87.6	3
	151.6	152.0	11,177	19,593	2,145	5,879	373	56.5	87.8	5.2	14.1	1.4	2.3	0.2	0.7	0.1	30.5	3.94	43.5	2.7
	152.0	152.7	5,207	10,355	1,037	3,138	217	36.1	59.6	4.3	13.0	1.5	2.3	0.2	1.1	0.2	34.3	2.01	44.1	4.9
	152.7	153.7	6,873	13,820	1,377	4,187	283	45.4	75.3	5.3	15.7	1.7	3.0	0.3	1.3	0.2	41.9	2.67	52.6	5.4
	153.7	154.7	4,808	9,410	928	2,811	192	31.4	53.4	3.6	11.4	1.3	2.1	0.2	0.9	0.1	29.2	1.83	37.6	4.7
	154.7	155.6	4,527	9,324	944	2,881	197	31.5	52.2	3.6	10.8	1.2	2.1	0.2	0.9	0.1	26.7	1.80	36.2	1.9
	155.6	156.3	3,929	8,193	836	2,589	181	29.2	46.5	3.0	9.0	1.1	1.6	0.2	1.1	0.1	24.1	1.58	22.8	3.8
	156.3	156.8	10,473	19,470	1,824	5,295	336	51.4	87.3	5.9	16.6	1.9	2.9	0.3	1.4	0.2	40.6	3.76	52.3	2.6
	156.8	157.8	8,538	16,153	1,553	4,642	319	52.5	86.9	6.3	20.0	2.1	3.3	0.3	1.4	0.2	49.5	3.14	69.1	2.2
	157.8	158.3	4,163	7,309	683	2,164	153	27.7	52.6	4.5	15.2	1.7	3.4	0.3	1.8	0.2	47.0	1.46	38.5	1.5
	158.3	159.3	9,277	16,092	1,468	4,561	285	48.4	79.5	6.6	19.3	2.0	3.2	0.2	1.0	0.1	41.9	3.19	67.6	1.7
	159.3	159.8	3,331	5,945	552	1,715	115	19.2	36.5	3.3	10.8	1.0	1.6	0.1	0.7	0.1	25.4	1.18	35.7	1.8
	159.8	160.8	9,242	16,583	1,540	4,852	291	47.9	80.3	6.0	17.7	1.7	2.6	0.2	1.1	0.1	38.1	3.27	52.5	1.2
	160.8	161.4	4,855	9,238	893	2,881	183	30.3	52.9	4.4	13.3	1.4	2.3	0.2	1.0	0.2	30.5	1.82	38.3	2.1
	161.4	162.4	11,963	21,374	2,096	5,972	354	58.6	99.9	7.8	22.8	2.4	4.4	0.3	1.5	0.2	61.0	4.20	66.8	1.6
	162.4	163.4	6,732	11,608	1,043	3,173	185	32.1	55.2	5.3	17.9	1.9	3.1	0.2	1.3	0.1	44.5	2.29	41.7	0.9
	163.4	163.8	15,716	27,762	2,670	7,383	407	67.9	113.2	9.4	30.5	3.3	5.6	0.4	2.1	0.2	73.7	5.42	80.2	1.5
	163.8	164.7	38,702	71,739	6,645	20,062	1,071	176.0	288.2	19.9	53.8	4.7	6.9	0.5	1.4	0.1	101.6	13.89	222	1.6
	164.7	165.7	15,070	25,674	2,477	7,068	437	74.3	130.8	10.3	31.1	3.1	4.4	0.3	1.4	0.2	67.3	5.10	120	1.6
	165.7	166.4	10,368	16,583	1,414	3,837	237	41.5	75.8	6.1	20.1	2.1	3.1	0.2	0.9	0.1	47.0	3.26	60.6	1.1
	166.4	167.4	17,944	33,290	3,262	9,914	732	123.9	211.5	14.1	41.0	3.7	5.0	0.3	1.4	0.2	80.0	6.56	160.5	3
	167.4	168.0	6,884	12,960	1,341	4,467	429	79.0	138.3	9.5	26.9	2.5	3.3	0.2	1.0	0.1	54.6	2.64	115.5	1.3
	168.0	168.9	5,758	9,557	866	2,706	180	31.2	55.6	4.6	14.1	1.3	2.6	0.2	0.8	0.1	35.6	1.92	51.8	3.6
	168.9	169.7	3,213	5,491	484	1,470	89	15.9	27.1	2.3	6.8	0.7	1.3	0.1	0.5	0.1	17.8	1.08	26.4	1.8
	169.7	170.4	5,289	9,287	913	3,254	337	66.7	121.6	8.8	25.5	2.6	4.1	0.4	1.7	0.2	59.7	1.94	110.5	3.4
	170.4	170.9	7,987	12,898	1,130	3,441	223	40.0	72.6	6.7	21.4	2.3	3.5	0.2	1.1	0.1	52.1	2.59	67.1	3.6
	170.9	171.9	6,720	10,220	870	2,566	164	28.7	51.8	4.4	13.4	1.4	2.4	0.2	0.9	0.1	34.3	2.07	39.1	2.6
	171.9	172.9	22,635	37,098	3,443	9,518	532	88.7	149.3	11.0	31.2	3.0	4.4	0.3	1.1	0.1	67.3	7.36	103.5	3.2
	172.9	173.6	6,415	10,540	917	2,729	169	29.3	54.2	4.7	15.8	1.7	2.9	0.2	1.1	0.2	40.6	2.09	39.6	4.8
	173.6	174.6	4,152	7,813	747	2,426	155	25.9	45.8	4.0	13.1	1.4	2.4	0.2	0.9	0.1	33.0	1.54	46.9	3.5
	174.6	175.6	5,911	11,006	1,066	3,441	212	33.5	57.3	4.2	13.4	1.4	2.3	0.2	0.9	0.1	33.0	2.18	37.2	6.7
	175.6	176.2	4,093	7,899	770	2,508	154	24.1	39.7	2.9	9.8	1.0	1.7	0.2	1.1	0.1	26.7	1.55	24.8	6.4
	176.2	176.9	6,122	11,928	1,185	3,849	240	36.9	58.2	4.1	11.8	1.2	2.2	0.2	1.1	0.1	30.5	2.35	33.1	4
	176.9	177.3	7,776	15,478	1,601	5,377	343	53.0	79.5	5.0	13.9	1.4	2.5	0.2	1.0	0.2	33.0	3.08	37.6	9.6
	177.3	178.3	6,791	13,328	1,341	4,456	270	40.3	62.9	4.0	11.4	1.2	2.2	0.2	1.1	0.1	29.2	2.63	31.1	6.3
	178.3	179.3	4,820	9,311	932	3,079	214	34.0	58.7	4.5	14.5	1.4	3.4	0.2	1.0	0.2	35.6	1.85	49.6	3.6
	179.3	180.3	8,339	16,829	1,758	5,680	364	53.7	83.8	5.7	15.2	1.7	2.5	0.2	1.3	0.2	36.8	3.32	42.1	6.4
	180.3	181.3	4,926	9,360	915	3,021	201	33.0	55.4	4.6	14.7	1.6	2.9	0.2	1.0	0.1	38.1	1.86	39.7	5.4
	181.3	182.3	5,278	10,380	1,046	3,464	224	34.5	55.9	4.1	12.2	1.3	2.3	0.3	1.4	0.2	27.9	2.05	32.3	4.4

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	182.3	183.3	5,688	9,643	997	2,951	201	36.1	57.3	5.1	13.0	1.5	2.5	0.3	1.4	0.2	31.8	1.96	47.4	8.6
	183.3	183.8	5,289	8,820	905	2,601	176	33.0	52.1	4.7	13.3	1.7	2.5	0.3	1.1	0.2	35.6	1.79	35.2	6
	183.8	184.6	5,958	10,343	1,080	3,371	283	50.1	96.8	8.1	24.8	2.5	3.8	0.4	2.5	0.4	58.4	2.13	85.3	10.4
	184.6	185.3	9,981	16,031	1,601	4,619	325	59.5	92.7	7.7	20.4	2.2	3.2	0.3	1.1	0.2	45.7	3.28	94.4	7.5
	185.3	185.6	8,819	14,372	1,420	4,059	279	52.6	85.0	6.9	20.2	2.1	2.9	0.3	1.1	0.2	45.7	2.92	59.1	5.7
	185.6	186.2	8,280	13,512	1,365	3,989	298	56.9	101.9	9.4	25.4	2.6	3.7	0.4	1.8	0.2	55.9	2.77	126	9
	186.2	186.6	34,832	51,961	5,147	13,938	864	166.2	268.6	21.2	53.0	5.5	6.8	0.5	2.3	0.3	110.5	10.74	199.5	6.4
	186.6	187.6	10,110	16,031	1,553	4,292	282	50.1	83.0	6.9	20.1	2.6	4.8	0.4	2.1	0.3	59.7	3.25	57.6	7
	187.6	188.6	6,403	10,294	1,028	2,939	201	38.1	66.9	6.0	17.3	2.0	2.9	0.3	1.6	0.3	44.5	2.10	58.2	10
	188.6	189.6	15,950	24,384	2,428	6,182	393	74.8	124.5	11.0	32.6	3.7	6.0	0.6	3.1	0.5	81.3	4.97	100	7.9
	189.6	190.6	12,314	18,856	1,800	4,852	313	57.1	93.0	8.5	27.1	3.7	7.2	0.8	4.4	0.5	91.4	3.84	59.4	8.4
	190.6	191.6	3,964	6,867	710	2,140	160	29.3	50.5	4.9	18.0	3.0	6.6	0.8	4.0	0.6	82.5	1.40	29.4	9.8
	191.6	192.2	2,897	5,331	564	1,715	139	30.6	64.7	8.9	41.3	6.6	13.4	1.4	7.0	0.9	182.9	1.10	50.5	8.2
	192.2	193.0	3,331	5,835	600	1,790	125	22.4	38.4	3.8	12.6	1.8	3.3	0.4	2.2	0.4	44.5	1.18	28.8	7.7
	193.0	193.5	3,507	6,584	701	2,123	143	24.4	40.1	2.9	8.8	1.1	2.4	0.3	1.5	0.2	30.5	1.32	25.5	6.9
	193.5	194.3	2,803	5,208	545	1,680	139	27.8	48.6	4.7	16.5	2.4	4.7	0.6	3.1	0.4	64.8	1.05	32.3	8.8
	194.3	194.9	1,876	3,857	417	1,318	101	18.9	31.4	2.7	9.3	1.3	2.9	0.3	1.9	0.3	35.6	0.77	23	5.6
	194.9	195.4	2,123	4,336	468	1,470	121	25.5	47.4	4.7	18.3	2.7	5.4	0.7	3.4	0.6	76.2	0.87	40.5	8.5
	195.4	196.4	2,135	4,508	504	1,668	160	32.9	59.0	5.8	19.3	2.9	6.1	0.7	3.8	0.5	73.7	0.92	60.6	11.8
	196.4	197.4	2,545	4,914	526	1,621	132	27.8	48.9	4.7	16.4	2.5	4.9	0.7	3.6	0.5	64.8	0.99	48.9	8.5
	197.4	198.1	2,041	3,968	411	1,248	107	22.6	43.6	4.6	17.5	2.7	5.7	0.7	3.5	0.5	73.7	0.79	30.5	3.9
	198.1	199.1	2,035	4,324	482	1,580	149	28.7	47.4	3.5	9.1	1.0	2.1	0.2	1.0	0.2	24.1	0.87	27.4	2.3
	199.1	199.8	4,726	9,496	1,116	3,721	348	66.6	109.3	7.4	17.9	2.0	3.0	0.3	1.1	0.2	39.4	1.97	61.4	5.3
	199.8	200.6	1,425	2,653	268	818	79	19.0	37.6	4.5	18.1	2.9	5.7	0.7	3.5	0.5	72.4	0.54	22.9	5.3
	200.6	201.2	2,099	3,894	388	1,150	94	19.7	38.2	3.9	14.0	2.2	3.9	0.5	2.9	0.4	54.6	0.78	27.5	2.8
	201.2	201.8	1,853	3,489	352	1,042	89	19.1	36.9	3.8	13.8	2.2	4.2	0.6	2.9	0.4	52.1	0.70	32.2	4.5
	201.8	202.8	2,991	5,012	488	1,435	106	21.2	36.1	3.7	12.9	1.8	2.9	0.3	1.5	0.3	40.6	1.02	30.8	8
	202.8	203.3	3,765	7,112	777	2,391	160	27.0	40.3	2.9	8.2	1.0	1.7	0.2	1.3	0.2	21.6	1.43	22.3	8
	203.3	204.3	3,776	6,388	636	1,866	130	24.9	46.6	4.4	16.5	2.2	4.7	0.6	3.3	0.6	57.2	1.30	33	7.2
	204.3	205.3	4,808	7,972	783	2,228	146	27.7	47.1	4.2	12.3	1.3	1.9	0.2	1.1	0.1	30.5	1.61	42.5	7
	205.3	206.3	8,620	13,574	1,293	3,593	228	41.9	67.7	5.6	15.4	1.8	2.4	0.3	1.1	0.2	38.1	2.75	50.4	7.8
	206.3	207.3	10,895	18,549	1,631	4,584	286	46.7	83.7	7.5	25.1	2.8	4.7	0.5	2.7	0.3	66.0	3.62	62.6	9.6
	207.3	208.3	15,422	25,919	2,368	6,205	383	67.0	130.2	11.2	34.2	3.4	6.2	0.6	2.9	0.3	80.0	5.06	128	13.4
	208.3	209.3	12,432	19,593	1,631	4,572	285	49.4	95.4	8.1	24.3	2.2	3.8	0.3	1.6	0.2	49.5	3.87	83.9	10
	209.3	210.3	8,831	15,355	1,335	3,837	231	37.2	66.5	5.1	15.8	1.5	2.7	0.2	0.9	0.1	36.8	2.98	54.5	7.6
	210.3	211.3	11,517	18,917	1,607	4,502	275	43.8	76.2	6.4	19.5	2.2	4.0	0.4	2.1	0.2	50.8	3.70	55	7.7
	211.3	212.3	7,811	12,714	1,089	3,091	191	31.7	56.3	4.7	14.9	1.7	3.4	0.4	2.1	0.3	41.9	2.51	39.8	6
	212.3	213.3	10,086	16,522	1,395	3,931	240	38.6	68.6	5.7	17.3	1.8	2.7	0.3	1.4	0.2	40.6	3.24	58.3	7.7
	213.3	214.3	9,242	15,662	1,389	3,989	266	45.6	88.1	7.6	25.8	2.9	5.2	0.6	3.6	0.4	69.8	3.08	74.7	5.2
	214.3	215.3	8,655	14,986	1,323	3,826	260	47.6	89.8	8.2	27.4	3.1	5.4	0.5	3.1	0.4	77.5	2.93	73.5	5.9
	215.3	216.3	11,341	19,900	1,782	4,899	297	47.9	84.7	6.7	19.9	1.9	2.9	0.3	1.4	0.1	43.2	3.84	77.2	5.4
	216.3	217.3	17,475	31,201	2,948	7,652	420	63.8	108.6	7.7	22.5	2.1	3.9	0.3	1.6	0.2	49.5	6.00	88.5	3.6
	217.3	218.3	18,765	33,290	3,153	8,223	479	77.5	138.3	10.8	29.7	3.0	4.6	0.4	1.7	0.2	67.3	6.42	123.5	3.8
	218.3	219.3	21,345	37,221	3,443	9,191	544	87.5	155.6	11.6	34.8	3.4	6.2	0.5	2.4	0.3	80.0	7.21	130.5	4.6
	219.3	220.3	17,416	29,850	2,779	7,465	472	79.8	145.2	11.6	35.2	3.2	6.0	0.5	2.3	0.3	76.2	5.83	135.5	4.2
	220.3	221.3	8,116	15,048	1,383	4,164	267	43.2	73.7	5.8	17.5	1.7	2.9	0.3	1.3	0.2	40.6	2.92	73.9	3.6

personal use only

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	221.3	222.3	11,728	19,532	1,691	4,607	286	51.6	99.8	9.2	31.1	3.3	5.2	0.5	2.6	0.3	78.7	3.81	99.1	3.2
	222.3	223.2	10,743	19,839	1,957	5,529	346	53.5	90.8	7.1	22.3	2.3	4.1	0.4	1.9	0.2	53.3	3.86	74.4	4.5
	223.2	224.2	9,570	16,645	1,468	4,269	274	44.8	80.2	6.9	22.2	2.3	3.9	0.3	1.7	0.2	54.6	3.24	76	7.8
	224.2	225.2	11,118	19,532	1,734	4,957	318	51.9	93.3	7.4	21.8	2.2	3.4	0.3	1.6	0.1	50.8	3.79	82.2	8.5
	225.2	226.2	5,712	10,331	947	2,823	186	29.9	54.4	4.9	16.6	1.8	3.0	0.2	1.0	0.2	41.9	2.02	58.9	6.2
	226.2	227.2	3,049	5,638	532	1,650	128	22.6	41.0	3.9	13.3	1.4	2.4	0.2	1.3	0.2	35.6	1.11	52.6	8.2
	227.2	228.2	2,269	4,275	396	1,225	92	16.6	29.3	2.5	8.4	1.0	1.8	0.2	1.0	0.1	25.4	0.83	31.2	7.8
	228.2	228.9	4,421	8,181	750	2,257	152	24.4	45.0	3.5	10.7	1.3	2.6	0.3	1.1	0.1	30.5	1.59	36.9	9.8
	228.9	229.4	3,753	7,248	701	2,210	169	30.0	56.3	5.3	18.4	1.8	3.1	0.3	1.1	0.1	43.2	1.42	64.2	7.1
	229.4	230.4	13,780	23,892	2,265	6,065	411	73.6	134.3	11.4	37.2	3.5	5.0	0.3	1.5	0.1	77.5	4.68	126	2.7
	230.4	231.4	11,271	20,207	1,963	5,540	386	65.9	117.0	8.8	25.5	2.4	3.3	0.3	1.3	0.2	48.3	3.96	110.5	2.5
	231.4	232.4	14,895	26,288	2,501	6,882	448	70.6	121.6	8.7	23.3	2.2	3.4	0.2	1.3	0.1	43.2	5.13	107.5	2.7
	232.4	233.4	9,418	17,013	1,522	4,409	284	45.7	81.8	6.3	18.4	1.7	3.1	0.2	1.5	0.1	38.1	3.28	63.9	3.6
	233.4	234.2	8,526	14,311	1,244	3,569	235	39.3	72.0	5.8	17.2	1.6	2.4	0.2	0.8	0.1	35.6	2.81	65.5	4.7
	234.2	235.2	3,870	6,793	672	1,930	140	25.2	42.9	3.3	10.3	1.0	1.8	0.2	0.8	0.1	24.1	1.35	34.1	9.7
	235.2	236.2	3,589	6,240	596	1,715	118	19.7	34.1	2.9	10.0	1.1	2.2	0.2	1.1	0.2	29.2	1.24	26.7	8.7
	236.2	237.2	4,175	6,633	592	1,639	113	20.0	36.3	2.8	9.8	1.2	2.3	0.2	1.4	0.2	31.8	1.33	22.7	12
	237.2	238.2	3,237	5,172	459	1,277	93	17.4	31.9	2.8	10.2	1.4	3.5	0.2	1.6	0.2	38.1	1.03	29.9	8.3
	238.2	238.4	1,249	2,365	220	639	53	10.5	18.7	1.7	6.2	0.9	1.4	0.2	0.9	0.1	20.3	0.46	17.4	8.4
	238.4	239.3	8,561	13,820	1,250	3,429	230	40.9	70.5	5.7	17.2	1.7	2.9	0.2	1.1	0.2	41.9	2.75	56.5	3.8
	239.3	239.6	14,660	23,155	2,235	5,645	371	63.0	107.8	8.0	23.4	2.3	3.7	0.3	1.6	0.2	53.3	4.63	77.9	5.9
	239.6	240.6	2,721	4,459	406	1,149	75	13.0	21.8	1.6	5.6	0.6	1.5	0.2	1.0	0.1	17.8	0.89	18.4	8.9
	240.6	241.6	8,608	13,082	1,153	3,126	191	33.1	55.4	4.2	12.7	1.3	2.3	0.2	0.9	0.1	29.2	2.63	43.5	2.8
	241.6	242.6	16,536	25,428	2,169	5,855	355	59.1	102.6	7.7	22.5	2.3	3.7	0.3	1.4	0.2	53.3	5.06	81.4	3.1
	242.6	243.6	9,558	15,109	1,359	3,709	241	40.3	67.9	4.9	15.0	1.6	3.2	0.3	1.6	0.3	39.4	3.02	46	3.2
	243.6	244.6	18,413	26,656	2,416	5,879	354	60.0	105.1	7.9	22.0	2.2	3.4	0.3	1.3	0.2	49.5	5.40	65.4	2.8
	244.6	245.4	10,684	16,522	1,516	3,942	239	40.5	67.1	5.1	13.8	1.4	2.3	0.2	0.7	0.1	30.5	3.31	40.9	2.3
	245.4	246.4	3,190	5,282	478	1,359	94	17.5	31.0	2.6	8.5	0.9	1.8	0.2	0.9	0.1	22.9	1.05	22.9	2.6
	246.4	247.4	2,287	3,968	387	1,201	130	28.1	56.3	5.1	19.6	2.5	5.7	0.6	4.0	0.6	71.1	0.82	44.7	3.8
	247.4	248.4	2,780	4,901	472	1,452	136	28.5	58.7	5.8	24.1	3.4	7.9	0.9	5.0	0.6	96.5	1.00	38.9	10.2
	248.4	249.4	1,360	2,874	298	988	110	26.5	65.2	8.1	37.4	5.1	12.4	1.3	8.8	1.1	154.9	0.60	92.2	14.4
	249.4	250.0	2,580	6,867	893	3,324	371	68.9	121.0	8.9	27.2	2.8	5.6	0.5	3.5	0.5	74.9	1.43	128	7.1
	250.0	251.0	2,967	5,552	568	1,779	163	32.4	64.4	6.1	22.5	3.3	7.6	0.8	4.7	0.6	88.9	1.13	66.1	8.3
	251.0	252.0	1,976	3,955	408	1,324	136	28.5	59.7	6.3	24.6	3.4	7.7	0.8	4.4	0.6	91.4	0.80	56.4	9
	252.0	253.0	1,011	2,223	236	797	96	23.9	54.1	5.9	25.4	3.9	8.5	0.9	5.1	0.7	99.1	0.46	55.5	20.6
	253.0	254.0	2,099	3,906	398	1,242	119	24.3	47.5	4.2	17.2	2.4	5.3	0.6	3.2	0.5	61.0	0.79	37.2	6.7
	254.0	255.0	1,636	3,550	377	1,242	128	25.9	52.8	4.9	18.7	2.6	5.8	0.6	3.5	0.6	66.0	0.71	45.8	6.8
	255.0	256.0	2,850	5,761	622	2,030	181	34.0	60.5	4.7	17.0	2.1	4.6	0.5	2.9	0.4	52.1	1.16	47.7	5.5
	256.0	257.0	1,947	4,103	441	1,458	143	27.7	49.6	3.8	13.4	1.6	3.2	0.3	2.1	0.3	39.4	0.82	41.9	4.6
	257.0	258.0	3,483	6,719	732	2,426	224	41.6	74.6	5.4	16.9	1.9	4.1	0.4	2.2	0.3	48.3	1.38	43.3	10.1
	258.0	259.0	1,906	3,648	370	1,184	121	26.2	52.9	5.4	22.2	3.2	7.0	0.8	4.4	0.6	85.1	0.74	47.4	3.4
	259.0	260.0	2,258	4,373	449	1,435	136	27.6	56.7	5.3	21.1	3.0	6.9	0.7	3.9	0.5	80.0	0.89	49.2	4.9
	260.0	260.2	1,407	2,838	285	918	88	17.6	36.1	3.3	13.2	1.9	4.4	0.4	2.3	0.2	50.8	0.57	23.3	6
	260.2	261.2	2,340	4,656	489	1,598	145	27.0	46.5	3.2	9.3	1.1	2.2	0.2	1.3	0.2	26.7	0.93	28.7	8.2
	261.2	261.8	1,519	3,673	391	1,429	143	27.2	47.7	3.8	13.0	1.7	3.4	0.4	2.3	0.4	41.9	0.73	32.7	18.4
	261.8	262.8	1,601	3,685	371	1,283	124	24.6	48.6	4.9	20.9	3.3	7.0	0.9	4.8	0.8	87.6	0.73	46	7.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	262.8	263.8	1,460	3,538	369	1,312	119	24.1	48.3	4.6	18.6	2.8	5.5	0.7	4.8	0.6	71.1	0.70	38.7	4.9
	263.8	264.7	2,627	5,086	504	1,715	158	32.5	65.6	6.6	26.2	3.9	8.1	0.8	4.9	0.7	104.1	1.03	46.3	7
	264.7	265.4	1,712	3,882	398	1,411	141	29.1	58.6	6.0	24.9	3.7	7.9	0.9	4.9	0.7	101.6	0.78	70.3	7
	265.4	266.4	1,525	3,624	382	1,376	148	30.1	61.7	5.8	23.9	3.4	7.0	0.7	4.6	0.6	88.9	0.73	63.2	5
	266.4	267.3	2,592	5,282	533	1,802	154	27.8	52.4	5.0	19.3	2.9	6.6	0.7	4.3	0.6	83.8	1.06	40.8	5.5
	267.3	268.3	1,701	3,648	361	1,207	104	20.4	39.4	3.5	15.2	2.4	5.4	0.6	3.6	0.4	64.8	0.72	40.1	5
	268.3	269.3	1,460	3,292	341	1,207	124	26.1	52.1	5.1	22.4	3.3	7.1	0.8	4.8	0.6	92.7	0.66	46.8	5.3
	269.3	270.3	787	1,824	193	699	81	18.4	40.7	4.6	20.5	3.4	7.2	0.8	5.0	0.8	90.2	0.38	43.6	6.6
	270.3	271.2	1,771	3,833	371	1,196	91	16.0	28.4	2.6	9.3	1.4	3.1	0.4	2.4	0.4	38.1	0.74	28	3.3
	271.2	272.2	1,835	4,226	447	1,615	153	29.4	56.0	5.1	20.2	2.9	6.5	0.7	4.3	0.6	82.5	0.85	56.3	5.8
	272.2	272.8	2,909	5,700	561	1,843	143	24.7	41.5	3.1	10.8	1.4	2.9	0.3	2.1	0.4	36.8	1.13	36	5.2
	272.8	273.2	1,783	4,140	434	1,557	154	30.2	57.8	5.1	20.0	3.0	6.8	0.7	4.3	0.7	83.8	0.83	49.2	5.2
	273.2	274.2	2,076	4,287	429	1,464	126	23.0	40.5	3.5	13.2	1.9	4.1	0.5	3.0	0.5	54.6	0.85	39.9	4.5
	274.2	275.2	1,302	3,157	342	1,260	139	29.1	55.6	4.9	20.4	2.9	6.5	0.8	5.0	1.0	87.6	0.64	58.4	3
	275.2	276.2	3,190	6,056	614	2,164	253	52.2	98.4	8.8	32.4	4.5	9.3	0.9	4.9	0.7	124.5	1.26	66.1	3.5
	276.2	277.2	2,815	5,700	584	2,041	205	41.0	76.9	6.8	25.0	3.5	7.2	0.9	5.0	0.7	105.4	1.16	82.9	4.9
	277.2	278.0	2,234	4,840	521	1,890	212	44.6	82.2	7.9	29.7	4.2	9.0	1.0	5.4	0.7	124.5	1.00	78.2	5
	278.0	278.4	3,905	7,604	784	2,729	261	50.7	90.5	7.6	27.3	3.8	7.6	0.7	4.2	0.4	104.1	1.56	72.8	4.3
	278.4	279.4	2,651	5,810	645	2,461	282	58.0	100.1	7.1	23.3	2.9	5.7	0.5	2.7	0.3	80.0	1.21	61.2	5.9
	279.4	280.4	2,070	4,754	529	2,059	245	51.5	92.7	7.7	26.9	3.4	7.2	0.8	4.8	0.6	100.3	1.00	68.5	6.3
	280.4	281.4	1,431	3,366	355	1,306	150	33.1	64.2	5.9	24.1	3.3	7.1	0.9	5.8	0.9	100.3	0.69	91.6	4.4
	281.4	281.9	1,560	3,624	377	1,353	151	33.1	67.1	6.6	28.0	4.4	9.5	1.1	6.3	1.0	124.5	0.73	99.5	5.8
	281.9	282.9	1,290	3,034	319	1,184	153	36.6	79.5	9.4	41.1	7.0	17.3	2.0	12.2	1.8	212.1	0.64	108	6.6
	282.9	283.4	1,308	3,034	321	1,144	130	29.5	58.4	6.3	26.2	4.0	9.4	1.1	6.6	1.0	123.2	0.62	86.6	4.7
	283.4	284.3	1,220	2,985	327	1,231	152	34.3	65.8	6.3	25.3	4.0	9.2	1.1	7.0	1.0	120.6	0.62	101.5	4.7
	284.3	285.3	1,372	3,280	347	1,306	172	40.4	79.3	7.7	31.5	4.6	9.8	1.1	7.0	0.9	138.4	0.68	114.5	4.2
	285.3	286.0	1,129	2,690	288	1,098	154	35.8	73.0	7.4	29.0	4.3	9.4	1.1	7.1	1.0	132.1	0.57	119.5	3.1
	286.0	286.5	1,185	2,862	312	1,190	158	35.2	67.4	6.0	23.1	3.5	7.9	0.9	5.9	0.9	105.4	0.60	97.1	3.8
	286.5	287.3	1,337	3,034	348	1,242	172	42.2	98.1	9.9	47.2	6.4	14.9	1.6	9.7	1.5	204.5	0.66	121.5	7.7
	287.3	288.1	2,111	4,078	448	1,551	194	40.9	84.5	7.9	35.4	5.1	10.8	1.2	7.9	1.1	151.1	0.87	118	6.1
	288.1	289.1	1,349	3,513	451	1,709	219	44.9	90.4	8.3	32.0	4.4	10.2	1.2	7.9	1.2	129.5	0.76	112	4
	289.1	289.8	1,033	2,254	260	946	130	29.0	60.3	4.5	15.8	2.2	6.0	0.7	4.7	0.7	63.5	0.48	94.7	5
	289.8	290.8	1,003	2,217	260	954	136	32.9	76.5	8.1	34.0	4.9	11.7	1.4	8.8	1.6	147.3	0.49	160	3.7
	290.8	291.4	823	1,916	229	871	126	27.3	54.3	4.5	16.8	2.4	5.5	0.7	4.8	0.7	73.7	0.42	85.9	2.8
	291.4	292.6	1,196	2,567	289	1,040	148	35.7	83.6	9.4	46.9	7.2	18.3	2.3	15.1	2.4	227.3	0.57	105.5	8.3
	292.6	293.4	1,173	2,616	308	1,122	151	31.7	60.7	5.0	18.4	2.4	5.5	0.6	4.6	0.7	71.1	0.56	70.7	2.4
<b>KGKRC017</b>	0.0	1.0	3,178	7,542	855	2,939	264	46.7	78.4	5.5	14.0	1.7	3.0	0.3	1.5	0.2	36.8	1.50	49.3	6.1
	1.0	2.0	1,947	4,447	495	1,726	160	30.2	57.8	5.0	16.9	2.1	4.4	0.5	3.0	0.4	61.0	0.90	38.4	6.7
	2.0	3.0	787	1,720	202	695	55	9.2	15.4	1.3	4.5	0.6	1.1	0.1	0.7	0.1	17.8	0.35	12.8	7.2
	3.0	4.0	1,894	4,373	482	1,627	128	21.3	35.5	2.5	8.0	0.9	1.6	0.2	0.8	0.2	24.1	0.86	24.7	28.4
	4.0	5.0	1,431	3,378	372	1,271	104	17.5	29.4	2.0	6.3	0.7	1.4	0.1	0.7	0.2	17.8	0.66	20.8	28.6
	5.0	6.0	2,105	5,319	616	2,205	203	33.8	57.9	4.4	11.7	1.3	2.2	0.2	1.5	0.2	27.9	1.06	44	6.9
	6.0	7.0	1,349	3,194	364	1,283	111	18.1	33.1	2.5	7.4	0.8	1.1	0.2	0.8	0.2	21.6	0.64	28.7	13
	7.0	8.0	3,589	7,518	830	2,799	212	34.5	57.6	4.4	12.2	1.2	2.1	0.2	1.1	0.1	27.9	1.51	43.5	11
	8.0	9.0	2,697	6,019	661	2,245	197	34.6	63.2	4.4	12.6	1.4	2.3	0.3	1.6	0.2	34.3	1.20	49.5	3.9
	9.0	10.0	2,105	4,680	506	1,715	144	25.5	41.5	3.4	10.3	1.1	2.1	0.2	1.1	0.1	22.9	0.93	28.9	8.4

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	10.0	11.0	1,054	2,156	248	835	71	11.7	20.5	1.6	5.2	0.6	1.4	0.1	0.7	0.1	14.0	0.44	14.4	10.6
	11.0	12.0	2,000	5,049	598	2,274	233	39.0	67.8	5.2	15.0	1.6	2.5	0.3	1.8	0.2	36.8	1.03	58.9	5.5
	12.0	13.0	1,507	3,710	442	1,633	162	27.7	50.9	4.0	10.9	1.3	2.1	0.3	2.1	0.3	33.0	0.76	50.9	6.8
	13.0	14.0	1,871	4,275	472	1,615	148	26.4	47.6	3.8	11.8	1.3	2.6	0.2	1.6	0.2	31.8	0.85	38.1	6.7
	14.0	15.0	2,123	5,430	657	2,473	242	38.4	65.8	4.5	12.3	1.3	1.8	0.2	0.9	0.2	27.9	1.11	58.7	5.9
	15.0	16.0	2,357	5,319	586	2,012	179	30.7	49.7	3.5	9.9	1.0	1.6	0.2	1.0	0.1	25.4	1.06	37.5	5.8
	16.0	17.0	4,703	8,881	925	2,998	237	41.0	69.5	5.5	16.6	1.6	2.6	0.2	1.5	0.2	39.4	1.79	57.3	4.3
	17.0	18.0	4,914	9,078	906	2,869	208	34.6	56.4	4.1	12.1	1.3	2.4	0.2	0.9	0.2	29.2	1.81	40.1	6.6
	18.0	19.0	4,703	8,881	916	2,963	223	36.6	60.9	4.6	13.8	1.5	2.2	0.2	1.0	0.2	33.0	1.78	47.2	9.7
	19.0	20.0	5,700	10,749	1,122	3,616	282	47.6	81.1	6.1	18.3	1.9	3.3	0.3	1.7	0.3	45.7	2.17	56.6	8.4
	20.0	21.0	2,299	5,061	546	1,796	146	25.7	44.6	3.7	10.9	1.2	2.1	0.2	1.0	0.2	27.9	1.00	31	7.2
	21.0	22.0	3,225	6,683	730	2,508	227	42.2	74.6	6.1	18.9	2.5	4.2	0.5	3.1	0.5	53.3	1.36	63.3	15.3
	22.0	23.0	2,340	5,773	684	2,496	248	45.4	80.1	7.0	21.5	2.7	4.6	0.6	3.9	0.6	67.3	1.18	69.4	11.9
	23.0	24.0	1,507	3,636	406	1,400	127	22.6	37.9	3.1	9.0	1.0	2.2	0.3	1.6	0.3	27.9	0.72	30.9	18.4
	24.0	25.0	3,425	7,739	888	2,963	249	43.9	73.5	5.0	14.7	1.4	2.2	0.3	1.1	0.3	29.2	1.54	43.4	5.3
	25.0	26.0	2,627	5,859	639	2,070	173	31.3	55.7	3.9	12.9	1.4	1.7	0.2	1.1	0.2	27.9	1.15	37.3	5.2
	26.0	27.0	4,855	10,355	1,199	4,001	355	63.8	105.6	6.8	20.5	2.0	4.0	0.3	1.9	0.2	48.3	2.10	63.6	6.3
	27.0	28.0	2,234	4,975	552	1,761	142	26.3	46.1	3.5	10.3	1.0	1.7	0.2	1.1	0.1	25.4	0.98	28.8	6.2
	28.0	29.0	2,152	4,901	555	1,860	168	29.4	52.3	3.6	11.4	1.2	1.9	0.2	1.4	0.2	27.9	0.98	37.8	7
	29.0	30.0	6,697	13,328	1,522	4,969	434	78.6	137.2	9.1	24.0	1.8	3.1	0.2	1.3	0.2	41.9	2.72	114	2.9
	30.0	31.0	4,480	8,685	933	2,904	232	40.8	70.9	5.2	16.3	1.7	2.7	0.2	1.8	0.3	38.1	1.74	53.7	8.9
	31.0	32.0	5,172	10,405	1,126	3,511	270	48.4	83.7	5.9	18.7	2.0	3.8	0.4	2.5	0.5	49.5	2.07	55.9	10.4
	32.0	33.0	2,393	5,761	649	2,140	171	32.0	52.4	4.0	11.7	1.0	2.1	0.2	1.4	0.1	26.7	1.12	40.1	6.3
	33.0	34.0	1,660	4,140	492	1,656	135	24.0	40.3	3.2	10.6	1.0	1.9	0.2	0.7	0.2	24.1	0.82	27.5	7.9
	34.0	35.0	3,847	8,648	921	3,126	268	49.1	80.0	5.6	15.5	1.4	2.5	0.2	1.3	0.1	31.8	1.70	52.1	5.5
	35.0	36.0	4,808	10,712	1,141	3,907	313	54.5	98.0	7.1	18.4	1.8	2.9	0.3	1.1	0.2	40.6	2.11	76	10.4
	36.0	37.0	4,152	9,373	988	3,418	305	52.8	86.8	6.0	15.5	1.4	2.5	0.2	1.4	0.2	33.0	1.84	46.6	7.4
	37.0	38.0	3,647	8,795	980	3,488	306	53.3	85.5	5.5	14.0	1.4	2.4	0.3	1.4	0.2	30.5	1.74	46.6	25
	38.0	39.0	2,299	5,700	613	2,047	161	30.6	54.4	3.9	13.4	1.9	4.2	0.6	3.3	0.4	48.3	1.10	58.7	37.2
	39.0	40.0	1,002	2,340	262	876	59	10.5	19.4	1.9	10.1	1.7	5.5	0.6	4.9	0.8	54.6	0.46	34.8	3.3
	40.0	41.0	5,395	12,100	1,293	4,211	275	43.2	69.7	5.1	16.2	2.1	5.3	0.6	5.1	0.8	69.8	2.35	57.8	4.8
	41.0	42.0	17,533	31,447	2,888	8,491	532	87.5	145.2	10.8	30.3	3.2	5.5	0.4	2.4	0.3	74.9	6.13	91.8	9.4
	42.0	43.0	23,221	38,817	3,600	9,856	644	107.6	181.0	12.7	35.7	3.8	6.0	0.4	2.1	0.3	86.4	7.66	101.5	10.2
	43.0	44.0	18,002	30,710	2,815	8,305	542	90.2	144.7	10.8	29.4	2.8	4.0	0.3	1.7	0.2	63.5	6.07	82.4	7.7
	44.0	45.0	14,074	27,025	2,646	8,130	543	90.0	151.0	10.7	29.3	2.7	4.1	0.3	1.5	0.2	64.8	5.28	93.5	5.1
	45.0	46.0	13,546	27,393	2,658	7,920	491	78.2	126.8	9.1	24.2	2.6	4.2	0.4	1.6	0.2	63.5	5.23	75.2	4.1
	46.0	47.0	10,966	22,418	2,314	6,963	504	84.4	138.3	9.5	22.2	2.6	3.5	0.4	1.5	0.3	52.1	4.35	82	3.5
	47.0	48.0	5,794	12,124	1,305	4,211	348	59.9	103.5	6.8	18.1	1.7	3.5	0.3	1.6	0.2	43.2	2.40	67.1	5.1
	48.0	49.0	3,659	7,849	842	2,741	267	51.2	95.2	7.5	24.0	3.2	6.8	0.9	4.3	0.6	87.6	1.56	61.8	6.7
	49.0	50.0	8,292	17,136	1,770	5,307	395	69.2	117.6	8.4	22.5	2.3	3.7	0.3	1.4	0.3	53.3	3.32	76	3.6
	50.0	51.0	7,506	15,601	1,649	5,167	429	76.3	125.1	8.7	25.1	2.3	4.0	0.4	2.4	0.3	57.2	3.07	81.4	4.4
	51.0	52.0	5,137	9,987	1,003	3,103	253	42.6	79.5	6.1	19.3	2.7	4.6	0.6	2.6	0.5	63.5	1.97	51.8	4.7
	52.0	53.0	3,788	8,316	905	2,951	262	45.0	79.8	5.6	14.7	1.7	2.7	0.3	1.6	0.2	36.8	1.64	52.9	8.5
	53.0	54.0	3,800	8,562	954	3,196	299	53.0	93.6	6.3	17.6	2.1	3.9	0.4	2.3	0.2	49.5	1.70	58.1	6.1
	54.0	55.0	2,568	6,289	709	2,356	211	36.5	62.5	4.3	11.3	1.2	2.4	0.3	1.5	0.3	29.2	1.23	35.4	5.2
	55.0	56.0	2,979	7,026	773	2,578	254	45.2	80.1	5.5	14.5	1.5	2.7	0.3	1.6	0.2	36.8	1.38	46.4	6

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	56.0	57.0	2,334	5,319	574	1,960	192	35.9	66.9	4.8	14.6	1.9	3.4	0.3	2.6	0.5	44.5	1.06	47.6	4.4
	57.0	58.0	3,319	7,739	851	2,811	248	44.1	73.4	4.9	13.8	1.6	3.3	0.3	1.7	0.3	38.1	1.51	41.7	5.7
	58.0	59.0	746	1,701	195	638	54	8.8	15.3	1.1	3.3	0.3	0.8	0.1	0.6	0.1	10.2	0.34	10	10.5
	59.0	60.0	2,211	5,147	547	1,785	161	29.6	54.1	4.2	13.3	1.7	3.4	0.5	1.8	0.2	43.2	1.00	31.7	6.3
	60.0	61.0	1,923	4,545	488	1,621	154	31.2	62.7	5.2	18.6	2.8	5.8	0.7	3.3	0.4	68.6	0.89	38.6	9.5
	61.0	62.0	3,225	7,014	718	2,228	180	30.0	53.3	3.7	10.6	1.3	2.3	0.3	1.4	0.3	33.0	1.35	26.8	2.8
	62.0	63.0	2,756	6,388	683	2,274	214	37.3	65.8	4.6	13.9	1.7	3.2	0.4	1.7	0.3	41.9	1.25	40.9	7.7
	63.0	64.0	3,096	6,990	744	2,414	219	38.8	68.8	4.7	11.4	1.6	2.7	0.3	1.3	0.2	31.8	1.36	35.6	6
	64.0	65.0	4,926	10,724	1,153	3,756	320	53.3	89.2	5.9	15.8	1.9	3.3	0.3	1.9	0.2	41.9	2.11	52.2	6.7
	65.0	66.0	5,137	10,884	1,184	3,872	322	54.2	85.8	5.1	13.9	1.4	2.2	0.2	0.9	0.1	29.2	2.16	43.2	6.9
	66.0	67.0	3,342	7,456	807	2,694	239	41.2	70.7	4.4	11.9	1.3	2.2	0.2	1.0	0.2	26.7	1.47	34.4	6.6
	67.0	68.0	3,507	7,420	782	2,473	208	35.0	60.2	4.1	12.4	1.5	2.5	0.4	1.7	0.3	36.8	1.45	36.3	7.2
	68.0	69.0	4,984	10,147	1,029	3,208	242	38.3	63.1	3.9	12.6	1.4	2.1	0.3	1.4	0.3	33.0	1.98	34.4	6.3
	69.0	70.0	4,597	9,262	974	3,068	252	41.6	71.5	4.8	14.2	1.7	3.2	0.3	1.8	0.2	36.8	1.83	37.4	5.7
	70.0	71.0	2,580	5,761	625	2,047	183	32.5	57.5	3.8	12.9	1.8	3.7	0.4	3.2	0.5	49.5	1.14	30.6	5.9
	71.0	72.0	3,413	7,100	724	2,216	177	30.1	53.1	3.7	11.9	1.5	3.2	0.4	2.2	0.4	40.6	1.38	31.3	7.4
	72.0	73.0	4,410	8,832	917	2,916	226	38.7	64.1	4.5	13.9	1.6	2.5	0.3	1.3	0.3	36.8	1.75	41.8	6
	73.0	74.0	2,662	5,786	616	2,012	201	37.5	65.4	5.0	17.0	2.4	4.9	0.7	3.8	0.6	61.0	1.15	50.7	6.8
	74.0	75.0	2,850	6,449	691	2,222	210	38.4	70.7	5.2	16.1	2.1	3.7	0.6	3.3	0.6	59.7	1.26	44.6	6.3
	75.0	76.0	2,252	4,901	549	2,059	217	40.2	74.2	5.5	18.6	2.5	5.3	0.7	4.2	0.5	72.4	1.02	56.1	4.2
	76.0	77.0	4,011	8,353	871	2,858	196	31.0	47.4	3.1	10.1	1.3	2.6	0.3	1.7	0.2	31.8	1.64	24.4	3.8
	77.0	78.0	2,357	5,184	563	1,913	132	20.5	31.6	2.0	6.5	0.9	1.8	0.2	1.3	0.2	22.9	1.02	14.2	3.6
	78.0	79.0	2,709	6,425	741	2,636	220	36.5	62.2	4.3	13.8	1.8	4.0	0.4	2.3	0.3	43.2	1.29	30.1	4.7
	79.0	80.0	2,340	5,307	603	2,228	224	43.9	86.9	7.2	27.8	4.1	9.5	1.0	5.9	0.8	116.8	1.10	44.1	9.2
	80.0	81.0	2,580	6,007	701	2,601	253	47.9	89.8	7.3	26.4	3.9	8.6	0.9	5.0	0.7	106.7	1.24	49.7	9.2
	81.0	82.0	2,181	4,643	503	1,802	183	38.0	79.9	7.2	27.7	4.1	9.0	1.0	5.7	0.7	109.2	0.96	33.9	5.4
	82.0	83.0	2,991	5,921	611	2,065	176	32.1	58.4	4.2	13.5	1.8	3.8	0.4	2.7	0.4	44.5	1.19	21.1	3.4
	83.0	84.0	4,808	9,385	965	3,254	289	54.5	99.7	7.2	23.3	2.8	5.3	0.6	3.5	0.4	73.7	1.90	48.2	5.7
	84.0	85.0	3,436	6,633	685	2,333	211	40.2	77.5	6.1	23.3	3.4	7.6	1.0	6.5	0.9	101.6	1.36	34.9	5.7
	85.0	86.0	1,912	3,906	411	1,429	140	26.6	50.4	3.9	15.4	2.3	5.3	0.6	4.3	0.6	67.3	0.80	23.8	6.1
	86.0	87.0	2,088	4,115	422	1,435	135	29.1	61.8	6.2	22.7	3.2	7.1	0.8	5.6	0.8	92.7	0.84	49.5	7.7
	87.0	88.0	2,264	4,496	463	1,557	137	26.9	56.8	5.9	22.5	2.9	6.1	0.7	5.0	0.7	83.8	0.91	56.3	5.7
	88.0	89.0	1,237	2,813	302	1,095	123	28.4	62.9	6.6	29.6	4.6	10.5	1.2	7.3	1.0	137.2	0.59	46	7.3
	89.0	90.0	2,463	5,098	541	1,884	191	39.0	82.1	7.5	31.1	4.5	10.0	1.1	6.0	0.7	129.5	1.05	57.5	8.2
	90.0	91.0	1,959	4,250	468	1,645	159	31.5	62.7	5.7	21.2	3.3	7.1	0.8	4.4	0.6	92.7	0.87	40.2	7.8
	91.0	92.0	1,830	3,710	381	1,324	133	27.9	61.6	5.8	24.9	3.9	8.8	1.0	5.9	0.8	114.3	0.76	34.4	16.6
	92.0	93.0	2,721	5,430	565	1,913	183	37.6	78.2	7.5	32.4	4.9	12.5	1.5	11.7	1.8	148.6	1.11	70.5	9.4
	93.0	94.0	1,572	3,501	366	1,271	126	27.1	58.3	5.9	24.7	3.9	9.5	1.5	12.5	2.3	114.3	0.71	33.5	11.6
	94.0	95.0	862	2,002	213	786	93	21.8	51.6	5.3	24.6	3.9	9.0	0.9	5.1	0.6	113.0	0.42	23.1	13.9
	95.0	96.0	747	1,763	189	705	85	19.9	46.7	4.9	21.6	3.3	7.6	0.8	4.1	0.6	96.5	0.37	24.2	13.1
	96.0	97.0	1,088	2,506	271	984	110	24.9	57.5	5.7	25.7	4.2	9.4	1.0	5.4	0.8	118.1	0.52	29.7	11.6
	97.0	98.0	3,683	7,641	795	2,659	224	41.1	80.0	6.7	27.5	4.5	10.3	1.2	6.7	0.9	132.1	1.53	44	16.5
	98.0	99.0	4,152	8,709	916	3,114	263	49.9	96.5	8.1	30.5	4.4	9.6	1.1	6.3	0.7	125.7	1.75	51.6	12.7
	99.0	100.0	2,052	4,521	501	1,820	206	45.2	101.0	10.2	41.7	6.4	14.9	1.6	9.9	1.2	191.8	0.95	43.1	10.6
	100.0	101.0	2,099	4,471	493	1,808	203	45.9	101.2	10.1	41.7	6.2	13.7	1.4	7.9	0.9	182.9	0.95	33	7
	101.0	102.0	1,119	2,580	288	1,081	141	36.2	89.9	10.0	42.2	6.7	14.6	1.6	8.7	0.9	198.1	0.56	35.9	5.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	102.0	103.0	1,419	3,194	346	1,242	145	35.7	82.9	9.0	39.4	6.2	13.8	1.4	8.3	1.0	184.1	0.67	37.6	6
	103.0	104.0	1,507	3,366	356	1,295	150	35.7	85.6	10.0	43.8	7.3	16.9	1.7	9.6	1.1	212.1	0.71	40.7	7.5
	104.0	105.0	1,923	3,685	373	1,260	122	25.8	56.7	5.9	25.3	4.1	9.7	1.1	6.2	0.8	120.6	0.76	54.6	7.5
	105.0	106.0	3,460	5,835	581	1,802	147	28.3	62.0	5.7	23.0	3.7	7.9	0.9	4.7	0.5	105.4	1.21	39.2	11
	106.0	107.0	5,852	9,778	980	2,928	215	36.7	69.9	5.2	16.3	2.1	3.8	0.4	2.1	0.3	53.3	1.99	42.8	7.7
	107.0	108.0	1,853	3,415	371	1,225	120	24.9	58.3	5.6	24.6	3.8	8.0	0.9	5.9	0.8	110.5	0.72	49.8	9.4
	108.0	109.0	2,041	3,464	348	1,096	101	20.4	47.5	4.6	19.2	2.9	6.0	0.6	3.5	0.5	85.1	0.72	22.4	7.3
	109.0	110.0	1,888	3,194	325	1,042	96	20.0	48.4	4.7	19.3	3.1	6.6	0.8	3.9	0.6	87.6	0.67	20.2	13.4
	110.0	111.0	2,475	4,115	417	1,306	115	23.9	56.4	5.5	22.6	3.3	7.2	0.9	4.2	0.6	96.5	0.86	26.5	13.4
	111.0	112.0	1,906	3,452	362	1,190	116	24.8	60.3	5.8	25.3	4.1	8.8	0.9	5.1	0.7	113.0	0.73	40.4	12.3
	112.0	113.0	3,976	6,867	701	2,181	172	31.5	66.7	5.6	20.5	3.0	6.2	0.7	3.4	0.5	83.8	1.41	36.7	10.6
	113.0	114.0	2,486	4,385	465	1,540	157	32.2	73.2	6.6	26.5	3.9	8.2	0.9	4.7	0.6	105.4	0.93	66	8.7
	114.0	115.0	3,999	7,248	759	2,379	170	27.9	50.0	3.2	9.1	1.2	1.8	0.2	0.9	0.2	26.7	1.47	31.2	9
	115.0	116.0	2,310	4,177	435	1,371	123	24.0	52.1	4.7	19.7	2.9	6.4	0.8	4.1	0.6	87.6	0.86	52.6	7.5
	116.0	117.0	2,416	4,226	447	1,441	137	28.1	65.7	6.3	26.5	4.1	8.5	1.0	5.4	0.7	116.8	0.89	57.3	7.8
	117.0	118.0	4,574	7,678	770	2,333	177	32.2	67.3	5.7	20.9	3.0	6.3	0.7	3.5	0.5	81.3	1.58	50.2	7
	118.0	119.0	2,686	4,914	513	1,639	142	26.3	58.2	5.2	19.9	2.9	6.2	0.7	3.6	0.5	81.3	1.01	37.6	10
	119.0	120.0	1,912	3,464	362	1,184	109	21.8	52.0	4.9	19.6	3.2	7.0	0.8	4.2	0.6	88.9	0.72	25.5	10.8
	120.0	121.0	2,393	4,508	489	1,592	136	25.6	55.8	4.9	19.5	3.0	6.3	0.7	4.2	0.5	83.8	0.93	29.5	10.8
	121.0	122.0	2,041	3,562	373	1,184	111	23.0	55.4	5.2	22.5	3.4	7.2	0.8	4.3	0.6	92.7	0.75	27	11.4
	122.0	123.0	2,369	4,226	437	1,388	123	24.8	58.7	5.7	22.5	3.6	7.7	0.7	4.4	0.5	95.2	0.88	30.4	11.4
	123.0	124.0	2,152	3,869	404	1,289	116	22.1	52.1	4.9	19.9	3.0	6.5	0.7	4.0	0.5	83.8	0.80	21.9	14.3
	124.0	125.0	2,047	3,661	383	1,242	112	22.0	52.0	5.0	19.5	3.1	6.3	0.7	3.6	0.5	82.5	0.76	23.8	14.1
	125.0	126.0	4,891	7,862	770	2,298	170	30.7	62.6	4.9	18.4	2.6	5.3	0.6	3.5	0.4	74.9	1.62	40.9	18.3
	126.0	127.0	1,964	3,489	365	1,166	109	21.8	51.4	4.8	20.1	3.1	6.4	0.7	4.1	0.5	86.4	0.73	22	13.5
	127.0	128.0	1,736	3,096	326	1,067	103	21.4	54.9	5.1	21.1	3.3	6.9	0.9	4.4	0.6	92.7	0.65	24.2	14.6
	128.0	129.0	1,835	3,575	400	1,376	130	25.9	58.8	5.6	23.2	3.6	8.2	1.0	6.2	0.9	106.7	0.76	29.1	16.7
	129.0	130.0	1,648	3,059	324	1,066	103	21.9	53.0	5.3	21.8	3.4	7.7	0.9	4.9	0.7	97.8	0.64	27	14.3
	130.0	131.0	3,014	5,172	536	1,680	140	27.0	58.3	5.2	21.1	3.1	6.9	0.7	4.2	0.6	90.2	1.08	34.1	11.3
	131.0	132.0	3,554	6,105	631	1,936	159	29.9	62.1	5.2	20.2	2.9	6.3	0.7	4.3	0.5	81.3	1.26	38.9	11.1
	132.0	133.0	1,595	2,973	314	1,051	102	21.3	48.4	4.5	18.9	2.9	6.0	0.7	3.8	0.5	82.5	0.62	23.5	9.9
	133.0	134.0	1,231	2,359	250	846	86	19.5	49.0	5.0	22.0	3.5	7.3	0.8	4.2	0.6	94.0	0.50	20.1	12.3
	134.0	135.0	1,196	2,248	234	762	78	17.8	44.3	4.5	18.9	3.1	6.4	0.7	4.1	0.4	83.8	0.47	18.5	14.1
	135.0	136.0	1,220	2,377	253	826	88	19.3	47.7	5.0	20.9	3.2	6.9	0.8	4.1	0.6	92.7	0.50	28.6	9.7
	136.0	137.0	1,190	2,641	291	1,071	106	23.2	50.7	5.0	20.2	3.4	7.7	0.8	4.8	0.6	86.4	0.55	44.8	8.1
	137.0	138.0	2,146	4,778	488	1,697	147	29.0	57.2	4.7	18.0	2.6	5.8	0.7	4.0	0.6	68.6	0.94	25.6	6.8
	138.0	139.0	4,375	7,923	747	2,368	169	31.3	60.3	5.1	20.2	3.0	6.1	0.7	4.1	0.6	82.5	1.58	27.9	7.5
	139.0	140.0	3,718	7,309	737	2,473	188	34.6	63.7	5.1	17.7	2.5	5.4	0.6	3.4	0.4	64.8	1.46	31.4	5
	140.0	141.0	3,190	6,498	640	2,170	177	35.3	69.7	5.8	21.8	3.1	7.0	0.7	4.3	0.5	77.5	1.29	35	5.1
	141.0	142.0	2,721	5,491	522	1,720	146	29.1	61.4	6.2	25.3	3.8	8.7	0.9	5.9	0.7	99.1	1.08	32	5.4
	142.0	143.0	2,264	4,570	448	1,534	137	29.1	61.4	6.3	24.6	3.4	7.4	0.8	4.8	0.6	96.5	0.92	34.8	5
	143.0	144.0	3,389	6,498	619	2,012	150	28.0	53.8	4.7	14.7	1.9	3.8	0.4	2.1	0.3	49.5	1.28	20.5	6.3
	144.0	145.0	2,639	5,810	596	2,100	181	36.6	72.5	6.4	24.9	3.6	8.4	0.7	4.4	0.5	92.7	1.16	26	6.1
	145.0	146.0	2,862	6,228	645	2,187	175	33.9	64.2	5.3	19.5	2.7	5.7	0.6	3.2	0.5	66.0	1.23	29.6	5.3
	146.0	147.0	4,339	8,906	892	2,881	183	29.5	50.6	3.5	9.9	1.1	2.1	0.2	1.3	0.2	26.7	1.73	26.9	4.6
	147.0	148.0	5,911	11,092	1,045	3,208	179	28.7	46.3	3.1	8.6	1.0	2.1	0.2	1.4	0.2	25.4	2.16	25.5	5.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	148.0	149.0	2,275	5,135	542	1,930	176	38.4	76.3	6.9	26.4	3.8	8.7	0.8	4.6	0.6	96.5	1.03	26.6	5.6
	149.0	150.0	2,967	6,351	633	2,135	178	34.9	65.4	5.9	24.1	3.3	7.8	0.8	5.4	0.8	87.6	1.25	32.2	4.1
	150.0	151.0	2,979	5,847	544	1,750	121	23.2	43.1	3.7	14.9	2.1	5.0	0.6	3.3	0.5	57.2	1.14	15.8	3.6
	151.0	152.0	7,529	12,653	1,132	3,336	204	33.6	59.8	4.7	17.7	2.3	5.0	0.6	3.4	0.5	57.2	2.50	31.5	5.8
	152.0	153.0	4,199	7,800	731	2,368	180	35.3	66.0	6.0	21.4	3.1	6.9	0.8	4.8	0.7	81.3	1.55	32.7	5.2
	153.0	154.0	4,539	7,788	762	2,210	166	30.6	55.7	3.6	13.3	1.6	3.0	0.2	1.6	0.2	36.8	1.56	18	5.2
	154.0	155.0	4,363	7,972	814	2,461	197	39.5	73.3	5.3	17.2	1.9	3.5	0.3	1.5	0.2	44.5	1.60	17.2	4.5
	155.0	156.0	2,615	5,393	559	1,779	173	37.1	76.5	6.5	25.3	3.3	7.2	0.6	3.6	0.4	87.6	1.08	26.8	7.8
	156.0	157.0	3,624	6,928	706	2,123	163	32.3	59.9	4.7	19.1	2.5	6.0	0.6	3.0	0.4	66.0	1.37	24.6	8.7
	157.0	158.0	4,785	8,967	903	2,683	191	35.0	61.3	4.4	14.4	1.4	2.7	0.2	1.4	0.2	38.1	1.77	18.8	6.6
	158.0	159.0	3,577	7,174	727	2,234	172	29.1	53.4	3.7	12.6	1.7	3.3	0.3	1.8	0.3	38.1	1.40	19.2	15.2
	159.0	160.0	3,800	7,395	759	2,321	184	31.7	57.3	4.1	13.8	1.7	3.1	0.3	1.6	0.2	38.1	1.46	17	9.6
	160.0	161.0	4,867	8,771	865	2,519	180	30.8	55.0	4.0	14.1	1.8	3.5	0.4	2.3	0.3	45.7	1.74	22.3	6
	161.0	162.0	6,685	12,137	1,166	3,324	223	35.8	61.1	4.4	14.5	1.7	2.7	0.2	1.3	0.1	35.6	2.37	25.7	7.7
	162.0	163.0	2,475	4,914	487	1,464	110	17.4	29.2	1.8	5.7	0.8	1.3	0.2	0.7	0.1	16.5	0.95	13	3
<b>KGKRC018</b>	0.0	1.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1.0	2.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2.0	3.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3.0	4.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4.0	5.0	12,725	21,558	1,975	6,007	356	58.6	103.6	7.9	23.5	2.4	3.8	0.3	1.7	0.3	57.2	4.29	63.2	1.4
	5.0	6.0	6,896	12,653	1,238	3,977	257	43.8	76.5	5.4	15.6	1.6	3.0	0.2	1.3	0.2	35.6	2.52	48	7.6
	6.0	7.0	3,718	7,653	768	2,496	167	26.4	44.6	2.9	7.9	1.0	1.6	0.2	1.1	0.2	20.3	1.49	21.4	8.9
	7.0	8.0	5,758	11,043	1,081	3,429	215	33.7	54.2	3.5	8.6	1.0	1.6	0.2	0.9	0.1	20.3	2.17	24.2	7.5
	8.0	9.0	6,978	13,021	1,275	4,012	252	38.9	67.1	4.1	11.0	1.3	2.1	0.2	1.1	0.2	27.9	2.57	31.1	8.3
	9.0	10.0	2,498	4,938	451	1,411	89	15.9	28.7	2.2	6.9	0.9	2.1	0.2	1.4	0.2	21.6	0.95	23.8	13
	10.0	11.0	10,262	17,812	1,643	5,004	302	50.7	84.6	5.4	14.5	1.6	2.9	0.2	1.4	0.2	33.0	3.52	34.8	7.8
	11.0	12.0	3,683	7,321	721	2,379	166	29.2	53.5	4.3	13.8	1.7	3.1	0.4	2.4	0.3	40.6	1.44	30.8	13
	12.0	13.0	7,729	13,205	1,205	3,779	247	44.0	80.2	6.3	19.2	2.0	3.4	0.3	1.5	0.2	48.3	2.64	55.5	6.2
	13.0	14.0	7,916	14,065	1,335	4,141	267	45.2	76.4	5.4	13.9	1.6	2.5	0.2	1.3	0.2	33.0	2.79	54	6.3
	14.0	15.0	7,072	13,205	1,263	3,942	241	39.5	64.1	4.1	10.4	1.3	2.2	0.2	1.1	0.2	25.4	2.59	28.2	5.5
	15.0	16.0	14,250	24,568	2,253	6,882	422	71.8	123.9	8.7	24.7	2.3	4.0	0.3	1.4	0.2	50.8	4.87	59.5	2.3
	16.0	17.0	14,953	25,551	2,344	7,080	436	74.7	129.1	8.9	24.7	2.6	3.9	0.3	1.5	0.2	53.3	5.07	63.6	2.2
	17.0	18.0	9,934	16,768	1,643	4,502	314	51.0	84.3	6.3	17.2	1.7	3.2	0.3	1.4	0.1	40.6	3.34	38.1	3
	18.0	19.0	9,535	16,153	1,643	4,631	329	51.8	86.7	7.2	19.2	2.0	3.3	0.5	1.4	0.3	41.9	3.25	49.1	3.5
	19.0	20.0	9,394	16,768	1,728	4,887	350	58.1	97.2	7.1	19.1	1.8	3.1	0.3	1.3	0.2	41.9	3.34	72.9	3.3
	20.0	21.0	6,861	12,014	1,226	3,429	234	37.4	58.6	4.1	11.1	1.1	1.9	0.2	0.9	0.1	25.4	2.39	28.2	3.8
	21.0	22.0	10,520	18,365	1,824	5,051	344	56.0	90.0	6.1	17.1	1.6	2.9	0.2	1.4	0.1	35.6	3.63	35.7	2.5
	22.0	23.0	11,165	18,057	1,740	4,631	315	53.2	86.5	6.3	15.4	1.6	2.6	0.2	1.0	0.1	33.0	3.61	33.5	1.5
	23.0	24.0	8,503	15,355	1,601	4,502	319	51.5	79.4	5.5	13.5	1.2	2.2	0.2	0.9	0.1	26.7	3.05	37.3	3.3
	24.0	25.0	9,289	15,662	1,528	4,129	285	46.3	74.9	5.7	16.1	1.6	3.0	0.3	1.7	0.2	38.1	3.11	38.9	3.4
	25.0	26.0	10,602	17,812	1,752	4,794	339	58.2	97.1	7.2	21.1	2.2	3.3	0.3	1.7	0.2	45.7	3.55	58.1	0.9
	26.0	27.0	11,493	19,593	1,987	5,400	379	62.3	105.9	7.8	21.9	2.2	3.4	0.3	1.0	0.2	45.7	3.91	59.5	2.4
	27.0	28.0	9,418	15,969	1,547	4,199	298	51.2	83.7	6.3	16.6	1.6	2.5	0.2	0.9	0.1	36.8	3.16	41.2	3
	28.0	29.0	8,726	15,969	1,643	4,631	320	50.1	79.4	5.5	14.5	1.4	2.3	0.2	0.9	0.1	31.8	3.15	39.5	3.9
	29.0	30.0	7,025	12,530	1,281	3,639	244	37.5	58.1	3.9	10.4	1.1	1.9	0.2	0.8	0.1	22.9	2.49	29	6.8
	30.0	31.0	6,978	13,451	1,432	4,129	270	39.0	58.0	3.6	9.2	1.0	1.6	0.2	0.8	0.2	19.1	2.64	24.6	4.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	31.0	32.0	9,934	18,672	1,975	5,715	398	60.4	89.9	5.5	13.3	1.1	2.2	0.2	1.0	0.1	26.7	3.69	39.6	4.3
	32.0	33.0	8,972	16,092	1,649	4,619	307	46.3	69.2	4.3	10.7	1.0	1.8	0.1	1.0	0.1	20.3	3.18	30.9	4.6
	33.0	34.0	8,444	15,539	1,625	4,642	324	49.1	77.7	4.9	11.8	1.2	1.9	0.2	1.0	0.1	25.4	3.07	36	3
	34.0	35.0	10,414	20,453	2,090	6,205	404	60.1	97.6	5.8	16.5	1.6	2.7	0.2	1.3	0.2	35.6	3.98	46	3.9
	35.0	36.0	10,626	20,883	2,145	6,439	464	72.3	119.9	6.9	19.5	1.7	3.0	0.2	1.3	0.2	39.4	4.08	71.2	2.3
	36.0	37.0	9,429	17,136	1,794	5,051	366	59.2	94.3	6.3	16.8	1.5	2.3	0.2	1.1	0.2	33.0	3.40	56.9	2.4
	37.0	38.0	9,887	17,198	1,740	4,794	328	52.2	84.0	5.9	15.6	1.5	2.4	0.2	1.1	0.2	34.3	3.41	47.2	3.4
	38.0	39.0	9,382	16,461	1,661	4,619	322	52.5	83.6	5.5	14.0	1.2	1.5	0.1	0.6	0.1	24.1	3.26	44.4	3.7
	39.0	40.0	9,828	17,382	1,764	4,922	326	52.8	83.8	5.8	14.7	1.4	2.2	0.2	1.4	0.2	31.8	3.44	44.4	4.7
	40.0	41.0	7,647	13,574	1,395	3,896	254	39.1	59.9	4.0	10.4	1.0	1.5	0.2	1.1	0.2	21.6	2.69	27.7	6.8
	41.0	42.0	7,471	13,082	1,335	3,721	252	39.1	58.6	3.9	10.2	1.1	1.9	0.2	1.0	0.1	22.9	2.60	28.7	6.2
	42.0	43.0	9,031	16,215	1,649	4,607	300	47.8	77.3	5.5	14.4	1.6	2.7	0.3	1.5	0.2	40.6	3.20	40.2	4
	43.0	44.0	9,582	17,320	1,776	5,027	375	61.8	104.9	8.6	25.9	2.5	4.2	0.3	2.1	0.3	64.8	3.44	81.7	1.4
	44.0	45.0	8,280	14,495	1,486	4,152	300	49.3	79.8	5.9	16.3	1.6	2.9	0.2	1.6	0.2	36.8	2.89	56	2.7
	45.0	46.0	21,755	38,080	3,915	9,868	623	96.7	148.1	9.6	23.1	2.0	3.1	0.3	0.9	0.2	41.9	7.46	65	1.7
	46.0	47.0	13,663	25,674	2,634	7,033	422	65.1	96.5	6.7	17.7	1.6	2.3	0.2	0.8	0.1	34.3	4.97	58.8	1.4
	47.0	48.0	21,814	39,063	3,758	10,719	645	98.7	163.7	10.7	25.4	2.3	3.1	0.2	1.1	0.1	43.2	7.63	76.6	1.7
	48.0	49.0	6,849	12,714	1,184	3,651	224	33.9	55.7	3.5	9.4	1.2	2.1	0.3	1.3	0.2	21.6	2.48	26.7	5.5
	49.0	50.0	10,637	19,163	1,740	5,144	299	45.4	80.7	5.5	14.0	1.5	2.9	0.2	1.1	0.1	31.8	3.72	40.4	3.1
	50.0	51.0	9,019	15,355	1,371	4,012	242	41.8	72.2	6.1	18.8	2.1	4.5	0.5	2.7	0.4	54.6	3.02	49	4.8
	51.0	52.0	3,378	6,658	627	2,024	154	30.7	66.7	7.6	37.3	6.0	15.3	1.9	12.2	1.5	176.5	1.32	36.4	9.9
	52.0	53.0	3,894	7,616	731	2,245	145	22.9	39.4	2.6	9.2	1.0	1.9	0.1	1.0	0.1	20.3	1.47	20	8.7
	53.0	54.0	3,530	7,248	677	2,105	136	22.2	41.7	3.9	13.8	1.5	2.4	0.2	1.4	0.2	35.6	1.38	36.8	3.2
	54.0	55.0	4,034	8,353	782	2,484	164	27.1	48.0	4.0	12.3	1.3	1.8	0.2	0.8	0.1	27.9	1.59	40.1	2.3
	55.0	56.0	5,887	11,572	1,120	3,616	234	36.7	62.4	4.3	12.6	1.4	1.9	0.2	0.8	0.2	27.9	2.26	37.2	4.2
	56.0	57.0	6,087	12,014	1,164	3,779	249	40.4	68.5	4.7	12.9	1.3	2.5	0.2	1.4	0.2	30.5	2.35	39.8	4.6
	57.0	58.0	5,360	11,289	1,085	3,488	237	38.1	65.9	4.6	12.7	1.3	2.1	0.2	1.1	0.1	27.9	2.16	42.7	3.9
	58.0	59.0	7,647	15,294	1,462	4,631	297	47.8	82.4	5.9	16.0	1.6	2.6	0.2	1.3	0.2	35.6	2.95	53.7	10.9
	59.0	60.0	5,430	11,694	1,160	3,861	281	47.1	85.4	6.6	19.1	1.9	2.7	0.2	1.4	0.2	43.2	2.26	82	10.2
	60.0	61.0	6,005	12,960	1,250	4,106	279	44.2	71.6	4.5	12.1	1.2	1.9	0.2	1.0	0.2	26.7	2.48	40.6	10.2
	61.0	62.0	7,049	14,127	1,420	4,607	308	50.7	86.3	5.4	16.8	1.7	2.7	0.2	1.3	0.1	35.6	2.77	46.5	4.9
	62.0	63.0	5,805	11,805	1,176	3,791	267	41.1	68.7	4.3	12.2	1.2	1.9	0.2	1.1	0.1	25.4	2.30	34.4	13.6
	63.0	64.0	5,301	10,896	1,080	3,453	233	36.0	61.1	4.0	10.9	1.1	1.9	0.2	1.0	0.2	25.4	2.11	32.5	13
	64.0	65.0	4,457	9,016	895	2,939	208	34.0	60.2	4.3	13.3	1.4	2.4	0.2	1.4	0.2	30.5	1.77	43.7	13.4
	65.0	66.0	3,495	7,432	742	2,414	167	28.6	52.3	4.2	11.9	1.4	2.2	0.2	1.0	0.2	31.8	1.44	46.2	7.7
	66.0	67.0	5,430	11,277	1,115	3,628	222	36.6	66.2	5.2	15.6	1.5	2.7	0.3	1.4	0.2	36.8	2.18	46.8	3.9
	67.0	68.0	4,363	8,930	863	2,753	194	31.7	58.1	4.7	14.2	1.6	3.0	0.2	1.5	0.2	39.4	1.73	46.5	5.3
	68.0	69.0	4,339	8,746	853	2,741	197	35.4	66.3	5.2	17.7	1.9	3.7	0.3	2.1	0.3	50.8	1.71	51.7	3.7
	69.0	70.0	5,864	11,621	1,135	3,546	227	36.8	67.7	5.2	16.3	1.8	3.0	0.3	1.7	0.2	41.9	2.26	53.7	6.6
	70.0	71.0	2,498	5,724	571	1,866	135	22.9	41.6	3.7	11.9	1.1	2.3	0.2	1.3	0.2	27.9	1.09	37.6	9.6
	71.0	72.0	6,357	13,574	1,402	4,712	341	53.7	93.6	6.1	16.3	1.6	2.2	0.2	0.8	0.2	30.5	2.66	78.2	6.2
	72.0	73.0	8,374	17,566	1,800	5,914	420	65.9	109.5	7.3	19.3	1.8	2.3	0.2	1.0	0.1	34.3	3.43	91.3	7.5
	73.0	74.0	2,299	5,208	516	1,726	121	19.9	40.1	3.6	12.2	1.2	1.6	0.2	1.0	0.1	24.1	1.00	47.9	7.9
	74.0	75.0	1,964	4,447	441	1,464	109	18.1	36.2	3.3	11.3	1.2	1.9	0.2	1.1	0.1	25.4	0.85	42	8.5
	75.0	76.0	1,736	3,992	401	1,336	95	16.0	30.8	2.6	9.2	1.0	1.7	0.2	0.9	0.1	22.9	0.76	26.1	5.2
	76.0	77.0	2,873	5,823	610	1,983	151	24.9	42.8	3.3	10.6	1.1	1.6	0.2	1.0	0.2	25.4	1.16	34.7	7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	77.0	78.0	3,331	6,535	660	2,065	150	24.3	43.6	3.5	10.1	1.1	1.7	0.2	0.9	0.1	24.1	1.28	40.7	5.2
	78.0	79.0	6,826	12,837	1,275	3,977	314	53.4	97.7	8.2	24.7	2.3	3.4	0.3	1.9	0.3	54.6	2.55	94	1.6
	79.0	80.0	13,487	25,551	2,573	7,535	457	74.2	122.2	9.4	30.2	3.4	5.8	0.7	3.4	0.5	88.9	4.99	101.5	3.5
	80.0	81.0	7,482	17,320	2,114	6,940	590	98.9	163.7	11.8	40.3	5.0	9.0	1.0	5.0	0.6	147.3	3.49	118	2
	81.0	82.0	7,529	16,153	1,824	5,610	450	76.4	130.2	9.5	29.8	3.2	6.1	0.7	3.3	0.5	91.4	3.19	103	1.3
	82.0	83.0	6,251	12,591	1,365	4,094	318	56.4	101.5	7.9	25.5	2.7	5.3	0.6	3.8	0.5	74.9	2.49	103.5	1.1
	83.0	84.0	10,637	20,207	2,078	5,960	412	70.2	114.6	7.7	23.0	2.4	3.8	0.4	2.4	0.3	50.8	3.96	72.9	1.2
	84.0	85.0	13,956	26,288	2,706	7,990	497	79.3	123.3	8.2	23.3	2.2	3.1	0.3	1.8	0.3	45.7	5.17	87.5	1.2
	85.0	86.0	12,197	23,094	2,374	6,730	442	71.1	116.4	7.9	23.3	2.2	3.5	0.4	1.9	0.3	49.5	4.51	78.4	1.5
	86.0	87.0	13,956	26,411	2,755	8,281	551	87.9	140.0	9.1	24.1	2.3	3.4	0.3	1.5	0.2	45.7	5.23	95.8	1
	87.0	88.0	12,549	24,507	2,622	7,955	542	88.1	140.0	8.8	25.1	2.4	3.2	0.3	1.7	0.2	48.3	4.85	110.5	2.8
	88.0	89.0	13,194	25,919	2,767	8,211	535	86.3	134.9	8.5	23.0	2.2	3.0	0.3	1.6	0.2	44.5	5.09	98.8	1.3
	89.0	90.0	8,198	15,785	1,655	4,841	347	57.0	97.3	7.0	20.0	2.1	3.1	0.3	1.8	0.3	45.7	3.11	75.1	0.9
	90.0	91.0	10,848	21,251	2,006	6,264	420	67.9	115.8	8.2	22.0	2.2	3.4	0.3	1.7	0.3	49.5	4.11	90.5	1.2
	91.0	92.0	13,253	24,138	2,525	7,407	500	80.1	130.2	8.8	25.9	2.7	4.6	0.6	2.9	0.4	66.0	4.81	90.5	1.2
	92.0	93.0	11,423	21,006	2,169	6,275	434	68.7	112.4	7.7	24.2	2.4	4.2	0.5	2.5	0.3	64.8	4.16	74.2	1.1
	93.0	94.0	9,969	18,672	1,981	5,727	395	63.9	105.2	8.0	22.7	2.2	3.7	0.4	1.8	0.3	55.9	3.70	86.8	0.8
	94.0	95.0	8,632	16,276	1,740	4,992	363	60.7	107.9	8.7	27.9	3.0	5.6	0.6	3.1	0.4	82.5	3.23	110	1
	95.0	96.0	8,186	15,846	1,698	4,841	339	56.2	96.0	7.2	23.3	2.6	5.0	0.6	3.0	0.4	72.4	3.12	73.9	1.2
	96.0	97.0	6,286	12,407	1,257	3,884	278	44.4	80.6	6.7	24.2	2.9	5.6	0.7	3.6	0.5	81.3	2.44	73.8	1.3
	97.0	98.0	9,077	17,198	1,782	4,992	343	57.6	104.1	9.1	31.9	3.7	7.2	0.8	5.1	0.8	105.4	3.37	82.6	1.5
	98.0	99.0	10,872	20,391	2,102	5,937	401	65.4	116.4	9.2	28.7	3.1	5.4	0.5	2.7	0.3	78.7	4.00	94.1	1.5
	99.0	100.0	10,626	20,391	2,175	6,170	448	73.9	130.2	10.0	30.6	3.4	6.0	0.6	2.9	0.4	85.1	4.02	101	1.6
	100.0	101.0	7,600	16,399	1,679	5,727	441	76.0	141.8	10.8	31.0	3.2	5.3	0.5	2.2	0.3	82.5	3.22	221	1.4
	101.0	102.0	9,922	19,532	2,126	6,170	460	76.8	131.4	10.5	31.3	3.4	5.5	0.6	2.5	0.3	87.6	3.86	113.5	1.5
	102.0	103.0	7,377	14,557	1,553	4,456	318	52.6	90.7	7.0	22.5	2.6	4.7	0.5	2.4	0.3	72.4	2.85	73.9	1.2
	103.0	104.0	6,873	13,021	1,299	3,977	288	47.7	82.8	6.8	23.3	2.8	5.4	0.7	4.0	0.5	85.1	2.57	65.2	1.1
	104.0	105.0	11,329	22,050	2,332	6,917	506	81.2	136.6	10.2	32.3	3.6	6.4	0.7	3.6	0.5	94.0	4.35	109.5	1.2
	105.0	106.0	8,397	16,092	1,704	4,981	378	62.4	110.9	8.1	23.9	2.6	3.9	0.4	2.3	0.3	63.5	3.18	118	1
	106.0	107.0	10,907	21,497	2,126	6,217	395	61.7	104.8	8.4	25.7	3.0	5.2	0.5	3.0	0.3	78.7	4.14	80.4	1.4
	107.0	108.0	8,245	16,338	1,643	4,852	324	50.5	89.4	7.7	25.8	2.7	5.2	0.6	3.1	0.4	76.2	3.17	80.4	1.4
	108.0	109.0	9,863	20,023	2,012	5,995	387	59.8	103.3	8.3	24.7	2.7	4.8	0.4	2.5	0.3	71.1	3.86	90.3	1.3
	109.0	110.0	8,210	17,136	1,800	5,447	388	60.4	107.9	9.1	25.9	2.6	4.6	0.4	2.2	0.3	66.0	3.33	109	1.2
	110.0	111.0	8,597	17,259	1,782	5,354	387	63.1	114.6	9.8	29.3	3.2	5.8	0.5	2.5	0.3	82.5	3.37	121	1.1
	111.0	112.0	9,629	19,593	1,981	5,925	399	65.0	123.3	11.8	38.1	4.3	8.1	0.8	4.0	0.5	119.4	3.79	131	1.4
	112.0	113.0	8,081	17,566	1,915	6,170	514	86.0	153.3	11.9	34.1	3.6	6.2	0.6	3.0	0.4	90.2	3.46	152	1.5
	113.0	114.0	9,793	19,409	1,981	5,995	435	75.2	143.5	12.4	40.2	4.6	8.7	0.8	4.7	0.6	124.5	3.80	141.5	1.7
	114.0	115.0	4,093	10,220	1,121	3,989	328	54.1	93.3	6.9	20.4	2.2	4.1	0.4	2.3	0.3	58.4	2.00	96	1
	115.0	116.0	6,732	14,372	1,540	4,689	330	54.0	93.5	7.3	22.5	2.4	4.1	0.4	1.8	0.2	61.0	2.79	87.9	1.1
	116.0	117.0	9,676	19,716	2,060	6,159	422	66.4	117.0	8.9	26.6	2.9	5.3	0.5	2.7	0.3	76.2	3.83	104.5	1.1
	117.0	118.0	10,520	21,374	2,175	6,590	455	72.6	127.9	9.4	28.0	3.0	5.5	0.5	2.5	0.3	77.5	4.14	114.5	1.1
	118.0	119.0	10,332	20,453	2,072	6,159	430	69.6	126.8	10.3	33.5	3.9	7.2	0.7	4.4	0.5	105.4	3.98	122.5	1.2
	119.0	120.0	9,019	18,119	1,873	5,622	404	65.7	119.9	9.3	30.3	3.3	6.3	0.7	3.5	0.5	90.2	3.54	119	1.1
	120.0	121.0	10,051	20,023	2,048	6,030	409	64.0	114.0	9.0	27.9	3.2	6.1	0.6	3.2	0.4	88.9	3.89	98.5	1.2
	121.0	122.0	9,406	17,750	1,758	5,132	357	55.9	101.2	8.1	26.7	3.1	5.8	0.6	3.3	0.4	90.2	3.47	94.4	1.1
	122.0	123.0	14,895	27,393	2,670	8,002	531	82.7	144.7	11.4	37.5	4.5	8.8	0.9	5.2	0.7	127.0	5.39	113.5	1.9

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	123.0	124.0	12,080	22,971	2,277	6,672	468	73.9	133.1	10.9	33.1	3.5	5.8	0.7	3.6	0.5	92.7	4.48	128.5	1.4
	124.0	125.0	11,165	21,251	2,108	6,310	445	70.2	123.3	9.4	26.2	2.8	4.8	0.5	2.6	0.3	72.4	4.16	107	1.2
	125.0	126.0	17,357	33,044	3,226	9,996	630	96.5	163.7	12.3	38.9	4.5	8.1	0.7	3.6	0.6	120.6	6.47	129.5	1.6
	126.0	127.0	11,693	21,558	2,132	6,217	444	72.3	131.4	11.2	35.4	4.1	7.7	0.7	3.6	0.6	114.3	4.24	124	1.5
	127.0	128.0	9,465	18,426	1,824	5,307	362	58.1	105.7	8.5	27.1	3.3	6.3	0.6	3.4	0.4	90.2	3.57	99.5	2.7
	128.0	129.0	13,839	25,059	2,465	7,302	486	78.5	137.7	11.6	38.7	4.6	9.5	1.0	5.5	0.7	133.3	4.96	105.5	1.9
	129.0	130.0	15,774	28,867	2,839	8,655	573	88.9	149.3	10.7	31.5	3.6	6.5	0.6	3.3	0.4	99.1	5.71	111	1.4
	130.0	131.0	11,153	21,804	2,235	6,707	455	74.2	125.1	9.4	27.2	3.0	5.2	0.5	2.9	0.3	78.7	4.27	109	1.6
	131.0	132.0	10,168	19,900	1,975	5,937	391	59.6	98.4	7.1	20.2	2.0	3.2	0.3	1.5	0.1	53.3	3.86	78	1.1
	132.0	133.0	9,089	17,935	1,885	5,622	375	58.5	98.9	7.9	21.8	2.3	4.0	0.4	2.2	0.2	59.7	3.52	88.6	1.2
	133.0	134.0	12,725	24,814	2,477	7,500	488	74.9	127.4	9.4	28.6	3.4	6.4	0.6	3.4	0.4	86.4	4.83	110.5	1.5
	134.0	135.0	9,605	18,549	1,849	5,447	368	59.2	106.7	9.5	32.8	3.7	6.4	0.7	3.6	0.4	102.9	3.61	94.9	1.5
	135.0	136.0	9,183	18,549	1,885	5,622	382	60.3	105.6	8.8	30.5	3.7	6.6	0.6	3.4	0.4	99.1	3.59	82.3	1.6
	136.0	137.0	8,855	17,505	1,722	5,237	365	62.3	115.0	8.3	29.3	3.3	9.0	0.8	4.9	0.6	101.6	3.40	110	1.2
	137.0	138.0	9,746	18,917	1,812	5,447	386	66.7	114.7	8.7	26.5	2.6	5.2	0.4	2.4	0.3	71.1	3.66	105	2
	138.0	139.0	9,382	18,979	1,945	5,645	388	63.9	109.2	7.5	23.0	2.5	4.5	0.4	2.2	0.3	67.3	3.66	95.9	2.4
	139.0	140.0	8,022	16,768	1,758	5,179	350	55.0	90.7	6.0	18.7	2.2	4.1	0.5	2.9	0.4	61.0	3.23	60.3	2.1
	140.0	141.0	8,292	16,338	1,673	4,829	333	54.7	99.9	8.3	25.7	3.0	5.4	0.6	3.3	0.5	83.8	3.17	102	2.5
	141.0	142.0	9,335	18,242	1,873	5,330	355	55.7	94.6	7.2	22.2	2.7	4.8	0.6	3.3	0.5	81.3	3.54	81	2.3
	142.0	143.0	8,784	17,320	1,752	5,097	344	54.1	87.9	5.8	16.9	2.1	4.1	0.5	2.9	0.4	57.2	3.35	75.2	1.4
	143.0	144.0	7,916	15,416	1,553	4,491	304	49.4	87.9	7.2	24.2	2.9	5.6	0.7	4.3	0.6	88.9	3.00	89.8	1.7
	144.0	145.0	8,749	17,750	1,812	5,284	353	56.3	93.1	6.3	19.1	2.3	4.9	0.6	3.2	0.4	68.6	3.42	82.7	1.3
	145.0	146.0	7,436	14,741	1,462	4,362	306	54.5	104.7	9.2	31.7	4.2	8.2	1.0	5.6	0.8	128.3	2.87	113	1.2
	146.0	147.0	7,412	15,171	1,565	4,607	326	55.4	100.3	8.8	30.6	3.7	6.9	0.8	4.4	0.5	109.2	2.94	115	3.6
	147.0	148.0	13,311	26,165	2,706	8,200	533	84.6	138.9	8.7	25.4	3.0	6.0	0.6	3.8	0.4	83.8	5.13	118.5	1.6
	148.0	149.0	16,126	31,324	3,202	9,728	637	100.6	164.3	10.2	27.4	2.9	4.8	0.5	2.7	0.4	76.2	6.14	139	1
	149.0	150.0	17,885	34,641	3,492	10,498	664	102.4	159.1	9.4	26.7	3.0	4.8	0.5	2.2	0.3	77.5	6.76	137.5	1
	150.0	151.0	10,813	20,760	2,084	5,972	397	64.2	106.7	7.5	23.8	3.0	4.7	0.5	2.9	0.4	82.5	4.03	101.5	0.9
	151.0	152.0	11,048	21,927	2,229	6,334	437	70.9	119.9	8.9	30.1	3.7	6.6	0.6	2.6	0.3	101.6	4.23	127	1.4
	152.0	153.0	16,830	32,430	3,238	9,704	602	95.8	155.6	11.7	39.1	4.7	7.8	0.7	3.0	0.4	127.0	6.32	149	1.6
	153.0	154.0	19,938	38,203	3,770	11,349	697	109.0	174.6	12.6	42.4	5.0	7.9	0.6	2.7	0.3	129.5	7.44	165	1.6
	154.0	155.0	8,667	16,891	1,728	4,922	342	57.3	100.7	7.9	27.2	3.4	5.5	0.5	2.6	0.4	88.9	3.28	137.5	1.2
	155.0	156.0	6,920	13,942	1,395	4,222	304	51.0	95.7	8.8	31.0	3.8	7.2	0.7	4.0	0.5	110.5	2.71	137.5	1.6
	156.0	157.0	11,787	22,480	2,235	6,205	393	63.1	109.4	9.0	31.7	3.7	6.3	0.6	2.6	0.3	101.6	4.34	94.4	1.5
	157.0	158.0	6,861	13,267	1,263	3,721	244	40.3	71.6	6.2	23.1	3.1	5.6	0.5	2.9	0.3	87.6	2.56	88.7	1
	158.0	159.0	10,743	20,576	2,036	5,669	357	57.6	102.4	8.3	27.9	3.4	5.8	0.5	2.5	0.3	92.7	3.97	87.6	1.3
	159.0	160.0	5,125	9,680	919	2,741	184	30.5	54.5	4.9	18.8	2.7	5.5	0.6	3.5	0.4	78.7	1.88	82.1	0.8
	160.0	161.0	6,802	12,898	1,220	3,639	242	39.5	68.8	5.9	21.6	2.9	5.7	0.6	3.3	0.5	87.6	2.50	86.1	0.9
	161.0	162.0	9,148	17,689	1,758	4,922	307	49.0	84.4	7.2	27.3	3.8	7.3	0.8	4.4	0.5	110.5	3.41	100	1.3
	162.0	163.0	11,423	20,637	2,006	5,599	372	61.8	107.4	8.5	29.8	3.8	7.3	0.6	3.0	0.3	102.9	4.04	98.2	1.5
	163.0	164.0	16,595	29,604	2,815	8,095	485	79.2	133.1	10.5	37.6	4.6	7.1	0.6	3.0	0.3	115.6	5.80	109.5	1.8
	164.0	165.0	15,188	26,288	2,428	6,625	402	66.7	114.0	9.3	31.9	3.8	6.3	0.6	2.9	0.3	101.6	5.13	85.6	1.5
	165.0	166.0	18,296	31,938	2,984	8,410	500	79.3	133.1	10.4	36.0	4.5	7.9	0.8	3.9	0.5	123.2	6.25	111.5	1.6
	166.0	167.0	23,573	40,906	3,806	10,649	616	98.4	166.6	12.8	43.6	5.3	8.8	0.7	3.8	0.5	137.2	8.00	126.5	2.3
	167.0	168.0	20,348	34,641	3,165	8,900	542	89.2	148.7	10.8	35.2	4.0	6.9	0.6	2.9	0.4	106.7	6.80	117.5	1.5
	168.0	169.0	16,771	28,867	2,682	7,652	477	76.8	132.0	9.8	32.3	3.9	7.0	0.7	3.8	0.5	109.2	5.68	103	1.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	169.0	170.0	11,493	20,023	1,885	5,132	322	52.2	90.6	6.9	23.5	2.9	5.2	0.6	2.6	0.3	78.7	3.91	79.8	1.3
	170.0	171.0	14,836	25,182	2,501	6,847	424	68.0	115.8	9.3	32.3	4.1	7.3	0.8	3.3	0.5	110.5	5.01	109	1.7
	171.0	172.0	14,660	24,814	2,465	6,753	426	68.8	117.6	9.0	30.9	3.9	7.3	0.7	3.3	0.4	107.9	4.95	99.2	1.7
	172.0	173.0	16,419	28,745	2,598	7,337	464	78.4	134.3	9.7	33.6	3.8	7.8	0.6	4.0	0.5	113.0	5.59	100	1.5
	173.0	174.0	19,762	35,255	3,178	8,830	538	90.6	158.5	12.2	44.2	5.1	9.6	1.0	4.4	0.7	139.7	6.80	96.3	2
	174.0	175.0	14,367	24,937	2,241	6,205	402	67.5	116.4	8.4	27.9	3.1	6.0	0.6	3.3	0.4	82.5	4.85	85	1.3
	175.0	176.0	10,309	17,689	1,607	4,502	314	53.2	92.7	6.5	19.7	2.2	4.2	0.3	1.9	0.2	57.2	3.47	66	1.4
	176.0	177.0	9,898	16,891	1,492	4,199	282	50.7	87.6	6.3	19.7	2.1	4.5	0.4	2.1	0.2	59.7	3.30	63.4	1.7
	177.0	178.0	11,505	20,084	1,836	5,202	365	67.7	117.0	7.8	23.1	2.5	4.6	0.4	2.1	0.3	62.2	3.93	83.1	1.4
	178.0	179.0	9,347	15,908	1,402	3,896	274	46.9	84.3	5.8	18.6	2.1	3.4	0.3	1.7	0.4	52.1	3.10	58.3	1.1
	179.0	180.0	11,364	20,207	1,909	5,505	407	73.2	125.6	8.7	25.8	2.6	3.9	0.4	1.6	0.3	64.8	3.97	89.4	1.4
	180.0	181.0	13,135	22,787	2,132	5,832	370	60.3	107.1	8.2	26.7	3.2	5.5	0.4	2.3	0.3	78.7	4.45	82.6	1.6
<b>KGKRC026</b>	0.0	1.0	2,451	5,073	584	2,076	235	48.4	89.8	6.4	21.8	2.9	6.8	0.7	4.8	0.9	76.2	1.07	81.1	6.6
	1.0	2.0	2,744	5,540	634	2,164	255	50.1	95.9	7.1	23.0	2.9	6.9	0.8	5.1	0.9	81.3	1.16	87.4	5.9
	2.0	3.0	4,492	8,390	904	2,904	273	51.4	97.2	7.0	24.2	3.1	7.0	0.8	5.4	0.9	88.9	1.72	72.1	9.4
	3.0	4.0	3,741	6,916	756	2,496	248	48.5	88.4	6.5	20.5	2.8	5.6	0.6	3.8	0.6	67.3	1.44	67.7	7
	4.0	5.0	3,647	7,518	863	2,928	264	46.7	79.1	4.8	13.5	1.3	2.2	0.2	1.5	0.2	29.2	1.54	42.3	6.6
	5.0	6.0	3,706	7,702	903	3,056	275	50.4	87.8	6.2	21.4	2.6	5.6	0.6	3.4	0.4	66.0	1.59	51.8	12.2
	6.0	7.0	2,639	4,963	529	1,732	170	35.2	73.8	6.9	27.5	4.0	10.0	1.1	5.5	0.7	113.0	1.03	45.7	6.9
	7.0	8.0	2,305	4,361	460	1,522	151	32.5	68.4	6.5	25.9	3.8	8.5	0.8	4.7	0.6	99.1	0.90	42.6	8.8
	8.0	9.0	2,791	5,110	547	1,767	161	32.7	66.3	5.8	23.6	3.3	7.0	0.8	4.3	0.6	85.1	1.06	36.5	4.6
	9.0	10.0	2,862	5,909	680	2,356	244	43.8	81.6	5.7	19.2	2.5	5.3	0.7	3.4	0.6	66.0	1.23	48.6	9
	10.0	11.0	2,123	4,656	534	1,884	208	40.9	81.6	6.1	24.8	3.6	9.2	1.1	7.3	1.1	106.7	0.97	53.8	14.4
	11.0	12.0	475	948	110	373	42	8.6	18.9	1.8	8.3	1.2	3.8	0.4	2.9	0.4	38.1	0.20	21.8	3.1
	12.0	13.0	1,407	3,526	382	1,248	113	20.0	36.5	2.9	9.8	1.2	2.7	0.4	2.5	0.4	30.5	0.68	33.3	5.2
	13.0	14.0	3,284	7,272	813	2,671	249	44.8	80.2	5.5	15.7	1.6	2.4	0.3	1.4	0.1	35.6	1.45	52.8	6.3
	14.0	15.0	2,381	5,294	579	1,930	197	35.0	62.9	4.8	14.9	1.8	4.0	0.5	3.1	0.5	49.5	1.06	42.4	5.7
	15.0	16.0	2,439	5,479	605	2,012	196	34.2	60.9	4.2	11.1	1.3	2.5	0.2	1.5	0.2	30.5	1.09	34.5	7
	16.0	17.0	5,817	10,994	1,141	3,441	311	54.9	94.5	6.5	17.2	1.6	3.0	0.2	1.4	0.1	39.4	2.19	53.3	10
	17.0	18.0	5,043	9,508	969	3,009	263	47.6	80.9	5.5	14.8	1.5	2.4	0.2	1.4	0.2	33.0	1.90	43.3	9.2
	18.0	19.0	4,128	7,763	803	2,543	233	42.7	72.7	4.9	14.6	1.5	2.6	0.3	1.4	0.2	34.3	1.56	38.3	5.7
	19.0	20.0	3,213	5,995	616	2,006	213	39.5	70.3	5.1	14.5	1.5	2.9	0.3	1.7	0.2	34.3	1.22	36.1	6.5
	20.0	21.0	4,726	8,513	864	2,636	223	40.2	66.9	4.6	13.9	1.4	2.2	0.3	1.5	0.2	35.6	1.71	36.7	7.3
	21.0	22.0	3,237	6,375	669	2,135	202	35.7	60.2	4.0	10.6	1.2	1.8	0.2	1.0	0.1	24.1	1.28	35.5	5
	22.0	23.0	2,920	5,859	636	2,030	187	33.9	58.6	3.9	10.4	1.0	1.8	0.1	1.0	0.2	22.9	1.18	30.4	8
	23.0	24.0	1,976	4,557	500	1,650	165	30.7	51.3	3.4	9.3	1.0	2.1	0.2	1.3	0.2	24.1	0.90	25.4	7.5
	24.0	25.0	2,099	4,950	547	1,872	194	34.9	60.4	3.9	10.6	1.1	2.2	0.2	1.1	0.2	24.1	0.98	31.4	6.4
	25.0	26.0	2,885	5,786	608	1,995	201	36.9	64.0	4.3	12.6	1.3	2.2	0.2	1.1	0.2	29.2	1.16	36.7	5.4
	26.0	27.0	2,744	5,577	610	2,041	217	40.9	72.0	5.3	15.8	1.9	3.8	0.4	2.6	0.3	47.0	1.14	47.3	3.9
	27.0	28.0	2,522	5,135	538	1,738	176	35.2	64.2	4.8	15.6	1.8	3.4	0.4	2.4	0.3	45.7	1.03	47.1	5.7
	28.0	29.0	4,433	9,238	1,002	3,266	306	52.8	94.1	6.9	20.7	2.1	4.2	0.5	3.0	0.4	54.6	1.85	58.9	8.5
	29.0	30.0	2,967	6,117	651	2,070	182	31.2	51.5	3.3	9.2	1.0	1.9	0.2	1.0	0.2	22.9	1.21	27.7	9.7
	30.0	31.0	3,225	6,633	718	2,315	205	34.2	56.0	3.7	11.0	1.2	2.3	0.2	1.0	0.2	26.7	1.32	29.2	14.2
	31.0	32.0	6,673	13,021	1,365	4,234	334	51.5	82.0	4.9	14.2	1.5	2.4	0.2	1.1	0.2	30.5	2.58	44.8	11.2
	32.0	33.0	2,862	5,651	580	1,837	183	34.5	66.6	5.6	20.2	2.6	5.5	0.6	3.1	0.5	68.6	1.13	43.5	8.2
	33.0	34.0	2,316	4,778	498	1,598	164	32.8	64.8	5.9	24.0	3.4	7.6	0.9	4.8	0.6	96.5	0.96	47.9	7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	34.0	35.0	2,686	6,081	684	2,263	203	33.0	53.8	3.6	9.6	1.0	1.6	0.1	0.7	0.1	20.3	1.20	40.5	8.4
	35.0	36.0	3,507	6,990	755	2,473	234	42.6	78.6	6.4	22.8	2.9	6.4	0.7	4.0	0.5	85.1	1.42	51.9	8.2
	36.0	37.0	3,671	7,506	806	2,636	244	43.0	74.0	5.3	16.1	1.9	3.8	0.4	2.5	0.3	52.1	1.51	46.6	9.3
	37.0	38.0	2,897	6,683	758	2,484	216	33.9	55.0	3.5	8.5	0.8	1.4	0.1	0.6	0.1	16.5	1.32	37.9	9.2
	38.0	39.0	6,415	13,758	1,510	4,817	420	70.6	117.0	7.6	21.4	2.1	3.3	0.4	1.7	0.2	47.0	2.72	81.9	8.2
	39.0	40.0	7,952	15,048	1,540	4,549	324	50.0	78.5	4.9	13.3	1.3	2.2	0.2	0.9	0.1	29.2	2.96	45.5	5.1
	40.0	41.0	4,398	9,311	996	3,173	259	40.5	67.1	4.6	12.6	1.3	2.3	0.3	1.3	0.2	29.2	1.83	39.3	2.7
	41.0	42.0	4,210	8,832	985	3,208	262	42.0	74.6	4.4	11.8	1.3	1.9	0.2	0.9	0.2	26.7	1.77	38.8	3.2
	42.0	43.0	3,894	8,157	913	2,998	249	40.9	69.5	4.2	11.7	1.1	1.5	0.2	0.8	0.1	22.9	1.64	36.2	3.1
	43.0	44.0	2,486	5,479	619	2,059	180	28.0	48.9	3.0	8.6	0.9	1.3	0.1	0.6	0.1	17.8	1.09	30.3	8.7
	44.0	45.0	1,724	4,066	458	1,551	145	24.7	49.1	3.8	13.2	1.8	3.5	0.4	2.1	0.3	48.3	0.81	41	11.4
	45.0	46.0	1,718	3,612	391	1,295	125	25.4	57.6	5.9	27.2	4.3	10.4	1.3	6.8	0.8	125.7	0.74	44.3	8.7
	46.0	47.0	2,158	4,152	419	1,336	136	28.0	66.2	6.5	29.5	4.1	8.6	1.0	5.6	0.8	118.1	0.85	44.9	6.2
	47.0	48.0	2,651	4,877	492	1,592	155	30.0	64.7	5.9	24.8	3.4	7.3	0.9	4.7	0.7	95.2	1.00	50.5	8.1
	48.0	49.0	2,152	4,177	435	1,446	155	30.6	63.7	6.0	25.8	3.5	7.7	0.8	4.9	0.6	99.1	0.86	48.4	8.7
	49.0	50.0	1,859	3,796	393	1,283	125	25.2	56.1	5.4	21.8	3.4	7.2	0.8	4.3	0.6	90.2	0.77	49.9	8.6
	50.0	51.0	1,064	2,076	211	682	70	14.6	34.2	3.4	15.4	2.4	4.9	0.6	3.3	0.6	63.5	0.42	24.1	5.2
	51.0	52.0	2,287	4,312	430	1,353	135	28.7	66.6	6.8	28.8	4.1	8.7	1.0	5.5	0.7	115.6	0.88	56.1	8.9
	52.0	53.0	2,111	4,054	411	1,295	128	26.8	61.2	6.1	28.1	3.9	8.7	1.0	5.7	0.8	115.6	0.83	56.9	9.6
	53.0	54.0	2,651	4,570	455	1,406	138	27.9	61.9	5.8	25.1	3.6	7.7	0.9	5.0	0.7	99.1	0.95	59.3	9.7
	54.0	55.0	2,627	4,643	455	1,411	136	26.4	57.8	5.7	24.2	3.6	8.2	0.9	5.4	0.8	100.3	0.95	62.7	8.6
	55.0	56.0	2,475	4,570	463	1,452	144	30.5	65.0	6.2	27.2	3.7	7.7	0.9	5.1	0.7	101.6	0.94	68.8	7.3
	56.0	57.0	2,545	4,692	464	1,458	140	30.1	67.9	6.9	31.2	4.8	10.6	1.3	7.2	1.1	133.3	0.96	41	7.6
	57.0	58.0	2,557	4,778	494	1,580	162	32.0	72.5	6.6	26.1	3.5	7.8	1.0	6.4	0.8	100.3	0.98	67.1	9.3
	58.0	59.0	2,428	4,987	556	1,837	185	35.9	79.1	6.8	27.4	3.5	7.7	1.0	5.8	1.0	105.4	1.03	53.5	10.4
	59.0	60.0	3,143	5,810	600	1,901	181	33.4	73.0	6.9	27.2	3.6	7.6	1.0	7.0	1.1	106.7	1.19	66.5	8.9
	60.0	61.0	4,210	8,058	878	2,881	270	46.7	91.6	6.6	22.5	2.6	5.6	0.6	3.5	0.6	71.1	1.65	73.4	11.2
	61.0	62.0	6,814	13,574	1,474	4,817	431	73.0	132.0	8.0	23.3	2.2	3.3	0.3	1.6	0.3	48.3	2.74	103	35.8
	62.0	63.0	3,096	6,646	745	2,543	244	42.3	79.9	5.6	17.7	1.8	3.0	0.4	2.2	0.3	40.6	1.35	130.5	105
	63.0	64.0	4,011	8,120	912	3,103	306	55.5	109.6	7.9	25.9	2.7	4.2	0.4	2.6	0.5	62.2	1.67	89.4	31.2
	64.0	65.0	2,234	4,926	557	1,965	204	39.1	81.3	6.8	22.8	2.5	4.2	0.6	3.4	0.6	66.0	1.01	83.7	30.7
	65.0	66.0	2,299	5,110	581	2,041	219	40.8	83.0	6.5	20.2	2.2	3.9	0.5	3.4	0.7	59.7	1.05	78.2	28.4
	66.0	67.0	2,815	6,265	731	2,531	241	43.0	82.1	5.9	21.7	2.7	5.4	0.7	4.9	0.8	76.2	1.28	55.1	21.1
	67.0	68.0	2,269	4,889	558	1,965	209	40.4	78.8	6.3	24.1	3.0	6.6	0.9	5.6	0.9	90.2	1.01	59.3	23.1
	68.0	69.0	2,346	4,852	546	1,901	215	42.3	86.7	7.6	28.6	3.9	8.7	1.1	7.7	1.2	119.4	1.02	49.3	14
	69.0	70.0	1,906	4,189	471	1,662	198	41.6	86.9	7.3	28.7	3.8	8.6	1.2	7.6	1.2	114.3	0.87	48.6	9.9
	70.0	71.0	2,686	5,921	696	2,403	250	46.6	91.6	6.8	23.3	2.8	5.8	0.8	5.0	1.1	78.7	1.22	58.5	11
	71.0	72.0	2,117	4,398	460	1,446	143	27.4	55.2	5.0	19.7	2.7	6.1	0.8	5.6	0.9	76.2	0.88	43.8	11.8
	72.0	73.0	1,753	3,722	406	1,330	159	35.1	76.4	7.7	33.4	4.6	10.9	1.3	8.8	1.1	132.1	0.77	60.9	11.4
	73.0	74.0	5,958	10,269	1,046	3,149	295	57.9	121.0	11.2	45.2	5.5	12.4	1.4	8.7	1.2	163.8	2.11	83.1	11.8
	74.0	75.0	1,841	3,894	422	1,394	159	33.1	72.5	7.5	34.1	4.5	10.4	1.2	7.6	1.2	135.9	0.80	67.8	9.7
	75.0	76.0	1,900	3,808	400	1,271	157	34.0	80.8	7.9	35.8	5.0	10.9	1.3	8.1	1.1	146.0	0.79	68.6	9.7
	76.0	77.0	1,560	3,292	354	1,184	161	38.7	87.8	8.9	37.6	5.0	11.9	1.5	10.1	1.5	146.0	0.69	80.6	11.8
	77.0	78.0	3,636	7,149	794	2,613	253	46.0	87.5	7.4	26.2	3.4	6.9	0.8	5.5	0.9	94.0	1.47	64.7	11
	78.0	79.0	1,525	3,329	377	1,277	172	39.3	89.2	9.2	40.7	5.8	14.4	1.8	12.1	1.7	174.0	0.71	75.1	16.4
	79.0	80.0	1,536	3,132	333	1,117	139	33.8	81.6	9.0	40.9	5.9	14.6	1.6	9.6	1.4	177.8	0.66	79.6	11.2

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	80.0	81.0	2,058	4,054	407	1,283	129	27.0	58.7	5.5	22.2	3.0	6.8	0.8	4.8	0.8	83.8	0.81	41.3	7.5
	81.0	82.0	4,797	8,206	797	2,286	170	28.4	50.4	3.5	11.5	1.1	2.1	0.2	1.3	0.2	27.9	1.64	28	8.9
	82.0	83.0	4,046	6,818	678	2,030	181	34.3	66.5	5.3	19.7	2.5	5.4	0.6	4.0	0.6	64.8	1.40	48.6	8.6
	83.0	84.0	1,771	3,427	356	1,134	130	28.7	67.3	7.2	35.9	5.2	11.7	1.3	8.1	1.1	156.2	0.71	71.6	8.4
	84.0	85.0	1,724	3,501	362	1,154	144	32.1	73.7	7.8	33.2	4.6	10.5	1.2	7.9	1.1	130.8	0.72	67.2	6.8
	85.0	86.0	1,437	2,887	306	1,007	130	31.5	78.2	8.6	37.5	5.4	13.0	1.5	9.5	1.2	160.0	0.61	57.9	8
	86.0	87.0	3,249	5,638	567	1,709	157	30.6	64.1	6.0	26.3	3.5	8.4	0.9	5.0	0.7	104.1	1.16	56.6	8.7
	87.0	88.0	2,744	4,717	466	1,382	125	24.0	45.4	4.1	14.5	1.9	4.4	0.5	3.9	0.8	53.3	0.96	50.7	26.5
	88.0	89.0	4,175	7,272	732	2,193	176	29.4	51.9	3.8	11.4	1.3	2.3	0.2	1.6	0.2	31.8	1.47	42.3	14.2
	89.0	90.0	3,753	6,130	574	1,627	119	20.6	36.9	2.8	8.7	1.0	1.7	0.2	1.3	0.2	25.4	1.23	26	12.8
	90.0	91.0	2,885	4,742	448	1,266	93	15.3	28.0	2.1	7.5	0.8	1.5	0.2	0.9	0.2	19.1	0.95	40.7	53.5
	91.0	92.0	3,741	6,879	716	2,170	197	36.7	71.5	6.2	23.8	3.0	6.4	0.6	3.6	0.6	85.1	1.39	46.2	16.6
	92.0	93.0	2,357	4,815	523	1,680	163	31.2	59.8	4.9	19.1	2.5	4.8	0.6	3.8	0.5	69.8	0.97	33.4	7.4
	93.0	94.0	2,269	4,840	534	1,720	166	32.4	67.0	6.0	26.1	3.5	7.9	0.9	5.6	0.8	97.8	0.98	33.7	7.1
	94.0	95.0	3,108	6,314	675	2,123	191	33.7	62.0	5.3	18.8	2.3	4.1	0.5	3.4	0.5	64.8	1.26	34.4	3.4
	95.0	96.0	2,744	5,798	639	2,053	188	33.5	59.9	4.9	19.9	2.4	5.2	0.7	4.1	0.5	72.4	1.16	27.5	2.7
	96.0	97.0	2,639	5,675	634	2,053	197	35.2	64.0	5.2	22.6	3.1	6.9	0.8	5.7	0.8	92.7	1.14	26.4	3
	97.0	98.0	2,791	5,921	660	2,100	192	33.0	62.2	5.1	21.1	2.8	6.5	0.8	5.0	0.7	82.5	1.19	29.3	2.4
	98.0	99.0	2,791	5,786	617	1,925	164	29.3	55.0	4.6	17.0	2.3	4.7	0.5	3.5	0.5	62.2	1.15	33.9	6.1
	99.0	100.0	1,742	3,685	391	1,236	125	24.4	49.5	4.7	19.3	2.8	6.1	0.7	4.1	0.5	73.7	0.74	43.2	8
	100.0	101.0	1,636	3,685	381	1,271	132	29.1	61.7	5.5	24.0	3.5	8.5	0.9	5.8	0.8	99.1	0.73	52.9	8
	101.0	102.0	3,178	6,277	648	2,135	205	40.1	73.5	6.3	22.0	2.8	6.4	0.7	5.2	0.8	80.0	1.27	33.7	5
	102.0	103.0	2,756	5,933	640	2,216	220	42.8	75.8	5.9	22.5	2.8	6.2	0.7	5.0	0.7	86.4	1.20	32.8	4.9
	103.0	104.0	3,225	6,560	692	2,333	212	42.4	73.9	6.1	22.3	2.9	6.2	0.7	4.3	0.6	76.2	1.33	32.9	5.9
	104.0	105.0	2,920	6,253	662	2,187	203	40.9	75.2	6.1	21.8	2.7	5.8	0.7	4.7	0.6	80.0	1.25	30.4	5.6
	105.0	106.0	2,557	5,589	578	1,872	155	29.4	49.9	3.9	14.7	1.9	4.5	0.5	3.1	0.4	54.6	1.09	18.8	3.4
	106.0	107.0	3,260	7,026	744	2,496	225	42.8	79.3	6.5	23.5	3.1	7.1	0.9	5.8	0.9	90.2	1.40	36.1	7.1
	107.0	108.0	2,604	5,712	597	1,989	194	38.7	73.0	5.7	20.8	2.9	6.6	0.7	5.4	0.8	82.5	1.13	34.6	6.1
	108.0	109.0	2,281	5,393	600	2,111	213	41.8	79.1	6.3	23.2	3.1	7.0	0.8	5.9	0.8	83.8	1.09	42.4	6.8
	109.0	110.0	3,753	7,837	836	2,776	255	47.0	86.5	6.5	21.4	2.8	5.8	0.6	4.4	0.6	80.0	1.57	35.3	8.5
	110.0	111.0	3,272	7,100	764	2,543	237	47.0	85.3	6.8	24.2	3.1	6.5	0.7	4.4	0.6	85.1	1.42	31.3	6.6
	111.0	112.0	3,014	6,547	721	2,461	239	47.7	91.2	7.3	26.3	3.2	6.6	0.8	4.4	0.5	92.7	1.33	30.3	6.2
	112.0	113.0	3,530	7,493	774	2,496	196	35.6	61.4	4.4	15.6	1.9	3.7	0.4	2.2	0.3	48.3	1.47	27.9	6.3
	113.0	114.0	3,999	8,230	807	2,391	145	23.3	39.1	2.7	9.3	1.1	1.7	0.2	1.1	0.2	22.9	1.57	18.4	1
	114.0	115.0	3,038	6,425	663	2,070	151	25.2	43.5	3.1	10.8	1.4	2.9	0.4	2.3	0.3	38.1	1.25	21.9	1.1
	115.0	116.0	3,718	7,739	794	2,496	187	32.7	57.8	4.3	14.7	1.8	3.7	0.4	2.9	0.4	49.5	1.51	29.4	3.3
	116.0	117.0	3,167	7,051	755	2,449	195	35.0	59.7	4.5	15.2	1.9	4.0	0.5	3.0	0.5	50.8	1.38	32.1	2.5
	117.0	118.0	4,410	9,582	1,038	3,313	239	40.8	67.9	5.1	16.8	2.0	4.8	0.6	3.8	0.5	58.4	1.88	38.5	3.5
	118.0	119.0	3,026	6,597	679	2,158	162	28.0	49.6	3.8	12.2	1.6	3.3	0.3	2.3	0.3	43.2	1.28	22.6	2.3
	119.0	120.0	3,976	8,341	859	2,683	183	31.7	53.5	4.0	13.3	1.6	3.2	0.3	1.8	0.2	39.4	1.62	25.8	4.8
	120.0	121.0	3,612	7,714	794	2,473	161	26.8	43.3	2.9	10.7	1.3	2.4	0.2	1.1	0.2	30.5	1.49	20.5	4.9
	121.0	122.0	3,706	7,862	800	2,496	161	25.6	40.9	2.7	8.5	0.9	1.7	0.2	1.0	0.1	22.9	1.51	26.5	3.7
	122.0	123.0	3,272	7,198	750	2,356	163	27.8	47.7	3.4	10.0	1.2	2.1	0.2	1.1	0.1	27.9	1.39	28.3	1
	123.0	124.0	3,213	7,149	752	2,403	173	29.4	48.5	3.1	9.9	1.2	2.5	0.2	1.3	0.1	29.2	1.38	26	1.3
	124.0	125.0	4,093	9,213	1,015	3,359	263	42.7	69.0	4.2	12.1	1.4	2.2	0.2	1.4	0.2	33.0	1.81	36.3	2
	125.0	126.0	1,976	4,987	565	1,960	183	35.6	67.5	6.7	29.4	4.5	9.7	0.9	5.8	0.8	128.3	1.00	54.4	6.5

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	126.0	127.0	1,390	3,452	394	1,423	152	29.2	51.6	3.7	12.2	1.5	3.3	0.4	2.2	0.3	43.2	0.70	42.2	6
	127.0	128.0	1,142	2,776	312	1,166	144	31.5	63.1	5.4	22.2	3.1	6.8	0.8	4.6	0.5	87.6	0.58	60.1	5.1
	128.0	129.0	1,037	2,641	309	1,201	157	34.7	71.7	6.1	25.7	3.8	7.9	0.8	4.8	0.6	100.3	0.56	55.2	8
	129.0	130.0	1,583	3,673	411	1,557	198	44.1	89.9	7.8	31.0	4.3	9.3	1.0	5.2	0.7	116.8	0.77	64	8
	130.0	131.0	1,683	3,882	440	1,627	203	44.0	88.8	8.1	31.2	4.0	8.6	0.9	4.9	0.7	120.6	0.81	67.9	5.8
	131.0	132.0	983	2,469	285	1,065	131	29.0	64.2	7.1	32.9	5.3	12.0	1.4	7.6	0.9	160.0	0.53	50.9	8.2
	132.0	133.0	1,063	2,567	291	1,087	133	29.1	63.3	6.2	23.9	3.4	7.8	0.9	5.0	0.7	101.6	0.54	53.6	8.2
	133.0	134.0	1,789	3,906	440	1,580	183	38.3	76.9	7.2	28.4	4.1	8.8	1.0	5.7	0.8	119.4	0.82	59.3	9.1
	134.0	135.0	2,522	5,331	584	2,035	219	45.0	87.5	7.5	27.4	3.5	7.6	0.8	4.4	0.6	107.9	1.10	76.1	6.8
	135.0	136.0	1,994	4,508	511	1,855	212	45.2	90.0	8.3	33.2	4.6	11.0	1.2	7.2	0.8	142.2	0.94	77.3	7.4
	136.0	137.0	2,568	5,663	629	2,245	231	45.5	85.8	7.5	29.3	4.2	9.8	1.1	7.3	1.0	123.2	1.17	74.9	7.7
	137.0	138.0	1,718	3,906	448	1,674	230	51.6	111.3	11.4	45.6	6.5	14.6	1.6	9.3	1.4	201.9	0.84	122	9.8
	138.0	139.0	1,413	3,218	358	1,347	185	43.1	90.4	9.3	38.1	5.4	13.0	1.4	8.2	1.1	172.7	0.69	94.1	7.4
	139.0	140.0	1,777	3,783	424	1,569	203	43.3	86.2	8.0	31.1	4.1	9.7	1.1	6.8	0.9	125.7	0.81	92.9	5.8
	140.0	141.0	2,047	4,619	527	1,878	190	37.4	67.9	5.8	21.2	2.8	7.1	0.8	5.7	0.9	85.1	0.95	62.3	4.9
	141.0	142.0	1,970	4,164	466	1,691	201	40.3	75.4	6.0	21.1	2.7	6.1	0.8	5.4	0.8	81.3	0.87	87.1	6
	142.0	143.0	2,146	4,987	574	2,076	223	44.8	82.8	7.0	25.6	3.5	8.1	1.0	7.4	1.2	106.7	1.03	77.5	6.4
	143.0	144.0	2,721	5,970	666	2,391	271	54.8	107.5	9.2	34.1	4.4	9.7	1.1	6.3	1.0	133.3	1.24	107.5	7.8
	144.0	145.0	2,041	4,668	532	1,948	229	46.8	89.8	7.2	26.3	3.5	7.6	0.9	5.0	0.7	105.4	0.97	89.1	6.7
	145.0	146.0	2,187	5,061	593	2,187	267	58.1	117.6	11.2	44.1	6.1	13.7	1.5	7.4	1.0	174.0	1.07	112	9.2
	146.0	147.0	2,428	5,380	614	2,239	270	57.9	117.0	10.5	42.4	5.7	11.9	1.3	7.5	1.1	166.4	1.14	124.5	8.6
	147.0	148.0	1,654	3,587	401	1,476	197	47.6	104.0	11.4	48.0	6.6	15.1	1.6	10.6	1.4	205.7	0.78	92	11.4
	148.0	149.0	1,906	3,931	433	1,534	190	41.0	84.1	8.1	30.9	4.2	9.8	1.1	7.5	1.2	127.0	0.83	79.3	11.3
	149.0	150.0	1,859	4,005	441	1,580	183	40.3	79.1	7.4	29.3	4.2	9.8	1.2	7.2	1.1	129.5	0.84	74.1	6.4
	150.0	151.0	1,794	3,919	437	1,598	190	40.5	78.2	6.7	25.1	3.3	7.3	0.8	4.8	0.7	97.8	0.82	89.9	4.1
	151.0	152.0	1,618	3,440	376	1,376	174	39.6	84.6	8.8	38.7	5.7	14.0	1.5	8.2	1.1	184.1	0.74	79.5	7
	152.0	153.0	1,824	3,894	440	1,615	205	44.4	87.7	7.9	29.3	4.0	9.5	0.9	5.6	0.8	119.4	0.83	89.7	7.2
	153.0	154.0	2,557	5,356	590	2,088	230	45.6	88.5	6.7	22.6	2.7	6.1	0.6	4.4	0.6	80.0	1.11	84.3	5.4
	154.0	155.0	5,747	10,896	1,087	3,359	261	46.8	82.4	6.4	19.7	1.8	3.1	0.3	1.6	0.3	47.0	2.16	63.3	2.7
	155.0	156.0	4,937	10,048	1,023	3,208	235	39.5	65.7	4.9	15.0	1.5	2.2	0.2	1.1	0.1	35.6	1.96	45.7	0.8
	156.0	157.0	2,557	5,319	553	1,779	139	24.3	43.2	3.6	11.5	1.2	1.9	0.2	0.9	0.1	30.5	1.05	33	0.8
	157.0	158.0	4,152	9,066	967	3,103	235	40.8	70.5	5.8	19.1	2.2	4.1	0.5	4.0	0.7	58.4	1.77	52.5	2.5
	158.0	159.0	3,084	6,732	721	2,333	178	31.5	54.5	4.1	12.9	1.3	2.4	0.2	1.3	0.2	31.8	1.32	41.7	1
	159.0	160.0	3,319	7,149	762	2,461	183	32.5	53.7	4.0	11.5	1.2	2.1	0.2	0.8	0.2	27.9	1.40	38.4	0.7
	160.0	161.0	1,548	3,526	375	1,289	97	17.5	32.3	2.4	8.2	0.9	1.6	0.1	0.8	0.2	21.6	0.69	24.6	0.4
	161.0	162.0	5,629	11,154	1,107	3,616	283	48.2	84.1	5.9	16.2	1.5	3.0	0.2	1.8	0.3	39.4	2.20	68.7	2.3
	162.0	163.0	4,328	8,746	892	3,056	266	44.1	74.0	5.1	14.4	1.5	2.2	0.2	1.6	0.3	33.0	1.75	48.8	4.6
	163.0	164.0	5,454	10,798	1,099	3,663	286	47.9	83.0	6.0	17.1	1.7	2.1	0.2	1.3	0.2	34.3	2.15	66.1	4.4
	164.0	165.0	4,257	8,906	903	3,079	239	39.8	64.2	4.6	12.7	1.2	1.9	0.2	0.8	0.1	26.7	1.75	46.8	5.6
	165.0	166.0	3,436	7,493	750	2,578	212	36.5	63.3	4.8	13.1	1.5	2.7	0.3	1.6	0.4	36.8	1.46	51.6	5.4
	166.0	167.0	5,993	10,970	1,055	3,441	282	47.1	79.3	5.3	14.5	1.4	2.4	0.2	1.3	0.2	33.0	2.19	53.3	5.1
	167.0	168.0	3,460	6,904	704	2,292	189	32.2	55.3	3.9	11.1	1.2	1.7	0.2	0.9	0.2	26.7	1.37	37	9.4
<b>KGKRC032</b>	0.0	1.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1.0	2.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2.0	3.0	3,225	5,417	493	1,429	101	18.1	35.2	3.4	11.7	1.5	2.7	0.3	1.7	0.2	40.6	1.08	22.9	8.1
	3.0	4.0	3,565	5,823	516	1,452	98	17.4	30.5	2.4	8.4	1.0	1.8	0.2	0.9	0.1	26.7	1.15	22.2	9.7

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	4.0	5.0	7,224	11,289	948	2,589	144	23.3	41.0	3.2	9.9	1.3	1.9	0.2	1.1	0.2	31.8	2.23	26.5	9.5
	5.0	6.0	5,020	8,120	712	1,977	125	20.8	36.8	2.5	8.2	1.0	1.8	0.2	1.3	0.1	24.1	1.60	30.7	16.4
	6.0	7.0	3,683	6,056	534	1,499	93	15.5	28.5	2.3	7.9	1.0	2.1	0.2	1.3	0.2	26.7	1.19	22	9.6
	7.0	8.0	4,023	6,744	591	1,668	114	21.3	40.7	3.4	11.5	1.4	2.4	0.2	1.3	0.2	34.3	1.33	30.3	6.1
	8.0	9.0	2,105	3,624	326	952	72	13.2	24.3	2.2	8.6	1.2	2.5	0.3	1.7	0.2	31.8	0.72	24.6	14.8
	9.0	10.0	2,199	3,464	296	826	57	10.3	19.6	1.8	7.5	1.0	2.5	0.3	1.6	0.2	29.2	0.69	25.7	12.2
	10.0	11.0	6,075	9,925	860	2,426	146	24.6	42.1	3.1	10.0	1.2	1.9	0.2	1.1	0.1	26.7	1.95	32.4	8.4
	11.0	12.0	7,142	11,424	988	2,694	162	26.1	47.4	3.4	10.9	1.4	2.7	0.3	1.8	0.2	36.8	2.25	22.6	7
	12.0	13.0	4,421	7,776	714	2,041	128	20.8	38.0	2.9	10.3	1.6	3.2	0.4	2.6	0.3	43.2	1.52	16.9	8
	13.0	14.0	5,231	9,385	888	2,601	159	24.7	43.9	3.1	9.8	1.1	2.2	0.2	1.3	0.2	27.9	1.84	20.4	10.4
	14.0	15.0	4,081	7,088	650	1,884	122	21.4	37.1	2.8	8.4	1.0	1.9	0.2	1.1	0.1	24.1	1.39	20.7	9.8
	15.0	16.0	3,331	6,191	590	1,738	114	18.2	31.9	2.2	6.2	0.8	1.6	0.2	0.8	0.2	19.1	1.20	13.6	10.7
	16.0	17.0	3,694	7,088	686	2,094	138	22.0	37.1	2.7	8.4	1.0	1.5	0.2	0.8	0.1	21.6	1.38	17.2	8.2
	17.0	18.0	4,034	7,186	671	1,995	135	22.5	39.3	2.9	9.3	1.1	1.7	0.2	1.0	0.1	22.9	1.41	16.4	8.8
	18.0	19.0	2,944	6,068	633	2,053	151	24.9	40.6	2.7	7.2	0.8	1.4	0.2	0.8	0.1	19.1	1.19	20.2	9.6
	19.0	20.0	3,049	6,031	597	1,860	124	18.8	30.3	1.9	5.4	0.7	1.4	0.2	0.8	0.1	15.2	1.17	10.8	9.4
	20.0	21.0	2,522	4,692	457	1,376	92	14.6	25.9	1.8	5.3	0.7	1.4	0.2	1.0	0.1	16.5	0.92	7.9	5.1
	21.0	22.0	4,961	8,820	822	2,414	162	26.5	47.6	3.4	10.3	1.3	2.4	0.2	1.0	0.2	31.8	1.73	19.2	6.1
	22.0	23.0	9,394	16,276	1,516	4,199	299	52.5	98.4	7.8	24.3	2.7	3.8	0.3	1.5	0.2	61.0	3.19	65.4	4.7
	23.0	24.0	7,553	13,512	1,341	3,721	239	40.3	69.3	5.0	14.7	1.7	2.7	0.2	1.5	0.1	36.8	2.65	28.7	6.8
	24.0	25.0	3,507	6,719	654	1,977	130	20.2	34.9	2.4	7.9	0.9	1.4	0.2	0.9	0.2	21.6	1.31	13.8	7.4
	25.0	26.0	3,718	7,493	716	2,146	144	23.3	40.8	3.3	10.2	1.2	1.9	0.2	0.8	0.1	27.9	1.43	24.5	7.4
	26.0	27.0	4,550	8,808	832	2,461	160	24.8	41.2	2.9	7.8	1.0	1.5	0.2	0.9	0.1	22.9	1.69	16.6	8.1
	27.0	28.0	2,826	5,233	492	1,446	99	16.4	30.5	2.3	8.4	1.2	2.3	0.2	1.3	0.2	26.7	1.02	16.6	14.8
	28.0	29.0	3,507	6,842	636	1,872	127	20.2	35.2	2.6	8.5	1.0	1.8	0.2	1.1	0.1	22.9	1.31	16.1	12.1
	29.0	30.0	4,070	8,107	768	2,292	148	24.4	41.4	3.3	9.6	1.1	1.9	0.2	1.1	0.1	25.4	1.55	19.8	8.4
	30.0	31.0	8,620	14,679	1,287	3,639	239	38.4	69.4	4.9	16.1	1.7	2.5	0.2	1.4	0.2	40.6	2.86	37.5	7.1
	31.0	32.0	6,063	10,920	974	2,834	209	36.6	72.6	6.2	22.0	2.5	4.1	0.4	1.9	0.3	59.7	2.12	51.4	4.9
	32.0	33.0	6,368	11,608	1,046	3,021	212	36.2	69.3	5.7	18.6	2.1	3.2	0.3	1.5	0.2	44.5	2.24	44.3	5.3
	33.0	34.0	4,797	9,508	906	2,741	187	29.4	50.4	3.7	10.9	1.2	2.3	0.2	1.0	0.1	27.9	1.83	27.6	8
	34.0	35.0	3,905	7,997	784	2,449	186	30.9	53.4	3.6	10.4	1.1	1.8	0.2	1.0	0.2	25.4	1.54	27.4	6.6
	35.0	36.0	3,706	7,137	669	1,977	135	21.5	37.2	2.6	8.0	0.9	1.6	0.2	0.9	0.1	20.3	1.37	17	7.5
	36.0	37.0	2,756	5,184	497	1,458	93	14.9	26.3	1.9	5.4	0.6	1.3	0.1	0.8	0.1	15.2	1.01	10.8	8.9
	37.0	38.0	7,084	12,653	1,124	3,243	237	41.6	79.9	6.6	22.3	2.1	3.9	0.3	1.5	0.2	53.3	2.46	50.7	5.9
	38.0	39.0	4,668	8,746	791	2,286	158	27.9	51.4	4.1	13.9	1.5	2.5	0.2	1.3	0.1	34.3	1.68	26	5.7
	39.0	40.0	2,568	5,208	528	1,615	111	17.1	30.2	2.1	6.8	0.8	1.5	0.1	0.8	0.1	17.8	1.01	14	9.1
	40.0	41.0	2,486	5,061	516	1,592	113	18.0	32.4	2.2	6.9	0.7	1.5	0.1	0.9	0.2	17.8	0.98	16.6	9
	41.0	42.0	2,199	4,557	474	1,493	111	17.5	30.7	2.1	6.4	0.8	1.4	0.2	0.9	0.1	17.8	0.89	16.2	9.5
	42.0	43.0	2,909	6,351	637	1,960	140	21.7	37.6	2.4	6.3	0.7	1.4	0.1	0.6	0.1	15.2	1.21	14.7	7.9
	43.0	44.0	3,952	8,832	911	2,939	228	36.4	60.5	3.8	10.0	1.0	1.5	0.2	0.8	0.1	20.3	1.70	30.6	6.5
	44.0	45.0	3,823	8,685	924	3,021	239	37.8	63.3	4.1	11.7	1.2	2.1	0.2	1.0	0.1	26.7	1.68	33.8	4.9
	45.0	46.0	4,715	10,257	1,041	3,278	242	40.1	67.9	4.6	13.2	1.5	2.2	0.2	1.0	0.2	31.8	1.97	38.5	6.7
	46.0	47.0	3,249	7,518	793	2,589	206	32.7	55.0	3.4	9.4	1.0	1.6	0.2	0.9	0.1	20.3	1.45	24.3	6.3
	47.0	48.0	3,765	8,390	863	2,764	215	34.0	58.0	3.6	10.6	1.1	1.8	0.2	1.0	0.1	24.1	1.61	29.8	5.3
	48.0	49.0	2,756	6,302	656	2,105	161	25.2	41.0	2.4	7.4	0.8	1.4	0.2	0.9	0.1	17.8	1.21	19.4	8.1
	49.0	50.0	4,762	10,097	1,008	3,184	233	38.8	64.1	4.3	12.2	1.2	2.2	0.2	1.1	0.2	26.7	1.94	34.7	4.1

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	50.0	51.0	4,644	10,245	1,055	3,383	252	38.9	63.7	4.0	10.9	1.1	1.7	0.2	0.8	0.1	22.9	1.97	29.9	6
	51.0	52.0	6,462	12,714	1,208	3,639	260	44.9	82.2	6.7	22.2	2.5	4.2	0.4	2.5	0.3	59.7	2.45	57.5	4.5
	52.0	53.0	15,716	27,148	2,404	6,928	492	83.6	155.6	11.7	39.6	4.5	8.4	0.9	5.4	0.6	132.1	5.31	95.8	4.3
	53.0	54.0	8,362	14,986	1,359	4,036	293	50.4	93.7	7.4	24.7	2.8	5.7	0.6	3.2	0.4	82.5	2.93	57.6	6.1
	54.0	55.0	2,674	5,528	571	1,825	166	31.7	66.6	6.7	28.9	4.7	11.8	1.4	8.1	1.2	141.0	1.11	35	10.1
	55.0	56.0	13,018	25,305	2,441	7,278	533	96.7	171.2	13.8	46.0	5.1	8.9	1.0	4.9	0.7	139.7	4.91	123	5.2
	56.0	57.0	12,256	24,015	2,374	7,092	480	84.0	145.8	11.8	40.1	5.1	9.4	0.9	4.8	0.7	129.5	4.66	75.7	3.9
	57.0	58.0	12,784	24,138	2,356	7,080	514	94.6	171.7	13.4	43.2	5.0	9.0	0.8	4.8	0.7	130.8	4.73	103	5.3
	58.0	59.0	7,647	16,153	1,673	5,260	397	69.1	119.3	7.9	23.8	2.8	4.9	0.5	3.2	0.4	67.3	3.14	66.1	4.5
	59.0	60.0	7,799	15,662	1,571	4,864	356	63.9	110.8	8.0	26.2	3.2	6.3	0.7	3.6	0.6	88.9	3.06	71.6	4.1
	60.0	61.0	8,737	16,706	1,619	4,794	336	60.9	110.7	8.4	29.4	3.6	7.4	0.8	4.0	0.5	106.7	3.25	81.4	5.4
	61.0	62.0	3,988	8,464	884	2,811	227	41.8	78.0	6.5	20.7	2.5	5.5	0.7	5.0	0.8	73.7	1.66	59.7	7.6
	62.0	63.0	4,691	10,822	1,179	3,837	314	58.5	99.8	7.1	22.3	2.5	5.6	0.6	3.1	0.4	73.7	2.11	95.7	5.9
	63.0	64.0	4,363	9,471	996	3,173	249	43.8	72.7	5.2	14.8	1.6	2.9	0.2	1.7	0.2	36.8	1.84	44.4	6.5
	64.0	65.0	2,991	6,609	708	2,280	183	30.3	52.4	3.4	9.9	1.1	1.6	0.2	1.0	0.1	21.6	1.29	27.6	5.4
	65.0	66.0	3,636	7,849	819	2,648	212	39.5	70.7	4.9	14.6	1.8	3.2	0.4	2.1	0.4	40.6	1.53	40.4	6.2
	66.0	67.0	2,721	6,117	669	2,216	180	32.2	53.4	3.6	10.7	1.0	2.2	0.2	1.3	0.2	24.1	1.20	29.7	9.3
	67.0	68.0	3,178	7,026	760	2,484	208	37.8	63.6	4.1	11.0	1.3	2.1	0.2	0.9	0.1	24.1	1.38	34.4	5.9
	68.0	69.0	2,873	6,363	683	2,199	176	30.3	49.5	3.6	10.0	1.2	1.9	0.2	1.1	0.2	22.9	1.24	32.4	7.2
	69.0	70.0	4,421	9,704	1,021	3,219	238	40.3	66.2	4.3	11.6	1.3	2.4	0.2	1.7	0.2	31.8	1.88	35.5	4.4
	70.0	71.0	4,668	9,397	944	2,893	220	40.3	70.1	5.3	15.6	1.8	3.3	0.3	2.1	0.3	45.7	1.83	44.1	6.2
	71.0	72.0	2,920	6,216	650	2,070	156	27.7	47.5	3.2	9.4	1.0	1.8	0.2	1.3	0.2	24.1	1.21	23.4	8.4
	72.0	73.0	4,339	8,844	890	2,788	229	43.3	79.4	6.2	21.1	2.7	6.0	0.7	3.5	0.5	74.9	1.73	50.6	6.6
	73.0	74.0	2,281	4,828	511	1,627	143	28.1	53.9	4.7	17.2	2.5	5.4	0.7	3.3	0.5	59.7	0.96	33.1	7.3
	74.0	75.0	2,176	4,607	489	1,598	141	28.5	53.0	4.2	14.7	2.1	4.2	0.4	2.6	0.4	52.1	0.92	40.1	5
	75.0	76.0	2,070	4,545	498	1,639	148	30.7	60.9	4.9	19.3	2.6	5.8	0.6	3.4	0.5	67.3	0.91	36.8	9.3
	76.0	77.0	1,169	2,666	303	1,050	109	23.6	50.6	4.9	19.3	2.9	6.6	0.7	3.8	0.5	76.2	0.55	29.6	8.8
	77.0	78.0	1,302	2,948	333	1,156	119	26.1	53.4	5.2	20.7	3.1	6.6	0.7	4.0	0.6	78.7	0.61	35.1	8.7
	78.0	79.0	1,747	3,759	411	1,400	144	30.7	62.8	5.9	22.7	3.2	6.4	0.7	4.3	0.5	81.3	0.77	37.5	8.6
	79.0	80.0	1,226	2,764	309	1,072	108	23.7	48.5	4.5	18.9	2.8	5.7	0.6	3.2	0.4	68.6	0.57	27.5	8.5
	80.0	81.0	1,127	2,506	282	962	101	23.6	50.7	5.0	21.8	3.1	6.8	0.7	4.2	0.4	77.5	0.52	25.7	10.4
	81.0	82.0	1,618	3,636	407	1,376	130	27.4	53.5	4.9	18.5	2.6	5.8	0.6	3.1	0.5	67.3	0.74	33.2	6.7
	82.0	83.0	1,624	3,808	433	1,458	122	22.2	38.2	2.6	7.8	1.0	1.9	0.2	1.4	0.2	22.9	0.75	30.2	18.5
	83.0	84.0	1,366	3,108	358	1,231	125	27.7	58.3	5.5	23.1	3.4	7.6	0.8	4.4	0.6	87.6	0.64	32.9	9.4
	84.0	85.0	975	2,168	244	855	92	20.4	44.6	4.4	19.4	2.9	6.5	0.6	3.4	0.6	78.7	0.45	26.5	8.7
	85.0	86.0	963	2,174	248	871	95	21.7	44.7	4.5	18.9	2.9	6.3	0.7	4.0	0.4	78.7	0.45	36	8
	86.0	87.0	1,101	2,580	300	1,040	116	24.0	50.8	5.1	20.4	3.0	7.0	0.7	4.1	0.5	86.4	0.53	41.8	4.9
	87.0	88.0	1,513	3,538	401	1,382	135	25.9	50.3	4.1	15.5	2.2	4.8	0.5	2.9	0.4	58.4	0.71	42.2	3.8
	88.0	89.0	1,010	2,316	266	924	100	22.0	47.3	4.7	19.7	2.9	6.4	0.7	3.6	0.5	80.0	0.48	39.1	6.7
	89.0	90.0	1,531	3,378	370	1,271	128	25.8	54.4	5.1	21.8	2.9	6.5	0.8	4.3	0.4	82.5	0.69	36.7	6.9
	90.0	91.0	2,076	4,496	494	1,645	155	29.4	60.5	5.1	20.7	3.1	6.5	0.6	4.0	0.5	82.5	0.91	40.1	5.2
	91.0	92.0	1,865	4,115	454	1,557	156	30.8	61.6	5.3	21.7	3.0	6.5	0.8	4.4	0.4	85.1	0.84	47.5	4.3
	92.0	93.0	5,653	12,898	1,420	4,712	401	65.8	111.5	7.0	20.8	2.3	3.8	0.4	2.4	0.3	50.8	2.53	68.1	5.1
	93.0	94.0	3,612	8,255	915	3,138	296	52.0	96.1	6.7	23.8	2.9	6.2	0.6	3.3	0.5	72.4	1.65	54.7	4.4
	94.0	95.0	1,325	3,071	355	1,289	138	28.3	57.3	5.1	21.4	2.9	6.9	0.7	3.8	0.5	85.1	0.64	33.1	5.1
	95.0	96.0	1,133	2,518	283	961	109	23.2	49.0	4.9	20.8	3.1	7.1	0.7	4.6	0.5	87.6	0.52	26.9	3.6

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	96.0	97.0	1,017	2,199	240	844	93	19.1	42.2	4.1	17.0	2.7	5.7	0.6	3.3	0.4	72.4	0.46	19.8	2.8
	97.0	98.0	1,278	2,702	297	1,007	102	21.4	47.6	4.5	18.9	2.7	5.7	0.7	3.5	0.4	72.4	0.56	24	4.2
	98.0	99.0	1,630	3,882	452	1,580	162	32.0	65.1	5.9	23.5	3.3	7.0	0.8	4.0	0.6	86.4	0.79	45.4	12.9
	99.0	100.0	1,583	3,562	406	1,382	140	28.1	57.4	5.2	20.9	2.9	6.8	0.7	3.8	0.6	78.7	0.73	39.2	6.2
	100.0	101.0	1,466	3,403	388	1,347	143	28.0	56.7	5.2	19.7	2.8	6.0	0.7	3.3	0.4	76.2	0.69	38	5.3
	101.0	102.0	1,554	3,636	419	1,458	151	30.6	61.4	5.5	22.4	3.1	6.6	0.7	3.8	0.5	83.8	0.74	40.9	3.5
	102.0	103.0	1,302	2,825	312	1,063	114	24.7	51.3	4.8	20.9	3.1	7.0	0.8	3.8	0.5	83.8	0.58	31.6	4.2
	103.0	104.0	1,360	3,169	364	1,277	137	27.7	56.1	5.2	21.5	3.1	6.4	0.7	3.9	0.5	83.8	0.65	37.2	4.5
	104.0	105.0	1,155	2,555	286	981	107	23.3	48.9	4.8	20.4	3.0	6.4	0.7	3.9	0.5	86.4	0.53	32.8	4.6
	105.0	106.0	1,296	2,850	323	1,124	121	25.6	52.0	4.9	20.2	2.7	6.0	0.7	4.2	0.5	77.5	0.59	27.6	6.9
	106.0	107.0	1,501	3,476	399	1,394	147	29.3	58.7	5.0	19.3	2.7	5.7	0.7	3.6	0.5	73.7	0.71	39.5	6.3
	107.0	108.0	1,454	3,304	371	1,289	138	27.7	56.1	5.0	19.7	2.8	6.4	0.7	3.9	0.5	78.7	0.68	35.9	6.5
	108.0	109.0	1,560	3,759	431	1,510	153	30.3	58.6	5.3	19.5	2.7	5.6	0.7	4.0	0.4	74.9	0.76	38.5	7.1
	109.0	110.0	1,566	3,673	426	1,510	171	34.4	72.6	6.7	27.5	4.4	10.3	1.1	6.2	0.8	119.4	0.76	41.5	8
	110.0	111.0	1,519	3,526	396	1,365	137	27.6	56.6	5.1	20.1	2.9	6.5	0.7	3.5	0.5	81.3	0.71	34.1	4.8
	111.0	112.0	1,390	3,182	361	1,242	129	25.9	53.4	4.5	19.9	2.7	6.2	0.7	3.5	0.4	77.5	0.65	36.9	4.5
	112.0	113.0	1,208	2,641	294	1,014	112	23.7	50.9	4.9	20.1	3.0	6.5	0.7	4.3	0.5	82.5	0.55	31	3.5
	113.0	114.0	1,249	2,702	297	1,015	112	23.4	51.6	5.2	23.0	3.2	6.9	0.8	4.2	0.5	91.4	0.56	33.9	3.3
	114.0	115.0	1,618	3,476	399	1,341	139	27.1	54.4	5.1	20.7	2.8	6.5	0.7	3.8	0.5	76.2	0.72	32.4	5.7
	115.0	116.0	1,689	3,280	425	1,458	189	29.3	134.3	20.1	115.3	21.5	57.2	7.3	41.6	5.5	737.8	0.82	44.2	8.3
	116.0	117.0	1,630	3,538	410	1,382	142	28.4	59.9	5.4	21.6	2.9	6.5	0.7	4.4	0.6	82.5	0.73	37.2	7.4
	117.0	118.0	1,454	3,169	377	1,306	146	28.6	60.9	6.0	24.9	3.6	8.6	0.9	5.2	0.6	104.1	0.67	41.8	6.7
	118.0	119.0	1,507	3,317	393	1,353	146	28.7	60.5	5.5	22.8	3.5	7.7	0.9	5.0	0.6	94.0	0.69	40.3	4.3
	119.0	120.0	1,454	3,194	387	1,388	165	35.1	78.6	8.2	34.4	5.0	10.4	1.1	6.7	0.8	141.0	0.69	54.8	7
	120.0	121.0	1,548	3,390	394	1,365	141	27.4	57.3	5.5	22.6	3.2	7.0	0.7	4.2	0.5	87.6	0.71	37.6	4.2
	121.0	122.0	1,618	3,648	434	1,493	151	29.0	58.2	5.3	20.5	2.9	6.6	0.7	3.8	0.4	80.0	0.76	36	4.4
	122.0	123.0	1,425	3,083	366	1,260	140	27.8	57.5	5.6	22.8	3.5	7.2	0.8	4.3	0.5	90.2	0.65	37.4	4.8
	123.0	124.0	1,495	3,280	384	1,312	142	27.6	62.0	5.9	23.0	3.3	6.9	0.7	4.3	0.6	90.2	0.68	38.6	3.6
	124.0	125.0	1,402	2,936	338	1,142	121	24.4	52.7	5.1	21.1	3.0	6.4	0.7	4.3	0.6	83.8	0.61	29.3	3.2
	125.0	126.0	1,349	2,788	325	1,116	126	26.6	56.7	5.4	22.6	3.3	6.8	0.8	4.8	0.6	88.9	0.59	36	4.6
	126.0	127.0	1,531	3,354	391	1,336	143	29.1	58.9	5.5	22.3	3.3	7.4	0.9	4.8	0.6	91.4	0.70	39	4.5
	127.0	128.0	1,583	3,673	445	1,551	165	30.8	62.4	5.1	19.5	2.6	5.6	0.5	3.3	0.4	67.3	0.76	34.6	7
	128.0	129.0	2,475	5,380	610	2,041	206	38.4	74.1	5.4	18.8	2.3	4.4	0.5	2.6	0.3	58.4	1.09	49.4	5.2
	129.0	130.0	2,152	4,717	551	1,901	198	40.0	78.6	6.8	25.5	3.5	7.0	0.7	4.9	0.7	94.0	0.98	62.3	6.5
	130.0	131.0	2,264	4,766	535	1,790	173	33.9	69.6	6.0	23.5	3.2	7.2	0.8	4.7	0.7	88.9	0.98	46.6	6.4
	131.0	132.0	2,047	4,213	475	1,569	167	33.2	69.9	6.1	21.8	3.0	6.2	0.7	3.3	0.5	78.7	0.87	42.2	4.9
	132.0	133.0	1,343	2,850	330	1,117	117	24.8	52.3	5.2	21.7	3.2	7.3	0.8	4.4	0.5	88.9	0.60	28.5	3.4
	133.0	134.0	1,419	3,120	366	1,271	137	28.3	60.4	5.7	23.9	3.6	8.1	0.9	4.9	0.6	95.2	0.65	35.8	5.7
	134.0	135.0	1,531	3,317	384	1,312	139	28.1	61.3	5.6	23.6	3.5	7.2	0.8	4.0	0.6	94.0	0.69	35.6	3.2
	135.0	136.0	1,325	2,764	321	1,105	119	25.2	55.7	5.1	20.9	3.2	6.6	0.7	4.4	0.6	88.9	0.58	31.4	3.8
	136.0	137.0	1,185	2,543	301	1,084	125	26.5	58.1	5.9	25.7	3.9	7.9	0.9	4.8	0.7	99.1	0.55	44.7	5.8
	137.0	138.0	1,226	2,592	304	1,060	121	25.0	53.8	5.5	22.6	3.2	7.4	0.8	5.0	0.6	94.0	0.55	37.6	4.6
	138.0	139.0	1,190	2,592	311	1,106	126	26.8	58.3	5.4	24.2	3.2	7.0	0.9	4.7	0.5	86.4	0.55	39.6	6.2
	139.0	140.0	1,390	2,997	344	1,190	124	25.7	52.1	5.0	22.2	3.4	6.9	0.7	4.2	0.5	90.2	0.63	38.1	6.4
	140.0	141.0	2,486	5,258	611	2,123	215	42.6	83.1	6.7	24.3	2.9	6.2	0.7	4.2	0.5	82.5	1.09	79.4	6.4
	141.0	142.0	1,319	2,887	341	1,184	124	24.6	52.8	4.8	20.2	2.9	6.0	0.7	3.3	0.4	71.1	0.60	29.3	5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	142.0	143.0	1,278	2,629	297	1,011	112	22.6	49.8	4.8	20.5	2.9	6.6	0.7	3.5	0.4	80.0	0.55	24.6	4.2
	143.0	144.0	1,531	3,268	377	1,266	130	27.2	57.1	5.5	23.0	3.6	7.6	0.9	4.4	0.6	96.5	0.68	30.2	5.9
	144.0	145.0	1,888	4,299	483	1,633	165	32.7	68.4	6.4	25.0	4.1	8.8	1.0	5.5	0.8	102.9	0.87	36.7	6.7
	145.0	146.0	2,064	4,729	544	1,907	190	34.9	68.1	5.5	19.2	2.6	5.6	0.6	3.4	0.4	67.3	0.96	38.7	7.7
	146.0	147.0	5,371	10,785	1,161	4,047	438	79.8	138.3	8.7	23.1	2.4	3.8	0.4	1.6	0.2	52.1	2.21	79.5	7.1
	147.0	148.0	1,824	4,029	451	1,557	159	31.8	64.0	5.9	22.8	3.3	6.6	0.7	3.9	0.4	86.4	0.82	34.7	6.6
	148.0	149.0	1,220	2,616	291	1,009	106	23.0	49.3	5.2	21.9	3.1	6.3	0.8	4.1	0.5	83.8	0.54	25.5	7
	149.0	150.0	1,109	2,383	263	924	96	20.0	47.4	4.6	18.7	2.9	6.3	0.6	3.9	0.4	78.7	0.50	23.9	6.7
	150.0	151.0	1,046	2,254	253	878	96	20.3	42.8	4.4	19.1	2.9	6.1	0.7	3.6	0.4	74.9	0.47	21.9	7
	151.0	152.0	1,051	2,340	267	937	107	23.3	49.1	4.6	19.3	3.0	6.5	0.7	3.6	0.4	77.5	0.49	28.3	4.9
	152.0	153.0	1,097	2,469	285	995	111	22.5	49.8	4.8	21.4	3.0	6.1	0.7	4.0	0.4	83.8	0.52	26.7	5.7
	153.0	154.0	873	1,953	227	833	97	19.2	42.3	4.3	17.2	2.6	5.7	0.6	3.6	0.5	69.8	0.41	27.4	5.9
	154.0	155.0	1,724	3,992	453	1,545	144	26.8	49.6	4.5	16.9	2.5	5.2	0.6	3.4	0.4	64.8	0.80	35.1	6.5
	155.0	156.0	2,545	5,835	668	2,344	227	38.4	66.6	4.3	13.8	1.6	3.1	0.4	1.9	0.3	41.9	1.18	34.8	4.1
	156.0	157.0	1,507	3,255	359	1,213	125	24.7	52.0	5.1	20.2	3.0	6.3	0.7	3.6	0.5	82.5	0.67	25.6	4.7
	157.0	158.0	1,396	2,924	329	1,152	133	26.5	54.3	5.3	21.5	3.2	6.4	0.7	4.0	0.5	85.1	0.61	40	5.2
	158.0	159.0	2,357	5,540	644	2,286	222	39.6	68.6	4.7	15.0	1.8	3.2	0.3	2.3	0.3	43.2	1.12	46.1	6.6
	159.0	160.0	2,199	5,196	604	2,111	210	39.7	76.9	6.4	25.0	3.4	7.6	0.8	5.0	0.6	86.4	1.06	49.8	8.8
	160.0	161.0	2,791	6,351	724	2,484	237	44.0	79.8	6.0	21.0	2.7	5.4	0.6	3.5	0.4	63.5	1.28	53	7
	161.0	162.0	2,522	5,614	629	2,170	215	37.9	72.2	5.7	19.5	2.6	5.0	0.6	3.5	0.4	66.0	1.14	44.5	9.8
	162.0	163.0	1,396	3,071	343	1,172	118	23.7	49.1	4.5	19.1	2.9	6.5	0.7	4.0	0.5	76.2	0.63	30.6	6.4
	163.0	164.0	1,337	2,887	325	1,106	117	24.1	49.6	5.0	20.5	3.1	6.3	0.8	4.1	0.6	81.3	0.60	27.6	7
	164.0	165.0	1,425	3,157	350	1,190	122	24.2	50.6	4.8	19.6	3.1	6.3	0.6	3.8	0.5	81.3	0.64	28.2	6.5
	165.0	166.0	1,135	2,506	282	977	105	21.2	46.3	4.5	18.7	2.7	6.4	0.7	3.4	0.4	77.5	0.52	25.9	8.6
	166.0	167.0	1,308	2,788	309	1,075	113	24.6	54.4	5.3	24.1	3.6	8.1	0.9	4.7	0.6	97.8	0.58	31.6	6.8
	167.0	168.0	1,959	4,422	488	1,662	157	30.3	63.6	5.8	23.5	3.4	7.1	0.8	4.6	0.6	91.4	0.89	34.8	5.1
	168.0	169.0	1,115	2,451	272	937	108	22.7	49.0	5.0	22.4	3.3	7.6	0.8	4.9	0.6	90.2	0.51	31.1	4.5
	169.0	170.0	1,237	2,702	301	1,031	117	24.7	54.1	5.4	23.1	3.5	8.0	0.8	4.7	0.7	95.2	0.56	30.8	5.7
	170.0	171.0	1,466	3,218	358	1,213	124	24.1	46.8	4.4	16.9	2.4	4.5	0.5	3.2	0.4	62.2	0.65	30.4	6.4
	171.0	172.0	1,513	3,218	350	1,196	128	25.8	56.7	6.4	29.5	4.4	10.3	1.2	7.3	1.1	134.6	0.67	52.2	6.5
	172.0	173.0	1,513	3,108	329	1,102	113	22.7	51.4	5.7	24.6	3.5	7.7	0.9	5.8	0.7	99.1	0.64	36.7	5.1
	173.0	174.0	1,319	2,739	314	1,057	115	24.8	54.4	5.4	24.3	3.4	7.1	0.8	4.4	0.6	94.0	0.58	31.3	6.4
	174.0	175.0	1,701	3,734	431	1,423	135	25.7	53.3	4.9	17.5	2.5	5.2	0.6	3.1	0.4	67.3	0.76	27.7	5.9
	175.0	176.0	2,733	5,958	689	2,251	214	40.1	78.6	6.7	25.3	3.2	6.5	0.8	4.4	0.6	82.5	1.21	61	6.4
	176.0	177.0	1,560	3,599	436	1,481	155	30.3	64.9	5.9	25.0	3.6	7.7	0.9	4.4	0.6	94.0	0.75	40.1	7
	177.0	178.0	1,153	2,457	285	948	100	20.6	46.3	4.4	19.6	2.9	6.1	0.7	3.8	0.5	78.7	0.51	23.7	21.5
	178.0	179.0	828	1,787	208	705	78	15.6	36.7	3.8	16.8	2.4	5.3	0.6	2.9	0.3	63.5	0.38	17.6	8
	179.0	180.0	1,331	2,715	307	1,002	107	22.7	52.0	5.3	24.0	3.5	8.0	0.9	5.1	0.6	96.5	0.57	36.6	8.1
	180.0	181.0	4,808	9,569	1,004	3,044	252	46.6	89.3	7.2	25.9	3.2	6.1	0.6	3.3	0.5	78.7	1.89	67.1	4.8
<b>KGKRC033</b>	0.0	1.0	8,339	16,092	1,655	5,016	404	70.9	127.4	8.6	25.9	2.6	4.0	0.3	2.1	0.2	55.9	3.18	89.8	3.4
	1.0	2.0	4,210	8,734	941	2,904	217	36.9	63.7	4.3	13.1	1.5	2.3	0.2	0.9	0.2	33.0	1.72	38.8	5.5
	2.0	3.0	2,580	5,172	551	1,668	122	21.0	36.8	2.5	7.4	0.9	1.6	0.2	0.9	0.1	20.3	1.02	21.8	11.7
	3.0	4.0	4,421	8,857	940	2,834	217	37.2	62.8	4.3	13.0	1.2	2.2	0.2	1.3	0.1	30.5	1.74	37.2	4.5
	4.0	5.0	4,691	9,188	942	2,834	210	34.5	58.0	3.4	10.8	1.1	1.8	0.1	0.7	0.1	24.1	1.80	31.2	3.6
	5.0	6.0	5,113	9,962	1,037	3,103	237	39.5	66.5	4.3	13.1	1.5	2.4	0.2	0.9	0.1	30.5	1.96	41.8	3.8
	6.0	7.0	4,902	9,790	1,022	3,079	220	34.5	58.3	3.7	10.9	1.1	1.8	0.2	0.7	0.1	25.4	1.92	32.7	3.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	7.0	8.0	3,741	7,616	812	2,473	176	27.2	45.2	2.7	9.2	0.9	1.4	0.1	0.8	0.1	21.6	1.49	23.7	5
	8.0	9.0	5,289	11,117	1,194	3,663	282	47.7	82.0	5.4	16.0	1.6	2.1	0.3	1.3	0.2	34.3	2.17	48.6	4
	9.0	10.0	4,914	10,220	1,085	3,301	230	36.5	59.6	3.6	10.3	1.1	1.5	0.1	0.8	0.1	21.6	1.99	30.7	4.4
	10.0	11.0	2,557	5,368	588	1,785	132	21.8	37.0	2.3	7.2	0.8	1.4	0.1	0.8	0.1	17.8	1.05	19.4	10.4
	11.0	12.0	1,484	3,157	356	1,134	94	17.1	31.8	2.2	8.8	1.1	2.3	0.2	1.6	0.2	29.2	0.63	18.9	11.7
	12.0	13.0	2,228	4,791	545	1,726	145	25.6	46.8	3.3	10.6	1.1	2.5	0.2	1.3	0.2	29.2	0.96	25.9	11.7
	13.0	14.0	3,190	6,621	716	2,181	173	27.8	49.3	3.3	9.5	1.0	1.6	0.1	0.6	0.1	21.6	1.30	27.1	6.4
	14.0	15.0	3,413	7,051	764	2,356	181	30.6	53.0	3.3	9.8	1.0	1.7	0.2	0.8	0.1	22.9	1.39	27.2	8.5
	15.0	16.0	3,296	6,867	743	2,292	176	30.0	52.7	3.2	9.8	1.0	1.7	0.1	0.8	0.1	19.1	1.35	27.3	10.8
	16.0	17.0	3,237	6,928	765	2,391	192	32.8	59.1	3.9	11.5	1.3	2.2	0.2	1.1	0.1	31.8	1.37	31.7	11.6
	17.0	18.0	2,991	6,498	731	2,321	190	34.4	59.5	4.0	12.6	1.4	2.5	0.3	1.5	0.2	33.0	1.29	33	13.9
	18.0	19.0	3,131	6,609	726	2,222	172	28.8	50.0	3.2	9.6	1.0	1.6	0.2	1.0	0.1	24.1	1.30	26	15.6
	19.0	20.0	2,733	5,835	642	1,989	148	24.9	43.6	2.7	8.4	0.9	1.5	0.1	0.9	0.1	20.3	1.14	23.3	12.5
	20.0	21.0	3,084	6,842	766	2,414	177	27.9	47.5	2.7	8.0	0.8	1.4	0.1	0.6	0.1	19.1	1.34	23.5	6.1
	21.0	22.0	3,073	6,830	766	2,426	188	30.9	54.4	3.4	10.0	1.0	2.2	0.2	0.9	0.1	24.1	1.34	28.3	10
	22.0	23.0	1,695	3,845	423	1,476	157	32.4	69.4	6.8	27.1	4.1	10.0	1.0	6.7	0.9	115.6	0.79	39.3	21.2
	23.0	24.0	1,789	4,078	453	1,575	168	34.3	71.5	6.7	27.1	4.1	10.2	1.1	6.7	0.9	114.3	0.83	48.7	16.4
	24.0	25.0	1,818	4,140	463	1,610	166	34.0	67.0	6.1	24.3	3.5	7.6	0.9	5.1	0.7	95.2	0.84	61.5	14
	25.0	26.0	1,572	3,403	370	1,301	142	30.1	66.6	6.6	27.3	4.1	8.8	1.0	6.0	0.6	110.5	0.70	53.8	13.8
	26.0	27.0	1,601	3,562	391	1,353	143	28.5	60.1	5.6	24.0	3.4	7.6	0.8	4.6	0.6	90.2	0.73	51	14.9
	27.0	28.0	2,105	4,607	495	1,680	163	30.0	60.2	5.3	19.7	2.7	6.0	0.6	3.6	0.5	71.1	0.92	41.1	12.6
	28.0	29.0	1,489	3,366	373	1,341	155	33.0	66.6	6.5	27.4	4.0	8.4	1.0	5.2	0.6	110.5	0.70	51.6	8.2
	29.0	30.0	1,601	3,968	462	1,650	157	28.7	51.9	3.5	12.9	1.6	4.0	0.4	2.3	0.3	47.0	0.80	34.1	7.3
	30.0	31.0	3,120	6,302	673	2,187	172	28.6	46.9	3.1	10.1	1.1	2.2	0.2	1.3	0.2	27.9	1.26	25.4	6.9
	31.0	32.0	7,189	13,328	1,377	4,246	289	45.6	73.2	4.5	12.1	1.2	1.8	0.2	1.0	0.1	24.1	2.66	40.2	5.7
	32.0	33.0	8,679	15,662	1,577	4,782	337	57.9	98.8	6.5	17.7	1.7	2.9	0.3	1.4	0.2	38.1	3.13	62.8	4.4
	33.0	34.0	5,055	9,311	941	2,951	215	35.6	61.9	3.9	11.4	1.2	1.9	0.2	1.0	0.1	25.4	1.86	38	7.2
	34.0	35.0	4,973	9,336	965	3,033	210	33.7	56.7	3.5	10.2	1.1	1.8	0.2	1.0	0.2	22.9	1.86	31.2	6.6
	35.0	36.0	4,515	8,795	922	2,893	204	31.3	50.1	3.0	8.0	0.9	1.5	0.2	0.7	0.1	20.3	1.74	24.6	3.4
	36.0	37.0	5,172	10,073	1,035	3,196	219	34.9	55.1	3.6	9.6	1.1	1.8	0.2	0.9	0.1	22.9	1.98	28.6	6.2
	37.0	38.0	3,366	6,977	743	2,403	175	27.6	44.1	2.8	8.4	0.9	1.5	0.2	0.7	0.1	20.3	1.38	24.4	7.4
	38.0	39.0	4,562	9,164	997	3,219	235	37.3	59.6	3.8	9.5	1.0	1.8	0.2	0.9	0.1	21.6	1.83	29.1	5.5
	39.0	40.0	3,976	8,427	936	3,091	227	33.9	53.9	2.9	7.8	0.9	1.4	0.2	0.7	0.1	17.8	1.68	25.4	3.9
	40.0	41.0	3,870	8,341	917	3,021	217	33.9	53.3	3.1	8.2	0.9	1.5	0.2	0.9	0.1	17.8	1.65	25.7	3.9
	41.0	42.0	4,762	9,839	1,087	3,523	252	39.6	64.1	3.8	10.1	1.1	1.6	0.2	0.8	0.2	21.6	1.96	35	5.1
	42.0	43.0	6,615	13,267	1,420	4,584	351	60.4	101.4	6.6	18.1	1.7	2.5	0.2	1.1	0.2	36.8	2.65	65	3.2
	43.0	44.0	4,961	10,159	1,092	3,534	267	43.9	75.6	4.6	13.3	1.5	2.4	0.2	1.0	0.2	29.2	2.02	46.7	2.9
	44.0	45.0	4,117	8,881	980	3,208	234	37.4	60.6	3.5	10.1	0.9	1.8	0.2	0.9	0.1	22.9	1.76	30.6	3.3
	45.0	46.0	3,776	8,009	889	2,974	223	34.5	54.1	3.1	8.4	1.0	1.6	0.2	0.8	0.1	19.1	1.60	29.4	4.5
	46.0	47.0	4,046	8,574	944	3,068	227	35.7	56.0	3.1	8.5	0.9	1.6	0.1	0.8	0.1	17.8	1.70	25.8	4.6
	47.0	48.0	6,286	12,038	1,269	3,977	270	43.1	68.2	3.9	10.4	1.1	1.9	0.2	0.9	0.2	21.6	2.40	33.3	4.7
	48.0	49.0	4,656	9,729	1,062	3,488	249	38.4	59.5	3.5	9.2	0.9	1.7	0.1	0.8	0.1	19.1	1.93	29.5	4.4
	49.0	50.0	3,753	8,550	864	2,776	202	30.3	48.5	3.0	7.8	0.8	1.4	0.2	0.7	0.1	15.2	1.63	23.2	4.3
	50.0	51.0	4,081	9,139	916	2,951	214	31.4	51.4	3.2	8.8	0.9	1.6	0.3	0.8	0.2	19.1	1.74	26.6	3.9
	51.0	52.0	4,750	10,871	1,106	3,593	262	38.8	63.2	3.7	9.8	1.0	1.7	0.1	0.9	0.1	21.6	2.07	30.7	5.1
	52.0	53.0	5,512	12,898	1,341	4,316	310	47.5	74.3	4.5	12.2	1.2	1.9	0.2	1.0	0.1	24.1	2.45	35	3.7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	53.0	54.0	6,685	14,618	1,444	4,561	319	48.2	78.4	4.7	13.1	1.2	2.1	0.2	0.8	0.1	22.9	2.78	38.5	3
	54.0	55.0	5,137	11,068	1,102	3,453	235	35.8	56.9	3.5	9.4	0.9	1.5	0.2	0.8	0.1	20.3	2.11	26.5	3.4
	55.0	56.0	4,117	8,930	866	2,706	187	28.0	45.5	2.9	7.6	0.8	1.4	0.2	0.7	0.2	16.5	1.69	21.8	2.7
	56.0	57.0	5,090	10,834	1,040	3,196	228	34.6	57.4	3.8	10.7	1.1	1.8	0.2	0.9	0.1	22.9	2.05	30.1	2.3
	57.0	58.0	4,457	10,024	992	3,138	215	31.5	49.9	3.0	7.9	0.9	1.4	0.1	0.7	0.1	16.5	1.89	24	2.9
	58.0	59.0	5,700	12,345	1,185	3,639	248	37.4	60.1	3.7	9.6	0.9	1.5	0.1	0.9	0.1	20.3	2.33	27.1	3.4
	59.0	60.0	5,172	10,994	1,058	3,266	225	33.9	54.2	3.1	9.0	0.9	1.6	0.1	0.7	0.1	20.3	2.08	27	2.6
	60.0	61.0	4,445	9,262	882	2,729	185	27.8	45.8	2.7	8.2	0.7	1.5	0.1	0.8	0.1	17.8	1.76	21.2	1.8
	61.0	62.0	6,016	12,014	1,128	3,453	242	39.3	67.7	4.6	13.4	1.4	2.4	0.2	0.9	0.1	30.5	2.30	35.7	1.7
	62.0	63.0	6,274	13,082	1,238	3,756	253	38.3	63.3	4.0	11.3	1.1	1.7	0.1	0.9	0.1	24.1	2.47	30.2	2.4
	63.0	64.0	4,914	10,159	968	2,963	206	31.3	53.6	3.4	9.3	0.9	1.5	0.1	0.6	0.1	19.1	1.93	24.9	2.2
	64.0	65.0	6,040	12,714	1,214	3,697	253	40.5	67.9	4.5	13.2	1.5	2.5	0.2	1.1	0.2	30.5	2.41	37.3	1.4
	65.0	66.0	5,899	12,235	1,162	3,523	240	36.1	59.9	3.8	10.4	1.1	1.9	0.1	0.7	0.1	24.1	2.32	30.6	3.6
	66.0	67.0	5,090	10,663	1,010	3,103	215	33.7	55.3	3.5	9.1	1.0	1.6	0.2	0.8	0.1	20.3	2.02	25.1	2.3
	67.0	68.0	8,491	18,979	1,927	5,879	419	63.1	103.6	6.0	14.6	1.5	2.3	0.2	1.0	0.1	27.9	3.59	47.6	1.8
	68.0	69.0	9,816	19,163	1,740	5,249	372	59.3	103.6	6.7	19.1	2.0	3.4	0.3	1.4	0.2	43.2	3.66	54.4	1.8
	69.0	70.0	4,996	10,245	974	2,998	209	31.7	52.9	3.4	9.2	0.9	1.8	0.1	0.8	0.1	19.1	1.95	25	4.5
	70.0	71.0	5,160	10,810	1,022	3,114	220	33.5	53.3	3.3	8.7	0.9	1.6	0.2	0.9	0.1	20.3	2.04	25.1	3.8
	71.0	72.0	4,539	9,434	889	2,741	192	29.4	48.4	3.2	8.6	1.0	1.7	0.2	0.9	0.1	19.1	1.79	22.7	2.6
	72.0	73.0	5,841	12,468	1,214	3,779	257	38.1	62.1	3.8	9.5	0.9	1.6	0.2	0.8	0.1	20.3	2.37	26.4	4
	73.0	74.0	5,430	11,191	1,070	3,324	233	35.1	58.2	3.6	9.5	0.9	1.7	0.2	0.8	0.1	22.9	2.14	26.9	1.8
	74.0	75.0	6,791	14,004	1,335	4,094	278	42.8	70.5	4.4	12.4	1.3	2.2	0.2	0.9	0.1	26.7	2.67	35.3	1.8
	75.0	76.0	7,295	15,908	1,547	4,794	326	49.7	82.3	5.5	15.8	1.5	2.2	0.2	0.9	0.1	33.0	3.01	42.9	2.4
	76.0	77.0	5,442	11,264	1,069	3,254	223	33.2	54.4	3.6	9.3	1.0	1.7	0.2	0.9	0.1	21.6	2.14	25.1	1.9
	77.0	78.0	5,254	11,142	1,078	3,301	223	33.8	55.7	3.5	10.1	0.9	1.7	0.2	0.9	0.1	20.3	2.11	25.9	1.7
	78.0	79.0	4,351	9,041	860	2,659	190	29.2	48.5	3.0	8.0	0.9	1.9	0.2	0.8	0.1	20.3	1.72	22.7	4
	79.0	80.0	7,236	15,724	1,649	5,155	358	57.7	90.3	5.3	14.2	1.4	2.2	0.2	0.8	0.1	27.9	3.03	40.5	4.9
	80.0	81.0	4,832	9,704	973	2,928	202	31.4	49.6	3.1	8.3	0.8	1.4	0.2	0.8	0.1	19.1	1.88	22.1	3
	81.0	82.0	5,266	10,527	1,049	3,196	217	33.7	52.3	2.9	8.7	0.9	1.6	0.2	0.9	0.1	19.1	2.04	22	1.7
	82.0	83.0	5,336	10,515	1,058	3,231	224	34.7	53.9	3.4	9.0	1.0	1.5	0.1	0.7	0.1	20.3	2.05	24.8	1.9
	83.0	84.0	6,650	13,697	1,395	4,222	285	45.4	72.2	4.9	14.5	1.6	2.4	0.2	0.9	0.1	35.6	2.64	36.4	2.9
	84.0	85.0	5,993	12,100	1,208	3,674	252	39.7	62.5	3.9	11.7	1.2	2.1	0.2	0.8	0.1	25.4	2.34	28.1	1.6
	85.0	86.0	6,978	13,512	1,317	3,942	256	41.0	64.7	4.1	11.7	1.2	1.9	0.2	0.8	0.1	26.7	2.62	30.4	2.6
	86.0	87.0	8,620	16,461	1,607	4,759	320	50.3	78.6	4.9	13.5	1.3	2.2	0.2	0.9	0.1	29.2	3.19	33	3.9
	87.0	88.0	9,265	18,487	1,849	5,599	366	56.2	87.5	5.0	13.3	1.4	2.1	0.2	0.6	0.1	25.4	3.58	36.4	3
	88.0	89.0	5,970	12,075	1,220	3,744	256	40.3	65.1	4.0	11.1	1.1	2.1	0.2	0.9	0.1	25.4	2.34	29.5	2.4
	89.0	90.0	5,934	12,063	1,220	3,732	257	40.9	66.9	4.2	12.6	1.3	2.2	0.2	1.0	0.1	27.9	2.34	30.5	1.6
	90.0	91.0	4,562	9,029	899	2,764	207	33.7	56.5	3.8	11.5	1.3	2.1	0.2	0.8	0.2	29.2	1.76	31.3	1.2
	91.0	92.0	5,958	12,087	1,207	3,697	253	40.1	62.7	3.8	10.1	1.1	1.5	0.2	0.7	0.2	22.9	2.33	28.4	1.8
	92.0	93.0	5,266	10,577	1,061	3,254	228	37.4	59.4	3.7	10.6	1.1	1.8	0.2	0.9	0.2	22.9	2.05	27.3	3.1
	93.0	94.0	5,078	10,478	1,049	3,219	225	34.9	53.6	3.1	8.8	0.9	1.5	0.2	0.9	0.1	20.3	2.02	26	2.9
	94.0	95.0	5,067	10,613	1,086	3,359	228	35.2	54.8	3.4	9.3	1.0	1.8	0.2	0.8	0.1	20.3	2.05	24.9	2.3
	95.0	96.0	5,442	11,277	1,165	3,558	252	39.5	61.6	3.9	10.7	1.1	1.7	0.2	0.9	0.2	22.9	2.18	28.2	3.1
	96.0	97.0	5,594	11,375	1,150	3,523	238	38.1	60.5	3.5	10.6	1.1	1.8	0.2	0.8	0.1	22.9	2.20	27.5	2.1
	97.0	98.0	4,550	9,152	918	2,799	194	30.5	49.6	2.9	7.9	0.9	1.5	0.2	0.9	0.1	19.1	1.77	22.6	3.7
	98.0	99.0	5,430	11,043	1,093	3,348	238	36.9	58.7	3.5	9.4	1.0	1.5	0.1	0.9	0.1	20.3	2.13	25.5	2.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	99.0	100.0	5,618	11,264	1,137	3,488	244	38.0	59.5	3.5	9.9	1.0	1.3	0.2	0.7	0.1	20.3	2.19	27	2.3
	100.0	101.0	3,249	6,744	704	2,280	179	29.3	47.1	3.0	8.0	0.9	1.7	0.2	0.9	0.1	19.1	1.33	22.6	5.5
	101.0	102.0	4,304	8,857	898	2,764	194	29.0	46.2	2.8	7.4	0.8	1.1	0.2	0.8	0.1	16.5	1.71	19.9	5
	102.0	103.0	4,891	10,822	1,151	3,674	262	40.6	63.4	3.6	10.3	1.0	1.8	0.1	0.8	0.2	21.6	2.09	28.5	1.7
	103.0	104.0	8,292	17,996	1,921	6,124	452	72.1	110.9	6.3	17.3	1.6	2.4	0.2	0.8	0.1	31.8	3.50	58.4	2.3
	104.0	105.0	10,755	23,401	2,477	7,838	565	87.7	134.3	7.5	20.0	2.0	3.0	0.2	0.9	0.1	36.8	4.53	65.3	1.7
	105.0	106.0	8,292	17,689	1,855	5,879	442	69.4	109.4	6.7	17.0	1.8	2.7	0.2	1.1	0.1	35.6	3.44	55.7	3.5
	106.0	107.0	8,221	16,768	1,704	5,272	377	59.2	90.3	5.3	13.9	1.4	2.1	0.2	1.0	0.1	29.2	3.25	42.2	2
	107.0	108.0	6,263	12,407	1,226	3,674	245	37.9	59.0	3.6	10.0	1.0	1.7	0.2	0.9	0.1	21.6	2.40	25.9	1.8
	108.0	109.0	7,389	14,679	1,450	4,397	289	45.2	68.7	4.2	10.8	1.2	1.9	0.2	0.7	0.2	24.1	2.84	29.5	2.5
	109.0	110.0	13,546	24,199	2,682	6,917	486	84.5	130.8	8.5	22.7	2.1	2.9	0.2	1.1	0.1	43.2	4.81	75.9	3.9
	110.0	111.0	14,660	26,165	2,876	7,512	529	92.2	151.6	10.1	28.6	2.9	4.5	0.4	1.7	0.2	59.7	5.21	84.1	2.5
	111.0	112.0	6,380	11,768	1,263	3,569	248	42.3	64.6	4.0	11.5	1.1	1.8	0.1	0.7	0.1	22.9	2.34	30.2	1.8
	112.0	113.0	6,075	11,461	1,250	3,569	264	43.9	67.1	4.1	10.4	1.0	1.5	0.1	0.7	0.1	21.6	2.28	31.9	3.3
	113.0	114.0	5,712	10,933	1,189	3,418	250	43.8	68.4	4.2	12.5	1.3	2.1	0.2	0.9	0.2	29.2	2.17	37.2	2
	114.0	115.0	4,867	9,483	1,040	2,974	205	34.2	52.8	3.4	9.6	1.0	1.6	0.2	0.9	0.1	22.9	1.87	24.8	1.6
	115.0	116.0	4,492	8,611	938	2,648	188	31.2	49.7	3.2	9.1	0.9	1.8	0.2	1.0	0.1	21.6	1.70	24.7	1.5
	116.0	117.0	6,920	12,591	1,353	3,826	279	48.9	76.7	4.9	13.8	1.3	2.2	0.2	0.8	0.1	27.9	2.51	40.5	1.6
	117.0	118.0	11,282	21,374	2,060	6,182	427	67.7	110.1	7.1	18.3	1.8	2.7	0.2	0.8	0.1	36.8	4.16	55	1.5
	118.0	119.0	6,650	12,235	1,317	3,802	262	44.0	68.5	4.5	11.7	1.0	1.9	0.2	0.8	0.1	22.9	2.44	32.6	1.4
	119.0	120.0	9,500	17,136	1,843	5,097	355	61.8	94.6	6.2	17.2	1.6	2.4	0.2	1.1	0.1	35.6	3.42	47.6	0.7
	120.0	121.0	7,002	14,495	1,420	4,316	284	44.7	70.3	4.2	12.2	1.2	1.9	0.2	1.0	0.2	27.9	2.77	30.7	0.9
	121.0	122.0	15,598	29,727	2,876	8,643	602	96.2	153.9	9.6	24.6	2.4	3.3	0.2	1.1	0.2	48.3	5.78	74.3	0.7
	122.0	123.0	6,685	13,144	1,450	4,211	290	47.4	70.5	4.2	11.3	1.1	1.6	0.2	0.8	0.1	24.1	2.59	30.8	1
	123.0	124.0	7,799	15,601	1,776	5,190	358	57.2	84.5	4.8	12.4	1.3	1.9	0.2	0.9	0.1	25.4	3.09	32.8	1.6
	124.0	125.0	9,981	17,628	1,927	5,237	363	62.8	94.5	5.8	14.4	1.3	1.9	0.1	0.8	0.1	27.9	3.53	41.2	2.6
	125.0	126.0	6,192	11,633	1,250	3,581	255	41.6	62.0	3.8	10.2	1.0	1.7	0.1	0.8	0.2	21.6	2.31	27.4	1.6
	126.0	127.0	4,984	10,159	1,009	3,091	219	34.2	54.5	3.5	9.4	0.9	1.7	0.1	0.7	0.1	19.1	1.96	25	3.4
	127.0	128.0	5,043	9,643	1,055	3,044	215	35.6	53.0	3.3	9.4	0.8	1.5	0.2	0.8	0.2	19.1	1.91	23.9	4.6
	128.0	129.0	6,063	12,063	1,389	4,106	299	50.8	76.5	4.6	11.7	1.1	1.8	0.2	0.8	0.1	24.1	2.41	33.9	1.7
	129.0	130.0	5,688	11,203	1,250	3,628	254	43.8	65.5	3.9	11.0	1.1	2.1	0.1	0.8	0.1	22.9	2.22	28.3	1.6
	130.0	131.0	5,067	9,901	1,107	3,243	233	38.9	58.9	3.5	10.2	1.1	1.6	0.1	0.9	0.1	21.6	1.97	27	1.8
	131.0	132.0	4,175	8,071	887	2,578	183	30.7	47.7	2.9	8.2	0.8	1.4	0.1	0.7	0.1	16.5	1.60	20.6	1.2
	132.0	133.0	6,486	12,075	1,329	3,837	285	47.5	74.3	4.5	12.6	1.2	1.9	0.2	0.8	0.1	26.7	2.42	36.2	2.6
	133.0	134.0	3,788	7,309	811	2,379	183	30.9	48.9	3.2	9.0	0.9	1.5	0.2	0.8	0.1	20.3	1.46	24.8	7.8
	134.0	135.0	3,448	6,781	760	2,263	167	26.9	42.0	2.5	7.4	0.7	1.7	0.1	0.9	0.1	17.8	1.35	20	13
	135.0	136.0	3,659	7,039	778	2,286	175	30.7	50.0	3.4	10.3	1.1	1.9	0.2	1.3	0.2	24.1	1.41	28.2	6.3
	136.0	137.0	4,586	9,090	1,008	2,951	206	34.0	55.0	3.7	10.4	1.1	2.1	0.2	1.0	0.2	25.4	1.80	25.3	5.3
	137.0	138.0	4,949	9,508	1,055	3,044	216	36.2	57.5	3.6	10.3	1.1	1.6	0.2	0.9	0.1	24.1	1.89	28.5	3.1
	138.0	139.0	6,016	11,129	1,206	3,418	242	41.8	63.9	4.1	10.4	1.0	1.6	0.1	0.7	0.1	22.9	2.22	31.1	2.4
	139.0	140.0	4,574	8,611	898	2,659	181	30.0	48.2	2.8	7.6	0.8	1.4	0.1	0.6	0.1	17.8	1.70	21.7	0.8
	140.0	141.0	4,468	8,402	872	2,589	181	29.4	47.4	2.8	8.0	0.7	1.3	0.1	0.7	0.1	17.8	1.66	20.8	1.6
	141.0	142.0	3,999	7,641	795	2,379	166	27.8	44.6	2.5	7.2	0.9	1.7	0.2	0.7	0.1	17.8	1.51	18.4	1
	142.0	143.0	3,917	7,506	796	2,379	168	28.6	45.2	2.7	7.4	0.9	1.5	0.1	0.7	0.1	17.8	1.49	19.5	2.6
	143.0	144.0	7,940	15,724	1,740	5,319	369	61.7	98.4	5.8	15.4	1.7	3.0	0.2	0.9	0.2	34.3	3.13	48.7	5.7
	144.0	145.0	7,869	15,662	1,698	5,109	359	62.1	100.2	5.9	18.4	2.0	3.3	0.3	1.5	0.3	38.1	3.09	52.2	4.3

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	145.0	146.0	2,721	5,442	592	1,849	148	26.5	44.6	2.8	7.8	0.9	1.7	0.2	0.9	0.1	19.1	1.09	27.5	15
	146.0	147.0	2,674	5,552	617	1,977	156	27.1	41.4	2.5	6.8	0.8	1.5	0.2	0.7	0.1	16.5	1.11	19.9	12.4
	147.0	148.0	4,328	8,267	880	2,718	210	38.0	62.1	3.8	10.9	1.2	2.3	0.2	0.9	0.1	22.9	1.65	34.3	11.6
	148.0	149.0	2,733	5,651	613	1,948	164	28.7	44.5	2.7	7.4	0.8	1.1	0.1	0.7	0.1	16.5	1.12	23.3	9.2
	149.0	150.0	4,175	8,181	884	2,718	200	34.9	55.4	3.4	9.2	1.0	1.7	0.2	0.7	0.1	21.6	1.63	28.4	4.6
	150.0	151.0	3,178	6,449	709	2,170	154	24.6	39.5	2.4	6.8	0.7	1.4	0.2	0.7	0.1	15.2	1.28	16.3	0.7
	151.0	152.0	4,257	8,685	969	3,009	220	36.5	58.4	3.6	9.9	1.1	1.9	0.2	1.0	0.1	21.6	1.73	24.8	0.9
	152.0	153.0	4,949	9,729	1,045	3,173	226	37.6	62.4	3.8	9.6	1.0	1.5	0.2	0.7	0.1	20.3	1.93	28.7	1.2
	153.0	154.0	5,160	10,331	1,128	3,418	233	38.4	59.0	3.6	9.8	1.2	1.8	0.2	0.7	0.1	20.3	2.04	26.3	1.3
	154.0	155.0	4,316	8,820	981	3,056	219	35.4	55.7	3.5	8.4	0.9	1.4	0.2	0.6	0.1	17.8	1.75	24.3	3.1
	155.0	156.0	3,401	6,940	765	2,403	183	31.7	51.6	3.2	8.3	1.0	1.5	0.2	0.9	0.2	20.3	1.38	25.4	2.1
	156.0	157.0	5,923	11,031	1,195	3,639	276	50.3	80.1	5.3	14.5	1.5	2.5	0.2	0.8	0.2	29.2	2.22	45.3	2.1
	157.0	158.0	4,433	9,016	1,041	3,313	249	43.7	66.0	4.0	10.4	1.0	2.1	0.2	0.8	0.2	22.9	1.82	28	1.7
	158.0	159.0	3,565	7,579	876	2,823	219	37.9	59.4	3.6	9.8	1.0	1.9	0.2	1.0	0.2	21.6	1.52	26.6	1.5
	159.0	160.0	5,055	10,515	1,199	3,814	292	52.2	82.2	4.8	13.5	1.5	2.4	0.2	1.1	0.1	27.9	2.11	37.8	1.2
	160.0	161.0	4,820	9,643	1,081	3,429	263	46.1	71.8	4.4	11.0	1.1	1.8	0.2	0.9	0.1	21.6	1.94	30.8	2.6
	161.0	162.0	4,527	9,397	1,060	3,336	250	43.7	68.0	4.2	9.9	1.1	1.7	0.2	0.8	0.1	19.1	1.87	29.6	2.6
	162.0	163.0	4,808	10,134	1,166	3,663	267	47.0	70.8	4.1	10.1	1.1	1.5	0.1	0.6	0.1	20.3	2.02	29.5	2.2
	163.0	164.0	4,703	9,201	1,021	3,161	229	40.1	64.0	3.7	10.2	1.0	1.7	0.2	0.9	0.1	21.6	1.85	29	2.3
	164.0	165.0	4,902	10,011	1,110	3,418	262	45.0	71.9	4.5	11.0	1.0	1.9	0.1	0.8	0.1	20.3	1.99	33	1.5
	165.0	166.0	3,870	7,874	859	2,671	199	34.5	57.8	3.6	9.3	0.9	1.4	0.1	0.7	0.1	20.3	1.56	29.6	1.3
	166.0	167.0	2,082	4,778	557	1,825	150	27.2	44.1	2.6	6.3	0.7	1.1	0.1	0.7	0.1	14.0	0.95	20.8	7.1
	167.0	168.0	2,932	6,670	809	2,764	262	46.9	80.2	4.9	14.5	1.4	2.6	0.2	1.4	0.1	33.0	1.36	48	9.3
	168.0	169.0	2,258	5,454	621	2,257	234	42.4	71.5	4.6	14.0	1.5	2.5	0.2	1.5	0.2	34.3	1.10	48.1	13.2
<b>KGKRC034</b>	0.0	1.0	3,331	7,211	776	2,566	197	31.3	53.8	3.6	10.9	1.3	2.4	0.2	1.1	0.2	29.2	1.42	31.5	9.9
	1.0	2.0	6,966	14,864	1,613	5,132	401	65.3	108.9	7.2	20.2	2.0	3.1	0.3	1.6	0.2	45.7	2.92	73.1	7.9
	2.0	3.0	6,052	12,591	1,377	4,269	326	52.9	88.1	5.9	16.6	1.6	3.0	0.3	1.3	0.2	34.3	2.48	53.4	5.2
	3.0	4.0	9,500	19,777	2,108	6,777	497	80.5	134.3	9.0	23.3	2.1	3.0	0.3	1.3	0.2	45.7	3.90	88.8	2.2
	4.0	5.0	7,482	15,908	1,716	5,354	409	65.5	110.3	7.6	19.3	1.8	3.1	0.3	1.4	0.2	40.6	3.11	83.8	2.6
	5.0	6.0	8,350	17,812	1,927	6,077	462	75.4	127.4	9.1	24.5	2.4	4.1	0.4	2.1	0.3	58.4	3.49	93.8	6.9
	6.0	7.0	4,433	9,090	929	2,916	201	32.0	52.6	3.6	10.2	1.0	1.8	0.2	0.9	0.1	24.1	1.77	30.9	10.3
	7.0	8.0	7,869	14,557	1,426	4,222	296	48.6	85.0	6.5	18.9	1.8	3.0	0.2	1.5	0.1	44.5	2.86	54	7.3
	8.0	9.0	4,738	10,073	1,057	3,406	242	36.8	57.5	3.7	10.2	1.0	1.9	0.1	0.9	0.1	24.1	1.97	28.2	11.2
	9.0	10.0	5,782	12,960	1,444	4,724	356	54.8	89.6	5.8	16.1	1.5	2.4	0.2	1.1	0.2	34.3	2.55	58.3	10.1
	10.0	11.0	4,504	9,668	1,029	3,348	239	36.7	56.7	3.6	10.6	1.2	1.9	0.2	1.3	0.2	24.1	1.89	30.4	10.4
	11.0	12.0	5,008	10,589	1,118	3,604	260	39.3	63.6	4.2	12.7	1.3	2.2	0.2	1.1	0.2	29.2	2.07	37.5	9.7
	12.0	13.0	7,459	13,082	1,208	3,569	240	38.4	68.6	5.6	17.6	1.8	3.2	0.3	1.5	0.2	47.0	2.57	42.4	7.6
	13.0	14.0	13,663	22,357	1,951	5,400	341	56.3	98.8	7.3	24.1	2.4	3.5	0.3	1.5	0.2	52.1	4.40	57.6	5.8
	14.0	15.0	5,489	10,196	982	2,904	187	29.6	50.5	3.7	11.0	1.1	2.1	0.2	0.9	0.2	26.7	1.99	38.2	14.7
	15.0	16.0	6,380	11,731	1,107	3,254	200	30.3	50.4	3.4	10.2	1.0	1.8	0.2	0.8	0.2	24.1	2.28	36.4	14.9
	16.0	17.0	16,595	28,622	2,682	7,710	451	68.4	111.5	7.8	21.4	2.0	3.1	0.3	1.1	0.1	45.7	5.63	64.2	9.3
	17.0	18.0	4,304	8,095	788	2,333	135	19.8	32.0	2.2	6.3	0.8	1.5	0.2	0.9	0.1	19.1	1.57	25	15.7
	18.0	19.0	9,066	15,232	1,402	3,931	256	40.5	71.7	5.5	16.0	1.7	2.6	0.3	1.4	0.2	39.4	3.01	40.7	9.7
	19.0	20.0	14,015	23,278	2,132	5,809	369	60.8	105.0	8.0	23.0	2.3	3.7	0.3	1.4	0.2	50.8	4.59	53.7	8.9
	20.0	21.0	6,697	11,264	996	2,811	180	29.6	53.9	4.3	13.5	1.4	2.5	0.2	1.0	0.2	30.5	2.21	49.4	16.7
	21.0	22.0	8,491	14,372	1,347	3,779	266	46.8	90.5	8.0	29.3	3.8	8.4	0.8	5.0	0.7	105.4	2.86	66.9	27.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm	
	22.0	23.0	9,089	14,925	1,299	3,651	241	41.8	78.7	6.3	24.1	3.1	6.8	0.7	4.3	0.6	83.8	2.95	67.3	24.3	
	23.0	24.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24.0	25.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	25.0	26.0	11,576	19,040	1,746	4,771	295	48.9	92.8	8.5	33.2	4.5	10.2	1.2	6.6	1.0	130.8	3.78	53.1	10.9	
	26.0	27.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	27.0	28.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28.0	29.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29.0	30.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30.0	31.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	31.0	32.0	1,806	3,378	335	1,085	99	19.3	39.9	3.7	13.8	1.8	4.5	0.5	3.4	0.5	49.5	0.68	32.6	23.9	
	32.0	33.0	1,953	3,526	333	1,031	82	14.6	28.5	2.5	9.5	1.3	3.1	0.4	2.5	0.4	34.3	0.70	26.2	20.5	
	33.0	34.0	1,572	3,292	348	1,201	128	27.2	61.0	6.2	24.7	3.3	7.4	0.8	4.2	0.5	87.6	0.68	25.7	14.8	
	34.0	35.0	4,433	8,304	807	2,484	180	31.6	59.9	5.0	17.9	2.3	4.8	0.6	3.3	0.5	61.0	1.64	33.8	14.4	
	35.0	36.0	14,074	26,533	2,622	8,025	495	76.9	124.5	8.5	24.6	2.6	4.6	0.4	1.8	0.3	63.5	5.21	52.9	9.8	
	36.0	37.0	8,010	15,171	1,474	4,234	293	46.4	87.6	6.7	23.2	2.4	4.1	0.4	1.9	0.3	57.2	2.94	55.7	7.8	
	37.0	38.0	2,979	5,737	571	1,785	149	27.6	47.8	3.5	14.4	1.8	3.2	0.3	1.4	0.3	41.9	1.14	32.3	5.9	
	38.0	39.0	5,606	10,871	1,074	3,313	244	41.8	69.5	4.0	17.0	1.9	3.2	0.3	1.7	0.3	43.2	2.13	40.5	8	
	39.0	40.0	3,413	6,584	639	1,895	122	19.6	32.3	1.7	6.9	1.0	1.6	0.3	1.1	0.3	17.8	1.27	14	9.6	
	40.0	41.0	4,750	9,053	863	2,543	169	27.1	42.7	2.1	8.4	1.0	1.8	0.2	1.0	0.2	22.9	1.75	16	9.2	
	41.0	42.0	5,782	11,142	1,106	3,324	228	36.9	58.0	3.0	11.1	1.4	2.4	0.3	1.1	0.3	27.9	2.17	21.2	7.8	
	42.0	43.0	5,758	11,056	1,070	3,219	214	35.1	55.3	2.9	11.1	1.2	2.3	0.2	1.1	0.2	26.7	2.15	22	8.3	
	43.0	44.0	3,988	7,972	789	2,426	164	27.0	43.3	2.2	9.1	1.0	1.9	0.2	1.1	0.2	24.1	1.54	20.1	9.1	
	44.0	45.0	3,272	6,953	707	2,239	161	25.1	42.2	2.7	8.3	0.9	1.6	0.2	1.0	0.2	21.6	1.34	19.2	8.7	
	45.0	46.0	4,140	7,911	761	2,269	152	24.6	40.0	2.4	9.6	1.1	1.8	0.2	1.1	0.2	25.4	1.53	20	7.7	
	46.0	47.0	3,530	7,346	752	2,356	177	29.5	51.2	2.8	12.4	1.4	2.6	0.3	1.7	0.3	35.6	1.43	30.3	12.4	
	47.0	48.0	3,401	7,223	748	2,379	179	29.6	50.1	2.6	10.1	1.2	2.2	0.2	1.3	0.2	29.2	1.41	23.9	10	
	48.0	49.0	3,905	8,550	900	2,916	228	39.1	63.7	3.4	13.8	1.6	3.0	0.4	1.8	0.3	36.8	1.67	29.1	8.7	
	49.0	50.0	3,812	8,402	910	2,998	242	41.3	70.4	4.2	15.4	1.9	3.4	0.3	1.9	0.2	43.2	1.65	28.3	8.6	
	50.0	51.0	4,058	9,053	986	3,266	268	44.5	76.5	4.3	15.8	1.9	3.5	0.3	1.7	0.3	41.9	1.78	31.9	8.3	
	51.0	52.0	5,149	11,387	1,220	3,989	324	54.5	89.8	4.4	17.7	2.0	3.4	0.4	1.8	0.3	45.7	2.23	40.6	8.9	
	52.0	53.0	4,715	10,626	1,166	3,919	332	56.9	95.8	5.5	20.9	2.4	4.5	0.4	2.3	0.3	53.3	2.10	54.5	6.9	
	53.0	54.0	4,715	10,724	1,179	3,896	332	55.8	92.1	5.0	18.8	2.3	4.2	0.4	2.1	0.3	52.1	2.11	50.3	6.8	
	54.0	55.0	3,061	6,940	750	2,496	212	36.8	64.3	3.9	14.5	1.9	3.8	0.5	2.6	0.4	48.3	1.36	32.3	8.1	
	55.0	56.0	3,120	7,002	760	2,543	226	39.3	70.0	4.6	17.5	2.2	4.8	0.5	3.0	0.4	58.4	1.39	39.2	7.5	
	56.0	57.0	3,870	8,734	961	3,219	279	48.3	82.4	5.4	24.0	3.6	7.9	0.9	4.8	0.6	95.2	1.73	49.9	8.5	
	57.0	58.0	1,865	4,189	465	1,598	168	35.8	75.4	8.5	49.8	9.1	25.2	2.9	14.6	1.8	293.4	0.88	49.6	13.7	
	58.0	59.0	3,612	8,120	886	2,963	253	44.6	78.0	4.8	17.9	2.3	4.1	0.5	2.6	0.4	53.3	1.60	43.3	7.7	
	59.0	60.0	1,448	3,317	377	1,295	121	22.5	44.7	3.9	16.1	2.4	4.5	0.7	3.5	0.6	63.5	0.67	32.2	8.2	
	60.0	61.0	2,568	5,958	663	2,245	204	35.1	62.5	3.9	14.5	1.8	3.4	0.4	2.2	0.3	44.5	1.18	35.7	8.2	
	61.0	62.0	2,662	6,142	687	2,344	210	39.3	70.4	4.7	17.5	2.2	4.1	0.5	2.4	0.4	53.3	1.22	44	10	
	62.0	63.0	3,049	6,965	747	2,414	188	30.5	50.1	2.9	10.6	1.3	2.2	0.2	1.5	0.2	31.8	1.35	31.9	9.7	
	63.0	64.0	3,706	8,034	860	2,834	253	47.6	88.3	6.5	26.2	3.8	8.0	0.9	4.6	0.7	94.0	1.60	55.1	7.7	
	64.0	65.0	2,780	6,216	684	2,327	212	38.3	67.0	4.1	15.0	1.8	3.5	0.4	2.3	0.3	49.5	1.24	45.7	7.9	
	65.0	66.0	2,791	6,400	710	2,438	230	41.2	74.8	5.0	20.0	2.6	5.0	0.6	3.2	0.5	68.6	1.28	47.6	8	
	66.0	67.0	2,580	5,958	673	2,321	224	42.0	77.0	5.4	20.9	2.9	5.4	0.7	3.5	0.6	72.4	1.20	51.6	8.1	
	67.0	68.0	2,557	5,859	672	2,403	248	45.6	87.5	7.4	26.1	3.0	6.0	0.6	3.9	0.6	76.2	1.20	70.3	9	

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	68.0	69.0	2,381	5,208	571	1,989	211	41.0	82.8	8.3	32.5	4.4	9.8	1.1	7.3	1.1	115.6	1.07	66.5	8.5
	69.0	70.0	2,885	6,375	708	2,438	246	46.9	90.1	7.7	28.9	3.8	8.4	0.8	4.8	0.6	99.1	1.29	57.2	8.9
	70.0	71.0	2,463	5,454	616	2,140	210	40.5	77.5	6.6	24.6	3.3	7.1	0.7	4.1	0.6	85.1	1.11	49.2	7.5
	71.0	72.0	2,393	5,221	570	1,977	206	39.8	78.5	7.3	28.9	3.8	8.9	0.9	5.7	0.8	109.2	1.07	59	7.9
	72.0	73.0	2,269	4,963	546	1,890	206	43.5	88.6	8.8	36.7	5.3	12.7	1.4	7.5	1.1	146.0	1.02	69.6	8.9
	73.0	74.0	3,084	7,260	762	2,776	254	42.8	82.9	6.0	20.4	2.7	5.4	0.6	3.4	0.4	64.8	1.44	53.8	6.6
	74.0	75.0	3,155	7,076	793	2,718	253	43.3	77.2	5.9	19.7	2.5	5.3	0.6	3.0	0.5	61.0	1.42	45.7	6.8
	75.0	76.0	2,369	5,466	616	2,210	241	45.7	88.4	7.6	28.1	3.9	8.4	0.9	5.4	0.7	102.9	1.12	60.2	7.8
	76.0	77.0	2,826	6,523	724	2,519	229	39.3	69.5	5.3	16.9	1.8	3.5	0.3	1.9	0.3	43.2	1.30	49.9	6.3
	77.0	78.0	1,976	4,631	522	1,837	189	35.4	69.3	5.9	20.7	2.4	5.4	0.6	4.0	0.5	64.8	0.94	60.2	8.2
	78.0	79.0	1,941	4,385	483	1,674	165	31.0	61.0	5.6	23.0	3.1	6.8	0.7	4.6	0.6	85.1	0.89	36.9	7.1
	79.0	80.0	2,146	4,864	551	1,977	217	44.1	89.1	7.8	27.4	3.5	7.6	0.8	4.8	0.7	90.2	1.00	61.5	6.5
	80.0	81.0	1,970	4,668	528	1,884	198	38.9	75.7	6.5	24.8	3.2	6.5	0.8	5.0	0.7	81.3	0.95	43.9	6.3
	81.0	82.0	2,651	6,093	678	2,356	218	39.4	70.4	5.4	19.4	2.5	5.3	0.7	3.3	0.6	62.2	1.22	37.4	5.7
	82.0	83.0	3,800	8,378	890	2,963	263	46.4	81.3	6.5	20.9	2.5	5.3	0.5	2.7	0.4	62.2	1.65	49.9	5.8
	83.0	84.0	4,105	9,176	976	3,219	263	44.9	75.4	5.3	17.5	2.0	4.1	0.4	1.8	0.2	47.0	1.79	42.9	5.7
	84.0	85.0	3,084	6,977	767	2,601	226	38.2	67.5	5.0	15.5	1.7	3.5	0.4	2.1	0.3	40.6	1.38	42.3	5.7
	85.0	86.0	3,999	8,771	928	3,044	250	43.2	75.4	5.3	16.5	1.9	3.4	0.4	1.8	0.3	40.6	1.72	50.4	8.4
	86.0	87.0	2,451	5,663	629	2,158	199	34.6	62.5	4.7	16.1	2.0	4.1	0.4	2.5	0.4	48.3	1.13	41.3	5.3
	87.0	88.0	2,264	5,159	569	1,960	177	31.4	55.6	4.3	14.1	1.8	3.3	0.4	2.3	0.3	43.2	1.03	37.2	4.8
	88.0	89.0	2,222	5,086	567	1,983	199	37.8	69.9	6.0	21.9	2.8	6.5	0.7	3.8	0.6	72.4	1.03	41.1	6.8
	89.0	90.0	2,234	5,135	536	1,971	194	34.0	70.3	5.7	20.9	2.6	5.6	0.7	3.8	0.5	72.4	1.03	47.3	7.1
	90.0	91.0	2,674	6,167	700	2,414	227	41.1	74.3	5.8	18.8	2.3	4.6	0.5	3.1	0.4	54.6	1.24	49.7	7.1
	91.0	92.0	2,369	5,307	582	2,006	178	30.5	53.4	3.6	10.9	1.1	2.1	0.2	1.3	0.2	25.4	1.06	26.8	7.2
	92.0	93.0	2,252	5,122	568	1,971	184	33.7	58.2	4.3	13.3	1.4	2.9	0.3	1.7	0.3	33.0	1.02	39	10.1
	93.0	94.0	2,463	5,454	582	1,913	152	26.6	43.0	2.9	8.2	0.9	1.6	0.2	1.0	0.1	19.1	1.07	22.4	8
	94.0	95.0	2,082	4,643	495	1,650	141	24.7	44.8	3.4	10.8	1.3	2.3	0.3	1.5	0.2	30.5	0.91	30.7	7.4
	95.0	96.0	3,507	7,678	814	2,659	206	35.3	59.0	3.9	11.1	1.1	2.1	0.2	1.0	0.2	24.1	1.50	28.9	6.5
	96.0	97.0	2,439	5,589	559	1,954	170	30.8	66.7	7.5	39.8	6.5	18.5	2.2	12.8	1.5	210.8	1.11	56.1	11.8
	97.0	98.0	1,794	4,017	471	1,633	161	33.7	72.5	8.1	40.7	6.5	15.4	1.9	11.6	1.7	198.1	0.85	52	13.4
	98.0	99.0	1,020	2,322	288	1,060	118	25.4	59.7	8.0	44.7	7.6	19.3	2.4	14.5	2.0	243.8	0.52	58.4	15.9
	99.0	100.0	1,290	2,997	367	1,330	159	37.2	81.8	8.4	40.2	6.3	16.1	2.3	15.1	2.3	190.5	0.65	50.5	17.8
	100.0	101.0	1,425	3,169	372	1,306	143	32.4	72.5	6.9	31.1	4.7	10.6	1.3	7.3	0.9	132.1	0.67	40.7	13.6
	101.0	102.0	1,372	2,985	348	1,201	122	26.6	57.1	5.5	21.6	3.2	7.1	0.8	4.4	0.6	87.6	0.62	32.2	14
	102.0	103.0	1,988	4,177	464	1,540	139	27.8	56.6	5.0	19.9	2.8	6.6	0.8	4.4	0.6	87.6	0.85	30.2	9.9
	103.0	104.0	3,753	7,653	843	2,706	207	36.9	64.3	4.8	15.7	1.8	3.5	0.4	2.1	0.3	47.0	1.53	35.8	6.8
	104.0	105.0	9,535	18,426	1,963	6,030	466	84.6	147.0	10.3	30.9	3.3	5.7	0.6	2.6	0.4	82.5	3.68	108	5.9
	105.0	106.0	5,289	11,056	1,263	4,141	308	50.8	84.6	6.1	19.4	2.5	4.6	0.5	2.6	0.3	66.0	2.23	54.9	7.1
	106.0	107.0	4,937	10,601	1,238	4,129	318	52.7	89.4	7.0	27.2	3.9	9.5	1.1	6.2	0.8	119.4	2.15	57.9	7.6
	107.0	108.0	3,518	7,678	899	3,021	249	44.4	86.3	8.5	41.1	6.6	16.7	1.9	10.4	1.4	210.8	1.58	72.5	11.4
	108.0	109.0	3,730	7,592	874	2,951	252	48.3	94.7	7.7	24.1	2.6	4.9	0.5	3.2	0.5	68.6	1.57	126	11.8
	109.0	110.0	2,744	5,847	678	2,304	209	45.9	108.9	16.2	94.5	16.4	38.8	4.5	26.7	3.4	537.2	1.27	114	19.6
	110.0	111.0	2,686	5,773	680	2,292	201	38.7	78.0	8.6	45.8	7.8	20.1	2.5	16.5	2.4	250.2	1.21	62	20.5
	111.0	112.0	4,879	10,282	1,156	3,837	295	46.6	74.1	4.6	13.2	1.5	2.7	0.3	1.8	0.2	33.0	2.06	44.1	13
	112.0	113.0	4,269	9,016	1,039	3,488	274	45.0	74.6	4.7	13.9	1.6	3.0	0.3	1.9	0.3	39.4	1.83	44.2	7.9
	113.0	114.0	3,976	8,365	962	3,196	247	39.7	60.7	3.8	10.2	1.1	2.1	0.2	1.1	0.1	26.7	1.69	31.1	8.3

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	114.0	115.0	3,882	8,132	928	3,079	240	41.3	68.1	5.0	14.9	1.5	2.7	0.2	1.6	0.2	38.1	1.64	55.3	10.8
	115.0	116.0	3,460	7,493	883	3,009	238	39.5	64.8	4.5	13.9	1.6	3.3	0.3	2.3	0.4	43.2	1.53	43.9	11
	116.0	117.0	3,776	7,997	923	3,091	241	40.1	67.5	4.6	14.1	1.5	2.9	0.3	1.7	0.2	36.8	1.62	46.1	8.8
	117.0	118.0	5,454	11,436	1,317	4,362	335	55.0	91.5	6.3	18.6	2.0	3.4	0.3	1.6	0.3	45.7	2.31	67.9	7.6
	118.0	119.0	4,058	8,918	1,041	3,453	266	43.8	69.4	4.2	12.9	1.3	2.2	0.2	1.3	0.1	30.5	1.79	42.4	8.1
	119.0	120.0	3,835	8,587	1,017	3,464	284	49.6	88.6	6.6	18.5	1.9	3.2	0.3	1.9	0.3	45.7	1.74	85.3	7.2
	120.0	121.0	4,046	8,476	986	3,324	288	49.9	83.5	5.5	15.6	1.7	2.4	0.2	1.3	0.2	35.6	1.73	69.4	8.9
	121.0	122.0	3,049	6,400	737	2,473	212	38.4	71.7	5.8	18.6	2.0	4.1	0.4	2.1	0.2	54.6	1.31	77.3	4.9
	122.0	123.0	4,292	9,397	1,101	3,697	304	53.6	94.1	6.7	19.1	1.9	3.1	0.3	1.4	0.2	44.5	1.90	89.8	4.9
	123.0	124.0	3,718	7,997	936	3,149	250	41.7	69.9	4.6	13.8	1.3	2.3	0.2	1.1	0.2	30.5	1.62	52.6	6.1
	124.0	125.0	4,445	9,336	1,060	3,546	281	45.6	77.3	5.2	14.9	1.4	2.2	0.2	1.1	0.2	31.8	1.88	68	5.2
	125.0	126.0	4,046	8,808	1,022	3,441	271	41.6	68.5	4.5	12.5	1.2	2.2	0.2	1.1	0.1	27.9	1.77	54.3	5.3
	126.0	127.0	4,445	9,889	1,093	3,674	307	50.7	83.1	6.2	18.5	1.9	3.3	0.3	1.7	0.3	40.6	1.96	69.2	7.1
	127.0	128.0	3,730	8,587	974	3,289	277	45.3	74.1	4.8	14.2	1.5	2.3	0.2	1.4	0.2	33.0	1.70	53.6	6
	128.0	129.0	4,375	9,668	1,070	3,569	289	47.6	84.7	6.5	19.5	1.8	3.1	0.3	1.6	0.2	43.2	1.92	87.6	6.1
	129.0	130.0	3,929	8,808	983	3,289	266	42.5	71.0	5.0	14.7	1.5	2.2	0.2	1.1	0.1	33.0	1.74	57	6.2
	130.0	131.0	4,152	9,287	1,016	3,336	247	40.0	67.3	4.9	14.4	1.4	2.4	0.2	1.1	0.2	31.8	1.82	56	5.1
	131.0	132.0	4,269	9,483	1,038	3,348	240	37.2	58.7	3.8	11.6	1.1	1.9	0.2	1.0	0.1	25.4	1.85	32.3	5.4
	132.0	133.0	4,445	9,680	1,050	3,383	249	40.2	66.0	4.4	12.7	1.4	2.2	0.2	1.1	0.2	30.5	1.90	43.7	3.9
	133.0	134.0	4,527	9,778	1,054	3,371	252	42.0	70.8	5.1	15.7	1.6	2.4	0.2	1.4	0.2	36.8	1.92	56	7.8
	134.0	135.0	4,867	10,736	1,162	3,697	264	42.5	66.0	4.5	12.5	1.2	2.1	0.2	1.1	0.2	29.2	2.09	43.9	6.1
	135.0	136.0	5,278	11,449	1,214	3,849	288	47.2	76.5	5.0	13.7	1.4	2.2	0.2	1.1	0.2	29.2	2.23	49.7	5.5
	136.0	137.0	5,430	11,596	1,232	3,872	291	47.5	78.7	5.0	14.1	1.3	2.6	0.2	1.3	0.2	31.8	2.26	51.7	5.7
	137.0	138.0	4,691	9,938	1,034	3,196	213	33.6	50.8	3.2	9.1	1.0	1.9	0.2	1.0	0.1	21.6	1.92	25.5	5.6
	138.0	139.0	5,207	11,461	1,232	3,977	296	48.2	77.7	4.7	12.9	1.4	2.3	0.2	1.1	0.1	27.9	2.24	45.1	4.7
	139.0	140.0	6,509	14,864	1,625	5,365	444	76.3	130.2	7.9	20.1	1.8	2.9	0.2	0.9	0.1	39.4	2.91	96	2.3
	140.0	141.0	5,430	11,596	1,232	3,919	296	47.2	79.9	5.7	17.5	1.9	3.2	0.3	1.5	0.2	43.2	2.27	69.6	4.8
	141.0	142.0	4,328	9,274	973	3,056	227	36.0	62.8	4.8	15.3	1.7	2.9	0.3	1.5	0.2	40.6	1.80	51.3	5.8
	142.0	143.0	3,765	8,378	903	2,951	227	36.4	61.7	4.5	13.7	1.4	2.3	0.2	1.1	0.2	31.8	1.64	55.8	7.9
	143.0	144.0	4,762	10,368	1,104	3,569	289	47.7	82.8	5.5	16.3	1.6	2.9	0.2	1.1	0.2	40.6	2.03	66.8	4.7
	144.0	145.0	5,958	12,407	1,275	3,931	268	41.9	68.9	5.1	15.8	1.8	3.0	0.3	1.5	0.2	41.9	2.40	53.5	5.6
	145.0	146.0	4,468	9,643	1,017	3,184	210	31.0	47.7	3.1	10.3	1.1	1.8	0.2	1.0	0.1	24.1	1.86	28.3	4.5
	146.0	147.0	3,964	8,513	890	2,776	186	27.0	41.0	2.8	8.8	1.0	1.8	0.2	1.0	0.1	22.9	1.64	23.2	7.7
	147.0	148.0	4,715	9,889	1,022	3,173	211	32.1	48.4	3.1	9.6	1.1	1.9	0.2	1.0	0.1	25.4	1.91	29.9	6.7
	148.0	149.0	4,949	10,478	1,096	3,394	230	34.0	54.8	3.8	12.1	1.3	1.9	0.2	1.1	0.1	29.2	2.03	34.8	5.5
	149.0	150.0	4,152	8,844	923	2,904	198	29.4	47.6	2.9	9.2	1.1	1.9	0.2	1.3	0.2	24.1	1.71	28.2	7.1
	150.0	151.0	2,674	5,687	573	1,744	112	17.0	27.1	2.0	6.9	0.9	1.7	0.2	1.1	0.1	22.9	1.09	15	7.5
	151.0	152.0	3,190	6,523	662	2,041	145	23.5	43.7	3.4	10.2	1.2	2.3	0.2	1.4	0.2	29.2	1.27	44.9	6.2
	152.0	153.0	4,515	10,392	1,148	3,896	373	68.0	120.5	8.3	28.8	3.8	8.2	1.0	5.2	0.7	101.6	2.07	101	2
	153.0	154.0	652	1,536	175	604	61	11.6	20.4	1.6	5.7	0.8	1.9	0.2	1.5	0.2	25.4	0.31	19.8	0.8
	154.0	155.0	4,480	7,825	727	2,129	152	25.5	45.2	3.7	12.2	1.6	3.5	0.4	2.2	0.3	44.5	1.55	30.6	8.9
	155.0	156.0	13,194	21,804	1,945	5,470	351	56.3	95.1	7.2	23.0	2.8	5.4	0.6	3.3	0.5	68.6	4.30	62	15
	156.0	157.0	13,487	22,541	2,102	5,762	369	58.8	100.7	7.9	24.6	2.8	5.6	0.6	3.3	0.4	72.4	4.45	61.1	14.2
	157.0	158.0	13,780	22,787	2,114	5,832	371	58.4	99.5	7.5	24.8	2.9	5.8	0.6	3.3	0.5	73.7	4.52	60.1	14.4
	158.0	159.0	13,956	23,278	2,157	5,949	385	60.2	104.2	8.0	24.9	3.1	5.7	0.6	3.4	0.4	74.9	4.60	62.3	14
	159.0	160.0	13,429	22,418	2,096	5,867	379	60.2	101.4	7.9	24.9	2.9	5.6	0.6	3.2	0.4	72.4	4.45	61.9	14

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	160.0	161.0	7,107	15,171	1,655	5,249	397	62.0	101.7	6.7	19.1	2.1	3.7	0.3	1.6	0.2	49.5	2.98	70.6	6.8
	161.0	162.0	8,245	15,232	1,571	4,631	335	53.8	91.2	6.9	20.0	2.2	4.2	0.4	2.3	0.2	53.3	3.02	74.6	9.1
	162.0	163.0	5,583	11,117	1,150	3,604	263	42.4	69.7	4.8	14.4	1.6	2.9	0.3	1.4	0.2	39.4	2.19	48.7	6.3
	163.0	164.0	4,292	8,734	893	2,776	192	31.2	52.0	3.9	11.1	1.3	2.3	0.2	1.3	0.2	31.8	1.70	36.7	7.5
	164.0	165.0	4,339	8,685	889	2,741	184	27.8	47.3	3.3	10.6	1.1	2.2	0.2	1.0	0.1	26.7	1.70	31.4	6.5
	165.0	166.0	3,788	7,555	767	2,321	150	22.8	37.1	2.7	8.4	1.0	1.7	0.1	0.8	0.1	22.9	1.47	24.9	6.2
	166.0	167.0	4,081	8,316	842	2,589	173	26.6	45.9	3.2	9.9	1.2	2.1	0.2	1.3	0.1	27.9	1.61	32.5	6.7
	167.0	168.0	2,721	5,872	621	2,030	161	26.2	45.0	3.5	11.0	1.2	2.3	0.2	1.4	0.2	30.5	1.15	48.3	6.6
	168.0	169.0	3,612	7,739	817	2,601	180	27.4	45.2	2.9	9.0	0.9	1.8	0.2	0.9	0.1	22.9	1.51	24.3	6.4
	169.0	170.0	3,941	8,046	820	2,554	175	27.4	45.5	3.3	9.6	1.1	1.8	0.2	0.9	0.1	22.9	1.56	33.9	10.4
	170.0	171.0	6,016	11,707	1,154	3,499	249	40.6	71.4	5.1	15.2	1.5	2.5	0.2	1.0	0.2	36.8	2.28	61.3	6.3
	171.0	172.0	3,788	7,592	764	2,333	154	23.3	38.7	2.6	8.7	1.0	1.6	0.2	0.9	0.2	22.9	1.47	24.3	6.5
	172.0	173.0	8,092	15,662	1,559	4,526	285	44.4	75.4	5.4	16.1	1.6	2.5	0.2	0.9	0.1	34.3	3.03	61.2	5.1
	173.0	174.0	9,160	17,136	1,673	4,701	285	43.9	77.3	6.1	19.6	2.2	3.5	0.3	1.4	0.2	48.3	3.32	69.7	2.7
	174.0	175.0	17,533	31,693	3,021	8,596	497	76.3	129.1	9.3	27.9	3.0	4.6	0.4	1.9	0.2	67.3	6.17	97.6	3.8
	175.0	176.0	5,348	10,368	1,009	3,009	201	32.0	59.1	4.8	16.2	1.8	3.4	0.3	1.7	0.2	48.3	2.01	47.6	5.5
	176.0	177.0	4,984	9,668	940	2,823	184	27.8	47.1	3.4	9.8	1.2	2.2	0.2	1.0	0.1	26.7	1.87	30.1	7.1
	177.0	178.0	9,089	15,846	1,710	4,666	318	52.5	91.3	6.7	20.9	2.2	3.2	0.3	1.5	0.2	50.8	3.19	74	6
	178.0	179.0	7,518	12,960	1,281	3,709	245	41.8	72.5	5.3	17.0	1.7	2.6	0.2	1.0	0.2	39.4	2.59	56.6	4
	179.0	180.0	4,820	8,636	883	2,613	172	26.9	49.8	3.6	12.3	1.3	2.4	0.2	0.9	0.2	34.3	1.73	39.4	6.8
	180.0	181.0	4,081	7,665	831	2,683	232	41.0	71.4	4.9	15.7	1.5	2.6	0.2	1.4	0.2	35.6	1.57	52.8	8.6
<b>KGKRC035</b>	0.0	1.0	3,260	6,056	665	2,222	229	46.0	95.2	8.4	34.9	5.0	11.8	1.4	8.0	1.1	142.2	1.28	70.8	6.9
	1.0	2.0	2,873	5,442	607	2,070	228	45.0	92.2	7.9	31.6	4.4	10.3	1.1	6.2	0.9	124.5	1.15	55.1	7.7
	2.0	3.0	2,686	5,110	575	1,954	200	39.6	76.2	6.2	22.6	3.1	7.1	0.8	4.2	0.7	82.5	1.08	48.1	4.8
	3.0	4.0	5,137	9,238	996	3,184	282	50.6	93.9	6.8	22.6	2.7	5.5	0.6	3.4	0.4	68.6	1.91	60.1	7.1
	4.0	5.0	2,686	4,975	561	1,890	199	38.4	73.5	5.5	20.4	2.5	5.4	0.6	3.3	0.5	69.8	1.05	64.9	5.8
	5.0	6.0	4,363	9,311	1,142	4,047	408	73.0	130.2	8.5	26.2	2.8	5.2	0.5	3.5	0.5	63.5	1.96	93.7	8.3
	6.0	7.0	2,909	6,142	738	2,613	256	47.2	85.8	6.0	22.5	2.8	6.1	0.7	3.6	0.6	72.4	1.29	44.7	16
	7.0	8.0	1,988	3,771	413	1,376	139	28.8	59.2	5.5	22.7	3.4	7.6	0.9	5.0	0.7	94.0	0.79	35.1	10.6
	8.0	9.0	2,222	4,840	584	2,047	206	38.3	69.4	5.2	18.9	2.3	5.2	0.5	3.2	0.4	59.7	1.01	35.5	9
	9.0	10.0	1,841	3,882	452	1,598	167	32.8	62.2	5.2	18.6	2.3	4.9	0.6	3.1	0.4	63.5	0.81	40.6	6.3
	10.0	11.0	2,041	4,226	495	1,715	177	34.5	69.3	5.7	20.9	2.9	6.1	0.6	3.5	0.5	76.2	0.89	40.3	13
	11.0	12.0	1,929	3,427	358	1,159	131	30.8	71.4	7.3	31.7	4.7	10.4	1.1	6.0	0.9	125.7	0.73	39.8	7.5
	12.0	13.0	1,636	3,710	371	1,277	158	32.9	72.6	7.3	30.8	4.3	9.7	1.1	5.8	0.8	119.4	0.74	54.7	6.1
	13.0	14.0	2,439	5,884	633	2,251	235	41.3	76.8	5.7	17.0	2.0	4.1	0.5	2.6	0.3	52.1	1.16	36.9	6.6
	14.0	15.0	2,463	5,786	621	2,205	237	44.0	86.2	6.9	24.0	3.1	6.2	0.9	4.0	0.6	78.7	1.16	42.7	7.7
	15.0	16.0	1,267	2,776	273	960	113	25.0	52.2	4.9	21.4	2.8	7.2	0.8	4.9	0.6	82.5	0.56	30	8.1
	16.0	17.0	1,272	3,010	306	1,080	118	22.8	45.4	4.1	15.6	2.2	5.3	0.6	3.0	0.5	61.0	0.59	26.4	7.4
	17.0	18.0	3,143	6,830	691	2,286	204	36.7	69.3	5.5	19.3	2.5	5.0	0.6	3.2	0.4	63.5	1.34	43.3	10.9
	18.0	19.0	1,460	3,243	321	1,106	130	26.9	62.1	6.4	27.0	3.9	9.0	1.1	5.5	0.7	111.8	0.65	41.2	10
	19.0	20.0	1,425	3,403	350	1,219	125	24.1	47.4	4.1	15.3	2.0	4.5	0.5	2.6	0.4	52.1	0.67	24.8	7.8
	20.0	21.0	1,443	3,833	416	1,487	155	27.9	54.2	4.2	13.4	1.6	3.1	0.4	1.9	0.3	41.9	0.75	25.8	6
	21.0	22.0	1,677	4,287	455	1,610	166	32.4	63.4	5.1	18.8	2.6	5.5	0.6	3.5	0.4	66.0	0.84	32.9	10.3
	22.0	23.0	1,402	3,182	313	1,063	115	23.9	52.1	5.1	22.4	3.1	7.6	0.9	4.7	0.6	90.2	0.63	34.3	9.5
	23.0	24.0	1,953	4,533	455	1,534	161	31.2	65.9	6.0	22.5	3.1	7.3	0.8	4.4	0.5	81.3	0.89	38.8	10.3
	24.0	25.0	1,959	4,607	458	1,522	156	31.3	67.5	6.5	26.2	3.7	8.2	0.9	5.0	0.7	95.2	0.89	42.4	8.9

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	25.0	26.0	1,747	4,459	465	1,610	154	27.1	50.0	3.6	11.1	1.2	2.3	0.3	1.6	0.6	29.2	0.86	24.1	5.1
	26.0	27.0	5,348	11,842	1,232	4,071	348	58.6	104.0	7.2	20.4	2.2	3.9	0.4	2.2	0.4	47.0	2.31	66.7	7.5
	27.0	28.0	9,054	20,821	2,302	7,033	591	98.3	171.2	11.2	28.0	2.8	4.5	0.5	2.4	0.4	58.4	4.02	110.5	3.3
	28.0	29.0	1,853	4,668	497	1,744	170	31.3	57.1	4.6	15.4	1.8	4.0	0.5	2.6	0.4	45.7	0.91	31.1	5
	29.0	30.0	2,744	6,830	745	2,636	257	45.2	81.6	5.4	16.6	1.7	3.5	0.3	1.7	0.3	39.4	1.34	33.7	4.2
	30.0	31.0	2,340	5,982	655	2,333	223	38.1	68.8	4.5	13.3	1.4	2.4	0.3	1.3	0.2	29.2	1.17	31.9	8.5
	31.0	32.0	6,744	15,109	1,559	5,074	426	70.9	122.8	8.0	21.7	2.2	3.7	0.4	1.8	0.2	47.0	2.92	75.7	5.4
	32.0	33.0	2,064	5,368	585	2,065	212	38.2	73.4	6.0	19.5	2.3	5.4	0.6	3.1	0.5	62.2	1.05	36	3.5
	33.0	34.0	1,947	5,073	539	1,866	187	33.7	66.4	5.2	18.8	2.5	5.8	0.6	3.5	0.4	63.5	0.98	33.9	6.6
	34.0	35.0	3,952	9,496	1,028	3,476	296	49.1	84.6	5.3	13.3	1.3	2.2	0.2	1.3	0.2	25.4	1.84	40.8	5.2
	35.0	36.0	5,477	12,653	1,329	4,444	412	69.0	122.2	8.1	22.0	2.0	3.4	0.3	1.9	0.3	44.5	2.46	77.6	4.6
	36.0	37.0	1,613	3,980	411	1,441	164	31.8	65.2	6.0	23.2	3.1	7.3	0.7	4.2	0.6	81.3	0.78	43.7	4.2
	37.0	38.0	1,525	4,263	474	1,720	176	31.0	57.9	4.0	12.1	1.4	2.5	0.3	1.7	0.3	29.2	0.83	26.8	1.2
	38.0	39.0	1,771	4,373	458	1,569	166	32.7	67.2	6.0	23.9	3.2	7.3	0.8	4.6	0.6	83.8	0.86	46.4	8.5
	39.0	40.0	1,267	2,887	290	1,017	125	28.0	67.3	6.9	31.3	4.4	10.5	1.1	6.2	0.8	124.5	0.59	47.3	9.1
	40.0	41.0	1,501	3,390	332	1,117	135	30.3	73.9	7.7	33.2	4.8	11.1	1.3	6.6	0.9	132.1	0.68	44.2	6.3
	41.0	42.0	1,736	3,636	416	1,435	176	36.6	82.6	8.6	35.4	5.1	10.6	1.1	5.7	0.7	133.3	0.77	55.7	12.2
	42.0	43.0	1,712	3,697	426	1,452	151	29.6	62.5	6.1	25.7	3.6	8.1	0.9	4.8	0.6	96.5	0.77	38.8	18.9
	43.0	44.0	1,460	3,022	333	1,137	142	30.7	74.6	8.2	36.3	5.3	11.8	1.3	7.1	0.8	147.3	0.64	40.7	6.6
	44.0	45.0	1,372	2,899	324	1,078	129	28.5	67.4	7.6	33.1	5.1	10.6	1.2	6.3	0.7	132.1	0.61	48	7.6
	45.0	46.0	1,384	2,985	331	1,106	121	24.3	53.6	5.5	24.2	3.5	8.1	0.9	4.9	0.7	92.7	0.61	36.3	11
	46.0	47.0	1,419	3,268	383	1,330	137	25.2	49.6	4.4	15.5	2.1	4.2	0.5	2.5	0.3	52.1	0.67	26.5	6.5
	47.0	48.0	1,572	3,022	318	1,044	128	27.9	64.8	7.0	30.1	4.3	10.0	1.1	5.8	0.7	119.4	0.64	38.4	7.2
	48.0	49.0	1,407	2,887	309	1,016	113	24.7	56.1	5.9	25.6	3.8	8.2	0.9	4.9	0.6	101.6	0.60	34.7	7.3
	49.0	50.0	1,372	2,788	302	1,033	130	28.0	64.3	6.8	30.2	4.5	9.8	1.1	6.0	0.7	123.2	0.59	40.1	5.6
	50.0	51.0	1,419	2,862	306	1,017	120	25.8	59.5	6.5	28.8	4.4	9.6	1.1	5.9	0.7	115.6	0.60	34.8	10.2
	51.0	52.0	1,548	2,973	312	995	110	23.4	54.4	5.9	25.9	3.9	8.5	1.0	5.1	0.6	102.9	0.62	27.3	12
	52.0	53.0	1,970	4,250	471	1,516	135	22.7	42.8	3.4	11.9	1.5	3.2	0.4	1.9	0.2	38.1	0.85	24.7	11.3
	53.0	54.0	1,976	4,385	497	1,621	141	23.6	42.2	3.2	11.1	1.4	2.6	0.3	1.7	0.3	34.3	0.87	23.1	10.9
	54.0	55.0	984	2,107	232	760	83	16.9	36.9	4.0	18.1	2.7	6.0	0.6	3.8	0.5	69.8	0.43	20.8	5.5
	55.0	56.0	5,196	11,658	1,402	4,374	384	65.8	114.3	8.6	25.8	2.7	5.6	0.6	4.1	0.6	62.2	2.33	74.2	31.6
	56.0	57.0	4,023	8,869	1,019	3,313	285	48.6	83.3	5.8	17.0	1.9	3.4	0.3	1.6	0.3	40.6	1.77	52.2	22
	57.0	58.0	1,671	3,513	398	1,341	141	27.2	54.1	5.1	19.3	2.7	5.5	0.7	3.2	0.4	68.6	0.73	34.3	9.7
	58.0	59.0	6,099	13,390	1,589	4,934	424	69.5	119.9	8.1	23.4	2.5	4.0	0.4	2.2	0.3	53.3	2.67	83.8	8.7
	59.0	60.0	3,401	7,248	824	2,706	245	42.4	75.6	5.7	19.1	2.1	4.1	0.4	2.6	0.3	50.8	1.46	51.4	9.4
	60.0	61.0	10,626	23,462	2,731	8,865	742	122.2	206.3	13.8	37.2	3.6	5.6	0.5	2.1	0.3	71.1	4.69	164.5	8.8
	61.0	62.0	6,005	13,635	1,631	5,144	441	72.8	120.5	8.0	23.2	2.3	3.7	0.4	1.8	0.3	45.7	2.71	82.2	11.2
	62.0	63.0	1,624	3,243	352	1,155	125	25.7	57.6	6.0	26.1	3.8	8.8	0.9	5.4	0.7	101.6	0.67	30.1	9.8
	63.0	64.0	1,683	3,169	333	1,080	118	25.2	57.4	6.3	26.7	4.0	8.9	1.0	5.5	0.7	106.7	0.66	28.8	8.7
	64.0	66.0	2,099	4,324	481	1,610	187	37.9	82.3	8.2	34.1	5.1	11.3	1.2	6.0	0.8	137.2	0.90	44.9	7.7
	66.0	67.0	1,736	3,808	441	1,540	177	34.0	67.5	6.3	23.4	3.4	6.9	0.7	4.2	0.6	86.4	0.79	53.2	9.9
	67.0	68.0	1,677	3,845	454	1,575	176	33.8	69.7	6.3	24.0	3.3	7.0	0.8	4.4	0.6	87.6	0.80	72.8	10.4
	68.0	69.0	1,947	4,349	513	1,767	180	32.1	60.4	5.0	19.3	2.7	5.7	0.6	3.6	0.5	71.1	0.90	42.9	7.4
	69.0	70.0	2,287	5,344	643	2,216	205	33.6	58.8	3.8	11.0	1.2	2.3	0.2	1.4	0.2	29.2	1.08	39.3	11
	70.0	71.0	2,299	5,147	613	2,076	218	38.6	71.2	5.8	20.4	2.5	5.2	0.5	3.2	0.5	67.3	1.06	46.3	6.3
	71.0	72.0	1,841	4,127	463	1,732	197	38.4	80.0	7.4	28.4	3.9	8.9	1.0	6.0	0.8	115.6	0.87	55.5	9.9

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	72.0	73.0	2,211	4,496	474	1,650	168	33.6	71.8	7.0	29.8	4.1	9.4	1.0	6.0	0.9	118.1	0.93	38.8	10.2
	73.0	74.0	2,305	4,791	515	1,825	191	37.4	77.5	6.7	25.6	3.3	7.3	0.9	5.5	0.7	94.0	0.99	53.6	4.5
	74.0	75.0	2,058	4,177	442	1,569	172	33.8	72.7	6.6	28.0	3.8	8.8	1.1	7.0	0.9	118.1	0.87	47.5	6.9
	75.0	76.0	1,900	3,771	402	1,458	170	34.0	73.4	6.5	27.1	3.4	7.1	0.7	5.0	0.7	100.3	0.80	58.1	5.3
	76.0	77.0	2,299	4,840	532	1,942	215	41.7	78.2	6.7	25.0	3.0	6.2	0.7	4.1	0.5	85.1	1.01	54.5	4.7
	77.0	78.0	1,994	4,213	468	1,738	204	41.6	86.5	7.7	31.0	4.2	9.7	1.1	6.8	0.9	124.5	0.89	56.7	7.1
	78.0	79.0	2,093	4,619	518	1,930	240	49.3	105.6	10.0	41.1	5.9	14.8	1.6	10.7	1.3	174.0	0.98	76	7.1
	79.0	80.0	2,615	6,265	724	2,659	253	44.5	74.3	4.9	17.1	2.0	3.9	0.4	2.2	0.3	50.8	1.27	50.7	6.1
	80.0	81.0	2,228	5,282	607	2,205	208	35.2	59.7	4.0	13.3	1.6	3.0	0.4	2.4	0.3	40.6	1.07	40.4	5.9
	81.0	82.0	2,111	5,307	637	2,403	226	36.9	61.4	4.0	12.2	1.3	2.6	0.2	1.9	0.3	33.0	1.08	52.5	6.4
	82.0	83.0	2,357	5,724	680	2,519	234	40.4	72.3	4.9	14.7	1.6	3.2	0.3	2.4	0.4	40.6	1.17	49.8	8.9
	83.0	84.0	2,187	5,221	588	2,135	195	32.7	56.4	3.7	11.3	1.2	2.2	0.2	1.5	0.2	27.9	1.05	36.5	5.3
	84.0	85.0	3,002	6,879	771	2,741	245	40.0	67.3	4.2	11.9	1.1	1.9	0.2	1.1	0.1	25.4	1.38	44.1	5.3
	85.0	86.0	2,316	5,135	582	2,047	181	29.0	48.9	3.1	8.7	0.9	1.6	0.2	0.9	0.1	21.6	1.04	29.5	4.7
	86.0	87.0	3,859	8,169	884	3,079	268	44.6	75.4	4.7	13.5	1.3	2.1	0.2	1.0	0.2	27.9	1.64	43.3	5.7
	87.0	88.0	3,061	6,584	724	2,566	226	38.0	64.0	4.0	11.8	1.2	2.1	0.2	1.1	0.2	27.9	1.33	37.6	5.4
	88.0	89.0	4,316	8,808	952	3,301	288	47.5	82.1	5.0	14.4	1.4	2.4	0.2	1.1	0.2	31.8	1.79	45.5	4.5
	89.0	90.0	2,187	5,208	596	2,140	192	33.4	54.6	3.5	10.6	1.2	1.9	0.2	0.9	0.1	25.4	1.05	33.3	5.9
	90.0	91.0	4,832	10,834	1,194	4,164	350	56.9	96.6	6.4	17.9	1.6	2.6	0.2	1.3	0.2	35.6	2.16	57.4	4.8
	91.0	92.0	6,955	16,031	1,812	6,147	515	82.0	136.0	8.2	21.8	1.8	3.1	0.3	1.3	0.2	38.1	3.18	72.2	2.4
	92.0	93.0	3,776	8,513	951	3,348	279	45.0	77.2	5.0	14.0	1.2	2.4	0.2	1.4	0.2	30.5	1.70	43	4.5
	93.0	94.0	6,345	14,127	1,607	5,365	456	73.2	123.3	7.3	20.0	1.7	2.6	0.2	1.1	0.2	36.8	2.82	77.9	2.6
	94.0	95.0	7,694	16,829	1,891	6,474	513	81.6	134.9	8.0	21.1	1.8	2.9	0.2	1.0	0.2	36.8	3.37	70.3	2.6
	95.0	96.0	4,703	10,380	1,125	3,872	321	52.0	89.1	5.7	16.6	1.6	2.9	0.2	1.5	0.2	36.8	2.06	55	4.1
	96.0	97.0	2,697	6,240	706	2,484	207	34.5	60.4	4.0	14.0	1.4	2.5	0.2	1.1	0.2	34.3	1.25	39	5.5
	97.0	98.0	4,937	11,744	1,402	4,771	392	62.5	99.9	5.7	16.5	1.5	2.5	0.2	1.3	0.2	31.8	2.35	59.7	4.9
	98.0	99.0	3,542	8,181	911	3,208	270	43.7	74.0	4.9	13.9	1.4	2.4	0.2	1.1	0.2	30.5	1.63	47.4	10
	99.0	100.0	5,125	11,694	1,335	4,467	376	62.2	102.8	6.7	19.1	1.9	3.1	0.3	1.6	0.2	41.9	2.32	59.2	4.4
	100.0	101.0	5,454	12,898	1,510	5,144	429	67.9	116.4	7.6	20.1	2.0	3.1	0.3	1.4	0.2	43.2	2.57	68.6	4.8
	101.0	102.0	3,636	7,714	924	3,114	262	41.7	71.5	4.6	13.1	1.5	2.5	0.3	1.5	0.2	34.3	1.58	44.1	5.5
	102.0	103.0	3,026	6,572	781	2,636	228	36.4	63.5	4.1	12.2	1.4	2.4	0.3	1.4	0.2	30.5	1.34	38.3	4.5
	103.0	104.0	4,046	8,427	993	3,313	274	42.0	72.8	4.6	13.2	1.4	2.7	0.3	1.6	0.2	33.0	1.72	41	3.7
	104.0	105.0	3,812	7,960	938	3,138	264	42.0	74.7	5.2	14.2	1.5	2.6	0.3	1.4	0.2	33.0	1.63	44.4	3.6
	105.0	106.0	3,988	8,464	1,004	3,383	281	44.0	79.1	5.1	14.9	1.6	2.6	0.2	1.1	0.2	33.0	1.73	48.2	4.7
	106.0	107.0	4,199	8,611	1,010	3,359	273	44.7	79.3	5.1	15.8	1.7	3.0	0.3	2.1	0.3	41.9	1.76	49.6	5.2
	107.0	108.0	3,554	7,272	845	2,776	231	37.4	69.6	4.7	14.5	1.5	3.1	0.4	2.4	0.5	40.6	1.49	50.1	3.6
	108.0	109.0	5,899	12,775	1,613	4,911	405	61.8	110.5	7.2	21.4	2.5	5.4	0.6	4.7	0.9	69.8	2.59	68	4.5
	109.0	110.0	4,292	8,660	994	3,313	277	44.6	79.8	5.4	15.0	1.5	2.7	0.3	1.5	0.2	34.3	1.77	44.6	3.6
	110.0	111.0	4,140	8,439	971	3,196	262	40.0	68.4	4.2	12.6	1.3	2.6	0.3	1.6	0.2	30.5	1.72	36.2	3.9
	111.0	112.0	2,955	5,945	698	2,333	208	34.2	64.3	4.2	14.0	1.6	3.0	0.3	1.7	0.2	36.8	1.23	40.5	8
	112.0	113.0	5,430	11,252	1,311	4,339	362	58.8	107.0	7.0	20.4	2.0	3.5	0.3	1.5	0.2	41.9	2.29	63	4.4
	113.0	114.0	4,668	9,717	1,139	3,756	317	50.6	92.3	5.8	16.5	1.7	2.9	0.2	1.3	0.2	36.8	1.98	50.9	3.3
	114.0	115.0	4,421	8,832	1,003	3,266	266	40.8	71.2	4.6	14.0	1.6	2.7	0.3	1.6	0.2	34.3	1.80	43.2	4
	115.0	116.0	2,920	5,884	673	2,216	202	33.7	64.9	4.4	13.4	1.5	2.7	0.3	1.3	0.2	31.8	1.20	44.2	6.2
	116.0	117.0	3,178	6,474	754	2,508	238	41.1	79.1	5.7	18.1	2.0	3.9	0.4	1.9	0.3	47.0	1.34	53.1	5.9
	117.0	118.0	3,296	6,142	673	2,129	203	38.4	83.2	6.8	23.5	2.7	5.0	0.5	3.2	0.5	63.5	1.27	60.2	9.3

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	118.0	119.0	4,093	7,886	865	2,729	235	43.2	88.4	7.3	26.7	3.4	6.9	0.7	3.9	0.6	83.8	1.61	56.9	8.6
	119.0	120.0	1,378	2,752	294	989	121	26.9	65.9	6.7	29.5	4.4	10.9	1.2	6.5	0.8	124.5	0.58	53.5	13.2
	120.0	121.0	991	2,064	225	765	100	22.9	58.2	6.0	27.0	4.0	9.4	1.1	6.5	0.9	111.8	0.44	45.9	11.9
	121.0	122.0	3,812	6,793	709	2,222	209	39.4	83.9	6.3	20.1	1.9	3.8	0.3	1.7	0.2	47.0	1.39	58.7	8.5
	122.0	123.0	4,246	7,420	784	2,403	209	40.2	83.2	6.6	19.5	1.8	2.7	0.2	1.1	0.2	38.1	1.53	59.1	8.9
	123.0	124.0	3,718	7,506	774	2,508	228	44.1	81.4	5.9	16.9	1.7	3.0	0.3	1.6	0.2	38.1	1.49	62.6	11.8
	124.0	125.0	4,140	8,255	935	3,021	275	48.2	95.9	7.0	21.4	2.2	4.4	0.4	2.5	0.4	55.9	1.69	66.1	14.5
	125.0	126.0	5,407	10,417	1,166	3,686	324	59.3	125.1	10.8	37.6	4.8	9.4	0.9	5.7	0.8	119.4	2.14	87.4	13.2
	126.0	127.0	2,498	4,963	567	1,895	184	33.2	69.7	5.5	18.7	2.2	4.1	0.4	2.6	0.3	52.1	1.03	45.6	6.7
	127.0	128.0	1,284	2,899	335	1,149	119	22.2	47.8	3.9	16.4	2.2	4.8	0.5	3.4	0.5	59.7	0.59	29.2	5.3
	128.0	129.0	910	2,002	224	751	79	15.6	34.5	3.0	11.9	1.6	3.9	0.4	2.5	0.3	45.7	0.41	22.4	3.1
	129.0	130.0	3,131	6,154	690	2,269	210	37.5	75.7	5.6	17.7	1.7	3.0	0.3	1.6	0.2	39.4	1.26	53	5.7
	130.0	131.0	2,533	5,208	600	2,000	188	32.4	65.0	4.6	14.5	1.6	3.1	0.3	1.5	0.2	39.4	1.07	42.4	7
	131.0	132.0	2,826	5,823	603	2,059	198	34.5	68.7	5.1	17.0	1.6	2.9	0.3	1.6	0.3	39.4	1.17	53.6	7.6
	132.0	133.0	3,155	5,528	518	1,650	158	29.6	67.2	6.4	29.5	3.8	9.2	1.1	6.3	0.9	111.8	1.13	41.4	20.4
	133.0	134.0	2,011	3,857	383	1,306	140	27.3	62.5	5.5	25.0	3.4	8.0	0.9	5.4	0.7	95.2	0.79	35.8	10
	134.0	135.0	1,712	3,513	362	1,295	159	33.1	83.3	8.6	39.4	5.8	14.9	1.6	10.1	1.3	165.1	0.74	38.5	8.9
	135.0	136.0	2,369	4,729	491	1,732	198	40.8	98.2	9.7	43.3	6.2	14.6	1.6	8.3	1.2	167.6	0.99	44.6	9.8
	136.0	137.0	2,246	4,508	460	1,615	187	38.8	93.6	9.2	40.3	5.5	13.7	1.4	8.1	1.0	157.5	0.94	43.8	8.7
	137.0	138.0	2,627	5,147	533	1,843	209	42.6	95.1	7.7	29.8	3.5	7.4	0.8	4.8	0.5	97.8	1.06	61.1	10.5
	138.0	139.0	2,035	4,226	442	1,563	176	32.8	72.7	6.0	22.4	2.8	5.4	0.5	2.7	0.4	68.6	0.87	52.7	10.8
	139.0	140.0	1,818	3,697	384	1,365	174	36.6	87.4	8.6	37.9	5.3	12.1	1.2	6.5	0.9	144.8	0.78	39.9	7.6
	140.0	141.0	1,660	3,366	333	1,163	139	30.1	73.8	7.4	33.3	5.0	11.9	1.4	7.6	1.1	137.2	0.70	39.2	6.9
	141.0	142.0	1,478	3,218	321	1,140	136	28.7	71.2	7.1	32.9	4.4	9.6	1.0	5.7	0.7	124.5	0.66	35.4	6
	142.0	143.0	2,955	5,196	488	1,557	155	31.2	72.6	7.2	31.9	4.3	9.3	1.0	5.0	0.6	115.6	1.06	33.8	7.3
	143.0	144.0	3,929	6,940	658	2,076	184	33.0	71.8	6.2	25.9	3.5	8.1	0.8	4.7	0.6	97.8	1.40	42.1	20.2
	144.0	145.0	3,143	6,388	665	2,286	216	37.1	73.0	5.5	21.1	2.7	5.7	0.7	3.8	0.5	73.7	1.29	51	11
	145.0	146.0	2,674	5,773	617	2,187	214	35.6	72.7	5.5	22.3	2.9	6.2	0.7	3.9	0.5	77.5	1.17	53.2	8.2
	146.0	147.0	3,929	8,488	913	3,114	263	39.5	69.6	4.2	12.7	1.3	2.4	0.2	1.4	0.2	29.2	1.69	42.2	9.9
<b>KGKRC37</b>	0.0	1.0	8,960	17,505	1,710	5,167	362	57.3	95.1	6.8	21.4	2.2	3.1	0.3	1.3	0.2	43.2	3.39	63.9	5.1
	1.0	2.0	3,800	7,751	772	2,403	193	32.3	60.6	5.1	16.1	1.7	2.5	0.2	1.3	0.2	36.8	1.51	52.8	6.2
	2.0	3.0	1,794	3,783	411	1,411	151	28.5	56.5	4.8	16.9	2.2	4.2	0.5	3.2	0.5	49.5	0.77	32.6	8.7
	3.0	4.0	6,767	13,144	1,281	4,082	296	50.4	88.9	6.4	19.9	1.9	3.1	0.2	1.4	0.2	39.4	2.58	61.8	7.6
	4.0	5.0	5,653	13,574	1,583	5,400	445	66.6	101.4	5.5	15.0	1.5	2.4	0.2	0.9	0.2	29.2	2.69	46.3	6.9
	5.0	6.0	8,855	22,173	2,622	9,051	777	120.4	186.7	10.4	27.9	2.8	3.8	0.3	1.5	0.2	50.8	4.39	105	2.1
	6.0	7.0	6,145	13,082	1,377	4,386	347	54.4	86.8	5.4	16.1	1.7	2.6	0.3	1.4	0.2	35.6	2.55	46.6	9.4
	7.0	8.0	6,122	12,026	1,202	3,732	271	41.6	70.8	4.4	12.1	1.2	2.3	0.2	1.0	0.1	29.2	2.35	38.8	10.8
	8.0	9.0	12,959	25,796	2,561	7,990	576	86.6	141.8	9.4	27.8	2.8	4.1	0.3	1.5	0.2	55.9	5.02	92	8.7
	9.0	10.0	9,476	18,733	1,909	5,844	443	70.8	115.8	7.7	23.4	2.5	4.2	0.3	2.1	0.3	54.6	3.67	71.7	12.6
	10.0	11.0	9,781	17,935	1,746	5,179	368	57.9	97.9	6.9	24.6	3.1	6.1	0.6	3.5	0.5	76.2	3.53	48.1	5.7
	11.0	12.0	7,764	16,399	1,698	5,354	409	63.9	103.7	5.9	17.9	1.8	3.1	0.3	1.5	0.2	36.8	3.19	64.5	6.1
	12.0	13.0	6,779	14,557	1,540	4,864	384	63.9	105.0	6.8	20.7	2.3	3.8	0.3	1.6	0.3	47.0	2.84	64.7	7.6
	13.0	14.0	5,946	12,468	1,281	4,036	308	50.3	85.1	5.9	18.8	2.3	4.2	0.4	2.2	0.3	48.3	2.43	52.7	8.2
	14.0	15.0	6,884	14,127	1,408	4,631	353	60.1	102.5	7.0	19.7	2.1	3.7	0.4	1.7	0.2	41.9	2.76	71.7	2
	15.0	16.0	8,456	17,750	1,867	5,879	475	79.2	134.9	8.9	26.1	2.6	3.9	0.4	1.8	0.3	52.1	3.47	91.6	1.5
	16.0	17.0	12,138	25,428	2,682	8,468	677	111.6	184.4	11.7	34.0	3.5	5.4	0.5	2.4	0.3	69.8	4.98	121	2.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	17.0	18.0	11,963	26,165	2,767	8,900	659	106.9	172.9	10.5	30.0	3.2	4.9	0.4	2.1	0.3	62.2	5.08	94.3	2.6
	18.0	19.0	14,425	30,587	3,165	10,148	802	130.3	216.1	13.5	38.5	3.8	5.7	0.4	2.1	0.3	76.2	5.96	150	1.6
	19.0	20.0	15,657	32,184	3,310	10,358	806	137.8	235.1	15.7	47.1	4.9	8.1	0.7	3.5	0.5	101.6	6.29	173.5	5.9
	20.0	21.0	5,934	11,264	1,116	3,371	244	39.3	62.6	4.2	12.4	1.4	2.4	0.2	1.4	0.2	27.9	2.21	29.2	11.8
	21.0	22.0	7,799	14,434	1,395	4,094	282	44.1	72.2	5.0	15.2	1.6	2.9	0.3	1.3	0.2	34.3	2.82	33	6
	22.0	23.0	6,837	12,960	1,244	3,697	254	39.8	65.6	4.1	12.9	1.4	2.3	0.2	1.1	0.2	29.2	2.51	35.2	8.2
	23.0	24.0	10,039	20,576	2,126	6,497	493	80.5	132.6	8.1	22.8	2.2	3.2	0.2	1.1	0.2	43.2	4.00	82.5	4.1
	24.0	25.0	9,406	19,962	2,048	6,415	508	84.3	143.5	9.6	27.3	2.7	3.8	0.3	1.5	0.2	52.1	3.87	118.5	1.4
	25.0	26.0	7,963	16,153	1,589	5,051	362	62.6	102.9	7.4	20.0	2.2	3.3	0.3	1.4	0.1	39.4	3.14	60.2	1.1
	26.0	27.0	7,811	15,724	1,601	4,876	365	62.5	105.6	7.3	21.7	2.4	3.8	0.4	1.9	0.3	48.3	3.06	61.8	1.1
	27.0	28.0	7,869	15,232	1,498	4,526	333	56.2	99.9	7.3	23.1	2.5	4.1	0.3	1.7	0.2	52.1	2.97	56.2	1.3
	28.0	29.0	7,236	14,618	1,486	4,596	342	55.9	92.7	6.1	16.1	1.7	2.6	0.2	1.0	0.2	33.0	2.85	56.8	4.1
	29.0	30.0	8,432	17,075	1,722	5,202	399	66.7	114.2	7.7	23.4	2.4	3.3	0.3	1.4	0.2	49.5	3.31	81.6	1.4
	30.0	31.0	6,462	12,653	1,214	3,779	274	47.6	75.0	5.7	17.0	1.7	2.6	0.2	1.0	0.2	35.6	2.46	56.1	3.3
	31.0	32.0	5,688	11,277	1,104	3,464	242	40.6	60.7	4.0	11.4	1.2	2.1	0.2	0.8	0.1	24.1	2.19	36.7	6.4
	32.0	33.0	5,794	11,215	1,108	3,476	223	35.9	52.7	3.5	10.4	1.1	2.1	0.2	1.0	0.2	22.9	2.19	32.1	6.6
	33.0	34.0	6,087	11,289	1,066	3,243	212	34.0	50.3	3.3	9.6	1.1	1.7	0.2	1.0	0.1	22.9	2.20	26.1	7.6
	34.0	35.0	6,298	13,451	1,389	4,526	315	50.5	75.0	5.1	14.2	1.4	2.4	0.2	1.0	0.2	29.2	2.62	49.9	2.6
	35.0	36.0	5,512	11,731	1,232	4,036	274	43.5	64.0	4.4	13.2	1.3	2.2	0.2	1.0	0.1	26.7	2.29	44.2	4.6
	36.0	37.0	6,099	11,940	1,179	3,628	239	38.9	57.5	4.2	12.2	1.3	2.2	0.2	0.9	0.1	26.7	2.32	37.8	6.3
	37.0	38.0	8,526	16,399	1,583	4,864	325	52.7	75.8	5.2	14.6	1.5	2.4	0.2	1.0	0.2	31.8	3.19	45.1	2.9
	38.0	39.0	15,246	28,253	2,767	8,410	516	80.1	111.5	6.7	18.7	1.8	2.7	0.2	1.1	0.2	35.6	5.55	48.7	0.8
	39.0	40.0	10,637	20,391	2,006	6,135	402	66.4	95.4	6.0	17.3	1.7	2.6	0.2	1.3	0.1	34.3	3.98	52.9	1.3
	40.0	41.0	7,283	14,004	1,353	4,152	291	48.6	74.3	5.1	14.6	1.5	2.6	0.2	1.1	0.2	30.5	2.73	45.1	0.6
	41.0	42.0	7,142	13,512	1,281	3,919	249	39.7	57.3	3.7	10.7	1.1	1.9	0.2	1.0	0.1	25.4	2.62	30.6	4.7
	42.0	43.0	6,685	12,775	1,244	3,849	264	45.5	67.9	4.6	13.3	1.4	2.4	0.2	1.1	0.2	29.2	2.50	39.7	5
	43.0	44.0	6,392	12,530	1,226	3,837	270	45.0	67.7	4.6	13.0	1.4	2.3	0.2	1.1	0.2	26.7	2.44	45	7.1
	44.0	45.0	7,213	13,881	1,317	3,977	256	43.3	65.2	5.0	15.2	1.5	2.5	0.2	1.1	0.2	34.3	2.68	43.8	3.8
	45.0	46.0	15,305	29,604	2,851	8,608	500	79.3	117.0	8.6	25.0	2.5	3.9	0.3	1.4	0.2	52.1	5.72	81	1.1
	46.0	47.0	7,013	13,820	1,341	4,141	291	50.7	75.7	5.1	14.5	1.6	2.9	0.2	1.4	0.2	31.8	2.68	50.4	1
	47.0	48.0	13,253	24,814	2,320	6,870	392	63.1	89.4	6.0	16.9	1.8	3.0	0.2	1.1	0.2	34.3	4.79	43	4.1
	48.0	49.0	10,743	19,163	1,716	5,039	310	50.3	76.0	5.7	16.5	1.7	2.7	0.2	1.1	0.1	35.6	3.72	46.4	4
	49.0	50.0	10,977	18,487	1,637	4,631	275	45.9	67.4	5.3	16.8	1.8	3.0	0.2	1.5	0.2	39.4	3.62	40.6	3.2
	50.0	51.0	13,370	26,165	2,586	8,048	548	90.0	131.4	9.3	28.5	2.9	4.9	0.4	2.1	0.3	67.3	5.11	73	1.4
	51.0	52.0	11,845	21,251	1,975	5,727	357	61.0	94.9	7.7	23.3	2.5	4.2	0.3	2.2	0.3	55.9	4.14	73.3	3.4
	52.0	53.0	8,608	15,601	1,420	4,199	260	43.0	64.9	4.6	13.5	1.5	2.4	0.2	1.1	0.1	31.8	3.03	39.7	3.7
	53.0	54.0	10,297	19,654	1,855	5,540	368	63.0	94.7	6.6	19.1	2.1	3.7	0.3	1.8	0.2	43.2	3.79	59.7	2.9
	54.0	55.0	8,632	16,153	1,504	4,502	302	49.7	77.2	5.8	17.8	2.0	3.5	0.3	1.7	0.2	45.7	3.13	53.1	1.8
	55.0	56.0	11,517	20,269	1,861	5,470	365	65.8	104.0	8.1	24.0	2.3	3.4	0.2	1.1	0.1	47.0	3.97	73	1.1
	56.0	57.0	14,132	24,138	2,205	6,392	419	74.0	116.4	9.4	28.0	2.9	4.5	0.3	1.7	0.2	59.7	4.76	76	1.7
	57.0	58.0	12,725	23,401	2,205	6,660	434	71.4	107.0	7.4	22.2	2.4	4.0	0.3	1.8	0.3	50.8	4.57	71	1.9
	58.0	59.0	9,113	16,891	1,595	4,887	322	54.0	83.5	6.3	19.5	2.2	3.9	0.4	2.1	0.3	52.1	3.30	53.7	2.1
	59.0	60.0	8,644	17,198	1,667	4,911	311	48.5	83.2	5.5	15.8	1.7	2.5	0.2	1.1	0.2	33.0	3.29	46.2	3.7
	60.0	61.0	15,716	29,973	2,815	8,281	525	82.1	140.6	9.0	24.0	2.3	3.2	0.3	1.0	0.1	41.9	5.76	78.2	1
	61.0	62.0	7,002	14,618	1,456	4,304	275	41.8	71.9	4.9	14.0	1.6	2.3	0.2	1.0	0.1	31.8	2.78	36.3	5.6
	62.0	63.0	12,901	24,937	2,350	6,777	434	69.4	121.0	8.4	22.5	2.2	3.1	0.3	1.1	0.2	43.2	4.77	77.3	0.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	63.0	64.0	8,913	18,119	1,788	5,342	370	58.2	102.6	7.2	18.8	1.9	2.9	0.2	1.1	0.1	36.8	3.48	70.5	0.8
	64.0	65.0	6,708	14,004	1,402	3,989	288	46.8	86.2	6.3	17.2	1.8	2.4	0.3	1.3	0.1	35.6	2.66	60.2	1.6
	65.0	66.0	10,004	20,330	1,994	5,727	355	55.7	95.2	6.3	17.7	1.9	2.6	0.2	1.0	0.2	34.3	3.86	48.7	1.3
	66.0	67.0	9,769	20,084	1,945	5,762	368	56.2	98.6	6.6	18.4	1.9	3.0	0.3	1.4	0.2	39.4	3.82	63.3	1
	67.0	68.0	11,787	24,322	2,362	7,138	466	73.1	126.8	8.3	22.0	2.1	3.2	0.3	1.5	0.2	40.6	4.64	82.4	1.2
	68.0	69.0	9,312	19,102	1,843	5,552	377	59.6	106.3	7.6	20.7	2.1	3.2	0.3	1.3	0.2	40.6	3.64	69.7	1.1
	69.0	70.0	9,347	19,163	1,861	5,645	390	62.5	112.2	7.7	20.8	2.1	3.1	0.3	1.4	0.2	41.9	3.67	80.1	0.9
	70.0	71.0	10,743	22,234	2,175	6,602	446	72.3	132.0	9.4	26.1	2.6	3.5	0.4	1.6	0.2	52.1	4.25	111	1.1
	71.0	72.0	9,089	19,040	1,921	5,797	391	61.0	109.3	7.7	21.2	2.0	2.9	0.2	1.4	0.2	41.9	3.65	84	1.3
	72.0	73.0	8,960	18,856	1,879	5,610	387	61.8	114.5	8.0	22.7	2.2	3.0	0.2	1.3	0.2	43.2	3.59	91.9	1.1
	73.0	74.0	7,389	15,724	1,607	4,887	353	55.6	105.7	8.3	23.4	2.4	3.4	0.3	1.8	0.3	53.3	3.02	103	3.7
	74.0	75.0	4,140	9,102	940	2,729	183	28.0	51.9	4.1	11.0	1.2	2.1	0.2	1.0	0.2	26.7	1.72	41	8.2
	75.0	76.0	4,926	11,006	1,130	3,278	213	31.6	55.3	4.0	12.2	1.3	2.1	0.2	1.0	0.2	26.7	2.07	33	4.6
	76.0	77.0	3,073	6,732	668	2,088	146	22.4	40.3	3.1	9.2	1.0	1.5	0.2	0.9	0.2	20.3	1.28	29.5	9.5
	77.0	78.0	7,999	16,829	1,637	4,794	282	44.5	80.2	6.1	16.5	1.6	2.4	0.2	1.4	0.2	33.0	3.17	69	6.8
	78.0	79.0	1,742	3,894	391	1,242	94	14.8	28.0	2.1	6.3	0.7	1.3	0.2	0.8	0.1	16.5	0.74	23.7	10.8
	79.0	80.0	4,093	8,771	906	2,694	191	29.9	52.3	3.8	10.6	1.1	1.6	0.2	0.8	0.2	21.6	1.68	36.1	6.7
	80.0	81.0	2,234	4,840	470	1,452	100	15.2	26.5	1.9	5.9	0.8	1.4	0.2	0.9	0.1	15.2	0.92	12.6	6.8
	81.0	82.0	1,876	4,054	400	1,254	87	13.1	22.1	1.6	5.2	0.6	1.1	0.1	0.7	0.1	14.0	0.77	14.8	11
	82.0	83.0	9,840	20,514	1,951	5,564	321	49.4	90.7	6.9	21.1	2.3	4.0	0.4	2.6	0.4	57.2	3.84	64	5.8
	83.0	84.0	5,629	12,137	1,226	3,558	275	45.0	86.7	6.9	22.3	2.6	4.4	0.5	2.3	0.3	67.3	2.31	73.1	2.6
	84.0	85.0	3,882	9,041	954	2,881	203	32.2	57.8	4.5	13.2	1.5	2.3	0.2	1.1	0.2	33.0	1.71	40.6	8.5
	85.0	86.0	3,202	7,112	712	2,239	170	27.1	49.5	3.6	10.2	1.2	2.2	0.2	1.3	0.2	26.7	1.36	32	10.2
	86.0	87.0	5,266	11,117	1,131	3,336	238	37.5	68.8	4.9	14.2	1.6	2.5	0.3	1.5	0.2	36.8	2.13	61.8	4.9
	87.0	88.0	5,454	11,719	1,192	3,499	249	39.0	72.5	5.8	17.5	2.2	4.5	0.4	2.2	0.3	58.4	2.23	46.9	7
	88.0	89.0	5,618	12,407	1,269	3,802	290	45.6	83.0	6.2	18.1	2.2	4.0	0.5	2.3	0.3	54.6	2.36	50.5	8.5
	89.0	90.0	6,814	12,898	1,257	3,779	219	35.9	55.8	4.5	13.3	1.5	2.7	0.3	1.8	0.3	38.1	2.51	36.4	6.9
	90.0	91.0	5,442	10,957	1,135	3,686	253	41.9	66.2	5.3	16.3	2.0	4.1	0.5	2.5	0.4	57.2	2.17	54.9	7.3
	91.0	92.0	6,181	13,758	1,516	5,109	393	68.8	111.5	8.0	21.8	2.4	4.1	0.4	1.8	0.3	59.7	2.72	78.7	4.7
	92.0	93.0	5,911	13,697	1,559	5,517	451	79.4	128.5	9.3	25.5	2.7	4.8	0.5	2.2	0.3	71.1	2.75	119	1.2
	93.0	94.0	5,981	12,960	1,389	4,689	353	62.0	99.8	7.5	21.4	2.6	4.8	0.5	2.7	0.4	69.8	2.56	83.5	2.4
	94.0	95.0	5,020	10,343	1,086	3,569	244	40.1	60.1	4.4	11.7	1.3	1.9	0.2	1.0	0.2	25.4	2.04	39.5	6.2
	95.0	96.0	2,187	4,668	498	1,680	120	19.5	30.9	2.4	7.4	0.8	1.5	0.2	0.8	0.1	19.1	0.92	18.8	11.2
	96.0	97.0	3,565	7,051	714	2,309	151	24.7	38.8	2.8	8.2	0.9	1.6	0.2	1.0	0.2	20.3	1.39	21.2	9.1
	97.0	98.0	4,785	9,741	1,003	3,266	219	39.0	65.9	6.2	19.1	2.3	4.7	0.5	3.0	0.4	64.8	1.92	65.8	6.8
	98.0	99.0	4,234	8,832	907	2,869	181	30.6	49.8	4.2	12.6	1.4	2.5	0.3	1.9	0.3	36.8	1.72	39.3	8.5
	99.0	100.0	5,289	10,601	1,048	3,301	217	37.8	64.3	5.4	16.9	2.0	3.5	0.4	2.2	0.4	50.8	2.06	58.6	7.6
	100.0	101.0	1,124	2,543	282	1,008	100	21.8	45.8	5.3	21.7	3.3	7.8	0.9	5.7	0.8	88.9	0.53	21.3	11.6
	101.0	102.0	1,964	4,103	424	1,365	93	16.3	29.6	2.9	9.3	1.2	2.2	0.2	1.5	0.2	29.2	0.80	26.7	9.2
	102.0	103.0	4,750	9,901	1,033	3,429	249	45.9	80.6	7.3	20.7	2.2	4.1	0.5	2.5	0.4	59.7	1.96	81.6	7
	103.0	104.0	10,262	22,111	2,404	7,792	537	89.6	136.0	8.9	23.1	2.4	4.0	0.4	2.4	0.3	57.2	4.34	97.6	1.5
	104.0	105.0	7,588	15,109	1,553	4,934	330	57.6	97.9	8.9	29.3	3.4	6.8	0.7	3.9	0.5	102.9	2.98	93.8	2.8
	105.0	106.0	5,594	11,547	1,189	3,849	266	45.6	77.2	7.0	21.4	2.5	4.6	0.4	2.4	0.3	67.3	2.27	71	4.5
	106.0	107.0	4,363	8,955	929	3,044	204	31.8	48.2	3.5	10.2	1.0	1.9	0.2	0.9	0.1	22.9	1.76	31.8	6.1
	107.0	108.0	5,477	11,301	1,154	3,674	241	40.9	67.9	5.3	15.8	1.9	3.5	0.4	2.2	0.3	48.3	2.20	61.2	5.2
	108.0	109.0	4,750	9,410	956	3,079	197	32.8	51.2	4.1	11.8	1.4	2.4	0.3	1.5	0.2	33.0	1.85	39.5	5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	109.0	110.0	7,565	14,741	1,480	4,736	304	50.4	81.3	6.5	18.8	2.1	3.8	0.4	1.9	0.3	54.6	2.90	73.6	3.9
	110.0	111.0	7,178	14,127	1,426	4,467	281	46.9	71.6	6.0	17.5	2.0	4.0	0.4	2.3	0.3	54.6	2.77	48	5.4
	111.0	112.0	5,266	10,355	1,043	3,324	217	35.7	55.8	4.2	13.2	1.5	2.9	0.3	1.8	0.2	39.4	2.04	36.7	6.1
	112.0	113.0	3,976	8,329	876	2,939	223	38.7	63.6	5.2	14.9	1.6	2.7	0.3	1.5	0.2	39.4	1.65	57.7	6.9
	113.0	114.0	4,398	8,636	869	2,741	172	29.6	48.0	3.8	11.6	1.2	2.4	0.2	1.3	0.2	30.5	1.69	49.9	16.2
	114.0	115.0	4,421	8,648	884	2,811	198	36.1	65.5	6.1	17.8	2.0	3.7	0.4	1.9	0.3	53.3	1.71	94.3	14.2
	115.0	116.0	7,823	15,048	1,504	4,806	325	55.8	96.8	8.5	24.6	2.6	4.5	0.4	2.3	0.3	67.3	2.98	94.8	6.9
	116.0	117.0	5,583	10,785	1,075	3,359	217	37.3	65.9	6.3	19.3	2.1	3.9	0.4	2.1	0.3	55.9	2.12	88.2	8.1
	117.0	118.0	6,239	12,198	1,232	3,837	259	44.1	77.0	7.1	20.4	2.3	3.5	0.3	1.9	0.3	55.9	2.40	99.9	8.1
	118.0	119.0	5,852	11,387	1,139	3,593	239	40.0	67.8	5.6	17.2	2.0	3.4	0.3	2.1	0.2	52.1	2.24	64.6	10.6
	119.0	120.0	4,070	8,341	842	2,578	169	28.1	48.9	4.0	12.4	1.5	2.9	0.3	1.8	0.2	41.9	1.61	40.2	9.5
	120.0	121.0	6,122	12,223	1,195	3,511	217	35.3	60.4	4.7	13.3	1.5	2.7	0.3	1.7	0.2	41.9	2.34	45.6	7.9
	121.0	122.0	5,665	11,510	1,142	3,429	220	37.4	73.1	6.9	24.0	2.6	4.8	0.6	3.3	0.5	78.7	2.22	83.8	5.3
	122.0	123.0	4,750	10,110	1,020	3,138	205	32.7	60.6	4.7	13.5	1.5	2.7	0.3	1.6	0.3	40.6	1.94	68.5	5.2
	123.0	124.0	4,984	10,196	1,015	3,009	191	30.8	55.4	4.7	16.1	2.1	4.7	0.5	3.4	0.5	68.6	1.96	51.4	10.6
	124.0	125.0	6,274	12,714	1,250	3,674	239	39.7	72.2	5.9	19.1	2.1	3.8	0.3	1.8	0.2	61.0	2.44	74.9	6.4
	125.0	126.0	5,653	11,510	1,144	3,371	216	36.5	67.9	5.8	19.7	2.3	3.9	0.4	1.9	0.3	63.5	2.21	68.9	6.2
	126.0	127.0	5,934	11,805	1,132	3,289	205	34.7	63.3	5.1	16.3	1.7	3.2	0.3	1.6	0.2	49.5	2.25	60.7	4.9
	127.0	128.0	4,023	8,488	861	2,659	197	33.0	58.9	4.6	16.3	2.0	3.7	0.3	1.7	0.3	55.9	1.64	51.5	7.4
	128.0	129.0	2,756	6,658	750	2,543	206	34.3	57.3	4.2	12.7	1.5	2.5	0.3	1.5	0.2	41.9	1.31	51.8	4.8
	129.0	130.0	3,460	7,063	708	2,146	143	24.4	42.9	3.4	11.7	1.4	2.5	0.2	1.1	0.2	34.3	1.36	35.2	10.7
	130.0	131.0	3,577	9,225	1,028	3,709	314	51.3	82.1	6.0	18.0	2.0	3.5	0.3	1.6	0.2	47.0	1.81	85.3	4.7
	131.0	132.0	5,336	10,785	1,055	3,278	213	35.7	64.1	5.7	19.4	2.2	4.5	0.4	3.0	0.3	58.4	2.09	59.1	8.4
	132.0	133.0	6,380	12,898	1,275	3,814	241	39.5	69.0	5.4	17.9	2.1	3.9	0.3	1.7	0.2	58.4	2.48	52.1	8.6
	133.0	134.0	4,703	9,618	969	2,939	205	34.5	63.2	5.0	17.7	2.2	4.4	0.5	2.7	0.4	63.5	1.86	62.6	9.1
	134.0	135.0	10,508	20,207	1,957	5,750	386	63.9	112.8	8.6	27.0	3.1	5.8	0.6	3.1	0.4	88.9	3.91	92.1	6.4
	135.0	136.0	8,339	16,153	1,589	4,736	348	61.1	109.6	7.7	22.5	2.3	3.5	0.3	1.7	0.2	57.2	3.14	103.5	4.2
	136.0	137.0	7,729	15,785	1,559	4,561	285	44.8	75.3	5.5	15.6	1.7	3.1	0.3	1.6	0.2	44.5	3.01	54.2	1.9
	137.0	138.0	6,228	12,591	1,244	3,651	228	35.6	60.7	4.8	16.8	2.0	3.9	0.4	1.8	0.3	55.9	2.41	39.6	9.2
	138.0	139.0	5,418	10,810	1,051	3,138	188	29.9	49.9	3.6	11.6	1.4	2.4	0.2	1.3	0.2	34.3	2.07	33.6	8.2
	139.0	140.0	9,218	17,013	1,601	4,619	284	48.2	87.3	7.0	22.0	2.4	4.4	0.4	1.9	0.2	63.5	3.30	68.3	5.8
	140.0	141.0	6,638	12,272	1,145	3,231	198	33.6	60.5	4.9	16.0	1.7	2.9	0.2	1.3	0.2	47.0	2.37	48.7	1.6
	141.0	142.0	17,827	32,184	2,984	8,316	517	87.0	154.5	11.9	37.6	4.0	6.4	0.5	2.4	0.3	101.6	6.22	125	2.8
	142.0	143.0	15,950	28,745	2,658	7,663	496	81.1	145.2	10.5	32.5	3.4	5.0	0.4	1.9	0.2	86.4	5.59	113.5	2.2
	143.0	144.0	15,188	27,270	2,513	6,905	420	71.9	130.8	10.1	31.5	3.3	5.4	0.5	2.2	0.3	85.1	5.26	94.5	2
	144.0	145.0	9,183	16,768	1,559	4,339	266	46.0	83.0	6.7	23.3	2.6	4.4	0.4	1.9	0.2	67.3	3.23	67.4	7.6
	145.0	146.0	4,328	8,046	749	2,170	147	26.4	48.9	4.0	13.2	1.6	2.9	0.3	1.5	0.2	40.6	1.56	50.9	23.5
	146.0	147.0	8,843	16,706	1,631	4,864	362	65.3	127.9	10.8	31.2	2.9	4.6	0.4	1.7	0.2	72.4	3.27	197	8.2
	147.0	148.0	14,719	25,919	2,368	6,579	445	77.4	139.5	10.0	29.8	2.9	4.6	0.3	1.7	0.2	72.4	5.04	108	2.8
	148.0	149.0	10,719	20,146	1,969	5,832	431	75.8	136.6	9.8	29.6	3.2	5.0	0.4	1.9	0.3	77.5	3.94	111.5	8.7
	149.0	150.0	15,129	25,919	2,453	6,812	493	86.6	143.5	10.6	29.2	2.8	4.0	0.4	1.8	0.2	69.8	5.12	133	2.5
	150.0	151.0	14,543	24,937	2,338	6,497	466	82.8	138.9	9.8	27.4	2.9	4.9	0.5	1.7	0.4	68.6	4.91	125	2.3
	151.0	152.0	15,540	27,393	2,598	7,255	480	81.4	137.2	11.0	31.0	3.1	4.6	0.4	1.9	0.2	77.5	5.36	114	1.7
	152.0	153.0	15,422	27,885	2,694	7,710	555	97.5	159.6	12.2	32.9	3.2	4.6	0.5	1.7	0.3	71.1	5.47	163.5	9.3
	153.0	154.0	18,178	32,061	3,057	8,620	609	105.5	176.4	12.9	34.0	3.0	4.8	0.4	1.6	0.2	76.2	6.29	150	1.7
	154.0	155.0	15,246	26,288	2,453	6,753	464	81.5	134.3	10.1	28.7	2.9	4.9	0.5	2.4	0.3	72.4	5.15	117	2.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	155.0	156.0	15,305	26,779	2,489	6,882	462	80.1	133.1	10.4	29.0	2.9	4.6	0.4	1.8	0.3	71.1	5.23	121	1.9
	156.0	157.0	12,666	21,681	1,951	5,692	394	69.4	115.8	8.5	24.3	2.4	4.2	0.4	1.9	0.3	63.5	4.27	99.9	2
	157.0	158.0	18,120	30,710	2,827	7,582	467	79.2	135.4	10.4	30.9	3.1	4.8	0.4	1.7	0.2	74.9	6.00	113	1.7
	158.0	159.0	11,599	20,207	1,800	5,097	319	55.0	94.7	7.6	23.2	2.3	3.8	0.3	1.5	0.2	55.9	3.93	80.6	2.2
	159.0	160.0	7,858	14,249	1,323	3,849	221	34.6	54.9	4.5	14.8	1.5	2.5	0.2	1.0	0.1	39.4	2.77	41.3	4.5
<b>KGKRC038</b>	0.0	1.0	6,016	10,908	1,034	3,114	213	34.2	55.4	3.9	11.0	1.2	1.8	0.2	0.9	0.1	26.7	2.14	35.2	5.4
	1.0	2.0	5,805	10,687	1,023	3,126	215	34.6	56.1	3.7	10.4	1.1	1.9	0.2	0.8	0.1	25.4	2.10	32.6	2.3
	2.0	3.0	7,271	13,021	1,238	3,779	267	43.4	71.2	5.4	15.2	1.6	3.3	0.3	1.4	0.2	36.8	2.58	45.4	2.5
	3.0	4.0	6,228	11,436	1,085	3,324	226	36.9	57.4	4.1	10.8	1.2	1.7	0.1	0.8	0.1	24.1	2.24	31.6	2.8
	4.0	5.0	5,841	10,736	1,032	3,173	215	34.4	54.8	3.9	10.9	1.0	1.8	0.2	0.8	0.1	24.1	2.11	32.4	1.9
	5.0	6.0	7,248	12,530	1,159	3,464	227	37.5	60.6	4.1	10.8	1.2	1.6	0.2	0.8	0.1	25.4	2.48	27.5	1.8
	6.0	7.0	6,298	10,970	1,005	2,974	198	31.7	49.5	3.4	9.1	0.9	1.5	0.2	0.8	0.1	20.3	2.16	22.8	1.7
	7.0	8.0	6,286	11,203	1,051	3,184	212	34.0	55.7	3.7	10.0	1.0	1.7	0.2	0.7	0.1	22.9	2.21	25.1	1.4
	8.0	9.0	5,934	10,540	980	2,951	196	30.7	48.3	3.6	9.1	1.1	1.7	0.1	0.8	0.1	22.9	2.07	23.9	1.3
	9.0	10.0	6,685	12,087	1,143	3,488	233	37.1	59.7	4.0	10.0	1.1	1.5	0.2	0.6	0.1	21.6	2.38	31.1	4
	10.0	11.0	5,231	9,532	899	2,671	179	29.4	47.8	3.1	8.4	0.8	1.3	0.1	0.6	0.1	17.8	1.86	21.7	2.9
	11.0	12.0	6,368	11,486	1,067	3,138	209	34.3	56.3	3.7	9.5	1.0	1.6	0.1	0.7	0.1	20.3	2.24	25.5	2.4
	12.0	13.0	8,421	14,741	1,347	3,954	263	43.3	72.5	4.8	12.2	1.3	1.9	0.2	0.7	0.1	26.7	2.89	32.4	1.8
	13.0	14.0	6,251	10,675	1,015	2,858	192	31.3	51.9	3.4	9.1	1.1	1.8	0.3	0.8	0.3	19.1	2.11	24	2.8
	14.0	15.0	5,360	9,090	867	2,449	165	27.6	45.5	2.9	7.9	0.9	1.4	0.2	0.7	0.1	19.1	1.80	20.7	2.1
	15.0	16.0	5,688	10,011	981	2,811	187	30.9	50.5	3.2	8.5	0.9	1.4	0.1	0.7	0.1	17.8	1.98	23.1	3
	16.0	17.0	5,911	10,171	988	2,811	190	31.3	52.2	3.5	10.0	1.0	1.7	0.2	0.9	0.2	22.9	2.02	24.7	1.6
	17.0	18.0	7,002	11,977	1,160	3,278	221	37.2	61.7	4.1	10.2	1.0	1.6	0.1	0.7	0.1	21.6	2.38	28.4	1.9
	18.0	19.0	3,460	6,117	596	1,691	118	20.2	33.3	2.1	6.8	0.7	1.3	0.1	0.7	0.1	16.5	1.21	17.6	3.5
	19.0	20.0	8,526	14,004	1,341	3,732	250	41.3	68.5	4.4	11.7	1.1	1.9	0.2	0.9	0.1	25.4	2.80	28.6	3.7
	20.0	21.0	5,911	9,803	932	2,578	175	29.0	47.7	3.1	8.3	0.9	1.5	0.1	0.6	0.1	17.8	1.95	20.9	2.3
	21.0	22.0	6,439	10,834	1,038	2,893	194	33.1	53.5	3.4	9.5	1.0	1.7	0.2	0.8	0.1	24.1	2.15	24.4	3.3
	22.0	23.0	6,040	10,269	1,004	2,846	192	32.0	52.9	3.4	9.2	1.0	1.6	0.1	0.7	0.1	20.3	2.05	26	3.2
	23.0	24.0	11,200	17,996	1,710	4,724	329	59.3	103.2	7.1	19.7	2.0	3.2	0.3	1.1	0.2	41.9	3.62	57.8	2
	24.0	25.0	5,641	9,299	880	2,461	169	28.5	46.6	3.1	8.5	0.9	1.4	0.1	0.7	0.1	17.8	1.86	21	3
	25.0	26.0	5,899	10,331	1,006	2,869	198	32.7	53.1	3.5	9.4	1.0	1.5	0.2	0.8	0.1	20.3	2.04	25.8	2.4
	26.0	27.0	5,289	9,262	911	2,601	178	29.5	48.8	3.0	8.6	0.8	1.5	0.2	0.7	0.1	20.3	1.84	22.9	2.8
	27.0	28.0	4,480	7,800	766	2,199	151	25.9	42.8	2.9	7.8	0.8	1.5	0.1	0.7	0.1	17.8	1.55	21.3	3.9
	28.0	29.0	5,219	8,611	823	2,321	155	26.6	45.5	3.0	8.5	0.9	1.7	0.1	0.7	0.1	21.6	1.72	21.1	2.1
	29.0	30.0	714	1,235	123	349	24	4.3	7.2	0.5	1.0	0.1	0.2	-0.1	-0.2	-0.1	3.8	0.25	3.4	0.5
	30.0	31.0	1,824	3,231	320	933	71	12.4	21.3	1.5	4.5	0.5	0.9	0.1	0.5	0.1	12.7	0.64	12.4	1.1
	31.0	32.0	6,509	11,203	1,108	3,208	238	43.1	74.9	5.4	17.9	2.1	4.1	0.4	2.6	0.4	54.6	2.25	34.4	3
	32.0	33.0	5,043	8,832	882	2,589	199	35.7	60.9	4.4	14.8	1.8	3.7	0.4	2.5	0.4	47.0	1.77	26.7	4
	33.0	34.0	5,078	8,967	893	2,636	207	37.6	67.4	4.8	15.7	1.8	3.7	0.4	2.4	0.3	44.5	1.80	25.3	2.8
	34.0	35.0	4,668	8,218	822	2,414	179	32.2	53.7	3.7	11.5	1.3	2.5	0.2	1.5	0.2	31.8	1.64	25.1	2.4
	35.0	36.0	3,894	7,014	721	2,181	188	36.0	62.9	4.9	17.3	2.3	4.9	0.6	3.4	0.6	62.2	1.42	22.1	3.1
	36.0	37.0	5,629	10,024	1,002	2,939	224	39.8	68.8	4.9	16.6	2.1	3.9	0.4	2.4	0.3	52.1	2.00	26.3	2.5
	37.0	38.0	6,016	10,368	1,023	2,974	210	36.0	61.8	4.1	13.2	1.4	2.5	0.2	1.4	0.2	33.0	2.07	28	4.3
	38.0	39.0	3,601	6,768	715	2,222	188	35.1	63.7	5.1	17.3	1.8	3.5	0.4	2.7	0.5	49.5	1.37	53.6	4.6
	39.0	40.0	4,762	8,795	899	2,659	199	34.6	59.2	4.4	13.5	1.5	2.9	0.3	1.8	0.3	38.1	1.75	31.7	3.7
	40.0	41.0	4,996	9,594	1,017	3,079	242	41.9	70.9	4.9	14.8	1.6	3.2	0.3	1.9	0.3	39.4	1.91	43.4	1.7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	41.0	42.0	4,492	8,058	807	2,379	182	33.2	57.2	4.2	14.0	1.7	3.1	0.4	2.4	0.3	41.9	1.61	25.2	3.3
	42.0	43.0	4,586	8,501	863	2,578	205	36.6	65.6	4.6	16.4	2.0	3.9	0.5	3.1	0.4	53.3	1.69	29.9	3.9
	43.0	44.0	4,539	8,734	923	2,706	218	37.9	69.6	5.4	18.7	2.3	4.6	0.5	3.1	0.4	58.4	1.73	24.9	2.4
	44.0	45.0	7,705	14,925	1,595	4,794	336	53.6	89.6	6.0	17.2	1.9	3.4	0.3	1.8	0.3	43.2	2.96	39.4	2.4
	45.0	46.0	4,797	8,894	936	2,671	206	35.1	63.2	4.8	16.6	2.0	4.0	0.4	2.4	0.4	50.8	1.77	26	2.9
	46.0	47.0	3,530	6,732	695	2,210	194	34.9	64.9	4.9	17.5	2.4	4.9	0.5	3.4	0.5	61.0	1.36	23.5	3.5
	47.0	48.0	3,917	7,297	731	2,263	190	34.0	61.8	4.7	16.3	2.0	4.2	0.4	2.4	0.3	49.5	1.46	24.2	3.7
	48.0	49.0	5,184	9,459	974	2,764	220	38.8	72.4	5.6	18.8	2.4	4.8	0.5	2.9	0.3	57.2	1.88	27.6	3.2
	49.0	50.0	4,234	8,243	851	2,589	206	34.5	61.8	4.5	15.2	1.8	3.7	0.4	1.9	0.3	45.7	1.63	25	2.9
	50.0	51.0	4,902	9,225	961	2,764	218	37.9	69.4	5.3	17.1	2.2	4.5	0.5	3.0	0.4	53.3	1.83	25.5	2.9
	51.0	52.0	5,278	9,901	1,014	2,799	201	33.9	60.1	4.4	13.5	1.6	3.2	0.3	1.7	0.3	39.4	1.94	23.5	1.7
	52.0	53.0	5,758	11,142	1,161	3,289	242	40.4	71.2	5.2	15.6	1.9	3.5	0.4	2.2	0.3	47.0	2.18	24.5	2
	53.0	54.0	5,266	9,901	1,033	2,893	214	36.6	63.4	4.8	15.2	1.7	3.4	0.3	1.9	0.3	41.9	1.95	23.3	2.2
	54.0	55.0	6,662	11,854	1,208	3,429	257	43.4	79.0	5.6	18.4	2.1	4.0	0.4	2.3	0.3	50.8	2.36	30	2.4
	55.0	56.0	6,427	11,252	1,150	3,196	237	41.0	75.0	5.7	17.6	2.1	4.0	0.4	2.3	0.3	48.3	2.25	26.1	4.2
	56.0	57.0	5,196	9,594	981	2,776	208	35.8	66.4	5.2	16.3	1.9	3.8	0.4	2.4	0.3	45.7	1.89	25.4	3.9
	57.0	58.0	6,450	11,461	1,182	3,289	253	42.8	79.4	6.2	19.9	2.4	4.5	0.5	3.0	0.4	55.9	2.28	31	4.1
	58.0	59.0	1,994	3,476	329	969	79	13.7	26.7	2.4	8.6	1.3	3.1	0.4	2.5	0.4	33.0	0.69	21.8	10.4
	59.0	60.0	8,679	16,031	1,619	4,806	336	55.1	94.5	6.7	21.6	2.6	5.0	0.5	3.1	0.4	62.2	3.17	56.1	4.1
	60.0	61.0	8,667	15,662	1,595	4,642	322	54.1	96.1	6.7	22.0	2.6	5.2	0.5	3.0	0.3	63.5	3.11	45.5	2
	61.0	62.0	9,898	16,276	1,565	4,339	302	51.1	90.5	6.8	20.9	2.3	4.0	0.4	2.2	0.3	53.3	3.26	40	2.3
	62.0	63.0	5,676	10,650	1,093	3,079	220	36.2	64.7	4.8	14.6	1.7	2.9	0.3	1.5	0.2	38.1	2.09	28.6	2.2
	63.0	64.0	7,494	13,267	1,347	3,802	291	50.0	91.4	6.8	21.2	2.5	4.5	0.4	2.4	0.3	57.2	2.64	40.2	2.3
	64.0	65.0	13,311	22,050	2,151	6,065	393	61.4	105.2	7.0	19.7	1.9	3.1	0.3	1.4	0.2	40.6	4.42	47.2	13.6
	65.0	66.0	5,817	10,515	1,063	3,009	213	34.9	66.4	5.1	18.6	2.4	4.9	0.5	2.6	0.3	58.4	2.08	30.6	16
	66.0	67.0	6,228	11,363	1,168	3,243	220	33.9	56.7	3.6	10.3	1.1	1.8	0.2	0.9	0.1	24.1	2.24	25.1	0.9
	67.0	68.0	9,253	16,829	1,728	5,027	311	46.4	76.5	4.9	13.8	1.5	2.7	0.3	1.4	0.2	34.3	3.33	31.8	1.6
	68.0	69.0	3,730	6,842	666	2,018	161	28.1	56.9	4.9	18.1	2.4	5.0	0.5	3.0	0.4	59.7	1.36	28	3.5
	69.0	70.0	3,483	6,609	658	1,989	162	29.4	60.9	5.3	17.0	1.7	2.9	0.3	1.7	0.3	40.6	1.31	36.4	3.4
	70.0	71.0	3,589	7,014	712	2,222	188	34.0	67.7	5.5	19.6	2.5	4.9	0.5	2.9	0.4	59.7	1.39	45.5	4.5
	71.0	72.0	4,574	8,857	940	2,694	210	35.9	70.8	5.8	20.0	2.8	5.7	0.6	3.1	0.4	67.3	1.75	43.8	4.6
	72.0	73.0	2,463	5,036	542	1,761	166	31.5	66.5	5.9	23.3	3.3	7.4	0.8	4.4	0.6	85.1	1.02	36.2	4.8
	73.0	74.0	9,511	17,013	1,589	4,782	335	57.9	95.3	6.6	18.0	1.8	3.3	0.3	1.6	0.3	43.2	3.35	64.1	1.9
	74.0	75.0	1,560	3,108	312	1,031	105	22.9	51.9	5.3	23.3	3.4	7.6	0.8	4.0	0.5	91.4	0.63	23.4	3.8
	75.0	76.0	992	2,021	213	719	80	18.6	43.7	4.8	21.4	3.1	6.8	0.7	3.9	0.5	85.1	0.42	26.4	6.1
	76.0	77.0	2,651	5,356	545	1,755	147	28.8	54.5	4.5	16.8	2.2	4.5	0.5	2.5	0.3	54.6	1.06	17.7	3.2
	77.0	78.0	5,219	9,766	930	2,834	196	32.8	54.9	3.7	10.7	1.2	1.9	0.2	1.0	0.1	25.4	1.91	26	2.9
	78.0	79.0	7,600	13,205	1,214	3,593	242	41.6	68.9	4.7	13.8	1.5	2.6	0.2	1.1	0.2	33.0	2.60	30.9	2.5
	79.0	80.0	5,700	10,171	953	2,893	206	35.9	60.3	4.5	14.1	1.6	2.9	0.3	1.5	0.2	38.1	2.01	25.1	2.1
	80.0	81.0	6,732	12,407	1,167	3,523	250	43.4	74.2	5.3	16.4	1.9	3.1	0.3	1.6	0.2	45.7	2.43	28	2
	81.0	82.0	4,011	7,395	707	2,239	179	33.6	61.1	5.0	18.7	2.3	4.5	0.5	2.4	0.3	58.4	1.47	21.3	3.6
	82.0	83.0	3,448	6,621	649	2,053	161	30.6	53.1	4.7	17.2	2.4	5.6	0.6	3.6	0.5	68.6	1.31	19.7	1.2
	83.0	84.0	4,691	8,869	852	2,624	194	36.1	60.5	4.8	15.0	1.8	3.5	0.3	2.1	0.3	43.2	1.74	20.8	3.1
	84.0	85.0	5,970	10,650	993	2,951	201	34.3	59.2	4.5	13.5	1.6	3.1	0.3	1.5	0.3	38.1	2.09	22.3	4.8
	85.0	86.0	5,876	10,552	976	2,939	217	37.3	63.7	4.9	14.7	1.7	3.0	0.3	1.5	0.2	39.4	2.07	21.2	2.3
	86.0	87.0	6,802	12,345	1,147	3,406	230	40.1	67.3	4.9	15.8	1.7	3.1	0.3	1.6	0.2	40.6	2.41	23.8	2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	87.0	88.0	3,542	6,744	655	2,088	170	32.2	58.4	4.8	16.8	2.1	4.5	0.5	2.7	0.4	55.9	1.34	17.2	3.3
	88.0	89.0	4,433	8,574	841	2,671	215	39.8	69.4	5.4	18.5	2.4	5.0	0.6	3.9	0.5	62.2	1.69	31.8	2.8
	89.0	90.0	4,715	8,906	860	2,659	206	38.2	65.7	5.2	18.4	2.3	4.7	0.5	2.9	0.4	58.4	1.75	22.6	2.6
	90.0	91.0	4,574	8,476	806	2,484	183	33.5	58.0	4.6	15.0	1.8	3.5	0.4	2.2	0.3	45.7	1.67	20.7	3
	91.0	92.0	5,547	9,962	941	2,928	228	41.5	73.5	6.4	21.0	2.5	4.8	0.5	3.2	0.4	63.5	1.98	48.2	3.8
	92.0	93.0	4,926	9,115	869	2,648	192	34.4	60.1	4.5	15.4	1.8	3.5	0.4	1.9	0.2	45.7	1.79	20.8	2.4
	93.0	94.0	4,586	8,537	817	2,484	173	30.0	50.4	3.7	11.6	1.4	2.5	0.2	1.5	0.2	34.3	1.67	20.6	1.7
	94.0	95.0	4,281	7,972	755	2,292	179	33.4	58.4	4.7	16.6	2.0	4.2	0.5	2.7	0.4	54.6	1.57	21.8	0.8
	95.0	96.0	4,504	8,476	814	2,531	198	36.8	62.6	5.2	18.0	2.4	4.8	0.5	3.1	0.4	61.0	1.67	21.6	2.4
	96.0	97.0	4,808	9,176	887	2,764	206	35.8	62.4	4.8	15.7	1.9	3.8	0.4	2.3	0.3	49.5	1.80	23.8	3
	97.0	98.0	3,976	7,420	713	2,205	164	30.0	52.3	4.1	14.1	1.8	3.8	0.4	2.6	0.4	47.0	1.46	22.9	3.2
	98.0	99.0	4,656	8,722	832	2,508	180	33.2	56.5	4.4	13.9	1.6	3.0	0.3	1.6	0.2	38.1	1.71	30.4	2.3
	99.0	100.0	4,339	7,911	742	2,269	159	28.8	49.3	3.8	12.7	1.5	3.1	0.3	1.6	0.2	38.1	1.56	25.4	1.2
	100.0	101.0	1,384	2,690	268	867	81	17.4	36.1	3.9	16.3	2.4	5.4	0.5	3.5	0.4	66.0	0.54	16.9	1.7
	101.0	102.0	3,730	7,100	672	2,059	143	24.2	42.2	3.3	10.3	1.3	2.5	0.3	1.5	0.2	30.5	1.38	21.7	4.9
	102.0	103.0	5,454	10,466	999	3,021	206	32.9	54.6	3.6	10.4	1.1	1.9	0.2	0.9	0.1	25.4	2.03	23.2	2
	103.0	104.0	4,457	8,697	875	2,648	183	31.0	56.3	3.6	12.2	1.4	2.6	0.3	1.6	0.2	35.6	1.70	18.5	1.5
	104.0	105.0	5,196	9,766	991	2,893	202	35.6	63.9	4.4	13.5	1.6	2.9	0.3	1.7	0.2	38.1	1.92	19.9	2.3
	105.0	106.0	5,817	10,663	1,112	3,173	220	38.0	67.9	4.4	13.5	1.6	2.7	0.3	1.6	0.2	36.8	2.12	22.5	2.3
	106.0	107.0	4,210	8,206	822	2,601	198	36.0	68.0	4.8	16.8	2.1	4.2	0.5	2.9	0.4	55.9	1.62	19.4	2.7
	107.0	108.0	5,547	10,491	1,103	3,231	216	36.6	64.0	4.3	13.4	1.6	2.7	0.3	1.6	0.2	38.1	2.08	19.6	2.3
	108.0	109.0	5,618	10,736	1,124	3,243	216	36.9	64.7	4.3	12.6	1.5	2.6	0.3	1.3	0.2	35.6	2.11	19.8	2.5
	109.0	110.0	6,333	11,412	1,167	3,243	223	39.0	70.4	4.9	15.3	1.8	2.9	0.3	1.5	0.2	41.9	2.26	23.7	3
	110.0	111.0	7,084	13,021	1,317	3,721	250	42.7	76.2	5.0	15.5	1.7	3.0	0.3	1.6	0.2	40.6	2.56	24.4	2.5
	111.0	112.0	4,152	7,862	785	2,473	189	36.0	68.6	5.1	18.8	2.4	4.5	0.5	2.4	0.3	59.7	1.57	16.4	2.7
	112.0	113.0	4,949	9,520	1,004	2,858	197	34.0	59.2	3.9	12.9	1.5	2.6	0.3	1.4	0.2	36.8	1.87	19.2	1.2
	113.0	114.0	5,207	9,594	979	2,811	194	33.9	59.7	4.2	13.3	1.5	2.7	0.3	1.4	0.2	36.8	1.89	18.8	2.1
	114.0	115.0	4,891	8,918	857	2,578	174	30.5	53.7	3.5	11.3	1.2	2.3	0.2	1.3	0.2	33.0	1.76	17.9	3.6
	115.0	116.0	5,547	9,766	936	2,718	184	32.9	60.1	4.3	14.4	1.9	3.4	0.5	2.2	0.3	44.5	1.93	20.1	2.1
	116.0	117.0	5,266	9,729	970	2,799	201	36.8	67.9	5.1	17.7	2.1	3.9	0.5	2.6	0.3	54.6	1.92	25.5	0.5
	117.0	118.0	3,765	7,039	667	2,024	143	24.7	45.1	3.4	12.2	1.7	3.4	0.4	2.5	0.3	45.7	1.38	16.9	0.3
	118.0	119.0	4,550	8,648	832	2,496	175	31.0	56.8	4.1	14.8	1.9	3.8	0.5	2.3	0.3	49.5	1.69	16.7	-0.3
	119.0	120.0	3,190	5,921	581	1,779	132	24.0	46.6	3.7	14.0	1.9	3.5	0.4	1.9	0.2	48.3	1.17	11.4	1.1
	120.0	121.0	4,762	9,029	893	2,659	186	33.2	62.6	4.7	16.8	2.0	3.7	0.4	1.9	0.2	52.1	1.77	16	2.8
	121.0	122.0	3,999	7,678	755	2,315	165	30.2	57.2	4.5	16.2	2.1	3.9	0.4	1.8	0.2	52.1	1.51	13.6	1.2
	122.0	123.0	3,812	7,186	703	2,152	161	30.5	57.3	4.5	17.0	2.2	4.4	0.5	2.2	0.2	58.4	1.42	13.2	2.2
	123.0	124.0	4,597	8,574	822	2,543	181	33.5	61.8	4.8	18.1	2.4	4.5	0.5	2.1	0.2	58.4	1.69	15.2	3.5
	124.0	125.0	4,269	7,727	741	2,187	144	25.4	45.8	3.3	11.0	1.3	2.4	0.3	1.4	0.2	33.0	1.52	15.4	2.7
	125.0	126.0	2,357	4,410	429	1,359	120	25.4	55.2	5.1	20.2	2.9	6.2	0.7	3.6	0.5	82.5	0.89	30.3	7.9
	126.0	127.0	2,721	5,073	500	1,569	122	23.7	50.9	4.4	17.9	2.4	4.9	0.6	3.1	0.4	66.0	1.02	26	9.4
	127.0	128.0	6,392	11,228	1,101	3,056	198	34.3	64.2	4.5	14.2	1.7	2.7	0.3	1.5	0.2	41.9	2.21	28	2.5
	128.0	129.0	5,547	9,790	958	2,671	175	30.3	57.3	4.2	13.8	1.7	3.2	0.3	1.4	0.2	43.2	1.93	17.2	1.6
	129.0	130.0	5,876	9,876	930	2,613	166	29.1	52.4	3.7	12.4	1.5	2.7	0.3	1.5	0.2	36.8	1.96	16.4	1.6
	130.0	131.0	6,697	10,908	1,003	2,683	155	24.8	42.4	2.6	7.7	0.9	1.5	0.1	0.7	0.1	20.3	2.15	14.8	2.6
	131.0	132.0	6,544	10,233	921	2,391	135	22.2	37.3	2.3	6.8	0.9	1.6	0.1	0.8	0.1	19.1	2.03	15.2	7.2
	132.0	133.0	5,794	9,127	764	2,146	128	23.0	40.3	3.1	10.7	1.2	2.2	0.2	1.0	0.2	29.2	1.81	19.6	7.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	133.0	134.0	5,618	8,758	743	2,105	126	23.4	41.3	3.3	10.8	1.2	2.1	0.2	1.3	0.2	29.2	1.75	19.8	7.1
	134.0	135.0	9,242	14,188	1,238	3,266	182	31.8	51.9	3.9	11.3	1.2	2.1	0.2	0.8	0.1	25.4	2.82	26	4
	135.0	136.0	6,685	10,466	890	2,484	141	24.0	40.8	2.9	9.5	1.1	1.9	0.2	0.8	0.1	24.1	2.08	19.5	3.8
	136.0	137.0	6,802	10,736	928	2,554	142	24.1	39.3	2.5	7.8	0.9	1.5	0.1	0.7	0.1	20.3	2.13	15.8	2
	137.0	138.0	6,791	10,368	846	2,327	128	21.5	36.4	2.5	7.8	0.9	1.9	0.2	0.8	0.1	22.9	2.06	14.8	3.4
	138.0	139.0	5,043	7,530	619	1,668	91	15.4	25.2	1.8	4.9	0.5	1.0	0.1	0.5	0.1	12.7	1.50	10.4	3.9
	139.0	140.0	4,222	6,339	520	1,452	79	13.7	22.1	1.7	5.1	0.6	1.1	0.1	0.6	0.1	12.7	1.27	10.1	1.2
	140.0	141.0	4,175	6,117	494	1,330	73	13.0	23.1	1.6	5.3	0.5	1.0	0.1	0.7	0.1	14.0	1.22	9	2.8
	141.0	142.0	6,403	11,805	1,137	3,324	217	38.0	62.8	4.3	13.8	1.6	3.1	0.3	1.6	0.2	36.8	2.30	33.9	1.3
	142.0	143.0	8,303	15,416	1,516	4,316	284	50.7	86.7	6.1	20.0	2.3	4.1	0.4	1.9	0.3	50.8	3.01	45.5	1.4
	143.0	144.0	1,918	3,132	267	777	52	10.1	18.4	1.8	7.0	0.9	1.8	0.2	0.9	0.1	24.1	0.62	11.6	1
	144.0	145.0	2,393	3,501	283	793	47	9.0	17.9	1.8	7.7	1.0	1.7	0.2	0.8	0.1	24.1	0.71	15.8	1.6
	145.0	146.0	1,871	3,071	262	771	59	12.9	27.0	3.0	12.4	1.6	2.6	0.2	1.3	0.2	39.4	0.61	30.2	1.9
	146.0	147.0	2,920	4,521	378	1,071	64	12.3	24.9	2.5	9.9	1.3	2.1	0.3	1.3	0.2	30.5	0.90	18.1	1.5
	147.0	148.0	3,049	4,484	365	1,021	65	13.2	26.1	2.5	9.6	1.1	1.8	0.2	1.0	0.1	26.7	0.91	26.8	1.8
	148.0	149.0	3,730	5,233	412	1,121	69	13.9	27.7	2.5	8.8	1.1	2.1	0.2	1.3	0.2	27.9	1.07	22.9	1.5
	149.0	150.0	2,281	3,206	250	681	39	7.6	14.8	1.3	5.5	0.7	1.5	0.2	0.9	0.2	19.1	0.65	8.5	0.8
	150.0	151.0	15,364	21,128	1,722	4,222	217	37.9	62.1	4.4	12.2	1.2	1.7	0.2	0.8	0.1	25.4	4.28	36.8	1
	151.0	152.0	2,545	3,513	274	733	42	8.2	14.4	1.3	5.5	0.7	1.6	0.2	1.3	0.1	20.3	0.72	9.3	1.3
	152.0	153.0	2,662	3,685	274	724	40	7.6	14.4	1.3	4.9	0.7	1.5	0.2	0.9	0.1	16.5	0.74	12.8	0.9
	153.0	154.0	318	571	54	176	18	4.4	9.8	1.2	6.3	0.9	1.8	0.2	1.3	0.2	24.1	0.12	8.6	1.4
	154.0	155.0	321	555	51	160	14	3.6	8.3	0.9	4.9	0.7	1.6	0.2	1.1	0.1	21.6	0.11	6.2	1
	155.0	156.0	284	527	51	166	18	4.6	9.8	1.2	6.2	1.0	2.3	0.2	1.6	0.2	29.2	0.11	5.1	1.9
	156.0	157.0	323	565	54	171	18	4.6	10.8	1.4	7.0	1.2	2.6	0.3	1.9	0.3	35.6	0.12	4.1	2.9
	157.0	158.0	1,037	1,658	136	405	35	8.5	17.9	1.8	9.0	1.4	3.1	0.3	2.3	0.3	38.1	0.34	8.5	3.1
	158.0	159.0	718	1,095	83	223	12	1.9	2.9	0.2	0.8	0.1	0.2	-0.1	0.2	-0.1	-3.8	0.21	3.3	0.4
	159.0	160.0	475	760	64	177	10	1.7	2.9	0.2	0.7	0.1	-0.2	-0.1	0.2	-0.1	-3.8	0.15	4	0.5
	160.0	161.0	1,448	2,058	159	428	22	3.6	6.3	0.4	1.0	0.1	0.2	-0.1	-0.2	-0.1	-3.8	0.41	4.9	0.6
	161.0	162.0	12,432	17,198	1,395	3,441	175	31.3	51.5	3.4	8.4	0.7	1.1	0.1	0.3	0.1	15.2	3.48	24.3	0.5
	162.0	163.0	8,198	11,486	950	2,403	132	23.4	44.1	3.5	9.6	1.2	2.2	0.2	1.1	0.2	27.9	2.33	22.1	0.8
	163.0	164.0	4,808	6,609	515	1,388	77	13.9	26.7	2.2	6.9	0.8	1.7	0.2	0.9	0.1	21.6	1.35	14.4	0.9
	164.0	165.0	1,789	2,506	195	532	33	6.7	15.1	1.7	7.0	1.1	2.3	0.3	1.5	0.2	30.5	0.51	5.4	1.5
	165.0	166.0	2,721	3,771	297	811	51	9.6	20.1	1.8	6.8	1.0	1.9	0.2	1.3	0.2	25.4	0.77	12.7	1
	166.0	167.0	1,402	2,039	155	422	24	3.9	7.6	0.7	2.6	0.4	0.8	0.1	0.7	0.1	11.4	0.41	3	0.6
	167.0	168.0	2,176	3,046	235	626	36	6.0	11.4	1.0	3.3	0.5	1.0	0.2	0.8	0.1	12.7	0.62	4.4	0.8
	168.0	169.0	13,604	18,856	1,559	3,942	201	32.9	57.9	3.9	9.1	1.0	1.5	0.1	0.5	0.1	19.1	3.83	25.1	0.5
	169.0	170.0	1,730	2,414	187	516	31	5.0	9.6	0.6	2.1	0.2	0.5	-0.1	0.2	-0.1	6.4	0.49	4.5	0.4
	170.0	171.0	1,489	2,107	166	465	31	6.0	11.3	1.1	3.7	0.6	1.1	0.2	0.8	0.1	14.0	0.43	4.2	0.5
	171.0	172.0	878	1,511	129	392	29	5.8	12.7	1.2	5.2	0.9	1.9	0.2	1.4	0.2	22.9	0.30	5.1	0.7
	172.0	173.0	1,777	2,641	215	622	44	8.6	17.8	1.7	7.1	1.2	2.3	0.3	1.4	0.2	29.2	0.54	7.7	0.8
	173.0	174.0	9,465	15,232	1,371	3,791	241	41.3	75.7	5.2	14.5	1.7	2.7	0.2	1.3	0.2	34.3	3.03	33.6	1.3
	174.0	175.0	7,271	11,400	994	2,636	143	23.0	41.5	2.9	7.2	0.9	1.6	0.1	0.7	0.1	20.3	2.25	17.2	1.8
	175.0	176.0	7,740	12,075	1,096	2,846	154	23.7	40.6	2.9	7.4	0.9	1.6	0.2	0.7	0.1	19.1	2.40	16.4	1.8
	176.0	177.0	5,841	9,115	768	2,175	126	20.3	38.4	2.9	9.4	1.2	1.9	0.2	1.0	0.2	26.7	1.81	17.9	2.3
	177.0	178.0	8,010	12,898	1,159	3,126	168	25.5	44.4	2.9	7.2	0.9	1.4	0.1	0.7	0.1	17.8	2.55	18.2	0.9
	178.0	179.0	5,418	8,844	772	2,193	119	18.1	30.4	2.0	4.9	0.6	1.0	0.1	0.5	0.1	12.7	1.74	13.2	6.7

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	179.0	180.0	7,342	11,719	1,045	2,811	153	24.0	42.1	2.7	8.0	0.9	1.5	0.1	0.6	0.1	19.1	2.32	18	4.6
	180.0	181.0	7,131	10,810	889	2,403	128	19.1	32.0	2.2	5.9	0.7	1.3	0.1	0.6	0.1	16.5	2.14	15.8	1.9
<b>KGKRC039</b>	0.0	1.0	5,442	10,208	1,000	3,161	247	45.0	79.4	6.6	20.3	2.0	3.4	0.3	1.5	0.2	49.5	2.03	67.2	6
	1.0	2.0	7,963	16,338	1,643	5,202	363	60.0	98.4	7.6	22.8	2.3	3.5	0.4	1.4	0.3	54.6	3.18	68.6	2.5
	2.0	3.0	12,373	25,919	2,670	8,445	543	86.8	135.4	9.3	23.9	2.4	3.9	0.4	2.2	0.2	49.5	5.03	61.5	2.9
	3.0	4.0	16,947	34,150	3,468	10,673	661	104.2	173.5	12.9	37.0	4.1	6.0	0.6	2.5	0.3	92.7	6.63	101	2.3
	4.0	5.0	13,253	27,025	2,803	8,375	540	88.0	154.5	11.9	36.5	3.6	5.6	0.4	2.1	0.3	83.8	5.24	104.5	4.8
	5.0	6.0	16,536	32,798	3,226	9,693	629	108.5	190.2	14.5	42.9	4.2	6.8	0.5	2.5	0.4	97.8	6.34	125	3.9
	6.0	7.0	10,368	20,084	1,933	5,797	392	69.9	125.6	10.6	31.8	3.2	4.7	0.4	1.9	0.3	76.2	3.89	88.6	4.4
	7.0	8.0	11,247	21,866	2,102	6,205	399	68.8	118.7	9.5	27.8	2.8	4.5	0.4	1.6	0.2	66.0	4.21	75.3	4.3
	8.0	9.0	8,855	16,706	1,601	4,701	305	51.5	88.1	6.5	19.4	2.0	3.3	0.3	1.3	0.2	48.3	3.24	45.2	1.8
	9.0	10.0	9,031	16,829	1,613	4,841	310	52.8	91.9	6.6	20.9	2.1	3.2	0.2	1.0	0.1	47.0	3.28	43	1.6
	10.0	11.0	10,895	20,453	1,933	5,727	369	60.7	101.9	6.9	20.2	2.1	3.3	0.3	1.1	0.2	49.5	3.96	50.2	3.5
	11.0	12.0	6,063	12,063	1,183	3,616	235	38.8	63.9	4.3	12.4	1.3	2.4	0.2	1.3	0.2	33.0	2.33	32.5	2.1
	12.0	13.0	5,149	10,368	1,016	3,091	202	33.5	55.4	3.9	11.1	1.2	2.3	0.2	1.0	0.1	27.9	2.00	29.1	1.8
	13.0	14.0	9,465	18,672	1,812	5,400	350	58.1	99.6	7.1	21.9	2.4	4.0	0.3	1.7	0.2	54.6	3.59	52.7	3.4
	14.0	15.0	14,836	29,727	2,924	8,853	547	90.4	145.2	9.8	28.7	3.1	5.7	0.6	3.2	0.4	73.7	5.72	70.1	5.3
	15.0	16.0	22,518	42,994	4,108	12,072	739	125.1	208.6	14.4	40.2	3.9	6.1	0.5	2.4	0.3	86.4	8.29	104.5	4.1
	16.0	17.0	20,407	38,695	3,709	10,953	677	112.9	190.2	14.1	42.8	4.4	7.3	0.7	3.4	0.5	102.9	7.49	104.5	4.6
	17.0	18.0	19,234	36,975	3,552	10,334	639	109.8	188.5	13.9	41.6	4.4	7.8	0.7	4.3	0.6	109.2	7.12	102.5	5.3
	18.0	19.0	15,481	29,359	2,779	7,990	493	84.5	144.1	10.5	31.3	3.1	5.4	0.5	2.7	0.4	72.4	5.65	76	4.2
	19.0	20.0	12,901	23,892	2,265	6,590	412	70.2	119.3	8.8	27.8	3.0	5.2	0.5	2.7	0.3	73.7	4.64	68.5	3.6
	20.0	21.0	9,171	17,566	1,685	5,086	383	72.8	134.3	10.9	32.5	3.3	5.2	0.4	2.1	0.3	78.7	3.42	112	3.9
	21.0	22.0	11,083	23,094	2,332	7,068	470	79.6	135.4	9.7	27.9	2.7	4.4	0.4	1.6	0.2	63.5	4.44	85.6	2.6
	22.0	23.0	12,197	25,059	2,513	7,488	486	83.1	140.6	10.4	30.5	3.1	4.5	0.4	1.6	0.2	71.1	4.81	91.3	2.1
	23.0	24.0	11,963	24,937	2,549	7,698	488	79.8	132.0	9.4	26.9	2.8	4.7	0.4	2.2	0.3	64.8	4.80	71.5	4.6
	24.0	25.0	10,227	21,067	2,072	6,310	392	63.2	102.5	7.0	20.4	2.1	3.8	0.3	1.6	0.2	50.8	4.03	53.1	2.1
	25.0	26.0	12,197	24,937	2,453	7,547	495	80.5	136.0	9.4	27.4	2.8	4.7	0.4	1.8	0.2	68.6	4.80	80.9	2.9
	26.0	27.0	13,311	26,902	2,706	8,246	551	93.6	156.8	10.4	30.5	3.1	5.2	0.4	2.1	0.2	69.8	5.21	95.2	4.8
	27.0	28.0	15,305	30,341	2,984	8,818	540	87.5	145.8	10.8	33.7	3.6	6.2	0.5	2.5	0.3	83.8	5.84	81.3	4.2
	28.0	29.0	12,901	26,288	2,561	7,535	459	73.9	122.2	8.7	28.0	2.9	5.0	0.5	2.1	0.3	67.3	5.01	63	11.5
	29.0	30.0	8,280	16,706	1,631	4,864	297	47.9	77.3	5.3	15.5	1.7	2.7	0.2	1.3	0.2	38.1	3.20	37	2.3
	30.0	31.0	7,283	15,048	1,474	4,491	279	44.9	72.7	5.1	15.6	1.6	2.7	0.2	1.1	0.2	38.1	2.88	38.1	2.3
	31.0	32.0	5,454	11,166	1,089	3,289	206	33.6	54.5	3.6	11.1	1.3	2.2	0.2	1.0	0.2	29.2	2.13	25.6	2.3
	32.0	33.0	5,606	12,112	1,244	4,001	305	54.2	90.9	6.0	17.2	1.9	2.9	0.3	1.1	0.2	39.4	2.35	55.9	2.5
	33.0	34.0	9,617	19,654	1,945	5,914	366	58.6	92.9	5.9	16.5	1.7	2.9	0.2	1.1	0.2	36.8	3.77	42.9	1.4
	34.0	35.0	7,834	16,399	1,649	5,039	311	48.9	77.9	4.5	11.9	1.3	2.2	0.2	0.8	0.1	26.7	3.14	33.4	1.1
	35.0	36.0	8,503	18,057	1,861	5,867	399	58.2	91.1	5.7	14.9	1.6	2.4	0.2	1.0	0.2	33.0	3.49	38.2	1.9
	36.0	37.0	5,712	13,021	1,402	4,561	322	46.0	71.6	4.4	11.0	1.2	2.1	0.2	0.8	0.1	25.4	2.52	29.2	0.8
	37.0	38.0	5,137	11,350	1,208	3,942	282	40.6	65.0	4.1	11.4	1.2	1.9	0.2	1.0	0.2	25.4	2.21	27.5	1.1
	38.0	39.0	3,812	8,329	905	3,079	273	43.9	74.5	4.9	14.8	1.5	2.4	0.3	1.1	0.1	34.3	1.66	48.4	1.6
	39.0	40.0	5,629	12,591	1,359	4,456	327	50.6	77.6	5.1	13.5	1.3	2.6	0.2	0.9	0.1	30.5	2.45	35.6	0.9
	40.0	41.0	5,160	11,866	1,299	4,292	297	45.5	73.3	4.2	12.1	1.2	1.8	0.2	0.7	0.1	25.4	2.31	30.9	0.9
	41.0	42.0	5,829	13,697	1,510	5,051	353	53.0	84.7	5.1	14.1	1.5	2.4	0.2	1.0	0.1	31.8	2.66	37.3	1.5
	42.0	43.0	4,199	9,704	1,079	3,628	262	41.1	66.0	4.1	11.7	1.2	2.2	0.2	1.1	0.1	27.9	1.90	32.2	1.2
	43.0	44.0	6,920	15,478	1,685	5,529	402	62.2	99.0	6.6	19.2	2.0	3.2	0.2	1.4	0.2	43.2	3.03	50.7	2.1

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	44.0	45.0	7,658	16,829	1,800	5,867	408	63.1	101.2	6.3	16.9	1.8	3.1	0.3	1.5	0.2	40.6	3.28	45.8	2.6
	45.0	46.0	6,626	14,434	1,547	5,086	372	56.3	91.9	5.6	15.4	1.6	2.7	0.3	1.1	0.2	33.0	2.83	36.7	1.4
	46.0	47.0	6,521	14,372	1,528	5,039	368	57.8	91.8	5.7	16.1	1.7	2.6	0.2	1.3	0.2	38.1	2.80	43	0.9
	47.0	48.0	5,090	12,112	1,395	4,899	386	60.3	93.8	5.8	14.5	1.5	2.9	0.2	1.3	0.2	33.0	2.41	39.5	0.5
	48.0	49.0	6,568	16,153	1,836	6,450	510	79.3	121.6	6.7	17.8	1.7	2.9	0.2	1.1	0.2	36.8	3.18	55	0.8
	49.0	50.0	4,410	10,650	1,214	4,199	314	46.8	73.8	4.3	11.6	1.2	2.2	0.2	0.8	0.2	26.7	2.10	30.6	1.5
	50.0	51.0	5,442	13,942	1,655	5,820	451	68.7	106.0	6.0	14.6	1.5	2.6	0.2	1.0	0.2	30.5	2.75	40.8	1.3
	51.0	52.0	6,450	15,478	1,758	6,054	451	68.1	103.6	5.8	14.6	1.4	2.4	0.3	1.1	0.2	30.5	3.04	44.4	1.1
	52.0	53.0	5,794	13,267	1,468	4,981	371	58.6	92.3	5.4	14.6	1.5	2.5	0.3	1.1	0.3	34.3	2.61	39.6	1.7
	53.0	54.0	6,755	15,232	1,667	5,622	426	65.7	103.5	6.2	15.8	1.6	2.4	0.3	1.1	0.2	34.3	2.99	45.1	2.2
	54.0	55.0	5,149	11,326	1,226	4,129	304	47.4	77.0	4.6	12.1	1.3	1.8	0.2	1.0	0.1	27.9	2.23	32.9	1.8
	55.0	56.0	4,762	11,228	1,238	4,176	305	46.1	69.4	3.9	10.0	1.1	1.8	0.2	1.0	0.2	22.9	2.19	28.2	1.4
	56.0	57.0	4,633	11,092	1,281	4,409	337	51.2	79.4	4.8	12.5	1.3	2.3	0.2	1.0	0.2	27.9	2.19	36	1.6
	57.0	58.0	9,699	22,664	2,658	8,585	647	99.6	155.6	9.5	24.3	2.4	3.9	0.4	1.6	0.3	53.3	4.46	68.9	2.6
	58.0	59.0	7,647	16,583	1,788	5,960	451	71.0	115.8	7.2	18.7	1.9	3.1	0.3	1.5	0.2	41.9	3.27	53.2	1.6
	59.0	60.0	7,447	16,522	1,800	5,995	439	69.5	108.3	6.9	17.7	1.8	3.1	0.3	1.5	0.3	41.9	3.25	50.4	3.4
	60.0	61.0	5,184	11,510	1,244	4,164	305	47.4	78.8	5.2	14.5	1.6	2.7	0.3	1.4	0.2	35.6	2.26	45.5	3.7
	61.0	62.0	5,712	13,205	1,492	5,190	388	60.2	95.1	5.3	14.0	1.4	2.5	0.2	1.3	0.2	30.5	2.62	46.9	2.8
	62.0	63.0	5,899	13,574	1,540	5,202	390	60.0	94.6	5.7	14.5	1.5	2.4	0.3	1.4	0.2	33.0	2.68	47.4	1.9
	63.0	64.0	6,192	15,539	1,824	6,520	540	84.4	136.0	7.5	20.3	1.8	2.7	0.2	1.1	0.2	40.6	3.09	70	1.1
	64.0	65.0	5,067	12,591	1,486	5,016	393	62.5	99.8	6.2	14.6	1.4	2.4	0.2	1.3	0.2	29.2	2.48	44.8	1.7
	65.0	66.0	5,196	12,653	1,480	4,887	369	58.4	92.9	5.9	14.6	1.5	2.5	0.2	1.3	0.2	33.0	2.48	43.2	3.1
	66.0	67.0	6,591	15,969	1,903	6,369	474	72.8	114.3	6.9	17.2	1.6	2.7	0.3	1.0	0.2	34.3	3.16	54	1.6
	67.0	68.0	4,656	11,240	1,323	4,327	318	49.0	78.0	4.9	12.3	1.3	2.2	0.2	1.4	0.2	26.7	2.20	33.1	1.6
	68.0	69.0	8,784	21,313	2,453	7,955	584	89.0	145.2	9.2	23.2	2.3	3.2	0.3	1.1	0.2	44.5	4.14	77.4	1.5
	69.0	70.0	5,676	14,004	1,643	5,365	370	57.0	89.6	5.5	13.4	1.4	2.2	0.2	1.0	0.2	27.9	2.73	38.3	1.8
	70.0	71.0	6,368	15,601	1,836	6,030	446	68.6	107.9	6.7	16.8	1.6	2.4	0.2	0.9	0.2	31.8	3.05	50.4	1.2
	71.0	72.0	8,503	21,374	2,586	8,561	686	110.2	171.7	10.6	26.1	2.4	3.7	0.3	1.5	0.2	47.0	4.21	79.9	2
	72.0	73.0	5,747	13,942	1,619	5,260	363	54.5	85.0	5.1	12.6	1.3	2.1	0.2	1.1	0.2	26.7	2.71	33.8	1.3
	73.0	74.0	6,134	15,232	1,770	5,832	417	64.3	101.5	6.2	16.1	1.6	2.6	0.2	1.1	0.2	31.8	2.96	46.9	1.2
	74.0	75.0	6,216	14,495	1,661	5,342	375	56.0	87.9	5.5	13.8	1.4	2.4	0.2	1.1	0.2	29.2	2.83	38.5	1.5
	75.0	76.0	5,043	12,284	1,462	4,864	355	54.0	84.0	5.0	12.4	1.2	2.2	0.2	1.1	0.2	26.7	2.42	36.6	1.9
	76.0	77.0	4,750	12,087	1,450	4,887	382	60.4	97.4	6.2	15.6	1.5	2.5	0.2	1.1	0.2	31.8	2.38	49.7	2.2
	77.0	78.0	3,941	9,729	1,131	3,686	260	39.5	61.9	3.8	10.0	1.1	2.1	0.2	1.3	0.2	22.9	1.89	27.2	3
	78.0	79.0	4,762	11,621	1,347	4,479	343	51.9	79.5	5.0	13.1	1.3	2.4	0.2	1.4	0.2	39.4	2.27	36.9	2.3
	79.0	80.0	4,480	11,596	1,426	4,922	404	63.3	101.7	6.2	16.3	1.7	2.7	0.3	1.3	0.2	34.3	2.31	52.5	3.2
	80.0	81.0	4,363	10,454	1,192	3,907	276	41.8	66.5	4.4	11.0	1.1	1.9	0.2	0.9	0.1	22.9	2.03	30.8	1.2
	81.0	82.0	4,738	11,461	1,329	4,246	297	43.9	68.5	4.3	11.1	1.2	1.9	0.2	1.1	0.2	24.1	2.22	30.2	1.6
	82.0	83.0	5,055	12,014	1,365	4,456	312	46.3	74.5	4.6	12.3	1.3	2.3	0.2	1.1	0.2	27.9	2.34	34.2	2.9
	83.0	84.0	4,468	11,338	1,347	4,502	341	51.5	81.4	4.9	12.2	1.3	2.2	0.2	1.3	0.2	27.9	2.22	36.1	3.2
	84.0	85.0	4,703	11,191	1,281	4,211	305	46.8	74.3	4.5	11.8	1.3	2.3	0.2	1.3	0.2	26.7	2.19	33.6	3.3
	85.0	86.0	4,668	11,559	1,359	4,491	321	48.5	75.6	4.7	12.2	1.3	2.2	0.2	1.5	0.2	27.9	2.26	33.5	2.5
	86.0	87.0	4,468	10,933	1,257	4,176	307	45.4	72.0	4.3	13.1	1.4	4.2	0.6	1.5	0.6	26.7	2.13	30	4.3
	87.0	88.0	3,753	9,164	1,062	3,523	270	41.7	65.5	4.2	10.9	1.2	2.1	0.2	1.0	0.2	24.1	1.79	29.3	7.7
	88.0	89.0	4,152	9,925	1,138	3,686	269	41.1	64.7	3.9	10.4	1.1	1.9	0.2	0.9	0.2	24.1	1.93	27.2	5.9
	89.0	90.0	4,844	11,350	1,311	4,327	327	50.1	80.5	5.2	13.1	1.4	2.3	0.2	1.3	0.3	31.8	2.23	39.6	3.6

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	90.0	91.0	5,407	12,530	1,426	4,642	321	47.6	74.3	4.5	12.2	1.3	2.2	0.2	1.3	0.2	27.9	2.45	34.2	2.6
	91.0	92.0	4,902	11,645	1,347	4,409	317	48.4	76.4	4.6	11.7	1.2	2.2	0.2	1.1	0.2	25.4	2.28	33.4	2
	92.0	93.0	6,579	14,679	1,649	5,272	383	58.1	92.2	5.7	14.0	1.5	2.4	0.2	1.3	0.2	30.5	2.88	41.5	2.8
	93.0	94.0	5,313	12,653	1,450	4,782	357	54.4	86.2	5.3	13.5	1.4	2.3	0.2	1.1	0.2	29.2	2.47	39.9	3.2
	94.0	95.0	3,999	9,090	1,015	3,348	255	42.7	73.9	4.9	13.3	1.4	2.5	0.3	1.3	0.2	31.8	1.79	43.1	1.5
	95.0	96.0	5,712	12,468	1,383	4,456	312	50.0	81.6	5.1	12.7	1.4	2.6	0.2	1.5	0.2	30.5	2.45	40.6	3.8
	96.0	97.0	6,040	13,451	1,510	4,911	363	58.5	95.7	5.7	14.5	1.4	2.6	0.3	1.3	0.2	29.2	2.65	47.3	3.3
	97.0	98.0	6,462	15,109	1,746	5,914	446	67.4	109.7	6.3	16.1	1.6	2.9	0.3	1.3	0.2	33.0	2.99	53.3	3.1
	98.0	99.0	5,747	12,898	1,444	4,677	329	50.3	82.0	4.8	11.7	1.2	2.3	0.2	1.3	0.2	26.7	2.53	37.6	3.5
	99.0	100.0	5,336	12,026	1,365	4,444	334	53.6	90.3	5.9	16.4	1.6	2.6	0.3	1.4	0.2	35.6	2.37	58.4	2.7
	100.0	101.0	4,152	9,815	1,124	3,837	313	52.6	91.6	6.5	18.0	1.9	3.3	0.3	1.5	0.2	41.9	1.95	68.1	3.7
	101.0	102.0	5,547	12,653	1,474	4,899	359	56.4	93.4	5.7	14.9	1.6	2.5	0.2	1.3	0.2	31.8	2.51	48.2	3.5
	102.0	103.0	3,624	8,464	971	3,219	245	37.3	61.2	3.7	9.6	1.0	1.9	0.2	1.1	0.2	21.6	1.67	29.8	2.2
	103.0	104.0	5,712	12,960	1,462	4,759	330	51.6	82.9	4.9	11.6	1.2	2.2	0.2	1.4	0.2	24.1	2.54	36.3	3.3
	104.0	105.0	5,031	11,203	1,257	4,059	281	42.7	68.8	4.0	9.9	1.1	2.1	0.3	1.4	0.2	24.1	2.20	31	3.5
	105.0	106.0	7,424	15,478	1,649	5,260	364	56.9	95.8	5.8	14.8	1.6	2.9	0.3	1.3	0.2	34.3	3.04	46.9	2.3
	106.0	107.0	8,597	18,303	2,024	6,415	439	66.9	107.8	6.3	15.8	1.6	2.7	0.2	1.3	0.2	34.3	3.60	50.1	1.9
	107.0	108.0	10,016	20,576	2,229	6,882	477	75.4	123.9	7.7	18.1	1.9	3.2	0.3	1.5	0.2	39.4	4.05	62.2	2.1
	108.0	109.0	7,787	16,399	1,794	5,774	442	73.4	127.9	8.2	21.9	2.2	3.7	0.3	1.8	0.3	48.3	3.25	70.2	1.1
	109.0	110.0	5,606	12,837	1,438	4,806	395	65.3	114.9	7.5	20.9	2.1	3.4	0.3	1.5	0.2	47.0	2.53	73.3	1.2
	110.0	111.0	4,984	11,731	1,383	4,771	387	64.4	108.3	6.7	17.3	1.8	3.1	0.3	1.5	0.2	39.4	2.35	63.6	1
	111.0	112.0	3,776	8,783	994	3,289	242	37.6	62.1	3.9	10.2	1.1	1.9	0.2	1.1	0.2	24.1	1.72	32.1	1.1
	112.0	113.0	4,633	9,925	1,107	3,628	268	44.9	75.5	4.9	13.8	1.6	2.5	0.3	1.6	0.2	34.3	1.97	43.6	3
	113.0	114.0	8,866	16,829	1,764	5,634	477	86.6	161.9	12.1	35.4	3.7	5.7	0.5	2.4	0.3	83.8	3.40	109	2.6
	114.0	115.0	5,207	9,618	962	3,068	256	47.4	90.9	6.8	21.4	2.3	4.4	0.4	1.9	0.3	52.1	1.93	56.3	1.2
	115.0	116.0	5,981	12,026	1,281	4,036	298	48.5	83.5	5.6	14.4	1.5	2.6	0.2	1.1	0.2	33.0	2.38	44.1	1
	116.0	117.0	8,432	17,075	1,843	5,844	419	66.0	111.5	6.9	17.8	1.8	3.2	0.3	1.5	0.2	40.6	3.39	56.3	1.3
	117.0	118.0	14,601	29,850	3,202	10,101	741	118.7	199.4	11.8	28.8	2.6	4.4	0.3	1.6	0.2	58.4	5.89	113.5	1.2
	118.0	119.0	26,271	48,522	4,905	14,522	953	152.8	259.3	16.8	42.4	4.2	6.1	0.4	1.7	0.2	83.8	9.57	138.5	0.9
	119.0	120.0	9,699	18,979	1,963	6,019	415	68.7	114.6	7.6	20.0	1.9	3.4	0.3	1.6	0.2	41.9	3.73	59.5	2.1
	120.0	121.0	6,310	14,188	1,595	5,167	372	57.2	92.6	5.8	14.5	1.5	2.6	0.2	1.4	0.2	33.0	2.78	42	0.8
	121.0	122.0	4,996	11,486	1,299	4,304	308	48.2	80.3	4.9	13.7	1.4	2.5	0.2	1.5	0.2	30.5	2.26	39.6	1.4
	122.0	123.0	4,797	10,699	1,183	3,814	273	42.4	68.8	4.4	11.5	1.2	2.2	0.2	1.0	0.2	26.7	2.09	34	0.8
	123.0	124.0	4,375	9,729	1,079	3,511	254	38.9	64.3	4.0	10.8	1.1	1.8	0.2	0.9	0.2	24.1	1.91	33.3	1
	124.0	125.0	4,855	10,478	1,148	3,779	292	46.4	72.7	4.4	11.9	1.2	2.1	0.2	1.1	0.2	25.4	2.07	34.2	1.3
	125.0	126.0	4,480	9,336	1,010	3,243	239	38.6	59.5	3.7	10.7	1.1	1.9	0.2	1.0	0.2	24.1	1.84	28.9	0.9
	126.0	127.0	4,105	8,390	884	2,811	206	33.6	52.6	3.5	9.8	1.0	1.9	0.2	1.0	0.1	24.1	1.65	25.5	0.6
	127.0	128.0	3,718	7,714	820	2,613	194	31.6	50.1	3.1	9.5	1.0	1.7	0.2	0.9	0.1	22.9	1.52	24.9	0.8
	128.0	129.0	4,410	9,520	1,032	3,359	256	40.3	62.9	3.8	10.6	1.1	1.8	0.2	0.9	0.1	22.9	1.87	29.2	1.2
	129.0	130.0	5,899	12,898	1,456	4,806	385	63.2	97.2	5.8	15.4	1.5	2.6	0.2	1.0	0.2	30.5	2.57	45.9	1.1
	130.0	131.0	5,348	11,473	1,269	4,152	327	52.6	81.6	4.8	12.6	1.3	2.1	0.2	1.1	0.2	27.9	2.28	38.2	1.1
	131.0	132.0	5,348	11,608	1,311	4,339	365	61.7	99.4	6.0	15.7	1.5	2.3	0.2	1.1	0.1	31.8	2.32	53.7	1.2
	132.0	133.0	5,500	12,026	1,347	4,479	375	63.8	101.9	6.1	16.4	1.6	2.5	0.2	1.1	0.2	33.0	2.40	54.7	1.4
	133.0	134.0	5,641	12,223	1,353	4,502	372	60.1	92.0	5.5	15.3	1.4	2.5	0.2	1.3	0.2	30.5	2.43	46.1	1.6
	134.0	135.0	5,336	11,203	1,263	4,281	379	63.8	101.0	6.2	17.8	1.9	3.7	0.3	1.7	0.3	41.9	2.27	54.6	4
	135.0	136.0	4,046	8,390	910	3,009	253	42.4	67.1	4.2	13.3	1.5	3.0	0.3	1.7	0.3	35.6	1.68	35.6	6.5

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	136.0	137.0	8,655	16,522	1,716	5,389	414	65.8	102.9	6.3	17.6	1.8	3.0	0.3	1.6	0.2	36.8	3.29	56.2	3.6
	137.0	138.0	7,916	14,188	1,408	4,339	336	54.3	86.9	5.5	15.4	1.6	2.7	0.2	1.1	0.2	31.8	2.84	47.3	2.2
	138.0	139.0	7,201	14,311	1,534	4,957	399	63.2	97.1	5.7	15.5	1.6	2.7	0.2	1.3	0.2	31.8	2.86	44.6	3
	139.0	140.0	8,280	16,522	1,782	5,809	459	72.4	108.5	6.1	16.6	1.6	2.9	0.2	1.3	0.2	34.3	3.31	48.7	3
	140.0	141.0	6,415	12,775	1,353	4,397	346	53.7	83.3	4.9	13.5	1.4	2.6	0.3	1.4	0.2	30.5	2.55	36.1	2.9
	141.0	142.0	5,958	11,719	1,250	4,012	318	50.8	80.0	4.9	14.0	1.5	2.6	0.3	1.6	0.2	33.0	2.34	37.1	3.3
	142.0	143.0	6,286	11,891	1,232	3,884	306	51.1	79.9	5.0	14.4	1.5	2.5	0.3	1.1	0.2	31.8	2.38	38.1	2.5
	143.0	144.0	5,864	10,896	1,119	3,511	278	45.6	74.6	4.8	14.1	1.5	2.7	0.3	1.4	0.2	31.8	2.18	37.4	2.4
	144.0	145.0	5,465	10,663	1,124	3,558	267	43.0	66.0	4.0	11.8	1.2	2.6	0.3	1.5	0.2	27.9	2.12	29.1	3.3
	145.0	146.0	4,973	9,778	1,026	3,254	253	39.8	62.8	3.9	11.1	1.2	2.2	0.2	1.5	0.2	25.4	1.94	28.3	3.6
	146.0	147.0	4,586	8,881	925	2,928	223	36.5	55.2	3.4	10.0	1.1	2.1	0.2	1.1	0.2	24.1	1.77	26.4	3.8
	147.0	148.0	1,325	2,616	277	899	78	14.2	25.0	2.1	9.1	1.3	3.1	0.4	2.2	0.3	35.6	0.53	14.2	2.4
	148.0	149.0	3,460	6,609	695	2,199	176	29.8	49.1	3.3	10.6	1.2	2.3	0.3	1.5	0.2	29.2	1.33	26.8	2
	149.0	150.0	7,107	13,820	1,450	4,607	365	63.0	104.7	7.0	20.2	2.1	3.3	0.3	1.6	0.2	41.9	2.76	68.5	1.3
<b>KGKRC040</b>	0.0	1.0	7,987	13,328	1,244	3,639	255	42.8	69.9	4.7	13.8	1.4	2.5	0.3	1.3	0.2	34.3	2.66	34.1	2.1
	1.0	2.0	6,884	11,387	1,073	3,161	221	36.4	59.0	3.8	10.4	1.1	1.7	0.2	0.8	0.1	22.9	2.29	26.3	2.8
	2.0	3.0	10,297	16,153	1,480	4,199	288	47.5	76.0	4.7	12.4	1.2	2.1	0.2	0.7	0.1	25.4	3.26	32.7	2.1
	3.0	4.0	7,952	13,021	1,214	3,569	271	45.9	76.4	5.3	15.6	1.5	2.6	0.3	1.3	0.2	35.6	2.62	49.2	2.6
	4.0	5.0	5,113	9,532	878	2,613	178	28.1	46.7	3.2	8.0	0.8	1.5	0.1	0.6	0.1	17.8	1.84	20.4	1.7
	5.0	6.0	5,665	10,540	941	2,788	188	29.9	50.9	3.2	8.7	1.0	1.4	0.1	0.7	0.1	19.1	2.02	23.9	1.5
	6.0	7.0	5,383	9,999	921	2,718	190	29.5	50.3	3.3	8.7	1.0	1.6	0.1	0.7	0.1	19.1	1.93	24	1.9
	7.0	8.0	18,354	30,956	2,900	8,316	557	93.0	163.7	11.6	31.8	3.5	5.4	0.5	2.1	0.3	71.1	6.15	98.2	1.3
	8.0	9.0	7,600	14,065	1,263	3,639	253	41.8	71.9	4.6	12.4	1.3	2.3	0.2	0.8	0.1	27.9	2.70	32.8	1.5
	9.0	10.0	1,894	3,722	329	967	64	10.7	18.0	1.1	3.4	0.4	0.7	-0.1	0.3	-0.1	6.4	0.70	7.9	0.8
	10.0	11.0	4,656	8,783	800	2,356	158	25.6	43.7	3.0	7.6	0.8	1.3	0.2	0.8	0.1	17.8	1.69	22.6	2.1
	11.0	12.0	5,008	9,213	841	2,473	167	27.7	48.2	3.4	8.8	0.9	1.6	0.2	0.8	0.1	21.6	1.78	20.2	2.8
	12.0	13.0	7,529	14,004	1,293	3,861	286	48.9	83.7	6.1	16.8	1.9	3.0	0.3	1.4	0.1	40.6	2.72	44.1	1.9
	13.0	14.0	5,008	9,410	864	2,613	197	33.9	59.1	4.3	14.8	1.8	3.5	0.4	1.8	0.3	44.5	1.83	21.5	1.6
	14.0	15.0	4,539	8,611	801	2,473	199	35.6	64.3	4.8	17.7	2.4	4.8	0.6	3.4	0.4	61.0	1.68	20.9	2.2
	15.0	16.0	9,171	16,891	1,553	4,654	346	58.8	101.2	7.1	21.9	2.6	4.6	0.5	2.9	0.4	57.2	3.29	39.4	1.5
	16.0	17.0	3,342	6,597	623	1,954	168	30.6	58.6	4.8	18.1	2.4	4.4	0.5	3.1	0.4	57.2	1.29	22.5	2.6
	17.0	18.0	2,897	5,761	549	1,744	151	27.9	50.6	4.1	17.2	2.2	5.0	0.6	3.4	0.5	61.0	1.13	18.1	2.3
	18.0	19.0	4,375	8,709	809	2,519	197	34.5	61.7	4.6	15.2	2.1	4.2	0.6	2.7	0.4	52.1	1.68	23	2.2
	19.0	20.0	5,993	10,822	1,066	3,173	231	41.2	75.5	5.8	18.4	2.6	5.0	0.6	3.2	0.5	61.0	2.15	32	2.2
	20.0	21.0	7,541	13,820	1,353	4,024	279	49.2	90.0	6.7	21.1	2.8	5.2	0.6	3.5	0.5	67.3	2.73	34.4	2
	21.0	22.0	4,410	8,071	782	2,484	181	31.7	58.2	4.1	12.4	1.5	2.6	0.3	1.5	0.2	34.3	1.61	23.3	2.1
	22.0	23.0	4,961	9,483	965	2,986	208	35.1	62.1	4.1	11.7	1.3	2.2	0.2	1.0	0.2	27.9	1.87	28.3	1.4
	23.0	24.0	5,325	10,073	996	2,986	198	34.2	61.6	4.1	11.9	1.3	2.4	0.3	1.0	0.2	30.5	1.97	24.6	2.7
	24.0	25.0	4,679	8,439	806	2,543	186	32.9	62.9	4.9	16.6	2.2	4.2	0.5	2.7	0.4	54.6	1.68	21.2	2.8
	25.0	26.0	6,005	10,773	1,038	2,986	191	31.5	55.6	4.0	11.7	1.4	2.1	0.2	1.1	0.2	29.2	2.11	21.5	1.5
	26.0	27.0	5,794	10,503	1,003	2,974	187	30.0	53.0	3.5	10.2	1.3	1.8	0.2	1.3	0.2	25.4	2.06	21.5	1.4
	27.0	28.0	12,432	19,777	1,794	5,225	295	48.2	83.7	5.7	14.8	1.7	2.5	0.2	1.1	0.1	34.3	3.97	32.7	0.5
	28.0	29.0	13,604	20,760	1,885	5,179	286	45.7	78.0	5.6	14.9	1.6	2.6	0.2	1.3	0.2	34.3	4.19	37.9	0.6
	29.0	30.0	14,660	22,603	2,012	5,587	312	48.5	84.6	5.7	15.6	1.6	2.6	0.2	1.0	0.1	34.3	4.54	40.4	0.6
	30.0	31.0	15,129	23,401	2,120	5,960	343	54.0	92.2	6.1	17.7	1.8	3.5	0.3	1.5	0.2	41.9	4.72	46.3	0.9
	31.0	32.0	17,123	26,042	2,362	6,380	355	56.2	95.0	6.4	16.5	1.7	2.7	0.2	1.0	0.1	34.3	5.25	45.3	0.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	32.0	33.0	8,550	13,635	1,269	3,359	197	30.9	53.3	3.7	8.8	1.0	1.6	0.2	0.9	0.1	20.3	2.71	25.5	1.6
	33.0	34.0	6,228	10,245	999	2,694	169	27.4	47.6	3.3	8.7	1.0	1.6	0.2	0.8	0.1	20.3	2.04	22.4	2.7
	34.0	35.0	7,154	11,596	1,092	2,916	172	27.2	47.3	3.3	9.6	1.0	1.8	0.2	0.8	0.1	24.1	2.30	21.4	1.5
	35.0	36.0	7,600	13,021	1,281	3,523	212	34.0	56.4	3.9	10.7	1.2	1.8	0.2	0.8	0.1	24.1	2.58	25.9	1.5
	36.0	37.0	6,439	11,449	1,133	3,173	198	33.9	58.1	4.3	12.1	1.4	2.6	0.2	1.5	0.2	33.0	2.25	24.6	3
	37.0	38.0	3,647	6,670	661	2,082	154	26.6	48.8	3.9	12.4	1.6	3.5	0.3	2.1	0.3	40.6	1.34	20	3.4
	38.0	39.0	6,439	11,068	1,112	3,138	214	36.5	65.6	5.1	15.8	1.9	3.7	0.4	2.4	0.3	47.0	2.21	24.7	3
	39.0	40.0	5,946	11,117	1,137	3,254	215	33.8	59.6	4.5	13.5	1.5	2.9	0.3	1.7	0.2	36.8	2.18	25.6	4
	40.0	41.0	5,184	9,975	1,054	3,196	269	53.7	108.5	10.5	41.1	5.7	12.0	1.3	7.4	0.8	146.0	2.01	26.4	5.5
	41.0	42.0	2,152	4,287	451	1,522	154	32.9	75.8	7.9	32.8	4.7	10.4	1.1	6.3	0.6	120.6	0.89	44.1	5.7
	42.0	43.0	2,357	4,471	471	1,569	145	30.1	67.7	7.0	28.6	4.3	10.2	1.0	6.6	0.7	114.3	0.93	39.9	6.8
	43.0	44.0	12,959	24,077	2,573	7,290	472	77.1	123.9	9.3	26.4	3.2	6.0	0.6	3.4	0.4	73.7	4.77	47.1	4.9
	44.0	45.0	1,302	2,469	243	771	53	9.4	17.4	1.6	6.5	1.1	2.4	0.4	2.6	0.3	27.9	0.49	16.8	4.4
	45.0	46.0	4,926	9,029	951	2,788	213	36.9	68.9	5.5	17.9	2.3	4.8	0.5	3.5	0.5	59.7	1.81	23.9	3
	46.0	47.0	5,219	9,631	976	2,939	221	38.8	70.1	5.7	18.5	2.3	4.8	0.5	3.1	0.4	59.7	1.92	25.8	2.9
	47.0	48.0	5,231	9,594	980	2,858	198	34.5	61.7	4.9	14.8	1.7	3.5	0.3	2.2	0.3	44.5	1.90	26	2.9
	48.0	49.0	3,436	6,400	639	2,065	183	34.7	69.2	6.2	22.6	3.3	7.1	0.8	4.8	0.6	90.2	1.30	30.4	5.2
	49.0	50.0	4,797	8,894	895	2,671	201	36.0	65.7	5.3	17.5	2.1	4.2	0.5	2.9	0.4	52.1	1.76	29	7.2
	50.0	51.0	6,591	11,842	1,214	3,628	281	50.5	93.1	7.3	23.2	2.6	5.2	0.5	3.1	0.4	62.2	2.38	26.2	2.6
	51.0	52.0	8,503	14,925	1,480	4,491	353	63.8	113.2	8.8	26.4	3.2	5.5	0.6	4.1	0.5	74.9	3.01	30.6	3.2
	52.0	53.0	3,800	6,633	650	1,995	177	35.1	68.5	6.3	22.4	3.3	7.0	0.9	5.2	0.8	88.9	1.35	29.8	4.1
	53.0	54.0	3,730	6,498	632	1,930	166	32.5	60.2	5.4	17.5	2.5	4.5	0.5	3.5	0.6	63.5	1.31	25.6	3.8
	54.0	55.0	4,762	8,083	781	2,344	191	35.6	66.3	5.3	16.9	2.1	4.4	0.5	3.0	0.4	55.9	1.64	25.4	3.7
	55.0	56.0	5,125	8,685	822	2,461	184	33.7	59.9	4.7	15.6	1.8	3.1	0.4	2.1	0.3	43.2	1.74	19.7	2.1
	56.0	57.0	5,606	9,397	894	2,659	193	34.5	62.7	5.0	14.9	1.7	3.0	0.4	1.8	0.3	41.9	1.89	22.4	2.8
	57.0	58.0	5,442	9,250	889	2,671	193	33.1	58.6	4.5	13.3	1.6	2.7	0.3	1.5	0.2	36.8	1.86	21.5	3.9
	58.0	59.0	3,823	7,248	714	2,245	193	37.5	69.9	5.8	20.1	2.9	5.8	0.7	3.5	0.5	71.1	1.44	24.4	4
	59.0	60.0	4,785	8,697	840	2,531	194	35.4	63.7	5.1	16.1	2.1	4.1	0.5	2.6	0.4	49.5	1.72	18.6	2.6
	60.0	61.0	2,756	5,270	521	1,633	141	27.2	52.1	4.4	14.2	2.0	4.2	0.5	2.4	0.3	48.3	1.05	12.2	0.5
	61.0	62.0	5,336	9,741	924	2,741	205	36.9	67.1	5.0	16.1	1.9	3.9	0.4	2.1	0.3	44.5	1.91	22.6	2.2
	62.0	63.0	5,876	11,412	1,107	3,348	230	37.3	61.4	4.2	10.9	1.2	2.3	0.2	1.0	0.2	25.4	2.21	29.5	1.1
	63.0	64.0	8,210	14,864	1,414	4,176	293	51.2	86.9	6.0	16.1	1.7	2.7	0.2	1.1	0.2	34.3	2.92	41.8	2
	64.0	65.0	5,899	10,417	981	2,869	206	37.6	65.5	4.9	14.9	1.9	3.5	0.4	2.1	0.3	44.5	2.05	24.3	2.2
	65.0	66.0	6,052	10,626	986	2,834	196	34.0	60.2	4.5	12.5	1.4	2.5	0.2	1.3	0.2	30.5	2.08	25.9	3.3
	66.0	67.0	5,196	9,139	845	2,414	173	30.7	54.1	4.3	13.0	1.6	2.9	0.3	1.7	0.2	36.8	1.79	21.1	3.1
	67.0	68.0	7,119	12,591	1,160	3,336	231	40.3	69.3	5.0	14.5	1.6	2.6	0.3	1.5	0.3	34.3	2.46	33.1	2.5
	68.0	69.0	6,673	11,645	1,080	3,161	221	37.2	62.7	4.5	13.1	1.6	2.9	0.2	1.3	0.1	33.0	2.29	27.9	4.1
	69.0	70.0	10,778	17,505	1,553	4,362	282	47.5	80.9	5.8	15.8	1.7	3.0	0.3	1.3	0.2	38.1	3.47	29.6	2.2
	70.0	71.0	5,829	10,122	923	2,659	184	33.6	61.4	5.1	15.6	2.1	3.9	0.4	1.8	0.2	47.0	1.99	20	5
	71.0	72.0	6,497	11,584	1,073	3,091	211	36.6	62.9	4.7	14.0	1.7	3.1	0.3	1.5	0.2	36.8	2.26	22.8	4.3
	72.0	73.0	7,049	12,284	1,139	3,289	226	38.2	66.5	4.7	13.3	1.6	3.0	0.3	1.4	0.2	34.3	2.42	29.4	2
	73.0	74.0	5,207	9,422	892	2,636	193	35.3	64.9	5.2	17.0	2.2	4.4	0.4	1.9	0.3	50.8	1.85	22.8	3.4
	74.0	75.0	5,700	10,073	942	2,764	197	34.0	61.2	4.8	14.7	2.0	3.4	0.4	1.8	0.2	43.2	1.98	22.8	2.9
	75.0	76.0	5,008	8,513	776	2,263	169	31.3	59.9	5.1	17.9	2.4	4.8	0.5	2.2	0.3	57.2	1.69	18.6	2.6
	76.0	77.0	5,993	9,987	904	2,578	183	33.4	64.4	5.1	17.0	2.3	4.2	0.4	2.2	0.3	50.8	1.98	21.2	2.9
	77.0	78.0	3,636	5,958	524	1,493	108	20.6	40.6	3.8	13.5	1.9	4.0	0.4	2.3	0.3	47.0	1.19	14.7	4.3

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	78.0	79.0	5,067	7,899	658	1,750	101	16.4	26.9	2.0	5.5	0.7	1.3	0.1	0.6	0.1	15.2	1.55	11.8	1.9
	79.0	80.0	5,864	10,073	900	2,543	166	27.1	45.1	3.2	8.2	0.9	1.5	0.2	0.6	0.1	17.8	1.97	22.2	0.4
	80.0	81.0	4,879	7,714	654	1,767	105	18.1	29.9	2.3	6.2	0.8	1.4	0.1	0.7	0.1	16.5	1.52	14.2	1.9
	81.0	82.0	4,902	7,813	662	1,779	106	17.6	28.5	2.0	6.0	0.7	1.3	0.1	0.7	0.1	16.5	1.53	13.4	1.4
	82.0	83.0	6,181	10,036	877	2,461	164	27.8	50.1	3.8	11.0	1.4	2.3	0.2	1.1	0.2	30.5	1.98	22.8	0.7
	83.0	84.0	9,066	16,215	1,528	4,456	312	51.3	84.5	5.3	13.3	1.4	2.3	0.2	0.8	0.1	26.7	3.18	50.8	1.2
	84.0	85.0	8,069	14,127	1,305	3,814	261	42.4	69.0	4.4	11.3	1.2	2.1	0.2	0.9	0.1	25.4	2.77	41.4	0.7
	85.0	86.0	2,510	3,833	325	891	59	10.3	18.9	1.6	5.2	0.7	1.4	0.1	0.6	0.1	15.2	0.77	10.8	1.2
	86.0	87.0	7,611	11,977	1,020	2,788	175	29.3	51.4	4.1	12.5	1.5	2.3	0.2	1.0	0.2	33.0	2.37	28.4	1
	87.0	88.0	11,470	17,750	1,498	4,024	241	39.3	64.7	4.5	12.2	1.4	2.2	0.2	0.8	0.1	26.7	3.51	29.3	0.5
	88.0	89.0	3,859	5,945	501	1,365	94	16.0	28.2	3.0	10.2	1.3	2.4	0.5	1.6	0.5	30.5	1.19	16.4	0.7
	89.0	90.0	1,554	2,451	213	586	43	8.2	15.8	2.0	8.3	1.0	1.8	0.2	1.4	0.2	26.7	0.49	9.8	0.8
	90.0	91.0	3,753	5,528	462	1,260	82	14.2	24.9	2.4	8.4	1.0	1.9	0.2	1.3	0.2	26.7	1.12	12.2	0.3
	91.0	92.0	2,322	3,464	290	801	60	11.8	22.7	2.3	8.7	1.2	2.2	0.2	1.5	0.2	30.5	0.70	13.5	0.5
	92.0	93.0	7,963	11,142	886	2,274	133	21.8	34.8	2.9	8.7	1.0	2.1	0.2	1.1	0.2	25.4	2.25	19.2	0.9
	93.0	94.0	15,246	21,251	1,691	4,304	238	37.6	57.9	4.3	10.6	1.0	1.6	0.1	0.8	0.1	21.6	4.29	33.6	0.5
	94.0	95.0	12,842	18,180	1,456	3,732	212	33.9	52.0	3.9	9.8	0.9	1.4	0.1	0.6	0.1	17.8	3.65	26.7	0.4
	95.0	96.0	12,725	18,917	1,534	3,989	229	36.6	56.4	4.1	10.3	1.0	1.7	0.2	0.8	0.1	24.1	3.75	27	0.7
	96.0	97.0	10,285	14,434	1,168	3,091	199	35.0	60.6	5.6	15.6	1.7	3.0	0.3	1.9	0.2	43.2	2.93	57	1.1
	97.0	98.0	10,743	15,355	1,250	3,243	207	35.2	58.1	5.1	14.0	1.4	2.2	0.2	1.1	0.2	31.8	3.09	46.6	0.8
	98.0	99.0	10,508	15,355	1,250	3,254	191	31.6	50.8	4.3	11.5	1.2	1.9	0.2	1.0	0.2	27.9	3.07	28.8	0.4
	99.0	100.0	18,237	26,533	2,175	5,669	335	54.9	87.9	6.9	17.6	1.7	2.9	0.3	1.3	0.2	38.1	5.32	53.3	0.4
	100.0	101.0	18,999	27,025	2,199	5,587	322	51.9	79.2	6.0	15.2	1.5	2.3	0.2	1.0	0.2	33.0	5.43	41.3	0.5
	101.0	102.0	20,641	28,622	2,465	6,065	348	54.8	91.2	5.9	15.8	1.7	2.2	0.2	1.0	0.1	34.3	5.83	47.2	0.5
	102.0	103.0	23,397	32,921	2,646	6,730	390	63.0	96.2	7.2	17.8	1.6	2.4	0.2	0.8	0.1	33.0	6.63	55.6	0.4
	103.0	104.0	5,524	8,476	715	1,930	127	21.3	33.9	2.8	7.8	0.8	1.5	0.1	0.8	0.1	19.1	1.69	21.4	0.3
	104.0	105.0	5,747	8,415	694	1,820	112	19.5	31.7	2.5	7.1	0.8	1.3	0.1	0.6	0.1	16.5	1.69	19.8	0.6
	105.0	106.0	2,029	3,108	256	694	49	8.9	16.1	1.7	5.3	0.6	1.1	0.1	0.7	0.1	16.5	0.62	12	0.8
	106.0	107.0	1,413	2,187	185	523	42	8.3	15.8	1.8	6.4	0.8	1.6	0.2	1.3	0.2	22.9	0.44	16.6	0.7
	107.0	108.0	1,613	2,494	212	582	42	7.8	14.1	1.4	5.3	0.7	1.3	0.2	1.0	0.1	17.8	0.50	8.6	0.6
	108.0	109.0	1,871	2,813	233	623	41	7.4	13.4	1.3	4.8	0.7	1.4	0.2	1.1	0.1	19.1	0.56	6.5	0.7
	109.0	110.0	1,671	2,457	200	533	36	6.7	12.3	1.4	5.2	0.7	1.7	0.2	1.1	0.2	21.6	0.49	5.3	1.1
	110.0	111.0	2,146	3,120	251	653	40	7.4	12.9	1.3	4.5	0.6	1.0	0.1	0.9	0.1	16.5	0.63	7	1
	111.0	112.0	3,917	5,626	445	1,155	73	12.9	20.8	1.8	5.3	0.6	0.9	0.1	0.6	0.1	14.0	1.13	10.9	1
	112.0	113.0	4,621	7,886	718	2,146	163	29.4	49.7	4.5	13.1	1.3	2.2	0.3	1.1	0.2	33.0	1.57	41.1	1.3
	113.0	114.0	10,285	17,750	1,649	4,934	362	61.0	97.6	7.2	18.5	1.8	2.7	0.2	0.9	0.1	39.4	3.52	63.6	1.9
	114.0	115.0	5,747	10,343	968	2,846	216	38.0	62.4	5.3	16.0	1.8	3.1	0.3	1.6	0.2	41.9	2.03	41.8	1.3
	115.0	116.0	11,118	20,023	1,879	5,517	391	61.6	99.4	7.3	19.9	1.8	2.7	0.2	1.0	0.1	39.4	3.92	73.2	1
	116.0	117.0	7,271	11,891	1,056	2,963	202	33.2	54.2	4.4	11.9	1.2	1.9	0.2	0.8	0.1	26.7	2.35	30.4	0.4
	117.0	118.0	6,615	10,785	933	2,566	169	28.1	46.7	3.7	10.6	1.1	1.8	0.1	0.9	0.1	25.4	2.12	28.3	-0.3
	118.0	119.0	8,432	14,004	1,317	3,464	213	34.2	63.7	4.3	10.9	1.1	1.9	0.2	0.7	0.1	26.7	2.76	29.4	0.4
	119.0	120.0	9,277	15,171	1,468	3,814	231	36.9	67.5	4.4	10.9	1.1	1.7	0.2	0.7	0.1	24.1	3.01	25.1	0.5
	120.0	121.0	6,978	10,945	1,025	2,601	155	24.9	46.1	3.3	9.0	1.0	1.6	0.1	0.7	0.1	22.9	2.18	18.6	0.6
	121.0	122.0	5,477	8,599	758	2,035	121	20.2	37.5	2.6	7.6	0.9	1.6	0.2	0.7	0.1	21.6	1.71	14	0.3
	122.0	123.0	6,040	9,643	840	2,263	133	20.8	39.7	2.7	7.4	0.8	1.5	0.1	0.7	0.1	19.1	1.90	14.7	-0.3
	123.0	124.0	10,074	15,969	1,468	3,709	217	34.3	60.2	4.0	10.7	1.1	1.7	0.2	0.7	0.1	25.4	3.16	23.6	0.6

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	124.0	125.0	8,163	13,021	1,226	3,184	193	31.4	60.9	5.2	16.8	1.9	3.1	0.3	1.3	0.2	45.7	2.60	30.6	0.5
	125.0	126.0	15,481	23,585	2,132	5,797	325	53.8	99.8	7.4	21.1	2.2	3.4	0.3	1.3	0.2	48.3	4.76	56.2	0.7
	126.0	127.0	6,615	10,405	907	2,414	141	23.6	43.9	3.3	8.7	1.0	1.7	0.2	0.8	0.1	24.1	2.06	16.3	0.5
	127.0	128.0	11,060	16,031	1,359	3,581	220	35.3	60.4	4.3	11.3	1.2	1.9	0.2	0.8	0.2	26.7	3.24	24.6	0.3
	128.0	129.0	7,224	10,626	907	2,473	150	25.6	41.4	3.1	8.8	1.0	1.6	0.2	1.0	0.2	21.6	2.15	16.8	-0.3
	129.0	130.0	6,638	9,741	845	2,315	142	23.5	38.5	2.9	7.6	0.9	1.4	0.1	0.6	0.1	19.1	1.98	15.3	-0.3
	130.0	131.0	5,817	8,857	762	2,094	131	22.0	36.4	2.7	7.1	0.9	1.4	0.1	0.7	0.1	19.1	1.78	14.6	-0.3
	131.0	132.0	7,436	11,535	1,078	2,753	166	26.4	48.8	3.1	8.6	0.9	1.4	0.1	0.6	0.1	19.1	2.31	17.8	0.3
	132.0	133.0	4,879	7,849	713	2,018	132	21.5	41.7	2.8	8.2	0.9	1.5	0.1	0.5	0.1	19.1	1.57	16.2	-0.3
	133.0	134.0	9,253	14,679	1,395	3,581	217	34.4	61.3	4.1	11.3	1.2	1.7	0.2	0.6	0.1	26.7	2.93	23.9	0.5
	134.0	135.0	6,028	9,631	855	2,356	147	24.6	47.3	3.5	10.3	1.1	1.8	0.2	0.8	0.1	25.4	1.91	20.9	0.3
	135.0	136.0	14,484	20,637	1,818	4,479	262	42.4	77.3	5.5	14.7	1.4	2.3	0.2	0.7	0.1	30.5	4.19	31.9	0.4
	136.0	137.0	26,623	39,432	3,492	9,051	499	81.5	148.1	9.4	23.2	2.2	3.2	0.3	0.8	0.1	44.5	7.94	57.8	0.4
	137.0	138.0	7,447	11,731	1,086	2,823	177	29.6	56.9	3.9	10.9	1.2	1.8	0.1	0.7	0.1	25.4	2.34	20.2	-0.3
	138.0	139.0	7,365	11,486	1,070	2,718	164	28.0	51.6	3.5	9.2	1.0	1.7	0.2	0.5	0.1	22.9	2.29	20	1
	139.0	140.0	7,365	11,817	1,113	2,939	192	32.1	62.1	4.5	13.5	1.6	2.4	0.2	1.1	0.1	35.6	2.36	29.8	0.4
	140.0	141.0	5,805	9,188	818	2,228	139	22.5	42.5	2.9	8.6	1.0	1.7	0.2	0.7	0.1	22.9	1.83	15.8	0.6
	141.0	142.0	9,887	14,741	1,329	3,383	184	29.0	51.9	3.4	8.4	0.8	1.3	0.1	0.5	-0.1	17.8	2.96	17.4	0.8
	142.0	143.0	16,654	25,919	2,380	6,380	348	53.2	93.5	5.8	14.5	1.5	2.1	0.2	0.7	0.1	29.2	5.19	33.2	0.3
	143.0	144.0	15,070	23,770	2,223	6,054	340	54.2	97.1	6.4	16.5	1.6	2.3	0.2	0.7	0.1	34.3	4.77	35.8	0.3
	144.0	145.0	12,138	19,470	1,843	5,214	340	53.0	92.2	5.9	15.8	1.6	2.4	0.2	0.8	0.1	33.0	3.92	59.8	0.3
	145.0	146.0	11,400	17,812	1,661	4,222	246	39.5	72.2	5.0	12.9	1.4	2.1	0.2	0.8	0.1	30.5	3.55	26.2	0.3
	146.0	147.0	16,947	26,656	2,513	6,823	379	61.0	106.6	7.0	19.1	2.0	3.1	0.3	1.0	0.2	40.6	5.36	35.1	0.4
	147.0	148.0	18,002	27,148	2,477	6,252	358	56.2	92.7	6.1	14.8	1.7	2.2	0.2	0.8	0.1	30.5	5.44	36.3	0.4
	148.0	149.0	8,210	11,596	983	2,636	157	25.7	41.3	3.0	7.4	0.9	1.5	0.1	0.8	0.1	19.1	2.37	16.6	0.3
	149.0	150.0	14,425	21,006	1,812	4,841	293	46.8	75.5	5.2	12.5	1.3	2.3	0.2	0.8	0.1	30.5	4.26	35.3	0.5
	150.0	151.0	24,277	34,887	3,141	7,803	467	76.1	125.6	9.2	23.8	2.5	4.4	0.4	1.6	0.2	55.9	7.09	58	0.9
	151.0	152.0	11,470	15,232	1,263	3,289	203	33.0	55.3	4.1	10.3	1.2	1.8	0.2	1.0	0.1	26.7	3.16	24.8	0.4
	152.0	153.0	23,397	30,956	2,670	6,415	341	51.4	86.2	6.3	15.4	1.5	2.4	0.2	0.8	0.2	30.5	6.40	38.9	0.5
	153.0	154.0	19,820	26,288	2,247	5,447	313	49.3	84.4	6.3	15.2	1.5	2.3	0.2	0.8	0.1	33.0	5.43	31.3	0.5
	154.0	155.0	16,009	22,848	1,903	4,934	295	49.7	83.3	6.3	18.1	2.1	3.5	0.3	1.6	0.2	47.0	4.62	34.7	1.1
	155.0	156.0	12,197	17,873	1,698	5,424	507	82.1	132.0	8.6	24.0	2.6	4.5	0.4	2.9	0.4	59.7	3.80	179.5	1
	156.0	157.0	12,959	18,979	1,625	4,351	253	40.6	63.5	4.3	11.8	1.2	1.9	0.1	0.8	0.1	26.7	3.83	31	0.5
	157.0	158.0	15,246	22,111	1,867	4,887	289	46.1	76.5	5.5	13.9	1.4	1.9	0.2	0.8	0.1	30.5	4.46	32	0.7
	158.0	159.0	14,308	21,620	1,897	5,121	311	49.2	81.0	5.4	14.8	1.5	2.2	0.2	0.9	0.1	31.8	4.34	36.3	0.6
	159.0	160.0	18,296	27,516	2,610	6,648	407	64.3	103.7	7.4	19.2	2.2	3.1	0.3	1.1	0.2	45.7	5.57	52	0.5
	160.0	161.0	13,839	20,699	1,782	4,712	266	42.3	65.1	4.6	11.9	1.1	2.1	0.1	0.9	0.1	25.4	4.15	27.2	0.5
	161.0	162.0	15,833	26,042	2,368	6,847	444	71.1	117.6	7.8	21.6	2.2	3.4	0.3	1.1	0.2	47.0	5.18	56.9	0.6
	162.0	163.0	25,098	40,783	3,758	10,684	670	104.2	171.2	11.2	30.2	3.2	4.7	0.4	1.8	0.3	68.6	8.14	82.2	1.2
	163.0	164.0	9,910	15,171	1,293	3,593	215	33.8	55.1	3.7	10.3	1.1	2.1	0.2	0.8	0.2	25.4	3.03	26.1	0.5
	164.0	165.0	10,110	16,399	1,474	4,211	263	41.6	68.1	4.4	12.4	1.4	2.2	0.2	1.0	0.2	30.5	3.26	36.9	0.5
	165.0	166.0	10,297	15,724	1,462	4,176	274	44.0	76.7	5.2	15.2	1.8	2.6	0.4	1.1	0.3	34.3	3.21	35.7	0.6
	166.0	167.0	11,294	17,996	1,685	4,829	313	49.8	85.0	5.6	15.0	1.6	2.7	0.2	0.9	0.1	33.0	3.63	41.8	0.5
<b>KGKRCDD009</b>	0.0	1.0	4,304	9,360	962	3,208	239	40.8	72.6	5.2	15.4	1.5	2.5	0.2	1.4	0.2	33.0	1.82	66.9	21.7
	1.0	2.0	2,439	5,528	629	2,461	270	49.4	92.0	7.3	26.9	3.6	8.0	0.9	5.6	0.7	91.4	1.16	83.1	22.9
	2.0	3.0	854	2,352	271	1,095	161	37.2	82.5	8.5	42.7	6.9	17.2	2.2	11.8	1.7	198.1	0.51	87.2	23.2

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	3.0	4.0	2,850	5,970	620	2,164	202	36.4	66.4	5.0	14.6	1.8	3.4	0.4	2.2	0.3	41.9	1.20	64.8	18.3
	4.0	5.0	3,471	7,592	787	2,624	199	33.1	58.8	4.6	14.5	1.4	2.4	0.3	1.3	0.2	33.0	1.48	70.3	14.1
	5.0	6.0	2,439	5,565	596	2,100	187	31.4	56.7	3.7	11.3	1.2	2.1	0.2	1.1	0.1	26.7	1.10	58.5	20
	6.0	7.0	1,255	3,132	340	1,289	156	32.2	65.2	5.5	20.5	2.6	4.9	0.6	3.8	0.5	67.3	0.64	54.8	24.2
	7.0	8.0	1,095	2,690	278	980	105	21.5	43.3	3.9	14.9	2.1	4.8	0.6	3.4	0.5	55.9	0.53	44.8	33.7
	8.0	9.0	1,935	4,533	463	1,621	137	22.9	39.3	2.8	9.3	1.2	2.3	0.3	1.7	0.3	31.8	0.88	49.1	34.5
	9.0	10.0	2,627	5,958	628	2,187	184	31.7	54.3	4.0	12.4	1.4	2.3	0.2	1.5	0.2	33.0	1.17	56.9	25.6
	10.0	11.0	1,172	2,653	255	849	73	13.7	27.7	2.5	9.9	1.4	2.7	0.3	2.3	0.3	36.8	0.51	40.7	32.8
	11.0	12.0	1,231	2,690	251	794	53	8.9	15.3	1.3	5.1	0.7	1.5	0.2	1.3	0.2	19.1	0.51	25.1	27.1
	12.0	13.0	1,484	3,120	288	884	61	10.7	20.4	1.7	6.5	0.9	1.8	0.2	1.5	0.2	25.4	0.59	32.4	32.9
	13.0	14.0	2,346	5,294	553	1,913	165	29.4	50.3	3.5	11.4	1.3	2.1	0.3	1.3	0.2	29.2	1.04	51.2	26
	14.0	15.0	3,753	7,346	700	2,205	151	27.0	50.3	4.7	15.4	1.6	2.5	0.2	1.1	0.2	38.1	1.43	64.3	20.3
	15.0	16.0	12,549	23,462	2,277	6,310	394	63.8	106.6	7.8	24.5	2.6	4.4	0.4	1.7	0.2	61.0	4.53	89.5	11.2
	16.0	17.0	18,061	33,412	3,214	9,623	579	96.9	166.6	12.5	40.3	3.8	5.8	0.5	2.2	0.3	92.7	6.53	144	9.9
	17.0	18.0	11,904	24,568	2,586	7,698	567	97.7	165.4	12.2	36.4	3.8	6.0	0.6	3.0	0.4	94.0	4.77	112	14
	18.0	19.0	8,362	15,294	1,402	4,281	279	46.6	76.5	5.7	17.0	1.8	3.1	0.3	1.5	0.2	43.2	2.98	48.1	7.6
	19.0	20.0	6,708	13,021	1,275	4,094	286	49.2	82.1	6.5	20.7	2.3	3.8	0.5	2.2	0.3	54.6	2.56	60.6	8.6
	20.0	21.0	3,706	7,100	683	2,199	175	31.3	57.2	4.7	15.2	1.8	3.7	0.4	2.9	0.4	48.3	1.40	52.5	13.2
	21.0	22.0	2,592	5,442	542	1,796	140	23.2	40.6	3.2	10.2	1.1	1.9	0.2	1.1	0.1	29.2	1.06	38.9	18.1
	22.0	23.0	3,284	7,248	761	2,578	202	34.6	62.0	4.9	15.0	1.5	2.2	0.2	1.1	0.1	34.3	1.42	66	14.1
	23.0	24.0	5,196	11,326	1,154	3,744	249	39.4	64.3	5.1	16.8	1.8	2.6	0.2	1.3	0.1	39.4	2.18	45.3	8.7
	24.0	25.0	2,592	5,282	523	1,703	125	20.6	35.2	2.6	8.5	0.9	1.8	0.2	1.1	0.2	24.1	1.03	29.3	33.7
	25.0	26.0	3,202	7,088	741	2,508	178	28.1	45.3	3.1	9.6	1.1	1.8	0.2	1.0	0.2	24.1	1.38	39.4	32.5
	26.0	27.0	1,454	3,661	387	1,365	115	19.7	33.3	2.4	8.2	0.9	1.9	0.4	1.3	0.4	22.9	0.71	33	43.1
	27.0	28.0	1,237	3,194	359	1,411	171	33.6	64.9	5.3	18.4	2.3	4.7	0.5	3.2	0.5	59.7	0.66	43.4	26.9
	28.0	29.0	1,029	2,494	273	1,079	146	31.5	62.8	4.9	16.8	2.0	4.1	0.4	2.5	0.3	52.1	0.52	43.7	28.2
	29.0	30.0	3,120	6,400	663	2,298	209	36.8	65.0	4.5	14.2	1.6	2.5	0.3	1.5	0.3	34.3	1.29	40.5	21.8
	30.0	31.0	4,832	10,220	1,092	3,266	234	36.8	56.9	3.3	13.1	1.4	2.2	0.2	1.3	0.1	31.8	1.98	37.6	10.6
	31.0	32.0	4,621	9,729	1,051	3,161	241	38.8	60.3	3.6	13.4	1.4	2.3	0.2	1.3	0.1	31.8	1.90	44.3	14.4
	32.0	33.0	3,776	7,567	834	2,531	207	34.5	57.1	4.0	14.2	1.6	2.7	0.2	1.5	0.1	35.6	1.51	45.1	17.7
	33.0	34.0	2,111	4,717	527	1,790	179	33.1	58.4	4.5	16.8	2.1	4.4	0.4	2.9	0.4	55.9	0.95	44.8	23.5
	34.0	35.0	4,023	8,795	975	3,021	241	41.1	69.6	5.0	18.4	2.0	3.7	0.3	2.1	0.2	45.7	1.72	62.7	22.8
	35.0	36.0	1,102	2,531	290	1,018	114	22.4	42.0	3.5	13.8	1.7	3.7	0.4	2.7	0.3	45.7	0.52	40.1	25.9
	36.0	37.0	1,419	3,464	394	1,359	121	21.3	35.7	2.8	11.5	1.3	2.4	0.2	1.5	0.1	31.8	0.69	31.5	25.4
	37.0	38.0	1,929	4,680	540	1,849	170	28.8	47.6	3.2	11.5	1.2	2.2	0.2	1.3	0.1	30.5	0.93	43	21.7
	38.0	39.0	5,852	11,744	1,232	3,593	248	40.3	60.1	3.6	14.0	1.6	2.5	0.2	1.3	0.1	31.8	2.28	36	13.2
	39.0	40.0	4,539	9,594	1,038	3,138	224	35.6	52.6	2.9	11.4	1.3	2.2	0.2	1.0	0.1	26.7	1.87	30.4	10
	40.0	41.0	4,691	9,987	1,080	3,243	227	35.1	54.5	3.4	13.5	1.4	2.1	0.1	0.9	-0.1	30.5	1.94	36.7	7.2
	41.0	42.0	3,847	8,967	1,064	3,418	288	46.9	72.3	4.1	14.9	1.5	2.6	0.2	1.5	0.1	36.8	1.78	53.6	6.8
	42.0	43.0	4,703	10,736	1,263	4,176	343	58.0	87.9	4.8	17.1	1.7	3.0	0.2	1.4	0.1	40.6	2.14	65.8	7.8
	43.0	44.0	4,808	10,380	1,141	3,488	250	39.0	60.4	3.7	14.9	1.4	2.4	0.2	0.8	-0.1	30.5	2.02	39.9	6.2
	44.0	45.0	7,881	15,846	1,649	5,074	332	51.5	75.2	4.0	15.6	1.7	2.4	0.1	0.9	0.1	33.0	3.10	45.5	8.4
	45.0	46.0	6,099	13,328	1,474	4,631	328	50.7	76.5	4.7	18.8	1.9	3.1	0.3	1.4	0.1	45.7	2.61	53.8	6.7
	46.0	47.0	4,902	12,345	1,492	5,062	391	61.4	91.5	4.8	18.8	2.0	3.1	0.3	1.7	0.2	44.5	2.44	78.8	4.6
	47.0	48.0	5,113	11,584	1,305	4,234	325	52.1	84.4	5.9	22.7	2.4	3.8	0.3	1.7	0.2	54.6	2.28	77.4	8.7
	48.0	49.0	4,117	8,611	944	2,799	208	33.7	56.3	4.3	17.3	1.9	3.3	0.3	1.6	0.2	47.0	1.68	53.8	8.3

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	49.0	50.0	3,659	7,813	854	2,683	224	38.8	67.4	5.2	18.7	2.0	3.3	0.3	1.7	0.2	45.7	1.54	62.7	9
	50.0	51.0	2,615	5,208	544	1,697	139	24.4	41.3	3.1	11.3	1.3	2.3	0.2	1.4	0.1	30.5	1.03	33.5	7.3
	51.0	52.0	4,011	9,434	1,085	3,406	256	42.4	69.0	4.5	17.0	1.8	2.7	0.2	1.4	0.1	38.1	1.84	64.9	10.3
	52.0	53.0	5,067	12,186	1,395	4,502	317	49.9	77.8	5.1	19.7	1.9	3.1	0.2	1.0	0.1	39.4	2.37	70.8	6.1
	53.0	54.0	3,143	6,781	739	2,379	192	33.2	52.4	3.3	12.2	1.4	2.3	0.2	1.1	0.1	29.2	1.34	29.5	6.9
	54.0	55.0	3,870	8,820	1,014	3,114	235	37.5	60.1	3.7	14.0	1.5	2.6	0.2	1.1	0.1	33.0	1.72	42.9	7.1
	55.0	56.0	3,178	6,879	762	2,508	226	43.3	81.3	7.4	31.7	4.3	9.2	1.0	5.9	0.8	114.3	1.39	64.4	10
	56.0	57.0	4,562	9,925	1,075	3,196	222	35.9	55.7	3.5	13.5	1.4	2.6	0.2	1.0	0.1	31.8	1.91	41.2	13.6
	57.0	58.0	4,034	8,279	869	2,613	185	29.5	45.1	2.8	11.5	1.2	1.9	0.1	0.8	-0.1	25.4	1.61	33	13.4
	58.0	59.0	5,078	10,871	1,186	3,593	264	43.3	70.1	4.7	17.5	1.7	2.7	0.2	1.0	0.1	38.1	2.12	53.7	8.7
	59.0	60.0	7,095	15,416	1,698	5,214	337	54.0	89.1	5.7	16.4	1.6	2.2	0.2	0.8	0.1	34.3	3.00	61.7	9
	60.0	61.0	5,254	11,264	1,173	3,977	292	48.8	83.3	5.4	15.8	1.7	2.4	0.2	1.1	0.2	36.8	2.22	60.7	7.7
	61.0	62.0	5,758	12,468	1,293	4,211	260	40.2	64.6	4.2	11.4	1.2	1.9	0.2	0.9	0.1	27.9	2.41	40.1	7
	62.0	63.0	5,454	12,775	1,389	4,677	293	44.9	74.8	4.8	13.5	1.4	2.2	0.2	1.0	0.2	33.0	2.48	50.2	6.1
	63.0	64.0	4,738	9,962	1,032	3,511	269	45.0	79.5	5.1	14.9	1.5	2.5	0.2	1.3	0.2	34.3	1.97	59.9	7.4
	64.0	65.0	5,160	11,829	1,275	4,432	330	55.5	96.5	6.0	17.6	1.7	2.6	0.2	1.3	0.2	38.1	2.32	68.4	5.6
	65.0	66.0	5,606	11,301	1,165	3,931	299	49.9	84.3	4.9	13.9	1.4	2.3	0.2	1.0	0.2	30.5	2.25	50.3	7.2
	66.0	67.0	5,266	11,252	1,190	4,071	311	53.7	90.6	5.8	16.6	1.7	2.5	0.2	1.4	0.2	39.4	2.23	58.6	7
	67.0	68.0	6,063	13,021	1,377	4,724	357	60.9	106.4	6.9	19.3	2.0	2.9	0.2	1.0	0.1	40.6	2.58	78.1	4.8
	68.0	69.0	5,313	10,871	1,116	3,732	281	47.6	82.9	5.3	15.0	1.7	2.7	0.2	1.5	0.2	38.1	2.15	46.7	5.9
	69.0	70.0	4,445	8,844	893	3,033	245	43.5	81.5	5.7	20.1	2.5	4.7	0.5	2.6	0.4	67.3	1.77	45.5	7.2
	70.0	71.0	4,679	9,508	977	3,324	256	44.4	77.1	5.1	15.7	1.8	3.2	0.3	1.9	0.3	44.5	1.89	55.9	8.2
	71.0	72.0	6,439	12,345	1,206	3,954	306	53.7	95.6	6.4	18.4	1.8	2.7	0.3	1.4	0.2	41.9	2.45	69.5	7.6
	72.0	73.0	5,512	12,137	1,269	4,257	292	45.5	73.5	4.2	12.2	1.3	2.1	0.2	1.1	0.2	29.2	2.36	40.8	8.2
	73.0	74.0	3,823	7,899	806	2,706	192	30.7	54.6	3.9	12.7	1.5	2.4	0.3	1.4	0.2	36.8	1.56	42	8.3
	74.0	75.0	6,028	12,038	1,179	3,837	266	48.2	89.7	6.3	19.2	2.0	3.2	0.3	1.6	0.2	47.0	2.36	79.8	10.4
	75.0	76.0	5,583	11,080	1,125	3,371	237	38.7	65.9	5.0	15.3	1.6	2.5	0.2	0.9	0.1	35.6	2.16	49.2	9.2
	76.0	77.0	3,319	7,506	828	2,659	213	34.9	59.4	4.3	13.5	1.5	2.5	0.2	1.1	0.2	35.6	1.47	42	15.9
	77.0	78.0	1,507	3,304	359	1,306	162	35.8	77.1	7.8	31.1	4.3	8.4	0.9	5.0	0.6	116.8	0.69	53.1	30.1
	78.0	79.0	1,607	3,820	411	1,487	143	31.2	77.1	10.4	54.4	8.6	19.0	2.1	12.3	1.6	268.0	0.80	96.7	19.2
	79.0	80.0	2,234	5,196	579	2,030	194	39.4	85.3	12.6	67.9	11.7	28.1	4.0	26.2	3.7	375.9	1.09	104.5	18.8
	80.0	81.0	5,043	9,704	957	2,799	183	28.8	45.3	3.5	11.6	1.4	2.4	0.2	1.4	0.2	33.0	1.88	28.2	8.9
	81.0	82.0	8,773	16,952	1,752	5,307	356	58.5	98.7	6.4	20.1	2.0	2.6	0.2	0.8	0.2	43.2	3.34	60.2	8.8
	82.0	83.0	6,521	13,082	1,329	4,421	308	52.7	89.3	5.9	17.7	1.9	2.7	0.2	1.3	0.2	43.2	2.59	55.5	7.7
	83.0	84.0	4,562	9,618	997	3,324	239	39.8	71.8	5.3	16.1	1.6	2.7	0.2	1.0	0.2	40.6	1.89	55.6	7.1
	84.0	85.0	5,911	11,535	1,127	3,593	240	38.1	69.0	4.8	15.3	1.6	2.3	0.2	1.0	0.1	36.8	2.26	49.8	11
	85.0	86.0	7,635	15,416	1,534	4,934	322	51.9	92.4	5.9	17.0	1.7	2.2	0.2	0.7	0.1	35.6	3.00	60.1	9.9
	86.0	87.0	19,117	37,221	3,806	11,781	656	107.3	179.2	11.3	32.9	3.3	4.4	0.4	1.5	0.2	71.1	7.30	107	6.8
	87.0	88.0	6,615	13,574	1,408	4,409	314	51.9	84.5	5.9	17.9	1.8	2.5	0.2	0.9	0.1	39.4	2.65	68.2	10.9
	88.0	89.0	5,383	11,092	1,145	3,511	254	40.2	66.7	5.0	14.9	1.6	2.2	0.2	0.8	0.1	34.3	2.16	55.6	14.8
	89.0	90.0	2,639	5,516	568	1,843	146	24.7	44.0	3.7	12.9	1.6	2.6	0.3	1.5	0.2	38.1	1.08	42.1	17.9
	90.0	91.0	3,624	7,432	767	2,484	183	28.1	51.4	3.8	12.6	1.4	2.5	0.3	1.5	0.3	33.0	1.46	53.4	19.2
	91.0	92.0	3,237	6,756	708	2,280	168	27.3	49.8	3.8	12.5	1.4	2.4	0.3	1.7	0.2	34.3	1.33	51.9	19
	92.0	93.0	3,788	7,100	733	2,438	225	40.2	83.6	7.7	32.0	4.5	10.9	1.2	8.0	1.1	133.3	1.46	75.4	14.3
	93.0	94.0	10,989	21,006	2,235	6,275	404	62.1	109.7	8.1	23.4	2.3	3.2	0.3	1.5	0.2	50.8	4.12	67.9	7.2
	94.0	95.0	11,306	21,128	2,187	6,054	359	51.1	91.6	7.2	22.3	2.3	3.9	0.3	1.7	0.2	53.3	4.13	56.3	9.4

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm	
	95.0	96.0	5,829	11,277	1,124	3,511	249	38.9	70.8	5.1	16.4	1.7	2.7	0.2	1.4	0.2	38.1	2.22	46.8	17.6	
	96.0	97.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	97.0	98.0	4,762	10,196	1,110	3,744	317	55.0	109.8	9.6	34.0	3.9	7.3	0.7	4.7	0.6	106.7	2.05	83.8	8.1	
	98.0	99.0	9,758	18,979	1,867	5,739	384	61.3	99.7	7.9	25.0	2.8	4.6	0.4	2.1	0.3	68.6	3.70	78	10.8	
	99.0	100.0	9,289	19,163	1,951	6,077	407	61.0	92.3	6.1	18.3	1.9	2.7	0.3	1.1	0.2	40.6	3.71	61.3	7.1	
	100.0	101.0	7,307	14,864	1,522	4,724	334	54.7	89.4	6.5	19.3	2.1	3.3	0.3	1.0	0.2	45.7	2.90	73.2	9.2	
	101.0	102.0	12,314	24,568	2,489	8,037	597	98.3	158.5	10.6	30.0	2.9	4.0	0.4	1.9	0.2	63.5	4.84	117.5	7	
	102.0	103.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	103.0	104.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	104.0	105.0	10,250	20,883	2,066	6,299	434	76.4	135.4	11.4	39.3	4.9	8.9	1.0	5.7	0.8	143.5	4.04	133	3.5	
	105.0	106.0	9,124	19,654	2,018	6,404	467	80.1	136.0	10.3	33.3	4.1	7.4	0.8	4.3	0.6	116.8	3.81	114	3.3	
	106.0	107.0	5,289	13,881	1,637	5,785	524	90.2	146.4	9.1	24.2	2.4	3.7	0.3	1.7	0.2	57.2	2.75	122	6	
	107.0	108.0	5,981	13,390	1,438	4,701	343	55.9	89.9	6.2	19.1	2.3	3.5	0.4	2.3	0.3	58.4	2.61	63.5	5.3	
	108.0	109.0	4,070	10,552	1,244	4,292	359	61.5	104.8	7.1	21.7	2.5	4.2	0.5	2.3	0.3	63.5	2.08	88.4	1.9	
	109.0	110.0	3,776	8,169	867	2,741	220	38.7	71.9	6.2	20.5	2.4	4.2	0.5	2.6	0.4	66.0	1.60	71.2	5.5	
	110.0	111.0	5,336	10,749	1,084	3,138	208	34.7	60.3	5.1	18.7	2.3	4.1	0.5	2.4	0.3	62.2	2.07	43.7	3.3	
	111.0	112.0	7,013	15,294	1,607	5,190	354	57.7	98.7	8.2	28.2	3.6	6.4	0.8	4.1	0.6	101.6	2.98	74.2	2.7	
	112.0	113.0	8,233	16,768	1,691	5,062	318	50.3	83.9	6.7	20.5	2.0	3.1	0.3	1.4	0.2	48.3	3.23	75.4	2.5	
	113.0	114.0	10,180	20,576	2,030	6,089	355	55.2	87.6	6.9	23.8	2.5	3.8	0.3	1.8	0.2	63.5	3.95	64.6	2.9	
	114.0	115.0	8,151	15,969	1,547	4,666	276	43.2	69.5	5.0	16.2	1.6	2.4	0.2	0.9	0.1	38.1	3.08	58.1	6	
	115.0	116.0	10,907	20,883	2,036	6,100	371	57.8	96.5	8.0	25.7	2.7	3.5	0.3	1.5	0.2	64.8	4.06	82.6	4	
	116.0	117.0	7,377	14,249	1,414	4,281	269	43.0	67.8	5.0	15.6	1.6	2.4	0.2	0.9	0.1	38.1	2.78	42.3	6.7	
	117.0	118.0	7,682	15,048	1,510	4,654	299	45.2	78.6	5.6	15.7	1.5	2.5	0.2	0.9	0.1	35.6	2.94	54.8	4.7	
	118.0	119.0	6,744	12,775	1,244	3,732	231	34.7	62.7	5.1	16.5	1.6	2.2	0.2	0.8	0.1	36.8	2.49	50.6	12.4	
	119.0	120.0	7,600	15,294	1,601	4,747	311	47.9	82.6	6.1	18.0	1.7	2.7	0.2	1.0	0.1	39.4	2.98	62.7	10.6	
	120.0	121.0	7,213	13,451	1,323	3,954	239	36.8	68.0	5.5	17.7	1.7	2.4	0.2	1.0	0.1	39.4	2.64	46.5	7.1	
	121.0	122.0	4,937	9,397	930	2,788	170	25.8	48.5	4.1	13.8	1.5	2.2	0.2	0.9	0.2	31.8	1.84	38	9.2	
	122.0	123.0	8,972	15,662	1,649	4,561	318	47.2	83.8	6.4	20.9	2.3	3.4	0.3	1.1	0.2	49.5	3.14	56.6	6.1	
	123.0	124.0	9,054	16,153	1,722	4,666	311	46.1	81.4	5.8	19.6	2.0	2.9	0.2	1.0	0.1	44.5	3.21	46.7	7.2	
	124.0	125.0	7,623	13,758	1,371	4,047	268	40.4	72.0	5.3	17.8	1.9	2.9	0.2	1.0	0.1	40.6	2.73	43.7	6.7	
	125.0	126.0	6,884	12,284	1,232	3,756	276	40.9	73.4	5.3	16.6	1.9	2.9	0.2	0.9	0.2	39.4	2.46	47.4	6.9	
	126.0	127.0	8,913	18,487	2,139	6,357	480	71.4	122.2	7.1	19.4	2.0	3.0	0.3	1.3	0.2	40.6	3.66	61.4	4.3	
	127.0	128.0	9,031	17,812	2,060	5,960	457	69.8	122.8	8.0	24.3	2.4	3.5	0.3	1.4	0.2	53.3	3.56	79	5	
	128.0	129.0	10,098	20,453	2,344	6,975	555	86.8	150.4	9.1	24.3	2.6	3.4	0.3	1.5	0.2	50.8	4.08	86.9	1.8	
	129.0	129.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	129.3	130.3	3,730	8,587	900	2,986	218	34.5	57.8	3.7	12.1	1.3	1.9	0.2	1.0	0.2	26.7	1.66	37.6	3.1	
	130.3	131.3	4,234	9,115	936	3,021	221	35.3	60.2	4.7	15.7	1.5	2.4	0.2	1.0	0.1	35.6	1.77	48	3.1	
	131.3	132.3	4,363	8,832	829	2,543	183	30.5	58.0	5.4	18.6	2.1	2.9	0.2	1.0	0.2	47.0	1.69	50.3	2.2	
	132.3	133.3	11,165	22,418	2,120	6,135	408	62.6	102.9	7.1	20.9	2.1	3.1	0.2	1.3	0.1	43.2	4.25	68.1	2.8	
	133.3	134.3	15,422	30,833	3,008	8,701	575	88.8	141.2	9.2	24.0	2.4	3.3	0.3	1.0	0.2	49.5	5.89	93.7	3.5	
	134.3	135.3	7,107	14,188	1,353	4,094	275	41.7	69.6	4.7	13.5	1.5	2.5	0.2	0.9	0.1	30.5	2.72	40.6	4.5	
	135.3	136.3	7,049	14,188	1,377	4,246	320	52.0	86.0	6.0	18.0	1.9	3.1	0.3	1.3	0.2	40.6	2.74	53.6	2	
	136.3	137.3	7,049	15,294	1,516	4,736	336	53.5	86.0	5.3	15.2	1.6	2.6	0.3	1.5	0.2	33.0	2.91	43.9	1.4	
	137.3	138.3	11,071	21,743	2,030	5,960	397	59.4	95.4	5.9	15.2	1.5	2.4	0.2	1.0	0.2	35.6	4.14	46.8	1.5	
	138.3	139.3	7,623	14,557	1,335	4,024	304	55.0	102.2	8.5	35.8	5.6	14.0	1.8	9.8	1.2	162.6	2.82	54.3	4.9	
	139.3	140.3	17,006	26,902	2,803	7,033	446	67.3	108.2	6.8	19.2	1.9	2.7	0.2	0.9	0.1	36.8	5.44	50.9	1.9	

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	140.3	141.3	12,080	23,401	2,175	6,322	413	63.3	104.2	6.4	16.8	1.7	2.9	0.2	1.1	0.2	39.4	4.46	50.9	2.2
	141.3	142.3	9,629	19,777	2,048	6,474	479	78.4	126.2	8.5	23.9	2.5	4.0	0.4	1.8	0.2	52.1	3.87	83.6	1.8
	142.3	143.3	20,759	37,343	3,576	10,451	670	105.5	167.7	10.8	29.6	2.8	4.0	0.3	1.1	0.1	54.6	7.32	101.5	1.4
	143.3	144.3	15,598	27,148	2,513	7,127	453	72.0	115.8	8.4	24.0	2.2	3.4	0.2	0.9	0.1	45.7	5.31	79.7	1.5
	144.3	145.3	9,887	16,583	1,486	4,234	275	46.7	83.9	6.6	20.8	2.0	3.1	0.2	1.3	0.1	41.9	3.27	75.1	1.7
	145.3	146.3	4,269	7,763	736	2,193	148	26.6	53.8	4.3	12.5	1.1	1.6	0.1	0.6	-0.1	21.6	1.52	92.5	2.2
	146.3	147.3	12,842	22,050	2,012	5,715	353	56.0	96.9	7.0	21.1	2.0	2.9	0.2	0.9	0.1	41.9	4.32	61.5	3.3
	147.3	148.3	12,432	20,883	1,849	5,144	305	48.4	81.8	6.3	18.7	1.9	2.9	0.2	1.0	0.1	40.6	4.08	54	3.2
	148.3	149.3	5,712	10,319	981	2,939	202	33.6	58.8	4.4	14.4	1.4	2.2	0.2	0.8	0.1	29.2	2.03	46.9	4.1
	149.3	150.2	7,682	13,881	1,311	3,872	247	38.2	62.5	4.4	13.4	1.3	1.8	0.1	0.7	0.1	26.7	2.71	39.9	4.8
	150.2	150.8	9,617	16,706	1,540	4,467	290	46.6	74.0	5.0	13.9	1.3	2.1	0.1	0.7	0.1	26.7	3.28	49.9	7.1
	150.8	151.3	15,012	28,622	2,827	8,410	536	81.5	125.1	7.9	22.7	2.3	3.7	0.3	1.4	0.2	48.3	5.57	54	3.7
	151.3	152.3	26,036	42,503	3,890	10,778	662	105.3	167.1	11.1	29.2	2.8	4.5	0.3	1.4	0.2	57.2	8.42	86.9	3.2
	152.3	153.3	24,746	40,414	3,649	10,078	593	94.1	154.5	10.5	30.3	3.1	5.0	0.4	1.8	0.3	64.8	7.98	85.8	4.9
	153.3	154.3	28,264	45,451	4,096	11,524	681	107.2	172.3	11.4	31.7	3.1	5.0	0.3	1.5	0.2	63.5	9.04	86.2	3.4
	154.3	155.3	27,209	47,539	4,470	12,830	798	125.6	195.4	12.7	34.2	3.3	5.2	0.4	1.7	0.2	68.6	9.33	106.5	3.3
	155.3	156.3	26,974	46,434	4,350	12,364	757	122.2	197.7	12.9	34.8	3.2	4.9	0.3	1.5	0.2	63.5	9.13	109.5	2.3
	156.3	156.7	30,024	49,873	4,446	12,364	713	112.7	176.4	11.0	27.9	2.6	3.7	0.2	1.0	0.2	47.0	9.78	106	1.9
	156.7	157.6	20,700	32,798	2,863	7,663	442	69.9	113.9	7.6	21.6	2.0	3.3	0.2	0.9	0.1	41.9	6.47	54.5	1.8
	157.6	158.6	17,006	27,393	2,392	6,672	413	69.5	116.4	8.3	22.7	2.3	3.5	0.3	1.3	0.2	48.3	5.41	70.9	2.2
	158.6	159.2	11,411	19,286	1,746	5,004	325	54.0	88.8	6.1	16.9	1.6	2.9	0.2	0.9	0.1	34.3	3.80	53.5	5.8
	159.2	159.7	15,188	28,499	2,791	8,176	492	76.3	120.5	8.3	22.3	2.0	3.2	0.2	1.0	0.2	40.6	5.54	79.4	3.4
	159.7	160.6	10,168	19,593	1,903	5,739	368	56.0	86.9	5.6	14.5	1.4	2.3	0.2	0.8	0.1	27.9	3.80	46.7	5
	160.6	161.3	23,691	42,625	4,072	11,722	712	112.6	178.1	11.3	28.7	2.7	3.8	0.2	1.0	0.1	49.5	8.32	105	1.5
	161.3	162.3	8,796	16,522	1,577	4,689	296	47.9	77.6	5.2	14.6	1.5	2.1	0.2	0.7	0.1	29.2	3.21	52	5.7
	162.3	163.3	9,758	17,935	1,698	4,969	305	49.1	78.7	5.3	15.4	1.4	2.4	0.2	0.8	0.1	30.5	3.48	50.2	5
	163.3	164.3	7,436	13,942	1,317	3,942	253	40.3	64.1	4.1	11.4	1.2	1.9	0.2	0.8	0.1	24.1	2.70	32.8	3.9
	164.3	164.8	8,550	16,276	1,577	4,759	303	47.4	73.5	4.9	14.1	1.3	2.3	0.2	0.9	0.1	26.7	3.16	34.1	6.2
	164.8	165.5	9,265	16,768	1,571	4,584	274	41.7	63.6	4.3	11.9	1.2	1.9	0.2	0.7	0.1	24.1	3.26	26.3	1.1
	165.5	166.1	7,377	13,697	1,317	3,989	269	42.5	69.2	4.7	13.9	1.4	2.3	0.2	0.9	0.1	27.9	2.68	34.7	2.6
	166.1	166.7	11,435	25,428	2,876	9,215	648	95.1	154.5	10.1	28.0	2.7	4.0	0.3	1.5	0.2	55.9	5.00	111.5	2
	166.7	167.7	4,445	8,157	808	2,391	153	23.6	38.2	2.6	8.6	1.0	1.7	0.2	1.0	0.1	22.9	1.61	24.6	6.8
	167.7	168.7	8,069	15,478	1,631	5,202	395	60.2	97.1	5.9	14.5	1.4	2.1	0.2	1.0	0.2	30.5	3.10	62.2	5.1
	168.7	169.7	5,770	10,957	1,097	3,313	210	31.3	49.7	3.6	10.2	1.1	1.8	0.2	0.9	0.1	24.1	2.15	33.7	5.1
	169.7	170.7	10,133	18,979	1,921	5,739	371	55.6	89.2	6.2	18.1	1.8	2.6	0.3	1.0	0.2	40.6	3.74	50.2	2
	170.7	171.7	5,454	9,987	987	2,939	192	28.7	45.9	3.0	9.1	0.9	1.5	0.2	0.9	0.1	20.3	1.97	25.2	3.4
	171.7	172.7	7,623	13,942	1,359	4,024	267	40.9	66.6	4.4	12.5	1.3	2.1	0.2	1.0	0.2	29.2	2.74	38	1.4
	172.7	173.7	4,586	8,525	870	2,718	204	32.9	56.0	4.1	11.7	1.4	2.2	0.3	1.0	0.2	30.5	1.70	35.5	1.6
	173.7	174.7	9,382	17,013	1,698	5,214	405	69.1	121.0	8.5	25.1	2.4	3.3	0.3	1.0	0.2	54.6	3.40	79.5	0.8
	174.7	175.7	5,817	10,859	1,089	3,324	231	37.9	63.3	4.4	13.4	1.3	2.3	0.2	1.0	0.1	29.2	2.15	42.4	4
	175.7	176.7	7,037	12,591	1,238	3,721	260	43.7	75.7	5.9	18.5	1.9	3.1	0.2	1.4	0.1	45.7	2.50	65	3.2
	176.7	177.7	12,256	22,050	2,175	6,439	427	65.4	105.7	7.3	19.7	2.0	3.1	0.3	1.1	0.2	45.7	4.36	63.2	4.6
	177.7	178.7	4,105	7,727	767	2,333	154	24.3	40.5	3.1	9.1	0.9	1.4	0.1	0.6	0.1	19.1	1.52	28.2	2
	178.7	179.7	5,020	8,967	892	2,694	183	28.7	45.9	3.1	8.4	0.8	1.4	0.1	0.7	0.1	19.1	1.79	28.1	11.2
	179.7	180.7	4,937	9,483	967	2,963	198	30.5	47.8	3.1	8.5	0.9	1.5	0.1	0.7	0.1	19.1	1.87	27.5	10.8
	180.7	181.7	3,917	7,321	729	2,193	147	24.7	42.9	3.5	10.0	1.0	1.7	0.2	0.8	0.1	24.1	1.44	32.8	2.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	181.7	182.7	6,263	11,891	1,192	3,628	238	36.8	63.1	4.6	13.2	1.3	1.9	0.2	0.7	0.1	29.2	2.34	43.6	3.7
	182.7	183.7	3,073	5,921	599	1,831	121	19.0	30.4	2.3	6.8	0.7	1.3	0.1	0.7	0.1	16.5	1.16	18.9	7.8
	183.7	184.5	3,905	7,248	721	2,181	145	21.5	34.7	2.4	7.5	0.8	1.4	0.1	0.7	0.1	19.1	1.43	19.8	3.6
	184.5	185.5	3,483	6,535	667	2,012	132	20.7	33.5	2.5	7.2	0.8	1.4	0.2	0.9	0.1	19.1	1.29	21.3	6.6
	185.5	186.5	4,117	7,763	782	2,403	160	25.0	42.1	3.3	9.8	1.1	1.9	0.2	0.9	0.2	26.7	1.53	27.9	7.4
	186.5	187.5	8,163	14,434	1,389	4,036	247	37.9	61.2	4.3	12.4	1.4	2.4	0.2	1.1	0.1	30.5	2.84	29.9	4.8
	187.5	188.2	6,966	12,714	1,244	3,628	223	33.7	53.6	3.4	10.6	1.1	1.7	0.2	0.8	0.1	24.1	2.49	26.4	4.4
	188.2	189.2	8,491	16,399	1,704	5,237	351	57.0	93.4	6.9	21.2	2.5	4.5	0.4	2.2	0.3	59.7	3.24	66.7	3.5
	189.2	190.2	6,814	11,989	1,172	3,453	208	31.6	53.4	4.0	12.6	1.3	2.1	0.2	0.9	0.1	31.8	2.38	36.3	3.8
	190.2	190.8	4,738	8,107	766	2,205	139	22.2	40.6	3.6	12.3	1.3	2.1	0.2	0.9	0.1	31.8	1.61	30	3.3
	190.8	191.3	8,444	14,065	1,329	3,826	253	41.5	72.4	5.8	19.6	2.2	3.8	0.3	1.7	0.2	55.9	2.81	42.9	4.6
	191.3	192.2	2,557	5,245	565	1,866	165	32.7	69.5	7.1	33.4	5.3	12.4	1.3	7.2	0.8	154.9	1.07	41.2	21
	192.2	192.8	2,991	7,604	916	3,208	270	44.7	80.2	6.7	28.7	4.0	9.3	1.0	5.7	0.7	121.9	1.53	73.5	16.5
	192.8	193.3	5,805	15,539	1,921	6,753	538	83.1	130.8	7.8	20.5	2.1	3.4	0.4	1.6	0.3	47.0	3.09	63.8	4.3
	193.3	194.2	2,568	6,486	774	2,718	237	37.9	63.1	3.7	11.1	1.2	2.3	0.2	1.1	0.2	29.2	1.29	40.6	3.4
	194.2	195.2	3,049	7,874	948	3,324	281	44.1	72.6	4.6	14.7	1.5	3.1	0.3	1.9	0.3	43.2	1.57	44.7	5.3
	195.2	196.2	1,777	3,943	426	1,458	150	30.6	65.6	6.5	27.8	3.5	8.8	0.9	5.0	0.7	99.1	0.80	48.3	33.1
	196.2	197.1	2,164	5,380	640	2,309	233	41.0	72.5	5.1	15.7	1.6	3.7	0.3	1.8	0.2	40.6	1.09	47.7	17
	197.1	198.1	4,492	6,904	617	1,814	147	28.0	61.0	5.2	20.5	2.6	5.8	0.6	3.0	0.3	67.3	1.42	25.9	15.2
	198.1	199.1	13,956	20,760	1,855	5,027	340	54.9	98.8	7.1	23.8	2.9	6.9	0.7	4.2	0.5	74.9	4.22	59.3	7.5
	199.1	199.3	10,297	15,724	1,402	3,802	234	38.8	69.9	5.0	15.2	1.6	2.4	0.2	1.1	0.1	33.0	3.16	44.3	6.6
	199.3	200.2	7,553	12,149	1,138	3,359	246	43.5	84.1	6.8	23.0	2.3	4.7	0.4	2.2	0.3	57.2	2.47	51.4	6.6
	200.2	201.2	2,011	4,041	418	1,406	161	35.8	92.0	12.4	68.4	10.5	27.6	2.9	16.9	2.4	322.6	0.86	71.7	15.8
	201.2	202.2	1,296	2,715	288	973	119	27.1	68.4	7.3	31.7	4.6	11.2	1.1	6.8	0.9	119.4	0.57	30	12.6
	202.2	203.2	7,224	11,436	1,043	2,998	232	43.9	94.2	8.7	34.4	4.2	9.3	0.9	4.6	0.7	111.8	2.32	52.1	10.8
	203.2	203.9	819	1,658	189	687	97	24.2	65.4	7.5	36.5	5.7	13.7	1.5	9.8	1.6	153.7	0.38	29.1	15.6
	203.9	204.9	3,507	5,958	576	1,831	173	35.6	84.8	10.4	53.4	7.5	19.4	2.2	15.4	2.2	233.7	1.25	60.7	17.4
	204.9	205.3	4,621	7,763	731	2,123	139	22.0	38.8	2.9	9.0	1.0	2.2	0.2	1.3	0.2	26.7	1.55	19.9	9.6
	205.3	206.2	8,984	15,355	1,450	4,164	255	38.0	61.1	3.7	10.4	0.9	1.7	0.1	0.5	0.1	19.1	3.03	27.5	7.9
	206.2	207.2	7,999	13,758	1,329	3,884	252	38.7	64.0	4.2	13.8	1.6	3.5	0.3	2.1	0.3	40.6	2.74	27.8	9.8
	207.2	208.2	8,902	15,355	1,480	4,339	277	40.3	67.3	4.1	11.7	1.1	2.2	0.2	0.9	0.2	24.1	3.05	30.9	7.6
	208.2	209.2	8,902	16,583	1,649	4,922	300	43.0	66.5	3.9	11.0	1.1	1.9	0.2	0.9	0.1	24.1	3.25	24.8	5.3
	209.2	210.2	6,228	11,117	1,090	3,231	201	30.0	47.7	3.2	9.6	0.9	1.7	0.1	0.8	0.1	22.9	2.20	21.9	7.7
	210.2	210.7	4,128	7,272	694	2,012	133	22.2	39.1	2.8	9.1	1.0	1.8	0.1	0.8	0.1	21.6	1.43	25.3	9.5
	210.7	211.7	9,066	16,092	1,559	4,596	300	48.1	80.3	5.5	16.2	1.6	3.1	0.3	1.3	0.1	36.8	3.18	45.1	7.4
	211.7	212.7	7,166	12,714	1,257	3,709	254	39.7	68.6	4.6	13.8	1.3	2.5	0.2	1.0	0.1	29.2	2.53	45.7	6.8
	212.7	213.7	9,957	16,952	1,649	4,747	296	44.6	76.5	5.0	14.2	1.3	2.3	0.2	0.8	0.1	29.2	3.38	48.2	2.1
	213.7	214.7	5,946	10,577	1,068	3,394	289	49.8	87.9	5.8	16.5	1.5	2.2	0.2	0.7	0.1	33.0	2.15	90.8	2.4
	214.7	215.7	10,637	18,057	1,698	4,934	348	55.9	103.7	7.1	20.4	1.8	2.9	0.2	0.7	0.1	36.8	3.59	76.6	6.3
	215.7	216.7	13,722	22,234	2,120	5,657	365	56.6	100.2	6.9	21.2	1.7	2.5	0.2	0.9	0.1	36.8	4.43	73.7	3.6
	216.7	217.7	13,429	21,497	2,096	5,529	378	62.5	117.0	8.7	26.6	2.5	3.8	0.3	1.5	0.2	57.2	4.32	96.4	3.3
	217.7	218.7	6,204	11,658	1,171	3,604	252	39.7	69.9	4.6	13.4	1.2	2.1	0.2	0.6	0.1	26.7	2.30	54.1	1.6
	218.7	219.7	7,189	12,591	1,202	3,476	219	35.0	60.6	4.2	12.4	1.1	2.1	0.2	0.8	0.1	25.4	2.48	43.3	8.9
	219.7	220.6	5,008	8,660	846	2,496	168	27.1	52.8	4.2	14.5	1.4	2.3	0.3	1.4	0.2	35.6	1.73	66.2	10.7
	220.6	221.1	6,263	11,203	1,097	3,278	221	40.4	80.3	7.8	24.1	2.4	4.8	0.4	2.5	0.3	62.2	2.23	124	9.4
	221.1	222.1	10,250	17,443	1,673	4,852	329	58.9	110.1	10.1	30.9	2.9	4.9	0.4	2.2	0.3	71.1	3.48	135.5	7.4

personal use only

Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	222.1	223.1	7,600	13,758	1,359	4,036	250	38.9	65.9	5.1	14.9	1.6	3.0	0.3	1.4	0.2	39.4	2.72	47.7	6.6
	223.1	224.1	14,074	24,937	2,416	6,998	398	59.6	93.8	7.0	18.6	1.9	3.3	0.2	1.1	0.2	43.2	4.91	63.3	3.8
	224.1	225.1	8,679	14,741	1,389	3,966	231	37.8	64.7	5.7	17.3	2.0	3.4	0.3	1.4	0.2	45.7	2.92	46.8	2.9
	225.1	226.1	6,708	12,210	1,226	3,639	227	35.4	56.6	4.5	13.5	1.5	2.6	0.2	1.1	0.1	34.3	2.42	32.5	3.1
	226.1	226.7	4,222	8,255	842	2,601	154	22.4	33.8	2.3	6.3	0.8	1.7	0.2	1.1	0.2	19.1	1.62	25.5	12.3
	226.7	227.2	5,712	11,154	1,150	3,511	213	32.1	49.0	3.6	9.4	1.1	2.2	0.2	1.0	0.1	24.1	2.19	25.6	6.6
	227.2	228.2	5,841	10,773	1,081	3,231	197	30.6	48.4	3.5	10.1	1.2	2.1	0.2	1.0	0.2	27.9	2.12	24.9	4.6
	228.2	229.2	4,914	10,331	1,143	3,756	276	41.6	70.0	4.4	12.9	1.4	2.3	0.2	1.1	0.1	29.2	2.06	40.5	6.8
	229.2	229.5	3,882	7,678	795	2,519	173	26.4	47.6	3.2	10.8	1.2	2.5	0.3	1.4	0.2	30.5	1.52	30.6	4.4
	229.5	230.2	3,741	6,867	691	2,105	147	23.7	42.5	3.3	10.8	1.3	2.2	0.2	1.0	0.2	30.5	1.37	27.8	8.6
	230.2	231.1	7,201	13,574	1,377	3,942	224	31.4	50.5	3.1	9.6	1.1	1.9	0.2	0.8	0.1	22.9	2.64	24.8	6.5
	231.1	232.1	4,937	8,660	820	2,356	134	20.6	32.7	2.6	8.6	1.0	1.8	0.2	0.9	0.1	25.4	1.70	20.8	4.4
	232.1	232.7	3,859	6,314	578	1,650	109	19.6	37.1	3.6	12.6	1.4	2.5	0.2	1.3	0.2	34.3	1.26	33.7	1
	232.7	233.2	2,076	3,697	359	1,059	69	12.4	22.9	2.1	7.4	0.8	1.6	0.2	0.8	0.1	19.1	0.73	23.9	2.9
	233.2	233.8	3,694	6,965	700	2,146	142	23.2	38.2	2.8	9.0	1.0	2.2	0.2	1.4	0.2	25.4	1.38	18.8	8.7
	233.8	234.3	1,900	3,980	434	1,411	109	18.2	32.2	2.4	8.0	1.0	2.1	0.2	1.0	0.2	24.1	0.79	12.2	6.9
	234.3	235.3	2,545	5,737	668	2,280	182	30.5	49.0	3.5	10.2	1.1	2.1	0.2	1.0	0.1	24.1	1.15	33.2	3
	235.3	236.3	3,859	7,751	826	2,671	202	35.0	59.7	4.6	13.7	1.5	2.7	0.2	1.3	0.1	33.0	1.55	44.4	5.4
	236.3	237.3	3,213	6,228	649	2,012	138	23.4	40.0	3.2	9.8	1.1	2.1	0.2	1.1	0.2	27.9	1.23	30.3	11.5
	237.3	238.1	3,518	6,400	644	1,965	139	23.2	40.9	3.0	9.6	1.1	2.5	0.2	1.4	0.2	27.9	1.28	28.3	13.5
	238.1	238.4	23,163	34,395	2,984	7,757	415	67.9	115.8	9.4	28.6	3.0	5.0	0.3	1.4	0.2	68.6	6.90	71.1	2
	238.4	239.2	6,990	11,215	1,026	2,881	184	31.4	55.1	4.8	16.9	1.9	3.7	0.3	1.4	0.2	48.3	2.25	40.6	2.2
	239.2	240.1	4,070	7,370	718	2,135	130	20.2	32.9	2.3	7.1	0.8	1.6	0.1	0.9	0.1	20.3	1.45	19.1	6.4
	240.1	240.5	7,764	13,697	1,335	4,036	302	54.0	96.1	7.1	18.9	1.8	2.6	0.2	1.0	0.1	39.4	2.74	68.3	2.8
	240.5	241.4	8,397	14,986	1,474	4,397	324	58.6	103.2	8.0	22.3	2.3	3.3	0.3	1.0	0.1	49.5	2.98	78.9	5.7
	241.4	242.0	4,445	8,451	860	2,636	184	30.5	48.5	3.5	10.4	1.1	1.9	0.2	0.8	0.1	25.4	1.67	30.4	7
	242.0	242.5	4,210	8,279	853	2,613	173	28.0	45.8	3.3	9.6	1.0	1.8	0.2	0.8	0.1	22.9	1.62	26.6	7.9
	242.5	243.4	4,996	8,673	835	2,449	162	27.8	49.1	4.6	15.2	1.6	2.5	0.2	0.9	0.1	36.8	1.73	44.2	4.3
	243.4	244.4	22,225	34,764	3,129	8,783	479	70.3	124.5	8.8	24.5	2.5	3.9	0.3	1.4	0.2	50.8	6.97	68.1	2.5
	244.4	245.4	7,166	13,021	1,269	3,919	240	35.0	59.6	4.1	12.2	1.4	2.5	0.2	1.0	0.1	30.5	2.58	32.7	8
	245.4	246.4	12,784	21,866	2,193	7,022	517	84.1	144.1	9.6	27.4	2.7	4.0	0.3	1.4	0.2	57.2	4.47	105	2.8
	246.4	247.4	8,749	14,065	1,263	3,639	199	29.4	52.0	4.2	13.5	1.5	2.6	0.2	0.9	0.1	35.6	2.81	33.9	2.3
	247.4	248.4	18,296	25,674	2,151	5,692	313	50.7	93.8	7.5	23.1	2.5	3.9	0.3	1.5	0.2	57.2	5.24	61.3	1.8
	248.4	249.4	10,649	17,689	1,649	4,911	293	42.8	73.8	5.6	16.9	1.8	3.0	0.3	1.1	0.2	41.9	3.54	49.7	2.7
	249.4	250.4	5,137	9,066	867	2,671	166	26.3	45.5	3.6	11.7	1.3	2.2	0.2	1.0	0.1	27.9	1.80	33	5.5
	250.4	251.4	4,773	8,230	789	2,473	173	28.5	52.7	4.3	14.2	1.5	2.1	0.2	0.8	0.1	31.8	1.66	47.9	3
	251.4	252.1	15,305	24,384	2,241	6,567	420	69.1	123.3	9.5	28.8	2.8	4.0	0.3	1.1	0.2	63.5	4.92	97.9	1.7
	252.1	253.1	10,239	17,812	1,716	5,202	339	54.0	95.7	7.0	20.7	2.0	2.9	0.2	1.0	0.2	41.9	3.55	69.9	4
	253.1	253.6	6,849	12,468	1,195	3,593	198	28.6	46.0	3.2	9.0	1.0	1.7	0.2	0.9	0.1	21.6	2.44	21.1	6.1
	253.6	254.2	5,348	9,668	921	2,776	158	23.3	39.9	2.9	9.4	1.0	1.8	0.2	0.9	0.1	24.1	1.90	22.1	5.6
	254.2	255.2	5,078	8,771	826	2,543	167	28.1	54.5	5.1	17.5	1.9	2.7	0.3	1.1	0.1	44.5	1.75	56.1	2.3
	255.2	256.2	9,863	17,443	1,673	5,074	299	43.7	74.0	5.6	17.0	1.9	3.0	0.3	1.1	0.2	39.4	3.45	43.2	3.4
	256.2	257.2	15,891	28,499	2,779	8,363	470	64.8	101.3	6.5	16.5	1.7	2.5	0.3	1.1	0.2	34.3	5.62	45.8	1.6
	257.2	258.2	11,400	20,760	2,078	6,345	368	51.6	80.2	4.9	13.3	1.3	2.1	0.2	1.0	0.1	29.2	4.11	35.2	1.4
	258.2	259.2	14,836	26,288	2,561	7,838	467	69.4	115.0	7.7	20.4	2.0	3.0	0.2	0.9	0.2	41.9	5.23	59.3	1.9
	259.2	260.2	22,870	45,451	4,712	14,872	852	118.1	177.5	8.8	23.4	2.2	3.1	0.3	0.8	0.1	40.6	8.91	71.3	3.6

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	260.2	261.2	15,070	28,130	2,791	8,596	514	74.1	120.5	7.8	21.5	2.0	3.4	0.3	1.1	0.1	45.7	5.54	62.2	2.1
	261.2	262.2	6,521	12,284	1,214	3,756	237	36.4	62.0	4.6	13.8	1.5	2.3	0.2	1.0	0.1	34.3	2.42	42.1	1.9
	262.2	263.2	6,075	11,080	1,090	3,359	205	31.5	53.6	4.0	11.9	1.3	2.1	0.2	0.9	0.1	29.2	2.19	32	1.3
	263.2	264.2	5,571	9,962	953	2,904	169	25.1	41.8	2.9	8.6	0.9	1.8	0.2	0.8	0.1	21.6	1.97	17.8	1.8
	264.2	265.2	11,482	20,576	1,994	5,995	341	49.0	79.4	5.3	14.5	1.5	2.4	0.2	0.9	0.1	31.8	4.06	40.8	2.1
	265.2	265.7	4,398	7,653	720	2,164	126	19.2	32.4	2.7	8.8	1.1	1.7	0.2	0.8	0.1	25.4	1.52	19	1.9
	265.7	266.3	4,222	8,206	866	2,986	223	34.6	62.4	4.4	12.9	1.2	1.8	0.1	0.7	0.1	27.9	1.66	54.1	2.7
	266.3	267.3	3,882	9,225	1,143	4,409	364	53.4	84.0	4.7	12.5	1.2	2.1	0.2	1.0	0.2	25.4	1.92	60.5	6
	267.3	267.5	3,870	7,297	729	2,333	143	21.3	34.8	2.2	7.0	0.9	1.6	0.2	0.8	0.1	20.3	1.45	21.9	9.9
	267.5	268.2	11,576	17,443	1,492	4,199	246	39.3	70.7	5.7	17.6	1.9	2.7	0.3	1.1	0.1	43.2	3.51	49.1	1.4
	268.2	269.2	11,963	19,286	1,740	5,039	289	46.1	81.5	6.7	20.9	2.2	3.3	0.3	1.3	0.2	49.5	3.85	49.8	1.8
	269.2	269.9	13,604	25,919	2,489	7,383	493	79.3	132.0	9.1	24.1	2.4	3.9	0.4	1.6	0.3	49.5	5.02	69.2	3.4
	269.9	270.9	4,937	9,778	962	2,858	184	29.2	48.5	3.4	10.6	1.1	2.2	0.2	1.3	0.2	27.9	1.88	26.4	8.5
	270.9	271.9	3,167	6,240	620	1,872	131	22.2	40.9	3.2	10.3	1.1	2.1	0.3	1.0	0.2	26.7	1.21	25.1	9.5
	271.9	272.2	6,626	12,591	1,214	3,604	242	38.7	67.2	5.0	14.1	1.4	2.4	0.2	0.8	0.1	31.8	2.44	50.7	3
	272.2	273.0	8,339	15,908	1,534	4,537	279	43.5	73.5	5.8	17.7	1.8	3.1	0.3	1.1	0.2	41.9	3.08	51.7	3.3
	273.0	273.4	12,549	24,077	2,308	6,672	414	66.1	110.9	7.8	22.8	2.3	3.5	0.3	1.4	0.2	47.0	4.63	59.7	1.1
	273.4	274.4	9,570	18,917	1,861	5,540	371	61.1	103.0	7.3	21.4	2.1	3.3	0.2	1.1	0.1	45.7	3.65	59.1	1.7
	274.4	275.4	4,996	9,962	1,035	3,219	220	34.5	58.8	3.9	11.3	1.3	2.1	0.2	0.8	0.1	26.7	1.96	33.2	0.8
	275.4	276.0	5,196	10,454	1,091	3,464	232	34.0	57.5	3.7	10.9	1.1	1.8	0.2	0.7	0.1	25.4	2.06	32.6	2.6
	276.0	276.5	6,908	13,082	1,238	3,628	222	35.9	62.7	5.4	17.2	1.8	2.7	0.2	0.9	0.1	40.6	2.52	53	4.9
	276.5	277.1	5,219	10,073	968	2,846	170	25.1	44.3	3.1	10.8	1.2	2.1	0.2	0.9	0.1	27.9	1.94	30.3	6.8
	277.1	278.1	4,105	7,886	753	2,199	141	23.5	42.7	3.5	10.9	1.2	2.3	0.2	1.0	0.1	26.7	1.52	32.1	9.6
	278.1	279.1	5,278	10,466	1,027	3,079	189	27.8	48.0	3.5	11.0	1.2	2.2	0.2	0.8	0.1	26.7	2.02	27.8	3.7
	279.1	280.1	4,457	8,918	882	2,683	180	28.7	48.5	3.5	10.4	1.1	2.2	0.2	1.0	0.1	25.4	1.72	28.1	3.4
	280.1	281.1	5,231	10,380	1,015	3,068	204	33.8	58.7	4.8	15.6	1.6	2.6	0.2	1.1	0.1	36.8	2.01	40.4	3
	281.1	282.1	4,562	9,164	909	2,858	209	35.2	60.6	4.3	12.2	1.2	2.1	0.2	0.7	0.1	26.7	1.78	41.5	2.1
	282.1	282.6	3,647	7,100	692	2,076	140	22.5	39.3	3.2	10.2	1.0	1.8	0.2	1.0	0.1	25.4	1.38	25	3.2
	282.6	283.2	4,679	9,520	936	2,834	191	31.2	54.2	4.6	15.4	1.5	2.6	0.2	1.1	0.1	35.6	1.83	34.8	2.8
	283.2	284.2	8,034	15,785	1,559	4,677	305	48.9	78.8	5.3	14.7	1.4	2.6	0.2	1.0	0.1	31.8	3.05	45.5	3
	284.2	285.2	10,426	19,224	1,879	5,669	380	63.2	107.1	8.1	22.7	2.1	3.1	0.2	0.8	0.1	44.5	3.78	90.1	2.2
	285.2	286.2	4,128	8,513	878	2,718	196	31.3	51.8	3.6	10.7	1.1	1.9	0.2	0.8	0.1	24.1	1.66	31.4	4.1
	286.2	287.2	4,621	9,274	918	2,776	188	32.2	59.6	5.3	16.8	1.6	2.3	0.2	0.9	0.1	35.6	1.79	73.3	1.9
	287.2	288.2	8,960	17,443	1,679	5,004	319	50.8	87.8	6.6	20.0	2.0	3.3	0.3	1.5	0.2	45.7	3.36	54.1	7.4
	288.2	289.2	6,263	11,829	1,143	3,453	249	41.8	73.7	5.3	16.1	1.6	2.9	0.2	1.1	0.1	36.8	2.31	51.4	3.4
	289.2	290.2	5,887	10,920	1,033	3,033	191	31.2	52.2	4.2	14.0	1.6	2.6	0.2	0.9	0.1	35.6	2.12	32.1	5
	290.2	291.2	12,901	22,787	2,084	5,809	357	59.6	103.6	7.7	22.3	2.2	3.7	0.2	1.0	0.2	49.5	4.42	73.8	2.3
	291.2	291.5	5,852	10,957	1,037	3,079	205	34.4	60.4	4.8	15.6	1.7	2.5	0.2	0.8	0.1	38.1	2.13	46.1	5.2
	291.5	292.2	5,583	10,982	1,091	3,348	259	44.8	78.2	5.7	16.6	1.7	2.7	0.2	1.0	0.1	38.1	2.15	61.6	3.1
	292.2	293.2	10,790	17,443	1,522	4,152	241	38.7	69.3	5.9	19.5	2.0	3.2	0.2	0.9	0.1	48.3	3.43	54.5	2
	293.2	294.2	7,201	12,530	1,151	3,394	230	38.3	67.0	5.3	16.4	1.9	3.1	0.3	1.5	0.2	43.2	2.47	49.2	2
	294.2	295.2	9,957	18,119	1,698	4,922	302	47.4	77.8	5.5	16.1	1.6	2.5	0.2	1.0	0.1	36.8	3.52	47	6.1
	295.2	296.2	4,902	9,496	924	2,776	172	27.0	43.3	3.2	10.1	1.1	1.7	0.2	0.9	0.1	24.1	1.84	25.4	4
	296.2	297.2	5,383	9,741	910	2,683	169	27.6	46.5	3.3	10.7	1.2	2.2	0.2	1.1	0.2	29.2	1.90	26.5	4.2
	297.2	298.1	9,312	15,785	1,408	3,989	257	44.2	79.0	6.5	20.9	2.3	3.4	0.3	1.3	0.1	49.5	3.10	63.1	2.1
	298.1	299.1	18,472	33,904	3,298	9,856	703	120.4	205.7	13.8	37.9	3.5	5.3	0.5	2.1	0.3	78.7	6.67	137	4.8

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Hole ID	From m	To m	La <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	Th ppm	U ppm
	299.1	300.1	8,045	14,679	1,389	4,117	283	48.1	86.2	6.8	21.8	2.4	3.3	0.3	1.3	0.2	52.1	2.87	67.4	3.9
	300.1	301.1	9,406	16,891	1,577	4,747	368	67.3	121.6	9.8	30.3	3.3	5.2	0.5	2.1	0.3	74.9	3.33	108	4.4
	301.1	302.1	7,565	13,021	1,191	3,476	242	41.8	74.8	5.7	17.3	1.8	2.7	0.2	1.0	0.1	38.1	2.57	55.1	3
	302.1	303.1	9,324	15,539	1,383	3,896	244	41.9	75.6	5.9	18.6	2.0	3.1	0.2	1.0	0.1	45.7	3.06	59.7	2.6
	303.1	304.1	9,476	16,399	1,486	4,316	292	52.1	94.3	8.3	29.5	3.2	5.2	0.4	1.8	0.2	77.5	3.22	78.4	4.8
	304.1	305.1	30,258	46,065	3,951	10,591	630	107.3	190.2	14.4	42.0	4.0	6.0	0.4	1.6	0.3	85.1	9.19	135	4
	305.1	306.1	32,604	49,996	4,325	11,897	782	139.5	246.7	17.6	48.4	4.5	6.2	0.4	1.6	0.2	97.8	10.02	183	4.7
	306.1	306.4	8,257	14,372	1,323	3,779	240	40.8	70.7	6.1	18.7	1.9	2.9	0.2	0.9	0.1	43.2	2.82	54.9	3.2
	306.4	307.4	5,160	9,692	929	2,811	195	32.2	53.3	4.0	12.4	1.2	2.3	0.2	0.9	0.1	29.2	1.89	37.1	5.1
	307.4	308.4	4,808	9,274	900	2,706	175	27.9	43.8	3.1	9.6	1.1	1.9	0.2	0.9	0.1	24.1	1.80	26	5.8
	308.4	309.4	3,307	7,198	787	2,694	241	43.1	71.7	4.7	13.3	1.3	2.1	0.2	0.9	0.2	29.2	1.44	56.4	6.6
	309.4	310.4	3,143	6,965	766	2,624	242	43.7	74.5	4.9	13.9	1.4	2.3	0.2	1.0	0.1	29.2	1.39	50.7	5.6
	310.4	311.4	4,398	8,992	913	2,916	223	37.2	62.4	4.3	13.7	1.6	2.9	0.3	1.7	0.2	36.8	1.76	38.6	9.4
	311.4	312.4	5,688	11,559	1,199	3,931	320	56.4	91.4	5.9	16.5	1.7	2.6	0.2	1.1	0.2	34.3	2.29	61.8	6
	312.4	313.4	7,295	14,864	1,528	4,782	363	62.1	102.9	7.2	21.7	2.2	3.7	0.3	1.5	0.2	47.0	2.91	68.3	6.7
	313.4	314.0	5,735	11,866	1,232	3,907	293	48.6	81.6	6.0	18.3	1.9	3.2	0.3	1.4	0.2	43.2	2.32	50.5	6.2
	314.0	314.7	6,145	12,468	1,275	4,129	329	58.9	99.8	6.8	19.4	2.0	3.1	0.2	1.1	0.1	40.6	2.46	62.3	2.9
	314.7	315.2	5,301	10,970	1,139	3,674	276	46.2	78.0	5.6	17.3	1.7	2.7	0.2	1.1	0.2	38.1	2.16	48.4	6.6
	315.2	316.2	5,500	11,129	1,119	3,499	247	40.2	66.0	4.5	12.9	1.3	2.1	0.2	0.8	0.1	26.7	2.16	40.6	7.3
	316.2	317.2	4,152	8,587	863	2,741	189	30.5	49.2	3.6	11.1	1.2	1.9	0.2	1.0	0.2	27.9	1.67	30.1	10.5

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## JORC Code, 2012 Edition – Table 1 report

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<p>Reverse circulation drilling sampled on 1 metre intervals.</p> <p>Riffle split sample mass averaging 1.5kg crushed, pulverized using standard laboratory procedures with subsample assayed using appropriate methods for rare earth element total digestion and analysis.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<p>Standard reverse circulation drilling using 5 ¼ inch face sampling hammer</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> </ul>	<p>Samples collected on a 1 drilled metre interval. Rock cuttings collected in large plastic bags marked with hole ID and interval from-to via a standard sample collection cyclone.</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>All 1 metre interval bags are weighed in the field after removal from the sample collection cyclone. Collected sample mass is measured on a tared digital scale and recorded in drill hole data files.</p> <p>Sample recovery is maximized by:</p> <ul style="list-style-type: none"> <li>Installing PVC collar pipe in the upper fractured rock zone of the hole to a depth where air loss is minimised and sample return is consistent.</li> <li>Sample cyclone is sealed to plastic sample collection bags do not leak</li> </ul> <p>Sample return was variable with:</p> <ul style="list-style-type: none"> <li>Occasional natural voids of up to 7 metres having &lt;10%, often 0% return</li> <li>Intervals of rock fracturing and loss of air circulation having recoveries averaging 30-60%</li> <li>Competent rock proved good sample recovery averaging &gt;90%</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>All RC chips have been geologically logged by the onsite geologist at 1 m intervals and chip trays have been retained and photographed</p> <p>Logging is qualitative with fields including shade, colour, weathering, grainsize, texture, lithology, veining, mineralisation and alteration.</p> <p>Additional non-geological qualitative logging includes comments for sample recovery, moisture, and hardness for each logged interval.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	<p>Plastic sample collection bags have been split using a 2-tier riffle splitter to achieve a ¼ sub sample of the original mass.</p> <p>This split is then halved in a single tier splitter to give 2 equal samples of approximately 1kg to 2kg in mass. These are denoted split A and split B</p> <p>Each interval is provided with a unique sample number which is written on the subsample bags and corresponding numbered sample tickets are placed within the sub sample bags and stapled into the rolled top of each bag.</p> <p>Both split A and split B samples are weighed with mass recorded in the drill hole file for database upload.</p>

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	<p><i>duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>Split A samples are dispatched for laboratory analysis. Split B samples are retained in storage at Kangankunde for future reference as required.</p> <p>Sample weights were recorded prior to sample dispatch. Sample mass is considered appropriate for the grain size of the material being sampled.</p>																																																				
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p><b>Assay and Laboratory Procedures – All Samples</b></p> <p>Samples were dispatched by air freight direct to ALS laboratory Johannesburg South Africa for sample preparation.</p> <table border="1" data-bbox="1173 616 1854 1011"> <thead> <tr> <th>ALS Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>WEI-21</td> <td>Received sample weight</td> </tr> <tr> <td>LOG-22</td> <td>Sample Login w/o Barcode</td> </tr> <tr> <td>DRY-21</td> <td>High temperature drying</td> </tr> <tr> <td>CRU-31</td> <td>Fine crushing – 70% &lt;2mm</td> </tr> <tr> <td>SPL-21</td> <td>Split sample – Riffle splitter</td> </tr> <tr> <td>PUL-31</td> <td>Pulverise 250g to 85% passing 75 micron</td> </tr> <tr> <td>CRU-QC</td> <td>Crushing QC Test</td> </tr> <tr> <td>PUL-QC</td> <td>Pulverising QC test</td> </tr> <tr> <td>LOG-24</td> <td>Pulp Login w/o Barcode</td> </tr> </tbody> </table> <p>Following sample preparation, a 30 gram pulverized subsample is shipped by airfreight to ALS Perth for analysis</p> <p>The assay technique used for REE was Lithium Borate Fusion ICP-MS (ALS code ME-MS81h). This is a recognised industry standard analysis technique for REE suite and associated elements. Elements analysed at ppm levels:</p> <table border="1" data-bbox="1330 1222 1980 1331"> <tbody> <tr> <td>Ce</td> <td>Dy</td> <td>Er</td> <td>Eu</td> <td>Gd</td> <td>Hf</td> <td>Ho</td> <td>La</td> </tr> <tr> <td>Lu</td> <td>Nb</td> <td>Nd</td> <td>Pr</td> <td>Rb</td> <td>Sm</td> <td>Sn</td> <td>Ta</td> </tr> <tr> <td>Tb</td> <td>Th</td> <td>Tm</td> <td>U</td> <td>W</td> <td>Y</td> <td>Yb</td> <td>Zr</td> </tr> </tbody> </table> <p>Analysis for other metals is conducted by four acid digest and ICP-MS (ALS code ME-4ACD81). The elements analysed using this technique are:</p> <table border="1" data-bbox="1330 1433 1980 1468"> <tbody> <tr> <td>Ag</td> <td>As</td> <td>Cd</td> <td>Co</td> <td>Cu</td> <td>Li</td> <td>Mo</td> <td>Ni</td> </tr> </tbody> </table>	ALS Code	Description	WEI-21	Received sample weight	LOG-22	Sample Login w/o Barcode	DRY-21	High temperature drying	CRU-31	Fine crushing – 70% <2mm	SPL-21	Split sample – Riffle splitter	PUL-31	Pulverise 250g to 85% passing 75 micron	CRU-QC	Crushing QC Test	PUL-QC	Pulverising QC test	LOG-24	Pulp Login w/o Barcode	Ce	Dy	Er	Eu	Gd	Hf	Ho	La	Lu	Nb	Nd	Pr	Rb	Sm	Sn	Ta	Tb	Th	Tm	U	W	Y	Yb	Zr	Ag	As	Cd	Co	Cu	Li	Mo	Ni
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<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>No independent verification of significant intersection undertaken.</p> <p>No twinning of drill holes was undertaken.</p> <p>Sampling protocols for sampling and QAQC were documented and held on site by the responsible geologist. No procedures for data storage and management have been compiled yet.</p> <p>Data collected in the field by hand and entered into Excel spreadsheet. Data are then compiled with assay results compiled and stored in a secure database managed by Geobase Australia a professional provider of database services. Data verification is conducted on data entry including hole depths, sample intervals and sample numbers. Sample numbers from assay data are verified prior to entry into the database.</p> <p>Assay data was received in digital format from the laboratory and merged with the sampling data in the database.</p> <p>Data validation of assay data and sampling data have been conducted to ensure data entry is correct.</p> <p>All assay data received from the laboratory in element form is unadjusted for data entry.</p> <p>Conversion of elemental analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors.(Source:<a href="https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors">https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors</a>)</p> <table border="1" data-bbox="1379 1206 1924 1493"> <thead> <tr> <th>Element ppm</th> <th>Conversion Factor</th> <th>Oxide Form</th> </tr> </thead> <tbody> <tr> <td>Ce</td> <td>1.2284</td> <td>CeO<sub>2</sub></td> </tr> <tr> <td>Dy</td> <td>1.1477</td> <td>Dy<sub>2</sub>O<sub>3</sub></td> </tr> <tr> <td>Er</td> <td>1.1435</td> <td>Er<sub>2</sub>O<sub>3</sub></td> </tr> <tr> <td>Eu</td> <td>1.1579</td> <td>Eu<sub>2</sub>O<sub>3</sub></td> </tr> <tr> <td>Gd</td> <td>1.1526</td> <td>Gd<sub>2</sub>O<sub>3</sub></td> </tr> <tr> <td>Ho</td> <td>1.1455</td> <td>Ho<sub>2</sub>O<sub>3</sub></td> </tr> </tbody> </table>	Element ppm	Conversion Factor	Oxide Form	Ce	1.2284	CeO <sub>2</sub>	Dy	1.1477	Dy <sub>2</sub> O <sub>3</sub>	Er	1.1435	Er <sub>2</sub> O <sub>3</sub>	Eu	1.1579	Eu <sub>2</sub> O <sub>3</sub>	Gd	1.1526	Gd <sub>2</sub> O <sub>3</sub>	Ho	1.1455	Ho <sub>2</sub> O <sub>3</sub>
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		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>La</td><td>1.1728</td><td>La<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Lu</td><td>1.1371</td><td>Lu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr<sub>6</sub>O<sub>11</sub></td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb<sub>4</sub>O<sub>7</sub></td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Y</td><td>1.2699</td><td>Y<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb<sub>2</sub>O<sub>3</sub></td></tr> </table> <p>Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups:</p> <p>Note that Y<sub>2</sub>O<sub>3</sub> is included in the TREO calculation.</p> <p>TREO (Total Rare Earth Oxide) = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub>.</p> <p>HREO (Heavy Rare Earth Oxide) = Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub></p> <p>LREO (Light Rare Earth Oxide) = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub></p> <p>NdPrO% = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub></p> <p>NdPrO% of TREO= NdPrO%/TREO x 100</p>	La	1.1728	La <sub>2</sub> O <sub>3</sub>	Lu	1.1371	Lu <sub>2</sub> O <sub>3</sub>	Nd	1.1664	Nd <sub>2</sub> O <sub>3</sub>	Pr	1.2082	Pr <sub>6</sub> O <sub>11</sub>	Sm	1.1596	Sm <sub>2</sub> O <sub>3</sub>	Tb	1.1762	Tb <sub>4</sub> O <sub>7</sub>	Tm	1.1421	Tm <sub>2</sub> O <sub>3</sub>	Y	1.2699	Y <sub>2</sub> O <sub>3</sub>	Yb	1.1387	Yb <sub>2</sub> O <sub>3</sub>
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Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Drill hole collar locations reported have been surveyed by Differential GPS and are considered accurate to 0.2m.</p> <p>Datum WGS84 Zone 36 South was used for location data planning, collection and storage. This is the appropriate datum for the project area. No grid transformations were applied to the data.</p> <p>Downhole surveys are planned dip and azimuth pending finalisation of downhole surveys.</p>																											

Criteria	JORC Code explanation	Commentary
		Topography is derived from SRTM 30 metre digital elevation database.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>Drill spacing for this phase of drilling is a nominal 50 metre hole spacing on 50 metre line spacing. Topography limitations have necessitated drilling some holes off section.</p> <p>Evaluation of hole spacing for suitability to determine geology and grade estimation will be undertaken following this phase of drilling.</p> <p>No mineral resource estimation has been undertaken.</p> <p>No sample compositing has been used.</p>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	The relationship between mineralisation and drill orientation is not known.
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<p>After collection, the samples were transported by Company representatives via road to Lilongwe and dispatched via airfreight to ALS Johannesburg South Africa. Sample shipments are managed by a professional cargo freight company and remain secure during transport.</p> <p>Following sample preparation subsamples are shipped to Perth Australia by ALS using DHL. Samples are received in Australia and subject to customs inspection and quarantine treatment.</p> <p>Samples were subsequently transported from Australian customs to ALS Perth via road freight and inspected on arrival by a Company representative.</p>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	No audits or reviews have been undertaken

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<p>The Kangankunde Project comprising granted Exploration Licence EPL0514/18R and Mining Licence MML0290/22 is 100% owned by Rift Valley Resource Developments (RVRD) a Malawian registered company. Lindian Resources currently holds 33% of RVRD with a binding share purchase agreement in place to progressively acquire 100 % of RVRD.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>Previous exploration includes:</p> <p>1952-1958: Eight trenches excavated. No data records known to exist.</p> <p>1959: Geological mapping, ten trenches excavated, seven drill holes drilled below main trenches. Data not sighted</p> <p>1972-1981: Trench mapping and sampling, adit driven 300 metres north to south with several crosscuts. Diamond drilling from crosscuts. Pilot plant operated producing strontianite and monazite concentrate. Limited data available in hard copy only.</p> <p>1987- 1990: Feasibility study activities including surface core drilling, processing studies, geotechnical and groundwater studies, estimation of “geological reserves” (Not JORC compliant). Limited data available in hard copy reports.</p> <p>Historical data is largely not available or not readily validated and is currently not reported.</p>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>Intrusive carbonatite containing monazite as the main rare earth bearing mineral.</p> <p>The Kangankunde carbonatite complex is characterized by an elliptic structure centring Kangankunde Hill. The diameters in N-S and E-W directions are 900m and 700m, respectively.</p>

Criteria	JORC Code explanation	Commentary
		<p>In the ellipse, the following rocks are zonally arranged from the centre to the outer part; carbonatites, carbonatized breccias, wall rock / carbonatite breccias and basement rocks.</p> <p>The carbonatites are dolomitic, sideritic and ankeritic and at surface are distributed widely on the northern and western slopes of the Kangankunde Hill. Manganese carbonatite is found at the top and on the eastern slope of the hill.</p> <p>Monazite is found in all carbonatite types in varying quantities. Other associated minerals are strontianite, barite and apatite.</p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<p>The material information for drill holes relating to this announcement are contained in Appendix 1.</p>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<p>Reported intersections are length weighted averages.</p> <p>No maximum or minimum grade cutting has been applied.</p> <p>All reported intercepts are drilled within the orebody and are rare earth mineralised with the lowest grade of 0.35% TREO reported. No geological natural cut-off has been observed and an economic cut-off is not appropriate at this stage of the project.</p> <p>Mineralised zones of higher grade within a fully mineralised hole have been highlighted using a threshold of 2% TREO with a maximum of 5 metres of</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<p>contiguous internal waste used in the calculation. This cut-off is consistent with other similar deposits.</p> <p>No metal equivalents values are used.</p>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	Down hole lengths reported, true widths are not known.
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	Refer to diagrams in body of text.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	This report contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	Multi element analysis has been conducted including potential radionuclides uranium (U) and thorium (Th) which are both reported in Appendix 2
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	Future work programs are intended to evaluate the economic opportunity of the project including extraction optimization, and resource definition.