

# ASX RELEASE

**ASX Announcement**  
5<sup>th</sup> April 2024.

**Catalina Resources** is an Australian diversified mineral exploration and mine development company.

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## Gold and REE intersected at Laverton Project

### Highlights

- **Aircore drilling returns anomalous gold and REE results.**
- **Preliminary 4m composite sampling returns a best result of 4m at 0.95g/t Au from 48m.**
- **Drill testing of magnetic anomalies intersects intrusive rocks with 3m at 0.37% TREO.**
- **Re-sampling of 1m split samples planned followed by additional Aircore drilling.**

Catalina Resources (“Catalina” or “the Company”) is pleased to announce assay results for the recent Aircore drilling program at its Laverton Project.

In February 2024, the Company drilled 25 Aircore holes for 1,593m testing both gold and REE targets on EL38/3697 (Figure 1). The gold targets are aligned along the interpreted strike of the Barnicoat Shear Zone and the REE targets were associated with point source magnetic anomalies that were interpreted to be intrusions.

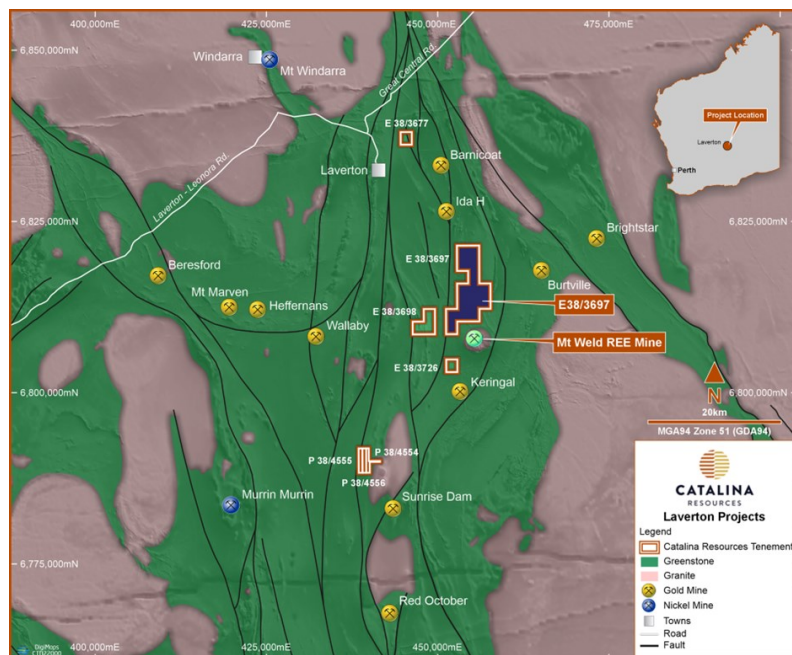


Figure 1: E38/3697 location plan

### Gold Targets

Holes LVAC009 to LVAC016 were drilled in an east-west traverse at a spacing of 100m (Figure 2). The traverse is located 460m north of the southern boundary of EL38/3967 and 900m north of the Prendergast Well South gold prospect (Figure 3). LVAC012 intersected **16m at 0.43g/t Au from 44m including 4m at 0.95g/t Au from 48m**. Adjacent holes LVAC009, LVAC011 and LVAC013 also intersected anomalous gold at or near the bottom of hole at the base of the laterite profile. The anomalous zone of supergene gold mineralization is over 300m wide in an area with 10m of transported gravel overlying a laterite profile up to 80m thick. At refusal the Aircore holes intersected heavily weathered siltstone and sandstone with iron-stained stringer veins and bleaching, possibly carbonate alteration.

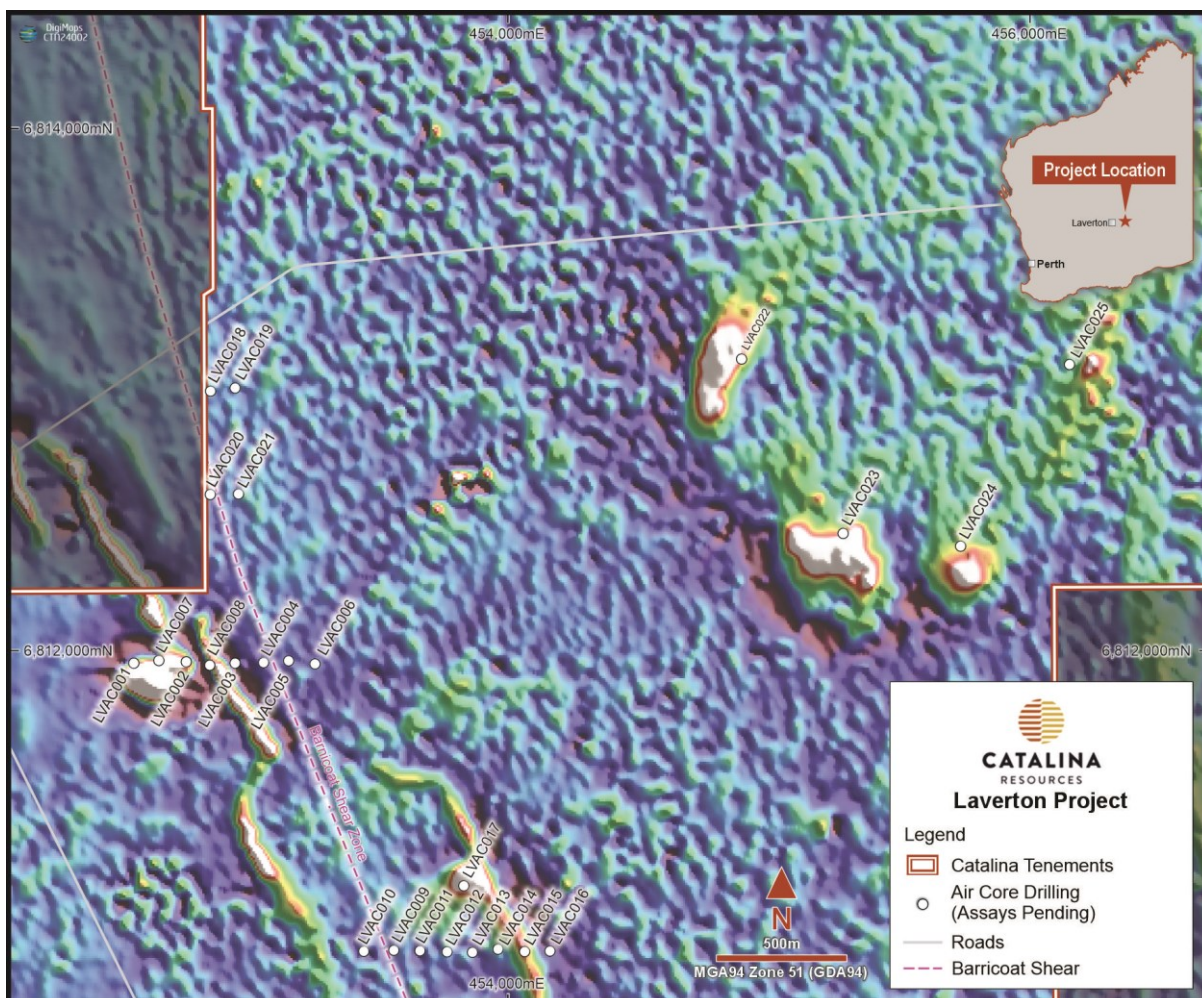


Figure 2: Aeromagnetic image (1VD) showing location of Aircore holes and magnetic anomalies tested.

Previous companies have completed several phases of Aircore drilling in the area comprising traverses of vertical or angled holes (Figure 3). These programs have consistently intersected gold mineralization in the laterite profile. SLAC series Aircore holes drilled by Crescent Gold in 2008, close to the traverse drilled by Catalina, returned the following intersections:

- SLAC104: 3m @ 1.85 g/t Au from 41m<sup>1</sup>.

- SLAC107: 2m @ 1.76 g/t Au from 61m<sup>1</sup>.
- SLAC109: 1m @ 2.2 g/t Au from 78m<sup>1</sup>.

Follow up reverse circulation (RC) drilling was conducted but the source of laterite anomalism was never satisfactorily explained.

An interpretation by Catalina suggests the gold mineralization may be associated with the north-northwest striking Barnicoat Shear Zone that links the Lily Pond Well (34Mt @ 1.4 g/t Au for 15koz Au<sup>2</sup>), Mon Ami (1.56Mt @ 1.1g/t Au for 55koz Au<sup>3</sup>) and Ida H (627K t @ 1.4 g/t Au 27.9koz Au<sup>4</sup>) gold resources, illustrated in Figure 3.

Drill traverse LVAC001 to LVAC008 south of Lily Pond Well did not intersect any significant gold mineralization and holes LVAC018 to LVAC021 returned a best result of 4m at 0.2g/t Au from 28m possibly representing supergene mineralization proximal to the Lily Pond Well prospect/resource.

### **REE Targets**

Five Aircore holes (LVAC0017, LVAC022-25), located in Figure 2, were designed to test point source magnetic anomalies that were interpreted to be possible intrusions that could host REE mineralization similar in style to the Mt.Weld mine, located 4 kms to the south. Dykes related to the circular Mt.Weld carbonatite are known to extend several kilometers into the surrounding host sequence. Southern Geoscience modelled the magnetic anomalies to assist with targeting.

Holes LVAC022-25 intersected gabbroic rocks ranging in composition from mafic to ultramafic. The 3m composite sample of gabbro at Aircore refusal in LVAC023 assayed **3m at 0.37% TREO from 28m**. Hole LVAC022 intersected a dark grey talcose intrusive rock with trace sulphide that contains nickel but also elevated REEs: **4m at 0.32% TREO from 52m** and **16m at 0.13% Ni from 48m**.

The 4m composite samples taken during the Aircore drilling program were assayed using an Aqua Regia ICP-MS method that is not optimal for REE analysis. Reanalysis of the samples by the custom peroxide fusion method for REE may upgrade the results. Peroxide fusion is a complete digest that releases all REEs from the rock and into solution for analysis.

Samples of the gabbroic rocks intersected in holes LVAC022-25 have been sent for petrographic analysis to determine if they have any affinity with the carbonatite intrusive rocks at Mt.Weld.

### **Next Steps**

A 4m composite sampling method was used for the Aircore program but 1m samples were also taken at the same time using a three-tier splitter. 4m composite samples that returned anomalous values for gold, REE or nickel will now be re-assayed with the 1m splits. Using a threshold of 0.1ppm for gold, 0.1% for nickel and 0.1% TREO, approximately 180 samples will be re-analysed. Gold samples will be assayed by Fire Assay and the REE samples will be assayed using the Peroxide Fusion method. The 1m sample splits are scheduled to be collected from site in the week commencing 8<sup>th</sup> April with assay results available in 6-8 weeks.



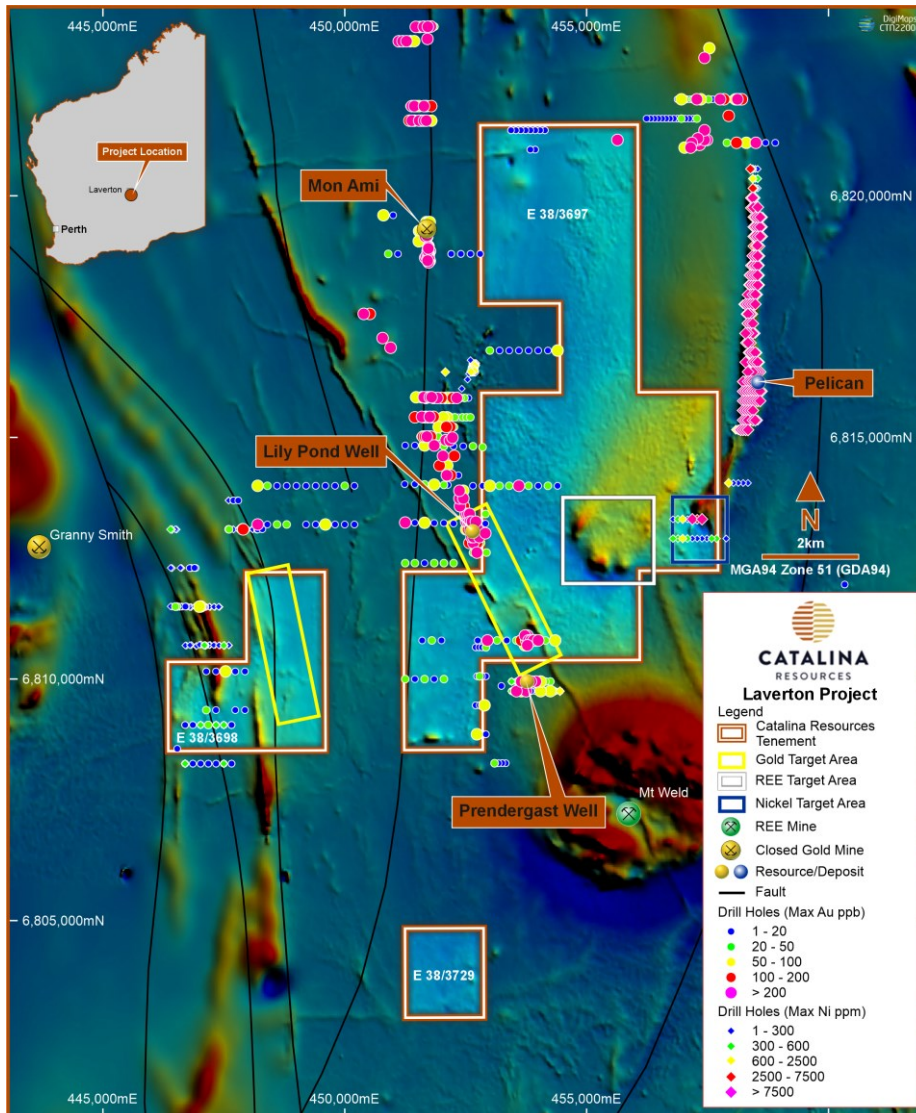


Figure 3: EL38/3697 location plan showing prospects and previous drilling

Additional Aircore drilling is planned for gold and REE but is dependent on the results from the analysis of the 1m split samples.

The broad zone of supergene gold mineralization in traverse LVAC009 to LVAC016 will be followed up with additional traverses to the north and south to delineate the extent of the laterite gold anomaly prior to deeper RC drill testing. Four 100m spaced traverses could be drilled to the south towards the Prendergast Well South gold prospect. To the north, drilling by previous companies was wide-spaced, relatively shallow and did not provide an effective test of the target area. Additional Aircore traverses will be required.

The stringer veins and associated alteration logged in the holes LVAC011 and LVAC012 is encouraging because it suggests the supergene gold mineralization is caused by a proximal source. Previous RC drilling failed to locate a bedrock source and it was assumed the supergene anomaly was displaced.

The anomalous TREO results in holes LVAC022-3 that tested point source magnetic anomalies are considered encouraging, particularly given their proximity to the Mt.Weld REE Mine. Follow up Aircore

drilling will be conducted to follow up the 0.37% TREO intersection in the bottom of hole sample in LVAC023 and also hole LVAC022.

### **Background**

E38/3697 is a ~45km<sup>2</sup> (15 sub-block tenement) located 20km southeast of Laverton within the Laverton Gold Province, an exceptionally well mineralised terrain in the Eastern Goldfields, Western Australia. The region hosts several world class deposits of gold, nickel, and rare earth element (REE) including Sunrise Dam (>10Moz Au), Wallaby (> 8Moz Au), Windara Nickel (combined 85K tonnes nickel sulphide) and the Mt Weld REE deposit, one of the highest-grade rare-earth deposits in the world (Mineral Resource of 54.7 Mt @ 5.3% TREO).

A compilation and review of previous exploration and reimaging of aeromagnetic data identified gold, nickel and rare earth (REE) targets.

A summary of the targets generated is listed below:

1. Gold: Shear zone hosted gold within the Barnicoat Shear Zone, southeast of the Lily Pond Well Gold resource and along strike of the Ida H and Mon Ami resources illustrated in Figure 3.
2. REEs: Eight possible Mt Weld style magnetic carbonatitic bodies (Anomalies A to H) related to the large carbonatite intrusion at the nearby Mt.Weld world class REE deposit. Six of these magnetic bodies are illustrated in Figure 2.
3. Nickel sulphide: Historical drilling (LPR021 and LPR023) intersected anomalous nickel geochemistry within the Pelican Ultramafic Unit, southwest of the Pelican Laterite Nickel resource. located in Figure 3.

### **References**

This announcement contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("2012 JORC Code"). Further details (including 2012 JORC Code reporting tables where applicable) of Mineral Resources and exploration results referred to in this announcement can be found in the following ASX announcements:

<sup>1</sup>Shree Minerals Ltd (ASX:SHH) announcement 1<sup>st</sup> November 2022. Shree secures tenements applications for Gold, Nickel & REE in the highly endowed Laverton Province, WA.

<sup>2</sup>Westaway, J., Lily Pond Well Project: Annual Report for period 1 Jan 1999 to 31 Dec 1999. Sons of Gwalia WAMEX Report 1999 (A60870).

<sup>3</sup>Great Southern Mining Ltd (ASX: GSN) announcement, 21st July 2021; Indicated Mineral Resource Mon Ami.

<sup>4</sup> Ida H Gold Mine: Mindat (<https://www.mindat.org/loc-268922.html>)

### **Cautionary Statement**

- The Exploration Results for the Laverton Project have been reported by former owners.



- The source and date of the Exploration Results reported by the former owners have been referenced in the body of this announcement where Exploration Results have been reported.
- The historical Exploration Results have not been reported in accordance with the JORC Code 2012.
- A Competent Person has not done sufficient work to disclose the historical Exploration Results in accordance with the JORC Code 2012.
- It is possible that following further evaluation and/or exploration work that the confidence in the prior reported Exploration Results may be reduced when reported under the JORC Code 2012.
- That nothing has come to the attention of the acquirer that causes it to question the accuracy or reliability of the historical Exploration Results; but
- Shree has not independently validated the historical Exploration Results and therefore is not to be regarded as reporting, adopting or endorsing those results.
- There are no more recent Exploration Results or data relevant to the understanding of the Exploration Results.

### **Competent Person Statement**

The review of historical exploration activities and new drill results contained in this report is based on information compiled by Martin Bennett, a Member of the Australian Institute. He is a Director of Catalina Resources Ltd. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking 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 (the JORC Code).

Martin Bennett has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

Where the Company refers to the Mineral Resources in this report (referencing previous releases made to the ASX), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the Mineral Resource estimate with that announcement continue to apply and have not materially changed.

### **ABOUT CATALINA RESOURCES LIMITED**

Catalina Resources Limited is an Australian diversified mineral exploration and mine development company whose vision is to create shareholder value through the successful exploration of prospective gold, base metal, lithium and iron ore projects and the development of these projects into production.

The release of this document to the market has been authorised by the Board of Catalina Resources Ltd.



## APPENDIX 1

### Significant Intersection

BHID	From	To	Metres	g/t Au
LVAC009	72	76	4	0.194
LVAC009	80	87	7	0.197
LVAC011	76	88	12	0.181
LVAC012	44	60	16	0.430
LVAC012	64	68	4	0.475
LVAC013	64	66	2	0.225
LVAC018	28	32	4	0.200

BHID	From	To	Metres	% Ni
LVAC002	12	16	4	0.12
LVAC022	48	64	16	0.13
LVAC025	44	52	8	0.12

BHID	From	To	Metres	% TREO
LVAC002	24	28	4	0.17
LVAC004	48	52	4	0.10
LVAC009	40	44	4	0.19
LVAC009	52	56	4	0.11
LVAC009	64	68	4	0.11
LVAC009	76	84	8	0.17
LVAC010	84	88	4	0.12
LVAC022	36	40	4	0.11
LVAC022	52	56	4	0.32
LVAC023	28	31	3	0.37

## APPENDIX 2

### Aircore Drill Hole Coordinates

Tenement	Hole Id	Drill Type	MGA East	MGA North	Inclination	Azimuth	Elevation	Depth (m)	Hole Diameter	MGA Grid ID
E38/3697	LVAC001	AC	452567	6811952	-60	270	450	59	85mm	GDA94 Z51
E38/3697	LVAC002	AC	452768	6811957	-60	270	450	33	85mm	GDA94 Z51
E38/3697	LVAC003	AC	452955	6811952	-60	270	450	60	85mm	GDA94 Z51
E38/3697	LVAC004	AC	453064	6811954	-60	270	450	77	85mm	GDA94 Z51
E38/3697	LVAC005	AC	453160	6811961	-60	270	450	88	85mm	GDA94 Z51
E38/3697	LVAC006	AC	453261	6811949	-60	270	450	69	85mm	GDA94 Z51
E38/3697	LVAC007	AC	452663	6811962	-60	270	450	20	85mm	GDA94 Z51
E38/3697	LVAC008	AC	452858	6811944	-60	270	450	77	85mm	GDA94 Z51
E38/3697	LVAC009	AC	453563	6810852	-60	270	450	87	85mm	GDA94 Z51
E38/3697	LVAC010	AC	453448	6810848	-60	270	450	91	85mm	GDA94 Z51
E38/3697	LVAC011	AC	453663	6810850	-60	270	450	97	85mm	GDA94 Z51
E38/3697	LVAC012	AC	453767	6810846	-60	270	450	76	85mm	GDA94 Z51
E38/3697	LVAC013	AC	453864	6810844	-60	270	450	66	85mm	GDA94 Z51
E38/3697	LVAC014	AC	453962	6810856	-60	270	450	57	85mm	GDA94 Z51
E38/3697	LVAC015	AC	454064	6810847	-60	270	450	55	85mm	GDA94 Z51
E38/3697	LVAC016	AC	454161	6810849	-60	270	450	28	85mm	GDA94 Z51
E38/3697	LVAC017	AC	453831	6811099	-90	0	450	17	85mm	GDA94 Z51
E38/3697	LVAC018	AC	452861	6812994	-60	270	450	78	85mm	GDA94 Z51
E38/3697	LVAC019	AC	452955	6813006	-60	270	450	84	85mm	GDA94 Z51
E38/3697	LVAC020	AC	452860	6812598	-60	270	450	84	85mm	GDA94 Z51
E38/3697	LVAC021	AC	452968	6812600	-60	270	450	78	85mm	GDA94 Z51
E38/3697	LVAC022	AC	454895	6813117	-90	0	450	73	85mm	GDA94 Z51
E38/3697	LVAC023	AC	455284	6812449	-90	0	450	31	85mm	GDA94 Z51
E38/3697	LVAC024	AC	455734	6812400	-90	0	450	55	85mm	GDA94 Z51
E38/3697	LVAC025	AC	456151	6813096	-90	0	450	53	85mm	GDA94 Z51





APPENDIX 3

Assay Results

Table with 32 columns (BHID, SN, From, To, Au, Cu, Co, Ni, Cr, Sc2O3, Y2O3, La2O3, CeO2, Pr6O11, Nd2O3, Sm2O3, Eu2O3, Gd2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3, Lu2O3, TReO) and multiple rows of assay data.



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Page 10 of 21

BHID	SN	From	To	Au	Cu	Co	Ni	Cr	Sc <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	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>2</sub> O <sub>3</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>	Lu <sub>2</sub> O <sub>3</sub>	TREO
LVAC004	10082	52	56	-1	70	94	54	34	10.6	29.5	101.9	211.2	43.9	180.7	31.2	7.2	17.4	1.9	8.9	1.3	3.2	0.3	2.3	0.3	651.8
LVAC004	10083	56	60	-1	60	84	62	26	9.1	35.6	58.9	151.0	23.5	100.4	21.1	5.3	14.8	1.7	9.1	1.5	3.7	0.4	2.6	0.3	438.9
LVAC004	10084	60	64	-1	54	81	70	38	9.1	58.5	77.4	135.1	30.3	124.8	26.7	7.1	21.7	2.5	12.7	2.1	4.9	0.5	2.7	0.3	516.3
LVAC004	10085	64	68	-1	44	66	58	30	7.2	25.5	38.0	108.8	10.9	42.0	7.4	1.9	6.6	0.7	4.2	0.7	1.7	0.2	0.8	0.1	256.9
LVAC004	10086	68	72	-1	32	25	102	34	6.9	15.6	53.1	105.2	12.1	44.2	7.2	1.7	4.9	0.6	2.8	0.5	1.1	0.1	0.7	0.1	256.9
LVAC004	10087	72	76	4	36	26	86	36	10.6	36.1	112.7	228.4	29.3	106.7	18.8	4.9	14.1	1.7	8.6	1.3	2.9	0.3	1.9	0.2	578.4
LVAC004	10088	76	77	3	36	28	72	30	8.1	37.2	96.7	192.8	28.7	107.6	18.8	4.7	13.4	1.5	8.0	1.3	3.1	0.3	2.0	0.3	524.4
LVAC005	10089	0	4	2	22	11	34	190	12.7	16.5	22.8	47.4	6.3	23.4	4.3	1.0	3.6	0.5	3.1	0.6	1.5	0.2	1.1	0.1	145.0
LVAC005	10090	4	8	5	20	7	24	74	8.9	13.2	21.9	41.5	5.8	22.0	4.0	1.0	3.3	0.4	2.4	0.4	1.1	0.1	0.8	0.1	127.2
LVAC005	10091	8	12	6	32	4	18	76	6.7	5.1	14.4	30.7	3.4	12.8	2.3	0.6	1.8	0.2	1.2	0.2	0.5	0.1	0.4	0.0	80.4
LVAC005	10092	12	16	2	34	2	20	100	6.4	2.2	8.9	14.9	1.7	5.9	1.0	0.3	0.8	0.1	0.5	0.1	0.2	0.0	0.2	0.0	43.2
LVAC005	10093	16	20	2	50	2	30	72	13.2	7.0	26.6	57.2	6.1	22.9	4.1	1.1	3.4	0.4	2.1	0.3	0.7	0.1	0.5	0.1	145.7
LVAC005	10094	20	24	-1	32	1	22	44	8.4	1.9	4.8	13.1	1.1	3.8	0.7	0.2	0.6	0.1	0.5	0.1	0.2	0.0	0.2	0.0	35.9
LVAC005	10095	24	28	-1	48	2	40	42	10.1	3.6	5.4	15.6	1.3	5.5	1.1	0.3	1.0	0.1	0.9	0.2	0.4	0.1	0.4	0.1	46.2
LVAC005	10096	28	32	2	64	3	42	72	14.4	6.4	14.7	35.9	3.7	13.5	2.4	0.7	1.9	0.3	1.6	0.3	0.8	0.1	0.7	0.1	97.4
LVAC005	10097	32	36	-1	42	-1	24	34	5.4	3.4	4.2	10.7	1.1	4.4	1.0	0.3	0.9	0.1	0.8	0.1	0.4	0.1	0.4	0.1	33.5
LVAC005	10098	36	40	-1	34	1	18	14	3.5	3.4	2.5	7.6	0.8	3.5	1.0	0.3	0.9	0.1	0.9	0.2	0.4	0.1	0.4	0.1	25.7
LVAC005	10099	40	44	-1	44	2	26	24	4.4	4.3	13.3	34.1	3.3	11.9	2.1	0.5	1.4	0.2	1.2	0.2	0.6	0.1	0.5	0.1	78.1
LVAC005	10101	44	48	-1	46	1	22	24	4.0	4.6	11.3	36.2	2.9	11.0	2.1	0.5	1.5	0.2	1.3	0.2	0.6	0.1	0.6	0.1	77.3
LVAC005	10102	48	52	-1	66	2	36	44	6.9	9.0	15.5	38.4	4.4	17.8	3.7	1.0	3.1	0.4	2.4	0.4	1.1	0.1	0.9	0.1	105.3
LVAC005	10103	52	56	-1	48	3	24	26	4.3	8.8	21.7	75.0	6.9	27.5	5.5	1.4	3.8	0.4	2.3	0.4	0.9	0.1	0.7	0.1	160.0
LVAC005	10104	56	60	-1	34	4	14	14	2.8	9.3	22.2	72.5	7.4	29.7	5.8	1.4	4.2	0.5	2.3	0.4	0.9	0.1	0.6	0.1	160.2
LVAC005	10105	60	64	2	42	11	24	14	2.8	8.6	18.7	61.9	5.5	21.2	4.0	1.0	3.2	0.4	1.8	0.3	0.8	0.1	0.5	0.1	130.8
LVAC005	10106	64	68	-1	52	106	58	14	3.1	7.0	19.1	96.0	5.6	21.5	3.9	0.9	2.5	0.3	1.5	0.3	0.7	0.1	0.5	0.1	162.9
LVAC005	10107	68	72	-1	54	52	38	34	2.6	7.3	29.7	106.8	8.9	32.8	5.3	1.1	3.1	0.3	1.7	0.3	0.7	0.1	0.5	0.1	201.3
LVAC005	10108	72	76	2	48	76	50	28	2.6	7.6	34.4	125.3	10.1	37.2	5.8	1.3	3.6	0.4	1.7	0.3	0.7	0.1	0.5	0.1	231.5
LVAC005	10109	76	80	30	50	75	60	32	3.1	9.2	33.2	100.3	9.7	36.1	5.8	1.3	3.7	0.4	1.9	0.3	0.8	0.1	0.6	0.1	206.6
LVAC005	10110	80	84	40	30	23	36	22	2.0	7.2	40.7	95.0	9.8	33.8	4.9	1.1	3.0	0.3	1.5	0.2	0.6	0.1	0.5	0.1	200.9
LVAC005	10111	84	88	44	34	22	58	24	3.1	13.3	76.6	156.0	16.6	57.5	8.6	2.0	5.6	0.6	3.0	0.5	1.1	0.1	0.8	0.1	345.3
LVAC006	10112	0	4	3	32	15	46	228	17.3	18.8	18.1	43.7	5.0	18.8	3.6	0.9	3.4	0.5	3.1	0.6	1.6	0.2	1.3	0.2	137.1
LVAC006	10113	4	8	5	16	4	22	50	6.6	12.1	11.6	14.7	3.4	13.2	2.4	0.6	2.3	0.3	1.9	0.3	1.0	0.1	0.7	0.1	71.2
LVAC006	10114	8	12	2	28	2	20	50	9.7	4.6	12.3	33.0	2.7	10.1	2.0	0.6	1.7	0.2	1.1	0.2	0.4	0.1	0.4	0.1	79.2
LVAC006	10115	12	16	-1	20	1	14	40	8.3	2.0	4.0	11.7	0.8	2.5	0.5	0.1	0.4	0.1	0.4	0.1	0.2	0.0	0.3	0.0	31.3
LVAC006	10116	16	20	-1	24	1	18	62	6.1	1.8	3.2	8.0	0.8	2.8	0.5	0.1	0.4	0.1	0.4	0.1	0.2	0.0	0.2	0.0	24.8
LVAC006	10117	20	24	2	30	1	28	56	6.6	2.5	1.8	6.9	0.5	1.9	0.4	0.1	0.4	0.1	0.5	0.1	0.3	0.0	0.3	0.0	22.6
LVAC006	10118	24	28	-1	40	-1	30	58	6.7	2.2	0.7	8.8	0.3	1.3	0.4	0.1	0.4	0.1	0.5	0.1	0.3	0.0	0.3	0.0	22.3
LVAC006	10119	28	32	-1	40	1	26	58	10.6	3.6	1.2	9.3	0.4	1.6	0.5	0.2	0.5	0.1	0.7	0.2	0.5	0.1	0.6	0.1	30.0
LVAC006	10120	32	36	-1	80	17	48	68	14.7	12.1	25.8	66.4	6.8	25.7	5.0	1.4	3.9	0.5	3.1	0.6	1.5	0.2	1.4	0.2	169.2
LVAC006	10122	40	44	-1	70	72	42	42	10.1	11.1	3.5	64.7	1.1	4.4	1.4	0.5	2.0	0.4	2.6	0.5	1.5	0.2	1.5	0.2	105.6
LVAC006	10123	44	48	-1	88	86	78	28	5.8	27.1	2.3	35.0	0.9	4.2	1.4	0.6	3.0	0.6	4.1	0.9	2.7	0.3	2.3	0.3	91.5
LVAC006	10124	48	52	-1	92	29	36	22	6.6	55.2	19.8	44.9	5.2	19.6	3.7	1.1	3.9	0.6	5.1	1.3	4.3	0.5	3.8	0.5	176.2
LVAC006	10125	52	56	-1	142	96	32	50	5.2	70.6	10.9	25.4	2.9	11.1	2.2	0.6	2.4	0.4	3.3	1.1	4.5	0.7	4.8	0.8	146.9
LVAC006	10126	56	60	-1	156	34	32	86	10.4	18.3	10.7	30.1	3.2	12.1	2.2	0.6	1.9	0.3	1.8	0.4	1.3	0.2	1.1	0.2	94.8
LVAC006	10127	60	64	-1	64	87	92	52	17.0	47.2	170.1	379.5	44.6	162.1	24.9	6.2	16.5	1.8	9.4	1.5	3.7	0.4	2.6	0.3	887.9
LVAC006	10128	64	68	-1	48	38	98	34	10.4	15.0	32.0	80.6	8.7	32.6	5.7	1.3	4.0	0.5	2.7	0.5	1.3	0.2	1.1	0.1	196.9
LVAC006	10129	68	72	9	36	21	82	50	7.7	13.3	42.5	86.5	9.7	35.0	5.8	1.3	4.1	0.5	2.7	0.5	1.2	0.1	0.8	0.1	211.7
LVAC006	10130	72	76	11	26	22	56	56	6.3	12.8	47.9	94.7	10.8	38.7	6.4	1.3	4.5	0.5	2.8	0.5	1.1	0.1	0.8	0.1	229.2
LVAC010	10131	0	4	11	36	22	62	104	15.6	22.2	35.2	56.7	8.4	30.9	5.4	1.3	4.7	0.6	3.7	0.7	1.8	0.2	1.3	0.2	189.1
LVAC010	10132	4	8	5	32	15	44	150	16.3	15.1	14.3	27.5	4.1	15.6	3.0	0.7	2.8	0.4	2.5	0.5	1.3	0.1	1.0	0.1	105.3
LVAC010	10133	8	12	10	28	7	20	180	14.3	7.0	12.2	32.7	3.0	10.7	2.1	0.5	1.7	0.2	1.5	0.3	0.7	0.1	0.6	0.1	87.6
LVAC010	10134	12	16	-1	30	2	6	124	17.0	1.1	17.9	13.9	1.3	3.6	0.5	0.1	0.4	0.0	0.3	0.0	0.1	0.0	0.1	0.0	56.5
LVAC010	10135	16	20	3	24	2	6	100	12.7	0.9	9.1	7.9	1.0	3.0	0.5	0.1	0.3	0.0	0.3	0.0	0.1	0.0	0.1	0.0	36.0
LVAC010	10136	20	24	-1	24	2	8	68	12.9	1.1	5.4	5.9	1.0	3.8	0.7	0.2	0.5	0.1	0.3	0.1	0.1	0.0	0.1	0.0	32.1
LVAC010	10137	24	28	5	40	3	8	88	15.6	1.1	5.4	7.3	1.1	4.0	0.7	0.2	0.5	0.1	0.3	0.1	0.1	0.0	0.1	0.0	36.6
LVAC010	10138	28	32	-1	104	8	26	208	23.9	1.0	9.4	13.0	1.0	3.2	0.6	0.2	0.4	0.1	0.3	0.1	0.1	0.0	0.1	0.0	53.4
LVAC010	10139	32	36	8	84	4	16	126	20.7	0.8	8.8	16.8	1.												

BHID	SN	From	To	Au	Cu	Co	Ni	Cr	Sc <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	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>2</sub> O <sub>3</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>	Lu <sub>2</sub> O <sub>3</sub>	TREO
LVAC009	10162	24	28	5	54	3	12	122	18.6	1.6	6.8	7.0	1.5	5.1	0.9	0.3	0.7	0.1	0.5	0.1	0.2	0.0	0.1	0.0	43.5
LVAC009	10163	28	32	9	102	3	20	210	32.7	1.2	11.6	23.1	1.2	3.4	0.6	0.2	0.4	0.1	0.4	0.1	0.2	0.0	0.1	0.0	75.4
LVAC009	10164	32	36	7	126	4	24	338	52.5	2.6	7.6	28.6	1.4	4.9	1.0	0.3	0.9	0.1	0.8	0.1	0.4	0.0	0.3	0.0	101.8
LVAC009	10165	36	40	2	150	9	50	76	43.3	5.0	7.6	43.0	2.6	9.9	2.0	0.6	1.5	0.2	1.5	0.3	0.7	0.1	0.8	0.1	119.0
LVAC009	10166	40	44	-1	164	15	94	92	60.3	45.8	407.0	874.3	99.0	333.5	46.3	11.1	25.9	2.9	13.9	2.0	4.4	0.5	3.1	0.3	1930.3
LVAC009	10167	44	48	2	154	72	116	80	53.8	20.2	44.0	178.1	16.2	64.0	10.9	2.8	7.1	0.9	5.2	0.9	2.4	0.3	2.2	0.3	409.2
LVAC009	10168	48	52	5	160	122	160	118	32.7	154.9	113.5	235.8	50.0	204.1	37.0	10.2	28.7	4.2	26.9	5.0	14.3	1.8	12.9	1.6	933.5
LVAC009	10169	52	56	2	164	100	212	110	32.2	381.0	83.8	169.5	37.5	166.7	39.4	13.7	50.5	9.3	71.8	13.8	41.1	5.0	35.5	4.7	1155.4
LVAC009	10170	56	60	-1	128	92	232	144	36.7	214.6	28.5	58.2	20.7	98.2	24.8	8.5	32.1	5.5	38.9	7.7	22.0	2.6	16.9	2.3	618.1
LVAC009	10171	60	64	2	130	162	302	160	41.9	66.0	114.7	221.0	25.8	89.2	15.0	4.5	14.4	1.9	11.8	2.2	5.9	0.6	4.1	0.5	619.6
LVAC009	10172	64	68	-1	134	59	298	156	47.2	36.4	267.4	486.3	50.7	165.6	22.2	5.6	14.3	1.5	7.6	1.2	3.1	0.3	2.3	0.3	1112.2
LVAC009	10173	68	72	62	144	70	324	162	45.6	53.1	193.5	377.0	41.5	137.6	20.4	5.4	14.6	1.8	10.2	1.8	4.6	0.5	3.6	0.5	911.6
LVAC009	10174	72	76	194	132	107	320	170	41.6	46.9	179.5	362.3	40.8	136.4	18.7	4.3	11.0	1.3	7.7	1.5	4.2	0.5	3.7	0.5	860.6
LVAC009	10175	76	80	91	94	204	284	130	36.7	77.5	416.4	815.4	92.8	318.3	42.7	10.2	26.6	3.0	16.1	2.6	6.5	0.7	4.4	0.5	1870.4
LVAC009	10176	80	84	255	72	130	248	122	34.5	58.3	339.0	637.3	69.2	233.2	31.4	7.9	20.9	2.3	12.1	1.9	4.7	0.5	3.0	0.4	1456.5
LVAC009	10177	84	87	121	122	105	304	176	46.2	27.7	52.6	103.6	11.6	41.9	7.3	2.0	6.2	0.8	5.0	0.9	2.5	0.3	1.8	0.2	310.6
LVAC011	10178	0	4	6	34	18	56	176	17.5	16.0	18.3	34.9	4.7	17.4	3.3	0.8	3.0	0.4	2.7	0.5	1.4	0.2	1.1	0.1	122.2
LVAC011	10179	4	8	6	34	17	60	158	17.9	16.5	15.7	34.5	4.4	16.6	3.2	0.8	3.1	0.4	2.8	0.5	1.5	0.2	1.2	0.2	119.4
LVAC011	10181	8	12	6	36	4	20	240	14.1	6.6	10.1	18.4	2.7	9.9	1.9	0.5	1.6	0.2	1.3	0.2	0.7	0.1	0.5	0.1	68.9
LVAC011	10182	12	16	2	36	2	12	158	16.6	1.9	4.9	8.9	1.1	3.8	0.7	0.2	0.5	0.1	0.4	0.1	0.2	0.0	0.2	0.0	39.6
LVAC011	10183	16	20	8	64	2	26	130	27.6	3.7	8.3	14.5	1.4	4.1	0.7	0.2	0.6	0.1	0.7	0.1	0.4	0.1	0.5	0.1	63.0
LVAC011	10184	20	24	3	50	3	28	130	19.0	2.4	3.0	4.8	0.5	1.7	0.3	0.1	0.3	0.1	0.4	0.1	0.3	0.0	0.3	0.0	33.5
LVAC011	10185	24	28	2	78	1	32	144	30.8	3.0	6.4	15.1	1.2	3.6	0.6	0.2	0.5	0.1	0.6	0.1	0.4	0.0	0.4	0.0	63.0
LVAC011	10186	28	32	-1	92	1	54	124	23.0	3.6	1.4	12.0	0.3	1.2	0.3	0.1	0.4	0.1	0.7	0.1	0.5	0.1	0.5	0.1	44.4
LVAC011	10187	32	36	-1	88	1	40	126	50.9	3.3	1.5	26.8	0.5	1.9	0.5	0.2	0.5	0.1	0.7	0.1	0.4	0.1	0.4	0.1	87.9
LVAC011	10188	36	40	-1	66	1	38	112	70.6	3.1	1.5	126.5	0.7	2.8	0.7	0.2	0.6	0.1	0.8	0.1	0.5	0.1	0.5	0.1	208.8
LVAC011	10189	40	44	-1	136	7	58	86	87.1	10.1	11.7	191.6	4.7	18.8	3.6	1.0	2.8	0.4	2.4	0.4	1.2	0.1	1.0	1.0	337.2
LVAC011	10190	44	48	-1	174	20	96	90	77.6	25.7	15.0	163.3	7.7	34.3	7.4	2.2	6.4	0.9	5.8	1.0	2.8	0.3	2.4	0.3	353.1
LVAC011	10191	48	52	-1	178	56	114	52	69.8	36.2	36.1	55.3	13.3	58.8	12.3	3.6	10.5	1.4	8.3	1.4	3.8	0.4	3.1	0.4	314.7
LVAC011	10192	52	56	2	184	278	284	80	60.9	55.6	72.8	97.3	28.8	124.8	26.6	7.6	21.9	2.8	15.3	2.4	5.9	0.7	4.6	0.5	528.6
LVAC011	10193	56	60	-1	154	117	184	126	55.4	20.7	13.8	35.6	5.0	23.9	5.3	1.6	5.0	0.7	4.3	0.8	2.3	0.3	2.0	0.3	177.0
LVAC011	10194	60	64	-1	172	82	138	96	46.9	43.7	17.9	38.1	5.9	27.5	6.8	2.3	7.8	1.2	7.8	1.5	4.3	0.5	3.4	0.4	216.1
LVAC011	10195	64	68	-1	176	96	164	96	49.9	59.8	12.7	40.4	6.7	31.9	8.6	2.9	9.4	1.5	10.7	2.1	6.0	0.7	5.1	0.7	249.0
LVAC011	10196	68	72	17	180	171	256	116	39.1	114.9	48.9	121.8	19.4	86.8	21.1	6.7	21.3	3.3	21.7	4.1	11.4	1.4	9.4	1.2	532.7
LVAC011	10197	72	76	12	170	81	250	182	50.9	36.4	10.7	29.2	4.9	23.6	6.4	2.1	7.2	1.1	7.1	1.3	3.6	0.4	2.9	0.4	188.2
LVAC011	10198	76	80	114	126	50	226	164	44.5	12.3	4.8	12.9	1.9	9.0	2.6	0.8	2.6	0.4	2.4	0.4	1.2	0.1	1.0	0.1	97.1
LVAC011	10199	80	84	108	162	57	198	150	32.2	11.4	4.4	12.0	1.7	8.3	2.4	0.8	2.4	0.3	2.1	0.4	1.1	0.1	0.9	0.1	80.8
LVAC011	10200	84	88	323	100	106	700	758	43.0	14.2	3.1	7.1	1.1	5.6	1.8	0.7	2.3	0.3	2.3	0.5	1.3	0.2	1.0	0.2	84.7
LVAC011	10202	88	92	97	130	85	604	804	41.6	15.0	6.3	13.4	1.9	8.3	2.3	0.8	2.5	0.4	2.7	0.5	1.5	0.2	1.4	0.2	99.0
LVAC011	10203	92	96	52	178	63	256	174	48.2	20.7	9.5	21.7	2.9	12.4	3.2	1.0	3.5	0.6	3.8	0.7	2.1	0.3	1.8	0.2	132.4
LVAC011	10204	96	97	36	166	62	252	152	51.1	49.9	167.7	362.3	43.0	153.9	26.9	7.0	19.6	2.3	11.5	1.8	4.2	0.4	2.8	0.3	904.6
LVAC012	10205	0	4	4	42	17	54	354	23.3	12.0	13.3	30.9	3.9	14.8	2.9	0.7	2.6	0.4	2.4	0.4	1.3	0.2	1.0	0.1	110.4
LVAC012	10206	4	8	4	40	15	60	228	22.5	15.2	12.7	24.2	3.6	13.5	2.8	0.7	2.7	0.4	2.6	0.5	1.4	0.2	1.1	0.2	104.3
LVAC012	10207	8	12	4	30	6	30	186	14.7	5.1	5.3	10.0	1.5	5.7	1.2	0.3	1.0	0.2	1.0	0.2	0.5	0.1	0.5	0.1	47.3
LVAC012	10208	12	16	24	70	3	34	110	21.3	4.5	2.3	8.3	0.7	2.9	0.7	0.2	0.7	0.1	0.9	0.2	0.5	0.1	0.6	0.1	43.9
LVAC012	10209	16	20	2	70	1	34	174	26.2	2.5	0.5	1.2	0.2	0.8	0.3	0.1	0.3	0.1	0.5	0.1	0.4	0.1	0.5	0.1	33.7
LVAC012	10210	20	24	-1	76	1	14	178	23.6	1.3	0.3	0.8	0.2	0.7	0.2	0.1	0.2	0.0	0.4	0.1	0.2	0.0	0.3	0.0	28.5
LVAC012	10211	24	28	3	80	-1	24	160	27.0	1.8	0.5	1.9	0.2	0.9	0.3	0.1	0.3	0.1	0.5	0.1	0.3	0.0	0.4	0.0	34.3
LVAC012	10212	28	32	3	116	-1	32	116	38.0	2.6	0.8	3.8	0.4	1.7	0.5	0.2	0.5	0.1	0.7	0.1	0.4	0.1	0.5	0.1	50.5
LVAC012	10213	32	36	-1	70	2	36	58	43.9	4.9	2.6	13.9	0.8	3.5	0.9	0.3	0.9	0.1	1.0	0.2	0.6	0.1	0.6	0.1	74.3
LVAC012	10214	36	40	-1	98	2	16	70	63.5	1.0	0.4	2.0	0.2	0.8	0.2	0.1	0.2	0.0	0.3	0.1	0.2	0.0	0.2	0.0	69.3
LVAC012	10215	40	44	8	158	50	40	60	67.8	28.8	2.5	9.1	1.0	5.1	2.3	0.9	3.9	0.7	4.9	1.0	2.9	0.3	2.5	0.3	134.0
LVAC012	10216	44	48	110	204	112	198	162	46.3	149.9	180.6	332.8	32.9	107.2	19.5	6.4	22.5	3.4	23.2	4.6	13.4	1.6	11.1	1.5	956.8
LVAC012	10217	48	52	954	116	78	172	142	40.5	42.2	31.9	64.6	6.1	22.5	5.3	1.9	6.5	1.1	7.8	1.5	4.6	0.6	4.4	0.6	

BHID	SN	From	To	Au	Cu	Co	Ni	Cr	Sc <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	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>2</sub> O <sub>3</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>	Lu <sub>2</sub> O <sub>3</sub>	TREO
LVAC013	10242	64	66	225	262	28	58	72	41.1	11.2	1.9	9.4	1.0	5.2	1.7	0.6	2.1	0.3	2.5	0.5	1.5	0.2	1.4	0.2	80.7
LVAC014	10243	0	4	4	42	18	48	326	23.0	11.7	11.2	32.3	3.4	12.6	2.6	0.6	2.4	0.4	2.4	0.4	1.3	0.2	1.0	0.1	105.5
LVAC014	10244	4	8	3	34	14	48	198	19.0	14.4	12.7	25.7	3.5	13.2	2.6	0.7	2.6	0.4	2.4	0.5	1.3	0.2	1.0	0.1	100.1
LVAC014	10245	8	12	4	32	8	30	236	16.4	6.8	6.9	13.9	2.0	7.4	1.5	0.4	1.4	0.2	1.4	0.3	0.7	0.1	0.6	0.1	60.0
LVAC014	10246	12	16	8	68	3	30	148	22.4	2.4	1.9	3.5	0.5	1.9	0.4	0.1	0.4	0.1	0.4	0.1	0.2	0.0	0.2	0.0	34.5
LVAC014	10247	16	20	2	124	2	40	132	32.1	1.5	0.8	3.0	0.3	1.1	0.3	0.1	0.3	0.0	0.3	0.1	0.2	0.0	0.2	0.0	40.2
LVAC014	10248	20	24	6	132	1	32	88	53.1	4.0	3.2	11.3	0.9	3.7	0.9	0.3	0.9	0.1	1.0	0.2	0.6	0.1	0.6	0.1	80.9
LVAC014	10249	24	28	-1	128	2	34	72	102.5	6.4	3.1	11.9	0.9	3.8	1.0	0.3	1.0	0.2	1.4	0.3	0.9	0.1	1.0	0.1	135.1
LVAC014	10250	28	32	4	132	3	40	122	113.4	6.8	3.6	13.3	1.1	4.5	1.1	0.4	1.2	0.2	1.6	0.3	0.9	0.1	0.9	0.1	149.4
LVAC014	10251	32	36	2	152	29	78	80	77.3	14.1	10.8	52.3	3.1	12.7	2.7	0.9	2.6	0.4	3.0	0.6	1.9	0.3	2.1	0.3	185.1
LVAC014	10252	36	40	4	272	166	142	74	64.1	37.1	31.8	108.3	8.1	30.8	6.2	2.0	6.7	1.1	7.6	1.5	4.7	0.6	4.7	0.6	316.0
LVAC014	10253	40	44	14	344	359	278	82	73.9	68.5	52.9	189.1	14.2	51.7	10.3	3.1	10.9	1.9	13.8	2.7	8.6	1.1	8.4	1.1	512.2
LVAC014	10254	44	48	4	178	101	116	78	46.8	31.1	20.3	106.0	5.7	21.1	4.0	1.3	4.5	0.8	5.8	1.2	3.6	0.5	3.5	0.5	256.6
LVAC014	10255	48	52	2	186	72	76	78	41.9	24.4	5.9	45.2	2.0	8.3	2.2	0.8	3.2	0.6	4.5	1.0	3.0	0.4	2.9	0.4	146.4
LVAC014	10256	52	56	2	136	148	90	80	49.1	28.6	2.9	34.1	1.2	5.3	1.6	0.6	2.3	0.4	3.3	0.7	2.5	0.3	2.6	0.3	135.9
LVAC014	10257	56	60	8	118	180	98	60	48.9	27.1	12.0	80.8	4.1	17.3	4.0	1.2	3.5	0.6	4.2	0.9	3.1	0.4	3.3	0.4	211.9
LVAC015	10258	0	4	4	52	25	62	162	23.3	17.0	17.4	43.7	4.7	17.4	3.3	0.8	3.2	0.5	3.2	0.6	1.8	0.2	1.5	0.2	138.7
LVAC015	10259	4	8	3	46	19	54	190	21.3	16.8	14.8	30.6	4.0	15.0	2.9	0.8	2.9	0.4	2.9	0.6	1.6	0.2	1.4	0.2	116.3
LVAC015	10261	8	12	2	36	9	36	300	18.4	7.1	7.0	15.2	2.2	8.1	1.7	0.5	1.6	0.2	1.6	0.3	0.8	0.1	0.8	0.1	65.7
LVAC015	10262	12	16	1	20	3	14	54	11.4	2.9	6.2	11.8	1.1	3.6	0.7	0.2	0.6	0.1	0.6	0.1	0.3	0.0	0.3	0.0	40.1
LVAC015	10263	16	20	-1	12	1	4	24	9.7	2.6	11.0	22.3	2.1	6.8	1.1	0.3	0.7	0.1	0.6	0.1	0.3	0.0	0.3	0.0	58.2
LVAC015	10264	20	24	-1	46	3	48	72	25.5	5.8	19.5	65.9	6.3	22.5	3.5	0.8	2.1	0.3	1.4	0.2	0.7	0.1	0.7	0.1	155.3
LVAC015	10265	24	28	-1	100	3	50	80	27.3	7.0	12.7	32.5	3.6	13.2	2.2	0.6	1.6	0.2	1.3	0.2	0.7	0.1	0.7	0.1	104.0
LVAC015	10266	28	32	3	128	3	36	160	44.2	4.4	9.3	15.8	4.8	19.5	4.1	1.1	2.5	0.3	1.5	0.2	0.6	0.1	0.4	0.1	109.0
LVAC015	10267	32	36	5	198	10	98	176	51.5	36.4	21.2	54.6	6.6	26.4	5.6	1.7	5.1	0.9	6.0	1.2	3.5	0.4	2.8	0.3	224.3
LVAC015	10268	36	40	-1	116	8	50	56	67.6	27.6	23.3	63.4	7.9	33.0	7.3	2.1	5.7	0.9	5.6	1.0	2.9	0.3	2.4	0.3	251.3
LVAC015	10269	40	44	1	210	61	92	72	70.6	61.6	24.2	73.7	7.3	32.1	8.7	2.9	9.4	1.6	11.3	2.1	6.2	0.8	5.3	0.7	318.2
LVAC015	10270	44	48	3	360	460	176	76	58.3	133.4	50.4	217.4	21.5	94.9	23.5	7.3	22.5	3.8	25.9	4.8	14.1	1.7	11.1	1.3	692.0
LVAC015	10271	48	52	13	328	248	130	106	50.0	226.1	27.4	93.2	10.4	46.9	13.5	4.9	19.9	4.1	33.6	7.3	23.1	2.9	19.6	2.5	585.5
LVAC015	10272	52	56	18	120	87	60	124	33.7	121.0	27.7	69.6	8.4	37.4	10.3	3.5	13.3	2.4	18.1	4.0	12.2	1.5	10.1	1.3	374.6
LVAC015	10273	0	4	5	42	19	54	152	19.8	20.6	17.4	32.4	4.5	16.9	3.3	0.8	3.4	0.5	3.3	0.6	1.9	0.2	1.5	0.2	127.2
LVAC016	10274	4	8	5	40	15	50	192	19.5	15.1	11.3	21.7	3.4	13.1	2.7	0.7	2.7	0.4	2.7	0.5	1.5	0.2	1.2	0.2	96.8
LVAC016	10275	8	12	5	42	15	38	224	16.6	10.2	9.6	19.3	2.9	10.9	2.3	0.6	2.2	0.3	2.2	0.4	1.1	0.1	0.9	0.1	79.8
LVAC016	10276	12	16	9	58	7	28	140	10.9	7.4	5.3	14.0	1.5	6.6	1.6	0.5	1.8	0.3	1.8	0.3	0.9	0.1	0.7	0.1	53.7
LVAC016	10277	16	20	31	74	5	46	134	9.7	7.9	8.3	21.1	2.6	11.5	2.3	0.7	2.3	0.3	2.2	0.4	0.9	0.1	0.6	0.1	71.2
LVAC016	10278	20	24	9	58	5	50	86	14.4	10.4	10.9	26.3	3.1	12.8	2.6	0.7	2.3	0.3	2.2	0.4	1.2	0.1	1.1	0.1	89.2
LVAC016	10279	24	27	3	82	5	54	96	45.1	29.0	80.6	164.6	18.5	61.9	9.2	2.4	6.4	0.9	5.5	1.0	2.8	0.3	2.2	0.3	430.5
LVAC016	10280	27	28	4	88	7	66	104	46.9	62.4	138.4	299.6	34.2	121.3	18.7	4.8	13.5	1.9	11.8	2.1	5.8	0.7	4.2	0.5	766.9
LVAC016	10282	0	4	3	44	13	62	128	24.2	22.9	30.5	61.0	7.7	28.6	4.9	1.2	4.3	0.6	3.9	0.7	2.1	0.2	1.6	0.2	194.9
LVAC017	10283	4	8	7	36	10	42	198	17.5	13.7	12.8	22.0	3.6	13.8	2.7	0.7	2.7	0.4	2.5	0.5	1.3	0.1	1.0	0.1	95.4
LVAC017	10284	8	12	8	78	12	34	136	21.5	11.8	5.4	11.2	1.7	6.6	1.5	0.5	1.8	0.3	2.2	0.4	1.3	0.2	1.1	0.1	67.5
LVAC017	10285	12	16	4	240	19	98	154	114.4	18.5	16.1	44.2	6.0	27.6	5.8	1.5	4.3	0.6	3.9	0.7	2.2	0.3	2.0	0.3	248.4
LVAC017	10286	16	20	4	144	18	96	116	53.5	7.8	5.9	14.7	1.9	7.9	1.8	0.5	1.6	0.2	1.6	0.3	0.9	0.1	0.8	0.1	99.9
LVAC017	10287	0	4	12	36	8	32	220	12.1	15.1	14.4	29.2	4.1	15.6	2.9	0.7	2.8	0.4	2.4	0.5	1.3	0.1	1.0	0.1	102.9
LVAC018	10288	4	8	5	10	1	8	100	4.0	1.3	1.6	3.0	0.5	1.7	0.3	0.1	0.3	0.0	0.3	0.0	0.1	0.0	0.1	0.0	13.5
LVAC018	10289	8	12	4	8	-1	4	60	1.7	0.2	0.8	0.9	0.1	0.4	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	4.4
LVAC018	10290	12	16	4	16	4	8	96	8.9	0.6	2.0	3.7	0.4	1.3	0.2	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	17.5
LVAC018	10291	16	20	4	26	8	24	60	7.4	9.7	67.4	237.0	12.1	37.8	5.2	1.3	3.7	0.4	2.3	0.4	0.8	0.1	0.5	0.1	386.1
LVAC018	10292	20	24	25	12	20	16	28	4.1	22.6	152.5	133.9	26.6	83.8	11.7	2.9	8.9	1.0	5.4	0.8	2.0	0.2	1.1	0.1	457.8
LVAC018	10293	24	28	27	22	11	32	54	8.4	9.6	3.3	4.0	0.9	3.4	0.8	0.2	1.1	0.1	0.9	0.2	0.5	0.0	0.3	0.0	33.8
LVAC018	10294	28	32	200	24	6	16	12	6.3	2.0	2.3	2.6	0.5	2.1	0.5	0.2	0.5	0.1	0.5	0.1	0.3	0.0	0.3	0.0	18.3
LVAC018	10295	32	36	12	22	2	6	6	5.2	11.7	46.1	105.2	17.1	62.4	10.4	2.4	6.3	0.7	3.4	0.5	1.1	0.1	0.6	0.1	273.3
LVAC018	10296	36	40	3	42	20	36	10	7.8	12.4	39.9	110.2	13.2	49.7	8.4	2.0	5.8	0.7	3.3	0.5	1.2	0.1	0.7	0.1	255.9
LVAC018	10297	40	44	1	40	13	48	10	5.5	31.0	80.6	235.8	30.9	117.8	20.2	5.1	14.4	1.6	8.2	1.2	2.8	0.3	1.5	0.2	557.1
LVAC018	10298	44	48	2	42	22	40	8	4.4	94.5	54.5	146.1	20.8	88.0	16.8	4.7	1								





BHID	SN	From	To	Au	Cu	Co	Ni	Cr	Sc <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	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>2</sub> O <sub>3</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>	Lu <sub>2</sub> O <sub>3</sub>	TREO
LVAC019	10322	52	56	86	42	206	138	38	2.9	8.9	49.1	97.5	10.8	37.4	5.5	1.2	3.6	0.4	1.8	0.3	0.7	0.1	0.4	0.1	220.5
LVAC019	10323	56	60	9	36	98	106	38	4.3	10.9	56.2	109.8	12.7	44.9	6.7	1.5	4.5	0.5	2.4	0.4	0.9	0.1	0.5	0.1	256.2
LVAC019	10324	60	64	52	30	22	58	30	2.8	7.8	42.1	81.0	9.1	32.1	4.8	1.0	3.1	0.3	1.7	0.3	0.7	0.1	0.4	0.1	187.4
LVAC019	10325	64	68	12	26	15	32	16	1.8	6.7	33.0	62.6	6.8	23.4	3.5	0.8	2.4	0.3	1.4	0.2	0.6	0.1	0.4	0.1	144.0
LVAC019	10326	68	72	20	38	25	60	42	3.7	9.7	52.2	96.4	11.2	39.3	5.6	1.3	3.7	0.4	1.9	0.3	0.8	0.1	0.6	0.1	227.1
LVAC019	10327	72	76	3	36	17	40	34	2.8	8.7	46.3	88.0	9.8	34.2	5.0	1.1	3.4	0.4	1.8	0.3	0.7	0.1	0.5	0.1	203.2
LVAC019	10328	76	80	2	42	18	36	26	4.9	18.9	69.8	144.9	17.1	63.5	10.5	2.6	7.8	0.9	4.5	0.7	1.6	0.2	1.0	0.1	349.0
LVAC019	10329	80	84	1	38	24	34	18	3.4	15.2	53.5	108.3	12.8	47.1	7.9	2.0	5.9	0.7	3.5	0.5	1.3	0.1	0.8	0.1	263.2
LVAC019	10330	0	4	14	20	9	30	90	10.1	19.6	19.8	33.2	5.1	19.1	3.4	0.8	3.4	0.5	2.8	0.5	1.5	0.2	1.1	0.1	121.1
LVAC020	10331	4	8	8	6	3	6	34	1.8	2.3	3.1	5.7	0.8	2.9	0.5	0.1	0.5	0.1	0.4	0.1	0.2	0.0	0.1	0.0	18.7
LVAC020	10332	8	12	2	4	-1	2	34	0.8	0.3	1.5	1.9	0.2	0.7	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	5.8
LVAC020	10333	12	16	5	8	-1	2	24	2.5	0.5	2.0	2.6	0.2	0.7	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	8.9
LVAC020	10334	16	20	4	22	5	12	18	4.0	1.5	3.0	24.1	0.4	1.5	0.3	0.1	0.3	0.0	0.3	0.0	0.1	0.0	0.1	0.0	35.9
LVAC020	10335	20	24	2	28	15	50	12	6.1	4.0	11.8	53.9	2.7	9.7	1.7	0.5	1.3	0.2	0.9	0.1	0.4	0.0	0.3	0.0	93.9
LVAC020	10336	24	28	1	28	10	54	10	3.4	9.6	24.6	114.9	6.1	23.2	4.6	1.2	3.4	0.4	2.3	0.4	1.0	0.1	0.8	0.1	196.3
LVAC020	10337	28	32	1	42	10	54	14	3.8	17.7	23.3	53.4	7.4	33.9	7.1	1.9	6.3	0.7	4.0	0.6	1.6	0.2	1.1	0.1	163.2
LVAC020	10338	32	36	1	66	15	72	22	4.8	13.3	22.9	47.5	5.5	20.6	3.9	1.1	4.0	0.5	3.0	0.5	1.4	0.2	1.1	0.2	130.4
LVAC020	10339	36	40	-1	48	9	42	12	2.6	10.3	19.1	38.6	4.3	15.5	2.8	0.8	2.7	0.3	2.0	0.4	0.9	0.1	0.7	0.1	101.3
LVAC020	10341	40	44	-1	52	6	28	10	2.9	10.0	25.6	51.6	5.7	20.6	3.6	0.9	3.0	0.4	1.9	0.3	0.9	0.1	0.7	0.1	128.4
LVAC020	10342	44	48	1	38	2	12	8	2.1	7.3	23.9	46.8	5.1	17.7	2.9	0.7	2.2	0.2	1.2	0.2	0.6	0.1	0.5	0.1	111.5
LVAC020	10343	48	52	-1	26	-1	6	8	1.8	4.6	22.6	43.5	4.7	16.0	2.5	0.6	1.7	0.2	0.8	0.1	0.4	0.0	0.3	0.0	99.9
LVAC020	10344	52	56	-1	34	1	12	6	1.5	3.4	18.5	35.9	3.8	13.3	2.1	0.5	1.4	0.1	0.6	0.1	0.3	0.0	0.2	0.0	81.9
LVAC020	10345	56	60	-1	44	4	20	6	1.5	4.0	22.4	41.9	4.5	15.0	2.4	0.6	1.6	0.2	0.8	0.1	0.3	0.0	0.2	0.0	95.5
LVAC020	10346	60	64	-1	26	7	28	14	2.5	5.1	24.2	48.1	5.1	17.6	2.8	0.7	1.9	0.2	1.0	0.2	0.4	0.0	0.4	0.0	110.2
LVAC020	10347	64	68	-1	32	13	40	12	3.4	6.8	29.3	59.8	6.5	22.6	3.5	0.8	2.4	0.3	1.3	0.2	0.6	0.1	0.6	0.1	138.4
LVAC020	10348	68	72	-1	26	30	56	6	5.1	22.1	87.6	192.8	23.0	83.6	13.9	3.7	10.2	1.1	5.6	0.8	1.8	0.2	1.1	0.1	452.9
LVAC020	10349	72	76	-1	34	43	72	24	4.4	9.0	42.0	83.3	9.4	33.6	5.4	1.3	3.8	0.4	2.0	0.3	0.8	0.1	0.6	0.1	196.5
LVAC020	10350	76	80	2	36	51	90	24	4.8	24.5	98.5	208.8	24.7	88.6	14.6	3.7	10.7	1.2	6.0	0.9	2.0	0.2	1.3	0.2	490.7
LVAC020	10351	80	84	1	38	28	46	10	2.9	10.3	45.2	89.5	10.2	36.4	5.9	1.4	4.2	0.5	2.2	0.3	0.8	0.1	0.6	0.1	210.5
LVAC020	10352	0	4	7	22	14	34	142	12.7	17.7	21.5	41.5	5.6	21.0	3.7	0.9	3.4	0.5	2.8	0.5	1.4	0.2	1.1	0.1	134.6
LVAC021	10353	4	8	6	12	2	8	22	2.6	3.6	5.9	9.6	1.3	4.8	0.9	0.2	0.8	0.1	0.6	0.1	0.3	0.0	0.2	0.0	31.1
LVAC021	10354	8	12	-1	6	-1	4	24	2.0	0.9	1.9	2.7	0.3	0.9	0.2	0.1	0.2	0.0	0.2	0.0	0.1	0.0	0.1	0.0	9.6
LVAC021	10355	12	16	2	-2	-1	-2	4	0.9	0.5	1.1	1.5	0.1	0.5	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	5.0
LVAC021	10356	16	20	-1	-2	-1	2	4	1.1	0.5	0.9	2.4	0.2	0.5	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	6.2
LVAC021	10357	20	24	1	72	-1	4	12	2.3	1.0	1.0	12.4	0.3	1.2	0.3	0.1	0.3	0.0	0.3	0.0	0.1	0.0	0.1	0.0	19.6
LVAC021	10358	24	28	3	54	5	10	18	2.6	1.6	0.9	16.2	0.6	2.6	0.8	0.2	0.6	0.1	0.6	0.1	0.2	0.0	0.2	0.0	27.4
LVAC021	10359	28	32	1	72	9	28	38	9.5	7.1	7.9	27.6	2.5	10.2	2.5	0.8	2.3	0.3	2.0	0.3	0.9	0.1	0.8	0.1	75.1
LVAC021	10360	32	36	3	82	9	42	42	10.0	11.7	8.4	27.1	2.6	10.5	2.4	0.7	2.3	0.4	2.2	0.4	1.1	0.1	0.9	0.1	81.1
LVAC021	10361	36	40	2	74	10	34	22	5.5	15.2	4.0	14.7	1.5	6.4	2.0	0.7	2.5	0.4	2.6	0.5	1.4	0.2	1.0	0.1	58.9
LVAC021	10362	40	44	1	54	4	18	14	2.9	16.4	4.3	14.7	2.2	10.1	2.3	0.7	2.7	0.4	2.4	0.5	1.4	0.2	1.0	0.1	62.4
LVAC021	10363	44	48	-1	34	3	10	8	1.4	11.3	3.3	7.9	1.2	5.6	1.1	0.4	1.4	0.2	1.4	0.3	0.9	0.1	0.7	0.1	37.4
LVAC021	10364	48	52	24	86	18	38	24	4.3	18.3	6.3	15.0	1.8	7.1	1.5	0.5	2.2	0.3	2.2	0.5	1.5	0.2	1.4	0.2	63.3
LVAC021	10365	52	56	2	60	12	20	8	1.8	5.2	4.8	9.9	1.1	3.8	0.7	0.2	0.6	0.1	0.6	0.1	0.4	0.0	0.3	0.0	29.8
LVAC021	10366	56	60	1	48	29	26	8	1.7	3.8	8.9	20.3	2.1	7.3	1.2	0.3	0.8	0.1	0.6	0.1	0.3	0.0	0.3	0.0	47.8
LVAC021	10367	60	64	2	30	52	44	6	1.8	6.4	14.8	30.8	3.4	12.1	2.0	0.5	1.6	0.2	1.1	0.2	0.6	0.1	0.5	0.1	76.1
LVAC021	10368	64	68	1	36	25	30	8	2.0	6.4	30.5	58.7	6.6	22.6	3.4	0.8	2.4	0.3	1.3	0.2	0.6	0.1	0.5	0.1	136.2
LVAC021	10369	68	72	1	38	17	26	14	2.1	5.7	27.4	52.2	5.8	20.2	3.0	0.7	2.1	0.2	1.2	0.2	0.5	0.1	0.4	0.0	121.7
LVAC021	10371	72	76	2	26	28	32	22	2.6	6.3	27.7	52.3	5.8	20.2	3.0	0.7	2.1	0.2	1.2	0.2	0.5	0.1	0.4	0.0	123.2
LVAC021	10372	76	78	1	24	26	32	18	2.5	6.1	28.9	55.3	6.1	21.3	3.1	0.7	2.2	0.2	1.2	0.2	0.5	0.1	0.4	0.1	128.7
LVAC021	10373	0	4	3	44	16	62	222	21.2	17.0	17.2	30.0	4.5	16.8	3.1	0.8	3.0	0.4	2.7	0.5	1.5	0.2	1.1	0.2	120.2
LVAC022	10374	4	8	2	40	13	48	262	23.0	9.5	8.6	15.1	2.5	9.1	1.9	0.5	1.8	0.3	1.8	0.3	0.9	0.1	0.8	0.1	76.2
LVAC022	10375	8	12	3	34	13	62	328	21.0	10.3	12.4	21.5	3.2	11.8	2.3	0.6	2.1	0.3	2.0	0.4	1.1	0.1	0.9	0.1	90.1
LVAC022	10376	12	16	1	14	4	12	140	7.7	2.8	4.2	8.2	1.0	3.7	0.8	0.2	0.7	0.1	0.6	0.1	0.3	0.0	0.2	0.0	30.5
LVAC022	10377	16	20	-1	8	2	8	70	4.0	0.5	1.3	2.2	0.3	1.0	0.2	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	9.9
LVAC022	10378	20	24	1	16	3	6	78	8.6	1.7	3.9	9.4	1.1	4.0	0.9	0.2	0.7	0.1	0.5	0.1	0.2	0.0	0.1	0.0	31.5
LVAC022	10379	24	28	2	14	1	4	46	15.5	0.5	2.0	3													



BHID	SN	From	To	Au	Cu	Co	Ni	Cr	Sc <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	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>2</sub> O <sub>3</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>	Lu <sub>2</sub> O <sub>3</sub>	TREO
LVAC023	10401	0	4	5	26	13	38	136	14.9	17.4	20.6	39.9	5.8	21.9	4.0	1.0	3.7	0.5	3.1	0.6	1.5	0.2	1.2	0.2	136.5
LVAC024	10402	4	8	11	18	8	22	112	14.0	7.3	7.8	16.8	2.3	8.5	1.7	0.4	1.5	0.2	1.4	0.3	0.7	0.1	0.6	0.1	63.6
LVAC024	10403	8	12	5	24	7	26	182	17.0	5.1	5.8	11.0	1.6	5.9	1.2	0.3	1.1	0.2	1.1	0.2	0.6	0.1	0.5	0.1	51.8
LVAC024	10404	12	16	2	16	12	22	188	11.2	5.6	9.9	28.1	2.4	8.7	1.6	0.4	1.4	0.2	1.3	0.2	0.7	0.1	0.5	0.1	72.4
LVAC024	10405	16	20	2	4	2	6	100	2.6	1.4	2.5	5.2	0.7	2.7	0.5	0.1	0.4	0.0	0.3	0.0	0.1	0.0	0.1	0.0	16.8
LVAC024	10406	20	24	2	6	2	4	144	8.9	0.4	0.8	1.7	0.2	0.7	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	13.0
LVAC024	10407	24	28	-1	16	7	26	324	15.0	1.8	3.6	15.4	1.3	5.0	1.1	0.3	0.9	0.1	0.6	0.1	0.2	0.0	0.2	0.0	45.6
LVAC024	10408	28	32	-1	20	8	48	500	21.6	2.3	4.6	71.1	1.4	5.2	1.1	0.3	0.9	0.1	0.6	0.1	0.3	0.0	0.2	0.0	109.8
LVAC024	10409	32	36	-1	26	14	92	1460	48.6	28.8	114.5	112.1	23.5	75.0	11.1	2.8	8.3	0.9	4.9	0.8	2.0	0.2	1.0	0.1	434.6
LVAC024	10411	36	40	1	18	5	36	576	32.5	5.3	11.1	13.1	2.6	9.7	1.7	0.5	1.4	0.2	1.0	0.2	0.5	0.1	0.4	0.1	80.4
LVAC024	10412	40	44	2	20	27	170	282	21.9	24.5	40.0	138.8	10.7	42.2	7.7	2.3	6.5	0.8	5.1	0.9	2.5	0.3	2.1	0.3	306.7
LVAC024	10413	44	48	-1	24	79	296	288	17.2	18.2	30.6	51.7	8.2	32.2	5.8	1.8	4.8	0.6	3.7	0.7	1.9	0.2	1.7	0.3	179.6
LVAC024	10414	48	52	2	28	73	138	430	21.6	24.8	23.5	10.9	4.1	16.1	3.0	1.1	4.0	0.6	3.6	0.7	2.0	0.2	1.5	0.2	117.8
LVAC024	10415	52	55	1	30	43	82	392	18.9	6.7	7.8	9.0	1.6	5.9	1.1	0.3	1.2	0.2	1.1	0.2	0.7	0.1	0.6	0.1	55.4
LVAC024	10416	0	4	10	26	16	46	158	16.4	20.2	24.4	47.6	5.9	22.0	3.8	0.9	3.7	0.5	2.9	0.6	1.5	0.2	1.1	0.2	152.0
LVAC025	10417	4	8	15	20	7	20	124	16.7	6.5	7.3	14.2	2.0	7.5	1.5	0.3	1.3	0.2	1.2	0.2	0.6	0.1	0.5	0.1	60.2
LVAC025	10418	8	12	4	24	8	28	142	21.2	9.6	11.8	30.3	3.2	11.5	2.2	0.5	2.0	0.3	1.9	0.3	0.9	0.1	0.8	0.1	96.7
LVAC025	10419	12	16	2	18	3	20	210	9.7	3.4	3.9	5.7	1.0	3.7	0.7	0.2	0.6	0.1	0.5	0.1	0.3	0.0	0.2	0.0	30.2
LVAC025	10420	16	20	1	14	2	14	238	5.1	0.8	0.9	1.3	0.2	0.9	0.2	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	9.8
LVAC025	10421	20	24	-1	16	2	14	322	5.7	0.5	0.5	1.0	0.1	0.5	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	8.7
LVAC025	10422	24	28	-1	32	3	22	276	14.7	0.5	0.5	1.1	0.2	0.6	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	18.0
LVAC025	10423	28	32	-1	42	5	36	270	26.7	1.5	4.1	8.2	0.9	3.2	0.5	0.1	0.4	0.0	0.3	0.0	0.1	0.0	0.1	0.0	46.3
LVAC025	10424	32	36	-1	110	27	136	570	45.7	8.1	11.0	37.7	3.6	13.4	2.6	0.8	2.1	0.3	2.3	0.4	1.2	0.1	1.1	0.1	130.5
LVAC025	10425	36	40	-1	126	31	304	678	36.5	15.5	6.6	19.5	2.3	9.4	2.4	0.8	2.7	0.5	3.3	0.6	1.9	0.2	1.8	0.2	104.3
LVAC025	10426	40	44	-1	136	165	720	468	35.6	179.1	281.5	342.6	96.8	382.4	69.0	19.3	54.7	6.7	36.7	5.9	14.6	1.5	9.1	1.1	1536.8
LVAC025	10427	44	48	10	108	306	1400	474	29.1	22.7	19.5	90.5	7.8	32.3	6.5	1.9	5.4	0.7	4.7	0.9	2.4	0.3	2.3	0.3	227.4
LVAC025	10428	48	52	-1	80	136	1070	370	23.2	67.7	94.7	191.6	24.4	91.9	17.3	5.2	16.3	2.0	11.8	2.0	5.1	0.6	3.6	0.5	557.8
LVAC025	10429	52	53	8	78	85	756	446	12.9	7.6	2.8	5.3	1.0	4.0	1.0	0.3	1.1	0.2	1.2	0.2	0.7	0.1	0.7	0.1	39.2

**APPENDIX 4**  
**JORC Code, 2012 Edition – Table 1**  
**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, handheld XRF instruments, etc) These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘revers 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 (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<ul style="list-style-type: none"> <li>• Catalina Resources completed 25 Aircore drill holes for 1,593m at its Laverton Project, near Laverton WA.</li> <li>• Drilling is located within Catalina’s E38/3697 and was completed during February 2024.</li> <li>• Sampling of the Aircore holes was conducted by taking 4m composites downhole. A 1m split was also taken using a manual splitter for follow up analysis if required.</li> <li>• The majority of the 1m and 4m samples were dry and weighed between 1.5kg and 2.5kg. Occasional groundwater intersected at the bottom of holes caused some samples to be wet.</li> <li>• 1m sample piles from the cyclone were laid out in orderly rows on the ground.</li> <li>• Using a hand-held trowel, 4m composite samples were collected from the 1m piles. This compositing was aimed to reduce assaying costs.</li> <li>• The composite samples weighed between 1.5 and 2.5kg.</li> <li>• Any 4m composite sample that returns an anomalous assay will be re-assayed using the corresponding 1m split samples that will be assayed by Fire Assay for gold and Peroxide Fusion for REEs.</li> <li>• Quality control of the assaying comprised the collection of duplicate samples and insertion of industry (OREAS) standards (certified reference material) every twentieth sample.</li> <li>• 4m composites samples were sent to the Bureau Veritas Laboratory in Perth.</li> <li>• Samples were pulverized so that 75% of the sample passes 75µm.</li> <li>• A representative sample of the pulp was then digested using Aqua Regia (acid) and assayed by ICP-MS for low level gold, Ni, Co and Cr using method AR001 and REEs using method AR102.</li> </ul>
<b>Drilling techniques</b>	<p><i>Drill type (eg core, revers circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, tripl 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></p>	<ul style="list-style-type: none"> <li>• The drilling contractor was Gyro Drilling from Kalgoorlie. Gyro uses 3m drill rods.</li> <li>• Holes were drilled to blade refusal.</li> <li>• Hole diameter was 85mm / 3.5”.</li> <li>• Aircore drilling uses a three-bladed steel or tungsten drill bit to penetrate the weathered layer of loose soil and rock fragments. The drill rods are hollow and</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>feature an inner tube with an outer barrel (like RC drilling).</p> <ul style="list-style-type: none"> <li>• Aircore drilling uses small compressors (750 cfm/250 psi) to drill holes into the weathered layer of loose soil and fragments of rock. After drilling is complete, an injection of compressed air is unleashed into the space between the inner tube and the drill rods inside wall, which flushes the cuttings up and out of the drill hole through the rod's inner tube, causing less chance of cross-contamination.</li> <li>• Gyro used an Air 750 CFM / 250 PSI Sullair Compressor.</li> </ul>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse grained material.</i></p>	<ul style="list-style-type: none"> <li>• Representative Aircore samples were collected at 1m intervals, with drill chips from end of hole placed into chip trays and kept for reference at Catalina's facilities.</li> <li>• Most samples were dry and sample recovery was very good.</li> <li>• Catalina does not anticipate any sample bias from loss/gain of material from cyclone.</li> </ul>
<b>Logging</b>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<ul style="list-style-type: none"> <li>• All Aircore samples were lithologically logged using standard industry logging software on a notebook computer.</li> <li>• Logging is qualitative in nature.</li> <li>• All geological information noted above has been completed by a competent person as recognized by JORC.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<ul style="list-style-type: none"> <li>• Aircore sampling was undertaken on 1m intervals using manual splitter.</li> <li>• Most 1m samples were dry and weighed between 1.5 and 2.5kg.</li> <li>• Samples from the cyclone were laid out in orderly rows on the ground.</li> <li>• Using a hand-held trowel, 4m composite samples were collected from the one-meter piles.</li> <li>• For any anomalous 4m composite sample assays, the corresponding 1m sample splits will be collected and assayed.</li> <li>• Quality control of the assaying comprised the collection of duplicate samples and insertion of industry (OREAS) standards (certified reference material) every twentieth sample.</li> <li>• Samples were sent to Bureau Veritas Laboratory in Perth.</li> <li>• 4m composite samples were pulverized</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>so that 95% of the sample passes 75µm.</p> <ul style="list-style-type: none"> <li>• A representative sample of the pulp was then digested with Aqua Regia and assayed by ICP-MS.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><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></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<ul style="list-style-type: none"> <li>• All assaying was completed by Bureau Veritas Laboratory.</li> <li>• 4m composite samples were assayed by Aqua Regia with ICP-MS, method AR001. The detection limit is 1ppb Au.</li> <li>• REE were assayed by Aqua Regia with ICP-MS, method AR102.</li> <li>• Standards from OREAS were added every twentieth sample.</li> <li>• The methods used are considered appropriate for this style of mineralization expected.</li> <li>• No density data available.</li> <li>• Bureau Veritas routinely re-assays anomalous assays (greater than 0.3 g/t Au) as part of their normal QAQC procedures.</li> </ul>
<b>Verification of sampling and assaying</b>	<p><i>The verification of significant intersections by either independent alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<ul style="list-style-type: none"> <li>• No verification of significant intersections was undertaken by independent personnel, only the site geologist.</li> <li>• Validation of 4m composite assay data involves checking of duplicate and standard assays.</li> <li>• Comparison of assay results between the composite samples and the 1m samples (Fire Assay) will be made when available.</li> <li>• Data is entered into a software program in a desk top computer for eventual download into the company database.</li> </ul>
<b>Location of data points</b>	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<ul style="list-style-type: none"> <li>• All Aircore drill hole coordinates are in GDA94 Zone 51 (<b>Appendix 2</b>).</li> <li>• All Aircore holes were located by handheld GPS with an accuracy of +/- 5m.</li> <li>• There is no detailed documentation regarding the accuracy of the topographic control.</li> <li>• No elevation values (Z) were recorded for collars.</li> <li>• There were no downhole surveys completed because Aircore drill holes were not drilled deep enough to warrant downhole surveying.</li> </ul>
<b>Data spacing and distribution</b>	<p><i>Data spacing for reporting Exploration Results.</i></p> <p><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></p> <p><i>Whether sample compositing has</i></p>	<ul style="list-style-type: none"> <li>• Aircore holes were spaced at 100m intervals along traverses.</li> <li>• Given the first pass nature of the exploration programs, the spacing of the exploration drilling is appropriate for understanding the exploration potential and the identification of structural controls of the mineralisation.</li> <li>• 4m sample compositing has been applied.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>been applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<p><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></p> <p><i>If the relationship between the drillin orientation and the orientation of key mineralised structures is considere to have introduced a sampling bias this should be assessed and reported if material.</i></p>	<ul style="list-style-type: none"> <li>• The relationship between drill orientation and the mineralised structures is not known at this stage as the prospects are covered by a ~10m blanket of transported cover.</li> <li>• It is concluded from field observations that the structures and foliation trends ~160 degrees. Dips are interpreted to be approximately vertical.</li> <li>• Azimuths and dips of Aircore drilling was aimed to intersect the strike of the rocks at right angles.</li> <li>• Downhole widths of mineralisation are not known with assays not yet received.</li> </ul>
<b>Sample security</b>	<i>The measures taken to ens sample security.</i>	<ul style="list-style-type: none"> <li>• All samples packaged and managed by Catalina personnel up to and including the delivery of all samples to the laboratory in Perth.</li> </ul>
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> <li>• No sampling techniques or data have been independently audited.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<p><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></p> <p><i>The security of the tenure held at the time of reporting along with any know impediments to obtaining a licence to operate in the area.</i></p>	<ul style="list-style-type: none"> <li>• The Laverton Project is located within E38/3697.</li> <li>• Catalina holds several Exploration Licences in the Laverton area. None are contiguous with E38/3697.</li> <li>• The project area was culturally surveyed and cleared.</li> <li>• There are no registered cultural heritage sites within the area.</li> <li>• E38/3697 is held 100% by Catalina Resources. All tenements are secured by the DEMIRS (WA Government).</li> <li>• All tenements are granted, in a state of good standing and have no impediments.</li> </ul>
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> <li>• The area southeast of Laverton has been explored by multiple companies resulting in the discovery of the Granny Smith Gold Mine and the Mt Weld REE mine.</li> <li>• There have been several phases of Aircore and RC drilling within E38/3697. Between the Lily Pond Well and Pendergast Well South gold prospects drilling has been conducted by exploration companies including: Anglogold Ashanti, Crescent Gold, Acacia, Metex Resources, Placer Exploration and Sons of Gwalia.</li> <li>• Previous drilling programs have been primarily of a reconnaissance style focused on the Lily Pond Well and Pendergast South Well areas.</li> <li>• Between these gold prospects along the</li> </ul>

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		<p>interpreted strike of the Barnicoat Shear the drilling has been sparse.</p> <ul style="list-style-type: none"> <li>• A small gold resource was discovered at Lily Pond Well and a supergene gold zone was discovered at Pendergast Wel South.</li> </ul>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralization.</i>	<ul style="list-style-type: none"> <li>• The Laverton Project is located in the Laverton Tectonic Zone, a north-south trending structural domain within the Archean Yilgarn Craton.</li> <li>• The eastern half of the zone comprises predominantly of a sedimentary sequence with subordinate mafic volcanics and intrusives.</li> <li>• The Barnicoat Shear Zone trends in a NNW direction through the tenement linking the Ida H, Lily Pond Well and Pendergast prospect areas.</li> <li>• There is minor deeply weathered exposure in the Lily Pond Well area but the majority of the tenement is covered by ~10m of transported cover that obscures the bedrock geology.</li> <li>• A Proterozoic dyke cross cuts the sequence within the tenement in a NNW direction and is delineated by a prominent magnetic signature.</li> <li>• The sequence is also intruded by the circular Mt Weld Carbonatite just to the south of the tenement that hosts REE mineralization.</li> </ul>
<b>Drill hole Information</b>	<p><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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.</i></p> <p><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></p>	<ul style="list-style-type: none"> <li>• Appendix 2 provides details on the coordinates and specifications of the Aircore holes drilled.</li> <li>• Appendix 1 provides the geochemical analyses for the significant intersections.</li> <li>• The documentation for drill hole locations is shown in the appendices of this announcement and is considered acceptable.</li> <li>• Consequently, the use of any data obtained is suitable for presentation and analysis.</li> <li>• Given the early stages of the exploration programs, the data quality is acceptable for reporting purposes.</li> <li>• The exploration assay results have not yet been received.</li> <li>• Future drilling programs will be dependent on the assays received.</li> </ul>
<b>Data aggregation methods</b>	<i>In reporting Exploration Results weighting averaging techniques maximum and/or minimum truncations (eg cutting of high grades) and cut-off grades usually Material and should be</i>	<ul style="list-style-type: none"> <li>• Intersections are reported as weighted averages.</li> <li>• A cutoff of 100ppb Au was used for gold, 1000ppm for Ni and 0.1% TREO.</li> </ul>

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	<p><i>stated.</i></p> <p><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></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<ul style="list-style-type: none"> <li>• No internal dilution was used in the aggregation method.</li> <li>• Significant 4m composite sample assay results are tabulated in Appendix 1.</li> <li>• Samples were collected as 4m composite samples from the drill rig.</li> <li>• Composite samples are collected purely as a way to reduce assay costs.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the drill hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length width not known').</i></p>	<ul style="list-style-type: none"> <li>• The orientation of the mineralization to the drillhole dip is not well constrained.</li> <li>• Supergene mineralization in the laterite profile could be flat lying relative to the -60 dip of drillholes. Alternatively, the gold mineralization may reflect the interpreted vertical structural control in the fresh rock.</li> <li>• Planned RC drilling may resolve the orientation of the mineralization and the relationship between mineralization widths and intersect length.</li> </ul>
<b>Diagrams</b>	<p><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, plan view of drill hole collar locations and appropriate sectional views.</i></p>	<ul style="list-style-type: none"> <li>• Figures showing the location of each Aircore drill collar is contained in this announcement.</li> </ul>
<b>Balanced reporting</b>	<p><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></p>	<ul style="list-style-type: none"> <li>• Exploration results that may create biased reporting have been omitted from these documents.</li> <li>• Appendix 2 details Aircore drill hole collar coordinates and specifications.</li> <li>• Appendix 1 tables significant assay results and their context within the drill hole.</li> </ul>
<b>Other substantive exploration data</b>	<p><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></p>	<ul style="list-style-type: none"> <li>• No additional exploration data has been reported.</li> </ul>
<b>Further work</b>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions including the main geological interpretations and future drilling</i></p>	<ul style="list-style-type: none"> <li>• Significant intersections of Au, Ni and REE mineralization will be resubmitted for analysis using the 1m splits.</li> <li>• 1m splits will be assayed for gold using Fire Assay and Peroxide Fusion for REEs.</li> <li>• Additional Aircore drilling is planned to delineate the extent of the supergene gold</li> </ul>





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	<i>areas, provided this information is not commercially sensitive.</i>	mineralization identified in holes LVAC009-16. • Pending results RC drilling will be used to test the mineralization in fresh rock.