HEAVY RARE EARTHS LIMITED

ASX ANNOUNCEMENT
Heavy Rare Earths Limited (ASX: HRE)
29 March 2023

LATEST ASSAYS CONFIRM WIDESPREAD RARE EARTH MINERALISATION OVER AN EXPANDED WESTERN ZONE AT COWALINYA

- **Assays received for additional 118 holes from HRE's rare earth exploration and resource expansion drilling program at Cowalinya**
- **Further thick and/or high-grade rare earth intercepts reported**
- **Widespread rare earth mineralisation now occurs over 5 kilometres of strike and up to 3 kilometres wide in an expanded Western Zone**
- **New drill intersections include:**
    - **AC424: 6 metres @ 2597 ppm TREO (54.8% magnet REOs) from 9 metres**

      and 4 metres @ 1976 ppm TREO (31.8% magnet REOs) from 21 metres
    - **AC440: 14 metres @ 1278 ppm TREO (24.8% magnet REOs) from 14 metres**
        - **including 4 metres @ 3040 ppm TREO from 18 metres**
    - **AC361: 6 metres @ 1771 ppm TREO (23.9% magnet REOs) from 20 metres**
        - **including 4 metres @ 2489 ppm TREO from 22 metres**
    - **AC363: 10 metres @ 1200 ppm TREO (19.9% magnet REOs) from 30 metres**
        - **including 4 metres @ 2437 ppm TREO from 34 metres**
    - **AC412: 22 metres @ 1018 ppm TREO (24.7% magnet REOs) from 16 metres**
        - **including 2 metres @ 4087 ppm TREO from 18 metres**
    - **AC344: 12 metres @ 1212 ppm TREO (18.5% magnet REOs) from 22 metres**
        - **including 4 metres @ 2008 ppm TREO from 26 metres**
    - **AC418: 5 metres @ 1784 ppm TREO (24.2% magnet REOs) from 21 metres**
    - **AC269: 14 metres @ 1135 ppm TREO (25.3% magnet REOs) from 10 metres**
        - **including 4 metres @ 1646 ppm TREO from 12 metres**
    - **AC387: 21 metres @ 867 ppm TREO (25.1% magnet REOs) from 24 metres**
    - **AC312: 36 metres @ 656 ppm TREO (23.3% magnet REOs) from 18 metres**

Heavy Rare Earths Limited (**“HRE”** or **“the Company”**) is pleased to report assays from another 118 air core holes from its recently completed 441-hole rare earth exploration and resource expansion drilling program at its 100 per cent-owned Cowalinya project in the Norseman-Esperance region of Western Australia.

Most of these assays have been returned from holes in the newly discovered Western Zone of rare earth mineralisation *(refer to ASX announcements 3 January 2023, 31 January 2023 and 1 March 2023)* located west of and, in a significant expansion of this zone, south-west of the Cowalinya South resource[1]. The Western Zone now strikes over a minimum of 5 kilometres and is 3 kilometres wide (Figure 1). It has an average thickness of 11.3 metres, a material increase on the ~9 metre average thickness of the Cowalinya resource[2].

Assays from 9 of 11 adjacent 200-metre-spaced holes in the Western Zone along 6358600N (AC303-AC313) feature **14- to 36-metre-thick mineralised intervals grading up to 814 ppm TREO**. This line of holes is positioned mid-way between drill traverses for which cross-sections were presented in previous announcements *(refer to section A-B in ASX announcement 3 January 2023, and section C-D in ASX announcement 1 March 2023)*.

Two kilometres further south along 6356600N, section A-B which measures 2.2 kilometres in length, comprises twelve 200-metre-spaced holes AC173-AC175 and AC410-AC418. Over half of these holes intersected thick and/or high-grade rare earth mineralisation as shown in Figure 2, and these intercepts are listed below:

- **AC175: 22 metres @ 576 ppm TREO from 22 metres**
- **AC411: 20 metres @ 755 ppm TREO from 15 metres**
- **AC412: 22 metres @ 1018 ppm TREO from 16 metres**
- **AC413: 10 metres @ 747 ppm TREO from 17 metres**
- **AC415: 16 metres @ 929 ppm TREO from 11 metres**
- **AC417: 6 metres @ 1010 ppm TREO from 23 metres**
- **AC418: 5 metres @ 1784 ppm TREO from 21 metres.**

Holes from the adjacent drill line 400 metres south also returned **assays as high as 2597 ppm TREO over 6 metres**.

Assays are awaited from another 30 holes which will complete the drilled extent of widespread saprolite-hosted rare earth mineralisation in the Western Zone on HRE’s E63/1972 tenement. They are expected to be reported during April.

Table 1: Mineralised saprolite intervals from all 2022 drilling that exceed the average grade-thickness of the mineralised horizon in the Cowalinya deposit.
Newly reported holes are highlighted at the top.

HOLE NO.	FROM (m)	TO (m)	INTERVAL (m)	TREO (ppm)	Magnet REOs/TREO
AC269	10	24	14	1135	25.3%
AC305	17	33	16	629	20.2%
AC306	15	29	14	559	25.0%
AC309	25	41	16	814	21.8%
AC312	18	54	36	656	23.3%

[1] Table 5.1 of Appendix 7 (Cowalinya Resource Report) of the Independent Geologist’s Report contained in HRE’s IPO Prospectus.
[2] Page 19 of Independent Geologist’s Report contained in HRE’s IPO Prospectus.

AC344	**22**	**34**	**12**	**1212**	**18.5%**
AC349	**16**	**28**	**12**	**567**	**24.9%**
AC350	**19**	**27**	**8**	**843**	**26.8%**
AC361	**20**	**26**	**6**	**1771**	**23.9%**
AC363	**30**	**40**	**10**	**1200**	**19.9%**
AC366	**21**	**33**	**12**	**725**	**22.5%**
AC374	**30**	**41**	**11**	**744**	**22.2%**
AC379	**20**	**32**	**12**	**621**	**23.2%**
AC381	**24**	**46**	**22**	**522**	**22.3%**
AC382	**15**	**29**	**14**	**799**	**30.3%**
AC385	**9**	**25**	**16**	**483**	**25.1%**
AC386	**20**	**38**	**18**	**463**	**23.1%**
AC387	**24**	**45**	**21**	**867**	**25.1%**
AC388	**15**	**29**	**14**	**670**	**23.8%**
AC391	**22**	**32**	**10**	**858**	**19.3%**
AC395	**20**	**32**	**12**	**515**	**25.0%**
AC396	**10**	**24**	**14**	**825**	**19.7%**
AC397	**18**	**40**	**22**	**391**	**23.3%**
AC398	**16**	**28**	**12**	**572**	**21.6%**
AC401	**10**	**32**	**22**	**548**	**26.6%**
AC405	**8**	**24**	**16**	**525**	**25.2%**
AC406	**6**	**20**	**14**	**498**	**23.6%**
AC409	**11**	**25**	**14**	**588**	**25.3%**
AC411	**15**	**35**	**20**	**755**	**27.7%**
AC412	**16**	**38**	**22**	**1018**	**24.7%**
AC413	**17**	**27**	**10**	**747**	**25.6%**
AC415	**11**	**27**	**16**	**929**	**27.3%**
AC417	**23**	**29**	**6**	**1010**	**28.8%**
AC418	**21**	**26**	**5**	**1784**	**24.2%**
AC419	**26**	**37**	**11**	**612**	**23.7%**
AC424	**9**	**15**	**6**	**2597**	**54.8%**
AC424	**21**	**25**	**4**	**1976**	**31.8%**
AC429	**23**	**31**	**8**	**847**	**23.9%**
AC430	**19**	**29**	**10**	**813**	**27.2%**
AC431	**22**	**36**	**14**	**755**	**17.9%**
AC432	**17**	**29**	**12**	**578**	**25.3%**
AC433	**6**	**32**	**26**	**702**	**24.9%**
AC434	**12**	**30**	**18**	**531**	**23.8%**
AC440	**14**	**28**	**14**	**1278**	**24.8%**
AC441	**8**	**22**	**14**	**630**	**21.2%**
AC110	18	29	11	826	26.2%
AC111	16	30	14	712	27.9%

AC112	19	29	10	663	29.2%
AC115	22	29	7	1042	27.1%
AC118	19	35	16	396	22.0%
AC119	16	25	9	673	22.9%
AC122	16	21	5	1258	27.6%
AC124	14	30	16	539	22.5%
AC129	15	25	10	740	22.5%
AC130	18	38	20	726	22.4%
AC134	6	18	12	632	19.4%
AC137	15	29	14	758	26.3%
AC142	14	25	11	768	25.9%
AC165	23	35	12	500	23.5%
AC175	22	44	22	576	21.8%
AC178	28	40	12	563	26.0%
AC179	14	36	22	665	24.8%
AC181	15	26	11	745	27.3%
AC193	20	40	20	448	24.3%
AC194	20	28	8	727	24.1%
AC195	15	30	15	541	21.3%
AC196	19	37	18	631	23.2%
AC198	35	45	10	640	19.8%
AC199	21	35	14	412	25.4%
AC200	20	26	6	1862	25.8%
AC201	22	40	18	710	22.2%
AC204	15	33	18	473	25.7%
AC206	22	34	12	568	23.6%
AC211	20	37	17	402	26.5%
AC212	22	36	14	1033	29.0%
AC213	17	29	12	748	27.4%
AC221	17	27	10	2087	25.1%
AC222	15	35	20	407	22.0%
AC223	11	28	17	1069	26.3%
AC224	9	21	12	509	22.1%
AC225	16	35	19	3190	32.5%
AC226	12	54	42	790	25.4%
AC232	18	25	7	1047	33.8%
AC244	20	27	7	895	30.9%
AC245	14	27	13	500	22.1%
AC246	18	25	7	824	23.7%
AC263	18	28	10	1026	28.0%
AC265	26	40	14	796	20.1%
AC268	24	34	10	888	25.5%

AC274	14	40	26	1133	25.7%
AC275	19	37	18	1344	22.2%
AC278	24	49	25	449	23.6%
AC279	29	39	10	1580	27.4%
AC281	20	33	13	740	26.9%
AC283	19	31	12	531	25.0%
AC285	21	37	16	489	26.9%
AC286	9	21	12	718	24.3%
AC287	14	43	29	701	25.3%
AC288	20	32	12	816	27.2%
AC289	11	35	24	747	28.0%
AC297	17	31	14	464	22.2%
AC301	18	32	14	689	26.2%
AC302	18	30	12	1207	23.8%
AC339	28	44	16	688	23.9%

TREO = $La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3$
Magnet REOs = $Pr_6O_{11}+Nd_2O_3+Tb_4O_7+Dy_2O_3$

-- Ends --

This announcement has been approved by the Board of HRE.

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About Heavy Rare Earths Limited

Heavy Rare Earths Limited (ASX:HRE) is an Australian rare earth exploration and development company. HRE's key exploration project is Cowalinya, near Norseman in Western Australia. This is a clay-hosted rare earth project with a JORC Inferred Resource of 28 Mt @ 625 ppm TREO and a desirable rare earth composition where 25% are the valuable magnet rare earths and 23% the strategic heavy rare earths.

Competent Persons Statement

The Exploration Results contained in this announcement were compiled by Mr. Richard Brescianini. Mr. Brescianini is a member of the Australian Institute of Geoscientists (AIG). He is a director and full-time employee of Heavy Rare Earths Limited. Mr. Brescianini has more than 35 years' experience in mineral exploration and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 JORC Code.

The Mineral Resources contained in this announcement have been extracted from the Independent Geologist's Report included in the Company's Initial Public Offering (IPO) Prospectus, a copy of which was lodged with the Australian Securities and Investments Commission (ASIC) on 5 July 2022. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources as contained in the Company's IPO Prospectus. All material assumptions and technical parameters underpinning the Mineral Resources in the Company's IPO Prospectus continue to apply and have not materially changed.

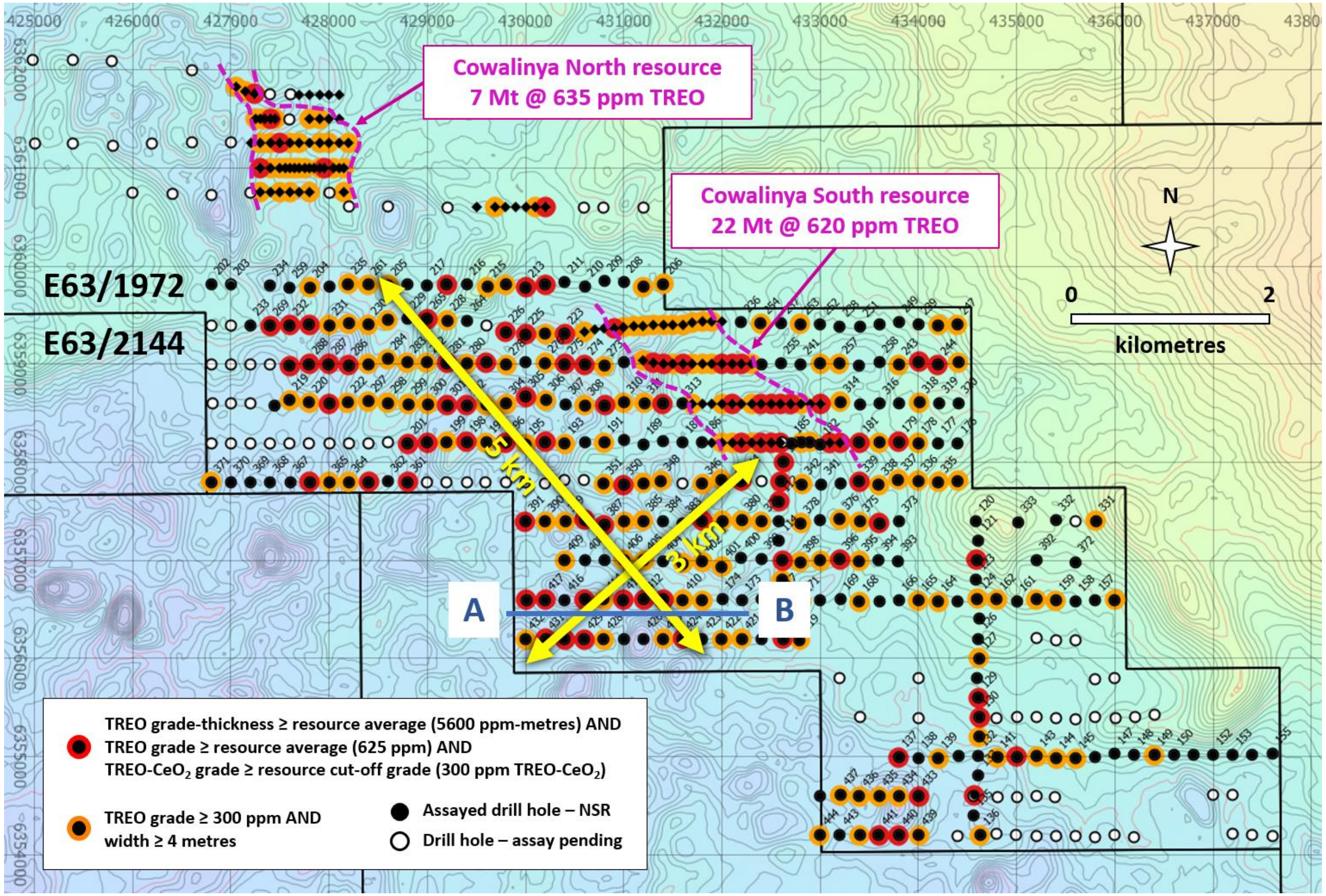

Figure 1: Plan view of Cowalinya air core drilling on E63/1972 showing holes with significant intervals of REE mineralisation and drilled extent of Western Zone.

Background image: Landgate digital elevation model.

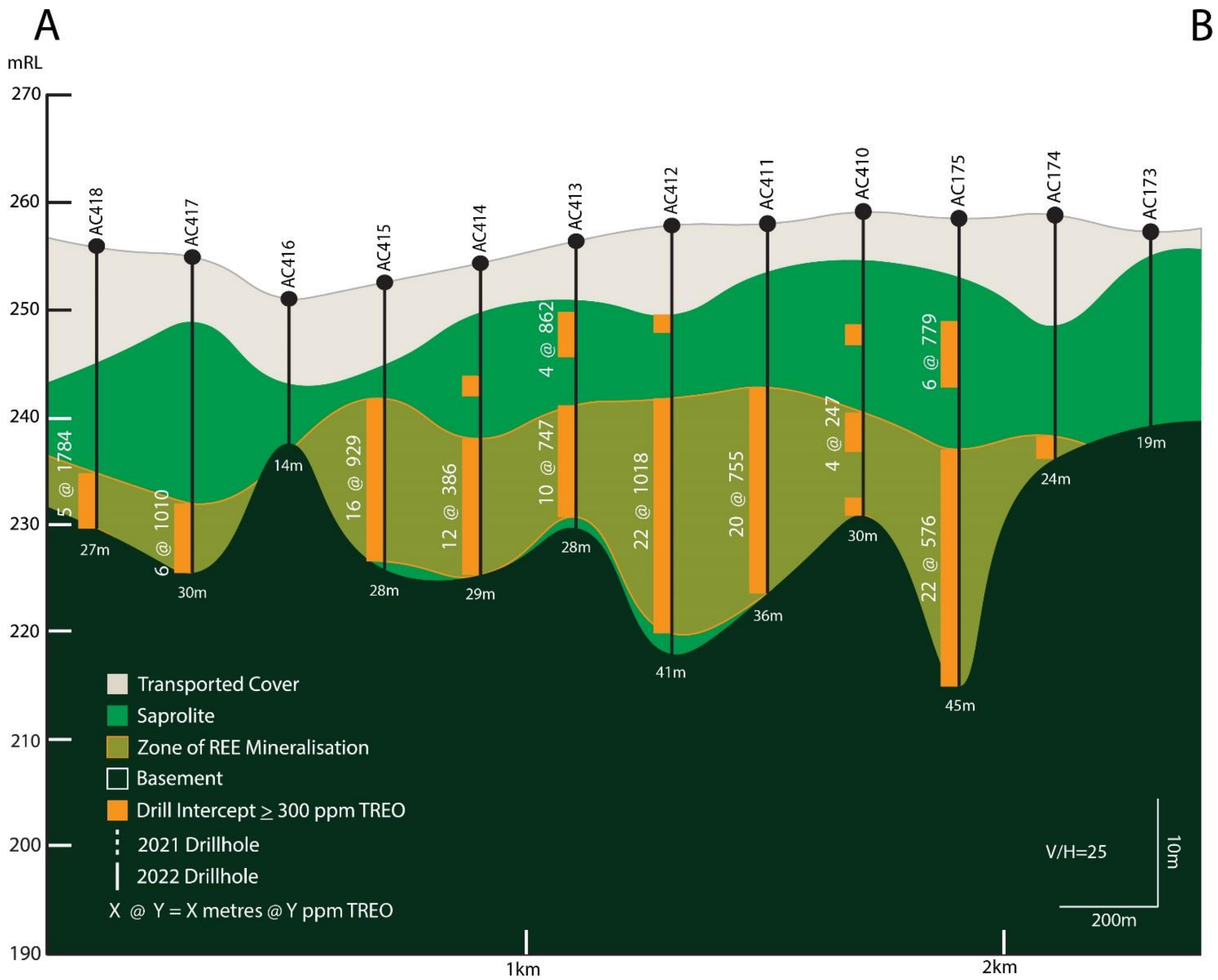

Figure 2: Cross section along drill line A-B (6356600N).

Location of A-B shown on Figure 1.

Table 2: Mineralised saprolite intervals that assay ≥300 ppm TREO.

HOLE NO.	FROM (m)	TO (m)	INTERVAL (m)	TREO (ppm)	TREO-CeO_2 (ppm)	Magnet REOs/TREO
AC182	18	20	2	389	219	22.4%
AC182	24	26	2	455	304	27.3%
AC183	20	22	2	307	178	24.5%
AC183	22	24	2	176	105	22.9%
AC183	24	26	2	333	223	26.8%
AC183	26	28	2	579	356	23.8%
AC183	28	30	2	412	298	27.7%
AC184	15	17	2	304	180	17.0%
AC184	17	19	2	265	150	17.7%
AC184	19	21	2	411	219	19.4%
AC184	21	23	2	859	519	28.1%
AC184	23	25	2	731	431	27.4%
AC258	19	21	2	437	227	18.7%
AC269	10	12	2	785	480	29.1%
AC269	12	14	2	1579	982	27.2%
AC269	14	16	2	1713	897	23.8%
AC269	16	18	2	484	301	25.9%
AC269	18	20	2	1446	661	21.0%
AC269	20	22	2	747	386	22.0%
AC269	22	24	2	1192	734	28.3%
AC303	17	19	2	490	317	26.1%
AC303	19	21	2	159	83	22.0%
AC303	21	23	2	530	321	23.8%
AC303	23	25	2	191	143	22.2%
AC303	25	27	2	315	224	22.8%

AC304	24	26	2	317	239	32.6%
AC304	26	28	2	541	383	29.5%
AC304	28	30	2	475	344	27.9%
AC304	30	32	2	495	334	24.7%
AC304	32	34	2	397	252	22.7%
AC304	48	50	2	359	227	23.8%
AC304	50	51	1	328	209	22.9%
AC305	17	19	2	602	164	10.6%
AC305	19	21	2	668	127	7.7%
AC305	21	23	2	788	527	25.2%
AC305	23	25	2	1270	1045	30.5%
AC305	25	27	2	449	271	21.4%
AC305	27	29	2	348	171	19.0%
AC305	29	31	2	474	298	23.4%
AC305	31	33	2	431	287	24.0%
AC306	15	17	2	337	274	27.2%
AC306	17	19	2	50	37	21.5%
AC306	19	21	2	1636	1372	36.4%
AC306	21	23	2	374	258	28.1%
AC306	23	25	2	500	333	20.5%
AC306	25	27	2	462	339	18.4%
AC306	27	29	2	551	292	22.8%
AC307	22	24	2	337	249	27.8%
AC308	22	24	2	450	180	16.4%
AC308	24	26	2	534	351	27.2%
AC308	26	28	2	488	299	20.8%
AC309	25	27	2	388	138	12.4%
AC309	27	29	2	326	131	12.2%

AC309	29	31	2	810	459	22.4%
AC309	31	33	2	1133	768	25.5%
AC309	33	35	2	995	737	28.0%
AC309	35	37	2	1174	942	28.8%
AC309	37	39	2	978	736	24.1%
AC309	39	41	2	707	501	21.2%
AC310	14	16	2	349	184	17.6%
AC310	16	18	2	304	154	15.4%
AC310	18	20	2	367	212	19.2%
AC311	12	14	2	383	249	11.6%
AC311	14	16	2	1028	620	13.6%
AC311	16	18	2	581	345	15.1%
AC311	22	24	2	303	213	22.9%
AC311	24	26	2	480	320	23.6%
AC311	26	28	2	463	320	25.8%
AC311	28	30	2	438	293	24.3%
AC312	18	20	2	511	417	31.3%
AC312	20	22	2	957	806	29.7%
AC312	22	24	2	351	214	22.5%
AC312	24	26	2	618	463	26.0%
AC312	26	28	2	544	371	22.4%
AC312	28	30	2	669	495	25.2%
AC312	30	32	2	562	417	24.1%
AC312	32	34	2	597	414	23.5%
AC312	34	36	2	644	448	23.8%
AC312	36	38	2	660	472	24.8%
AC312	38	40	2	1051	729	22.3%
AC312	40	42	2	1159	920	19.8%

AC312	42	44	2	984	766	18.0%
AC312	44	46	2	345	295	16.6%
AC312	46	48	2	670	514	19.2%
AC312	48	50	2	477	338	21.9%
AC312	50	52	2	502	341	23.9%
AC312	52	54	2	510	341	24.3%
AC313	23	25	2	732	493	24.0%
AC313	25	26	1	519	327	23.5%
AC314	17	19	2	343	182	23.4%
AC314	19	21	2	320	167	24.4%
AC317	14	16	2	341	162	20.0%
AC317	22	24	2	318	213	30.5%
AC318	26	28	2	524	320	27.4%
AC318	28	30	2	982	638	28.5%
AC331	13	15	2	340	181	16.6%
AC331	15	17	2	580	314	21.1%
AC331	17	19	2	549	303	22.4%
AC344	12	14	2	413	319	20.4%
AC344	22	24	2	409	160	12.2%
AC344	24	26	2	766	244	10.1%
AC344	26	28	2	2417	1214	21.3%
AC344	28	30	2	1600	814	23.8%
AC344	30	32	2	809	433	20.9%
AC344	32	34	2	1270	755	22.6%
AC345	19	21	2	302	208	24.2%
AC345	21	23	2	338	249	27.5%
AC345	23	25	2	493	367	25.5%
AC345	25	27	2	426	288	24.9%

AC345	27	28	1	569	377	27.1%
AC346	9	11	2	390	250	27.2%
AC346	11	13	2	362	271	28.2%
AC346	13	15	2	369	288	25.2%
AC346	15	17	2	334	239	23.1%
AC346	21	23	2	384	231	23.0%
AC346	23	25	2	417	253	23.1%
AC348	20	22	2	621	406	25.0%
AC348	22	24	2	490	318	26.8%
AC348	24	26	2	436	304	24.8%
AC349	16	18	2	378	258	23.9%
AC349	18	20	2	384	279	26.0%
AC349	20	22	2	887	524	23.3%
AC349	22	24	2	824	478	23.6%
AC349	24	26	2	491	271	25.7%
AC349	26	28	2	439	313	27.0%
AC350	9	11	2	382	194	9.7%
AC350	19	21	2	1367	757	25.4%
AC350	21	23	2	738	430	26.5%
AC350	23	25	2	694	401	27.8%
AC350	25	27	2	572	320	27.4%
AC351	19	21	2	304	163	20.8%
AC351	21	23	2	509	283	26.3%
AC351	23	25	2	441	278	27.1%
AC361	20	22	2	336	225	21.9%
AC361	22	24	2	1182	815	24.5%
AC361	24	26	2	3795	3386	25.3%
AC363	30	32	2	361	73	7.1%

AC363	32	34	2	333	118	9.6%
AC363	34	36	2	1263	967	30.3%
AC363	36	38	2	3611	3357	29.1%
AC363	38	40	2	430	331	23.6%
AC364	22	24	2	464	119	9.1%
AC364	30	32	2	439	271	20.4%
AC364	32	34	2	301	163	21.1%
AC364	34	36	2	445	370	31.8%
AC364	36	38	2	980	904	24.3%
AC365	15	17	2	364	212	17.0%
AC365	21	23	2	349	294	36.2%
AC365	23	25	2	520	320	24.1%
AC365	29	31	2	424	233	20.4%
AC365	31	33	2	562	282	18.8%
AC365	33	35	2	590	260	16.2%
AC365	35	37	2	524	254	18.9%
AC365	37	39	2	616	368	23.4%
AC366	21	23	2	629	214	16.6%
AC366	23	25	2	769	366	21.3%
AC366	25	27	2	781	508	28.4%
AC366	27	29	2	595	368	25.2%
AC366	29	31	2	563	282	20.9%
AC366	31	33	2	1010	503	22.3%
AC371	12	14	2	556	392	9.5%
AC371	40	42	2	373	165	21.0%
AC371	42	44	2	349	129	18.9%
AC371	44	46	2	195	107	20.9%
AC371	46	48	2	692	569	36.9%

AC371	48	50	2	795	720	32.0%
AC372	21	23	2	401	217	21.6%
AC374	30	32	2	455	303	24.0%
AC374	32	34	2	1376	1002	21.6%
AC374	34	36	2	640	436	22.4%
AC374	36	38	2	599	414	22.7%
AC374	38	40	2	834	621	21.0%
AC374	40	41	1	377	257	21.0%
AC375	27	29	2	349	219	22.6%
AC375	29	31	2	659	431	29.4%
AC376	19	21	2	306	161	20.3%
AC376	21	23	2	350	183	23.4%
AC376	23	25	2	392	261	24.6%
AC378	18	20	2	481	267	22.6%
AC378	20	22	2	433	259	21.5%
AC378	22	24	2	478	287	25.4%
AC379	20	22	2	607	366	21.6%
AC379	22	24	2	567	326	19.7%
AC379	24	26	2	408	259	21.6%
AC379	26	28	2	617	377	26.5%
AC379	28	30	2	625	381	25.7%
AC379	30	32	2	900	549	23.8%
AC380	16	18	2	304	248	29.5%
AC380	18	20	2	834	618	27.8%
AC380	20	22	2	792	658	29.2%
AC381	24	26	2	390	246	22.0%
AC381	26	28	2	622	391	22.1%
AC381	28	30	2	482	302	22.4%

AC381	30	32	2	589	363	23.2%
AC381	32	34	2	478	300	21.9%
AC381	34	36	2	530	334	22.9%
AC381	36	38	2	614	393	22.9%
AC381	38	40	2	508	329	22.1%
AC381	40	42	2	569	367	22.2%
AC381	42	44	2	427	285	22.4%
AC381	44	46	2	537	325	21.4%
AC382	15	17	2	467	388	32.5%
AC382	17	19	2	1889	1654	39.8%
AC382	19	21	2	671	570	32.4%
AC382	21	23	2	717	598	30.8%
AC382	23	25	2	642	487	29.7%
AC382	25	27	2	657	379	21.7%
AC382	27	29	2	549	349	25.2%
AC383	18	20	2	301	147	15.3%
AC384	15	17	2	389	127	13.1%
AC385	9	11	2	341	206	19.8%
AC385	11	13	2	139	106	28.8%
AC385	13	15	2	341	280	30.9%
AC385	15	17	2	666	399	25.2%
AC385	17	19	2	591	377	23.4%
AC385	19	21	2	509	380	29.1%
AC385	21	23	2	706	352	19.2%
AC385	23	25	2	575	318	24.4%
AC386	20	22	2	338	187	20.0%
AC386	22	24	2	831	455	21.3%
AC386	24	26	2	410	256	23.3%

AC386	26	28	2	437	268	23.0%
AC386	28	30	2	381	233	24.0%
AC386	30	32	2	548	343	24.2%
AC386	32	34	2	405	260	24.5%
AC386	34	36	2	401	251	24.5%
AC386	36	38	2	419	278	22.7%
AC387	24	26	2	960	348	16.1%
AC387	26	28	2	502	268	22.8%
AC387	28	30	2	519	360	28.2%
AC387	30	32	2	1312	1104	31.1%
AC387	32	34	2	1471	1291	30.8%
AC387	34	36	2	625	464	28.5%
AC387	36	38	2	1784	1192	26.7%
AC387	38	40	2	438	289	22.8%
AC387	40	42	2	719	470	24.2%
AC387	42	44	2	623	413	21.5%
AC387	44	45	1	300	200	22.6%
AC388	15	17	2	642	604	35.4%
AC388	17	19	2	674	519	26.2%
AC388	19	21	2	626	400	19.4%
AC388	21	23	2	1862	1198	23.6%
AC388	23	25	2	357	271	20.6%
AC388	25	27	2	207	147	22.0%
AC388	27	29	2	325	229	19.6%
AC389	20	22	2	324	223	23.7%
AC389	22	24	2	1038	756	29.3%
AC389	24	26	2	521	420	22.9%
AC390	23	25	2	446	291	21.3%

AC390	25	27	2	857	589	26.8%
AC391	22	24	2	320	103	12.6%
AC391	24	26	2	369	114	10.1%
AC391	26	28	2	377	130	13.9%
AC391	28	30	2	2807	2584	36.0%
AC391	30	32	2	416	263	23.8%
AC395	20	22	2	432	227	23.1%
AC395	22	24	2	533	284	24.4%
AC395	24	26	2	416	294	27.4%
AC395	26	28	2	638	442	25.1%
AC395	28	30	2	612	404	25.8%
AC395	30	32	2	459	296	24.0%
AC396	10	12	2	818	548	35.8%
AC396	12	14	2	862	544	24.5%
AC396	14	16	2	107	33	9.9%
AC396	16	18	2	350	46	4.7%
AC396	18	20	2	595	268	15.8%
AC396	20	22	2	2526	1973	32.1%
AC396	22	24	2	519	215	15.2%
AC397	18	20	2	375	318	31.9%
AC397	20	22	2	527	408	26.0%
AC397	22	24	2	479	347	22.2%
AC397	24	26	2	571	393	22.9%
AC397	26	28	2	314	206	20.8%
AC397	28	30	2	311	178	21.3%
AC397	30	32	2	274	159	22.0%
AC397	32	34	2	305	181	21.9%
AC397	34	36	2	249	143	22.1%

AC397	36	38	2	317	186	22.2%
AC397	38	40	2	579	344	22.8%
AC398	10	12	2	471	415	26.4%
AC398	16	18	2	480	340	22.4%
AC398	18	20	2	509	321	23.4%
AC398	20	22	2	567	306	22.3%
AC398	22	24	2	640	330	18.8%
AC398	24	26	2	506	259	20.2%
AC398	26	28	2	729	419	22.7%
AC399	22	24	2	461	264	21.9%
AC401	10	12	2	785	396	19.6%
AC401	12	14	2	403	204	23.2%
AC401	14	16	2	428	218	25.8%
AC401	16	18	2	636	361	32.1%
AC401	18	20	2	736	443	34.4%
AC401	20	22	2	507	299	31.0%
AC401	22	24	2	468	343	26.6%
AC401	24	26	2	614	409	26.2%
AC401	26	28	2	527	403	25.0%
AC401	28	30	2	494	370	27.3%
AC401	30	32	2	433	343	21.7%
AC402	20	22	2	676	356	26.0%
AC402	22	24	2	571	310	30.3%
AC402	24	26	2	301	210	23.7%
AC403	8	10	2	680	324	17.7%
AC403	10	12	2	381	182	18.8%
AC405	8	10	2	845	434	27.2%
AC405	10	12	2	300	153	26.5%

AC405	12	14	2	301	151	25.0%
AC405	14	16	2	593	310	23.9%
AC405	16	18	2	572	318	30.5%
AC405	18	20	2	446	240	24.3%
AC405	20	22	2	532	284	24.4%
AC405	22	24	2	612	471	20.1%
AC406	6	8	2	511	247	17.6%
AC406	8	10	2	459	240	25.9%
AC406	10	12	2	310	170	28.4%
AC406	12	14	2	102	60	25.6%
AC406	14	16	2	374	192	24.8%
AC406	16	18	2	1002	445	21.2%
AC406	18	20	2	727	324	21.9%
AC409	11	13	2	341	300	21.9%
AC409	13	15	2	633	541	31.4%
AC409	15	17	2	339	290	30.6%
AC409	17	19	2	350	251	26.6%
AC409	19	21	2	558	356	22.1%
AC409	21	23	2	1111	568	21.3%
AC409	23	25	2	781	410	23.3%
AC410	11	13	2	317	195	24.5%
AC410	19	21	2	398	182	18.9%
AC410	21	23	2	456	306	27.2%
AC410	27	29	2	586	461	24.0%
AC411	15	17	2	325	260	28.8%
AC411	17	19	2	398	328	30.6%
AC411	19	21	2	475	372	28.5%
AC411	21	23	2	677	551	29.1%

AC411	23	25	2	1638	1453	32.4%
AC411	25	27	2	751	620	27.8%
AC411	27	29	2	785	601	25.9%
AC411	29	31	2	792	578	24.8%
AC411	31	33	2	878	691	24.7%
AC411	33	35	2	835	560	24.2%
AC412	8	10	2	413	298	22.1%
AC412	16	18	2	370	134	12.0%
AC412	18	20	2	4087	3682	39.4%
AC412	20	22	2	727	669	35.0%
AC412	22	24	2	1204	778	23.4%
AC412	24	26	2	847	518	24.3%
AC412	26	28	2	591	377	23.2%
AC412	28	30	2	533	334	23.2%
AC412	30	32	2	743	482	24.8%
AC412	32	34	2	789	543	22.8%
AC412	34	36	2	850	609	21.8%
AC412	36	38	2	455	324	22.1%
AC413	7	9	2	768	493	28.7%
AC413	9	11	2	955	540	17.1%
AC413	17	19	2	587	511	30.1%
AC413	19	21	2	881	673	21.7%
AC413	21	23	2	1036	837	23.7%
AC413	23	25	2	485	385	27.6%
AC413	25	27	2	747	502	25.0%
AC414	10	12	2	350	293	23.4%
AC414	16	18	2	337	244	23.2%
AC414	18	20	2	397	256	24.4%

AC414	20	22	2	411	282	24.5%
AC414	22	24	2	400	299	27.9%
AC414	24	26	2	318	239	27.7%
AC414	26	28	2	453	355	28.4%
AC415	11	13	2	445	358	26.0%
AC415	13	15	2	1743	1521	31.7%
AC415	15	17	2	1671	1412	29.6%
AC415	17	19	2	908	715	25.4%
AC415	19	21	2	865	643	26.0%
AC415	21	23	2	857	679	24.7%
AC415	23	25	2	599	481	26.5%
AC415	25	27	2	348	283	28.8%
AC416	9	11	2	372	192	12.2%
AC417	23	25	2	523	360	25.2%
AC417	25	27	2	1133	1004	33.7%
AC417	27	29	2	1375	1231	27.4%
AC418	21	23	2	1831	1015	25.1%
AC418	23	25	2	2282	1620	24.1%
AC418	25	26	1	695	459	22.8%
AC419	16	18	2	613	383	29.3%
AC419	18	20	2	449	283	28.4%
AC419	26	28	2	346	158	18.6%
AC419	28	30	2	634	383	28.6%
AC419	30	32	2	385	213	22.5%
AC419	32	34	2	442	261	23.6%
AC419	34	36	2	1076	855	24.8%
AC419	36	37	1	969	528	24.2%
AC421	19	21	2	349	194	20.4%

AC421	21	23	2	505	409	31.6%
AC422	6	8	2	303	159	13.0%
AC422	8	10	2	772	403	25.8%
AC422	10	12	2	217	128	27.6%
AC422	12	14	2	762	439	29.0%
AC423	7	9	2	304	149	21.2%
AC423	21	23	2	467	263	22.7%
AC424	9	11	2	1030	887	49.7%
AC424	11	13	2	3209	2899	57.4%
AC424	13	15	2	3551	3210	57.5%
AC424	21	23	2	1968	1679	34.9%
AC424	23	25	2	1984	1497	28.6%
AC425	13	15	2	337	241	24.0%
AC425	15	17	2	154	117	23.4%
AC425	17	19	2	328	205	23.5%
AC425	19	21	2	301	223	27.9%
AC428	16	18	2	437	262	27.7%
AC428	18	20	2	465	239	16.3%
AC428	20	22	2	230	147	19.3%
AC428	22	24	2	326	196	22.1%
AC429	23	25	2	690	410	23.5%
AC429	25	27	2	621	396	23.5%
AC429	27	29	2	947	630	24.4%
AC429	29	31	2	1129	768	24.0%
AC430	19	21	2	1465	1196	33.7%
AC430	21	23	2	922	813	30.4%
AC430	23	25	2	638	515	28.8%
AC430	25	27	2	504	340	20.3%

AC430	27	29	2	534	340	22.9%
AC431	10	12	2	578	368	25.1%
AC431	22	24	2	435	110	8.6%
AC431	24	26	2	294	83	10.0%
AC431	26	28	2	626	225	12.7%
AC431	28	30	2	851	472	22.7%
AC431	30	32	2	910	639	26.9%
AC431	32	34	2	997	613	21.8%
AC431	34	36	2	1175	733	22.5%
AC432	17	19	2	638	271	20.5%
AC432	19	21	2	988	744	32.7%
AC432	21	23	2	661	505	32.0%
AC432	23	25	2	456	338	23.0%
AC432	25	27	2	326	237	19.8%
AC432	27	29	2	399	249	23.6%
AC433	6	8	2	321	218	25.1%
AC433	8	10	2	815	514	25.6%
AC433	10	12	2	190	112	20.4%
AC433	12	14	2	389	238	19.6%
AC433	14	16	2	547	338	20.8%
AC433	16	18	2	566	351	23.0%
AC433	18	20	2	1039	622	21.7%
AC433	20	22	2	1018	631	24.2%
AC433	22	24	2	913	619	26.0%
AC433	24	26	2	1196	822	28.9%
AC433	26	28	2	733	536	29.8%
AC433	28	30	2	796	602	34.3%
AC433	30	32	2	607	408	23.6%

AC434	12	14	2	341	237	28.4%
AC434	14	16	2	458	290	25.5%
AC434	16	18	2	696	428	24.6%
AC434	18	20	2	695	429	23.7%
AC434	20	22	2	704	441	22.8%
AC434	22	24	2	469	316	22.4%
AC434	24	26	2	410	271	23.0%
AC434	26	28	2	449	305	20.6%
AC434	28	30	2	563	354	23.3%
AC435	11	13	2	435	203	17.4%
AC435	13	15	2	771	397	25.4%
AC435	15	17	2	938	531	31.4%
AC435	17	19	2	526	389	20.0%
AC436	14	16	2	416	249	15.9%
AC436	16	18	2	551	323	17.2%
AC436	18	20	2	573	304	24.6%
AC436	20	22	2	539	342	24.3%
AC436	22	24	2	546	417	23.4%
AC437	14	16	2	729	408	18.1%
AC437	16	18	2	491	247	21.6%
AC437	18	20	2	319	162	18.9%
AC437	20	22	2	305	148	21.0%
AC438	22	24	2	337	184	22.8%
AC439	14	16	2	343	178	17.2%
AC439	16	18	2	204	115	17.7%
AC439	18	20	2	555	326	25.0%
AC439	20	22	2	415	272	25.8%
AC439	22	24	2	577	404	25.3%

AC439	24	26	2	286	172	19.9%
AC439	26	28	2	348	218	23.3%
AC440	14	16	2	364	178	14.2%
AC440	16	18	2	1070	827	25.4%
AC440	18	20	2	2695	2278	33.3%
AC440	20	22	2	3385	2992	34.5%
AC440	22	24	2	479	302	22.3%
AC440	24	26	2	499	324	23.1%
AC440	26	28	2	453	337	21.0%
AC441	8	10	2	754	455	25.4%
AC441	10	12	2	1677	884	23.9%
AC441	12	14	2	218	106	12.7%
AC441	14	16	2	311	147	14.8%
AC441	16	18	2	682	336	20.0%
AC441	18	20	2	404	203	23.5%
AC441	20	22	2	363	228	28.4%
AC442	7	9	2	698	421	26.0%
AC442	9	11	2	94	55	18.5%
AC442	11	13	2	357	182	10.1%
AC444	19	21	2	338	192	19.7%
AC444	21	23	2	362	207	21.2%
AC444	23	25	2	361	197	21.4%
AC444	25	27	2	340	192	24.1%
AC444	27	29	2	455	270	23.6%
AC444	29	31	2	319	189	23.7%
AC444	31	33	2	444	275	21.9%

TREO = $La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3$.
Magnet REOs = $Pr_6O_{11}+Nd_2O_3+Tb_4O_7+Dy_2O_3$.

Table 3: Cowalinya air core holes for which rare earth assays are reported in Table 2.

HOLE NO.	NORTHING (m)	EASTING (m)	EVEVATION (m)	DIP (°)	TOTAL DEPTH (m)
AC182	6358182	433000	263.3	-90	28
AC183	6358210	432896	262.6	-90	31
AC184	6358201	432805	261.6	-90	26
AC185	6358197	432702	261.0	-90	30
AC258	6359017	433601	265.6	-90	24
AC269	6359394	427399	259.6	-90	23
AC303	6358587	429600	256.8	-90	28
AC304	6358599	429803	256.1	-90	52
AC305	6358666	430000	255.1	-90	40
AC306	6358634	430204	259.1	-90	30
AC307	6358595	430409	257.0	-90	41
AC308	6358582	430602	256.0	-90	29
AC309	6358579	430808	259.5	-90	42
AC310	6358611	431001	259.8	-90	21
AC311	6358602	431208	260.9	-90	31
AC312	6358599	431399	262.9	-90	55
AC313	6358603	431600	264.2	-90	26
AC314	6358614	433207	266.6	-90	24
AC315	6358588	433406	266.3	-90	28
AC316	6358596	433607	266.3	-90	24
AC317	6358598	433807	268.5	-90	27
AC318	6358608	434008	269.2	-90	31
AC319	6358606	434209	271.5	-90	21
AC320	6358602	434406	270.8	-90	25
AC331	6357402	435807	277.3	-90	24
AC332	6357407	435396	274.7	-90	10
AC333	6357391	435012	278.7	-90	8
AC344	6357813	432197	263.3	-90	35
AC345	6357823	431994	259.4	-90	29
AC346	6357779	431800	258.5	-90	27
AC348	6357813	431378	255.7	-90	27
AC349	6357786	431196	257.7	-90	29

AC350	6357773	430997	259.2	-90	28
AC351	6357779	430794	260.6	-90	27
AC361	6357799	428801	257.1	-90	27
AC362	6357803	428598	259.8	-90	19
AC363	6357801	428403	260.4	-90	46
AC364	6357800	428200	257.4	-90	48
AC365	6357800	428002	252.8	-90	40
AC366	6357798	427801	255.1	-90	34
AC367	6357798	427604	252.9	-90	17
AC368	6357800	427399	254.8	-90	33
AC369	6357799	427200	255.3	-90	17
AC370	6357798	427000	253.2	-90	21
AC371	6357797	426798	256.7	-90	55
AC372	6356984	435594	271.8	-90	26
AC373	6357396	433801	266.2	-90	7
AC374	6357380	433602	265.1	-90	42
AC375	6357398	433400	263.4	-90	32
AC376	6357418	433200	262.6	-90	26
AC377	6357413	433001	262.1	-90	20
AC378	6357380	432801	260.4	-90	25
AC379	6357399	432401	262.5	-90	32
AC380	6357408	432200	263.1	-90	25
AC381	6357403	432000	263.1	-90	46
AC382	6357401	431799	262.0	-90	30
AC383	6357377	431599	261.1	-90	21
AC384	6357396	431399	261.0	-90	24
AC385	6357404	431200	256.1	-90	27
AC386	6357394	431003	255.0	-90	39
AC387	6357360	430803	258.7	-90	46
AC388	6357415	430602	258.0	-90	30
AC389	6357399	430403	257.1	-90	31
AC390	6357399	430200	256.6	-90	32
AC391	6357399	429999	257.2	-90	37
AC392	6357007	435203	271.4	-90	14
AC393	6356996	433794	265.7	-90	15

AC394	6357000	433596	265.1	-90	10
AC395	6356997	433395	263.7	-90	33
AC396	6357012	433198	261.5	-90	25
AC397	6357003	433000	262.5	-90	41
AC398	6356985	432796	263.6	-90	29
AC399	6357016	432398	259.8	-90	25
AC400	6357022	432196	261.5	-90	27
AC401	6356937	431999	263.1	-90	33
AC402	6356987	431801	261.5	-90	27
AC403	6356969	431600	258.7	-90	21
AC404	6356997	431402	259.6	-90	20
AC405	6357003	431204	259.1	-90	27
AC406	6357005	431001	259.7	-90	21
AC407	6357003	430802	258.8	-90	16
AC408	6357001	430611	257.4	-90	14
AC409	6356998	430398	257.1	-90	26
AC410	6356598	431602	259.9	-90	30
AC411	6356603	431401	258.4	-90	36
AC412	6356601	431203	258.1	-90	41
AC413	6356600	430996	257.1	-90	28
AC414	6356601	430797	254.2	-90	29
AC415	6356604	430605	252.5	-90	28
AC416	6356593	430401	251.5	-90	14
AC417	6356600	430199	255.6	-90	30
AC418	6356597	430006	256.2	-90	27
AC419	6356188	432792	259.7	-90	38
AC420	6356194	432397	258.5	-90	27
AC421	6356200	432201	259.4	-90	28
AC422	6356197	431999	259.2	-90	15
AC423	6356199	431801	259.2	-90	24
AC424	6356201	431602	256.6	-90	26
AC425	6356199	431402	254.2	-90	22
AC426	6356204	431202	248.6	-90	7
AC427	6356204	430999	254.0	-90	9
AC428	6356197	430796	258.0	-90	25

AC429	6356198	430599	256.9	-90	32
AC430	6356194	430401	256.7	-90	30
AC431	6356199	430204	255.4	-90	37
AC432	6356197	430001	253.3	-90	30
AC433	6354597	434002	254.1	-90	33
AC434	6354600	433799	250.2	-90	31
AC435	6354599	433599	256.5	-90	20
AC436	6354597	433399	256.3	-90	25
AC437	6354609	433205	255.9	-90	25
AC438	6354598	432997	255.2	-90	25
AC439	6354200	434001	256.9	-90	33
AC440	6354200	433800	254.6	-90	40
AC441	6354202	433597	255.0	-90	23
AC442	6354201	433401	255.5	-90	14
AC443	6354202	433200	255.7	-90	16
AC444	6354201	432997	256.8	-90	34

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Section 1: Sampling Techniques and Data

Sampling techniques	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialized 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.	At the end of the current program, a total of 550 vertical aircore holes have been drilled by HRE on the Cowalinya project, 109 holes in 2021 and 441 holes in 2022. Maximum hole depth is 59 metres. All holes have been tested for supergene rare earth element (REE) mineralisation hosted by saprolitic clays. Drilling in 2021 overlapped extensively with areas previously aircore drilled by two companies exploring for gold (AngloGold Ashanti Ltd and Great Southern Gold Pty Ltd). One-metre samples are collected from a cyclone into plastic bags. All holes drilled in 2022 have been 2 metre composite sampled with 1 metre samples at end of hole. Overlying transported sediments are not routinely sampled as they do not contain anomalous amounts of REEs.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For aircore drilling, regular air and manual cleaning of cyclone is being undertaken. Certified standards and duplicate samples are submitted with drill samples.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Aircore drilling is used to obtain 1m samples which are collected in plastic bags. Samples ranging from 1m to 2m composites are taken for analysis. Sample size is 2-3 kilograms in weight. At LabWest Minerals Analysis (LabWest) in Perth, Western Australia, samples are dried, crushed, split and pulverized with a 0.1-gram sub-sample set aside for assay.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The drill type is aircore, a form of reverse circulation (RC) drilling using slim rods and a 3.5-inch blade bit. The samples recovered are typically rock chips and powder, similar to RC drilling.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Aircore recovery is visually assessed by comparing drill chip volumes in sample bags for individual metres. Estimates of sample recovery are recorded on drill logs. Routine checks for correct sample depths are undertaken. Aircore sample recoveries are visually checked for recovery, moisture and contamination and are considered to be acceptable within industry standards. The cyclone is routinely cleaned ensuring no material build up.

	Measures taken to maximize sample recovery and ensure representative nature of the samples.	Due to the generally good drilling conditions through dry saprolite the site geologist believes the samples are reasonably representative. Poor sample recovery is regularly recorded in the first couple of metres of a hole and often when hard bedrock is intersected – usually less than a full metre is recovered. Wet samples with moderate recoveries are encountered most often in the transported sand/silcrete layer lying immediately above saprolite.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No sample bias has been identified to date. Future studies will be undertaken.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Chip/clay samples are geologically logged in enough detail to discern lithological units. Logging is appropriate for this style of drilling and current stage of the project.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is qualitative in nature.
	The total length and percentage of the relevant intersections logged.	All aircore holes are completely geologically logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	One-metre samples are collected from a cyclone into plastic bags. Two-metre composites and single metre samples are collected by spearing each plastic bag with a scoop down the side of the bag and dragging it back up the side of the bag so as not to lose any sample – this achieves a representative sample from top to bottom through the entire bag. The vast majority of samples are dry sampled.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sampling technique is appropriate for the sample types and stage of the project.
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	QAQC procedures involve the use of certified standards every 20th sample.
	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.	A field duplicate is taken every 20th sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size of 2-3 kilograms is considered appropriate to the grain size and style of mineralisation being investigated.

Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Analyses are done at LabWest using their AF-02S technique: lithium meta/tetraborate fusion with ICP-MS/OES finish. This technique is considered to be a 'total' digest. A suite of 15 REEs – lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y) – plus scandium (Sc), thorium (Th) and uranium (U), and oxides of aluminium (Al), calcium (Ca), iron (Fe), magnesium (Mg) and phosphorus (P), are measured.
	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.	Not applicable.
	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.	OREAS standards and/or blanks are inserted every 20th sample. Field duplicates are taken every 20th sample. LabWest uses OREAS standards, blanks and sample repeats. Acceptable levels of accuracy have been achieved.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have yet to be verified by an independent geological consultant. They have been verified by alternative company geological personnel.
	The use of twinned holes.	Two holes have been twinned at Cowalinya: AC4 and AC222.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data have been entered into Excel spreadsheets.
	Discuss any adjustment to assay data.	No data has been adjusted.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Hole collars are surveyed using a hand-held Garmin Etrex 22x GPS with ±3 metre accuracy. Northings, eastings and elevations are recorded using the hand-held GPS.
	Specification of the grid system used.	GDA94 z51.

	Quality and adequacy of topographic control.	The Cowalinya project is located in relatively flat terrain. Topographic control is provided by Landgate's Digital Elevation Model over the region which has an expected horizontal accuracy of 10 metres and vertical accuracy of 2 metres (both 95% confidence interval).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Generally 400 metres x 200 metres.
	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.	Data spacing is considered sufficient for this style of mineralisation to establish Inferred Mineral Resources. The mineralisation occurs as extensive, generally flat lying supergene blankets hosted in saprolitic clays.
	Whether sample compositing has been applied.	All holes have been assayed by 2 metre composite samples, compiled from 1 metre drilled samples. Additionally, a 1 metre end-of-hole sample is submitted for a 63 multi-element assay. A total of 991 samples (including standards, blanks and field duplicates) have been submitted for assay.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Sampling is likely to be unbiased as vertical holes are intersecting flat lying mineralisation.
	If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	It is unlikely to be biased.
Sample security	The measures taken to ensure sample security.	Experienced field assistants have undertaken the sampling and delivery of samples to the freight company in Esperance, which provides a direct delivery service to LabWest in Perth.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been commissioned to date.

Section 2: Reporting of Exploration Results

Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Exploration licence E63/1972 is located 55 kilometres east-north-east of Salmon Gums in Western Australia. It consists of 80 graticular blocks comprising an area of 224 km^2. It is situated on unallocated crown land. The registered holder of the tenement is Heavy Rare Earths Limited (HRE). Full native title rights have been granted over the tenement and surrounding lands to the Ngadju people, with whom cultural heritage surveys are undertaken in advance of substantial disturbance exploration works.
	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.	The tenement is in good standing. There are no impediments to operating on the tenement other than requirements of the DMIRS and the Heritage Protection Agreement, all of which are industry standard.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	AngloGold Ashanti and Great Southern Gold previously worked in the area of E63/1972 exploring for gold mineralisation. Surface geochemical sampling and aircore drilling was undertaken by both companies but no significant gold mineralisation was discovered. Both companies assayed bottom of hole samples for a suite of multi-elements including REEs. Anomalous bedrock REE values were recorded in numerous holes from their drilling. Great Southern Gold also assayed for La and Ce for the entire length of a number of holes. AngloGold Ashanti flew an airborne magnetic/radiometric survey to assist with mapping of buried bedrock lithologies. Buxton Resources and Toro Energy also previously worked in the area of E63/1972 exploring for gold and nickel mineralisation, and uranium mineralisation, respectively. Both companies flew time-domain electromagnetic surveys to aid in their exploration targeting. No significant mineralisation was discovered.
Geology	Deposit type, geological setting and style of mineralisation.	The deposit type being investigated is low grade saprolite clay-hosted supergene rare earth mineralisation. This style of supergene rare earth mineralisation is developed over bedrock granitic rock types (granites and granitic gneisses) which contain anomalous levels of REEs. Although low grade, low mining and processing costs can make this type of deposit profitable to exploit.

Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: - easting and northing of the drillhole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar - dip and azimuth of the hole - down hole length and interception depth - hole length.	All relevant data for the drilling is shown in Table 3.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.	All REE assays have been converted to oxide (REO) values using the following industry standard element-to-stoichiometric oxide conversion factors: La_2O_3 = La x 1.1728 CeO_2 = Ce x 1.2284 Pr_6O_{11} = Pr x 1.2082 Nd_2O_3 = Nd x 1.1664 Sm_2O_3 = Sm x 1.1596 Eu_2O_3 = Eu x 1.1579 Gd_2O_3 = Gd x 1.1526 Tb_4O_7 = Tb x 1.1762 Dy_2O_3 = Dy x 1.1477 Ho_2O_3 = Ho x 1.1455 Er_2O_3 = Er x 1.1435 Tm_2O_3 = Tm x 1.1421 Yb_2O_3 = Yb x 1.1387 Lu_2O_3 = Lu x 1.1371 Y_2O_3 = Y x 1.2699. These oxide values are summed to produce a TREO grade for each assay sample. Minimum grade cut-off used is 300 ppm TREO. Maximum internal dilution is 2 metres @ <300 ppm TREO. No high cut-off has been applied. Length weighted averages have been applied to intersections.

	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.	Intervals reporting >1000 ppm TREO are reported separately.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used.
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 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').	To date the targeted mineralisation appears to occur in flat lying sheets and drill holes have all been drilled at 90° vertically. The down hole length of intercept is effectively a true thickness of mineralisation.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Refer to Figure 1 for plan view of the Cowalinya drillhole collar locations. Refer to Figure 2 for drillhole section 6356600N (A-B).
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Summary assays for all mineralised intervals ≥300 ppm TREO are presented in Table 2.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Particle size analysis on mineralised saprolite shows that, on average: - 78.5% of REEs are confined to the -25 µm size fraction - the -25 µm fraction comprises 37.2% of the bulk saprolite feed mass - the REE grade of the -25 µm fraction is 116% higher than the bulk saprolite feed grade. Preliminary leach testwork has shown up to 91% TREO recovery from Cowalinya South using 5% hydrochloric acid at 30°C. U and Th values are reported as they are considered to be deleterious elements in rare earth processing. The highest values recorded for these elements on the project to date are 55 ppm U_3O_8 and 81 ppm ThO_2.
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	Comprehensive metallurgical testwork is in progress and petrological studies will be completed to identify REE-bearing mineral species.

	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Potential extensions to the Cowalinya South deposit are indicated in Figure 1.