ASX Release
15 June 2023
ASX Code: SAU

REE Carbonatite Discovery at Jangnam Project

Highlights

- **Significant rock-chip REE results returned from carbonatite outcrop discovered last month over a 700 m long zone within SAU's Jangnam REE Project.**
- **The discovery is an extension of the Hongcheon REE carbonatite deposit that outcrops 800 m to the northeast outside of SAU's ground.**
- **Samples returned up to 2.7% TREO with seven samples above 1% TREO and up to 22% MREO.**
- **Significant anomalies of base and precious metals with up to 74 ppm Ag and 2.45% Zn associated with the mineralised system.**
- **11 additional exploration licence applications applied for bordering the Hongcheon carbonatite deposit as well as along strike of the Hongcheon Fault, a potential controlling structure for the deposit – the total licence area at Jangnam now covers 174 km^2.**
- **SAU geologists are in the field to further define the extent of the discovery and to work up targets for drill testing.**
- **Assays results from additional rock-chip samples and stream sediment sampling pending.**

Southern Gold Limited (ASX: SAU) (Southern Gold or the Company) is pleased to provide an update on its exploration activities in South Korea, including the discovery of REE carbonatite and its licence applications over further prospective areas at Jangnam.

Southern Gold Managing Director Robert Smillie said:

"This is an outstanding early result from the team at our Jangnam Project after only recently commencing fieldwork, and it is a significant discovery for the company.

To have found a previously undiscovered 700-m long extension of the Hongcheon carbonatite deposit in SAU ground, and some 800 m SW of the deposit itself, clearly indicates the deposit is larger than previously thought. Furthermore, the low Th and U concentrations from the samples are highly favourable for the outlook of the project.

We will focus our efforts in the coming weeks in gaining a better understanding of the discovery through mapping and additional sampling to define targets for drill testing as soon as practicable.

Given our additional licence applications and large land holding over 170 km^2, the potential for further carbonatite extensions and discoveries with the Jangnam project area is excellent".

Background

In 2022, Southern Gold commissioned RSC to complete a nationwide critical minerals prospectivity study in South Korea. The RSC study identified several REE targets using a mineral system approach, and after further targeting work of higher-priority targets over winter and preliminary reconnaissance fieldwork, Southern Gold submitted exploration licence applications over areas surrounding the two well-known and unmined REE deposits in South Korea, Eorae San (i.e. SAU Chungju REE Project) and Hongcheon (i.e. SAU Jangnam REE Project)[1].

The Jangnam REE Project includes 64 exploration licence applications covering an area of 174 km^2, adjacent to the Hongcheon REE carbonatite deposit held by a third party (Figure 1). This includes 11 new highly prospective licence areas lodged last month by SAU bordering the Hongcheon carbonatite deposit as well as along strike of the Hongcheon Fault.

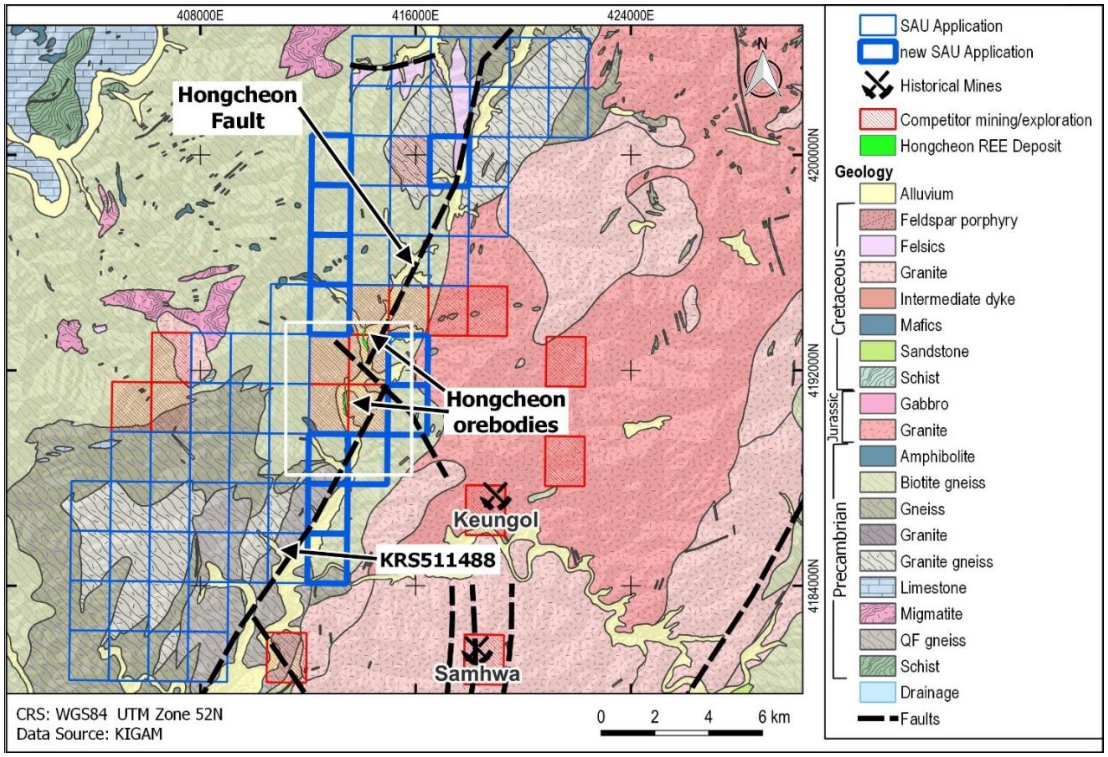

Figure 1: Geological map of the Jangnam REE Project highlighting the 11 new applications. White inset box indicates the area covered in Figure 2.

The Jangnam Project is located within the Gyeonggi Gneiss Complex, which includes Precambrian biotite and biotite-hornblende gneisses. The Hongcheon REE carbonatite dykes are 20–50 m wide and ~2,500 m long and intrude the Precambrian basement gneisses along the deep-seated Hongcheon Fault[2, 3]. Rock-chips from the southern orebody of the Hongcheon carbonatite collected by KIGAM (Korea Institute of Geoscience and Mineral Resources) have returned up to 19.75% TREO[4].

[1] 20230803 – ASX Southern Gold applies for exploration licences adjacent to REE deposits in South Korea; Competent Person: Dr Michael Gazley, MAusIMM, MAIG.

[2] Korea Institute of Geoscience and Mineral Resources (KIGAM), 2001, Mineralization and Feasibility Study of Fe-REE Deposits in Hongcheon are, S. Korea (in Korean).

[3] Kim, N., Cheong, A. C.-s., Yi, K., Jeong, Y.-J., and Koh, S. M., 2016, Post-collisional carbonatite-hosted rare earth element mineralization in the Hongcheon area, central Gyeonggi massif, Korea: ion microprobe monazite U-Th-Pb geochronology and Nd-Sr isotope geochemistry. Ore Geology Reviews, 79, 78–87.

[4] 20230308 - Rare Earth Elements License Applications & Work Underway; Competent Person: Michael Gazley

The area along the Hongcheon Fault is marked by steep hills and outcrop is sparse, and therefore it is likely that concealed mineralisation remains to be discovered. The outline of the outcropping Hongcheon orebodies along the Hongcheon River is well defined (Figure 1,2) and a recent academic study focussed on identifying extensions to the south of the carbonatite system[5]. SAU followed up on reported soil, stream-sediment and rock-chips anomalies from this study.

Field Results

From fieldwork conducted in May, SAU geologists discovered an extension of the Hongcheon REE carbonatite to the south within its Jangnam REE Project area (Figure 2). One 15 m-long outcropping carbonatite dyke was defined ~1.5 km south of the Southern Hongcheon orebody (Figure 3).

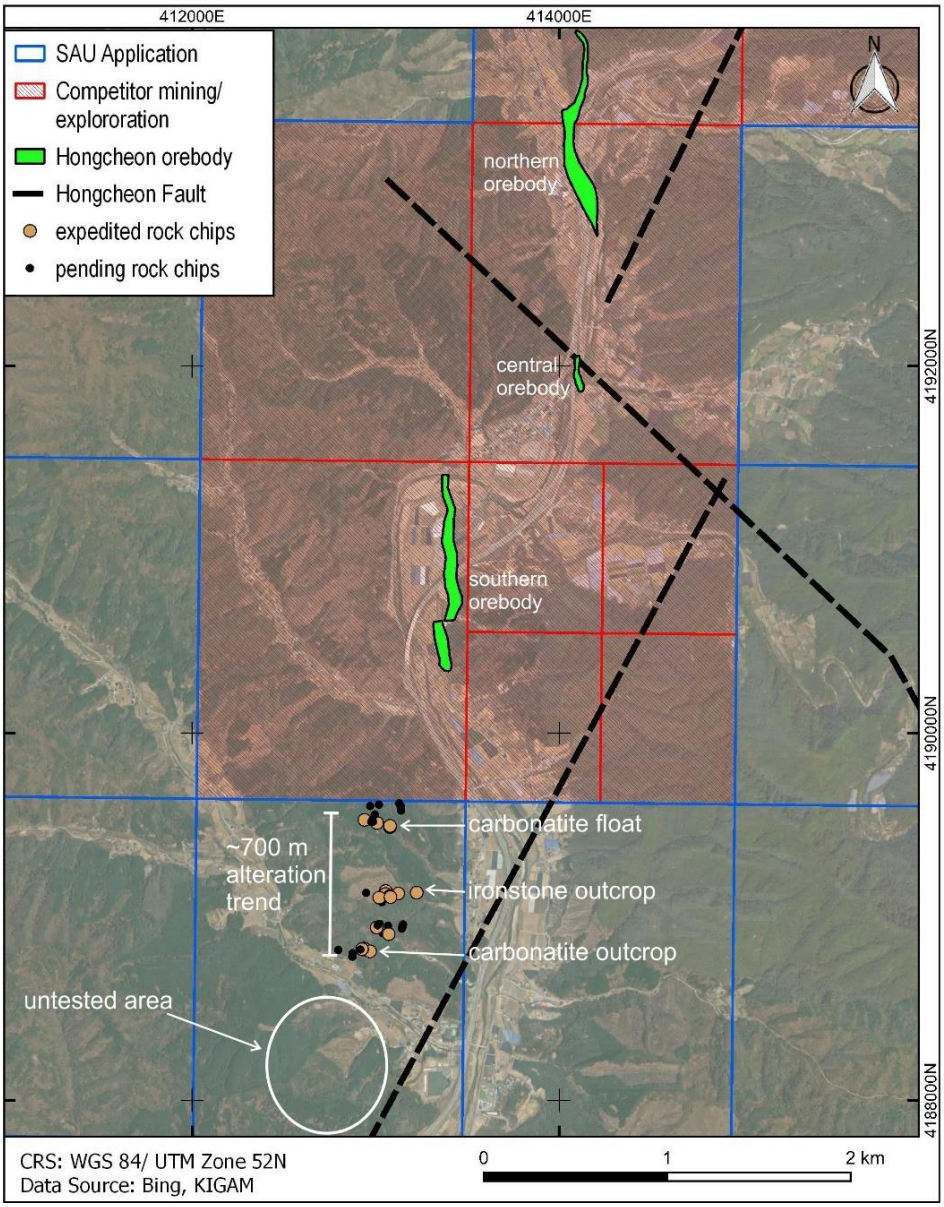

Figure 2: Rock-chip sample sites along the southern extension of the Hongcheon carbonatite.

[5] Ahn, J. S., Youm, S. J., Cho, Y. C., Shin, S. C., and Cho, W. H., 2014, Geochemical survey of rare earth elements (REEs) in the concealed ore body of Hongcheon, Korea. Environmental Earth Sciences, 72, 2153-2161.

In addition, wide-scale fenitisation (Na wall-rock alteration and brecciation proximal to carbonatite) as well as ironstone, was mapped along a N-S extension length of ~700 m (Figure 2). Carbonatite float is present in the creeks between the steep hills in this area and is indicative of further subcropping REE mineralisation.

Furthermore, the carbonatite samples assayed are comparable in mineralogy and texture to the Hongcheon orebody, and collectively the evidence indicates that that this new carbonatite discovery is a southern extension of the Hongcheon carbonatite. The area to the south of the alteration trend is subject to ongoing fieldwork (Figure 2). One expedited breccia sample (KRS511488) was collected from outcrop on a creek ~6 km south of Hongcheon along the Hongcheon Fault (Figure 1).

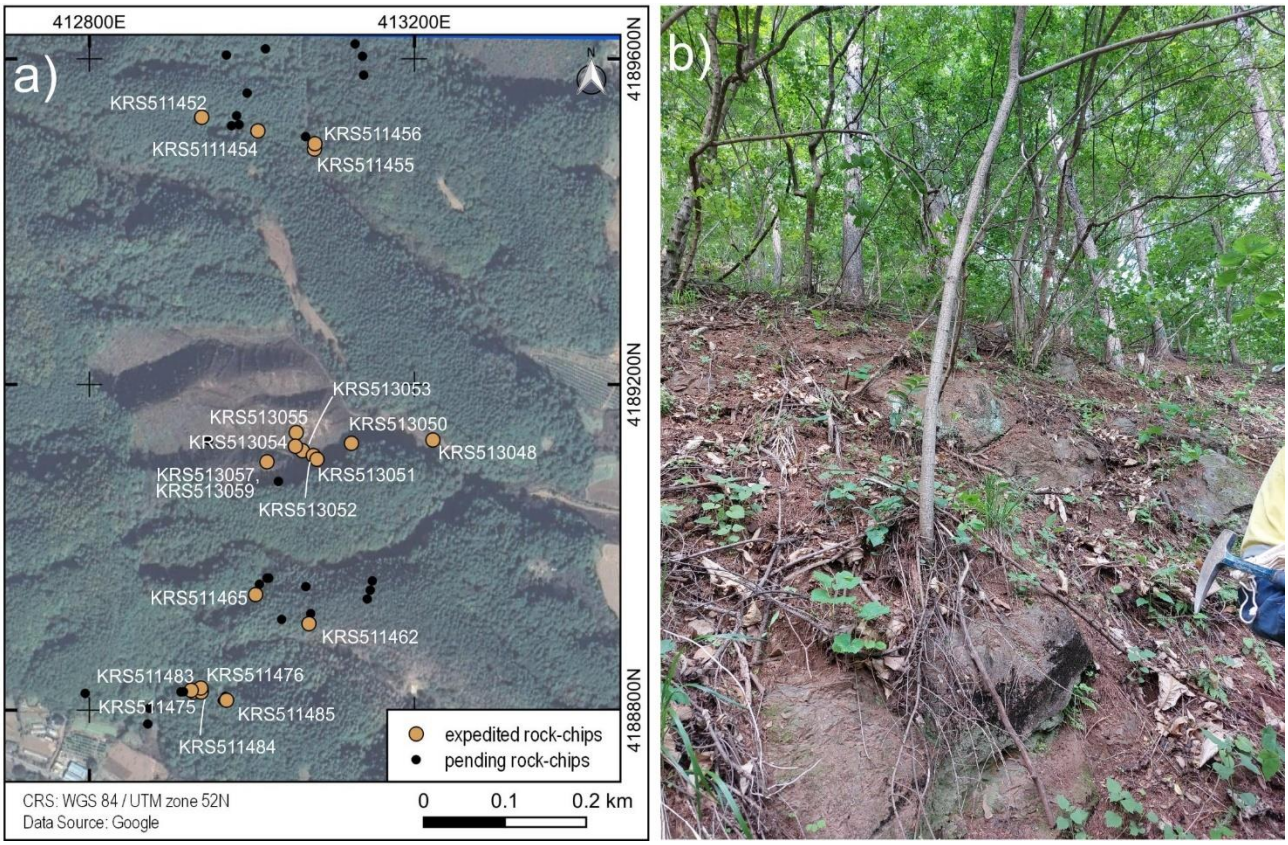

Figure 3: a) Sample locations over a ~700 m long alteration trend; b) Outcropping carbonatite identified in the field within SAU licence application corresponding to samples KRS511476 and KRS511484.

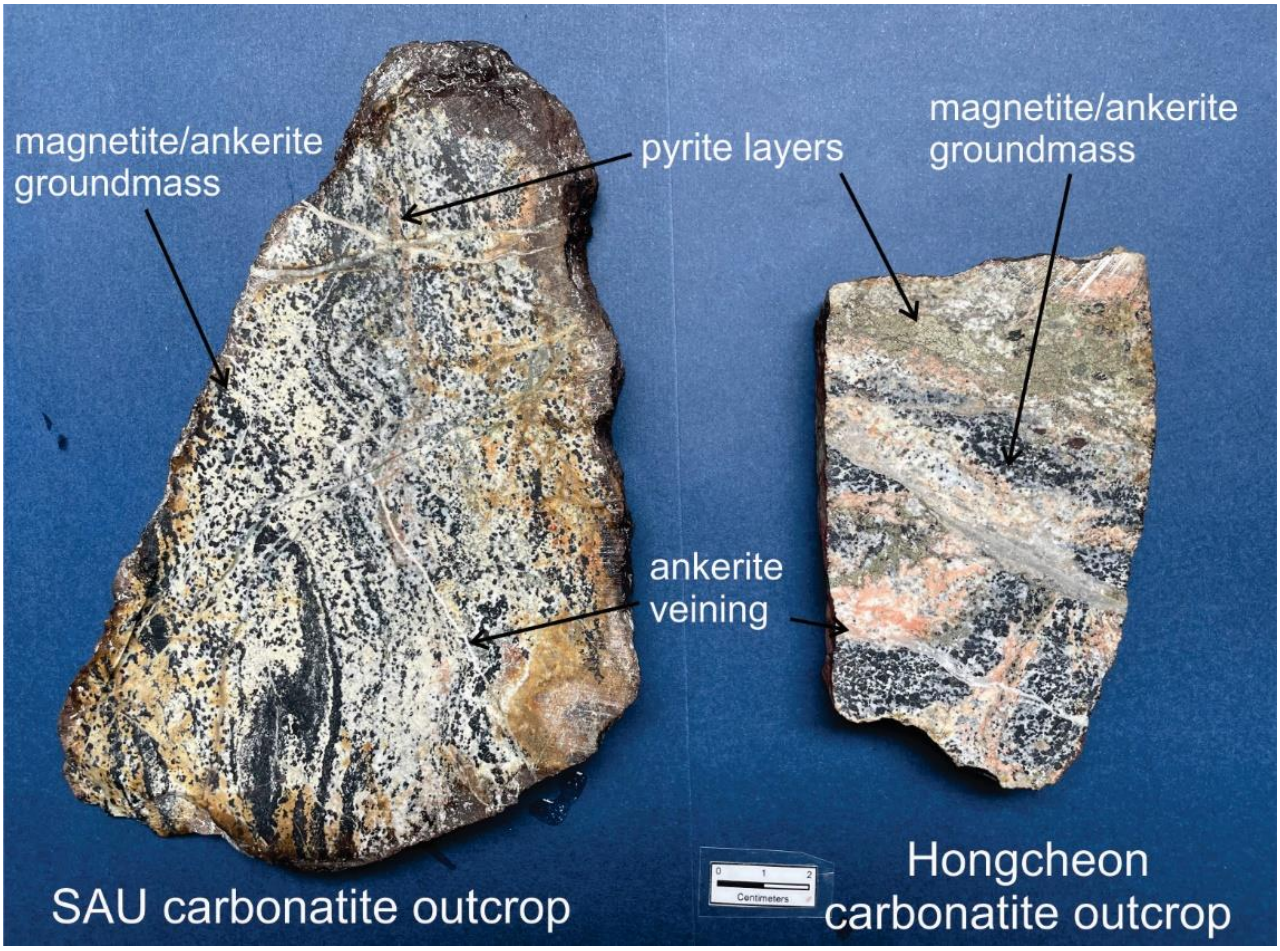

Figure 4: Comparison of carbonatite rock chip slabs from the southern Hongcheon orebody (right) and from the outcrop along the southern extension of Hongcheon into SAU licence (left). Note the similar appearance and mineralogy of the two rock slabs.

Laboratory Results

A total of 21 samples, collected from carbonatite outcrop, ironstone, and/or wall-rock associated with carbonatite alteration (breccias, metasediments) in May 2022 (Figure 2), were selected for expedited analyses. Rock-chips from carbonatite and ironstone returned up to 2.7% TREO. Notably, sample KRS511488 contains 2.6% TREO, despite being ~5 km south of the alteration trend along the Hongcheon Fault (Figure 1).

Remarkably, the samples are not only elevated in REEs but the discovered ironstones and metasomatised rocks returned significant amounts of base and noble metals. Values ranged up to 2.45% Zn, 0.39% Cu, 78 ppm Ag, and 1790 ppm Mo. It is likely that some identified ironstones formed after sulphide mineralisation.

Radioactive elements Th and U are known to be associated with many REE mineralisation styles including carbonatites. At Jangnam, their concentration is very low (Table 1) which is beneficial in multiple ways such as environmental concerns and simpler processing.

Sample ID	Description	TREO	Nd_2O3	Pr_6O_{11}	MREO/ TREO	Nb	Th	U	Ag	Mo	Cu	Zn
		wt.%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		ME-MS81d	ME-MS81d	ME-MS81d	ME-MS81d	ME-MS81d	ME-MS81d	ME-MS81d	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81
KRS511452	Breccia, O	0.06	71	24	19	102	1.81	0.22	-	12	6	48
KRS511454	breccia, F	0.12	187	56	25	14.3	1.5	0.12	0.9	32	361	311
KRS511455	Metasediment, F	0.02	34	11	21	13.2	0.59	0.07	1.1	5	16	406
KRS511456	carbonatite, F	**1.41**	2006	686	**22**	27.9	26.7	0.59	-	6	22	430
KRS511462	breccia, F	0.01	14	3	34	26.6	0.74	0.28	0.5	19	19	118
KRS511465	vein, O	0.02	49	11	36	6.65	2.43	0.37	-	1	134	124
KRS511475	ironstone, F	0.46	692	208	23	295	102.5	1.1	-	19	112	476
KRS511476	carbonatite, O	0.37	495	159	20	148	28.1	0.13	0.6	38	54	378
KRS511483	metasediment, O	0.36	430	147	18	130.5	41.6	0.99	-	16	30	227
KRS511484	carbonatite, O	**1.44**	1808	652	19	921	285	1.39	-	98	83	279
KRS511485	breccia, F	0.24	318	105	20	214	53.7	0.92	-	-	163	214
KRS511488	breccia, O	**2.61**	**3546**	**1208**	20	247	453	14.05	-	3	131	1605
KRS513048	breccia, F	0.05	73	24	22	**>2500**	51.1	9.99	-	3	62	98
KRS513050	breccia, F	0.89	1481	455	26	284	12.8	1.1	**11.4**	9	325	**24500**
KRS513051	ironstone, F	0.24	272	94	17	47.8	27.2	0.85	25.5	583	1290	472
KRS513052	metasediment, F	0.69	820	286	17	292	85.1	3.45	-	2	126	319
KRS513053	ironstone, F	**1.09**	1236	469	16	284	158.5	2.76	**78.4**	**1790**	**3060**	551
KRS513054	ironstone, F	0.45	502	178	16	159	85.5	1.69	**63.2**	**1070**	**3530**	255
KRS513055	ironstone, O	**2.69**	3114	1156	16	352	167	3.34	**14.6**	308	**3900**	408
KRS513057	Breccia, F	**1.24**	1260	516	15	261	40.6	1.19	-	22	72	224
KRS13059	Duplicate of KRS13057	**2.43**	2315	922	13	130.5	96	1.53	-	17	74	260

TREO (Total Rare Earth Oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3$.
MREO (Magnetic Rare Earth Oxide) = $Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3$ MREO (%) = MREO/TREO

Table 1: Results from expedited rock chip samples along the southern extension of the Hongcheon carbonatite. For the full REE suite please refer to Appendix 1. Ce and Pr for KRS511488, Ce for KRS513055, and Nb for KRS513048 were out of range so the data presented reflects the minimum value. O= outcrop, F=float

Next Steps

Fieldwork is currently underway to better define the geology of the discovery area through mapping and sampling, as well as locate additional carbonatite outcrop in the immediate vicinity in order to define targets for future drill testing. In addition, regional fieldwork will be conducted along the NNE Hongcheon Fault zone, which likely was a controlling structure for the Hongcheon carbonatite dykes, to search for additional carbonatite mineralisation in both outcrop and under cover.

The area has not been explored using modern exploration techniques and no detailed radiometric or aeromagnetic survey has been flown over the area. REE mineralisation and magnetite are cogenetic in the Hongcheon carbonatite, and SAU will consider conducting geophysical surveys to reveal the subsurface extent of the mineralised system and the Hongcheon Fault System.

Further results from regional rock-chip and stream sediment samples taken in April and May are pending and are expected within the next month. Stream-sediment anomalies will guide further fieldwork in the area. Petrography studies using RSC's scanning electron microscope (SEM) are under way, which will reveal the

mineralogy of the carbonatite, ironstone, and fenite/breccia discovered by SAU.

Carbonatites

Carbonatites are igneous rocks with a silica content of <20% SiO_2 and a carbonate content of >50%. Typical primary carbonate minerals include ankerite $(Ca,Fe,Mg)(CO_3)_2$, siderite $FeCO_3$, dolomite $(Ca,Mg)(CO_3)_2$, and calcite $CaCO_3$. Carbonatites are one of the most prospective rock types on Earth with ~20% of carbonatite occurrences worldwide hosting an active or former mine or a mineral resource. Typical commodities associated with carbonatites include REEs, niobium, copper, phosphate, fluorite, vermiculite, iron, titanium, zirconium, and vermiculite. Carbonatites are the main source for REEs and Nb. They are typically hosted in alkaline complexes, but some occur as isolated pipes, sills, dikes, or plugs (Anenburg et al. 2022, Simandl and Paradis, 2018, Woolley and Kjarsgaard 2008).

Only two carbonatite localities are reported in South Korea. While the Ulsan carbonatite is depleted in REEs, the Hongcheon ferro-carbonatite is highly enriched in REEs and other high field strength elements (Kim et al. 2016). Ferro-carbonatites are dominated by siderite and ankerite and prominent resources occur in the Gifford Creek Ferro-carbonatite complex (Yin, Dreadnought Resources and Yangibana, Hastings Technology Metals). The Jangnam Project borders the outcropping Hongcheon orebodies.

Anenburg, M., Broom-Fendley, S., & Chen, W. (2021). Formation of rare earth deposits in carbonatites. *Elements: An International Magazine of Mineralogy, Geochemistry, and Petrology*, *17*(5), 327-332

Simandl, G. J., & Paradis, S. (2018). Carbonatites: related ore deposits, resources, footprint, and exploration methods. *Applied Earth Science*, *127*(4), 123-152.

Woolley, A. R., & Kjarsgaard, B. A. (2008). Carbonatite occurrences of the world: map and database. *Geol Surv Can Open File*.

Kim, N., Cheong, A. C. S., Yi, K., Jeong, Y. J., & Koh, S. M. (2016). Post-collisional carbonatite-hosted rare earth element mineralization in the Hongcheon area, central Gyeonggi massif, Korea: ion microprobe monazite U-Th-Pb geochronology and Nd-Sr isotope geochemistry. *Ore Geology Reviews*, *79*, 78-87.

Authorised for release by the Board of Southern Gold Limited.

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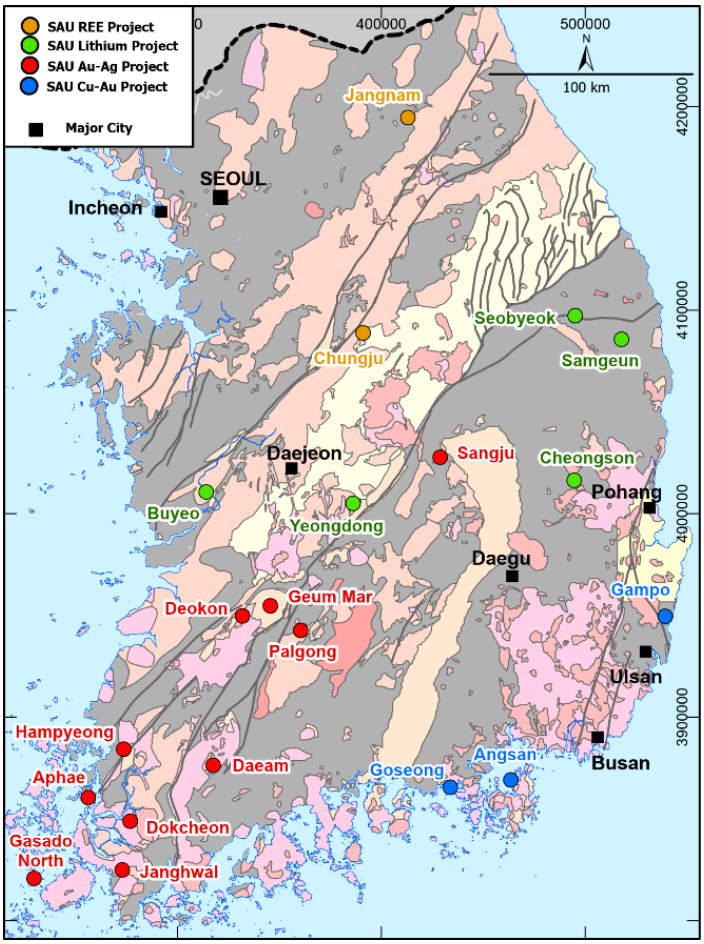
Southern Gold Limited: Company Profile

Southern Gold Ltd is a successful mineral explorer listed on the Australian Securities Exchange (under ASX ticker "SAU"). Southern Gold owns 100% of a substantial portfolio of high-grade gold-silver, Li and REE projects in South Korea. Backed by a first-class technical team, Southern Gold's aim is to find world-class precious and critical metals deposits in a jurisdiction that has seen very little modern exploration.



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Competent Person's Statements

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Dr Michael Gazley, a Competent Person who is a Member of The AusIMM and a Member of the AIG. Dr Gazley is employed by RSC as General Manager Geoscience. The full nature of the relationship between Dr Gazley and Southern Gold has been declared, including any issue that could be perceived by investors as a conflict of interest. Dr Gazley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Mineral Resources and Ore Reserves. Dr Gazley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Forward-looking statements

Some statements in this release regarding estimates or future events are forward looking statements. These mayinclude, without limitation:

- Estimates of future cash flows, the sensitivity of cash flows to metal prices and foreign exchange rate movements.
- Estimates of future metal production; and
- Estimates of the resource base and statements regarding future exploration results.

Such forward looking statements are based on a number of estimates and assumptions made by the Company and its consultants in light of experience, current conditions and expectations of future developments which the Company believes are appropriate in the current circumstances. Such statements are expressed in good faith and believed tohave a reasonable basis. However, the estimates are subject to known and unknown risks and uncertainties thatcould cause actual results to differ materially from estimated results.

All reasonable efforts have been made to provide accurate information, but the Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstancesafter the date of this presentation or ASX release, except as maybe required under applicable laws. Recipients should make their own enquiries in relation to any investment decisions from a licensed investment advisor.

SOUTHERNGOLD

Appendix 1: Geochemical analyses of relevant main elements and REEs of expedited rock-chip samples.

Sample ID	Fe_2O_3	CaO	MgO	P_2O_5	SrO	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	TREO	MREO/ TREO
	wt%	*wt%*	*wt%*	*wt%*	*wt%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*wt.%*	*%*
KRS511452	9.77	0.17	0.24	0.17	0.02	177	275	24	71	7	2	4	0	2	0	1	0.1	1	0.1	11	0.06	19
KRS511454	46.5	6.47	5.02	0.68	0.27	267	568	56	187	24	6	13	2	7	1	2	0.3	2	0.2	30	0.12	25
KRS511455	58.6	1.41	10.65	0.05	0.21	66	114	11	34	4	1	2	0	2	0	1	0.1	1	0.1	8	0.02	21
KRS511456	43.5	14.8	5.15	7.13	1.19	3730	6818	686	2006	232	58	134	17	71	12	24	2.4	12	1.5	283	1.41	22
KRS511462	33.5	0.06	0.6	0.05	<0.01	14	18	3	14	3	1	3	0	3	0	1	0.1	1	0.2	15	0.01	34
KRS511465	14.3	5.9	6.54	0.33	0.06	31	81	11	49	10	1	9	1	6	1	3	0.4	2	0.4	31	0.02	36
KRS511475	32.5	5.64	6.63	1.98	0.27	1162	2187	208	692	80	20	47	6	25	4	10	1.1	6	0.6	109	0.46	23
KRS511476	31.6	9.39	10.05	0.33	0.31	1075	1812	159	495	52	12	26	3	12	2	5	0.6	3	0.5	50	0.37	20
KRS511483	12.75	2.99	4.35	0.25	0.09	1148	1800	147	430	36	7	14	1	6	1	2	0.2	1	0.2	19	0.36	18
KRS511484	30.7	12.65	8.42	0.84	0.52	4515	6977	652	1808	173	35	70	7	22	3	6	0.7	4	0.6	76	1.44	19
KRS511485	10.25	2.82	3.34	0.19	0.08	711	1178	105	318	33	6	14	2	7	1	2	0.3	2	0.3	24	0.24	20
KRS511488	16.45	12.3	5.6	1.75	0.12	8350	12284	1208	3546	310	61	112	12	36	5	10	1.1	6	0.9	126	2.61	20
KRS513048	24.1	0.1	0.16	0.06	0.01	120	265	24	73	7	2	3	0	1	0	1	0.1	1	0.1	7	0.05	22
KRS513050	28.8	11.3	3.91	6.19	0.58	2158	4164	455	1481	196	45	109	12	47	7	14	1.4	7	0.8	173	0.89	26
KRS513051	79	0.13	0.12	0.39	<0.01	776	1182	94	272	25	5	14	2	8	1	3	0.4	2	0.2	35	0.24	17
KRS513052	15.4	5.81	5.21	0.28	0.14	2181	3476	286	820	60	12	25	3	11	2	3	0.4	2	0.3	43	0.69	17
KRS513053	71.5	0.15	0.1	1.28	0.01	3577	5196	469	1236	120	21	60	8	31	5	12	1.3	6	0.7	124	1.09	16
KRS513054	80.3	0.04	0.09	0.24	<0.01	1454	2174	178	502	50	9	26	4	15	3	5	0.6	3	0.4	59	0.45	16
KRS513055	48.1	2.42	0.3	3.76	0.12	9605	12284	1156	3114	256	52	126	13	55	8	19	1.9	9	1.1	224	2.69	16
KRS513057	18.6	4.01	3.34	1.38	0.23	4410	5921	516	1260	103	21	44	5	19	3	6	0.7	4	0.5	75	1.24	15
KRS513059	15.8	3.44	3.33	1.34	0.14	8902	11793	922	2315	152	29	56	5	20	3	6	0.6	3	0.5	78	2.43	13

TREO (Total Rare Earth Oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3$.

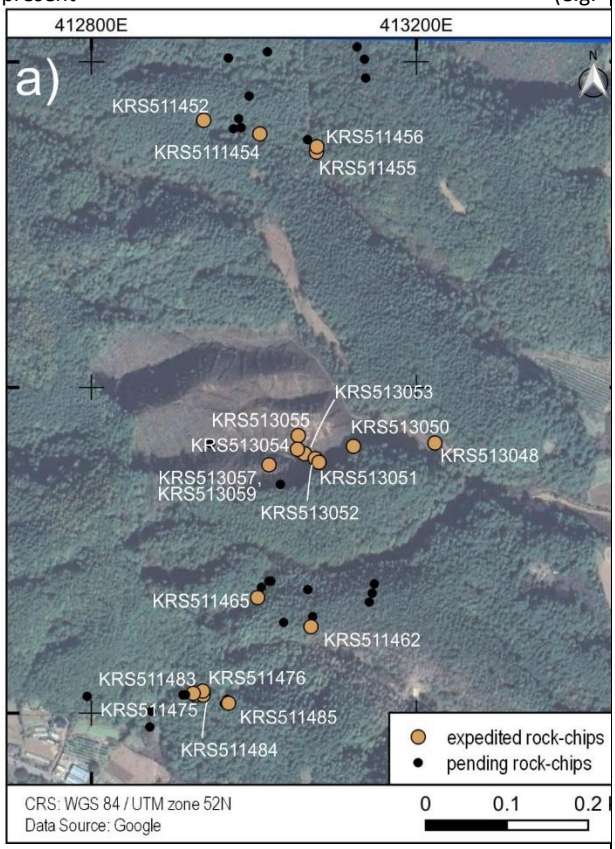
MREO (Magnetic Rare Earth Oxide) = $Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3$

MREO (%) = MREO/TREO

Appendix 2: JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	Rock chip samples were collected from outcrop where present (e.g.  Figure) and float in areas where no outcrop was present. Surface reconnaissance rock chip samples were taken based upon geological features relevant to the target style of mineralisation. Sample sites were chosen selectively to reflect geological features relevant to the target style of mineralisation.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Only fresh rock samples were collected. Surface reconnaissance rock chip samples are not considered representative and are used as an early-stage exploration tool.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Mineralisation was visually determined by the field geologists by presence of iron oxides and carbonates.
	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant	Outcrop samples were collected using a geological hammer with a target weight of 1–2 kg which was crushed

Criteria	JORC Code explanation	Commentary
	disclosure of detailed information.	
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.).*	No drilling reported.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	No drilling reported.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling reported.
	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 drilling reported.
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.*	No drilling reported. Field observations were recorded for the rock chip samples and all samples were photographed to support the early-stage reconnaissance targeting.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	No drilling reported.
	The total length and percentage of the relevant intersections logged.	No drilling reported.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No drilling reported.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Rock chip samples were taken dry and had representative slabs cut (for example, see figure 4 in the body of this release) and all of the remaining offcuts of each sample were sent for assay.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All SAU rock chip samples were sent to SGS laboratory in South Korea for sample preparation. SGS is an ISO/IEC 17025:2005 certified laboratory. Samples were dried and crushed to 75% passing 2mm, split to 1,000g, then pulverised to 85% passing 150 microns. Pulp samples are then split using a micro-riffle splitter to produce 500g of pulp reject, 250g of pulp duplicate, and 250g of sample for shipment to ALS Laboratories in Australia. The nature of the laboratory preparation techniques is considered 'industry standard' and appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The crushing stage unit is a Rocklabs Smart Boyd-RSD Crusher capable of over 5kg primary sample in one load, with rotating sample divider (RSD) ensuring single pass crushing, producing representative coarse sample split sent to grinding, typically up to 1,000g. Coarse rejects are retained for each sample. The grinding stage unit is an Essa LM2 and utilises a large grinding bowl (1,600g) ensuring single pass grinding of the coarse split. The full 1kg of pulp material was sent to ALS Laos for micro-riffle splitting enabling a parent pulp sample, a daughter pulp sample, and two reject pulp samples to be produced (typically each 250g) in one grind. Pulp rejects are retained for each sample.

Criteria	JORC Code explanation	Commentary
	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.	One duplicate sample was submitted to the laboratory. Rock chips were collected from representative outcrop.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The size of rock chip samples is appropriate for this stage of exploration.
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.*	Rock chips were analysed using protocol ME-MS81 to obtain the full REE suite. This technique is considered industry standard for REE analyses. Further, the samples were analysed using ME-4ACID and ME-ICP06. Sample KRS513050 was analysed using Zn-OG62 due to out-of-range Zn analysis. All analyses were carried out at ALS Perth.
	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.	One OREAS standard and one duplicate sample were submitted to the laboratory. The laboratory also uses in-house controls, blanks and duplicates. Acceptable levels of accuracy and precision have been achieved by the laboratory given the purpose of the analysis (first pass exploration).
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No independent verification of the geochemical data has been carried out to date.
	The use of twinned holes.	No drilling reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field logging is entered into notebooks on site and then digitised into excel sheets and uploaded into the database at the office. Assay files are received electronically from the laboratories and uploaded into the database.
	Discuss any adjustment to assay data.	The conversion of elemental weight percent of REEs to oxide weight percent in order to calculate TREO and MREO used the following conversion factors: La_2O_3 1.1728 CeO_2 1.2284 Pr_6O_{11} 1.2082 Nd_2O_3 1.1664 Sm_2O_3 1.1596 Eu_2O_3 1.1579 Gd_2O_3 1.1526 Tb_4O_7 1.1762 Dy_2O_3 1.1477 Ho_2O_3 1.1455 Er_2O_3 1.1435 Tm_2O_3 1.1421 Yb_2O_3 1.1387 Lu_2O_3 1.1371 Y_2O_3 1.2699
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Rock-chip sample locations were collected using a handheld GPS with an accuracy of +/- 5 m in easting and northing and +/- 10 m in elevation.
	Specification of the grid system used.	Grid system used is WGS 84/UTM zone 52N.
	Quality and adequacy of topographic control.	The quality of topographic control is adequate for early-stage surface reconnaissance REE exploration

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Rock chip samples were taken where opportune and are therefore irregularly spaced.
	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.	Exploration is at an early-stage reconnaissance level. The rock-chip spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for a Mineral Resource.
	Whether sample compositing has been applied.	No sample composting has been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Samples were collected where outcrop and/or mineralised float were encountered south of Hongcheon. Rock chip sampling by nature is biased and this is considered appropriate for early-stage exploration.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No drilling reported.
Sample security	*The measures taken to ensure sample security.*	All samples were collected, bagged and sealed by SAU staff. From the point of sample generation to laboratory, samples (and reject returns) are under the full security and Chain of Custody of the Company. This is done by the following procedures: Post on-site logging and processing, samples are transported to the Company's shed facilities under the direct supervision of a Company representative. Samples are further processed for dispatch by Company representatives under guidance of the Competent Person. Bagged samples are secured by tags and delivered by a Company representative to a courier service to deliver to the sample preparation laboratory. The preparation laboratory sends pulp samples directly to the assay laboratory for analysis via door-to-door courier service. All rejects are returned under courier service and stored in the Company's secure lock-up long-term core storage facility.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been undertaken for rock-chip sampling.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	All tenements referred to in this report are exploration licence applications, submitted by SAU. For the Jangnam REE Project, SAU applied for 64 exploration licence blocks. There are no native title interests in Korea. It is a generally accepted requirement that mineral title holders gain the consent of local landowners and residents before undertaking any major exploration activity, such as drilling. However, no consent it required for geophysical surveys, soil/rock chip sampling and mapping.
	The security of the tenure held at the time of reporting along with any known impediments to	Following the submission of a Mineral Deposit Report for a licence application, it is reviewed by the Mine Registration

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>obtaining a license to operate in the area.</td><td>Office (MRO) who determines if the application meets specified criteria for approval and if so, grant an Exploration Right. The holder has one year to submit an Exploration Plan to MOTIE outlining planned work. An initial three-year exploration period is given to complete exploration work, which can be subsequently extended for a further 3 years upon successful submission to MOTIE.

Upon successful conversion to an Exploration Right, the holder has 3 years to submit Exploration Results and have an Extraction Plan authorised. An application can be made to extend this period by 1 year. The Extraction Plan is submitted to the Local Government and requires approvals from a number of stakeholders. The term of an Extraction Right is 20 years. This can be extended upon application, provided all statutory requirements have been met over the life of the mine. From the date the Extraction Plan is approved, the title holder has a 3-year period in which mine production must commence. During this 3-year period, the title holder must make a minimum level of investment on plant and mine infrastructure in the amount of KRW100 million (~AUD$120,000) and meet certain minimum annual production levels, which are dependent on the commodity being mined.

There are no known impediments to obtaining a license to operate.</td></tr>
<tr><td>Exploration done by other parties</td><td>Acknowledgment and appraisal of exploration by other parties.</td><td>The Hongcheon carbonatite was explored by KIGAM between 1989 and 2015 according to government reports. There are no records of exploration activity in the area surrounding the Hongcheon deposit apart from Ahn et al. 2014, who sampled stream-sediments, soil, and rock chips for an academic study.</td></tr>
<tr><td>Geology</td><td>Deposit type, geological setting and style of mineralisation.</td><td>The Jangnam REE project is adjacent the Hongcheon REE (ferro-)carbonatite deposit, which intruded the Precambrian Gyeonggi Gneiss Complex, along the Hongcheon Fault. The Jangnam project covers the same geology and fault system as the Hongcheon deposit.</td></tr>
<tr><td>Drill hole Information</td><td>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 meters) of the drill hole collar
dip and azimuth of the hole
down hole length and interception depth
hole length.</td><td>No drilling reported.

Rock-chip sample locations are:<table><tr><th>Sample ID</th><th>Northing</th><th>Easting</th><th>Elevation (m)</th></tr><tr><td>KRS511452</td><td>4189528</td><td>412938</td><td>527</td></tr><tr><td>KRS511454</td><td>4189511</td><td>413007</td><td>499</td></tr><tr><td>KRS511455</td><td>4189489</td><td>413077</td><td>485</td></tr><tr><td>KRS511456</td><td>4189496</td><td>413077</td><td>485</td></tr><tr><td>KRS511462</td><td>4188906</td><td>413070</td><td>507</td></tr><tr><td>KRS511465</td><td>4188942</td><td>413004</td><td>504</td></tr><tr><td>KRS511475</td><td>4188822</td><td>412928</td><td>535</td></tr><tr><td>KRS511476</td><td>4188827</td><td>412937</td><td>248</td></tr><tr><td>KRS511483</td><td>4188824</td><td>412925</td><td>512</td></tr><tr><td>KRS511484</td><td>4188822</td><td>412937</td><td>523</td></tr><tr><td>KRS511485</td><td>4188812</td><td>412969</td><td>532</td></tr><tr><td>KRS511488</td><td>4185191</td><td>410950</td><td>405</td></tr><tr><td>KRS513048</td><td>4189132</td><td>413223</td><td>426</td></tr><tr><td>KRS513050</td><td>4189128</td><td>413122</td><td>443</td></tr><tr><td>KRS513051</td><td>4189108</td><td>413080</td><td>450</td></tr><tr><td>KRS513052</td><td>4189113</td><td>413075</td><td>451</td></tr><tr><td>KRS513053</td><td>4189119</td><td>413062</td><td>453</td></tr><tr><td>KRS513054</td><td>4189124</td><td>413053</td><td>456</td></tr><tr><td>KRS513055</td><td>4189141</td><td>413054</td><td>466</td></tr><tr><td>KRS513057</td><td>4189105</td><td>413018</td><td>478</td></tr><tr><td>KRS513059</td><td>4189105</td><td>413018</td><td>478</td></tr></table></td></tr>
<tr><td></td><td>If the exclusion of this information is justified on the basis that the information is not Material and</td><td>The Competent Person is not aware of any Material information being excluded from this ASX release.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	No drilling reported. Individual rock-chip sample results are presented in table 1 and Appendix 1. No reporting cut-off has been applied.
	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.	No drilling reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been reported in this ASX Release.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	No drilling reported.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	No drilling 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').	No drilling reported.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Overview plan map of rock-chip samples in **Error! Reference source not found.** and 3.
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.*	Rock chip results presented in **Error! Reference source not found.** reflect all analyses received from the laboratory. No relevant information has been omitted.
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.*	All relevant data available to SAU has been documented in this report.
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).*	Planned work programs involves further stream sediment sampling at Jangnam to obtain more information on mineralisation away from the known deposits. Preliminary samples are waiting to be analysed. Petrography studies using scanning electron microscope (SEM) are under way, which will reveal the mineralogy of the carbonatite, ironstone, and fenite discovered by SAU at Jangnam.

Criteria	JORC Code explanation	Commentary
		Rock-chip sampling and field mapping to validate historical results and inform ongoing exploration strategy is ongoing. Assessment of Korean KIGAM and KETEP reports for Hongcheon deposits is ongoing. Geophysical surveys are planned to define the subsurface extent of the Hongcheon Fault as well as the Hongcheon carbonatite.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A drill programme has not been planned for these areas yet. SAU has the intention to define and drill targets as further detailed results warrant.