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## ASX RELEASE

9 JULY 2012

### KILLI KILLI REE & GOLD PROJECT ROCK CHIP SAMPLES FINAL RESULTS RECEIVED

- Over-range Neodymium (Nd) and Strontium (Sr) analyses boost results from rock chip sampling which significantly extends KK East mineralisation
- Average TREE of 4,730ppm (0.47%) incl. 1,100ppm Nd from 39 rock chip samples
- 21 hole drill program to test the new zone about to commence

Orion Metals (ASX:ORM) announces that the final analyses of the rock chip sampling program conducted in the 800 m interval between the two known Killi Killi Number. 1 & 2 Rare Earth Element (REE) Prospects in May have now been received. The prospects are located in the Company's Killi Killi East tenement (E80/4029) in the Tanami Desert on the Western Australian side of the WA: NT border, 30 kms north east of the Coyote gold mine.

Preliminary laboratory assay results for the 39 rock chip samples were released to the ASX on 21 June. These results excluded over-range values for neodymium (>1,000ppm Nd) and strontium (>10,000ppm Sr) which required further analysis and quantification. The final analyses are now at hand with the effect that the 27 of the 39 samples which contained neodymium values in excess of 1,000ppm, increased the average result from 858ppm Nd to **1,100ppm Nd** and the 10 of the 39 samples registering greater than 1% Sr increased the average Sr result from the 7,076ppm Sr to **8,137ppm Sr** (see [Table 1](#)).

Neodymium (Nd) is one of the best known and the most valuable of the rare earths being used in the manufacture of the strongest readily available permanent magnets with applications in wind turbines, sound equipment, home appliances and computer hard disks.

Strontium, while not a rare earth element itself, is an important associated metal or "pathfinder" element useful for REE exploration in the Killi Killi area.

The results also boosted the total rare earth element content (TREE) from an average of 4,451ppm TREE advised on 21 June (calculated using a nominal value of 1,000ppm Nd for the 27 over-range Nd samples) to an average of **4,730ppm** or **0.47% TREE** for the 39 sites. In addition, 32 of the 39 sites sampled recorded significant mineralisation recording an average of **5,558ppm (0.56%) TREE** including **1,289ppm Nd**. **Figure 1** illustrates that Nd comprises 23% of the TREE in the significantly mineralised samples. In addition Figure 1 illustrates that the REE component of samples comprise significant proportions of Cerium (Ce), (35% of the REE component and an average of 0.17% of the samples), Yttrium (Y), (13%: 0.06%) Lanthanum (La), (10%:0.05%) and Dysprosium (Dy), (2%:0.01%).

The strongly consistent population of Nd and Sr values in the samples in association with highly anomalous REE values attests to a definite geochemical signature for the outcropping REE mineralisation at Killi Killi over a broad lateral extent (800m by 100m). Additionally these levels of rare elements in conglomerate lenses and associated sandstones stratigraphically some metres above the basal unconformity point to a broader distribution also in a vertical sense and not just confined to the dominant structure connecting the two Killi Killi Prospects - the unconformity between the Lower Proterozoic basement rocks and the Upper Proterozoic flat lying sandstones and conglomerates hosting the mineralisation.

These results add new dimensions to the exploration effort at the site, which recommences next week with a 21 hole RC drilling programme of the 800 metre zone between the Prospects drilled at 50 metre centres. These will test the continuity of the surface REE mineralisation laterally as well as at depth. This heavy REE anomalous area between Kili Killi 1 and 2 has not previously been drill tested.

A further 8 holes will also be completed at Killi Killi West as part of the exploration programme.

Final analytical results of the major elements are summarised in **Table 1** attached, while the attached maps show the sample sites and the planned RC holes.

Further information on Orion Metals Ltd. visit [www.orionmetals.com.au](http://www.orionmetals.com.au) or contact

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Orion Metals Limited

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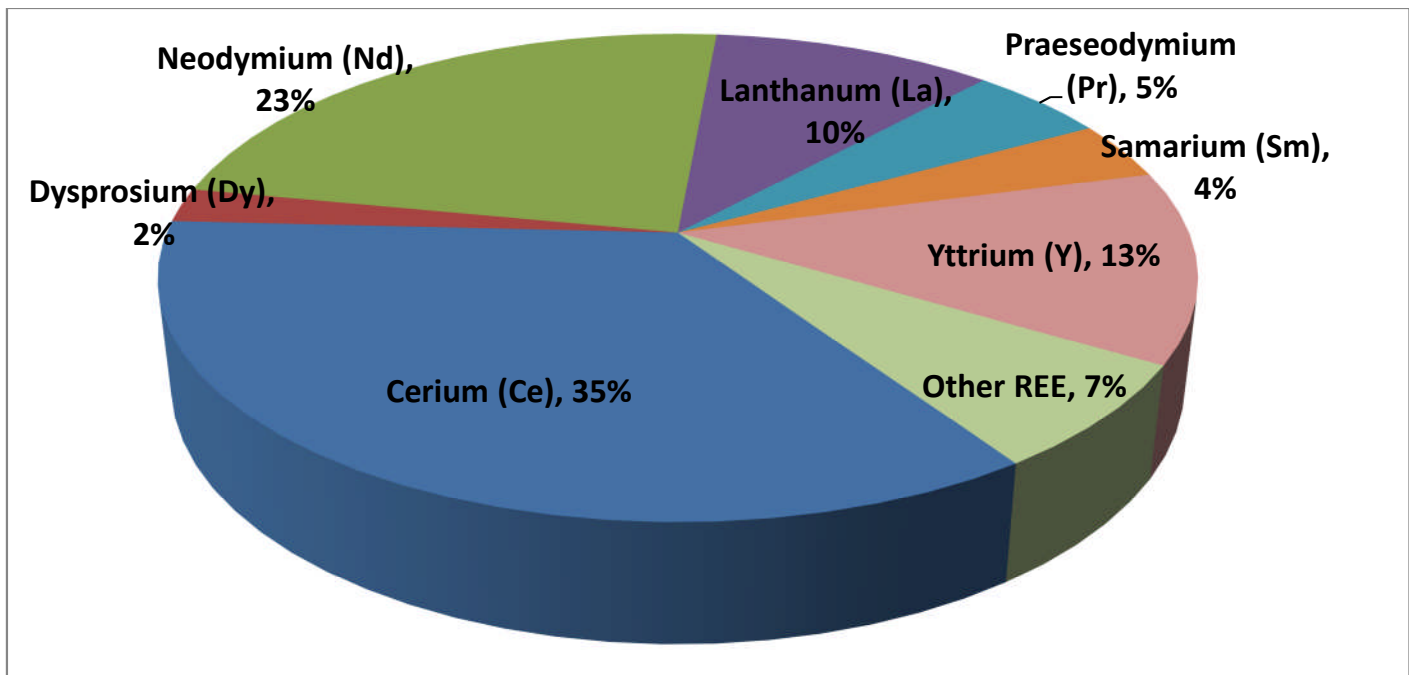
View of Killi Killi unconformity – flat sandstones overlying older basement rocks – looking towards east towards Killi Killi number one prospect



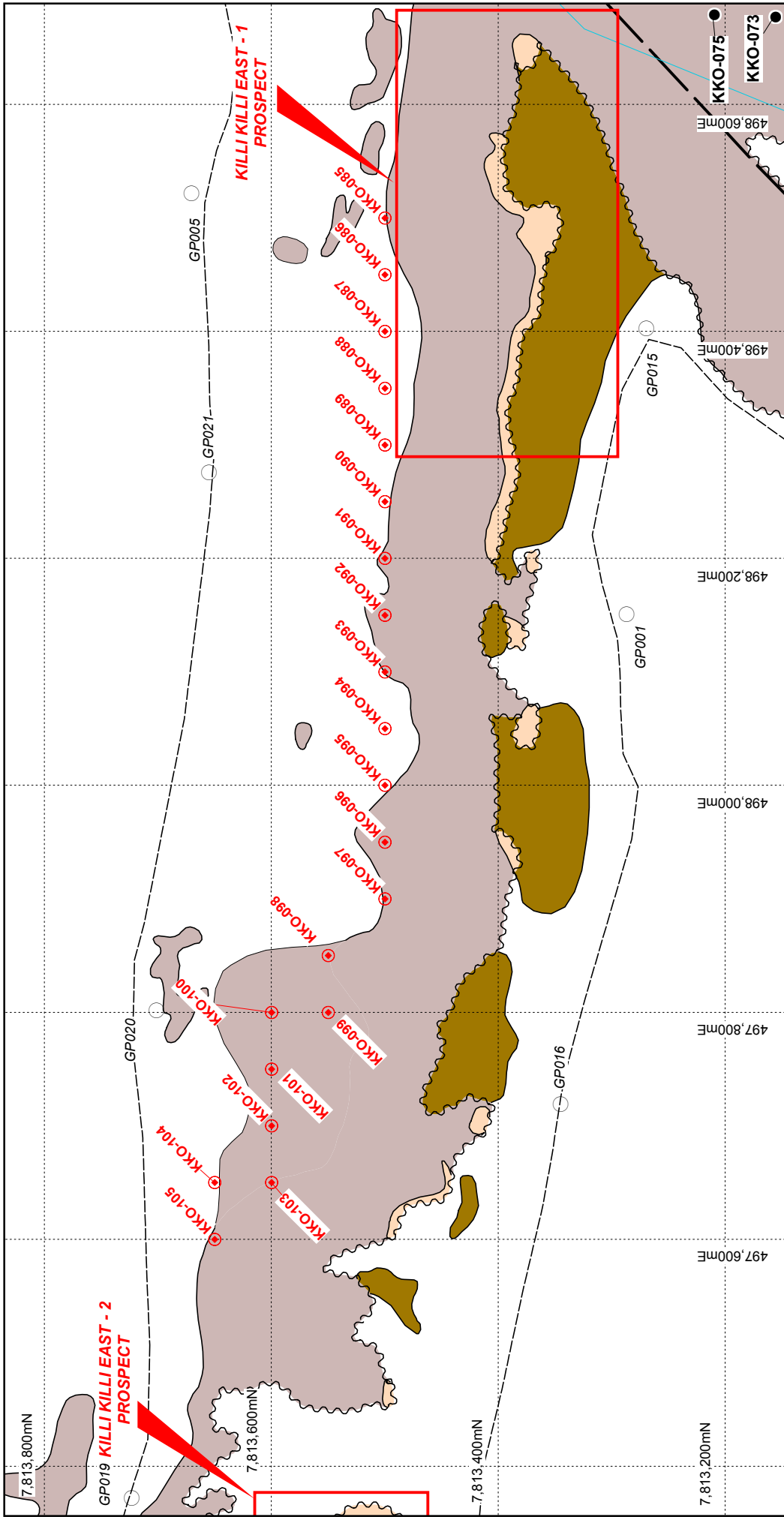
**TABLE 1 - Final REE Analyses of Rock Chips from Killi Killi East (parts per million -ppm)**

Sample	Ce	La	Dy	Er	Eu	Gd	Nd	Pr	Sm	Tb	Yb	Y	Total REE	Sr
26759	2650	802	33	24	22	123	1937	430	281	9	29	189	6529	1.4%
26760	186	57	3	1	2	11	169	31	30	1	1	7	499	1280
26761	1610	504	11	6	12	61	1174	249	169	4	5	42	3847	6510
26762	597	177	7	7	7	35	481	97	86	2	2	18	1516	3050
26763	1650	527	19	14	12	64	1172	261	163	5	19	94	4000	6780
26764	1580	473	29	16	15	78	1151	247	182	7	19	110	3907	7340
26765	1970	597	28	21	19	94	1521	321	243	7	25	169	5015	8440
26766	1560	428	18	7	21	99	1514	281	272	6	6	55	4267	8680
26767	1780	564	32	29	12	66	1172	273	153	6	31	152	4270	6710
26768	141	48	2	1	1	6	79	19	11	1	1	7	317	0
26769	1970	631	193	187	18	133	1065	257	161	24	257	925	5821	8770
26770	652	229	12	4	8	41	395	91	71	4	3	30	1540	5090
26771	639	213	13	4	10	48	432	95	84	4	3	33	1578	4580
26772	1780	548	31	23	17	97	1234	271	191	7	21	185	4405	8100
26773	1920	635	74	61	19	117	1288	298	209	12	83	508	5224	1.13%
26774	1550	527	42	30	18	88	863	202	161	9	30	227	3747	6200
26775	3310	979	302	306	30	199	1873	434	292	37	427	1460	9649	1.84%
26776	1300	362	10	5	9	49	936	202	123	4	6	25	3031	4970
26777	2820	867	84	69	27	153	1867	429	292	16	80	563	7267	1.99%
26778	2200	653	30	15	18	94	1363	309	205	9	13	118	5027	1.14%
26779	1730	577	114	115	14	89	881	223	134	14	151	665	4707	1.33%
26780	1160	351	11	5	8	41	636	156	86	3	4	38	2499	3890
26781	1520	450	70	62	15	95	1020	220	158	11	70	571	4262	7110
26782	2090	562	476	390	30	256	1294	283	240	60	400	3050	9131	7980
26783	2310	630	394	331	25	218	1339	295	223	50	362	2340	8517	8470
26784	2500	700	593	541	34	307	1499	343	280	68	626	3550	11041	1.20%
26785	2120	605	128	122	15	100	1210	284	161	18	172	661	5596	1.29%
26786	1630	493	43	33	15	85	1080	243	160	8	42	273	4105	7920
26787	693	209	29	26	6	34	510	108	70	4	30	175	1894	3860
26788	2110	577	162	154	16	111	1273	283	204	19	226	813	5948	1.09%
26789	1140	311	15	7	11	54	862	175	143	4	7	54	2783	5340
26790	1610	412	96	79	22	131	1255	241	250	13	89	555	4753	8840
26791	1420	423	48	49	15	82	1056	216	187	8	70	247	3821	8800
26792	1770	411	356	249	34	278	1598	300	345	51	242	2230	7864	8110
26793	2280	660	198	156	21	148	1379	312	231	26	185	1060	6656	1.03%
26794	1430	432	34	25	16	79	1071	215	188	7	29	180	3706	7830
26795	2700	679	339	209	40	297	1990	394	398	52	199	1650	8947	9500
26796	383	131	16	11	4	23	219	51	39	3	12	89	981	1310
26800	2020	780	21	12	12	67	1035	270	133	1	8	102	4461	7470
<b>Average</b>	<b>1654</b>	<b>491</b>	<b>105</b>	<b>87</b>	<b>17</b>	<b>106</b>	<b>1100</b>	<b>241</b>	<b>180</b>	<b>15</b>	<b>102</b>	<b>595</b>	<b>4730</b>	<b>8137</b>
<b>Ave %</b>	<b>0.17</b>	<b>0.05</b>	<b>0.01</b>	<b>0.01</b>	<b>-</b>	<b>0.01</b>	<b>0.11</b>	<b>0.02</b>	<b>0.02</b>	<b>-</b>	<b>0.01</b>	<b>0.06</b>	<b>0.47</b>	<b>0.81</b>

**FIGURE 1 – Distribution of Average Composition of REE in KKE Rock Chip Samples**



*The information in this report that relates to exploration results is based on information compiled by Mr Adrian Day, who is a Member of the Australian Institute of Geoscientists and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the "JORC Code"). Mr Day is a non-executive Director of Orion Metals Limited and is employed by Australian Asiatic Gems Pty Ltd, a consultant to the Company. Mr Day consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*



**ORION METALS LIMITED**

**KILLI KILLI EAST**

**E80/4029**

**KILLI KILLI EAST PROSPECT**

**PROPOSED DRILLING**

**(JUNE 2012)**

COMPILED BY	A. DAY	SCALE	1:5,000	<b>FIGURE</b>
DRAFTED BY	K. J. CORRIE	Proj.	MGASA Zone 52	
REVISED		DMG No.:		

**GEOLOGY LEGEND**

Sand

Geology from QML 1969 ;  
Alcoa 1977

Upper Proterozoic

- Laminated quartz greywacke with white massive quartzite and ripple marked sandstone
- Micaceous siltstone and upper conglomerate
- Basal conglomerate grit and sandstone

Unconformity

LOWER PROTEROZOIC

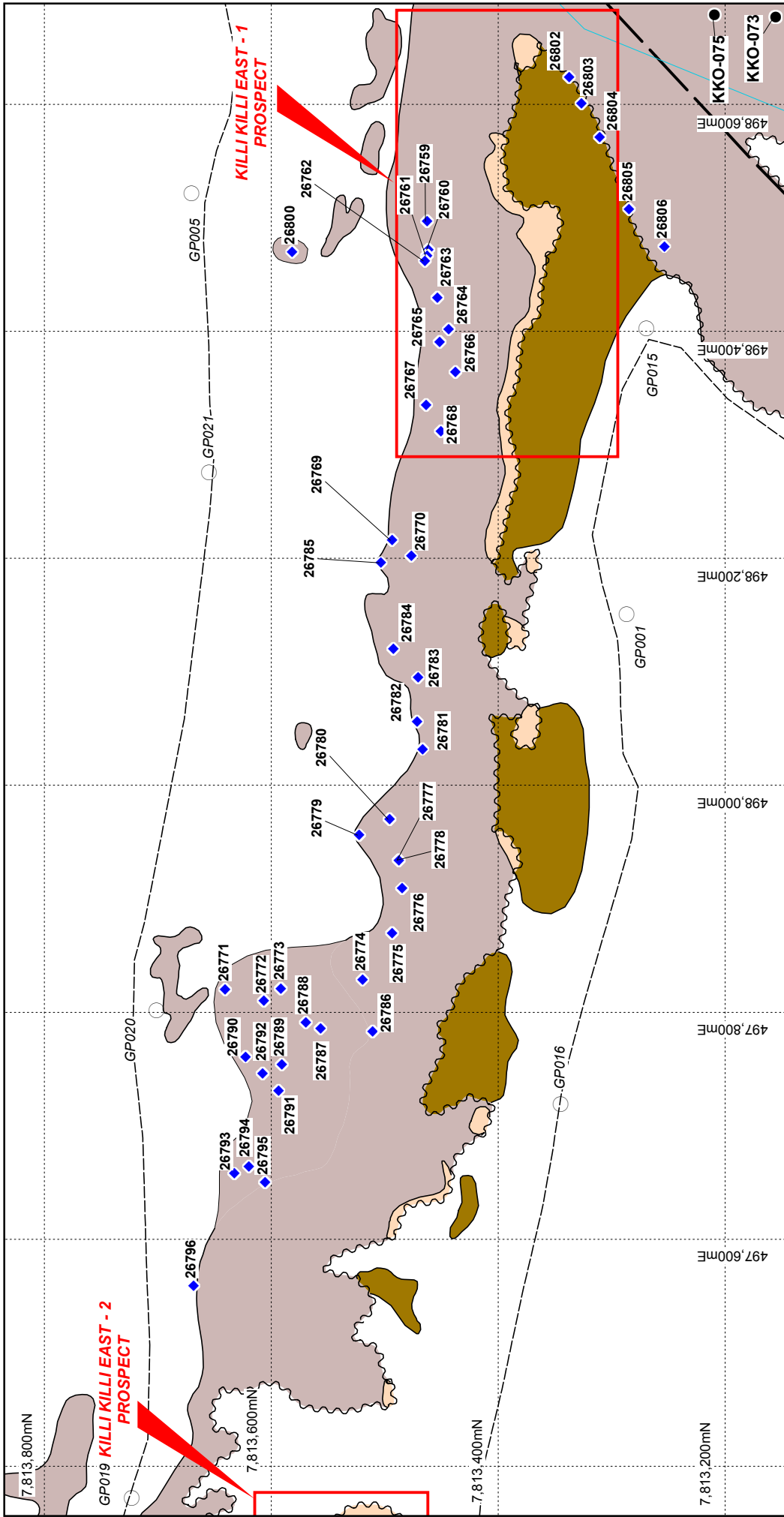
Scale: 1:5,000

0 50 100 150 200 250 m

Track

- KKO-065 Drillhole location October 2011 (Orion)
- GP006 Early 1980's exploration drilling for Uranium (Alcoa)
- No REE or Au analyses
- ⊕ Proposed drillhole 2012

Area of 2010/2011 drilling (Orion)



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**E80/4029**

**KILLI KILLI EAST**

**KILLI KILLI EAST PROSPECT**

**ROCK CHIP SAMPLE LOCATIONS (JUNE 2012)**

COMPILED BY	A. DAY	SCALE	1:5,000	<b>FIGURE</b>
DRAFTED BY	K.J. CORRIE	Proj.	ANGASA Zone 52	
REVISED		DWG No.		

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Rock chip sample location 2012