

Heavy Mineral Resource Potential at Granted Capel Tenement

HIGHLIGHTS

- **Capel Project tenement granted (E70/6372) – Previously held by Tronox (NYSE:TROX), a global, vertically integrated producer of titanium dioxide and inorganic chemicals**
- **Project prospective for Heavy Mineral Sands (HMS) and Silica Sand**
- **Potential for the Iluka Resources (ASX:ILU) Capel South Mineral Resource to extend into Pinnacle tenure, with Capel South holding a Measured Resource of 14.4MT at 8.8% HM¹**
- **Previous exploration² conducted by Iluka identified shallow HM mineralisation including:**
 - **21m at 3.3% HM from surface (RB007)**
 - **21m at 2.6% HM from surface (RB001)**
 - **18m at 2.2% HM from surface (RB003)**
- **Immediate focus on determining if the Iluka's Capel South Mineral Resource extends into Pinnacle's project area and testing Silica Sand potential**

Pinnacle Minerals Ltd (ASX: **PIM**) ("**Pinnacle**", the "**Company**") is pleased to announce that the Capel Project ("Project") tenement E70/6372 has been granted (28/02/2023), with a desktop study by IHC Mining highlighting the potential for both Heavy Mineral Sands (HMS) and Silica Sand mineralisation (Figure 1). Of particular interest is the potential for Iluka Resources' (ASX:ILU) ("Iluka") Capel South Mineral Resource to extend onto Pinnacle's project area.

The ground was previously held by Tronox Limited (NYSE:TROX), a global, vertically integrated producer of titanium dioxide and inorganic chemicals, with a US \$2b market capitalisation.

Previous, regional-scale exploration, conducted in 2010 by Iluka Resources limited, discovered moderate grade HM from surface (Figure 2 and Table 1). on a number of drill lines. PIM believes there is potential for defining cohesive mineralisation at a more local scale, sufficient for the delineation of an appreciable mineral resource, within the recently granted tenement.

Pinnacle plans to conduct a two-phase exploration program pending successful land access negotiations, which is expected to include a shallow hand auger program to test the Silica Sand potential and a "deeper" reverse circulation air core program to test previously identified (Iluka) HM mineralisation.

The granting of E70/6372 furthers the Company's strategy of diversifying its asset base and applying for complementary projects outside of the core kaolin projects.

Pinnacle Minerals Managing Director, Nic Matich, commented:

"Pinnacle has acted and continues to act, nimbly to expand its prospective project portfolio at minimal cost. The study conducted by IHC Mining highlighting the Silica Sands potential and for a possible extension to the Capel South Mineral Resource reaffirms our strategy. Whilst we are still focussed on developing our Kaolin Projects, Pinnacle continues to evaluate complementary projects with which to add value to the Company"

¹ Iluka Resource Perth Basin Mineral Resource Breakdown By District, Deposit and JORC Category at 31 December 2022

² Wamex Report Number – A97325

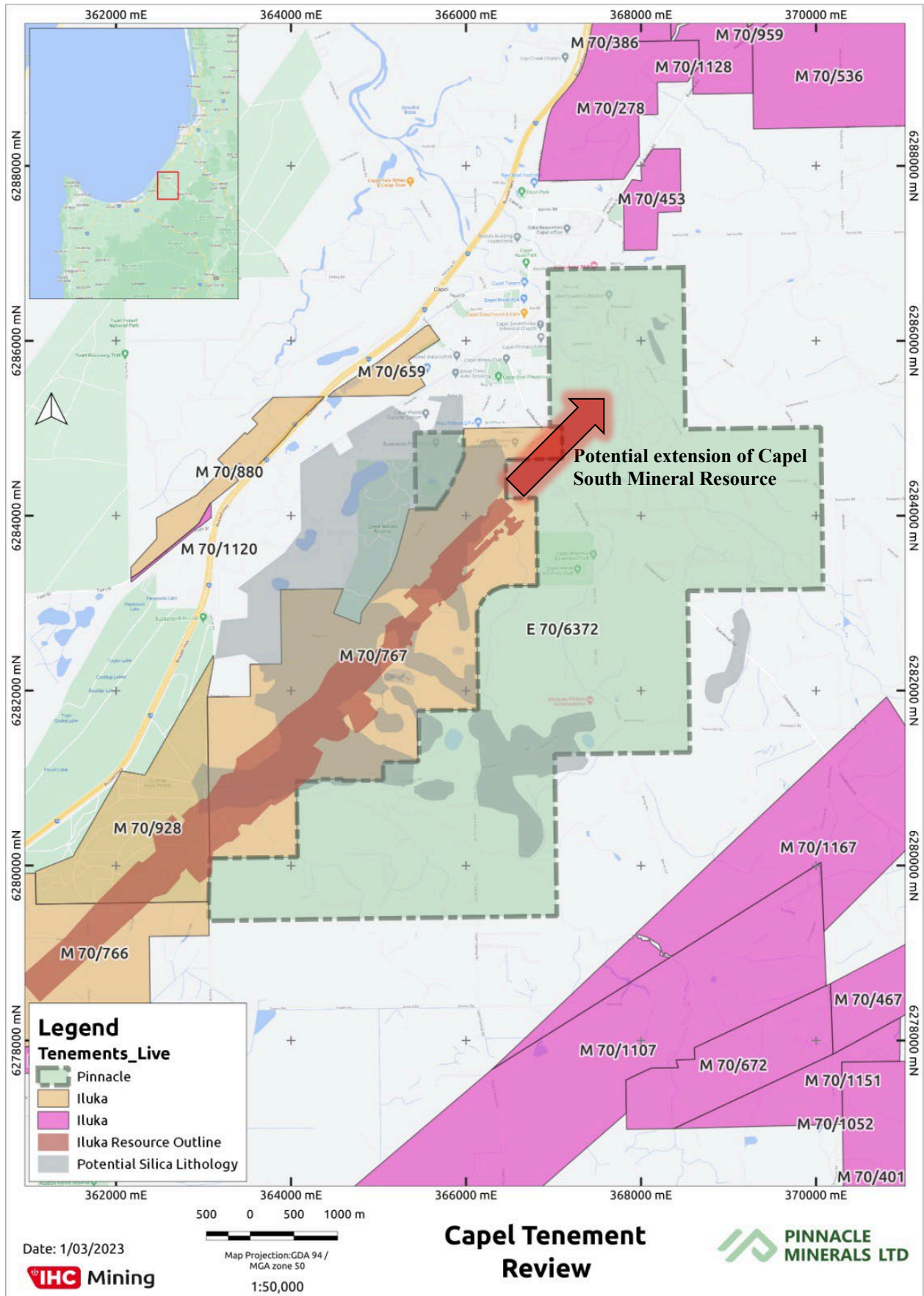


Figure 1: "Capel" Project Map highlighting Iluka South Capel HM Mineral Deposit and Silica Sand Potential.

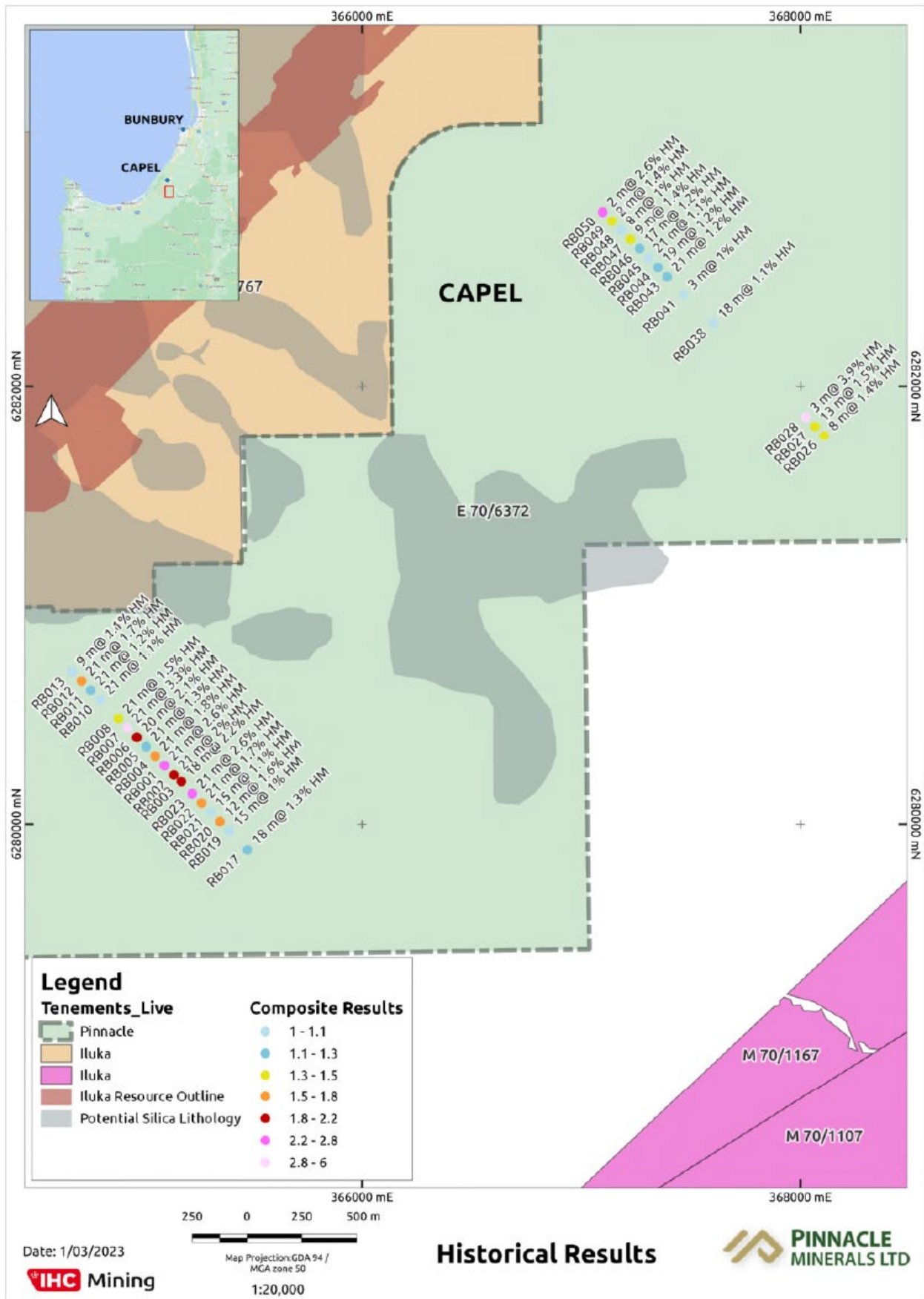


Figure 2: Historical exploration (Iluka)

Table 1: Summary of Composite Results from Previous Work (HM>0.5%)

BHID	FROM	TO	X	Y	Z	HM	SLIMES	OS	LENGTH
RB001	0	21	365099	6280268	24.8	2.6	22.6	3.9	21
RB002	0	21	365142	6280225	22	2	25.4	6.8	21
RB003	0	18	365176	6280195	22	2.2	28.6	5.2	18
RB004	0	21	365057	6280311	24.7	1.8	27.3	3.6	21
RB005	0	21	365015	6280354	24.5	1.3	21.7	3.1	21
RB006	0	20	364973	6280396	24.4	2.1	17.3	4.4	20
RB007	0	21	364931	6280439	24.2	3.3	16.3	3.2	21
RB008	0	21	364889	6280482	24.1	1.5	17.3	4.3	21
RB010	0	21	364805	6280567	23.9	1.1	19.4	3.6	21
RB011	0	21	364763	6280610	23.9	1.2	14.6	4.2	21
RB012	0	21	364721	6280653	23.4	1.7	24.1	2.2	21
RB013	0	7	364678	6280696	22.7	2.6	28.2	5.5	7
RB013	12	21	364678	6280696	22.7	1.1	14.1	1.6	9
RB017	0	18	365478	6279884	26.8	1.3	34.4	5.6	18
RB018	0	15	365436	6279926	26.9	0.8	33.5	4.2	15
RB019	0	15	365394	6279969	26.5	1	48.4	1.8	15
RB020	0	12	365352	6280012	26.2	1.6	51.9	4.4	12
RB021	0	15	365310	6280055	26	1.1	30	4.9	15
RB022	0	21	365268	6280097	25.8	1.7	26.7	3.4	21
RB023	0	21	365226	6280140	25.3	2.6	30	8.2	21
RB026	32	40	368108	6281773	28	1.4	9.4	1.6	8
RB027	0	10	368066	6281816	27	0.6	17.1	0	10
RB027	17	30	368066	6281816	27	1.5	24.2	1.3	13
RB028	30	33	368024	6281858	25	3.9	51.9	4.4	3
RB038	0	18	367603	6282286	22	1.1	25.1	2.4	18
RB039	0	18	367561	6282328	24	0.7	28.2	2.1	18
RB040	0	18	367519	6282371	25	0.9	23.1	5.5	18
RB041	0	13	367467	6282419	22	0.8	36.2	3.6	13
RB041	18	21	367467	6282419	22	1	9	0.6	3
RB042	0	21	367435	6282457	22	0.9	25.3	2.3	21
RB043	0	21	367392	6282499	22	1.2	27.1	2.7	21
RB044	0	19	367350	6282542	21	1.2	23.4	3.4	19
RB045	0	21	367308	6282585	21	1.1	21.6	3.3	21
RB046	0	17	367266	6282628	20	1.2	33.8	2.9	17
RB047	0	9	367224	6282670	20	1.4	51.3	7	9
RB048	0	8	367182	6282713	18	1	48.4	9.6	8
RB048	12	18	367182	6282713	18	0.5	4	0.3	6
RB049	0	9	367140	6282756	17	1.5	44.9	6.2	9
RB049	13	15	367140	6282756	17	1.4	3.7	-0.1	2
RB050	0	9	367098	6282798	16	0.9	34.2	2.9	9
RB050	13	15	367098	6282798	16	2.6	3.3	0.2	2
RB066	0	24	360707	6277176	14	1.7	25.4	1.7	24
RB067	0	21	360749	6277133	14	2	25.5	2.1	21
RB068	0	20	360792	6277090	14	2	16.7	2.2	20
RB069	0	21	360834	6277048	16	2	16.2	3.3	21
RB070	0	18	360876	6277005	15	2	22.5	3.1	18

This announcement has been authorised for release by the Board of Pinnacle Minerals Ltd.

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Competent Person Statement

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Richard Stockwell, a Competent Person who is a Fellow of The Australian Institute of Geoscientists (AIG). Richard Stockwell is a director of Placer Consulting. Richard Stockwell has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Richard Stockwell consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

About Pinnacle Minerals

Pinnacle Minerals Ltd (ASX: PIM) is an ASX listed technology minerals company focused on delivering shareholder value via the systematic exploration and development of its portfolio of kaolin, halloysite, magnetite and battery metals prospective projects in Western Australia and South Australia. The Company is focused on delineating resources at its advanced Bobalong and Holly Kaolin Projects in the Great Southern region of Western Australia whilst simultaneously expanding its' project portfolio through targeted acquisition of prospective ground. Drilling and a scoping study have been completed at Bobalong, with results indicating the potential for a high value direct shipping ore (DSO) product. The White Knight and Camel Lake Projects are strategically located adjacent to Andromeda Metals' (ASX: ADN) high-grade kaolin-halloysite discoveries in South Australia. The newly acquired Latham and Tammin projects are adjacent to Chalice Gold Mines (ASX: CHN) Mid-West Project and Anglo Americans' (Lon: AAL) Southwest Yilgarn Exploration Project respectively, which have multi-element exploration potential.

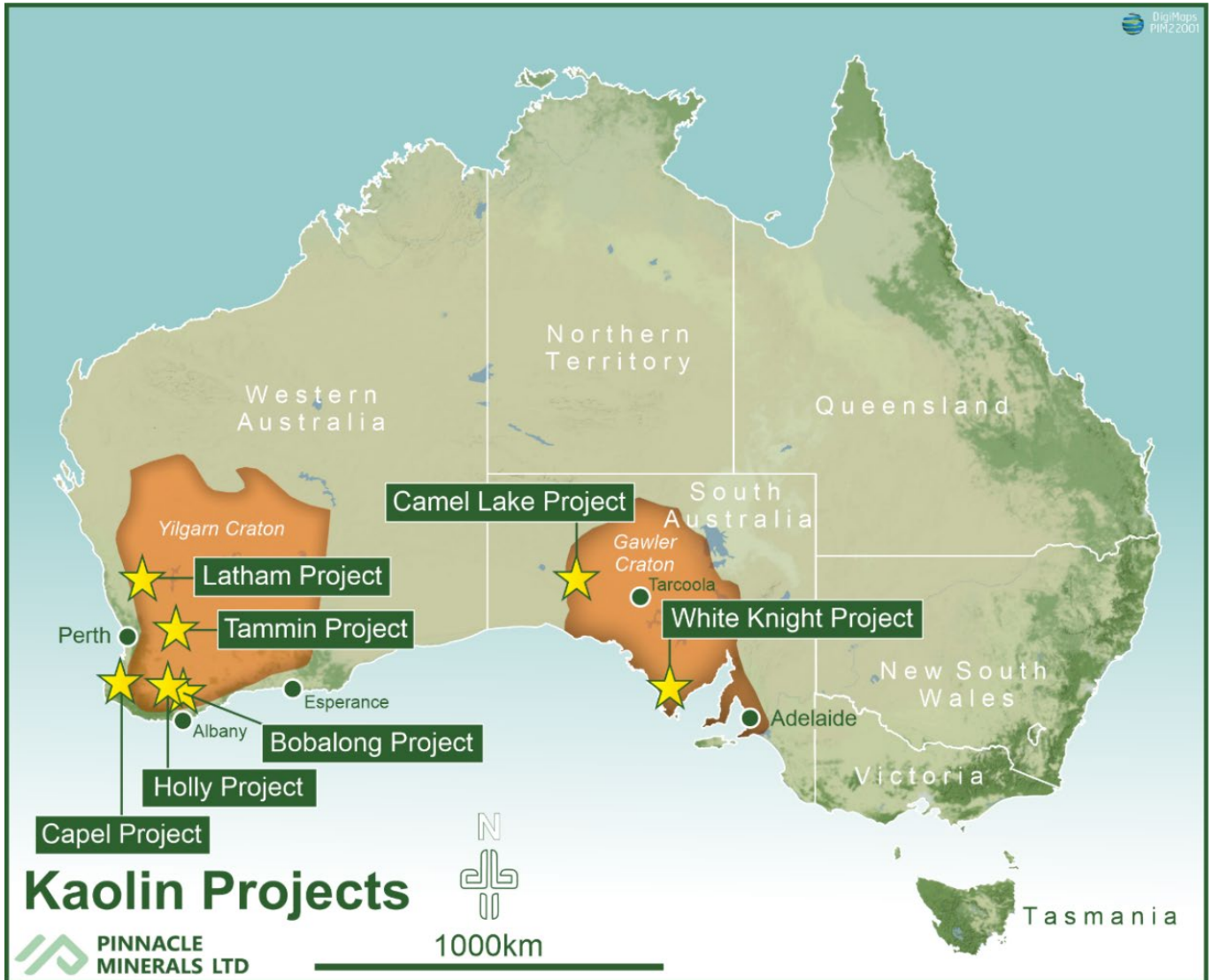


Figure 3: Pinnacle Minerals Projects' Location Ma

Section 1: Sampling Techniques and Data

Criteria	Explanation	Comment
<i>Sampling techniques</i>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	Sampling techniques, relating to the reported historic intersections, are by RC Aircore Drilling. A 25% sample sub-split is collected at a 1m down-hole interval, using an on-board rotary splitter mounted beneath the rig cyclone. All samples are logged for HM estimate and most samples were submitted for analysis.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Consistency in split sample weights is monitored via intermittent testing in the field and through recording of air-dried sample weights at the sample preparation stage.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	RCAC drilling is used to obtain the sample as described above. Samples were analysed by industry typical methods for heavy minerals at Iluka's internal laboratory. The sample was dried, de-slimed using wet sieving (material <53 µm removed) and then had oversize (material +2mm) removed. About 100g of the remaining sand fraction was sieved at 710µm to determine the coarse sand component. The fine sand (<710 µm) was then subjected to float/sink analysis using Lithium-Sodium-Tungsten (LST with SG=2.85g/cm ³). The resulting heavy sinks were then dried and weighed and the HM content of the sample was calculated.
<i>Drilling techniques</i>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	All samples are generated by RCAC drilling utilising ~76 mm diameter (NQ) air-core drill tooling. Drill holes are oriented vertically and approximate a perpendicular intersection of the mineralisation.

Criteria	Explanation	Comment
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Drilling utilises water injection to ensure fine material is retained and drilling progresses without blockage. There are no recorded intervals in the geology logs that indicate loss or contamination of samples. Sample weights also appear appropriate and representative of the intervals drilled. The configuration of drilling and nature of sediments encountered results in negligible sample loss.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Sample representivity is maintained by the use of a rotary splitter attached to the drill rig. Sample weights are monitored to ensure optimal representivity. Drilling was conducted to industry standards with suitably trained and qualified drilling operators. Typically, drill penetration is halted at the end of each sample interval to allow time for the sample to return to surface and be collected. Drilling proceeds once sample delivery ceases.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No relationship is believed to exist between grade and sample recovery. Sample size is well within the expected size range.
<i>Logging</i>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resources estimation, mining studies and metallurgical studies.</i>	Qualitative digital logs of geological characteristics are collected. Samples are panned in the field to determine dominant and secondary host materials characteristics and heavy mineral content.

Criteria	Explanation	Comment
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Logging of RCAC samples is qualitative and includes description of sample colour, lithology, grainsize, sorting, induration type, hardness, estimated rock and estimated HM. A comments field is employed to allow further description or interpretation of materials/formation/sample quality.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are logged in full and all samples with observed HM (and designated for assay) are assayed.
<i>Sub-sampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	All samples are unconsolidated and comprise sand, silt, clay and rock fragments.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Samples are taken at a 1m down-hole interval using the on-board rotary splitter set at 25% of the splitter cycle, which delivers about 1.5kg of sample. Drill samples are dried and split for analysis.
<i>Sub-sampling techniques and sample preparation, cont'd.</i>	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation techniques and QA/QC protocols are consistent with industry standard practice and appropriate for the heavy mineral determination.

Criteria	Explanation	Comment
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<p>Sample preparation is consistent with industry standard practice and is deemed to be appropriate for Heavy Mineral determination. The method processes the whole sub-sample.</p> <p>Quality control methods include field duplicate sampling and insertion of HM standards. Where error or bias is detected lab or drilling practice is investigated and appropriate measures are taken to ensure sampling representivity.</p> <p>Suitably trained staff are employed for all roles.</p> <p>Sample weight is recorded and monitored for outliers or spurious results. When these occur, they are investigated and re-assayed where fault is detected.</p> <p>Field Duplicate and standard sample geostatistical analysis is employed to manage sample precision and analysis accuracy.</p>
<i>Sub-sampling techniques and sample preparation, cont'd.</i>	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Sample size analysis is completed as discussed above. Field duplicates are collected for precision analysis of the rotary splitting system on the rig.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Given that the grain size of the material being sampled is sand and approximately 70 to 300 μm , an approximate sample size of 1.5 kg is more than adequate.
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Laboratory analysis was completed in-house by Iluka Resources. The technique is supported by extensive QA/QC practices and mining and reconciliation. The analysis is considered to be total.

Criteria	Explanation	Comment
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	None used.
<i>Quality of assay data and laboratory tests, cont'd.</i>	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	To maintain QA/QC, Iluka apply a duplicate and standard assaying procedure with both standards and duplicates submitted to the laboratory. No assessment has been made of QA/QC data by Pinnacle.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No verification of results is known.
	<i>The use of twinned holes.</i>	No twin holes have been identified or investigated.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field logging data are entered digitally in the field using ruggedized computer, believed to have on-board validation capability. Data are verified when incorporated in the database.
	<i>Discuss any adjustment to assay data.</i>	No assay adjustments are known.
<i>Location of data points</i>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.</i>	Drill holes were set out by qualified surveyors (usually Iluka company employees), using contemporary equipment at the time of the exploration programs. This provides collar set out accuracy stated at +/-0.5m or better in the X/Y/Z directions.
	<i>Specification of the grid system used.</i>	Drill holes were surveyed in MGA94, Zone 50.

Criteria	Explanation	Comment
<i>Location of data points, cont'd.</i>	<i>Quality and adequacy of topographic control.</i>	Topographic control was provided by the GPS_RTK survey drill collar set out.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	The drill data spacing is nominally ~1.5km North, 20m East, and 1m down hole.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resources and Ore Reserves estimation procedure(s) and classifications applied.</i>	Data spacing is considered appropriate for the reporting of historic exploration results.
	<i>Whether sample compositing has been applied.</i>	No sample compositing is known.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Sample orientation is vertical and approximately perpendicular to the dip and strike of the mineralization, which results in true thickness estimates. Drilling and sampling is carried out on a regular rectangular grid that is broadly aligned and consistent with the anisotropy of the mineralisation.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No apparent bias is known to arise from the orientation of the drill holes with respect to the strike and dip of the units drilled.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	No sample security measures are known.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews are known.

Section 2: Reporting of Exploration Results

Criteria	Explanation	Comment
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The historic exploration results are coincident with the granted Exploration Lease E70/6372. This licence is wholly owned by Pinnacle Minerals Limited. Upon mining, there is a customary 5%, state government royalty payable.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	There are no known impediments to the security of tenure over the area containing the reported exploration results.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	All reported results were completed by Iluka Resources Limited.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Exploration results are indicative of potential beach placer and aeolian (dunal) detrital heavy mineral sand deposits.

Criteria	Explanation	Comment
<i>Drill hole Information</i>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> ● <i>easting and northing of the drill hole collar</i> ● <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ● <i>dip and azimuth of the hole</i> ● <i>down hole length and interception depth</i> ● <i>hole length.</i> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>An intercept table of all drilling relevant to the exploration results are listed in the report.</p> <p>There are no further drill hole results that are considered material to the understanding of the exploration results.</p>
<i>Data aggregation methods</i>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p>	<p>Mineral intersections are reported, composited by length, at a 0.5%HM bottom cut.</p>
	<p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p>	<p>Intercepts are reported whole-of-hole above the bottom cut.</p>

Criteria	Explanation	Comment
<i>Data aggregation methods, cont'd.</i>	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents were used for reporting of exploration results.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	All drill holes are vertical and perpendicular to the dip and strike of mineralisation and therefore all intercepts are approximately true thickness.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Drilling indicates mineralisation is parallel with neighbouring deposits owned by Iluka Resources and parallel to the trend of paleo-beach successions.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to main body of the report.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Reporting of results is restricted to historical exploration results. Intercepts are disclosed in an unambiguous way.

Criteria	Explanation	Comment
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>Exploration and mining has occurred in the Southwest region of WA for decades and a familiarity and acceptance has grown with this. However, areas dominated by recent land purchase are likely to be somewhat reluctant or even refuse access for further work.</p> <p>Nature reserves and heritage sites are known in the region.</p> <p>Water and infrastructure supply is sufficient to support exploration and mining operations.</p>
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	A comprehensive review of previous exploration results is planned and from this, some confirmation and infill drilling will be completed at target sites most likely to deliver mineral resources.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to main body of report.