

21 November 2023

# KORSNÄS – A MAJOR REE DISCOVERY IN EUROPE

## **Highlights**

- Prospech has access to an extensive historic database with spectacular results
- The Korsnäs geologic database is maintained by the Geologic Survey of Finland (GTK)
- Database includes >50,000 metres of preserved core from ~500 diamond core drill holes
- Historic focus overlooked rare earth elements (REEs), targeting lead (Pb)
- Database has been reviewed, compiled and digitised by Prospech showing:
  - REE mineralisation along strike and at depth
  - $\circ~$  5 gravity anomalies which correlate with REE mineralisation
  - Gravity anomalies extend for more than 5 kilometres
- Drill core is being systematically logged and samples assayed:
- Phase 1 reported conclusions from 6 holes (14 June 2023):
  - Core from all holes returned REE assay results
  - Confirmed that REEs were historically partially or completely overlooked in assays and the database
  - $\circ~$  Identified REE mineralised zones distinct from the Korsnäs mine
- Phase 2 reported the logging of 40 holes and the compilation of partial historic REE assays (5 September 2023):
  - Confirmed that substantial intervals in the old core exhibiting robust REE mineralisation had not been previously sampled
  - Spectacular grades of up to 47,500 ppm TREO<sup>1</sup> reported
- Assay results from 366 samples taken from 40 holes in Phase 2 reported (24 October 2023):
  - Spectacular, thick, high-grade REE mineralisation of up to 27.6m @ 19,774 ppm TREO reported
  - $\circ\;$  Identified new zones of REE mineralisation to the east, west and along strike
  - Several holes ended in REE mineralisation
- Phase 3 a further 44 holes have been logged and 832 samples taken with assay results pending
- Phase 4 the next 132 holes has been identified for further sampling in November 2023
- Prospech will earn 100% ownership of the Korsnäs project on 30 November 2023

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<sup>&</sup>lt;sup>1</sup> The historical assay data is not always available for a complete set of Rare Earth Oxide (REO) assays. For instance, there are no assays for Praseodymium (Pr). The Total Rare Earth Oxide (TREO) reported above is the sum of the available REO assay elements which include La<sub>2</sub>O<sub>3</sub>, CeO<sub>2</sub>, Nd<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, and Y<sub>2</sub>O<sub>3</sub>.

Prospech Limited (ASX: PRS, 'Prospech' or 'the Company') is pleased to present a comprehensive update on its Korsnäs REE project located in Finland (Figure 1).



Figure 1. Korsnäs is located near an area geologically rich in critical minerals in Finland and proximate to the Neo Materials refining facility in Estonia.

Over the recent months, Prospech's geological team has diligently reviewed, assimilated and digitised an extensive repository of historical information sourced from the Geologic Survey of Finland (GTK) archive library. Preserved drill core has been examined and logged and, with the aid of a portable Xray fluorescence instrument, samples have been taken for assaying. Spectacular results from 397 samples taken by Prospech geologists from drill core from 46 holes have been received and reported (ASX announcements 14 June 2023 and 24 October 2023).

Assay results from 832 samples taken by Prospech geologists from drill core from 44 holes are eagerly awaited.

Prospech greatly benefits from the extensive database of historical geologic and mining information, with drilling data, including drill core, being the most crucial, complemented by geophysics. The data is securely preserved at GTK's facility in Loppi, access to which is highly sought after by exploration and mining companies operating in Finland.

Prospech geologists have successfully secured, and have been granted, three periods of access in April, August and September, spanning a total of five weeks. During these periods, Prospech geologists have meticulously examined drill core covering more than 18,000 metres and, where appropriate, took samples for assaying. Assay results from Phases 1 and 2 have been reported and assay results from Phase 3 sampling are pending.

It is evident that some of the shallow REE mineralisation is associated with linear gravity anomalies, possibly due to the softer and more easily eroded carbonate-hosted REE, which may have been influenced by glacial movements, creating troughs containing less dense, unconsolidated glacial till material.

Within the Korsnäs project area, five such gravity anomalies have been identified, with a total strike length exceeding 5 kilometres (Figure 2).



Figure 2. A map of the Korsnäs project displaying five negative gravity anomalies that correlate with shallow zones of REE mineralisation.

The REE potential of Korsnäs extends beyond the confines of the known gravity anomalies. It is not expected that deeper-seated mineralisation will give rise to gravity anomalies, however, it should also be noted that there is no assurance that the entire strike length of the gravimetric anomalies will report high-grade REE mineralisation.

Particularly noteworthy are geological intersections observed in drilling at the lower depths of the mine, beneath the old stopes, and drill holes that ended in mineralisation indicating a potential for substantial REE mineralisation at depth (Figure 3).



Figure 1. A long projection in the "plane of vein," showcasing the positions of the final mine stopes (mauve hatch), underground development (yellow and green solids) and pierce points of drill holes. The drill holes are colour coded based on priority status, with red and pink ones slated for inspection and sampling in upcoming Loppi sessions, yellow, blue and cyan drill holes have already undergone inspection and sampling, while black ones are not to be sampled as they correspond to mined-out areas.

The Company's review, assimilation and digitisation of the historical information preserved by GTK has enabled a detailed analysis of the potential for continuity of REE mineralisation to the north and south of the former mine and, as noted above, at deeper levels beneath the Korsnäs mine workings (Figures 4, 5 and 6).



Figure 4: Cross section through the Korsnäs mine fertile geology for REE mineralisation in drill holes below the mining levels and in another zone west of the mine which may correlate to previously reported, near surface, high-grade REE mineralisation in hole KR-289 18.3m @ 13,201 ppm TREO (ASX: 14 June 2023).



Figure 5: Cross section located south of the Korsnäs mine showing fertile geology for REE mineralisation in drill holes. Drill holes on this section are prioritised for inspection and sampling during next GTK session.



Figure 6: Cross section located north of the Korsnäs mine showing fertile geology for REE mineralisation in drill holes. Drill holes on this section are prioritised for inspection and sampling during next GTK session.

Beyond the availability of the drill core, the modernisation of this historical data has also empowered the Company to achieve several key milestones:

- Construction of a comprehensive drill database encompassing lithologies and assay data.
- Documentation of 299 surface diamond drill holes totalling 44,031 metres of drilling.
- Recording of 172 underground diamond drill holes totalling 6,549 metres of drilling.
- Development of a digital three-dimensional model portraying the historical Korsnäs Mine workings, including model of the final underground stopes as they existed when the mine ceased operations in 1972, confirming that historic mine workings account for only a minor portion of the overall REE resource potential (Figure 7).
- Generation of a 3D wireframe that illustrates the Korsnäs Pb deposit before mining (Figure 8).



Figure 7. Digitised 3D models of the Korsnäs mine underground workings (LHS) and final stopes as of mine closure in 1972 (RHS).



Figure 8. Wireframe model of the Korsnäs Pb mineralisation pre-mining.

Prospech has reserved, and been granted, additional periods at the GTK facility in November 2023, January, February and March 2024, amounting to a total of eight weeks. The plan for this time frame is to conclude the inspection and sampling of the Korsnäs drill core, which includes revisiting several holes requiring additional sampling.

Prospech Managing Director, Jason Beckton, remarks, "*The substantial repository of historical Korsnäs data and available core is a significant advantage for our project. For instance, the replacement cost for the >50,000 metres of drilling and associated processes alone is estimated to be around \$18 million.* 

The recently compiled comprehensive database, coupled with contemporary core sampling conducted by Prospech geologists and the subsequent Rare Earth Element assays, forms an excellent foundation for mineral resource estimation. We anticipate that only a limited number of historic drill holes will need to be twinned for JORC resource confirmation, and there may be a need for additional infill holes.

The examination of the newly digitised drill database and the development of a three-dimensional model for the mine, combined with Korsnäs community support access agreement (ASX announcement 4 October 2023), have resulted in the discovery of a major REE project in Europe."

### **About Prospech Limited**

Founded in 2014, the Company engages in mineral exploration in Slovakia and Finland, with the goal of discovering, defining, and developing critical elements such as rare earths, lithium, cobalt, copper, silver, and gold resources.

Prospech is taking steps to be a part of the mobility revolution and energy transition in Europe. The Company has a portfolio of prospective cobalt and precious metals projects in Slovakia and through its acquisition of the Finland Projects is in the process of acquiring prospective rare earth element (REE) and lithium projects. Eastern and Northern Europe are areas that are highly supportive of mining and have a growing demand for locally sourced rare earths and lithium. With the demand for these minerals increasing, Prospech is positioning itself to be a major player in the European market.

#### For further information, please contact:

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This announcement has been authorised for release to the market by the Board of Prospech Limited.

#### **Competent Person's Statement**

The information in this Report that relates to Exploration Results is based on information compiled by Mr Jason Beckton, who is a Member of the Australian Institute of Geoscientists. Mr Beckton, who is Managing Director of the Company, has sufficient experience which is 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 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Beckton consents to the inclusion in this Report of the matters based on the information in the form and context in which it appears.

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# JORC Code, 2012 Edition – Table 1 Korsnäs, Finland

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	The Finnish government facility in Loppi houses the historical core from the Korsnäs project. The core is of BQ and AQ sizes. Prospech sampling was conducted consistently within the specified intervals. For cores that were never sampled before, a ½-core sampling method was used, while for cores that had been previously sampled, a ¼-core sampling method was employed.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	Small diameter diamond drilling – approximately AQ and BQ size
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	Historic Core preserved at government GTK facility in Loppi
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	The complete core is to be relogged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	½ or ¼ core cut with a thin diamond blade (due to the small diameter of the core) At this early stage no QC samples have been collected
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. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Samples are stored in the Loppi relogging facility. Core in good condition.</li> <li>Assays will be carried out by ALS, an internationally certified laboratory.</li> <li>Historic assays obtained from paper logs have no record of the analytical methods used nor any record of QAQC procedures.</li> <li>However, where we have modern assays covering the same intervals as the historic assays, the agreement is good. (e,g, historic assay: 18.3m @ 13,201 ppm TREO from 51.7m). In the coming months there will be many more modern assays available, which will allow a better comparison.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	N/A.
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. Specification of the grid system used. Quality and adequacy of topographic control.	Hole locations determined from historical records and converted to ETRS-TM35FIN projection (EPSG:3067)
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	Only visible lead mineralisation was historically assayed. Prospech is targeting broader zones of REE mineralisation
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. 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 bias is believed to be introduced by the sampling method.
Sample security	The measures taken to ensure sample security.	Samples were collected by Company personnel, bagged and immediately dispatched to the laboratory by independent courier
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of the data management system have been carried out.

# Section 2 Reporting of Exploration Results

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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	Prospech Limited has entered into an earn-in agreement with the shareholders of Bambra Oy ('Bambra'), a company incorporated in Finland, to earn up to a 100% interest in Bambra and therefore, acquire Bambra's 100% interest in the Jokikangas REE project, the Korsnäs REE project and Saarenkylä lithium project in Finland ('Finland Projects'). Prospech's exclusive right to acquire 100% of Bambra is staged over 2 years with consideration being an initial payment of \$25,000 ('Exclusivity Payment'), a series of exploration and evaluation expenditures and the issuance of Prospech consideration shares.
		For the first year option, Prospech can earn a 51% interest in Bambra by the expenditure of \$100,000, including the Exclusivity Payment, on the exploration and evaluation of the Finland Projects and, if exercised by Prospech, the issue of 3 million fully paid ordinary shares in Prospech to the shareholders of Bambra ('First Option').
		For the second year option, subject to the completion of the First Option, Prospech can earn the remaining interest in Bambra, so as to own 100% of Bambra, by the expenditure of \$200,000 on the exploration and evaluation of the Finland Projects and, if exercised by Prospech, the issue of a further 3 million shares to the shareholders of Bambra.
		The laws of Finland relating to exploration and mining have various requirements. As the exploration advances specific filings and environmental or other studies may be required. There are ongoing requirements under Finnish mining laws that will be required at each stage of advancement. Those filings and studies are maintained and updated as required by Prospech's environmental and permit advisors specifically engaged for such

Criteria	JORC Code explanation	Commentary
		purposes. The Company is the manager of operations in accordance with generally accepted mining industry standards and practices. The Korsnäs project's tenure is secured by Exploration Permit Application Number ML2021:0019 Hägg and Reservation Notification VA2023:0040 Hägg 2
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The area of Korsnäs has been mapped, glacial till boulder sampled and drilled by private companies including and Outokumpu Oy.
Geology	Deposit type, geological setting and style of mineralisation.	45 degree dipping carbonatite veins within sub-horizontally foliated metamorphic terrain
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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.	Drill Hole Collar Information ETRS-TM35FIN projection (EPSG:3067)
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values chould be closely stated	A minimum sample length is 1m generally but can be as low as 0.15m is observed in historical sampling.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. 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 (en 'down hole length, true width not known').	In general the holes have intersected the mineralised zone nearly normal to the host structure – any exceptions to this are noted individually
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.	The location and results received for surface samples are displayed in the attached maps and/or tables. Coordinates are ETRS-TM35FIN projection (EPSG:3067)
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.	Results for all samples collected in the past are displayed on the attached maps and/or tables.
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.	No metallurgical or bulk density tests were conducted at the project by Prospech.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Prospech may carry out drilling Additional systematic sampling of the TSF is in planning