ALTAMIN

SUPPLEMENTARY: ANSTO TESTWORK FOR LAZIO PROJECT SUPPORTS FLOWSHEET FOR SOP, LITHIUM & BORON RECOVERY

Clarifying Announcement:

Altamin Limited provides supplementary information to the announcement below released on the 21 March 2025 being the addition of further technical information in relation to the testwork. In addition, the Company includes a JORC Code, 2012 Edition, Table 1 for Exploration Results and Competent Person statement, to the extent the testwork may be included under the definition of Exploration Results for purposes of ASX Listing Rule 5.7. There are no other material changes made to the announcement and the Company confirms that all statements contained in the announcement are correct and remain valid.

HIGHLIGHTS

- Testwork by Australian Nuclear Science Technology Organisation (ANSTO) demonstrates that a simulated Cesano C-1 brine closely matches actual well brine composition and behaviour, supporting its suitability for sulphate of potash (SOP) recovery using the flowsheet in the previous desktop study.
- ANSTO also evaluated technology options to extract lithium from the SOP barren liquor, including direct lithium extraction (DLE) technologies, and concluded that a conventional mechanical evaporation/precipitation method is the preferred approach as it offers significant environmental and technical benefits.
- The ANSTO testwork demonstrated the feasibility of producing technical-grade lithium carbonate and boron from the sulphate of potash (SOP) barren liquor.
- The potential boron by-product presents an opportunity to enhance the Lazio economics beyond what was originally envisaged in the Company's internal business plan.
- Future optimising flowsheet design will aim to achieve battery grade lithium carbonate purity.

Altamin's Interim Managing Director, Stephen Hills, commented:

"The review of lithium process technologies draws on ANSTO's more than 10 years' experience in flowsheet development for Li brine processes globally.

The findings reinforce the environmental and technical advantages of our proposed approach to lithium extraction using a conventional method and without the need for evaporation ponds.

We look forward to further optimising the flowsheet towards achieving a battery grade lithium product."

Altamin Ltd (ASX: AZI) (**Altamin** or the **Company**) is pleased to announce the outcomes of testwork performed by ANSTO for the Company's wholly-owned Lazio project.

Altamin engaged ANSTO to investigate the chemistry of the Cesano C-1 well brine with the primary objective to recover SOP and lithium carbonate (LC, Li_2CO_3) products. A secondary objective was to identify opportunities for also recovering a boron by-product from the process along the pathway to LC.

ANSTO reasonably reproduced the chemistry of the original Cesano C-1 well brine in a simulant and successfully demonstrated the precipitation of glaserite, an intermediate to SOP, to produce an evaporated liquor composition similar to that modelled in Altamin's previous desktop study.

Following the evaporation-precipitation process to produce SOP product, the minerals contained in the remnant SOP barren liquor are significantly concentrated.

The remaining minerals include lithium and boron which are Critical Metals as defined by the *EU Critical Raw Materials Act (2024).* The testwork investigated pathways for extraction of these valuable metals.

ANSTO demonstrated the recovery of boron from the SOP barren liquor and concluded that the value of the boron, as borax, was substantial relative to the contained lithium value. This highlights the opportunity to recover boron which was not factored into determining the cut-off grade for Lazio's Mineral Resource Estimate (MRE)[1].

The ANSTO results successfully demonstrate that a conventional flowsheet can produce technical-grade LC and a borax by-product from the SOP barren liquor.

Future optimising flowsheet design will aim towards increased impurity rejection aiming for battery grade LC purity.

This announcement is authorised by the Altamin Board.

For further information, please contact:

Stephen Hills	Erik Bergseng CFA®
Interim Managing Director	Investor Relations
info@altamin.com.au	+61 2 8350 0882

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TECHNICAL INFORMATION

Purpose of the testwork

Altamin approached ANSTO to investigate the chemistry of the Cesano C-1 well brine with the primary objective to recover SOP and Lithium Carbonate (LC, Li_2CO_3) products. A secondary objective was to identify opportunities for also recovering a boron by-product from the process along the pathway to LC.

The test work used simulant brines prepared by ANSTO representing the C-1 well composition and various derived process liquors characteristic of the SOP and LC production processes.

A desktop review of lithium extraction technologies was also requested to evaluate their suitability as applied to the Lazio project.

Background

Historic production tests at the Cesano geothermal field have shown that flashing of Cesano C1 well brine caused the dissolved salts, mostly glaserite, to precipitate in large quantities. In the previous desktop study for production of SOP utilising the C-1 well brine, the preferred approach from assessment of well brine composition considered the production of SOP and NaCl by adding purchased KCl, with recovery rates estimated to be 95% of potassium fed into the process.

In this process, KCl is added to provide a sufficient K:SO_4 ratio for formation of K_2SO_4. During evaporation of the brine Glaserite ($NaK_3(SO_4)_2$) is first precipitated which is separately converted to K_2SO_4 (SOP, filtered solid) and Na_2SO_4 (recycled solution).

[1] *See ASX release 21 June 2024 'Amended Announcement - Lazio Geothermal Lithium Project - Maiden Mineral Resource Estimate'.*

The previous desktop study concluded that the relatively small volume of water to be evaporated makes this processing pathway an attractive proposition. The amount of water condensate produced is likely to exceed the water consumption, rendering a positive water balance. Further, it was concluded that evaporation in the SOP process would concentrate lithium by a factor of ~13x in the SOP barren liquor which would increase efficiency of subsequent lithium extraction processes.

The conceptual process flow diagram is shown in Figure 1 below.

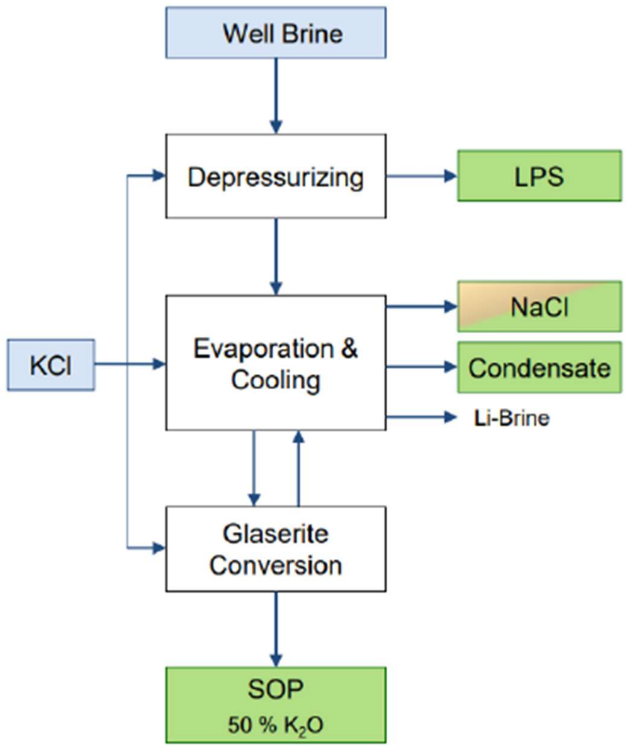


Figure 1: Flowsheet of Recovery of SOP from Cesano Brine

SOP Production Flowsheet & Validation of Received Data

ANSTO conducted test work to evaluate the accuracy of the reported brine composition and its behaviour under processing conditions. The results showed that the simulated well brine closely matched the actual well brine composition, confirming the reliability of previously reported data.

The C1 well simulant was prepared by dissolving the necessary salts in an excess of water at ~100°C. This solution was then evaporated by boiling at 100°C to the slurry mass required to produce the target concentrations, assuming all salts remained soluble.

This method of dissolution-evaporation was used to ensure that any insoluble salts would precipitate under conditions that more closely approximates that produced at the well head (~200°C), rather than being limited by the solubility of the salts used in the simulant preparation.

After evaporation to the target mass at 100 °C, the resulting slurry (of brine and precipitated salts) was cooled on the bench over several hours to ambient temperature. When the simulated brine was cooled, Glaserite formed, indicating that the real well brine would likely behave similarly when depressurised and cooled.

The liquor was analysed as it cooled, with the compositions produced compared to expected composition and target composition from the well head assays. Evaporation of the simulated brine resulted in a final liquid composition consistent with the previous desktop study, supporting the validity of the desktop model.

Upon cooling the simulant brine, the concentration of sodium (Na), potassium (K) and sulphur (S) all declined, whereas Li, B and Si concentrations remained relatively constant. The ratio of Na and K precipitation versus SO_4 precipitation strongly indicated that Glaserite has precipitated as the simulant cooled.

The testwork concludes it can be expected that Glaserite precipitation will result upon depressurising and cooling of the well brine prior to addition of KCl and evaporation.

To investigate the precipitation of Glaserite, a 25 wt% KCl solution was first added to the prepared well brine simulant (ambient temperature) to produce a stoichiometric ratio of K:SO_4 for K_2SO_4 (SOP) precipitation.

Lithium Carbonate Production Flowsheet & Boron Recovery

ANSTO assessed variations of the conventional evaporation-precipitation flow sheets for the recovery of LC from the SOP barren liquor described above.

It was noted that the boron concentration rose steadily with evaporation indicating it was not precipitating during evaporation. From this it was possible to calculate the amount of Na, K and SO_4 precipitating by tie to the boron concentration.

To recover Li from the SOP barren liquor by a conventional Li_2CO_3 (LC) precipitation process, it is necessary to evaporate the brine to a concentration well above the solubility of LC. ANSTO confirmed that a conventional evaporation-precipitation technology with a liming of the SOP barren liquor pathway is the favoured approach for producing technical-grade LC product.

Using this conventional approach, ANSTO demonstrated recovery of boron as a high-purity borax by-product. The economic value of the boron product[2] was calculated by ANSTO to be substantial relative to that of the contained LC.

The testwork demonstrated the precipitation of technical grade LC product from the boron barren liquor, with resulting levels of the major Na and K impurities considered typical of a technical grade LC produced from brine processing. ANSTO concluded that these impurities are manageable by proven prior treatment.

ANSTO's results demonstrate that a conventional flowsheet can produce technical-grade LC and a borax by-product from the SOP barren liquor, as shown in Figure 2 below.

[2] *Boron (US$158 /m3 as borax) in relation to Li (US$209 /m3 as LC) calculated from the spot prices of borax (700 USD/t) and LC (15,000 USD/t) and the target concentrations of B (25,594 mg/L) and Li (2622 mg/L) in the SOP barren liquor, assuming 100% recovery of both elements*

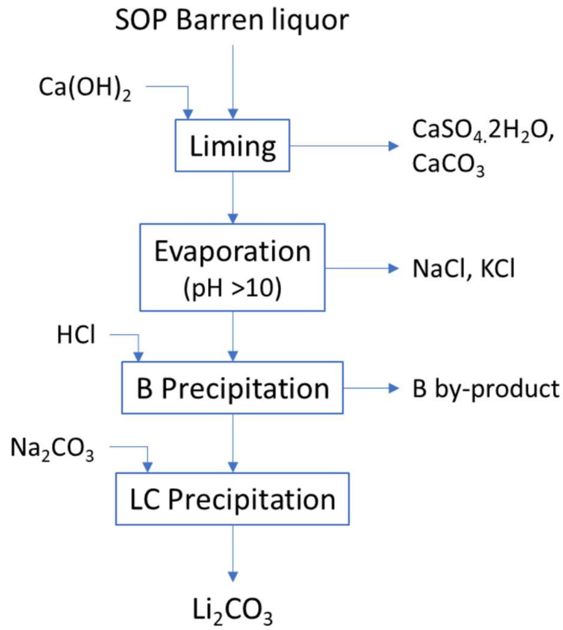


Figure 2: Flowsheet for Recovery of LC from SOP Barren Liquor

Desktop Review and Technology Assessment of Lithium Process Technologies

ANSTO undertook a desktop review of technology options for recovering LC from the SOP barren liquor, including direct lithium extraction (DLE) technologies.

The qualitative assessment of the technology options, as they relate to the Lazio project, provides support for the conventional evaporation-precipitation flowsheet approach. The flowsheet approach is considered excellent for the criteria of technology readiness, health and environment, and waste and water, and considered suitable with respect to lithium recovery, energy intensity and reagent usage.

Competent Person Statement

The information in this announcement that relates to Exploration Results is based on, and fairly presents, information and supporting documentation prepared or reviewed by Dr Marcello de Angelis, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) which is a recognised professional organisation. Dr de Angelis is a Director of Energia Minerals (Italia) Srl, Strategic Minerals Italia Srl and Lithium Italy Srl (controlled entities of Altamin Limited) and a consultant of Altamin Limited. Dr de Angelis is a consultant of the Company and has sufficient experience that is relevant to the technical assessment of the Exploration Results under consideration, the style of mineralisation and types 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". Dr de Angelis consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this release that relates to Mineral Resources for the Lazio Project is based on the Company's ASX announcement titled 'Amended Announcement - Lazio Geothermal Lithium Project - Maiden Mineral Resource Estimate' released to ASX on 21 June 2024. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the original market announcement continue to apply and have not materially changed.

Forward-looking Statements

This announcement may contain certain forward-looking statements including forecasts and estimates which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, contingencies, assumptions and other factors, many of which are outside the control of the Company all which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Forward-looking statements are inherently uncertain and may therefore differ materially from results ultimately achieved. The Company does not make any representations and provides no warranties concerning the accuracy of any forward-looking statements or likelihood of achievement or reasonableness of any forward-looking statements. Past performance is not necessarily a guide to future performance. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

About Altamin Limited

Altamin Limited is an ASX-listed mineral company focused on base and critical metals exploration and brownfield mine development in Italy.

For more information, please visit Altamin's website (www.altamin.com.au) and the ASX platform.

APPENDIX A – JORC CODE, 2012 EDITION Tables

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.* • *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.*	No sampling of geothermal brines has been undertaken by Altamin. The testwork the subject of the announcement used a laboratory-prepared simulated brine. Information on sampling techniques described in this Section 1 are as executed by previous explorers as described in the ASX announcement dated 21 June 2024 "Amended Announcement - Lazio Geothermal Lithium Project Maiden Mineral Resource Estimate" hereinafter "Lazio MRE": • Several consultants employed by independent geothermal consultancy STEAM Srl (STEAM), who co-authored the Lazio MRE, are geoscientists who worked on the Cesano project and have first-hand knowledge of the historical work in the 1970s/1980s. • The sampling methods described in Corsi et. al., 1980 as below, refer to the extensive historical exploration drilling undertaken by the previous explorers Enel. • Sampling was completed using a pressure-resistant bottle equipped with two valves. Initially (before sampling) the bottle is completely filled with silicone oil that has the same density of the brine to be collected and does not mix with it. The silicone oil filled bottle is connected to a port, equipped with a pressure gauge, either at the wellhead or at the liquid phase pipeline after the first pressure separator. Sampling was completed as follows: ○ The upstream valve is opened, and the brine enters the bottle, thus bringing it to the same pressure as that present in the pipeline ○ The downstream valve is then gradually opened, monitoring the pressure on the pressure gauge so that it remains as close as possible to the pipeline pressure ○ The silicone liquid flows out of the bottle and is collected in a container ○ As soon as the geothermal brine begins to flow out of the bottle, both valves are closed simultaneously ○ The bottle is disconnected and sent to the laboratory for chemical analysis. ○ Some samples were collected at the weir box, after flashing and

Criteria	JORC Code explanation	Commentary
		precipitation of both calcite and glaserite (Corsi et al. 1980). These brine analyses have been removed from the assessment. o All other reported analyses are referred to in this report and are as reconstructed bottom hole conditions representative of the aquifer.
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).*	Information on drilling techniques described in this Section 1 are as executed by previous explorers as described in the Lazio MRE: • General practice for each well was to start drilling with around an 18" (inch) diameter roller bit with bit diameter gradually reducing as depth increased with most holes finishing with around an 8½" production diameter (open). Steel casing was used for collar construct within which steel liners were inserted again to varying depths. Pressure cementing completed to seal off the variable aquifer zones. Neither casing nor liners were slotted. At or around the intersection of the carbonate sequence holes were left open. • Coring was not required or undertaken as the target was the reservoir brines themselves rather than the drill material itself.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximize 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.*	Information on drill sample recovery in this Section 1 is as executed by previous explorers as described in the Lazio MRE: • There is no detailed information on historical drillhole cutting sampling although it is very likely that cuttings were routinely collected at the well head and geological observations recorded immediately. Major facies and/or formation changes were accurately recorded in the well completion reports. • Drill sampling recovery is not applicable to the assessment of brine geochemistry.
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.*	Information on logging in this Section 1 is as executed by previous explorers as described in the Lazio MRE: • It is very likely that cuttings were routinely collected at the well head and geological observations recorded immediately. Major facies and/or formation changes were accurately recorded. • Geological observations recorded and retained are of a level of detail necessary to support appropriate Mineral Resource estimation and geochemical studies. • Drill holes were logged in their entirety.

Criteria	JORC Code explanation	Commentary
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.*	Information on sub-sampling techniques and sample preparation in this Section 1 is as described in the Lazio MRE: • Sub sampling techniques and sample preparation are not applicable to the assessment of brine geochemistry. • Samples are required to be collected under pressure and at high temperatures using the in-line silicone sampler as described above. This ensures that salts are not precipitated due to reduction in pressure or temperature. • Samples were collected at the weir box, after flashing and precipitation of both calcite and glaserite (Corsi et al. 1980). These brine analyses have been removed from the assessment. All other reported samples/analyses referred to in this report are as reconstructed bottom hole conditions representative of the aquifer.
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*	Information on quality of assay data and laboratory tests in this Section 1 is as executed by previous explorers as described in the Lazio MRE: • All brine assay results are historical and have been obtained from the referenced reports. These reports are peer reviewed published technical documents which have been relied on for scientific research and multimillion dollar geothermal development decisions. • Senior members of the STEAM technical team were involved with the site investigations by Enel and have provided supporting information in regard to sampling, analysis and QA/QC procedures used at the time. The data is considered adequate for use in mineral exploration reporting and forming a Mineral Resource estimate. • ENEL Laboratory based on Castelnuovo di Val di Cecina (Pisa) was used

Criteria	JORC Code explanation	Commentary
	established.	for all brine analysis. The analytical methods used in the laboratory were the same as those used in the International Institute of Geothermal Researches of the Italian National Council of Researches (IIGR-CNR). • Analytical methods were based on atomic absorption analysis of cations and metals. Specifically: ○ Li – Spectrometry of atomic absorption – sensitivity for 1 % absorbance = 0.04 mg/L – Limit of detection = 0.02 mg/l – Reproducibility = +/- 3% ○ K – Spectrometry of atomic absorption – sensitivity for 1 % absorbance = 0.04 mg/L – Limit of detection = 0.08 mg/l – Reproducibility = +/- 3% ○ SO_4 – Colorimetric and Turbidimetric Method – sensitivity for 1 % absorbance = 2 mg/L – Limit of detection = 0.2 mg/l – Reproducibility = +/- 3% • The analytical data produced by the ENEL laboratory are of high quality, typical analytical practices are used for quality control, such instrument calibration, daily preparation of standard solutions, analysis in duplicate of a congruous number of samples at, at least 10%.
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.*	Information on Verification of sampling and assaying in this Section 1 is as executed by previous explorers as described in the Lazio MRE: • Senior members of the STEAM technical team were involved with the site investigations by Enel and have provided supporting information in regard to sampling, analysis and QA/QC procedures used at the time. The data is considered adequate for use in mineral exploration reporting and forming a Mineral Resource estimate.
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.*	Information on location of data points in this Section 1 is as described in the Lazio MRE: • At the time of data collection the European Petroleum Survey Group (EPSG) published and used a database of coordinate systems including EPSG 4806 and 32633 which are listed in the Lazio MRE. These coordinates readily transform between the various EPSG grids and other recognised grids. It is a directive that all data lodged with the governing authorities are now submitted using UTEM coordinates projected onto the WGS84 ellipsoid, a metric system where coordinates are calculated in metres. As such data coordinates used in this report use WGS84 Zone 32N, although it is noted that the Lazio project area overlaps both Zone

Criteria	JORC Code explanation	Commentary
		32N and 33N. • Azimuths are true (grid) north. • Accuracy and quality of the survey data is sufficient for the purposes of Mineral Resource estimate. • Topographic control of the well head is available however, there is no requirement to apply any topography surface to the Mineral Resource estimate.
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.*	Information on data spacing and distribution in this Section 1 is as described in the Lazio MRE: • The Project has been assessed based on detailed validation of irregularly spaced Rotary drilling that intersected the underlying reservoir on an approximate 800m x 800m or less drill spacing in two areas, with step-out drilling linking these two areas at an approximate 2,000m x 2,000m spacing, and a further 2 holes drilled between 7,000m and 10,000m from its nearest neighbour. The well-pad locations were selected following interpretation of a number of geophysical datasets and then best sited to avoid surface cultural development. • The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimate. • Sample compositing has not 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.* • *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.*	Information on orientation of data in relation to geological structure in this Section 1 is as described in the Lazio MRE: • Drillholes are always orthogonal to the generally flat lying regional dip, such that downhole intercepts are a reflection of the true thickness. • Drill hole orientation has not introduced any sampling bias.
Sample security	• *The measures taken to ensure sample security.*	Information on sample security and distribution in this Section 1 is as described in the Lazio MRE: • The data is historical however, it is noted that the exploration activities and results being reported were collected and analysed entirely within Enel's organisation such that third party were not involved and thus sample security was at all times under the control of Enel.

Criteria	JORC Code explanation	Commentary
		• Enel Laboratory based on Castelnuovo di Val di Cecina (Pisa) was used for all brine analysis. The analytical methods used in the laboratory were the same as those used in the International Institute of Geothermal Researches of the Italian National Council of Researches (IIGR-CNR).
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Information on reviews of sampling techniques and data distribution in this Section 1 is as described in the Lazio MRE.

Section 2: Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

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 licence to operate in the area.*	• The Project is held under six granted Exploration Licences (ELs). located in the Cesano geothermal field approximately 30km NW of Rome. The Els, namely Campagnano, Galeria, Sacrofano, Cassia, Sabazia and Melazza are under the authority of the Regione Lazio. The Els are100% owned by a wholly owned Italian subsidiary of Altamin. • The Cesano C1 well, the chemical analyses of which are the basis used by ANSTO for preparing the simulant brine referred to in this ASX Release, is within the Melazza EL. • Parts of the ELs are granted over two European Environment Agency Conservation Areas which are part of the Natura 2000 protection areas network for the Birds and Habitats Directives. It is currently uncertain whether drilling or operational licences will be granted within these areas, however the resources identified may be accessed through directional and angled wells where necessary. • All ELs are valid at the time of this report and there are no known impediments to their renewal.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The ELs extend over the Cesano geothermal field which was investigated for geothermal energy to generate electricity by Italian state power company, Enel, in the 1970s and 1980s. The Cesano geothermal field is the south-eastern part of a much larger regional geothermal district which extends northwest into Tuscany, where Enel's geothermal plants have operated continuously since geothermal power generation was pioneered there in 1911. • From 1974 Enel investigated the Cesano geothermal field for geothermal power

Criteria	JORC Code explanation	Commentary
		generation only. • Several of the consultants employed by independent geothermal consultancy STEAM Srl (STEAM) who co-authored the Lazio MRE are geoscientists who worked on Enel's Cesano project and have first-hand knowledge of the geological data and the technical aspects of this historical work. During their geothermal exploration activities thirteen (13) wells were drilled within the confines of Altamin's tenement areas, two (2) wells a short distance from the tenement boundary, and one (1) well some 10 km to the northwest of the tenements, for a total of sixteen (16) wells. Five (5) of these wells have been flow tested.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The ELs are located in the eastern sector of the large Quaternary Sabatini Volcanic complex, characterized at surface by collapsed calderas, several volcanic centres, mainly calderas and scoria cones. These volcanics blanket the surface to depths of many hundreds of metres. They are underlain by unconsolidated clay and sand which may be locally absent, a thick and impermeable flysch complex of between 200 m to over 1,000 m, and finally a sedimentary carbonate complex of mostly limestone which can exceed over 1,000m thickness. The regional metamorphic basement was not encountered although expected to be at some depth. • Hydrologically the volcanic permeable blanket contains the shallowest fresh aquifer, which is of no geothermal interest. The groundwater is generally cold with low salinity while hotter zones are encountered infrequently at deeper locations within the shallow aquifer. The sand, clay, and Allochthonous flysch sediments are of generally low permeability and act as an aquitard, hydraulically separating the shallow aquifers from the deep geothermal system. The underlying carbonate rocks are permeable due to fracturing, contain fluids under pressure and are generally at very high temperatures. The carbonate acts both as a regional and local geothermal reservoir. The fluids contained within the reservoir are brines of hypersaline salinity that are elevated in several elements including lithium, boron and potassium. • Geological logging indicates the top of the reservoir (top of the carbonate) is approximately 1,600m beneath ground surface locally rising further 400m to the surface within the permeable volcanic pipes associated with the calderas. Drilling indicates that the bottom of the reservoir may be deeper than 3,000m beneath the surface however, water inflows to the wells are not observed any deeper than 2,700m from surface which is taken conservatively as the bottom

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>of the reservoir. The surface extent of the reservoir is taken as the area of the ELs lying within a 5,000m radius from wells with chemical analyses.
• Higher grade brines are associated with areas both elevated in temperature and volcanic pipe emplacement. The high-grade shell is restricted to an area where high temperature, volcanic pipes and drill density is at its greatest development, whilst the surrounding medium and low-grade shells are confined to areas of interpreted volcanic pipes. A background grade observed in wells drilled in areas of lower temperature and less volcanism is ascribed to all other parts of the model.</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 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.</td><td>• Historical drill hole information for the Cesano C1 well, which was included in the Lazio MRE and is relevant to this ANSTO testwork in this ASX Release is shown in Table 1 below.
<table>
<tr><th>Well</th><th>Easting (m) WGS84 32N</th><th>Northing (m) WGS84 32N</th><th>Elevation (mRL)</th><th>Azimuth (°)</th><th>Dip (°)</th><th>Total Drilled Depth (m)</th><th>Tested Interval Depth from (m)</th><th>Tested Interval Depth to (m)</th><th>Tested / Sampled Geology</th></tr>
<tr><td>C1</td><td>777388</td><td>4666779</td><td>255</td><td>0</td><td>-90</td><td>1,435</td><td>1,380</td><td>1,435</td><td>Argellite/ Carbonate</td></tr>
</table>
Table 1 – C1 Well Collar Table
• A summary of all information material to the understanding of the historic exploration results, including a tabulation of the following information for all material drill holes is included in the Lazio MRE announcement.</td></tr>
<tr><td>Data aggregation methods</td><td>• 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.
• 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</td><td>• The chemical data is drawn from various referenced sources reported in the Lazio MRE which summarize analytical data acquired during the short and long production tests with the aim of evaluating the geothermal potential of the Cesano wellfield and nature of the contained fluids and gases.
• The standard unit for minerals in brine reporting is mg/l and all results are considered representative of bottom of hole conditions.
• A standardized set of analyses for the Cesano C1 well, which was included in the Lazio MRE and is relevant to the ANSTO testwork in this ASX Release is presented in Table 2 below.</td></tr>
</table>

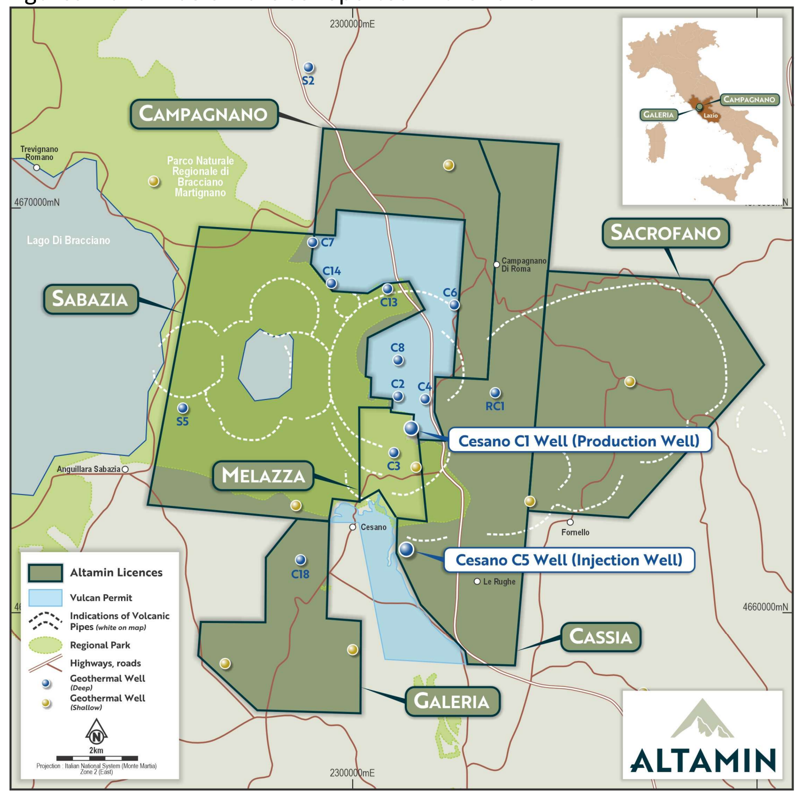
Criteria	JORC Code explanation	Commentary
	equivalent values should be clearly stated.	Table 2: Reported Brine Assays (see below)

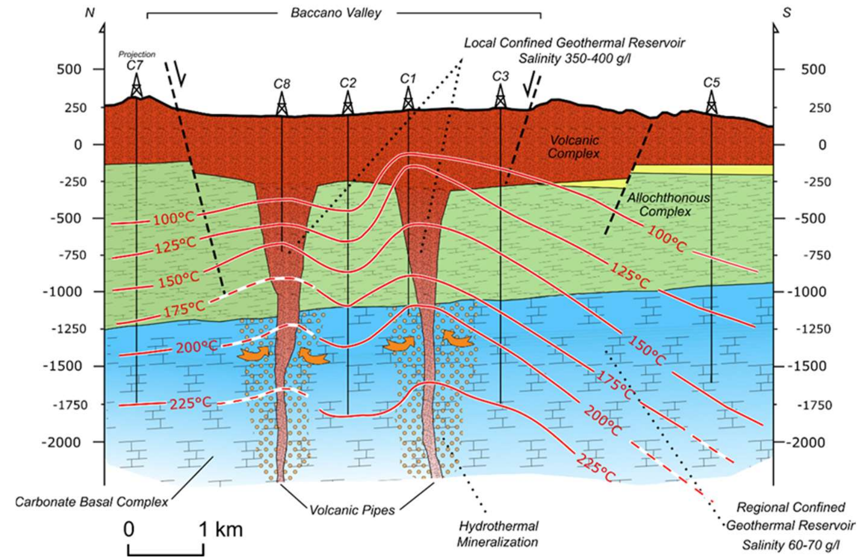
Well	C1	C1	C1	C1	C1	C1	C1	C8	C8
Unit	mg/l	mg/l	ppm*	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Reference	Private communication Source STEAM)	Baldi et al., 1982	Allegrini et al., 1986	Personal 1990 (Source STEAM)	Report HSE (Source STEAM)	Corsi et al., 1980	Allegrini et al., 1980	Baldi et al., 1982	ENG-ENALT 1C 1981
Total dissolved solids (TDS)	350,000	390,000	314,000	-	310,000	364,000	-	400,000	370,000
Ca++	110		371	146	366	200	208		
Mg++	15		6.9	14	6.4	30	27.1		
Na+	57,000		54,800	61,000	53,800	60,000	51,000		
K+	77,000		78,340	88,000	79,400	80,000	64,000		
Li+	180		163	250	158	220	165		
Cs+	62		57.6	-	55.4	30	42		
Rb+	350		285	-	296	400	280		
Fe++(+)+++	-		-	-	4.5	-	4.5		
NH_4+	100		11	-	11	-	90		
As+++	5		1.2	-	-	15	4.3		
Cl-	27,000		22,100	28,000	22,100	27,500	20,000		
SO_4--	180,000		151,600	192,250	147,400	186,000	140,000		
NH_3(total)			-	-	-	-	86		
Boron as H_3BO_3	7,000		6,200	8,641	6,910	7,500	-		
SiO_2	130		55.2	-	33	120	113		
pH	7.5		-	8.1		-	-		
F-		-		-		55	66		

Note: the chemical analysis is considered to be bottom of hole representative of the aquifer conditions. The exception * analysis is from post flash sampling and require flash correction to normalize. Ppm is converted to mg/l by multiplying by the specific gravity of the fluid.

Table 2: Reported Brine Assays

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Well</th><th>C4</th><th>C5</th><th>C5</th><th>RC1</th><th>RC1</th><th>C7</th><th>C7</th></tr>
<tr><td>Unit</td><td>mg/l</td><td>mg/l</td><td>mg/l</td><td>mg/l</td><td>mg/l</td><td>ppm</td><td>mg/l</td></tr>
<tr><td>Reference</td><td>Baldi et al., 1982</td><td>Conti et al., 1980</td><td>Baldi et al., 1982</td><td>Conti et al., 1980</td><td>Baldi et al., 1982</td><td>Conti et al., 1980</td><td>Baldi et al., 1982</td></tr>
<tr><td>Total dissolved solids (TDS)</td><td>137,000</td><td>101,000</td><td>112,000</td><td>167,376</td><td>243,000</td><td>65,787</td><td>78,500</td></tr>
<tr><td>Ca++</td><td></td><td>9.5</td><td></td><td>60.36</td><td></td><td>9</td><td></td></tr>
<tr><td>Mg++</td><td></td><td>6</td><td></td><td>10.69</td><td></td><td>trace</td><td></td></tr>
<tr><td>Na+</td><td></td><td>22,000</td><td></td><td>52,142</td><td></td><td>13,500</td><td></td></tr>
<tr><td>K+</td><td></td><td>15,800</td><td></td><td>33,833</td><td></td><td>12,000</td><td></td></tr>
<tr><td>Li+</td><td></td><td>80</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Cs+</td><td></td><td>62</td><td></td><td>-</td><td></td><td>-</td><td></td></tr>
<tr><td>Rb+</td><td></td><td>116</td><td></td><td>-</td><td></td><td>95</td><td></td></tr>
<tr><td>Fe++(+)+++</td><td></td><td>7.2</td><td></td><td>-</td><td></td><td>-</td><td></td></tr>
<tr><td>NH_4+</td><td></td><td>206</td><td></td><td>31.17</td><td></td><td>-</td><td></td></tr>
<tr><td>As+++</td><td></td><td>440</td><td></td><td>-</td><td></td><td>295</td><td></td></tr>
<tr><td>Cl-</td><td></td><td>26,530</td><td></td><td>17,313</td><td></td><td>20,980</td><td></td></tr>
<tr><td>SO_4--</td><td></td><td>24,450</td><td></td><td>76,638</td><td></td><td>7,796</td><td></td></tr>
<tr><td>NH_3(total)</td><td></td><td>29.41</td><td></td><td>528.5</td><td></td><td>-</td><td></td></tr>
<tr><td>Boron as H_3BO_3</td><td></td><td>11,265</td><td></td><td>7,892</td><td></td><td>9,499</td><td></td></tr>
<tr><td>SiO_2</td><td></td><td>133</td><td></td><td>140</td><td></td><td>200</td><td></td></tr>
<tr><td>pH</td><td></td><td>7.95</td><td></td><td>8.35</td><td></td><td>-</td><td></td></tr>
<tr><td>Sb</td><td></td><td>-</td><td></td><td></td><td></td><td>16</td><td></td></tr>
</table>
Note: the chemical analysis is considered to be bottom of hole representative of the aquifer conditions. The exception * analysis is from post flash sampling and require flash correction to normalize. Ppm is converted to mg/l by multiplying by the specific gravity of the fluid.
Table 2 continued
• ANSTO prepared simulant brine to represent the average of the 8 reported Cesano C-1 well compositions contained in Table A of this ASX Release.
• Where appropriate, ANSTO converted chemical values to mg/L using measured liquor density (1.21 g/mL).
</td></tr>
<tr><td>Relationship between mineralisation widths and intercept lengths</td><td>• 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 (e.g. ‘down hole length, true width not known’).</td><td>• The Lazio MRE provides commentary that the historical drilling is nearly always orthogonal to the bedding it is reasonably assumed that down hole lengths and/or intervals of screening or brine production intervals are substantially true widths.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
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.*	• Figures 1 and 2 below are as reported in the Lazio MRE:  **Figure 1: Lazio project plan view map showing the Cesano C1 well location**

Criteria	JORC Code explanation	Commentary
		 **Figure 2: N-S Geological section through the conceptual model of the Cesano Geothermal Field**
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.*	• The outcomes of the ANSTO testwork are reported in a balanced manner.
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.*	• There is no other relevant exploration data.
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or*	• Further work to validate a conventional evaporation–precipitation flowsheet will investigate ways to maximise the concentration of lithium and boron prior

Criteria	JORC Code explanation	Commentary
	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.*	to their precipitation, maximise their recoveries and optimise flowsheet design towards increased impurity rejection aiming for battery grade LC purity. • This ASX release is not reporting areas of possible extensions.