MORELLA CORPORATION

ASX Announcement

22 December 2022

North Big Smoky – CSAMT Survey

Controlled Source Audio-frequency Magnetotelluric (CSAMT) geophysical survey completed at North Big Smoky

Modelling shows a high conductivity anomaly starting below 700 metres depth

Overview

Morella Corporation Limited (**ASX: 1MC "Morella" or "the Company"**) is pleased to announce the results of the recently completed geophysical survey work and modelling at its North Big Smoky (NBS) project in Nevada. The survey has identified a high conductivity zone in the project area that is now subject to further investigation.

Morella Managing Director, James Brown said:

"*The results support the confidence we have in the Nevada area and the growth potential at North Big Smoky and nearby Fish Lake Valley with both projects being pushed along the evaluation pipeline. We firmly believe that Nevada will play a pivotal role in the development of the North American lithium supply chain. Given Morella's increasing land position, and positive results to date, our aim now is to grow our footprint in Nevada where possible to eventually create a regional development hub.*"

CSAMT Survey

Morella commissioned KLM Geophysics Inc (KLM) to complete a CSAMT survey within the NBS project area, which is located approximately 50 km south of Austin in Nye County, Nevada (see Figure 1). KLM completed the survey over 5 days along a single 2.5 km long survey line planned by Morella within the North Big Smokey claims. Resource Potentials Pty Ltd (ResPot) then processed and interpreted the CSAMT data.

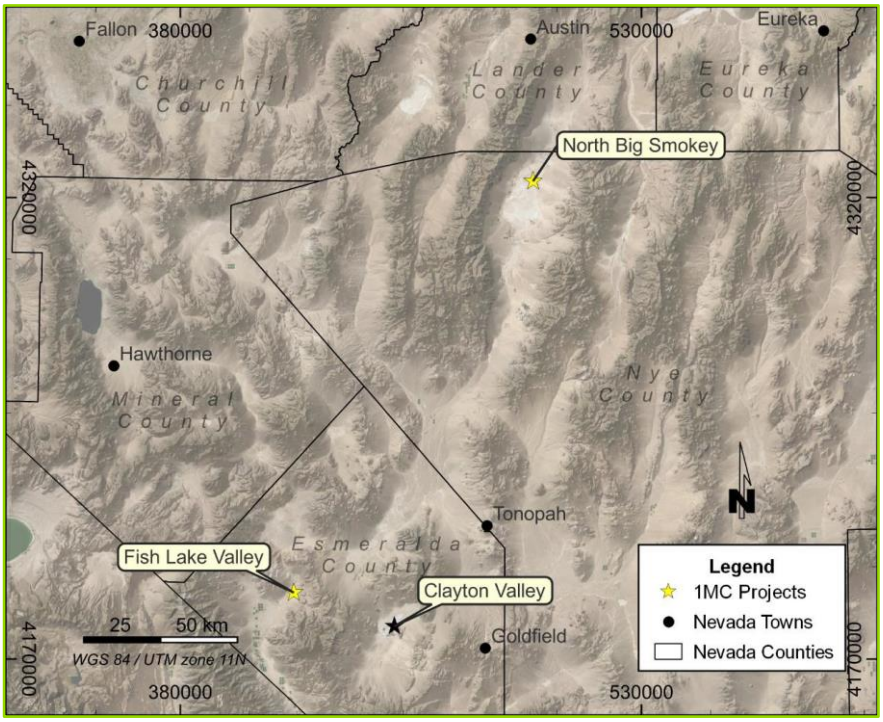

Figure 1: Locality Map

CSAMT data was acquired using a Phoenix RXU-8A 5-channel EM receiver system with non-polarisable electrodes located every 50 m along the survey line to create 50 m long electric field dipoles (Ex), and Phoenix MTC-180 magnetic field sensors located at 250 m intervals along the survey line and oriented orthogonal to the direction of the survey line (Hy) (see Figure 2).

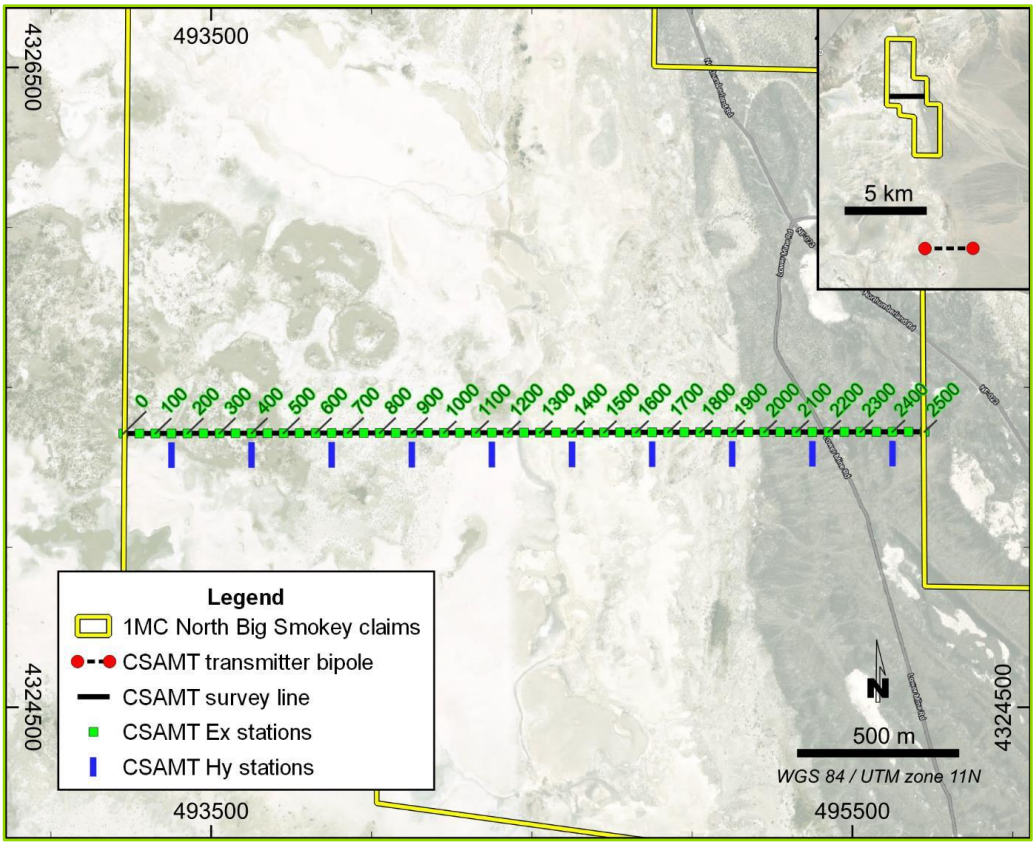

Figure 2: CASMT Line

A grounded transmitter bipole was established in a broadside configuration (i.e. parallel to the survey line orientation) approximately 9.8 km SSE of the CSAMT survey line (see inset-Figure 2). The grounded bipole was energised using a Phoenix TXU-30A transmitter/controller system with a 30-kW trailer-mounted motor generator, and with a sinusoidal transmitter waveform covering 54 transmitter frequencies geometrically increasing from 1 Hz to 10,000 Hz.

CSAMT Results

Both ResPot and KLM 2D resistivity models of the CSAMT data indicated a deep and high conductivity anomaly starting from approximately 700 m (see Figure 3) below the eastern part of the CSAMT survey line, which may be caused by brines at depth or conductive lithology. Areas of high conductivity are shown as hotter colours (orange to purple) and areas of lower conductivity (greater resistivity) are shown as cooler colours (white to blue). Black arrows indicate changes in surface soils observed in satellite imagery.

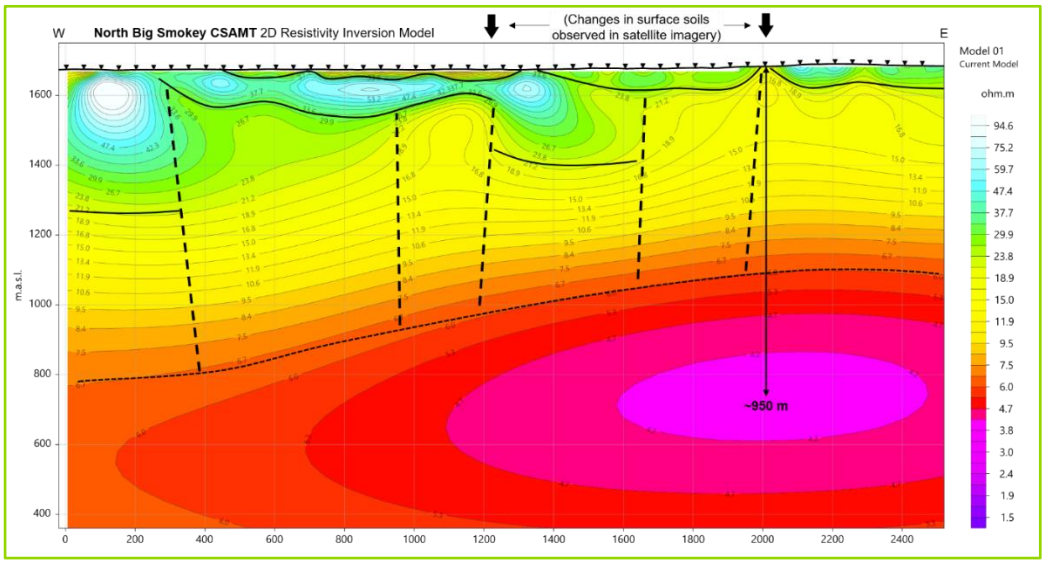

Figure 3: 2D resistivity inversion model cross section generated using CGG Geotools

Next Steps

- Passive seismic (PSS) horizontal-to-vertical-spectral ratio (HVSR) in order to generate a map of depth to acoustic bedrock, which can be used to assist identification of structures within the project area and tie-in conductive anomaly features with estimated bedrock depths.
- Further Magnetotelluric geophysical surveys over the remaining claim area after the PSS work has been completed to help model the conductive source.

Contact for further information.

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This announcement has been authorised for release by the Board of Morella Corporation Limited.

About Morella Corporation Limited Morella is an exploration and resource development company focused on lithium and battery minerals. Morella is currently engaged in exploration activities on two project opportunities, strategically located, in Tier 1 mining jurisdictions in both Australia and the United States of America. Morella will secure and develop raw materials to support the surging demand for battery minerals, critical in enabling the global transition to green energy.

Competent Person's Statement The information in this report that relates to Exploration Results is based on information compiled by Mr Duncan Storey, who is a Chartered Geologist with the Geological Society of London (an RPO defined by JORC 2012). Mr Storey is an independent consultant engaged by Morella Corporation and has sufficient experience with the exploration and development of mineralised brine deposits 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 Storey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 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.*	No sub-surface sampling or brine sampling has been undertaken with the current works. Data collection ("sampling") is limited to Constant Source Audio Magnetotelluric (CSAMT) geophysical survey, using a Phoenix Geophysics RXU-based acquisition system. A total of 2.5km of CSAMT survey over a single line was completed. CSAMT data were acquired using a Phoenix RXU-8A 5-channel EM receiver system with non-polarisable electrodes located every 50 m along the survey line to create 50 m long electric field dipoles (Ex), and Phoenix MTC-180 magnetic field sensors located at 250 m intervals along the survey line and oriented orthogonal to the direction of the survey line (Hy) A grounded transmitter bipole was established in a broadside configuration (i.e. parallel to the survey line orientation) approximately 9.8 km SSE of the CSAMT survey line. The grounded bipole was energised using a Phoenix TXU-30A transmitter/controller system with a 30-kW trailer-mounted motor generator, and with a sinusoidal transmitter waveform covering 54 transmitter frequencies geometrically increasing from 1 Hz to 10,000 Hz.
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).*	No drilling has been undertaken.
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.*	No drill samples have been collected
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.*	No geological data have been logged
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.*	No sampling has been undertaken

Criteria	JORC Code explanation	Commentary
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.*	No assays have been undertaken.
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.*	No assays have been undertaken
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.*	• MT survey points were set out with handheld GPS. • The WGS 84 datum and UTM Zone 11N projection grid system has been used. • No other topographic control was used.
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.*	• MT data was collected from stations at 50m spacing. • The spacing is adequate to support interpolation of sub-surface brine conductivity where the brine is hosted in regional sedimentary basin aquifers. • Notwithstanding adequate data-spacing, in the absence of sub-surface sampling, no mineral resource estimation is supported.
Orientation of data in relation to geological structure	• *Whether the orientation of the sampling achieves unbiased sampling of possible structure 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.*	Geophysical survey line were oriented east-west perpendicular to the strike of the basin axis.
Sample security	• *The measures taken to ensure sample security.*	No samples were collected.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	CSAMT data was subject to review by independent geophysical consultant, Resource Potentials Pty Ltd. All data were found to be of good quality.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *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 North Big Smoky Project is located in Nevada, USA and comprises 178 claims over an area of ~14km$^{2.}$ The tenements are held by Lithium Corporation, Morella entered into an earn-in agreement with Lithium Corporation in July 2022, whereby Morella has the right to earn a 60% interest in the project, with options to acquire 100% interest. The claims are in good standing, with payments up to date with the US Bureau of Land Management. There are no known impediments to maintain the claims and operate in the area. **Tenement ID** — **Location** NV105765895 ---NV105766072 — Nevada USA
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Lithium Corporation has conducted exploration and evaluation activities at NBS and has identified anomalous lithium targets. Sediment sampling, followed by a short gravity geophysical survey and sub surface brine sampling from the immediate subsurface, and loosely defined a North Westerly trending structure.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Big Smoky Valley is a Tertiary through Quaternary unconsolidated sediment filled basin, with geothermal fluids common in range bounding faults, and/or faults within the basin. The basin is filled with sediment weathered from the bounding Toiyabe and Toquima Ranges.

Drillhole 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.*
		No drilling has been undertaken on the North Big Smoky deposit

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 should be clearly stated.*	No grade results have been reported.

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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 (eg 'down hole length, true width not known').*	No intercepts or brine reservoir geometry is reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Plans, cross sections and 2D subsurface modelling are presented in the release.
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.*	All CSAMT data have been presented and balanced reporting completed.
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.*	Non-invasive investigations are progressing and there are no other substantive exploration activities.
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.*	CSAMT survey to be conducted over the remainder of the project area PSS work to be carried out on the project area and will be processed, modelled and combined with all CSAMT work. Drill targets will then be defined.