ASX ANNOUNCEMENT

6 June 2018

CSAMT GEOPHYSICAL SURVEY RESULTS CONFIRM EXTENSIVE BRINE POTENTIAL AT HOMBRE MUERTO

- **Resistivity survey completed covering ~10km of the Los Patos delta**
- **All lines interpreted to contain very conductive and shallow horizons that are consistent with geological units saturated with brine**
- **Interpreted brine layers range from ~150-400m+ thickness**
- **Results constitute great potential for further exploration**
- **Geological mapping greatly increases knowledge and confidence in the Company's model**
- **The Hombre Muerto Basin is one of the most globally prolific salt flats, hosting one of the lowest content levels of impurities in the industry**
- **Project is adjacent to Galaxy Resources' Sal de Vida project and FMC's Fenix lithium operations (which has been in operation since 1997)**

Dempsey Minerals Limited (ASX:DMI) (**Dempsey** or **the Company**) is pleased to announce the results from a CSAMT (Controlled Source Audio-frequency Magnetotellurics) survey recently conducted over the company's Hombre Muerto Lithium Project (**the Project**) located in Catamarca Province, Argentina.

THE SURVEY

The survey was conducted in conjunction with a gravity survey, the results of which are pending following final interpretations. The objectives of the surveys were to map resistivity contrasts to assist in identifying lithium-bearing brine aquifers and to define the geometry and depth to basement of the salar and Los Patos channel. The surveys were conducted and interpreted by highly credentialed geophysical consultants Quantec Geoscience Ltd (**Quantec**). Quantec has significant experience in this type of exploration targeting lithium brine mineralisation and has previously conducted work at the neighbouring Sal de Vida project for Galaxy Resources Ltd.

The CSAMT survey covered 20.6 line kms over 5 profiles (Figure 1). The data acquired was noted as being of high quality despite the extremely conductive environment in the area. Profiles were interpreted to a depth of approximately 600m however caution is advised on the deeper results since the extremely low conductivity materials can have a diminished response with depth.

In summary, the interpreted inversion models presented a good model of subsurface resistivity and, as Quantec state in their conclusions "***The 5 CSAMT lines show very conductive and shallow units that are compatible with units being saturated with brine, which constitute a great potential for lithium exploration***".

DETAILED RESULTS

The locations of the 5 CSAMT lines surveyed over the Los Patos delta region, which is almost wholly covered by the Company's tenure, is seen in Figure 1. These are shown overlying a detailed geological map of the project which has been recently completed by the Company. The Company has also recently expanded its position with the addition of a new licence application contiguous with the Candelas leases to the southeast, the Candelas X licence. The delta lies within a structurally controlled graben formed into basement Pre-cambrian metamorphic rocks. Tertiary ignimbrites sourced from the nearby Galan volcano, were deposited into the basin. These were subsequently eroded by the Rio Los Patos, with more recent Pleistocene sediments, comprising alluvial fan and channel deposits and salar sediments infilling the basin.

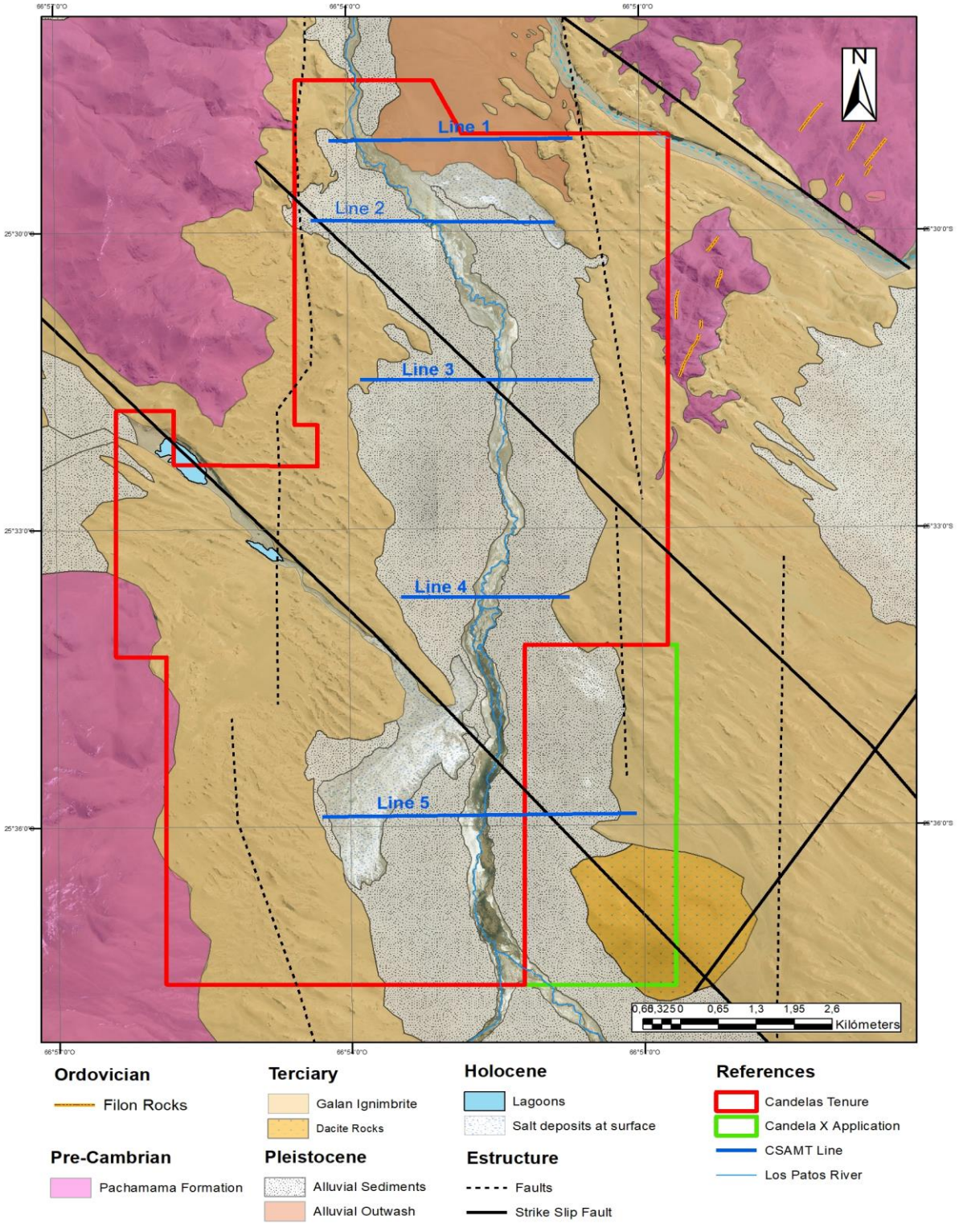

Figure 1: Geological map and CSAMT profiles location

CSAMT- Profile 1

This northern resistivity profile shows a zonation of conductive materials ranging from the surface in the west sector of the line (left in Figure 2) and then going deeper to the east below more resistive units coincident with surficial alluvial outwash that can be observed in the geological map (Figure 1). This conductive horizon has very low resistivity values that are compatible with geological units that may contain brines.

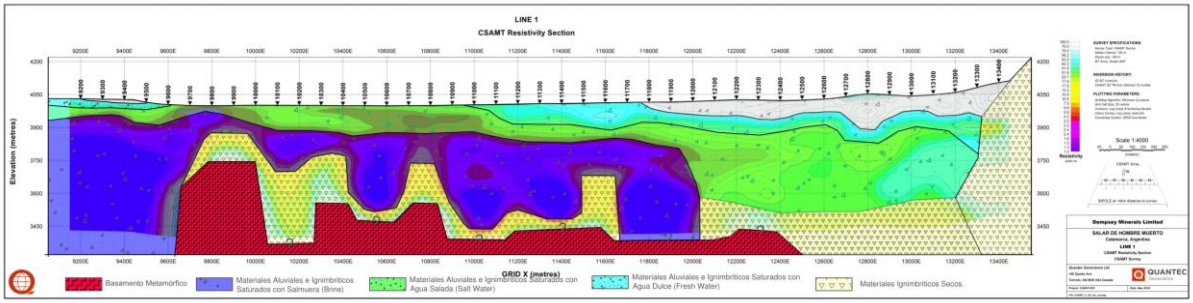

Figure 2: Profile 1 - Interpreted model showing lowly resistive brine saturated materials (in blue) with possible dry materials (yellow) sitting above basement (red)

CSAMT – Profile 2

This profile also shows a conductive horizon, slightly dipping to the east (Figure 3). This conductive horizon has very low resistivity values that are compatible with geological units that may contain brines. Over the eastern side, the resistivity sections indicate a truncation of the very conductive materials which may indicate the border of the basin and brine content. In the west, the interpretation indicates that the system may be still open and more data is needed for better conclusions. The basement is interpreted to be deeper in this section, with its shallow expression in the west at 300 to 350m depth.

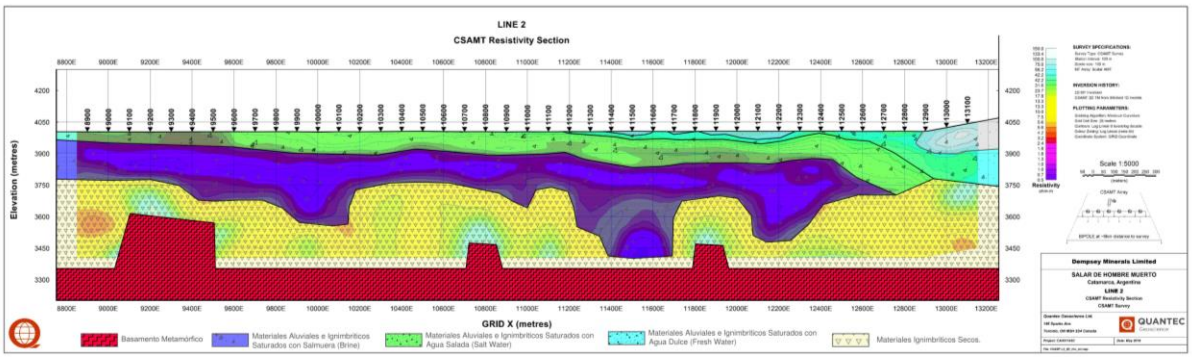

Figure 3: Profile 2 - Interpreted model showing lowly resistive brine saturated materials (in blue) with possible dry materials (yellow) sitting above basement (red)

CSAMT – Profile 3

This profile shows a conductive layer with a more horizontal character, located approximately at 150m depth (Figure 4). This conductive horizon has very low resistivity values that are compatible with geological units that may contain brines. Over the eastern side there are more resistive materials in the surface, interpreted as dry sediments; and the section shows similar characteristics to Profile 2 in terms of higher resistivities and possible basin borders. In the west, there are more resistive units at around 300m depth, interpreted as basement whilst the brine layer remains open as in Profile 2.

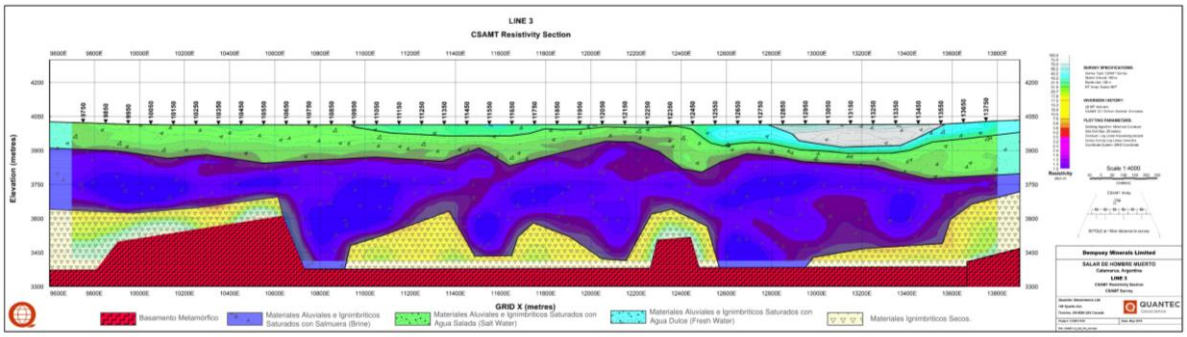

Figure 4: Profile 3 - Interpreted model showing lowly resistive brine saturated materials (in blue) with possible dry materials (yellow) sitting above basement (red)

CSAMT – Profile 4

The profile exhibits conductive materials in the western sector to greater depths than in previous profiles (Figure 5). These conductive zones have very low resistivity values, compatible with geological units that may contain brines. On the eastern end, the surface seems more resistive, corresponding to units of massive/dry ignimbrites. Again, the western side seems to be more open without evidence of basin borders. The model shows more resistive structures located at approximately 350m depth which are interpreted as basement (Figure 5). The rest of the model does not show structures that can be interpreted as basement.

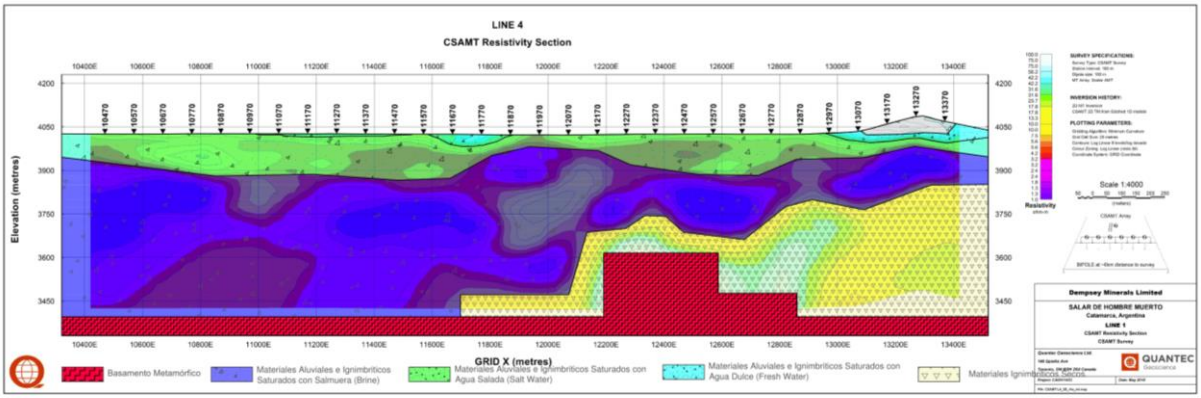

Figure 5: Profile 4 - Interpreted model showing lowly resistive brine saturated materials (in blue) with possible dry materials (yellow) sitting above basement (red)

CSAMT – Profile 5

Profile 5 shows a more resistive surface layer covering the western part of the line, interpreted as alluvial and dry ignimbritic materials. A horizontal and superficial conductive horizon is also observed in the east and continues deeper westward below the resistive layer described above (Figure 6). This conductive horizon has very low resistivity values, compatible with geological units that may contain brines. The surface over the eastern end shows more resistive units corresponding to dry sediments. As in previous profiles, the western extreme seems to indicate that the basin is wider than previously thought which may require further geophysical measurements to map the actual basin width.

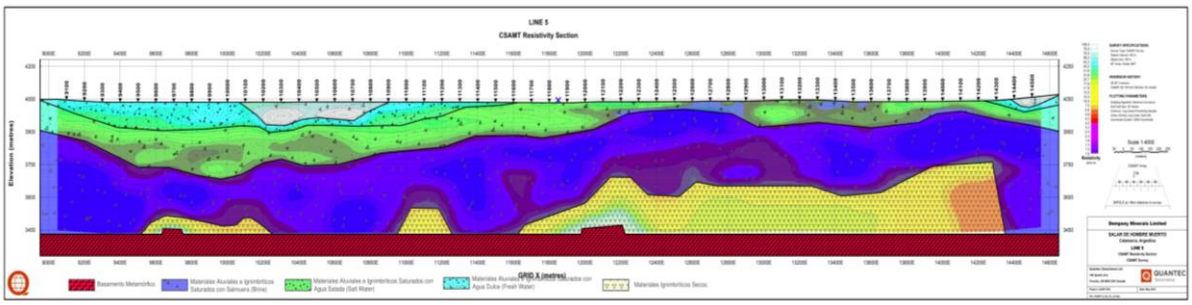

Figure 6: Profile 5 - Interpreted model showing lowly resistive brine saturated materials (in blue) with possible dry materials (yellow) sitting above basement (red)

CONCLUSIONS

During April and May 2018 Quantec Geoscience Ltd carried out a CSAMT resistivity survey to map resistivity contrasts to assist in identifying lithium-bearing brine aquifers over the Los Patos delta region in the Salar de Hombre Muerto for the Company.

The area was found to be extremely conductive and the data acquired noted as being of a high quality whilst the inversion models presented a good representation of subsurface resistivity.

The 5 CSAMT lines show very conductive and shallow units that are compatible with units being saturated with brine which constitute great potential for further exploration. The brine bearing units appear to be largely alluvial channel fill and possible ignimbrite at depth. Depths to brine are relatively shallow and conductive units, interpreted to be brine material, range from approximately 150 to 400m+ in thicknesses over at least ten kilometres along the delta.

Most of the profiles do not show clear basin margins, especially over the western sector and it is recommended that these be extended to map the real width extents of the basin and brine saturated materials.

The Company has now commenced its permitting procedures to conduct drilling over the project and looks forward to further advancing the project.

CORPORATE

Shareholders approved all resolutions at the general meeting held on 4 May 2018 with the Company subsequently signing a Share Sale Agreement acquiring 100% of the issued share capital of Blue Sky Lithium Pty Ltd, the company that owns the rights, interest and title to the mining tenements associated with the Project. The finalisation of the documentation is imminent and once completed the Company will issue the acquisition equities and appoint JP Vargas de la Vega as the Managing Director. Raymond Liu will also be appointed as a Non-Executive Director.

Commenting on the survey results, Dempsey's Non-Executive Chairman, Mr Nathan McMahon, said, "*To have identified an area of approximately 10km within our project containing geological units consistent with those saturated with brine, adjacent to significant lithium projects and within one of the most prolific salt flats, gives us great optimism for the testing of our exploration model."*

"We await our gravity survey results, which are pending, and look forward to expanding our exploration activities within this newly acquired project," he added.

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Competent Persons Statement

The information contained herein that relates to Exploration Results is based on information compiled or reviewed by Dr Luke Milan, who has consulted to the Company. Dr Milan is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Milan consents to the inclusion of his name in the matters based on the information in the form and context in which it appears.

ANNEXURE 1

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.*	• Quantec undertook a CSAMT survey (from 24/4/18 to 11/5/18) consisting of a total of 5 lines over the Candelas licence area, each with dipoles of 100m for a total of approximately 22.4 linear km. • A current bipole for the signal source was located parallel to the survey lines at distance of ~6km. • Survey data was scalar, CSAMT with measurements of Ex and Hy. Frequencies used were 1Hz to 8192 Hz. HACSAMT data (harmonic frequencies 3,5,7 and 9 of the fundamentals) was collected for improved data interpretability.
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 conducted
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 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*	• A CSAMT survey was conducted but no logging was undertaken

Criteria	JORC Code explanation	Commentary
	quantitative in nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections 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 or logging undertaken
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 carried out for this survey • Quantec Geoscience Ltd has significant experience in this type of exploration targeting lithium brine mineralization and has previously conducted work at the neighbouring Sal de Vida project
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.*	• Not applicable for CSAMT geophysical surveying • Quantec Geoscience Ltd has significant experience in this type of exploration targeting lithium brine mineralization and has previously conducted work at the neighbouring Sal de Vida project
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.*	• The survey locations were located using modern Garmin handheld GPS with an accuracy of +/- 5m. • The grid System used by Quantec: POSGAR 94, Argentina Zone 3 • Topographic control was obtained by handheld GPS, and the topography was flat with very little relief.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the*	• CSAMT line spacing was designed to obtain optimum and representative coverage of the subsurface Candelas prospect. The spacing between line 1 and

Criteria	JORC Code explanation	Commentary
	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.*	2 was 1.7km; lines 2 and 3 2.8km; and lines 3, 4 and 5 were spaced at 4km. The spacing in lines 1-3 were shortened due to obtain more detail in the northern extent of the Candelas license. This region has a thick pile of alluvial outwash area and to ensure detailed subsurface mapping the line spacing was shortened. The spacing between lines 3-5 was suitable for the targeted subsurface geology.
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.*	• CSAMT survey lines were all conducted orthogonal to the long axis of the Candelas to inform on the basin architecture.
Sample security	• *The measures taken to ensure sample security.*	• Data was recorded, processed and provided by Quantec Geoscience Limited ensuring the data was not manipulated or altered.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The data was independently reviewed and verified by Southern Geoscience Consultants.

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 Hombre Muerto Lithium Project consists of numerous licences located in Catamarca Province, Argentina. The tenements are owned by Blue Sky Lithium Pty Ltd ('Blue Sky'). The Company and Blue Sky executed a Share Sale Agreement whereby Dempsey purchased 100% of the issued share capital of Blue Sky.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has not been any historical exploration over the Candelas licence area
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Candelas licence area is located within a structurally controlled basin (graben) and is part of the Hombre Muerto salar. The salar hosts a world-renowned lithium brine deposit. The lithium is sourced locally from weathered and altered felsic ignimbrites and is concentrated in brines hosted within basin fill alluvial sediments and evaporites.
Drill hole Information	• *A summary of all information material*	• No drilling conducted

Criteria	JORC Code explanation	Commentary
	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.*	
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 data aggregation from geophysical survey
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 drilling conducted
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.*	• Refer to Maps, Figures and Diagrams in the document
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.*	• No balanced reporting in relation to grades are applicable for CSAMT survey.

Criteria	JORC Code explanation	Commentary
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.*	• All meaningful and material information is reported • Quantec Geoscience Ltd has significant experience in this type of exploration targeting lithium brine mineralization and has previously conducted work at the neighbouring Sal de Vida project
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.*	• A gravity survey was undertaken concurrently by Quantec Geoscience Ltd and the modelling of this is in the final stages of processing • Permitting procedures have commenced to commence drilling over the Project