NOA Lithium Brines Inc.
NI 43-101 Technical Report
Preliminary Economic Assessment (PEA)
Rio Grande Project, Salta, Argentina

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NOA Lithium Brines Inc.
Rio Grande Project

NI 43-101 Technical Report Preliminary Economic Assessment

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Date	**Rev.**	**Status**	**Prepared By**	**Checked By**	**Approved By**	**Approved By**
HATCH						**Client**

Disclaimer

This report (Report) was prepared by the qualified persons (QP) listed in Table 2-1. Each QP assumes responsibility for those sections or areas of this report that are referenced opposite their name in Table 2-1. None of the QPs, however, accepts any responsibility or liability for the sections or areas of this Report that were prepared by other QPs.

This Report was prepared to allow NOA Lithium Brines Inc. (the "Owner") to reach informed decisions respecting the development of the Rio Grande Project and supports the public disclosure of the results of the PEA in a press release dated October 6, 2025. Except for the purposes legislated under applicable securities laws, (a) any use of this Report by any third party is at that party's sole risk, and none of the QPs (nor any of the companies for whom they work) shall have any liability to any third party for any such use for any reason whatsoever, including negligence, and (b) each of the QPs hereby disclaims responsibility for any indirect or consequential loss arising from any use of this Report or the information contained herein. This report is intended to be read as a whole, and sections should not be read or relied upon out of context.

This Report contains estimates, projections and conclusions that are forward-looking information within the meaning of applicable securities laws. Forward-looking statements are based upon the responsible QP's opinion at the time that they are made but, in most cases, involve significant risk and uncertainty. Although each of the responsible QPs has attempted to identify factors that could cause actual events or results to differ materially from those described in this Report, there may be other factors that cause events or results to not be as anticipated, estimated or projected. None of the QPs undertake any obligation to update the forward-looking information.

As permitted by Item 3 of Form 43-101F1, the QPs have, in the preparation of this Report, relied upon certain reports, opinions and statements of certain experts. These reports, opinions and statements, the makers of each such report, opinion or statement and the extent of reliance is described in Section 3 of this Report. Each of the QPs hereby disclaims liability for such reports, opinions and statement to the extent that they have been relied upon in the preparation of this Report, as described in Section 3.

The QPs have, in the preparation of this Report, relied upon certain data provided to the QPs by the Owner and certain other parties. The relevant data and the extent of reliance upon such data is described in Section 3 of this Report.

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1. SUMMARY

This Technical Report has been prepared for the issuer, NOA Lithium Brines (NOA or the Owner), by Hatch Ltd. and Montgomery & Associates (M&A) Consultores Limitada. The purpose of this report is to provide a Preliminary Economic Assessment (PEA) for the Rio Grande Project (the Project), an advanced exploration project containing lithium bearing brines in the Salta Province of Argentina.

The Technical Report is prepared in accordance Canadian Institute of Mining, Metallurgy and Petroleum definition standards and best practice guidelines (CIM 2014, 2019) and the Canadian Securities Administration's (CSA) Standards for Disclosure of Mineral Projects, National Instrument 43-101 (NI 43-101). The effective date of this report is 30 October 2025, and the report supersedes and replaces all previous technical reports.

Terms of Reference

This report follows and incorporates by reference the "Technical Report on Results of exploration activities, Salar de Rio Grande Project" (Montgomery & Associates Consultores Limitada) with an effective date of July 09, 2024.

This report is intended for the use of NOA to further the evaluation of the Project. The report includes the potential mining of estimated mineral resources that are considered too speculative, geologically, to have economic considerations applied to them. Therefore, this material cannot be classified as Mineral Reserves.

1.1 Reliance on Other Experts

Mike Rosko, the QP from M&A relied on Sebastian Virgili of Pérez Alsina Consultores Mineros for the title opinion, "Due diligence and mining properties report – Río Grande Project", dated October 20, 2025, for information regarding ownership and legal standing of the mining concessions. In addition to the document, NOA informed the QP of some modifications of the Project mining concessions that were to be considered within this technical report, and the QP relied on that information. Information on adjacent properties was also provided by NOA.

The QPs from Hatch, S.Hlouschko, E.Linton and A.Stamatiou, relied on information provided by the Owner and on behalf of the Owner by third parties such as, weather data, some budgetary quotations from vendors, taxes, permitting, and government incentives (further details are provided in Section 3.2. To mitigate the risk of errors and omissions in third party information, Hatch worked in accordance with good industry practice taking reasonable steps to confirm the accuracy and sufficiency of the information provided. This required Hatch to bring to the attention of the Owner any error or omission in the normal course of performing our review.

S. Hlouschko relied on Project Blue's Q3 2025 report and forecasts along with commentary and forecasts from other industry data providers like Wood Mackenzie, FastMarkets from Q2 and Q3 2025 to support the analysis for Section 19.

1.2 Property Description and Location

The Project is located in the Salar de Rio Grande basin (the salar) in the Salta provincial boundaries, within the Puna Region of northwest Argentina. The salar is an evaporite basin comprising enriched lithium brine concentrations and within the Central Andes of Argentina and the "Lithium Triangle" of Argentina, Bolivia, and Chile. The mining concessions of the Project total 37,263.5 hectares (ha). The Project is located southwest from Salar de Arizaro and northwest from Salar de Archibarca and Salar de Antofalla. The project is approximately 500 kilometers (km) from Salta, and approximately 220 km south of the town of Estación Salar de Pocitos.

The Rio Grande Project currently consists of 22 Exploitation Project Concessions (minas) totaling 37,263.5 hectares (ha) registered in the Province of Salta. (the "Project Concessions" or "Mining Rights"). All payments due under the agreements mentioned have been already made by NOA. Therefore, all Project Concessions under the aforementioned agreements have been transferred or are in the process of being transferred to NOA.

1.3 Accessibility, Local Resources, Climate, Infrastructure and Physiography

The nearest town with services such as a hospital, lodging facilities and a school is Tolar Grande, which is about 140 km north along Salta provincial road RP-27. According to 2010 census data, Tolar Grande has a population of 236 inhabitants and it has basic services such as lodging and a school. Salar de Pocitos Railway Station is about 216 km northeast of the project. It has a police station, first aid station, public telephone, restaurant and lodging.

San Antonio de Los Cobres is located about 110 km east from Salar de Pocitos and is the main town in the Andes Department (Salta). The town has a hospital, a police station, gendarmerie, a telephone office, convenience stores, gas station, inns, schools, workshops, etc.

The nearest large city is Salta, located about 500 km to the northeast of the Project area. Local resources in the area are very basic. Most supplies are brought from Salta or San Antonio de Los Cobres. Several mine camps occur in the area and are powered locally. There are no people living in the vicinity of the Project.

The physiography of the region is characterized by extensive depressions and basins separated by mountain ranges, with marginal canyons cutting through the Western and Eastern Cordilleras and numerous volcanic centers, particularly in the Western Cordillera. Locally, the Project is located at Salar de Rio Grande. The elevation at the surface of the salar is approximately between 3,660 and 3,670 masl and in the concession areas of the project, elevation ranges between 3,600 and 4,800 masl.

The climate in the Project area is characterized as a cold, high altitude desert. The main rainy season is between December through March. Average annual rainfall at zone stations varies from 37 to 77 millimeters (mm). Solar radiation is intense, leading to extremely high evaporation rates. Strong winds are frequent in the Puna, reaching speeds of up to 80 kilometers per hour (km/hour) during the dry season.

The Project site is connected to rail, gas and power however due to the remoteness and availability concerns, power generation for the project will be via a virtual LNG pipeline and solar power. The most common access to the Project is from the city of Salta, along national route RN-51 passing through the towns of Campo Quijano and San Antonio de Los Cobres. About 70% of Route 51 is paved and the remainder is in fairly good condition.

1.4 History

There has been no past exploration or mining for lithium brines on the NOA tenements in Salar de Río Grande, which has a rich history as a source of sodium sulfate in the region since the 1940s. Historically, small companies exploited the salar for sodium sulfate.

Several exploration activities have occurred on the salar area since 1998. Exploration programs related to lithium-rich brine included surface brine sample, drilling and testing campaign developed in 2011 and carried out by ADY Resources. Additional exploration using surface geophysical methods such as Controlled-source Audio-frequency Magnetotellurics (CSAMT) and was conducted on 2017 by LSC Lithium in concessions acquired to ADY Resources. Drilling and testing, and confirmation sampling by LSC as part of a due diligence process were conducted in 2017 in the Salar area and documented by Hains (2018).

1.5 Geological Setting and Mineralization

The Salar de Rio Grande is located in the Puna Geological Province (Turner, 1972) and within the Puna Austral Geological Sub-province (Alonso et al., 1984a). One of the most important characteristics that defines the Geological Province of Puna is the presence of evaporitic basins, or “salars,” where important deposits of borates, sodium sulfate, and lithium can concentrate. The oldest rocks that outcrop in the area are of Upper Permian age and correspond to La Tabla Formation/Llullaillaco Plutonic Complex, which is located in the northeast section of the area. The Tabla Formation is composed of porphyries, breccias, ignimbrites, and lavas of dacitic-rhyodacitic-rhyolitic composition with fine-grained dykes intrusions of dacitic to andesitic composition.

The Tabla Formation/Llullaillaco Plutonic Complex is covered by the Vizcachera Formation which is divided into a lower member composed of sandstone, pellites, and red conglomerates, and an upper member composed of medium to coarse conglomerates with intercalations of fine silt beds and sandy layers. The Vizcachera Formation outcrops in the east side of the basin and lies unconformably above the Geste Formation (which is not exposed in the immediate area) and unconformably with overlying formations.

The Permian and Miocene units are intruded by Lower and Upper Miocene stratovolcanoes that include dacitic-andesitic lava flows and intrusions of dacitic and rhyodacitic domes integrated by the Quebrada del Agua, Cori, and Cave complexes located in the north of the geologic map. In some areas Lower Miocene vulcanites are covered by Sijes Formation of Upper Miocene age, which is composed of fine to medium-grained sandstone and sandstone conglomerates. Outcrops of the Sijes Formation are distributed along the edges of the Rio Grande Salar and interrupted by pyroclastic flows and ignimbrites in the south border of the salar.

Lower and Upper Pliocene age volcanic rocks including Archibarca ignimbrite are distributed in the southeast, south, and southwestern area of Rio Grande. The volcanics are represented by a set of eroded stratovolcanoes, porphyry lavas, dykes, domes, and pyroclastic deposits of andesitic and rhyodacitic composition. Pleistocene Los Caletones ignimbrite is present in the form of an extended sub horizontal mantle in the surroundings of the La Casualidad mine and it lays with unconformity on lower Pliocene lavas. Pleistocene age basalts are present on the upper margins of the basin on the west side of Rio Grande. These are often associated with ignimbrites of similar age and unconformably overlie almost all the units that make up the regional stratigraphic column. Quaternary sediments are abundant in the vicinity of the salar evaporitic crust. These sediments are forms of alluvial-colluvial deposits represented by alluvial fans, wind-blown sands, and stream and valley fill.

1.6 Deposit Types

The deposit type is a brine aquifer within a salar basin. Based on the available information, Salar de Rio Grande appears to be a mature salar according to classification developed by Houston (2011). Based on results of exploration conducted by third parties (Hains, 2018), the lithology recognized in the salar is dominated by highly fractured gypsum-filled, sandy halite. There are some indications of the presence of karstic structures (caverns) within the evaporite sequences. These have presumably formed due to freshwater inflow dissolving sodium-sulphate and/or mirabilite. The overall impact of these conditions is a highly porous matrix, at least until 100 meters (m) of depth, with some heterogeneity across the salar, leading to potentially very high pumping rates in some areas.

Recent exploration works described later in this Report also confirm that lithium-enriched brine in the sedimentary sequences on the edges of the basin, in addition to the interbedded halite aquifer found within the salar boundaries.

1.7 Exploration

Several exploration activities conducted by third parties have occurred on adjacent properties within salar boundaries since 1998. These have included surface brine sample and shallow auger drilling in 1998, shallow surface sampling, borehole samples, and borehole drilling and testing in 2011, surface geophysical survey and borehole drilling and testing in 2017. Lithium concentrations obtained by ADY Resources (ADY) in borehole samples in 2011 ranged from 220 to 420 milligrams per liter (mg/L), showing a trend to increasing lithium values with depth. Surface sampling results indicated an average lithium concentration of 380 mg/L (Hains, 2018).

In 2011, an exploration drilling, sampling, and testing program was designed by ADY, to evaluate potential of the Salar de Rio Grande for sodium sulphate (Hains, 2018). The drilling program included 1,653.45 m of drilling in 35 HQ-diameter diamond drill holes. Coreholes covered the majority of the salar surface with a spacing of 1 to 2 km between each hole. Most of the coreholes were drilled to about 50 m with 2 holes drilled to 75 m and 100 m. Packer sampling of brine was conducted every 6 m down hole. Samples were assayed for all major elements and parameters, including lithium (Hains, 2018). Eight pumping wells, two piezometric monitoring wells, and two exploration wells were drilled in support of redeveloping Salar de Rio Grande as a sodium sulphate producer. The wells were drilled using rotary methods to 15-inch (") diameter and constructed with 8" diameter PVC casing; the boreholes were logged for Spontaneous Potential (SP) and Short Normal and Long Normal resistivity prior to installing casing. Results of pumping tests for the wells indicated highly variable transmissivities depending on location, with values ranging from 354 meters squared per day (m2/day), to 30,454 m2/day (Hains, 2018).

A Closed Source Audio MagnetoTelluric (CSAMT) surface geophysical survey was conducted in 2017 by LSC Lithium (LSC) to obtain a preliminary understanding of the underlying stratigraphy of the basin, to identify potential geologic structures, and to identify future potential locations for exploration wells (Hains, 2018).

In 2017, an exploration drilling program was conducted by LSC. A total of eight coreholes were drilled to verify the historic ADY drill hole and sampling data in support of an initial resource estimate. Holes were drilled to depths of 100 m and provided sufficient drill hole density for classification of the resource at the Inferred Resource level (Hains, 2018).

1.7.1 2022 Exploration

Initial exploration carried out by NOA has been concentrated in concessions that are located within salar surface and those that are located close to the borders of the evaporitic deposit. Geophysical surveys using the Vertical Electrical Soundings (VES) method were done by AMINCO during April 2022 at the Project concession. Goals of the surveys were to obtain a preliminary understanding of the underlying stratigraphy of the Project property, identify potential geologic structures, identify fresh water/brine interfaces (if present), and to be able to identify future locations for exploration wells. Interpretation of the results of the geophysical surveys indicate that shallow groundwater might be present on the edges of the salar toward colluvium fan within the first 10 to 20 m of depth. Also, interpretation of these VES surveys indicates that as much as 300 m of brine saturated sediments occur in the salar. Basement rock was not detected.

Also, a surface water and shallow brine sampling campaign was conducted by AMINCO and M&A in April 2022. Laboratory chemical results for the April samples indicate that a lithium-enriched brine occurs in the Project concessions located in the west-central part of the basin. Samples obtained closer to the edge of the salar indicate that some mixing with fresh water is occurring in the upper part of the aquifer. However, geophysical results support the conceptualization that dense brine, likely enriched with lithium, occurs below the brackish water that occurs in the upper part of the aquifer.

1.7.2 2023 Exploration

Exploration wells have been drilled in 2023 and 2024 using the Diamond Drill Hole (DDH) method with core recovery, including DDH-RG23-001, DDH-RG23-002, DDH-RG23-003, DDH-RG23-004, and DDH-RG23-005, with depths of 613, 641.5, 676, 551 and 603 m, respectively. Information for those wells was reported and detailed in the previous NI 43-101 document (M&A, 2024). During all drilling operations, brine samples were obtained at different depths using a double packer system, and core samples were selected and sent to laboratory for drainable porosity analysis. Wells DDH-RG23-001, DDH-RG23-003, DDH-RG23-004 and DDH-RG23-005 were cased with 2" PVC. Well DDH-RG23-002 was abandoned because the drill rods became stuck inside the borehole during drilling and could not be pulled out. A new well has been drilled at the same location (DDH-RG23-002A) but was also abandoned. Finally, a third well, DDH-RG3-002B was constructed on the same platform. These exploration wells confirmed initial interpretations from VES, showing substantial depths to bedrock. Drilling has gone as deep as 676 m within the salar area, but bedrock has not been encountered.

1.7.3 2024 Exploration

A CSAMT survey was conducted by Quantec (2024) from December 12th, 2023 to April 1st, 2024. Goals of the surveys were to obtain subsurface resistivity profiles, improve understanding of underlying stratigraphy within Project properties, identify fresh water/brine interfaces (if present) and potential brine in unexplored areas, and use resulting characterizations to analyze future locations for exploration wells. Even though lithium concentration cannot be determined from resistivity values, brine can typically be associated with values less than 2 – 3 ohm-m, but could be present when resistivity values are even higher than 10 ohm-m.

A total of 21 CSAMT surveyed lines (66,100 m total length), were grouped into the following three sectors and analyzed by Quantec (2024): Sector I (south-eastern concessions, 8 lines, 35,300 m), Sector II (northern concessions, 8 lines, 24,100 m), and Sector III (Western concessions, 5 lines, 6,700 m). Resistivity results showed low resistivity layers (1-10 ohm-m) at the three surveyed sectors, practically in all the profiles conducted. In the northern and eastern surveyed areas (Sector II), low resistivity values appear in depth out of the salar boundaries, as previously revealed by well DDH-RG23-001 chemistry sampling. On the other hand, profiles located in Sector III (western part of the salar), suggest presence of a comparatively shallower and thinner brine aquifer near the salar edges. An important brine aquifer that would range from 2.5 to 5 km wide (horizontally) with an average potential thickness of about 400 m can be interpreted from CSAMT results in Sector I (in this area, that has not been drilled yet; vertical extent-scope of resistivity profiles was not deep enough to identify a potential brine aquifer bottom).

1.8 Sample Collection, Preparation, Analysis and Security

Sample collection, preparation, analysis, and security applies to initial surface sampling programs and for samples obtained during exploration drilling. Samples were bottled on site; paperwork was completed in the field. Field parameters including temperature, electrical conductivity, and pH were obtained for the samples and recorded. All samples were labeled with permanent marker, sealed with tape, and stored at a secure site, both in the field and in Salta. NOA personnel delivered the samples to SGS Laboratory, Alex Stewart Laboratories, and/or Induser Group Laboratories.

1.9 Mineral Processing and Metallurgical Testing

Planned confirmatory tests include actual brine evaporation trials that aim to confirm the composition and quantities of precipitated salts and to determine the maximum lithium concentrations achievable, while minimizing lithium losses. Additional testing will focus on the lithium carbonate production stage, with the objective of selecting the most suitable equipment to optimize efficiency, recoveries, and product quality throughout the process.

It is envisioned that testwork campaigns will be conducted in various qualified laboratories and in pilot facilities located in proximity to the Project site to confirm the brine processing methodology. These tests aim to accomplish the following objectives:

- Verify the aquifer well chemistry.
- Confirm the evaporation rates (through Class A pan evaporation test data) and, if necessary, determine the type of salts which are formed during the evaporation process.
- Confirm the process design and the unit operations selected in the current flowsheet

1.10 Mineral Resource Estimate

The industry-acceptable polygon method, complemented with 3D models of different brine aquifer volumes, was used to estimate the lithium resource on the Project. The method consisted of constructing concentric circles around the exploration wells (when existing) and dividing them into horizontal layers as hydrogeologic or estimation units, with each hydrogeologic layer assigned an aerial extent, lithium concentration, and drainable porosity value. Thus, while the same lithium concentration and drainable porosity were assumed laterally within a given polygon, distinct intervals were defined to account for depth-specific changes of either parameter based on the exploration results. Each polygon contains one well, and boundaries between polygons are generally equidistant between the wells (when close enough). 3D models of brine aquifer volumes, built based on CSAMT and borehole data, were combined with the polygon method to constrain horizontal extrapolation and estimate resources only in zones (and depths) where brine is expected/interpreted to be present.

For the current resource estimate, Measured, Indicated and Inferred initial polygons were developed based on guidelines by Houston et al. (2011) for mature salar systems. For Measured, Indicated and Inferred resources, the distances between exploration wells are suggested to be 4, 7 and 10 km, respectively, which means radius of 2, 3.5 and 5 km for the respective categories. After intersecting with project concessions and limiting them by geologic conditions, polygon areas located outside of the salar boundary, and corresponding categories, were adapted using particular criteria depending on available data, acknowledging that estimates would be later constrained by using a brine aquifer categorical block model. 3D models of brine aquifer volumes-geometry, developed in Leapfrog Geo Software (Seequent, 2023), were built based on CSAMT and borehole data.

Significant lithium concentrations were found in all drilled exploration wells in the Project. In general, lithium concentrations increased with depth, which has been observed in other similar lithium-rich aquifer systems in the region. Lithium grade in depth was characterized by intervals to use representative values for estimating resources. Resulting weighted average lithium concentration values per well were 681, 462, 511, 620 and 465 mg/L for wells, DDH-RG23- 001, 002, 003, 004 and 005, respectively.

Considering the significant exploration depths of the wells (there may be different degrees of compaction and cementation), the important distance between wells and concessions, local analyses and discretization were conducted to define, for each well, estimation units or packages were drainable porosity values, interbedding level and lithologic predominance have some consistency. The resulting weighted averages per well for drainable porosity were 8.9, 7.9, 3.7, 9.4 and 7.7% for wells, DDH-RG23-001, 002, 003, 004 and 005, respectively.

A block model with a horizontal and vertical resolutions of 50 and 2, respectively was prepared for the aquifer units. The model results were overlayed onto the existing polygons to adjust thicknesses of the polygon layers and therefore improve the reliability of the lithium resource Measured, Indicated and Inferred estimates for the horizontal polygon layers. Total estimated lithium resources were: 393,000 tonnes for Measured, 106,000 tonnes for Indicated, and 384,000 tonnes for Inferred. The following table summarizes the current Salar de Río Grande resource estimate for lithium (the reader is cautioned that mineral resources are not mineral reserves and do not have demonstrated economic viability).

Table 1-1: Summary of Measured, Indicated, and Inferred Resources Oct 30, 2025

Total Summary	Brine volume (m^3)	Avg Li (mg/L)	In Situ Li (tonnes)	Li_2CO_3 Equivalent (tonnes)
Measured	6.9E+08	571	393,000	2,094,000
Indicated	1.8E+08	594	106,000	564,000
Total Measured + Indicated	**8.7E+08**	**576**	**499,000**	**2,658,000**
Inferred	8.2E+08	468	384,000	2,039,000

Notes:
Mineral Resources that are not Mineral Reserves, do not have demonstrated economic viability. There is no certainty that any or all of the Mineral Resources can be converted into Mineral Reserves after application of the modifying factors.
The conversion factor used to calculate the equivalents from their metal ions is simple and based on the molar weight for the elements added to generate the equivalent. The equations are as follows: Li x 5.3228 = lithium carbonate equivalent (Li_2CO_3).
Tonnages are rounded to the nearest thousand and grades are rounded to the nearest whole number, comparison of values may not add due to rounding.

1.11 Mining Methods

The production process in the Salar de Rio Grande will operate through conventional brine extraction wells. The current design is still considered to be in the planning stages. Production brine pumping and groundwater modeling still needs to be developed during the pre-feasibility stage of the project to validate sustainable production over the life of the Project. However, the following mining methods applied to the project are typical for other salar brine projects and reasonable at the current project level.

During mining, brine from the individual production wells will be fed into collection/transfer ponds located in the concession areas, from where it will be boosted through a principal pipeline directly to the evaporation ponds. The assumptions considered for the estimated production plan are the following:

- Projected yearly production target of 20,000 tonnes of LCE (stage 1) per year from NOA's northernmost concessions, namely Sulfa X, El Camino II, and Teresa (20,000 tonnes stage 2 will be supplied from these concessions plus the areas within the salar and the south).
- Projected mine duration of 30 years.
- Anticipated average flow rate of 15 liters per second (L/s) per production well based on the QP's experience in similar projects.
- Average global process efficiency (from the wellheads to product) of 70% for calculation purposes.

Based on the production target of 20,000 tonnes of LCE per year for stage 1, estimated global process efficiency, and average lithium grade obtained from exploration wells DDH-RG23-001 and DDH-RG23-004 (approximately 600 mg/L), it is estimated that a total of 20 production wells will be required.

1.12 Recovery Methods

The flowsheet for the recovery of lithium from the Rio Grande Salar brine is based on a standard flowsheet involving evaporation ponds followed by further purification and processing of the lithium brine in a purification / carbonation plant. The design was based on a steady state process model without metallurgical testing. The proposed process follows industry standards:

- Pumping brine from the aquifers;
- Concentrating the brine through evaporation ponds; and
- Taking the brine concentrate through a hydrometallurgical facility to produce battery-grade lithium carbonate

The proposed lithium recovery process integrates in-field solar evaporation through a series of ponds to obtain a lithium-rich brine, which is subsequently chemically processed to produce lithium carbonate. NOA plans to construct a solar evaporation process, consisting of multiple solar ponds in two trains, that feed a lithium carbonate plant producing battery-grade lithium carbonate as a marketable product. The following table presents the brine composition used as the design basis for both the evaporation and lithium carbonate plants, as provided by NOA Lithium.

Table 1-2: Brine Composition – Basis of Design

Brine Composition	mg/l
Li	594
Ca	213
Mg	7,077
SO_4	31,568
B	324
Na	115,094
K	10,522
Cl	181,630
HCO_3	168

Steady state mass and energy balance simulations were developed to estimate operating flows and equipment sizing.

Through the conventional evaporation process, a lithium chloride-enriched brine is produced, reaching a lithium concentration of approximately 1.2% w/w to avoid co-precipitation of Li-K double salts.

The process consists of the following stages:

- Brine Extraction: This stage involves the operation of 20 brine extraction wells located in two zones of NOA Lithium's properties—SulfaX (north of the salar) and En Camino II (on the east side of the salar).
- Accumulation Ponds (PDAs): Each zone includes two ponds used to accumulate brine extracted from the salar.
- Pre-concentration (PC): Two parallel processing trains, each with two ponds, to facilitate water evaporation. As a result, Glauber's salt ($Na_2SO_4 \cdot 10H_2O$) and halite (NaCl) are crystallized.
- Liming Plant and system: This will be needed to remove sulfate and magnesium from the brine originating from the pre-concentration ponds. The lime slurry and brine from the pre-concentration ponds will be mixed in two sequential agitated reaction tanks before the clarified brine is sent to the Halite ponds.
- Halite (H): Two trains with three ponds each continue the crystallization of halite and also precipitate gypsum ($CaSO_4 \cdot 2H_2O$).
- Sylvinite (K): Two trains, each with one pond, to promote the crystallization of sylvite (KCl), halite (NaCl), and gypsum.

- Reservoir (C): A single pond serves as a reservoir, supplying brine to the carbonation plant for further processing.

This lithium chloride is then processed in a lithium chemical plant to produce battery grade lithium carbonate consisting of impurity removal, concentration, carbonation, product drying and packaging.

1.13 Project Infrastructure

The brine extraction wells are located in two sectors around the Salar: to the south of the Sulfa X property and to the west of the El Camino property. For the production of 20 kilo tonnes per annum (ktpa) of LCE, a total of 20 brine production wells have been considered, each with a flow rate of 15 L/s. This assumption is subject to the definition of which wells will be operational during Phase 1 and will depend on the results of well exploration and the actual flow rates that can be extracted from each well.

Based on site conditions and the need to optimize earthworks for the construction of solar evaporation ponds, a total of 12 ponds is planned, arranged in two parallel trains. Each train will include two pre-concentration ponds, three halite ponds, one sylvinite pond, and one reservoir pond, which will supply brine to the lithium carbonate plant. The ponds will primarily be constructed using a terraced system, utilizing local materials and lined with geomembrane. The brine evaporation ponds are expected to cover an area of approximately 6,100,000 m² and will be split into the North and South areas

The process plant will be located adjacent to the evaporation and concentration ponds. Additional infrastructure on site will consist of admin buildings, product and supply warehouses, reagent storage, camp, electrical infrastructure (switchgear and transformers to connect to virtual LNG plant which will be supplied by a 3rd party), solar power plant, diesel storage, waste and water treatment plant.

1.14 Market Studies and Contracts

Long-term pricing assumptions for battery-grade lithium carbonate were developed using forecast data from Project Blue, Wood Mackenzie, FastMarkets, and Consensus Economics. These forecasts reflect expected market prices from 2030 and 2035 onward, covering the duration of the Project's operational life. To ensure robustness, pricing assumptions were also benchmarked against comparable public reports from other recent lithium projects.

The economic analysis in this study applies a long-term battery-grade lithium carbonate (LC) price of US$24,000 per tonne. This price is reasonably consistent with those applied in publicly issued economic assessments filed within the past year. Additionally, given Hatch's experience on engineering studies across the various potential sources of Lithium (i.e. spodumene, salar brines, brines (DLE), clay, lepidolite and geothermal brines) Hatch has developed a project and resource-based view on incentive price curve to fill the supply gap. Based on this analysis, Hatch's view aligns with using a price of $24,000 per tonne of LC, which is at the lower end of the incentive price for most projects outside of China. This incentive price assumes that most project developers need a 15% post tax IRR on their investment.

1.15 Environmental Studies, Permitting, and Social or Community Impact

NOA has completed various environmental studies required to support its exploration programs between 2022 and effective date of this report. NOA has initiated baseline environmental, hydrogeological, hydrological and other studies in support of the Project Environmental Impact Assessment (EIA), which is planned for 2026.

The EIA will be required prior to approval for construction of any lithium brine extraction and the processing plant. It is expected that the EIA for the future brine operation will be completed in parallel with the DFS.

As part of its commitment to territorial development and community relations, NOA maintains active engagement with the following localities that surround the project: Tolar Grande, Estación Salar de Pocitos, and San Antonio de los Cobres.

1.16 Capital and Operating Costs

The capital expenditures (CAPEX) and operating expenditures (OPEX) are compliant with a Class 5 Estimate, as defined in American Association of Cost Engineers (AACE) International Recommended Practice No. 18R-97 “Cost Estimate Classification System as Applied in Engineering, Procurement, And Construction for the Process Industries”. The AACE have devised a Class 1 – 5 systems, where a Class 1 Estimate is the most accurate and a Class 5 the least accurate estimate.

The capital cost estimate was developed by a team of engineers, designers, and cost estimators from Hatch (evaporation ponds, process plant and associated infrastructure) and Montgomery and Associates (wells and wells infrastructure). The capital cost estimate, for the project, as described within this study, is US $706.2 million with a base date of early Third (3rd) Quarter 2025 US Dollars and is subject to certain qualifications, assumptions and exclusions, all of which are detailed in this Report.

Table 1-3: Capital Cost Summary

US$ million	20,000 tpa LCE
Direct Cost	**$ 414.4**
Wellfield / Ponds	
Brine Extraction Wells	$ 22.1
Evaporation Ponds + Lime Plant	$ 197.2
Lithium Plant	
Purification & Concentration	$ 26.0
Boron Solvent Extraction	$ 34.8
Carbonation	$ 24.4
Lithium Carbonate Production	$ 15.0
Utilities & Services	$ 49.5
Site Development & On-Site Infrastructure	$ 45.5
Indirect Cost	**$ 116.4**
Owner's Costs	**$ 12.4**
Contingency	**$ 163.0**
Total CAPEX	**$ 706.2**

The sustaining capital expenditure for the overall lithium processing plant is estimated at an annual basis of 2% of the direct cost of the initial capital cost. The annual estimated sustaining capital cost for the overall project is US$8.3 million (M) per year.

Closure costs associated with the project, based on the current status of the project design, and including closure, remediation and reclamation requirements and activities as defined above, are estimated to be 5% of the initial capital cost, or US$35.3 M.

Operating costs was prepared with an accuracy level of +/- 30% to produce 20,000 tonnes per annum (t/a) of Li_2CO_3, Pond & Carbonate Plant for the Rio Grande Project. The estimate covers all costs normally expected in the ordinary course of operations for a project such as this, including process and power plant operations, as well as general and administrative operating costs, according Work Breakdown Structure (WBS) breakdown of project.

The operating cost was estimated based on the operation of wells together with the evaporation ponds and lithium carbonate plant. The production plan, used for estimating the operating cost, is based on a given flow transfer between ponds, which does not necessarily translate into a constant reagent consumption or flow transfer rate.

Table 1-4: Operating Cost Summary

Cost Component	Annual Cost (US$)	Cost per Tonne (US$/t Product)
Direct Cost		
Chemical Reagents	$60,221,988	$3,011
Salt removal and transport	$7,157,152	$358
Energy	$14,611,863	$731
Consumables	$1,735,000	$87
Water Treatment	$1,112,212	$56
Labour	$19,191,597	$960
Catering & Camp Services	$5,502,055	$275
Maintenance	$3,298,994	$165
Product Transportation to Port	$2,000,000	$100
Indirect Cost		
General & Administrative	$3,114,878	$156
Production Li_2CO_3 Total Cost	**$117,945,739**	**$5,897**

1.17 Economic Analysis

The PEA is preliminary in nature. It includes inferred mineral resources that are too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

The economic analysis is based on a discounted cash flow model in real terms. The model includes the 30-year life-of-project production plan for battery-grade lithium carbonate (Li_2CO_3 BG, BG LC), operating costs, capital costs, and market assumptions discussed in this report, in addition to financial assumptions introduced in this section. Project returns are calculated in the model before and after taxes, including net present value (NPV), internal rate of return (IRR), and payback period. Returns are sensitive to input assumptions and should be viewed in the context of the sensitivity analysis provided in this section as well as the stated accuracies for items such as capital costs.

The base case assumes a long term battery-grade lithium carbonate (Li_2CO_3 BG) price of US$24,000 per tonne. At this price the project achieves a positive NPV at an 8% real discount rate.

Table 1-5: Key Indicators Summary

Item	Unit	Value
Li_2CO_3 BG Sales	t/year	20,000
Li_2CO_3 BG Price	US$/t	24,000
Site Operating Unit Cost	US$/t sold	6,012
Site Operating Cost	US$M/year	116
EBITDA	US$M/year	317
Project Life	years	30
Initial Capital Cost	US$M	706
Sustaining Capital Cost	US$M	249
ARS/USD Exchange Rate	Arg$/US$	1,470
Pre-tax NPV @ 8%	US$M	2,065
After-tax NPV @ 8%	US$M	1,276
Pre-tax IRR	%	27.3%
After-tax IRR	%	22.6%
Pre-tax Payback	operating years	3.3
After-tax Payback	operating years	3.4

Returns are sensitive to input assumptions and should be viewed in the context of the sensitivity analysis provided in this section as well as the stated accuracies for items such as capital costs.

A sensitivity to expansion to 40ktpa was generated at a high level and is detailed in section 21.5 and 22.6.

1.18 Adjacent Properties

Adjoining or nearby properties to the Rio Grande Project on salar surface include the following:

- Lithium S Corporation S.A. (LSC), a company currently owned by Lítica Resources, a Pluspetrol company who acquired lithium mining properties and rights from LSC, as explained below, holds large tenements in both Salta and Catamarca provinces. These areas are mainly in the salar surface and surround the Project properties.
- Pursuit Minerals Limited holds the Isabel Segunda and SALRIO01 concessions.
- The Rio Grande I and Demasia Rio Grande I concessions are currently believed to be registered as vacant.
- Anglogold Argentina Exploraciones S.A. holds tenements on west side of the salar next to western Project properties.
- Martin Guillermo Novara contests that he holds the Nahuel 19 concession, but it is being challenged.

- Minas Argentinas S.A. holds the Arizaro I concession.
- Minera El Toro S.A. holds the El Camino concession.
- Pursuit Minerals Limited holds a cateo concession.

Originally, many of the concessions in the Rio Grande salar belonged to LSC (through Lithium S Corporation S.A.); at the end of 2018, LSC was purchased by Litica Resources under a commercial agreement, becoming the current owner of concessions in Rio Grande. However, the acquired concessions continue to be registered in the name of LSC on the mining registry of the Salta province.

Adjacent properties to the Rio Grande Project outside the salar surface include the following:

- A B Minerales Argentina holds a cateo concession
- Anglogold Argentina Exploraciones S.A. holds tenements in west side of the salar next to west Project properties
- Astrali S.A. with Marcopolo I concession
- LSC controls the Guadalupe Norte concession

1.19 Interpretation and Conclusions

1.19.1 Resource

The Rio Grande Lithium Project is at an exploration stage, and has advanced its on-site exploration, sampling, and testing in support of estimating Measured, Indicated and Inferred resources. The work in the last two years has substantially increased the understanding of the conceptual model of the basin and has allowed the estimation of lithium resource. Results of 2023 and 2024 exploration program has confirmed the concept of brine enriched in lithium occurs in the basin, beneath NOA concessions even in surroundings alluvial fan areas located north of the salar boundary (well DDH-RG23-001 location and others). Abundant brine samples from the concession areas have been obtained and analyzed and demonstrate relatively large lithium concentrations on par with few other similar projects in the region most of them already in operation or under construction). In general, lithium grade values show an increasing trend with depth, which has been observed in other similar lithium-rich aquifer systems in the region. Estimated Measured, Indicated and Inferred resources contain 2,094,000 tonnes Measured, 564,000 tonnes Indicated, and 2,039,000 tonnes Inferred LCE.

Techniques to evaluate the resource incorporate the best available technology and practice. The resource calculation includes information of acceptable quality and has been validated. The consistency and quality of the data on the Project support the conclusion that a portion of the brine resource could ultimately be extracted commercially for the production of lithium products; additional investigation regarding process methods and economic grades should be investigated.

1.19.2 Process

While the base case for the project considers evaporation ponds, DLE technologies have advanced and have positive economic and environmental impacts. The evaporation process is well understood and established however is susceptible to weather and reagent consumption varies significantly due to impurity ratios. The design has considered process modeling based on assumptions that will have to be verified by testing in the next phase.

1.19.3 Risks

The Rio Grande Project is large, relatively complex, and located in a remote location, and as such, involves some risks and challenges. These risks and challenges have the potential to affect:

- The performance of the facility in terms of production,
- The cost of construction and operation,
- The implementation schedule,
- The time required to reach full capacity, and/or
- The environmental performance and impact of the mine and plant.

Any of the above items could affect the financial performance of the Project.

A comprehensive list of all of the risks that apply to the Rio Grande Project include political, regulatory, market and financial risk that are beyond Hatch's scope of expertise. Hatch and M&A have developed a list of specific technical risks that apply to the Project, together with certain other risks that we have knowledge of due to our involvement in the project and from reliance on the owner and other experts.

No particular risk workshop has been completed to date. And this is recommended for next engineering phase.

Key risks that have been identified are typical of early-stage projects. Key mitigations for these risks are further drilling, test-work and piloting along with advancing environmental permitting matters. A key technical risk that must be mitigated through testwork is conducting brine evaporation trials to confirm evaporation rates that were assumed for this phase of the PEA.

1.20 Recommendations

1.20.1 Exploration and Hydrology

Based on the results of exploration to date, additional exploration activities are justified to better characterize the subsurface brine in the concessions. To date, five exploration wells have been drilled and sampled. We recommend additional drilling and testing that will allow updating resource estimates for Project concessions, and groundwater flow model reparation what will, with support from other more advanced engineering and economic studies, allow development of an estimated lithium reserve.

Recommended activities include the following:

1. Drilling two exploration boreholes in the southeast concessions to confirm the presence of brine suggested by the recent CSAMT surveys.
2. Drilling one exploration borehole in the west concessions to confirm the presence of brine suggested by the recent CSAMT surveys in the sediments believed to be present below the volcanic flows.
3. Drilling and testing of two exploration pumping wells located near wells DDH-RG23-001 and DDH-RG23-003. These new wells will be drilled to the same depths as the nearby coreholes; pumping tests would be conducted determine hydraulic parameters for the aquifer and to determine composite brine chemistry that would be helpful in determining processing methods.
4. If new recommended drilling results in the southeast concessions are favorable, M&A recommend drilling and testing of two exploration pumping wells in the southeast concessions. These new wells will be drilled to the same depths as nearby coreholes; pumping tests would be conducted determine hydraulic parameters for the aquifer and to determine composite brine chemistry that would be helpful in determining processing methods.
5. M&A recommend conducting a 30-day pumping test at least one of the new exploration wells. Results would be used to support calibration of the groundwater flow model and to further demonstrate feasibility of the project.
6. After completion of additional exploration, we recommend to re-assess the conceptual model and construct an updated 3-D block model, to migrate the resource estimate away from the polygon method and 100% to the block model. This has the advantage of being able to build the groundwater flow model that will be used to estimate the reserve directly from the existing resource model.
7. M&A recommend preparing a calibrated groundwater flow model using Modflow USG as the software platform. The model would be used to simulate production pumping from a future production wellfield(s).
8. Finally, M&A recommend preparation of an updated NI 43-101 report following the proposed new exploration and modeling activities.

1.20.2 Process and Project Development

Hatch recommend the following steps to be taken in the next phase of study:

- Additional geotechnical studies be conducted to confirm ponds and foundation design parameters.
- The company should continue to advance its baseline environmental testwork and studies as well as social impact investigations to support future permit applications.

Current process model should be updated and validated with data generated by testwork. This may have impact on the current design.

- Laboratory scale parametric studies including finalizing the evaporation testwork, extraction/strip isotherms, loadings, reagent regimes, residence times, actual response to precipitation and purification, separation unit areas and outputs for thickeners and filters, pulps-flow-response, etc.
- Pilot-level validation, aiming for the generation of the Pre-feasibility study-level data whilst validating the final integrated process flowsheet
- Confirm the potential of obtaining sufficient fresh water in reasonable proximity to the project for processing.
- Conduct preliminary tests with DLE Technology vendors with raw brine to assess suitability for the salar. Promising options exist for this impurity profile including Adsorption, IX and SX based technologies. Several vendors have already tested the brine in surrounding areas with similar brine characterizations.

Opportunities

The Project can mitigate some risks by investigating the option for a split plant (produce lithium chloride (LiCl) at the salar and then battery grade lithium carbonate in a site in Guemes). This can de-risk project execution and support an easier operation due to the plant being located in an area with better supporting infrastructure.

The Project can also benefit from DLE due to the particular impurity characteristics of this brine (i.e. higher Li/Mg ratio). A number of technologies have already tested similar brines and have shown a working lab or pilot scale operation.

Investigate producing just lithium chloride as an intermediate given that it is expected to be a growing intermediate product. The advantage is that this will simplify the project if pricing for LiCl can be attractive.

2. Introduction

This Technical Report has been prepared for NOA, by Hatch Ltd. and M&A. The purpose of this report is to summarize the results of a PEA for the Project, an advanced exploration project containing lithium bearing brines in the Salta Province of Argentina.

The Project area is located in the Salar de Rio Grande basin (the salar) in the Salta provincial boundaries, within the Puna Region of northwest Argentina. The salar is an evaporite basin comprising enriched lithium brine concentrations and within the Central Andes of Argentina and the "Lithium Triangle" of Argentina, Bolivia, and Chile. The mining concessions of the Project total 37,263.5 ha. The Project is located southwest from Salar de Arizaro and northwest from Salar de Archibarca and Salar de Antofalla. The project is approximately 500 kilometers (km) from Salta, and approximately 220 km south of the town of Estación Salar de Pocitos.

The Technical Report is prepared in accordance Canadian Institute of Mining, Metallurgy and Petroleum definition standards and best practice guidelines (CIM 2014, 2019) and NI 43-101. The effective date of this report is 30 October 2025, and the report supersedes and replaces all previous Technical Reports.

2.1 Terms of Reference and Purpose of the Report

This Report follows and incorporates by reference the "Technical Report on Results of exploration activities, Salar de Rio Grande Project" (Montgomery & Associates Consultores Limitada) with an effective date of July 09, 2024.

This Report is intended for the use of NOA to further the evaluation of the Project. The report includes the potential mining of estimated mineral resources that are considered too speculative, geologically, to have economic considerations applied to them. Therefore, this material cannot be classified as Mineral Reserves.

OSC Staff Notice 43-704 states: "A technical report prepared in respect of a mineral brine project should reflect some issues that are specific to brine-hosted deposits." Houston et al (2011) identified several technical parameters that are relevant during estimation of "recoverable" resources and "mineable" resources in brine-hosted deposits. In general, these parameters include:

- Porosity and permeability;
- Brine chemistry;
- Brine hydrology and water balance;
- Host aquifer definition (e.g., aquifer area and thickness, transmissivity, specific yield);
- Brine body definition (e.g., boundary of fresh water and transition zones that surround the brine body and brine density).

2.2 Qualifications of Consultants

A multi-disciplinary team of authors prepared this report including M. Rosko of Montgomery and Associates, S. Hlouschko of Hatch Ltd., A. Stamatiou of Hatch Ltd., and E. Linton of Hatch Ltd. The authors are independent of NOA Lithium, the Rio Grande Project, and are Qualified Persons (QPs) as defined in NI 43-101.

A list of the QPs responsible for each section of this report is provided in the below table, and their QP certificates are appended to the back of this report.

Table 2-1: QPs of This Report

Section	Chapter Title	Qualified Person	Company
1	Summary – 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.10, 1.11, 1.15, 1.18, 1.19.1, 1.20.1	M.Rosko	M&A
	Summary – 1.9	A.Stamatiou	Hatch
	Summary – 1.12, 1.13, 1.16, 1.19.2, 1.19.3 1.20.2	E.Linton	Hatch
	Summary – 1.14, 1.17	S. Hlouschko	Hatch
2	Introduction – 2.1, 2.3	M.Rosko	M&A
	Introduction – 2.4	E.Linton	Hatch
3	Reliance on Other Experts – 3.1	M.Rosko	M&A
	Reliance on Other Experts – 3.2, 3.3	E.Linton	Hatch
4	Property Description and Location	M.Rosko	M&A
5	Accessibility, Climate, Local Resources, Infrastructure and Physiography	M.Rosko	M&A
6	History	M.Rosko	M&A
7	Geological Setting and Mineralization	M.Rosko	M&A
8	Deposit Types	M.Rosko	M&A
9	Exploration	M.Rosko	M&A
10	Drilling	M.Rosko	M&A
11	Sample Preparation, Analyses and Security	M.Rosko	M&A
12	Data Verification	M.Rosko	M&A
13	Mineral Processing and Metallurgical Testing	A.Stamatiou	Hatch
14	Mineral Resource Estimates	M.Rosko	M&A
15	Mineral Reserve Estimates	N/A	N/A
16	Mining Methods	M.Rosko	M&A
17	Recovery Methods – 17.1, 17.2, 17.3	A.Stamatiou	Hatch
	Recovery Methods – 17.4, 17.5	E.Linton	
18	Project Infrastructure	E.Linton	Hatch
19	Market Studies and Contracts	S.Hlouschko	Hatch
20	Environmental Studies, Permitting and Social or Community Impact	M.Rosko	M&A
21	Capital and Operating Cost	E.Linton	Hatch
22	Economic Analysis	S.Hlouschko	Hatch
23	Adjacent Properties	M.Rosko	M&A
24	Other Relevant Data and Information	E.Linton	Hatch
25	Interpretation and Conclusions – 25.1, 25.2, 25.6.2.1, 25.6.2.6, 25.6.2.9	M.Rosko	M&A

Section	Chapter Title	Qualified Person	Company
	Interpretation and Conclusions – 25.3, 25.4, 25.6.1, 25.6.2.2, 25.6.2.3, 25.6.2.5, 25.6.2.7, 25.6.2.10, 25.6.2.11, 25.6.2.12	E.Linton	Hatch
	Interpretation and Conclusions – 25.5, 25.6.2.4, 25.6.2.8	S.Hlouschko	Hatch
26	Recommendations – 26.1, 26.6.1.1	M.Rosko	M&A
	Recommendations – 26.2, 26.3, 26.4, 26.6.1.2	E.Linton	Hatch
	Recommendations – 26.5, 26.6	S.Hlouschko	Hatch
27	References	M.Rosko	M&A

Hatch and M&A were paid a fee for this work in accordance with normal professional consulting practice.

2.2.1 Inspection of Property by Qualified Persons

A Hatch team of individuals visited the site on June 24 and 25, 2025 to assist in the design of the ponds and assess constructability. Mr. Rosko visited the Rio Grande Project on April 8, 2022, and independently obtained brine samples from shallow auger holes and surface water; the samples were submitted to SGS Laboratory at Salta, Argentina for analysis.

2.3 Source of Information

Aside from the direct information obtained during the 2022, 2023 and 2024 exploration program on the Project, the following sources were used to prepare this Report:

- Hains Engineering Company Limited, 2018. Technical Report on the Salar de Rio Grande Project, Salta Province, Argentina, Report for NI 43-101 prepared on behalf of LSC Lithium, Corp.
- Data, reports, and other information supplied by NOA Lithium and other third-party sources (i.e. market data, tax and government incentive information).

Some of what is in the report has been modified or copied directly in this report (referenced) from Hains (2018), because the LSC Lithium (Currently owned by Litica) Project area is adjacent and many of the conclusions from the report are relevant to the current Project.

This report describes recent exploration activities conducted during late 2023 and early 2024 on updating the following aspects:

- Exploration activities – drilling of a new exploration well,
- Brine sampling from the new exploration well,
- New geophysical information in most of the Project concessions,
- Update of the lithium resource estimate, and
- Recommendations for future activities based on the completed exploration activities.

2.4 Units of Measure and Terms of Reference

With respect to units of measure, unless otherwise stated, this Technical Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006).
- 'Bulk' weight is presented metric tonnes (tonnes; 1,000 kg or 2,204.6 lbs).
- Geographic coordinates are projected in the Universal Transverse Mercator (UTM) system relative to Zone 11 of the North American Datum (NAD) 1983.
- Currency in US dollars (USD), unless otherwise specified.
- Abbreviations used throughout this report are outlined below in Table 2-2.

Table 2-2: List of Abbreviations

Abbreviation	Description
CAGR	Compound annual growth rate
DST	Drill stem test
EDC	Environmental Design Criteria
EIA	Environmental Impact Assessment
ESS	Energy storage systems
EV	Electric vehicle
g/cm^3	grams per cubic centimeter
IX	Ion Exchange
LCE	Lithium carbonate equivalent
Li	Lithium
Li_2CO_3	Lithium Carbonate
LFP	Lithium Iron Phosphate
LNG	Liquified Natural Gas
K	Potassium
km	kilometer
km^2	square kilometers
m	meter
m^3	cubic meters
m asl	meters above sea level
mg/L	milligrams per liter
M&A	Montgomery & Associates
MW	megawatts
PEA	Preliminary economic assessment
ppm	parts per million
ppmv	parts per million by volume
QA	Quality Assurance
QC	Quality Control
RIGI	Régimen de Incentivo para Grandes Inversiones (Large Investment Incentive Scheme)

3. Reliance on Other Experts

3.1 Montgomery and Associates

Mike Rosko, relied on Sebastian Virgili of Pérez Alsina Consultores Mineros for the title opinion, “Due diligence and mining properties report – Río Grande Project”, dated October 20, 2025, for information regarding ownership and legal standing of the mining concessions. In addition to the document, NOA informed the QP of some modifications of the Project mining concessions that were to be considered within this technical report, and the QP relied on that information. Information on adjacent properties was also provided by NOA.

3.2 Hatch

E. Linton, A. Stamatiou and S. Hlouschko relied on information provided by the Owner and on behalf of the Owner by third parties. To mitigate the risk of errors and omissions in third party information, Hatch worked in accordance with good industry practice taking reasonable steps to confirm the accuracy and sufficiency of the information provided. This required Hatch to bring to the attention of the Owner any error or omission in the normal course of performing our review.

- Hatch relied on weather and evaporation data provided by the owner from weather stations in the project vicinity. This was used to estimate the pond evaporation area and produce the mass and energy balances which forms the basis of all equipment duties. This information directly impacts Sections 13, 17, 21 and 22.
- Hatch obtained reagent grades/compositions and pricing by identified suppliers to estimate reagent consumptions and costs in 2024 and 2025. Reagent pricing and composition directly impacts the process design, Section 21, and operating cost estimate, Section 21. Additionally, a Price Forecast for Caustic Soda was obtained.
- NOA Lithium provided input to operating cost estimates, Section 21, mainly associated with employee salaries, energy, catering and SG&A costs. Hatch reviewed the salaries alongside other inhouse data to ensure the salaries were within an appropriate range.
- NOA Lithium provided input information on tax rates, legal considerations and RIGI. Hatch reviewed the information for reasonableness by comparing to other publicly available reports.
- NOA Lithium provided input to capital cost estimates, Section 21, mainly associated with budgetary quotations received for earth moving for the pond construction and gas supply for power generation and heating. Hatch reviewed the budgetary quotations alongside other inhouse data to ensure reasonableness of costs. More details are provided in Section 21.
- Market reports published by Project Blue, Wood Mackenzie were utilized to establish current and projected lithium market conditions, for the purpose of the market assessment detailed in Section 19.

- None of the parties involved in the preparation of this report accepts any responsibility or liability for the any of the nontechnical information (e.g. guidance on taxes, government incentives and regulations) or data provided by the Owner or by other consultants.

3.3 Effective Date

The effective date of this report is October 30, 2025.

4. Property Description and Location

The Project is located in the Rio Grande salt lake, or “salar”, in the Salta province, in northwest Argentina, about 500 kilometers (km) from Salta province capital city, and approximately 220 km south of the town of Estación Salar de Pocitos. The Project is in the Argentinean Puna, at an elevation of approximately 3,660 meters above sea level (masl). The majority of the land controlled for the Salar de Rio Grande project has been secured under an agreement with existing owners and claimants. Project location is shown on Figure 4-1**.**

To access the project area, travel 275 km from Salta on the national route No. 51, crossing the town of San Antonio de Los Cobres to the town of Pocitos. Afterwards, continue along Provincial Route No. 27 (RP-27), approximately 84 km, until Tolar Grande village. Finally, travel along RP-27 road for 140 km to reach the north part of the salar, where there are secondary roads that leads to the concessions on the salar and surroundings.

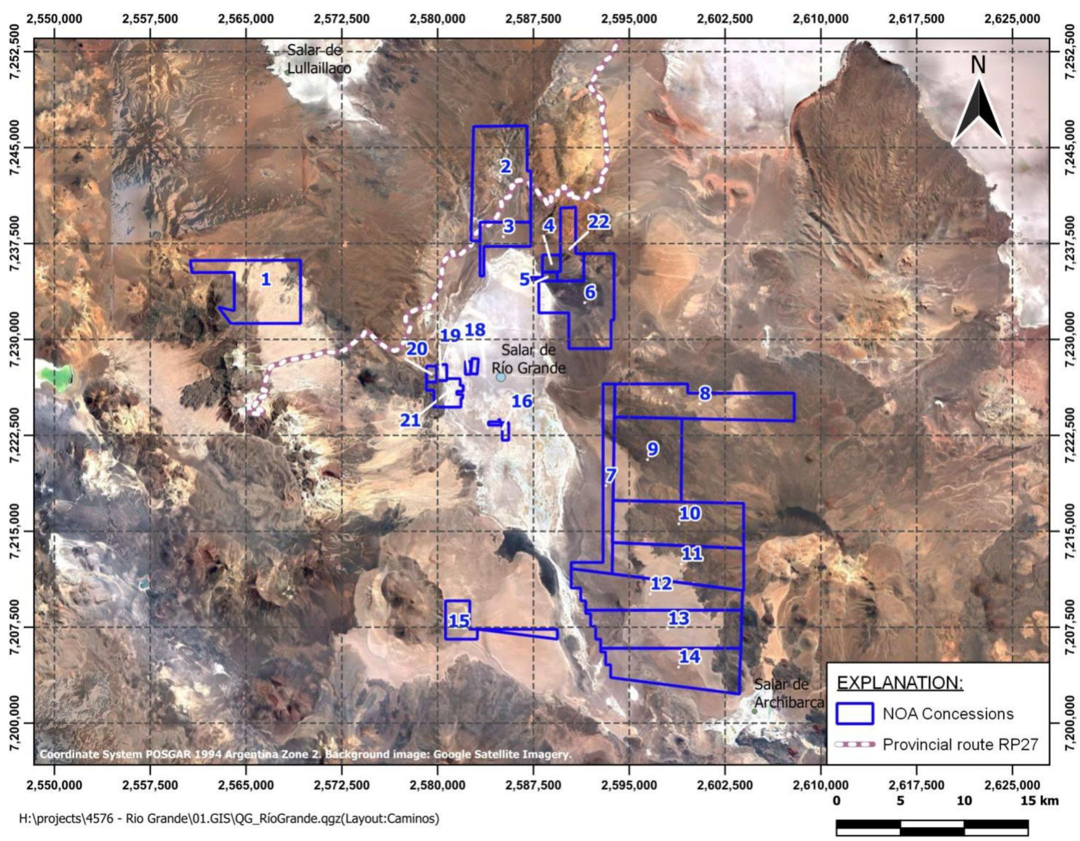


Figure 4-1: Location and Access to Salar de Rio Grande Project, Argentina

4.1 Description of Property

The Rio Grande Project currently consists of 22 Exploitation Project Concessions (minas) totaling 37,263.5 hectares (ha) registered in the Province of Salta. (the “Project Concessions” or “Mining Rights”). The Rio Grande project is located in what is called the Lithium triangle, formed by the provinces of Jujuy, Salta, and Catamarca in the Puna Argentina, the demand for the mineral has led to the commencement of exploration activities in the Salar. The locations for the concessions are shown in Figure 4-2.

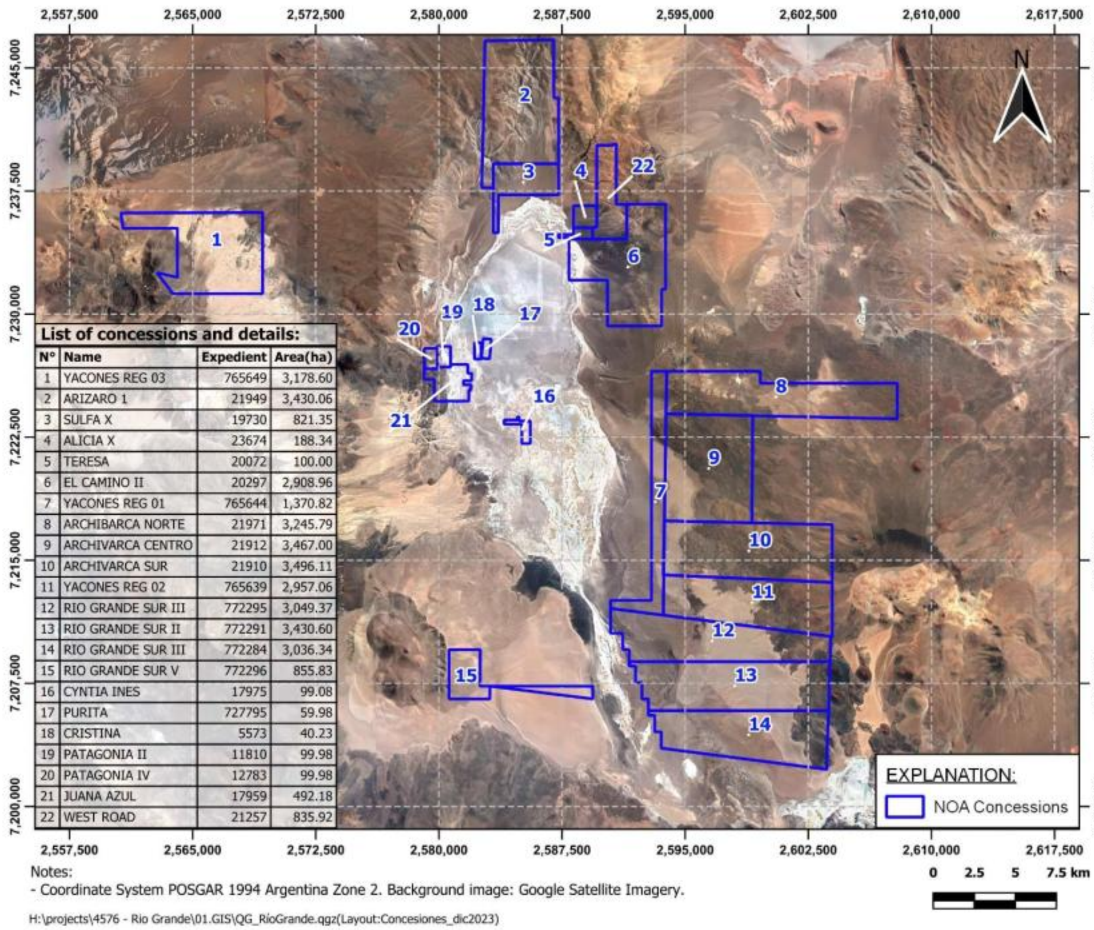


Figure 4-2: Location Map of the Project Concession Areas

Pursuant to Section 18 of the Argentine Mining Code, the term of duration of mines is perpetual, provided that the owner complies with the requirements to keep title in good standing. The entire process towards concession of a mine, and the subsequent procedure to maintain the concession valid and in force, is performed in a judicial title file at the Mining Court of Salta. Once a title to a mine is granted through said concession, the holder must comply with certain obligations in order to keep such title in good standing and conduct mining activities. Some of these obligations are:

i) Pay an annual canon in two installments due the day prior to the beginning of each calendar semester. Payment of canon is only due as from 3 years after the concession of a mine is granted and therefore some of the Mining Rights are not yet subject to this canon payment obligation (this is the situation of the Mining Rights in Chart 1 where it says “Does not pay yet”).

ii) Performance of mandatory works (“labor legal”) to be conducted on the mine site in order to determine its potential and characteristics for exploitation. Evidence of this labor legal must be filed with the Mining Court.

iii) A measurement or survey request defining the boundaries of the mine requested by the concessionaire, followed by some procedural steps that end up with the demarcation of said boundaries on the site.

iv) File a mining investment plan in each mine´s file. Once approved by the Mining Court, the holder of the mine must file annual affidavits during the following 5 years, reporting compliance with such plan.

In addition to the aforementioned obligations to keep the mine in good standing, prior to any mining activity, the title holder (concessionaire) must submit the respective environmental impact report (EIR), which extension and complexity depends on whether the activities to be carried out in the mine will involve prospection, exploration or construction and exploitation.

The EIR must be evaluated and further approved by the Mining and Energy Secretariat with a Declaración de Impacto Ambiental (DIA) and must be renewed, at a maximum, every 2 years.

If requirements (ii), (iii) and (iv) are not met in a timely manner, the Mining Court shall notify the concessionaire and give a deadline for its remediation.

Failure to do so by the concessionaire allows the Mining Court to cancel the mining concession and declare the vacancy of the mine.

In case of non-compliance with requirement (i), 2 months after the one annual period non-compliance with the payment, the concession will be cancelled ipso facto and the concessionaire may recover the mine if, within a non-renewable term of 45 days after being notified thereof, concessionaire pays the canon due plus a 20% penalty.

The Argentine Mining Code provides that mining claims once granted as concessions also grant the concessionaire legal access and occupation rights over the surface, by way of an easement on the area of said concessions.

All the Project Concessions controlled by NOA for the Salar de Rio Grande project (37,263.5ha) lie on fiscal (public) surface lands of the Province of Salta and therefore no agreement is needed, nor any indemnity is due to the Province, owner of said lands. This free use of fiscal lands for mining activities is provided for in Section 158 of the Argentine Mining Code, which states that, if the surface land corresponding to a concession belongs to the State or Municipality, its use will be free of charge for the concessionaire.

All of NOA Project Concessions include the right to take possession and perform exploration and evaluation works, and further construction and exploitation activities, in the properties. No royalties, back-in rights or similar agreements are included, unless expressly stated otherwise.

The Rio Grande Project Concessions were acquired by NOA by means of: 1. Direct applications made before the Mining Court of Salta for new mining concessions; and 2. Exploration with Purchase Option agreements executed with third parties, owners of the respective mining concessions, according to the agreements below.

All payments due under the agreements mentioned have been already made by NOA. Therefore, all Project Concessions under the aforementioned agreements have been transferred or are in the process of being transferred to NOA. Details of project concessions including status, type of concession, and terms of agreement are provided below in Table 4-1. Georeferenced information of the area covered by current tenements are given in Table 4-2.

i) Agreement for the exploration and option to purchase a 100% interest in a mineral property known as the El Camino II located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$75,000 by May 13, 2022;

Pay US$100,000 by November 13, 2022;

Pay US$150,000 by May 13, 2023;

Pay US$350,000 by November 13, 2023; and

Pay US$525,000 by November 13, 2024.

Additionally, if the option is exercised in full the purchaser must issue the vendor a 1% Net Smelter Royalty (“NSR”) only over gold, silver, zinc, copper and lead (does not include lithium or any other minerals). The purchaser must also pay an additional $1,000,000 to the vendor if the property is included in a definitive feasibility study within 30 days from the announcement of a construction decision or the beginning of commercial production at any scale, whichever happens earlier.

ii) Agreement for the exploration and option to purchase a 100% intertest in mineral properties known as Juana Azul, Cristina, and Cyntia Ines, located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$10,000 by February 18, 2022;

Pay US$252,400 by March 30, 2022;

Pay US$252,400 by August 29, 2022;

Pay US$252,400 by February 28, 2023; and

Pay US$494,800 by August 28, 2023.

iii) Agreement for the exploration and option to purchase a 100% intertest in mineral properties known as Sulfa X and Alicia X, located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$7,000;

Pay US$80,000 by March 30, 2022;

Pay US$300,000 by September 30, 2022; and

Pay US$460,000 by March 30, 2023.

iv) Agreement for the exploration and option to purchase a 100% intertest in a mineral property known as Teresa, located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$5,000 March 18, 2022;

Pay US$10,000 by May 27, 2022;

Pay US$25,000 by August 27, 2022;

Pay US$25,000 by November 27, 2022; and

Pay US$20,000 by April 27, 2023.

v) Agreement for the exploration and option to purchase a 100% intertest in mineral properties known as Patagonia II and Patagonia IV, located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$10,000;

Pay US$10,000 by April 30, 2022;

Pay US$6,666 by October 27, 2022;

Pay US$6,666 by April 30, 2023; and

Pay US$41,668 by October 22, 2023.

vi) Agreement for the assignment and transfer of mining rights in exchange for one single payment, in mineral properties known as Yacones RG 01, Yacones RG 02, Yacones RG 03, Yacones RG 04, Archivarca Sur and Archivarca Center, located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest NOA has completed a payment of US$500,000.

vii) Agreement to acquire a 100% interest in a mineral property known as the Rio Grande (Purita) Property located in the Los Andes Department in the Province of Salta, Argentina. To earn the interest the following must be completed:

Pay US$165,000;

Pay US$165,000 by January 19, 2024;

Additionally, the Company issued the vendor a 2% Net Smelter Royalty (“NSR”), which can be purchased back by the Company for US$100,000.

Table 4-1: File Information for the Project Property Areas

Property name	File number	Year	Area (Ha)	Type	Mineral	Registration date	Environmental Impact Report Resolution	Expiry	Last Canon payment	Type of agreement
Cristina	5,573	1966	40	Mine	Sodium sulfate, lithium and borates	Granted to Minera Rio Grande SA. Later transferred to NLB and registered on its behalf in February 6th 2023	Advanced Exploration (brine lithium drilling) approved by Resolution 005/23 dated February 2nd 2023.	Expiration not available yet. Waiting for approval.	1st Sem 2024	Acquired by NLB through exploration contract with purchase option of mining properties dated February 18th 2022. NLB exercised the purchase option and was transferred to it.
Patagonia II	11,810	1983	100	Mine	Sodium sulfate and chloride, lithium and borates	Registered in the name of Surnatrons SA in 1984. Later was transferred to Grupo Cesan S.A., and from it to Aminco SRL. Now was transferred to NLB in November 3rd 2023	Advanced Exploration (brine lithium drilling) approved by Resolution 128/23 dated November 11th 2023.	Expiry: December 14th 2025	1st Sem 2024	Acquired by NLB through exploration contract with purchase option of mining properties dated March 23rd 2022. NLB exercised the purchase option and was transferred to it.
Patagonia IV	12,783	1986	100	Mine	Salt, lithium and borates	Granted to Surnatrons SA on 24/02/84. Transferred to Grupo Cesan S.A. on 12/06/15. Granted to Surnatrons SA inFebruary 24th 1984. In June 12th 2015 was transferred to Grupo Cesan S.A., and from it to Aminco SRL. In November 3rd 2023 was transferred to NLB	Advanced Exploration (brine lithium drilling) approved by Resolution 128/23 dated November 11th 2023.	Expiry: December 14th 2025	1st Sem 2024	Acquired by NLB through exploration contract with purchase option of mining properties dated March 23rd 2022. NLB exercised the purchase option and was transferred to it.
Cyntia Ines	17,975	2004	99	Mine	Sodium sulfate, lithium and borates	Granted to Juan Manuel Medina in 2006. Later transferred to NLB and registered on its behalf in February 6th 2023	Advanced Exploration (brine lithium drilling) approved by Resolution 006/23 dated February 2nd 2023.	Expiration not available yet. Waiting for approval.	1st Sem 2024	Acquired by NLB through exploration contract with option to purchase mining properties dated February 18th 2022. NLB exercised the purchase option and was transferred to it.
Juana Azul	17,959	2004	492	Mine	Sodium sulfate, lithium and borates	Granted to Minera Rio Grande SA. in July 12th 2006. Later transferred to NLB and registered on its behalf in February 6th 2023.	Advanced Exploration (brine lithium drilling) approved by Resolution 005/23 dated February 2nd, 2023.	Expiry: Expiration not available yet.	1st Sem 2024	Acquired by NLB through exploration contract with purchase option of mining

Property name	File number	Year	Area (Ha)	Type	Mineral	Registration date	Environmental Impact Report Resolution	Environmental Impact Report Expiry	Last Canon payment	Type of agreement
								Waiting for approval.		properties dated February 18th 2022. NLB exercised the purchase option and was transferred to it.
Sulfa X	19,730	2009	821	Mine	Lithium, Borate, alkaline salts	Requested by Silvia Rodriguez on December 12th 2009. It was declared vacant, and Sergio Ignacio Aguilar and Luis Adrián Espinosa requested it. It was granted in November 26th 2018. Transferred to NLB in June 9th 2023.	Advanced Exploration (lithium brine drilling) approved by Resolution 008/23 dated February 2nd 2023.	Expiration not available yet. Waiting for approval.	1st Sem 2024	Acquired by NLB through exploration contract with option to purchase mining properties dated February 18th 2022. NLB exercised the purchase option and was transferred to it.
Teresa	20,072	2009	100	Mine	Sodium sulfate, lithium and borates	Registered in the name of Marcelo Fleming Patron Costas. Transferred to NLB in June 12th 2023.	Advanced Exploration (lithium brine drilling) approved by Resolution 007/23 dated February 2nd 2023.	Expiration not available yet. Waiting for approval. Expiry: February 3rd 2025	1st Sem 2024	Acquired by NLB through exploration contract with option to purchase mining properties dated March 18th 2022. NLB exercised the purchase option and was transferred to it.
Archivarca Sur	21,910	2013	3,496	Mine	Gold, silver and copper	Requested by Minas Argentinas SA. Registered in October 9th 2013. Vacant. Requested by Yacones SRL in February 23rd 2022. Waiting concession.	An EIR was filed for surface exploration for gold, silver and copper in September 28th 2022. Pending approval.	Expiry: October 15th 2026 .	Does not pay yet*	Acquired by NLB pursuant to a mining properties exploration and purchase option agreement, signed in March 22nd 2022
Archivarca Centro	21,912	2013	3,467	Mine	Gold, silver	Requested by Minas Argentinas SA. Registered in October 9th 2013. Vacant. Requested by Yacones SRL in February 23rd 2022. Waiting concession.	An EIR was filed for surface exploration for gold, silver and copper in September 28th 2022. Pending approval.	Expiry: October 15th 2026 .	Does not pay yet*	Acquired by NLB pursuant to a mining properties exploration and purchase option agreement, signed in March 22nd 2022
Archivarca Norte	21,971	2013	3,247	Mine	Gold and silver	Requested by Minas Argentinas SA. Registered in August 26th 2013. Vacant. Requested by Yacones SRL in February 23rd 2022. Waiting concession.	An EIR was filed for surface exploration for gold, silver and copper in September 28th 2022. Pending approval.	Expiration not Expiry: October 15th 2026	Does not pay yet*	Acquired by NLB pursuant to a mining properties exploration and purchase option agreement, signed in March 22nd 2022
El Camino II	20,297/10	2010	2,909	Mine	Copper, gold, silver, zinc	Requested by Minera El Toro SA in April 26th 2010. Registered in November 6th 2013.	Advanced Exploration (lithium brine drilling) approved by Resolution	Expiration not available yet.	1st Sem 2024	Acquired by NLB pursuant to a mining properties exploration

Property name	File number	Year	Area (Ha)	Type	Mineral	Registration date	Environmental Impact Report Resolution	Environmental Impact Report Expiry	Last Canon payment	Type of agreement
							091/23 dated July 14th 2023.	Waiting for approval.		and purchase option agreement, signed in May 13th 2022
Alicia X	23,674	2018	188	Mine	Lithium, Sodium sulfate	Claimed as mine Discovery by Sergio Ignacio Aguilar and Luis Adrian Espinosa. Waiting concession.	Advanced Exploration (lithium brine drilling) approved by Resolution 008/23 dated February 2nd 2023.	Expiration not available yet. Waiting for approval.	Does not pay yet*	Acquired by NLB pursuant to a mining properties exploration and purchase option agreement, dated February 18th 2022. NLB exercised the purchase option and was transferred to it.
Yacones RG 01	765,644/22	2022	1,371	Mine	Copper, gold, lithium	Claimed as mine discovery by Yacones SRL in February 2022. Waiting provisory registry.	Advanced Exploration with drilling filed in August 19th 2022. Pending approval.	Expiry: March 14th 2027	Does not pay yet*	Acquired by NLB pursuant to a mining properties transference agreement, signed in March 22nd 2022
Arizaro 1	21,949	2013	3,430	Mine	Gold, Silver, Lihium	Requested by Minas Argentinas SA. Registered in October 4th 2013. Vacant. Requested by Yacones SRL in March 19th 2022. Waiting concession.	In August 19th 2022 an EIR was filed for advanced exploration with drilling. Pending approval.	Expiry: March 14th 2027	Does not pay yet*	Acquired by NLB pursuant to a mining properties transference agreement, signed in March 22nd 2022
Yacones RG 02	765,639/22	2022	2,957	Mine	Copper, gold	Claimed as mine discovery by Yacones SRL in February 2022. Waiting provisory registry.	Pending**	Expiration not available yet.	Does not pay yet*	Acquired by NLB pursuant to a mining properties transference agreement, signed in March 22nd 2022
Yacones RG 03	765,649/22	2022	3,178	Mine	Copper, gold	Claimed as mine discovery by Yacones SRL in February 2022. Waiting provisory registry	Pending**	Expiration not available yet.	Does not pay yet*	Acquired by NLB pursuant to a mining properties transference agreement, signed in March 22nd 2022
Rio Grande Sur I	772,295	2022	3,050	Mine	Lithium, Borates	Claimed as mine discovery by NLB SRL in April 27th 2022. Provisionally registered.Pending concession.	In August 31st 2023 and advanced exploration EIR was filed. Pending approval.	Expiration not available yet. Waiting for approval.	Does not pay yet*	Claimed as a mine Discovery by NLB
Rio Grande	772,291	2022	3,431	Mine						

Property name	File number	Year	Area (Ha)	Type	Mineral	Registration date	Environmental Impact Report Resolution	Environmental Impact Report Expiry	Last Canon payment	Type of agreement
Sur II					Lithium, Borates	Claimed as mine discovery by NLB SRL in April 27th 2022. Provisionally registered. Pending concession.	In August 31st 2023 and advanced exploration EIR was filed. Pending approval.	Expiration not available yet. Waiting for approval.	Does not pay yet*	Claimed as a mine Discovery by NLB
Rio Grande Sur III	772,284	2022	3,037	Mine	Lithium, Borates	Claimed as mine discovery by NLB SRL in April 27th 2022. Provisionally registered. Pending concession.	In August 31st 2023 and advanced exploration EIR was filed. Pending approval.	Expiration not available yet. Waiting for approval.	Does not pay yet*	Claimed as a mine Discovery by NLB
Rio Grande Sur V	772,296	2022	856	Mine	Lithium, Borates	Claimed as mine discovery by NLB SRL in April 27th 2022. Provisionally registered. Pending concession.	In August 31st 2023 and advanced exploration EIR was filed. Pending approval.	Expiration not available yet. Waiting for approval.	Does not pay yet*	Claimed as a mine Discovery by NLB
West Road	21,257	2011	836	Mine	Gold, copper	Had been declared as vacant. It was requested by NLB in 2022. Pending concession.	Pending**	Expiration not available yet.	Does not pay yet*	Requested by NOA as a vacant mine
Purita	4,204	1962	60	Mine	Sodium, sulfite	Vacant. Requested by REMSA	Pending approval. Presented in March 15th 2023	Expiration not available yet. Waiting for approval	Does not pay yet*	Acquired by NLB in a public bidding performed by REMSA, requested then as vacant mine.

* Payment of canon is only due as from 3 years after the concession of a mine is granted and therefore these Mining Rights are not yet subject to this canon payment obligation.

Table 4-2: GaussKruger- Posgar Coordinates for the Project

N°	Name	File #	Area (has)	Property Coordinates	
				X	Y
1	YACONES RG 03	765,649	2,948.3	2,560,635.59	7,236,158.97
				2,569,711.18	7,236,191.71
				2,569,711.56	7,231,245.46
				2,563,800.00	7,231,245.00
				2,562,820.68	7,232,521.94
				2,564,072.00	7,232,238.00
				2,564,072.00	7,235,234.00
				2,560,747.70	7,235,228.86
2	ARIZARO 1	21,949	3,430.7	2,586,996.93	7,246,709.26
				2,587,000.01	7,243,168.62
				2,587,284.68	7,243,168.62
				2,587,284.65	7,239,161.32
				2,583,310.00	7,239,161.32
				2,583,310.02	7,237,686.07
				2,582,605.86	7,237,701.65
				2,582,803.27	7,246,645.76
3	SULFA X	19,730	821.5	2,587,284.68	7,239,161.32
				2,587,284.68	7,237,270.44
				2,583,611.83	7,237,270.44
				2,583,611.83	7,234,953.55
				2,583,310.00	7,234,953.55
				2,583,310.00	7,239,161.32
4	ALICIA X	23674	188.4	2,588,199.33	7,236,598.00
				2,589,610.13	7,236,598.08
				2,589,610.13	7,235,289.99
				2,589,354.58	7,235,289.99
				2,589,354.58	7,235,256.84
				2,588,199.33	7,235,256.84
5	TERESA	20072	100.0	2,587,276.78	7,234,848.42
				2,588,199.33	7,234,848.42
				2,588,199.33	7,235,256.84
				2,589,354.58	7,235,256.84
				2,589,354.58	7,234,566.00
				2,587,914.04	7,234,565.97
				2,587,914.04	7,234,657.79
				2,587,276.78	7,234,657.79

N°	Name	File #	Area (has)	Property Coordinates	
				X	Y
6	EL CAMINO II	20297	2,909.6	2,591,434.06	7,236,700.00
				2,593,800.00	7,236,700.00
				2,593,800.00	7,231,515.26
				2,593,566.50	7,231,515.26
				2,593,566.50	7,229,276.33
				2,590,260.78	7,229,276.33
				2,590,260.78	7,232,073.95
				2,587,914.04	7,232,073.95
				2,587,914.04	7,234,566.00
				2,591,434.06	7,234,566.00
7	YACONES RG 01	765644	1,370.8	2,592,942.70	7,226,515.26
				2,593,860.00	7,226,515.26
				2,593,658.79	7,211,661.18
				2,590,451.31	7,212,068.78
				2,590,451.31	7,212,557.32
				2,592,942.70	7,212,557.95
8	ARCHIVARCA NORTE	21971	3,246.6	2,599,566.50	7,226,515.26
				2,599,566.50	7,225,790.00
				2,607,910.00	7,225,790.00
				2,607,910.03	7,223,618.81
				2,593,831.27	7,223,931.72
				2,593,876.49	7,226,515.26
9	ARCHIVARCA CENTRO	21,972	3,467.8	2,593,831.28	7,223,931.72
				2,599,110.62	7,223,814.38
				2,599,060.59	7,217,286.65
				2,593,716.72	7,217,405.68
10	ARCHIVARCA SUR	21,910	3,497.0	2,593,716.72	7,217,405.68
				2,603,950.21	7,217,177.74
				2,603,950.35	7,213,655.30
				2,593,658.79	7,214,115.05
11	YACONES RG 02	765,639	2,957.1	2,593,692.01	7,214,113.57
				2,603,950.35	7,213,655.30
				2,603,950.50	7,210,353.31
				2,593,658.79	7,211,661.18
12	RIO GRANDE SUR I	772,295	3,050.1	2,603,870.80	7,210,363.44
				2,603,817.30	7,208,823.21
				2,591,581.88	7,208,823.21
				2,591,581.88	7,209,557.48

N°	Name	File #	Area (has)	Property Coordinates	
				X	Y
				2,591,190.72	7,209,557.64
				2,591,190.72	7,210,557.48
				2,590,451.31	7,210,557.59
				2,590,451.31	7,212,068.78
13	RIO GRANDE SUR II	772,291	3,431.4	2,603,817.30	7,208,823.21
				2,603,736.80	7,205,844.64
				2,592,755.34	7,205,844.64
				2,592,755.34	7,206,557.48
				2,592,364.18	7,206,557.64
				2,592,364.18	7,207,557.48
				2,591,973.03	7,207,557.64
				2,591,973.03	7,208,557.48
				2,591,581.88	7,208,557.64
				2,591,581.88	7,208,823.21
14	RIO GRANDE SUR III	772,284	3,037.1	2,603,736.80	7,205,844.64
				2,603,630.52	7,203,445.95
				2,603,630.52	7,202,260.66
				2,593,537.65	7,203,557.64
				2,593,537.65	7,204,557.48
				2,593,146.49	7,204,557.64
				2,593,146.49	7,205,557.48
				2,592,755.34	7,205,557.64
				2,592,755.34	7,205,844.64
15	RIO GRANDE SUR V	772,296	856.0	2,589,364.18	7,207,328.84
				2,589,364.18	7,206,557.96
				2,583,103.65	7,207,335.78
				2,580,609.41	7,209,557.96
				2,582,510.93	7,209,557.96
				2,582,495.97	7,207,336.46
				2,583,103.57	7,207,335.78
				2,583,097.51	7,206,557.96
				2,580,609.41	7,206,557.96
16	CYNTIA INES	17,975	99.1	7,223,489.80	2,585,557.62
				7,222,116.37	2,585,557.62
				7,222,116.37	2,585,047.62
				7,223,289.19	2,585,047.62
				7,223,295.80	2,583,967.31
				7,223,549.49	2,583,969.11

N°	Name	File #	Area (has)	Property Coordinates	
				X	Y
				7,223,552.27	2,584,767.15
				7,223,740.05	2,584,768.11
				7,223,739.45	2,584,877.53
				7,223,494.14	2,584,876.15
17	PURITA	4204	60.0	2,583,084.44	7,227,275.49
				2,582,583.23	7,227,320.18
				2,582,689.48	7,228,513.01
				2,583,185.46	7,228,471.05
18	CRISTINA	5573	40.2	7,227,267.72	2,582,160.75
				7,228,267.73	2,582,166.28
				7,228,267.72	2,582,565.92
				7,227,267.72	2,582,565.92
19	PATAGONIA II	11810	100.0	7,228,031.93	2,579,908.62
				7,228,031.93	2,580,708.62
				7,226,781.93	2,580,708.62
				7,226,781.93	2,579,908.62
20	PATAGONIA IV	12,783	100.0	7,227,908.91	2,579,108.71
				7,227,908.91	2,579,908.71
				7,226,658.91	2,579,908.71
				7,226,658.91	2,579,108.71
21	JUANA AZUL	17,959	492.2609	7,226,658.91	2,579,108.71
				7,226,658.91	2,579,908.71
				7,226,781.93	2,579,908.71
				7,226,781.93	2,580,708.62
				7,226,932.35	2,580,708.62
				7,226,932.35	2,581,758.60
				7,226,390.53	2,581,755.03
				7,226,389.87	2,581,854.98
				7,226,385.54	2,582,001.64
				7,225,940.46	2,581,976.05
				7,225,943.66	2,581,494.52
				7,225,695.24	2,581,492.87
				7,225,691.97	2,581,955.69
				7,225,391.27	2,581,953.78
				7,225,392.11	2,581,823.17
				7,224,703.59	2,581,818.12
				7,224,703.59	2,579,703.15
				7,226,019.59	2,579,703.15

N°	Name	File #	Area (has)	Property Coordinates	
				X	Y
22	WEST ROAD	21,257	836.1	2,590,610.13	7,240,289.99
				2,590,610.13	7,240,353.11
				2,590,800.00	7,240,353.11
				2,590,800.00	7,236,700.00
				2,591,434.06	7,236,700.00
				2,591,434.06	7,234,566.00
				2,589,354.58	7,234,566.00
				2,589,354.58	7,235,289.99
				2,589,610.13	7,235,289.99
				2,589,610.13	7,240,289.99

4.2 Exploration and Mining Permitting

According to Argentinian Law, mineral resources belong to the provinces where the resource is located. Such province has the authority to grant exploration permits and exploitation concession rights to private applicant entities. However, the Federal Congress is entitled to enact the National Mining Code and any substantive mining legislation which is similarly applicable in all of the country.

Provinces have the authority to regulate the procedural aspects of the National Mining Code and to organize each enforcement authority within its territory.

There are two types of mining rights that can be granted under Argentinean mining law: Exploration Permits and Exploitation Concessions.

- **Exploration Permits,** referred to as "Cateos" have time limits that allow the property holder to explore the property for a period of time that is related to the size of the property. Exploration Permits also require environmental permitting.
- **Exploitation concessions,** sometimes referred to as "Minas" or "Mining Permits" are licenses that allow the property holder to exploit the mineral resources of the property, providing environmental approval is obtained. These permits have no time limit as long as obligations in the National Mining Code are abided. All Rio Grande Project Concessions are exploitation concessions.

Depending on the province, Exploitation Concessions are granted by either a judicial or administrative decision (in Salta they are granted by the Mining Court). An Exploration Permit can be transformed into an Exploitation Concession any time before its expiration period by filing a report and paying a canon fee. The condition under which Exploitation Concessions are held is indefinite providing those annual payments are made.

Neither exploitation nor exploration can start mining activities without obtaining first the Environmental Impact Assessment (EIA) permit. Permitting for drilling in areas of both types of mineral tenure must specify the type of mineral the holder is seeking to explore and exploit. Claims cannot be over-staked by new claims specifying different minerals.

There are no private owners of the surface rights in area of the project, and the surface area is therefore owned by the province, in which each concession is located.

4.3 Environmental Studies, Permitting and Social or Community Impact

On March 2022, NOA submitted an EIA for some of the Project Concessions to the provincial mining authorities for its exploration activities on the Project. The report includes all the activities related with drilling exploration program. The EIA for each of the remaining Project Concessions was submitted afterwards or is under preparation, as detailed below.

According to the title opinion for the mining concessions, the following is concluded:

- There are no environmental liabilities arising from said files.

- As mentioned in Table 4-1, some of the Mining Rights have obtained a DIA (EIA approval) for superficial exploration. In April 2022, a new EIA was filed for additional exploration (drilling) in the core Mining Rights of Río Grande, which are the subject of the exploration program to be performed in this project ("Drilling Program").
- The rest of the Mining Rights in Table 4-2, as they are not yet part of the Drilling Program, are in the process of having their respective EIAs being prepared.

4.3.1 Project Permitting

Exploration and mining activities on cateos and minas are subject to a mining judge's approval of an EIA. Mining claims (of both types) must be specified for the type of mineral the holder is seeking to explore and exploit: claims cannot be overstaked by new claims specifying different minerals and adding mineral species to a claim file is relatively straightforward. The owner of the claims can add other minerals (i.e. in borates claims, the owners usually add lithium and potassium). Drilling permits require: (1) authorization from Mining Judge and, (2) an EIA. Drilling can be authorized on cateos or minas.

The surface exploration program that was completed and the ongoing drilling program on the Project concessions had/have all the necessary permits to operate.

Subject to those items disclosed in Section 25.1 herein, no significant factors or risks are known that may affect access, title, or right or ability to perform work on the property.

4.3.2 Social and Community Requirements

The Project is included within the area of direct influence of the village of Tolar Grande which implies the presentation of additional studies comply with the legislation for the development of the project. In order to comply with the national and provincial regulations, NOA presented a social baseline study of the locality of Tolar Grande, which is considered an area of direct influence, and also for San Antonio de Los Cobres, an area which is considered of indirect influence by the future exploration activities carried out by the company. The study included socioeconomic research with data collected in the nearby community located in the area of influence together with a sensorial study of the population, and the communication plan with communities that is planned to be developed in the Project area.

5. Accessibility, Local Resources, Climate, Infrastructure and Physiography

5.1 Accessibility and Transportation to the Property

The Project area is located in the Salta province. The operating season for the area is year-round, with no times of the year where access is restricted except for occasional brief periods when extreme weather events occur (mostly rains or snow). The nearest town with services is Tolar Grande, which is about 140 km north along Salta provincial road RP-27. According to 2010 census data, Tolar Grande has a population of 236 inhabitants and it has basic services such as lodging and a school. Salar de Pocitos Railway Station is about 216 km northeast of the project. It has a police station, first aid station, public telephone, restaurant and lodging.

San Antonio de Los Cobres is located about 110 km east from Salar de Pocitos and is the main town in the Andes Department (Salta). The town has a hospital, a police station, gendarmerie, a telephone office, convenience stores, gas station, inns, schools, workshops, etc.

The nearest large city is Salta, located about 500 km to the northeast of the Project area. Local resources in the area are very basic. Most supplies are brought from Salta or San Antonio de Los Cobres. Several mine camps occur in the area and are powered locally. There are no people living in the vicinity of the Project. The most common access to the Project is from the city of Salta, along national route RN-51 passing through the towns of Campo Quijano and San Antonio de Los Cobres. About 70% of Route 51 is paved and the remainder is in fairly good condition.

As part of the current surface exploration campaign, camp facilities were acquired and set up with a capacity of 50 to 60 people to cover tasks related to this stage. The camp is owned by NOA and located on the western edge of the Rio Grande salar. Footprint and/or location of future processing facilities have yet to be determined.

5.2 Topography, Elevation and Vegetation

The Project is located in a Puna environment corresponding to a high elevated plateau within the Central Andes that covers parts of the Argentinean provinces of Jujuy, Salta, and Catamarca. It is characterized as a high Andean desert with elevations that ranges between 3,600 masl in the basins to about 6,000 masl in the high mountains of the volcanic arc. The physiography of the region is characterized by extensive depressions and basins separated by mountain ranges, with marginal canyons cutting through the Western and Eastern Cordilleras and numerous volcanic centers, particularly in the Western Cordillera. The Altiplano-Puna magmatic volcanic arc complex (commonly referred to as “APVC” in literature) is located between the Altiplano and Puna. It is associated with numerous stratovolcanoes and calderas.

Recent studies have shown that the APVC is underlain by an extensive magma chamber at 4 to 8 km deep (de Silva, 1989) and potentially the ultimate source of anomalously high values of lithium in the region. Abundant dry salt lakes (salars) fill many basins Figure 5-1. In general terms, it is a zone with low humidity and limited soil development.

Locally, the project is in the Salar de Rio Grande basin. The elevation at the surface of the salar is approximately between 3,660 and 3,670 masl and in the concession areas of the Project, elevation ranges between 3,600 and 4,800 masl (Figure 5-2). The salar is located within a closed, endorheic basin filled by evaporitic and clastic sediments. Surface water inflow to the salar is marked by seasonal precipitation events, mainly in the period between December and March.

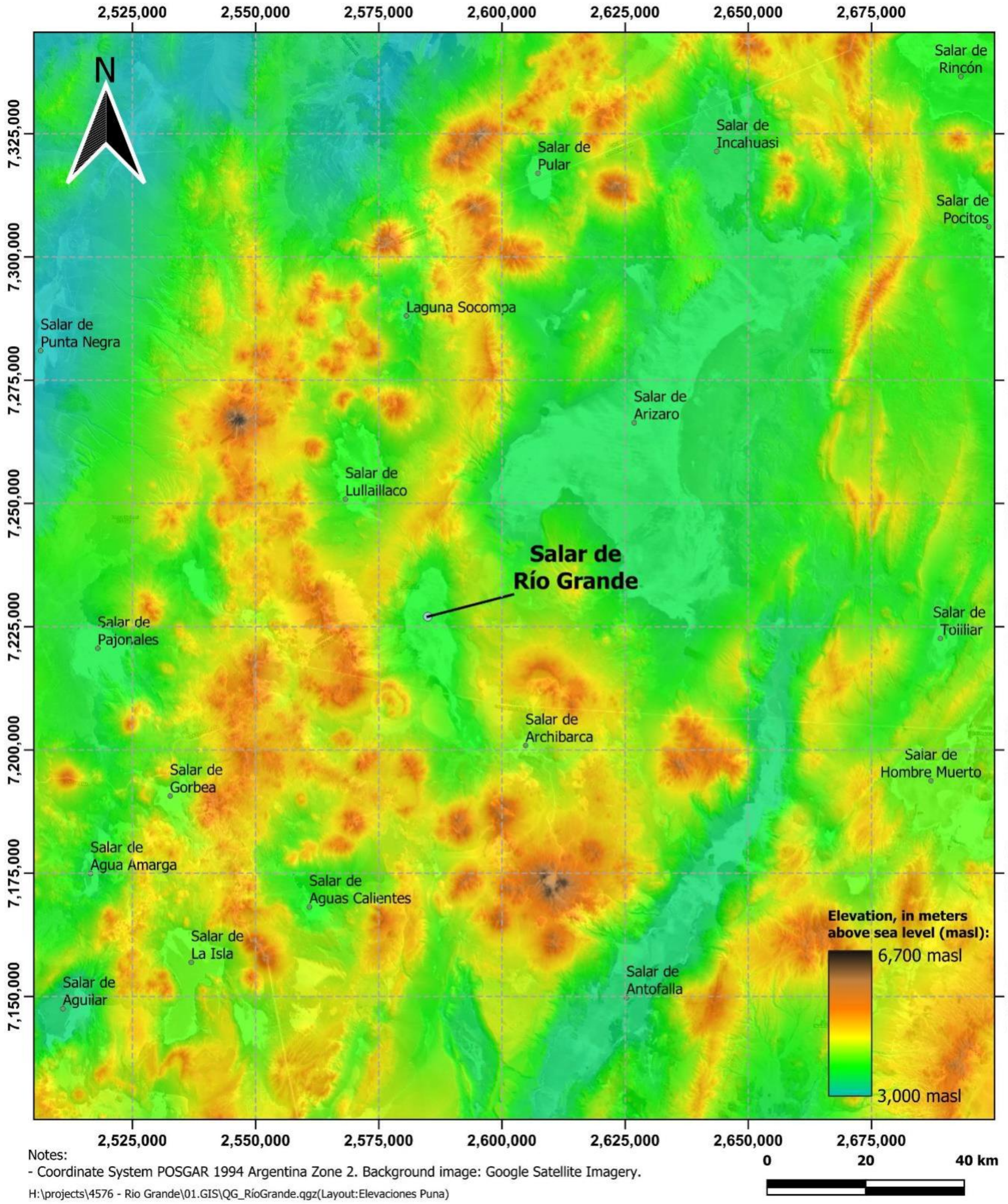


Figure 5-1: Digital Elevation Model of the Puna Showing Several Salars

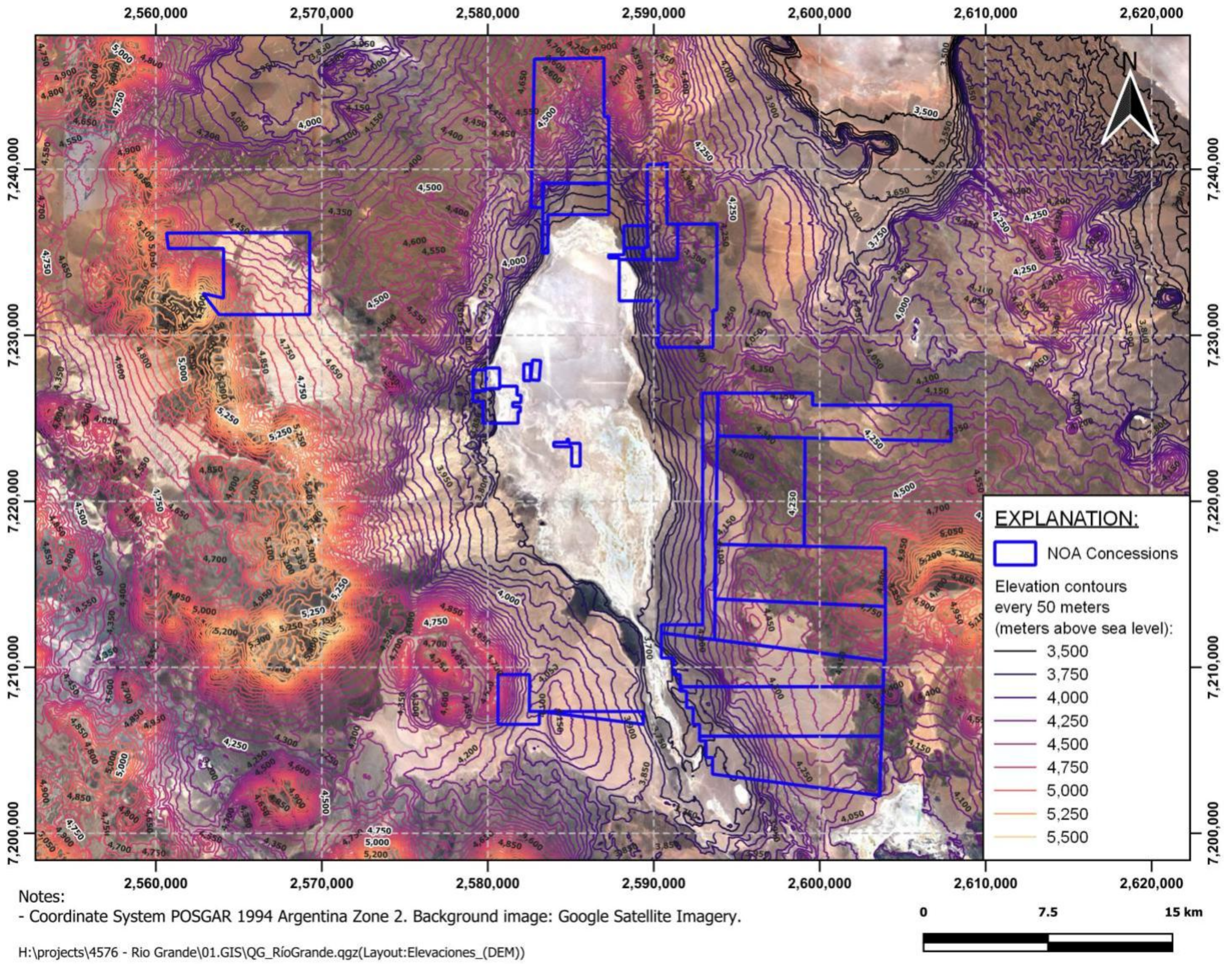


Figure 5-2: Elevation Contours for the Salars de Rio Grande Project Area

Due the extreme weather conditions in the region, the predominant vegetation is high-altitude, xerophytic type plants, dominated by woody herbs, grasses, and cushion plants. Due to the high salinity on the salar surface, the core area of the salar is devoid of vegetation. In the Project area, two phytogeographic provinces exist and have been described by Cabrera (1994): the Puneña Province and the Altoandina Province. Both are included in the more general Andean-Patagonian domain. The division into provinces within the Andean-Patagonian domain is based on the differences of some genera and species:

- **Puneña Province:** With a predominance of bushes of the Fabiana genera, Parastrephia, Acantholippia, Senecio, Nardophyllum, Baccharis, Junellia, and others. Vegetation of this domain presents a simple structure.
- **Altoandina Province:** With predominance of xerophilous grasses of the genera Festuca, Deyeuxia, Deyeuxia, Stipa, Poa, and endemisms of Werneria, Nototriche; Barneoudia, Hexaptera, Pycnophyllum, and others.

In the region there exists a flora adapted to unfavorable climatic conditions, such as the almost complete lack of large trees and shrubs, the development of low, creeping, shrubby plants, and perennial bushes (Cabrera, 1958).

5.2.1 *Puneña Province*

The Puneña Province occupies the largest area in the study area, between 3,400 and 4,400 masl although in vast sectors of the area it rises only up to about 3,900 masl. Above this altitude is a gradual transition and the coexistence of floristic elements of this Province and the Altoandina Province. The dominant vegetation is that of "Estepa Arbustiva." Toward the north and the east, the greater humidity favors the increase of the diversity. Toward the south and the west, the aridity increases, and is the reason why the plant communities are less abundant and why sometimes the vegetation disappears completely.

5.2.2 *Altoandina Province*

The Altoandina Province typically includes the higher altitude areas, above 4,400 masl, although in the study area it is also presented at lower altitudes (4,000 masl) in transition with the Puneña Province. The dominant vegetation is the Steppe Herbaceous or Graminosa type. All the plants have adapted to living in extreme cold, dry, and windy conditions.

5.2.3 *Wildlife*

Despite the challenging climate of the region, several species occupy the Puna region. Cabrera and Willink (1980) describe the animal species in the Puna region. In the Salar de Rio Grande region, camelids exist such as vicuña (Vicugna vicugna). A less common camelid in the area is the guanaco (Lama guanicoe). Domesticated llamas (Lama glama) also occur in the region as well as the donkey (Equus asinus) which was introduced by inhabitants of the area, but not necessarily in the Project basin.

Smaller animals and rodents include the South American gray fox (Lycalopex griseus), puna fox (Lycalopex culpaeus) which represents a carnivorous species present in the area, a mole (the Oculto) (Ctenomys opimus), and the Puna mouse (Abrothrix andina).

Birds found in the region include several species of Flamingo (Phoenicopterus andinus), which lives in moist and saline lagoons along with the Andean Goose, Guayata or Huallata (Chloephaga melanoptera), pitotoy (Tringa spp.), playeritos (Calidris spp.), palomita dorada (Metriopelia aymara), caminera puneña (Geositta punensis), jilguero cara gris (Sicalis spp.), matamico andino (Phalcoboenus megalopterus) and several species of duck and avocets. The keu or queú (Tinamotis pentlandi) inhabits the highlands and is similar to a large partridge. Darwin's Rhea (ñandú or suri) (Pterocnemia pennata) is similar to the ostrich and inhabits the lower plains of the region. Other small parrots, canasteros, goldfinches, Andean gulls, doves, and owls exist as sporadic inhabitants.

Lizards are known to occur in the area, including (Liolaemus ornatus Koslowsky), (Liolaemus irregularis Laurent), (Liolaemus bitaeniatus), (Liolaemus dorbigni Koslowsky), and (Liolaemus multicolor and Liolaemus andinus poecilochromus). Two amphibians occur in the region, including the Andean toad (Bufo spinulosus) and frogs from the genus (Telmatobius).

5.3 Climate And Length of Operating Season

The climate in the Project area is characterized as a cold, high altitude desert. The main rainy season is between December through March. The period between April and November is typically dry but precipitation may occur as snow or hail. Monthly precipitation data were obtained from a database published by Instituto Nacional de Tecnología Agropecuaria (Bianchi and others, 2005), public NI 43-101 technical reports for other projects in the vicinity, and historic information from nearby meteorological stations including Mina La Casualidad, Salar de Pocitos, Tincalayu, and El Fenix. Average annual rainfall at these stations is given in

Table 5-1: Meteorological Stations Near the Project Area

Station	Elevation (m asl) [a]	Register length	Annual rainfall (millimeters)
Salar de Pocitos[b]	3,600	1950-1990	44
El Fenix Camp[c]	4,000	1992-2016	77.4
La Casualidad[d]	4,000	1963-1972	37
Tincalayu[e]	4,000	1979-2003	64

[a] m asl = meters above mean sea level
[b] Bianchi and others (2005)
[c,e] Houston & Jaacks (2010)
[d] Hains (2018)

Solar radiation is intense, particularly during the summer months of October through March, leading to extremely high evaporation rates. Strong winds are frequent in the Puna, reaching speeds of up to 80-90 kilometers per hour (km/hour) during the dry season. During summer, warm to cool winds are generally pronounced after midday and winds are usually calm during the night. Conditions mentioned above are favorable to develop lithium brine projects related with the use of evaporation ponds to obtain concentrated brines. With exception of minor delays that may occur due to heavy snow, which happens on average one or two times per year for as long as several days per event, the length of the operating period in the salar is effectively all year.

The Pan Evaporation Rate was estimated from data recorded in weather station installed in the central area of Salar de Llullaillaco (30km aprox. between camps). The freshwater pan evaporation rate ranges from 2,365 mm/year to 3,001 mm/year for three years (2015-2017). A net evaporation rate for ponds is calculated by multiplying the fresh water pan by activity of brine by pond and form factor to convert data pan to brine pond evaporation rates.

Table 5-2: Climate Data for the Salar de Llullaillaco, with calculated Pan Evaporation

Month	Sum Precipitation (mm)				Average Temperature (°C)				Freswater Pan evap (mm)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Jan	0.0	0.0	32.0	0.3	12.6	12.9	13.0	10.8	123.2		309.5	317.9
Feb	1.0	2.8	14.2	37.8	11.7	13.0	11.0	10.8	211.4		231.2	228.0
Mar	43.2	0.0	0.0	5.8	10.2	10.5	10.2	9.6	183.5	233.5	305.0	252.8
Apr	0.0	2.0	0.0	0.0	6.7	7.8	6.1	8.5	153.9	169.0	240.5	173.0
May	2.3	0.0	7.3	0.0	2.7	5.2	3.4	3.0	135.2	156.0	234.3	167.5
Jun	0.0	0.0	24.0	0.0	1.6	2.1	-1.8	1.1	110.2	99.2	108.0	162.9
Jul	0.0		0.0	0.0	1.0	1.6	-0.2	1.2	148.6	171.7	130.5	113.0
Aug	0.0	0.3	0.0	0.0	2.9	2.4	1.5	0.6		145.4	187.0	135.5
Sep		0.0	0.0			5.9	4.6			198.7	259.0	
Oct		0.0	0.3			6.9	6.8			324.2	319.7	
Nov	0.0	0.0	0.0		9.1	8.6	8.1		261.3	314.0	324.5	
Dec	0.0	0.0	0.0		10.6	11.0	10.8		292.2	329.9	352.2	
Sum/Avg	**46.5**	**5.1**	**77.7**	**43.8**	**6.8**	**7.3**	**6.1**	**5.7**	**2336.5**	**2615.3**	**3001.4**	**1550.6**
Note	*1*			*2*	*3*			*2*	*3*	*4*		*2*

1 : Sum assigning missing data months at '0' precipitation

2 : sum or Average to date

3: Sum or average calculated assigning missing months the average of 2016-2017 compartive months

4: Sum calculated assigning missing months the average of 2015, 2017 and 2018 compartive months

5.4 Sufficiency Of Surface Rights

As described in Section 4.1, NOA holds over 37,263.5 ha of mineral tenure. In the immediate vicinity of the historical exploitation area, there is sufficient area to support construction of a lithium operation. Planned infrastructure, in the event of mine construction, could include evaporation ponds, wells, permanent housing, and a carbonation plant as described in the sections below.

5.5 Infrastructure Availability and Sources

Salta, the largest urban center in the proximity of El Salar de Rio Grande, has a population of around 500,000. It is located 500 km northeast in a straight line from the Project area and 320 km by road.

Salta is the primary commercial center for the region and most supplies, fuel and equipment may be purchased here and trucked to the project site year-round.

5.5.1 Electrical Power

A 600-megawatt (Mw), 375 kilovolt power line between Salta and Mejillones in Chile passes about 180 km northeast of the Property. The line reportedly transmits 110 Mw from Mejillones to the Argentinean Interconnected System. Also, 2 photovoltaic plants, La Puna Solar and Altiplano, are located near the town of Olacapato, in the department of Los Andes. Since October 2021, both plants are connected to the Argentina Interconnection System.

There is one existing connection and three projects in the region that present opportunities for energy supply in the future:

9. **LAT TERMOANDES:** Existing Network. Is a line of High Voltage, 345kV from Cobos-Salta to Mejillones Chile. It is approximately 150km from the Rio Grande project.

Figure 5-3: High Voltage line existing of LAT TERMOANDES.

10. **YPF:** High voltage line project, 350kV, running from Puna transformer station, in the province of Salta to the Kachi project in the province of Catamarca. Is a project of 300km in 2 phases; first part from Puna transformer station, in the province of Salta to Hombre Muerto Salar in the province of Catamarca with possible track on provincial route RP-17. Then continue second part by RP-43, in 220kV, to Kachi Project in the province of Catamarca.

    The project's is in the process of obtaining environmental permits, with basic engineering defined. This line is within approximately 130 km from the project Rio Grande.

Figure 5-4: High Voltage line project of YPF

11. **GENNEIA:** High voltage line project, 350kV, from Puna transformer station, in the province of Salta to Taca-Taca project in province of Salta.

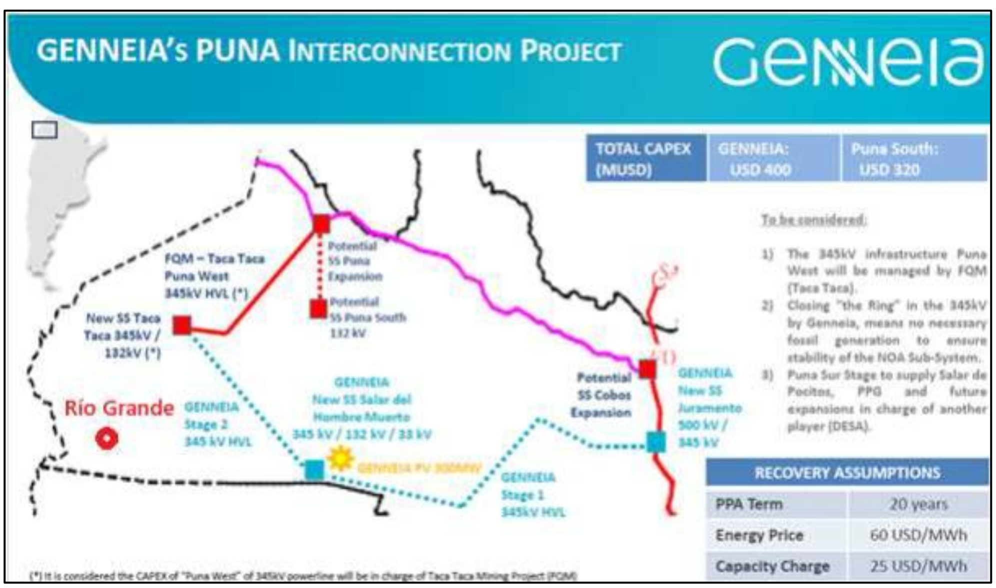


Figure 5-5: High Voltage line project of Genneia

12. **EDESA:** High voltage line project, 345kV, from Puna transformer station, in the province of Salta to Taca-Taca project in province of Salta, and then continue to a line 132kV to Rio Grande.

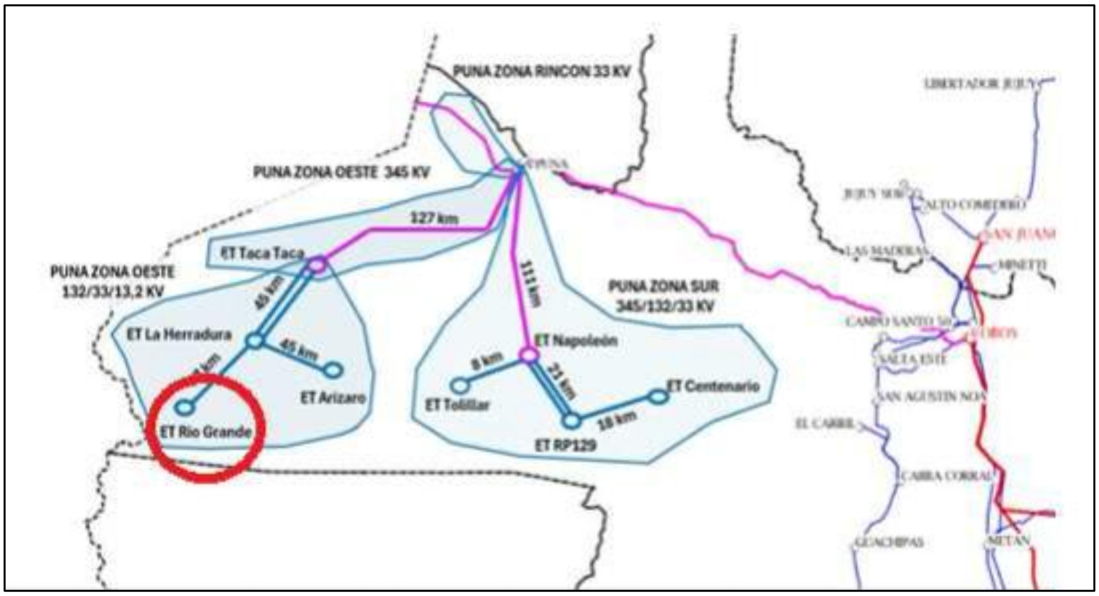


Figure 5-6: High Voltage line project of EDESA

Since the options for electrical power mentioned above are not currently available, this report considers thermal and solar generation for electrical power sources. These opportunities will be evaluated in subsequent phases of study as their development advances.

As described in Section 18.4.2, this PEA base case electrical power supply was based on generating power with gas supplied via a “virtual LNG pipeline” that is further described in this report. This base case also includes supplemental power from solar generation.

5.5.2 Natural Gas Pipeline

A natural gas line (Gasoducto de la Puna) passes along provincial highway RP-17 south from Salar de Pocitos until Salar del Hombre Muerto with an extension of 130 km. The gas line begins at the junction with the Atacama gas pipeline and extends for 184 km from the provincial border with Jujuy, to the Salar de Pocitos.

5.5.3 Railway Antofagasta-Salta

The nearest rail line in the region is an existing narrow-gauge railway between Salta, Argentina and Antofagasta, Chile. Section between Güemes and Socompa it’s called “Ramal C-14” and is part of the national railways line. A railway station called Caipe is located about 70 km north of the Salar. Figure. shows the location of the track. Two companies administer it: the Chilean Ferrocarril Antofagasta – Bolivia (Chilean Luksic Group) and the Argentinean state owned Ferrocarril General Belgrano. Currently, the track from La Polvorilla to Salta is operated by the Tren de las Nubes and is not currently in use east from San Antonio de Los Cobres.

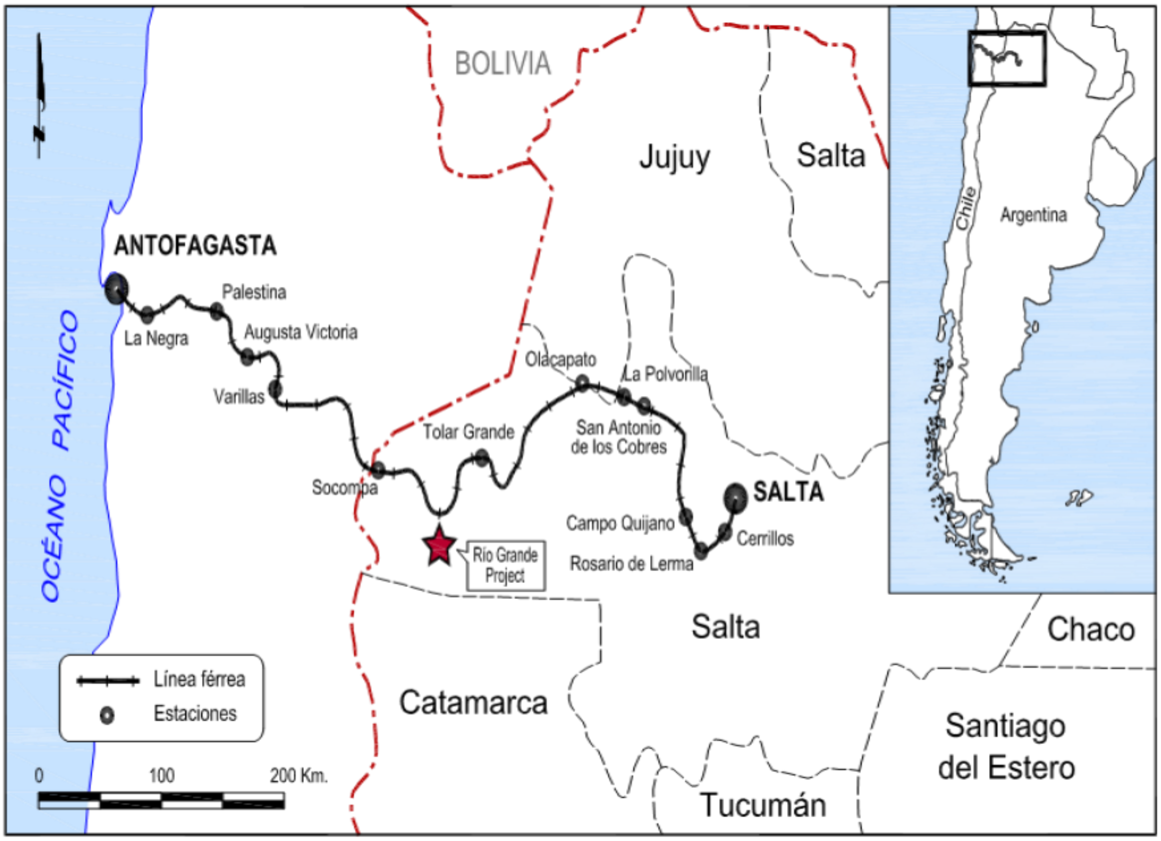


Figure 5-7: Railroad Line from Mejillones to Salta

5.5.4 Water

NOA installed a water supply well that provides potable water for exploration operations. NOA also explored for and found a freshwater source located just north of the project. Projected water demand for production activities will be refined as the conceptual process design is refined. Freshwater enters the salar and NOA will evaluate the feasibility of securing this freshwater supply.

Potable and non-potable water is available in Pocitos, however, the water demand for off-site production facilities has not been confirmed yet.

5.5.5 Road Network

The Project is connected to Salta, Salar de Pocitos, and San Antonio de Los Cobres by the way of a well maintained, paved, and unpaved road network that includes National Route 51 and Provincial Route 27, which is a gravel and dirt road. Provincial Route 27 connects with secondary gravel and dirt roads that leads to the concessions of the Project in the Salar de Rio Grande area.

5.5.6 *Mining Personnel*

The nearest community with basic services is the town of Tolar Grande, located northeast from the project along RP-27. The town of Pocitos is located northeast from the project, also on provincial road RP-27 at the north end of Salar de Pocitos about 250 km distance from site but has very limited services. The nearest town with full services, including fuel and medical services, is San Antonio de Los Cobres, located about 4-5 hours drive from the site, and Salta, located about 7-8 hours from the site. Mining personnel are available in the Salta, Catamarca, and Jujuy Provinces; limited local labor is available at the towns of Olacapato and Tolar Grande.

There is currently an exploration camp with facilities in the basin to support the ongoing exploration activities. The camp is owned by NOA. Figure 5-1 and Figure 5-2 show the NOA camp facilities on the Salar de Rio Grande.

Figure 5-8: NOA Camp Facilities, Salar de Rio Grande.

Argentina has sufficient experienced and skilled professionals to operate lithium, potash and boron recovery circuits. NOA will rely on a combination of regional personnel (e.g., Salta-based) and local resources.

5.5.7 *Potential Waste Disposal Areas*

Residual salts from on-site processing will be used as construction fill, if needed, or graded into the existing salar. Precautions will be taken to minimize potential impacts to fresh water supplies within or adjacent to the salar. This practice is consistent with the guidance received from the Ministry of Mines.

5.5.8 *Potential Processing Plant Sites*

The base case production scenario will include construction of on-site process ponds for concentration and pre-treatment of brine.

5.5.9 Communications

Currently, only satellite phone communication is available at the Project location, and limited Wi-Fi at the NOA camp.

6. History

The Salar de Río Grande has a rich history as a source of sodium sulfate in the region since the 1940s. Small companies exploited the resource between 1952 and 1975, producing a total volume of close to 60,000 tons of sodium sulfate. Sulfo Argentina and Minera Altas Cumbres operated different properties between 1976 and 1991, reaching a production volume of 76,000 tons, between shallow wells and surface material located in the southern part of the Salar de Rio Grande. During 1998 the Altas Cumbres property was acquired by SurNatron S.A., operating sporadically between 1998 and 2008. Subsequently, ADY Resources acquired the properties in 2008, carrying out an exploration program that included surface sampling along with a drilling and pumping test program during 2011. The information obtained was used to estimate sodium sulfate resources (Hains, 2018).

By 2013, sodium sulfate production ended, due to the development of a new technology that eliminated the use of sodium sulfate for the process of obtaining lithium carbonate. During the period 2009 to 2013, ADY extracted a volume of 49,700 tons of brine and 34,000 tons of surface material Hains, 2018).

Several exploration activities have occurred on the salar area since 1998. Exploration programs related to lithium-rich brine included surface brine sample, drilling and testing campaign developed in 2011 and carried out by ADY Resources. Additional exploration using surface geophysical methods such as CSAMT and was conducted on 2017 by LSC Lithium in concessions acquired to ADY Resources. Drilling and testing, and confirmation sampling by LSC as part of a due diligence process were conducted in 2017 in the Salar area and documented by Hains (2018).

6.1 Historic Surface Exploration

Exploration in the Rio Grande basin has occurred in various forms during the last decade or so in the Salar de Rio Grande Basin on adjacent concessions. This section includes a brief summary of these historic activities by:

- SurNatron S.A.
- ADY Resources
- LSC Lithium.

These studies were not specifically conducted in the Project area controlled by NOA, but are relevant to the geological and hydrogeological understanding of the salar basin and aquifer system due to their proximity to the Project.

6.1.1 Previous Third-Party Exploration for Non-Lithium Elements

Previous studies related to the exploration and development of non-metallic minerals such as sodium sulphate, on the Salar de Rio Grande includes:

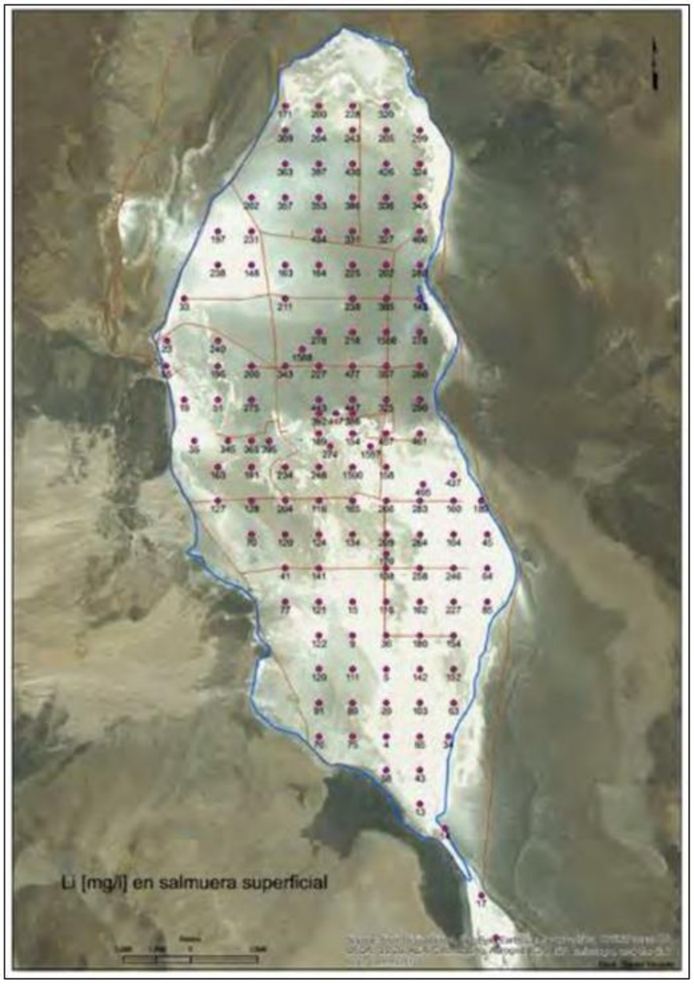
- Surface sampling and shallow auger drilling and sodium sulphate resource estimate prepared in 1998 for SurNatron S.A., and
- Report on geology and brine chemistry prepared by Mercoaguas for SurNatron in 2010.

6.1.2 Year 2011 Surface Sampling

ADY Resources completed a program of surface sampling across its tenements at Rio Grande in 2011. The program involved shallow pit sampling using manual methods. 164 samples were collected, including 8 duplicates and 7 samples collected in the Vega Rio Grande and Rio Grande area south of the actual salar. Samples were assayed for major chemical constituents including lithium, with summary values reported for percentage sodium sulphate and lithium. The results of the historic surface sampling demonstrated widespread distribution of lithium-rich brine across the salar and were used to guide the 2011 diamond drilling program (Hains, 2018).

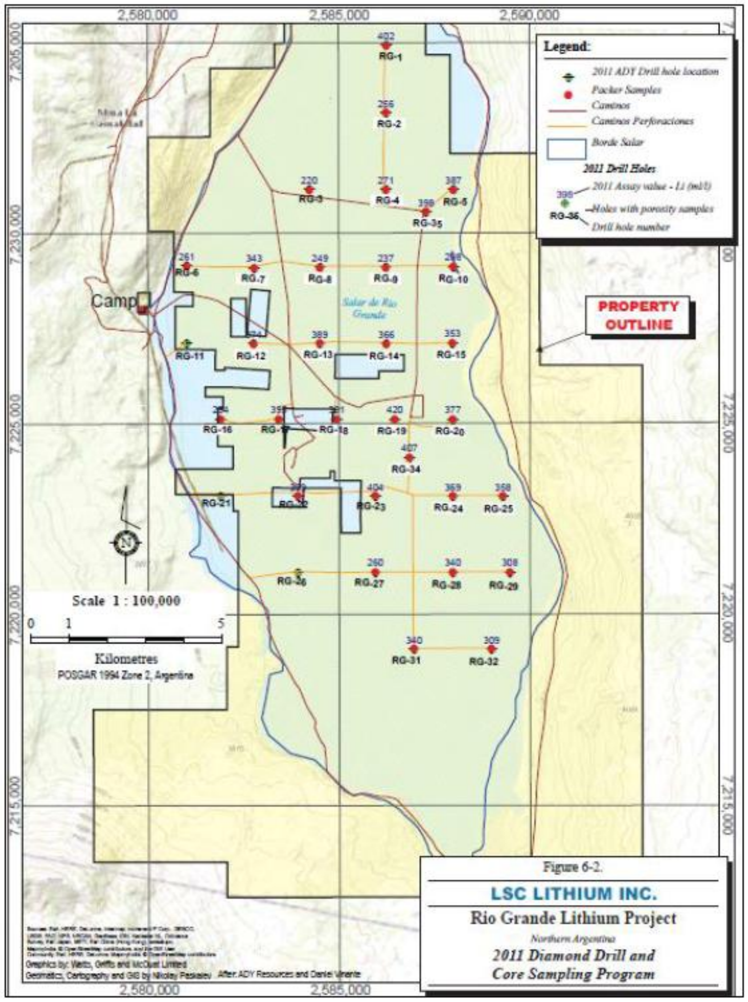
Surface sampling results for Lithium (Li) and packer pump test results to 50 m depth from the 2011 exploration program; locations for the 2011 sampling program are shown on Figure 6-1. Locations for the 2012 sampling program are shown on Figure 6-2. Average assay values for the surface sampling were 42 grams per liter (g/L) for sodium sulphate and 380 mg/L for Li. Assay values for samples from packer tests were 44 g/L for sodium sulphate and a showed a range from 220 to 420 mg/L for Li. Average Mg/Li ratios for the packer samples were in the range of 12:1to 13:1, Mg:Li; with SO_4:Li ratios typically in the 100:1 range (Hains, 2018).

Based on the analysis of core hole drilling, estimated porosity was 13.5% for ADY concessions. This porosity value was assigned from surface down to 50 m depth (Hains, 2018).



Source – (Hains, 2018)

Figure 6-1: 2011 Surface Sampling Results for Li – Salar de Rio Grande.



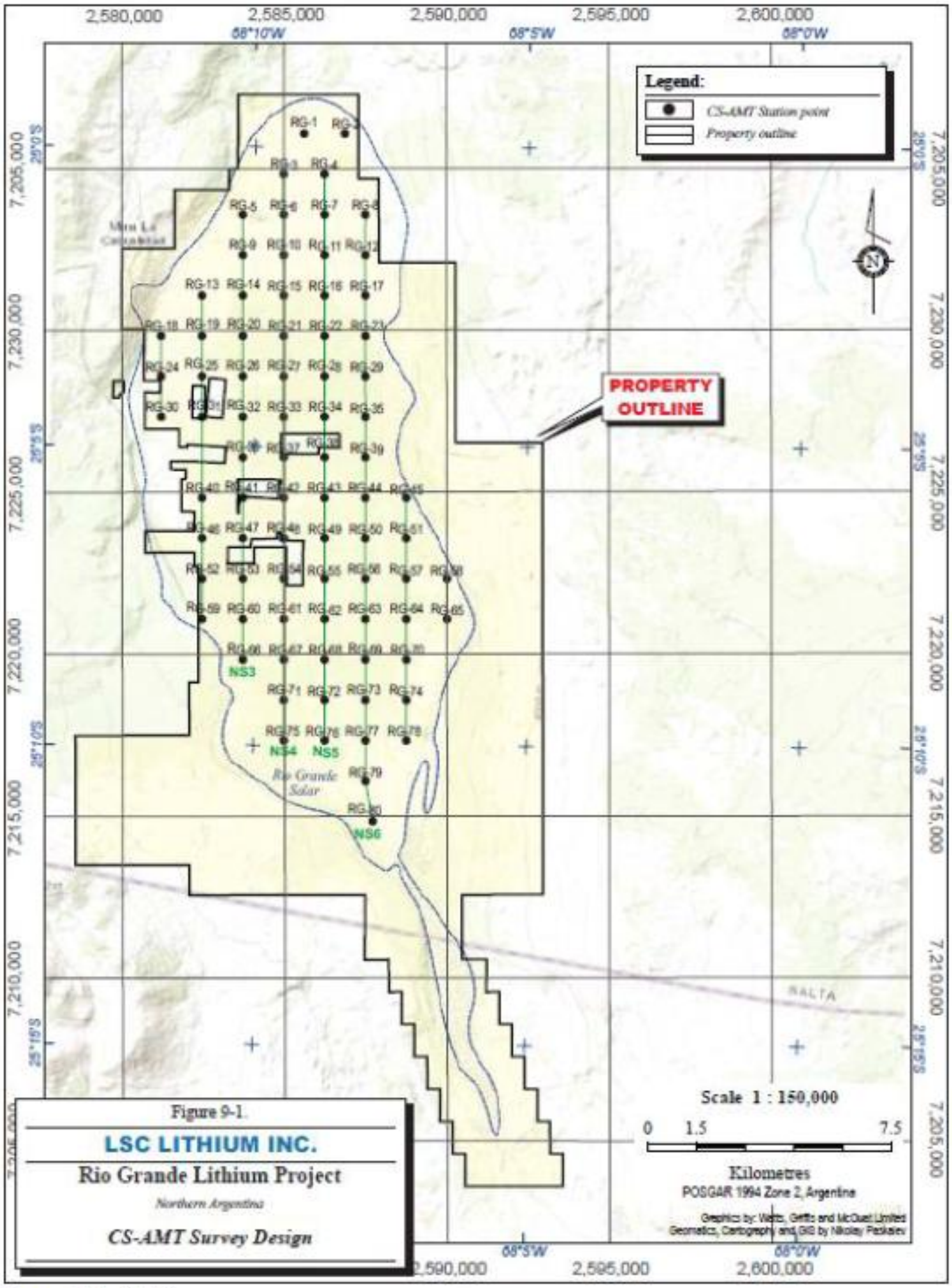
Source – (Hains, 2018)

Figure 6-2: Locations for the 2012 Sampling Program.

6.1.3 Year 2017 Exploration by LSC Lithium Corporation

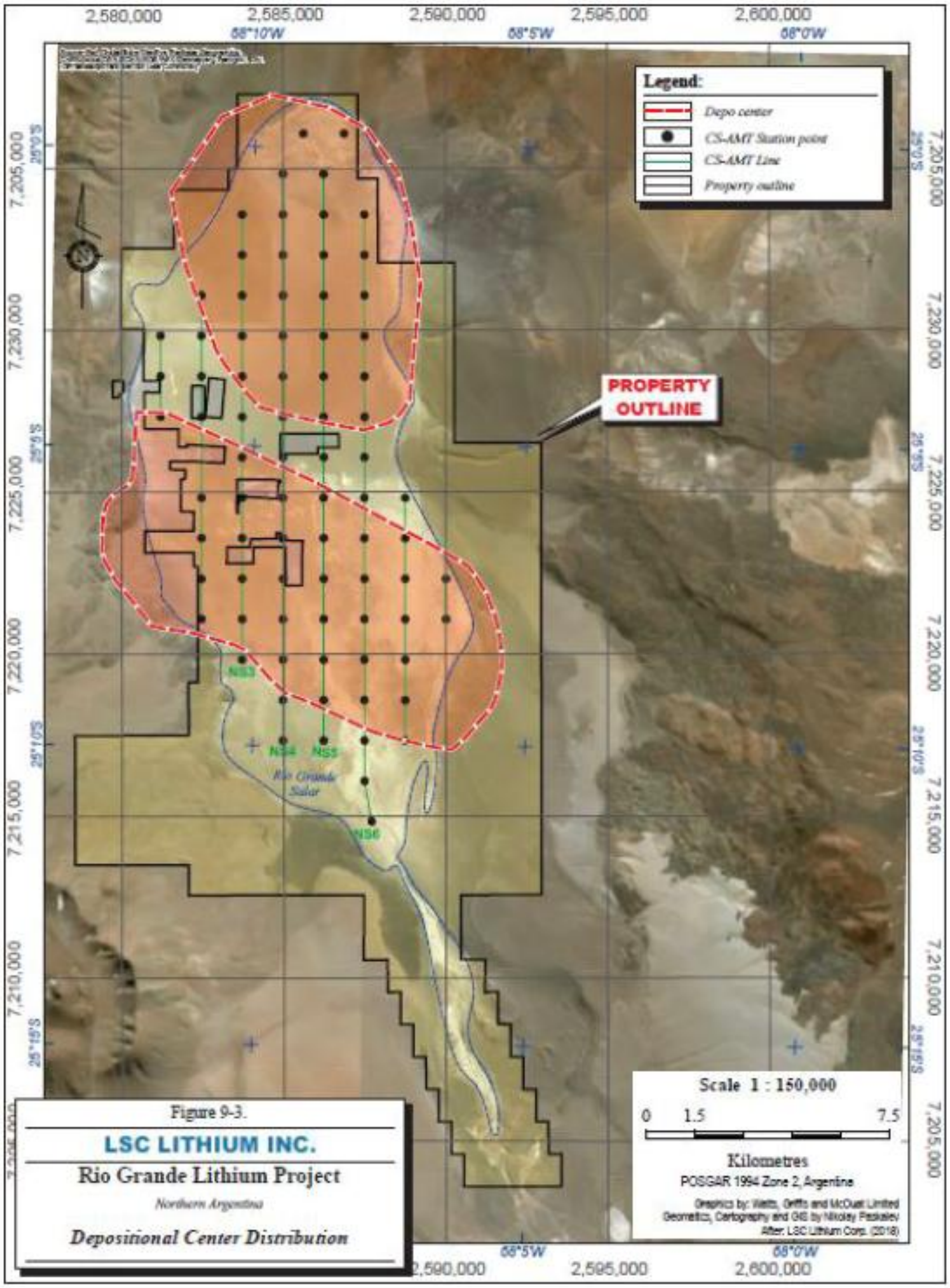
A CSAMT survey was conducted as part of the 2017 lithium brine exploration program on adjacent concessions. LSC Lithium commissioned to GEC-Geophysical Exploration and Consulting S.A. (GEC) of Mendoza, Argentina to carry out the CSAMT survey on the tenements of Salar de Rio Grande.

GEC established an 80 station CSAMT survey program using the Strategem EH-4 data acquisition system. CSAMT stations were set up on 20 or 250 m intervals for the receiver and transmitter on 7 N-S oriented lines covering essentially all of the surface area of the salar (Hains, 2018). Figure 6-3 shows distribution of stations and survey lines deployed by GEC.



Source - Hains (2018)

Figure 6-3: CSMAT Survey Design



Source - Hains (2018)

Figure 6-4: Depositional Center Distribution Map.

6.2 Historic Drilling

Drilling on adjacent concessions to the Project area occurred previously by both ADY Resources in year 2011, and by LSC Lithium in year 2017 (Hains, 2018).

6.2.1 Ady Resources Exploration Activities – 2011

Previous drilling activities performed by ADY as part of the diamond drilling, core and brine sampling in 2011 are listed below:

- Drilling of 35 coreholes (HQ) to a final depth of 50 m, including 1 corehole to 75 m and another corehole to 101 m depth,
- Brine sampling at specific depth using packer system for chemical analysis, and
- Core samples sampling for determination of drainable porosity using the RBRC method.

Locations and total depths drilled for exploration wells are given in Table 6-1 . Examination of the drill logs and drill core photos indicates the following general lithological features (Hains, 2018):

- Highly fractured halite with large crystals and open pores from 0 m to approximately 15 m; often mixed with gypsiferous sand,
- Gradually more competent halite with intercalated gypsiferous sand and some clay/silt from 15 m to approximately 30 m, minor mirabilite on occasion,
- Progressively more competent but still porous halite/gypsiferous sand and sandy clay from 30 m to 50 m, minor mirabilite on occasion,
- Transition to more competent halite from 50 m to 101 m in the deeper holes with intervals of porous halite and intercalated gypsiferous sands and clays and minor mirabilite, and
- In all intervals, significant variations in halite competency within more broadly defined intervals can be noted.

Only relatively competent samples were collected for RBRC analysis due to the presence of highly fractured zones and intervals. Drainable porosity results indicated an average porosity of 13.5% (Hains, 2018).

Table 6-1: ADY 2011 Drilling Program Well Coordinates

Borehole Identifier	UTM Easting (meters, POSGAR 94)	UTM Northing (meters, POSGAR 94)	Total Depth (meters)	Recovery (%)
RG-2011-1	2,586,170	7,234,917	50.20	85.5
RG-2011-2	2,586,165	7,233,163	50.20	97.5
RG-2011-3	2,584,157	7,231,146	50.20	96.7
RG-2011-4	2,586,158	7,231,153	50.47	98.2
RG-2011-5	2,587,930	7,231,139	50.20	67.0
RG-2011-6	2,580,961	7,229,147	50.20	66.3
RG-2011-7	2,582,718	7,229,102	50.20	95.5
RG-2011-8	2,584,439	7,229,107	50.20	91.7
RG-2011-9	2,586,160	7,229,123	50.20	95.1
RG-2011-10	2,587,918	7,229,134	51.40	57.6
RG-2011-11	2,580,963	7,227,137	8.20	33.2
RG-2011-12	2,582,702	7,227,122	50.00	92.0
RG-2011-13	2,584,432	7,227,124	50.90	90.5
RG-2011-14	2,586,177	7,227,122	50.90	94.1
RG-2011-15	2,587,908	7,227,141	50.88	88.8
RG-2011-16	2,581,848	7,225,137	50.90	83.5
RG-2011-17	2,583,364	7,225,137	50.90	82.0
RG-2011-18	2,584,880	7,225,137	50.90	90.8
RG-2011-19	2,586,396	7,225,137	50.85	75.2
RG-2011-20	2,587,912	7,225,137	50.90	80.0
RG-2011-21	2,581,849	7,223,137	20.20	22.0
RG-2011-22	2,583,870	7,223,137	50.85	79.3
RG-2011-23	2,585,891	7,223,137	50.85	87.9
RG-2011-24	2,587,912	7,223,137	50.90	84.6
RG-2011-25	2,589,222	7,223,137	50.50	89.5
RG-2011-26	2,583,870	7,221,137	36.70	48.6
RG-2011-27	2,585,891	7,221,137	50.20	69.3
RG-2011-28	2,587,912	7,221,137	45.70	58.3
RG-2011-29	2,589,403	7,221,137	50.85	89.6
RG-2011-31	2,586,902	7,219,137	50.80	87.4
RG-2011-32	2,588,923	7,219,137	50.85	82.2
RG-2011-34	2,586,779	7,224,139	75.25	89.1
RG-2011-35	2,587,211	7,230,569	101.0	93.8

Source: Hains, 2018
UTM – Universal Transverse Mercator
Total drilled was 1,653.45 m.

The exploration program completed during 2011 by ADY, included drilling and aquifer testing of eight production wells, two exploration wells, and two piezometers. The drilling contractor was Andina Perforaciones SRL under the direction of Conhidro SRL, consulting hydrogeologists to ADY Resources.

The Table 6-2, presents detailed location data for all wells drilled. Location map for wells constructed during 2011 drilling program are shown on Figure 6-1.

Table 6-2: 2011 Locations for Pumped Exploration Wells

Well Identifier	UTM Easting (meters, POSGAR 94)	UTM Northing (meters, POSGAR 94)
RGP1	2,586,766.17	7,225,087.24
RGP2	2,586,768.20	7,225,407.29
RGP3	2,586,763.53	7,225,561.20
RGP4	2,586,913.60	7,225,363.26
RG4XP	2,586,764.08	7,225,647.28
RGP5	2,586,916.92	7,225,440.13
RGP6	2,586,914.80	7,225,550.93
TW1	2,587,011.88	7,228,907.81
TW2	2,587,433.84	7,229,135.88
TW3	2,587,932.76	7,229,135.78
PZTW2	2,587,509.50	7,229,132.29
PZTW3	2,588,008.44	7,229,135.29

Source: Conhidro, 2012 – Hains, 2018

The wells were rotary drilled to 15” diameter and finished at 8” diameter with PVC casing equipped with 0.75 mm slotted screen opening and logged for SP and Short Normal and Long Normal resistivity (Hains, 2018).

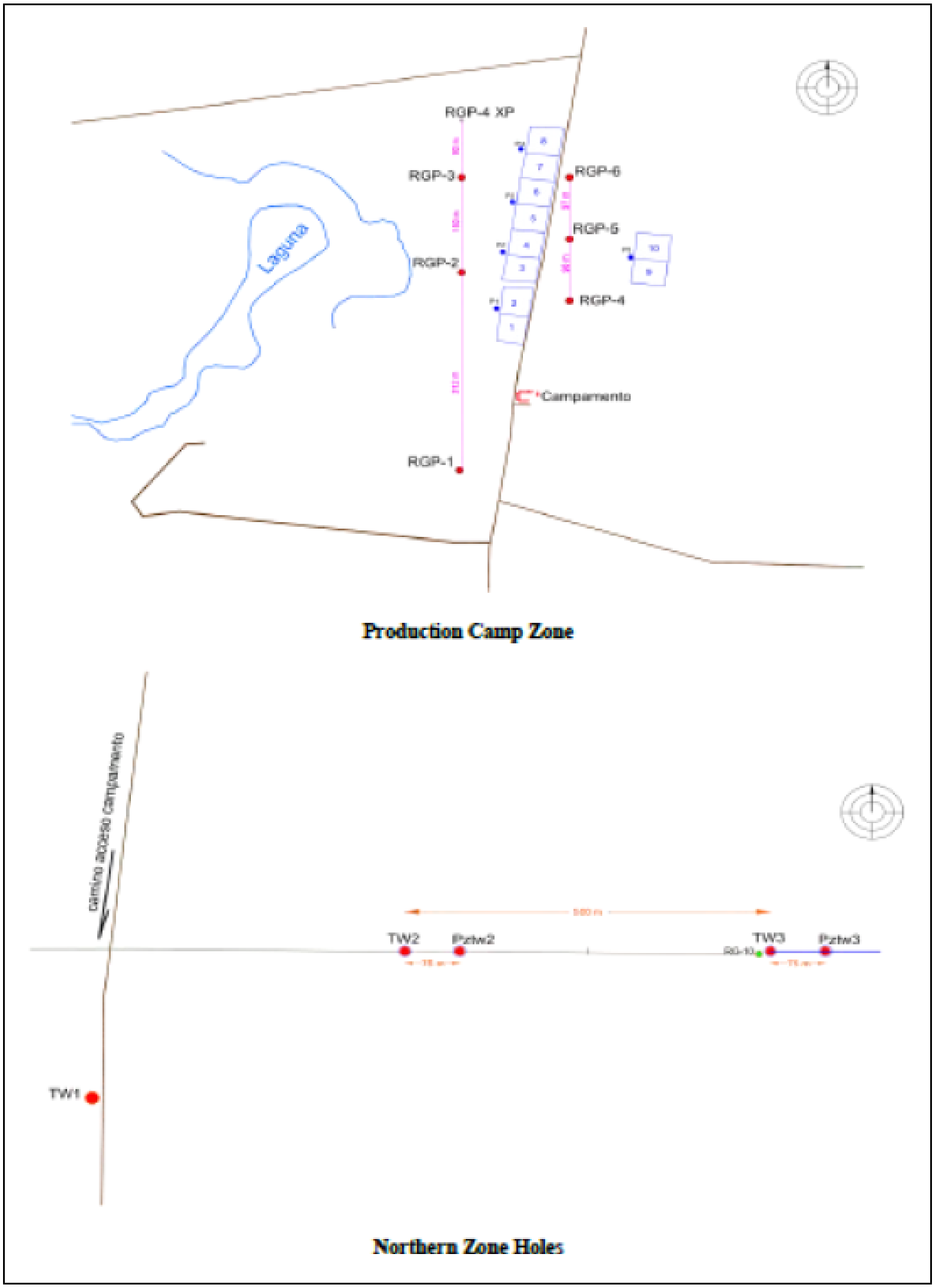
Analysis of pumping data performed by Hains (2018) indicated highly variable transmissivities with values ranging from a low of 354 m2/day for RGP1 to a high of 30,454 m2/day for RGP2 with drawdowns at 150 cubic meters per hour (m3/hr) pumping rates ranging from 0.42 m for RGP3 to 24.17 m for well TW3. Summary of pumping test results are given in Table 6-3.

Table 6-3: 2011 Pumping Test Results

Well Identifier	Transmissivity (m^2/d)
RGP1	354
RGP2	30,454
RGP3	29,760
RGP4	1,170
RGP5	888
RGP6	3,240
TW2	441
TW3	483

Source: Conhidro, 2012 – Hains, 2018

The overall conclusions from the pumping tests work that Salar de Rio Grande is comprised of a multilayer system with porous clastic zones and evaporite zones composed of halite (Hains, 2018).



Source – Hains (2018)

Figure 6-5: Map of 2011 Pumping Wells

6.2.2 LSC Exploration – 2017 Twin Hole Drill and Sampling Program

During 2017 a twin hole drilling program was carried out by LSC as part of a due diligence campaign to verify previous results obtained by ADY. The program included drilling and construction of 8 brine exploration wells to a target depth of 100 m. Two holes, 22T and 18T, were stopped short due to presence of unconsolidated volcanic sands which prevented the drill holes from reaching the planned depth of 100 m (Hains, 2018). All the corehole wells were drilled using a CS14 Atlas Copco drill rig with diamond drill hole method and HQ core bit.

The twin holes were selected to cover the salar surface and provide sufficient drill hole density for classification of the resource at the Inferred Resource level in accordance with the recommendations in Houston et al. (2011) and the CIM best Practice Guidelines for Estimation of Lithium Brine Resources and Reserves (CIM, 2015). Locations and depths for twin hole drill program are given in Table 6-4. Locations for the twin holes are shown on Figure 6-6.

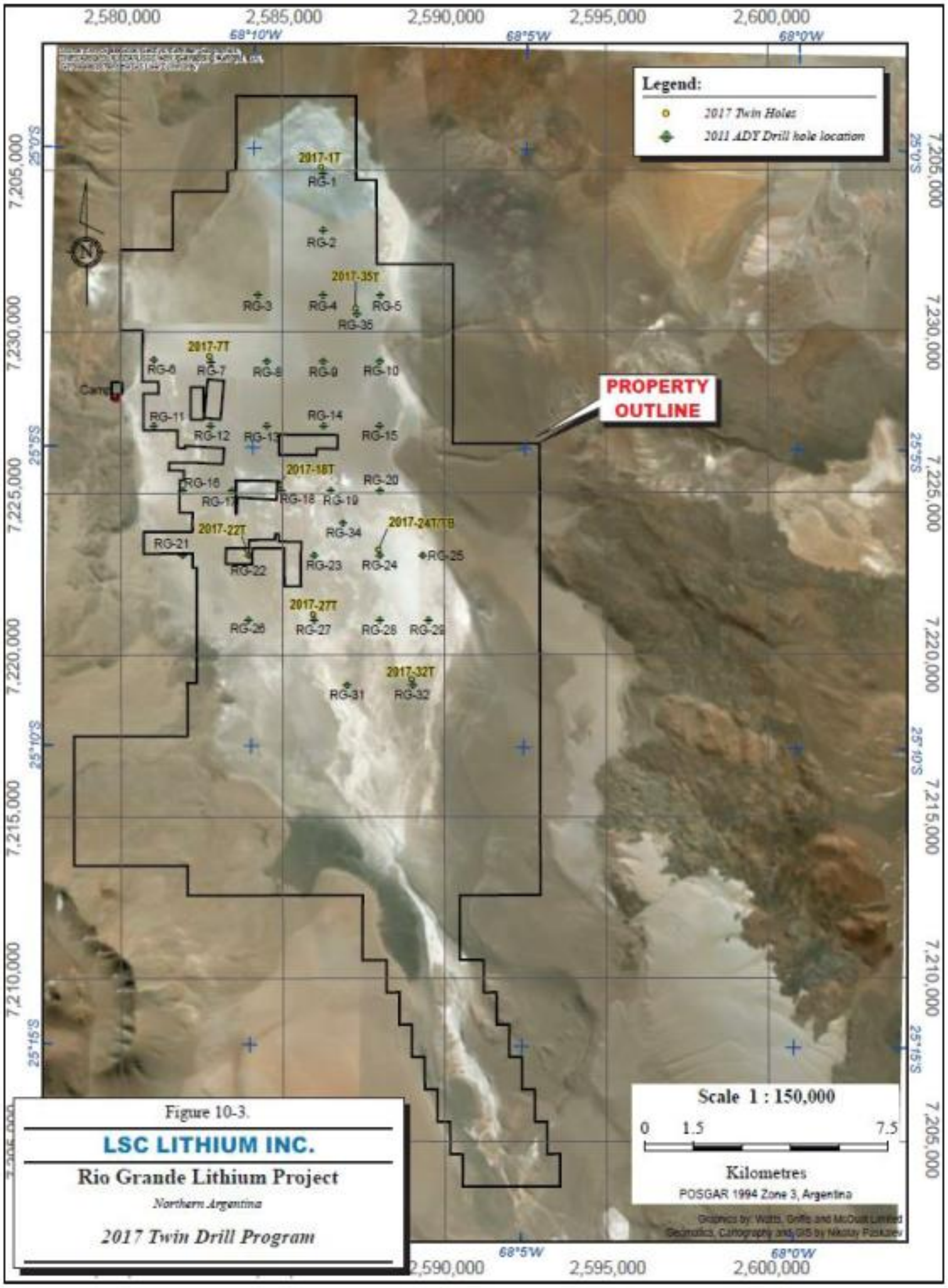
Table 6-4: Locations for LSC Lithium 2017 Twin Drill Program

Borehole Identifier	UTM Easting (meters, POSGAR 94)	UTM Northing (meters, POSGAR 94)	Total Depth (meters)
SRG-2017-35T	2,587,211.00	7,230,569.00	3,701.89
SRG-2017-07T	2,582,718.00	7,229,102.00	3,701.57
SRG-2017-01T	2,586,170.00	7,234,917.00	3,701.92
SRG-2017-22T	2,583,870.00	7,223,137.00	3,704.78
SRG-2017-22TB	2,583,868.22	7,223,164.75	3,704.99
SRG-2017-27T	2,585,891.00	7,221,137.00	3,705.00
SRG-2017-24T	2,587,912.00	7,223,137.00	3,705.20
SRG-2017-32T	2,588,923.00	7,219,137.00	3,705.65
SRG-2017-18T	2,584,880.00	7,225,137.00	3,702.99

Source - Hains (2018)

Lithologic logs show highly-fractured gypsiferous sandy halite extending to typical depths of approximately 50 m, with occasional short intervals of somewhat more competent halite.

Below approximately 50 m depth the lithology gradually changes to more competent but still porous crystalline halite. In some holes, volcanic tuffs are observed over relatively short intervals (Hains, 2018).



Source – Hains (2018)

Figure 6-6: Location Map for 2017 Twin Drilling Program

6.2.3 Historic Resource estimate and Production

Small companies exploited the resource between 1952 and 1975, producing a total volume of close to 60,000 tons of sodium sulfate. Sulfo Argentina and Minera Altas Cumbres operated different properties between 1976 and 1991, reaching a production volume of 76,000 tonnes, between shallow wells and surface material located in the southern part of the Salar de Rio Grande. By 2013, sodium sulfate production ended, due to the development of a new technology that eliminated the use of sodium sulfate for the process of obtaining lithium carbonate. During the period 2009 to 2013, ADY reportedly extracted a volume of 49,700 tonnes of brine and 34,000 tonnes of surface material (Hains, 2018). There has been no historic lithium resource or reserve estimate for the Project, nor has there been any historic production of lithium at the Project.

7. Geological Setting and Mineralization

7.1 Regional Geology

The Salar de Rio Grande is located in the Puna Geological Province (Turner, 1972) and within the Puna Austral Geological Sub-province (Alonso et al., 1984a). The Puna Geological Province (Turner, 1972) is characterized by having a structure that controls the compartmentalization of many Andean basins. North-South aligned thrust faults, grabens and semi-grabens frequently create accommodation space, while strike-slip faults can help with basin closure (Salfity et al., 1984). Volcanism also plays an important role, both in the filling of basins and in the closure of basins (Viramonte et al., 1984; Alonso, 1986; Houston et al., 2011).

A wide range of rock types are found within the Puna Geological Province, unconformably overlying the basement rock. In most of the Chile and Argentina - Chile border zone of the region, the basement rock is covered by Tertiary-Quaternary volcanic rocks, including ignimbritic tuffs covered by andesites aged between 10 and 3 million years (Ma) and recent basaltic flows (0.8 - 0.1 Ma) with several tens of m thick. In some areas, the basement rock is covered by Cretaceous-Tertiary continental and marine sedimentary rocks, the latter as conglomerates, sandstones, siltstones, tuffs, and oolitic limestones.

One of the main characteristics of the Puna is the presence of structurally formed closed basins, in which extensive salt flats are developed which covers the floors of the basins, which are normally surrounded by expansive alluvial systems. They generally represent the product of a basin-filling process that begins with the erosion of the surrounding relief, initially depositing colluvial slopes and fan-shaped gravels, which grade upwards into sands and silts, clays, and evaporites. There are many variants of this model and the tectonic and sedimentary processes that led to the formation of such basins. In general, the waters run off towards these closed basins, thus forming salt flats, so the only way to return to the hydrological cycle is through evaporation, leaving brines enriched in various metals and salts, sometimes including anomalous levels of Lithium (Li), Boron (B) and Potassium (K).
Figure 7-1 shows the geologic map for the area and the associated stratigraphic explanations for the units. Figure 7-2 and Figure 7-3 show stratigraphic information for the geological map.

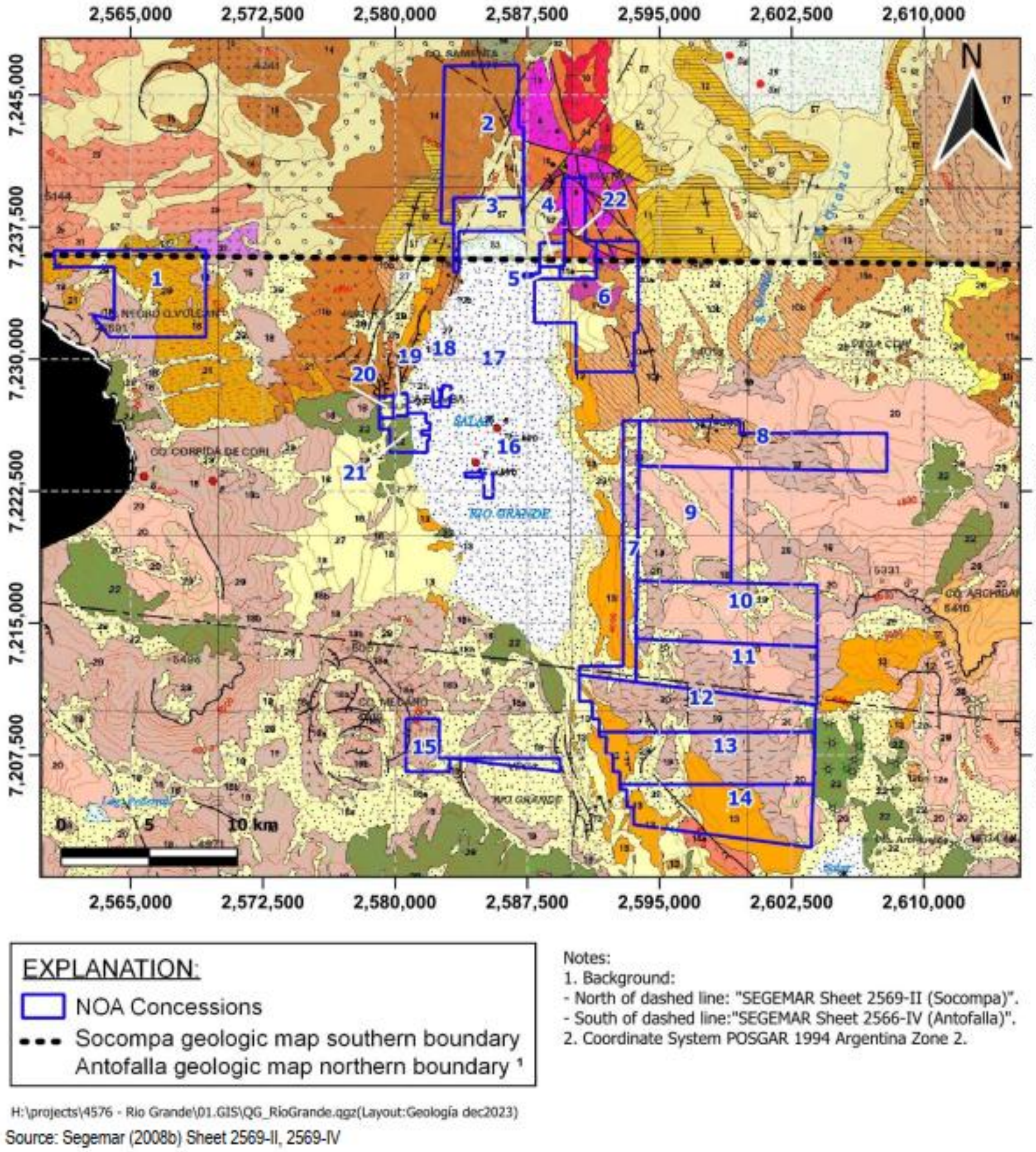


Figure 7-1: Geologic Map of the Project Area

Lithologic descriptions and symbology based on "SEGEMAR Sheet 2569-II (Socompa)":

NUMBER	DESCRIPTION	SYMBOLOGY
57	HOLOCENE. DETRITICS, ALUVIAL, AND COLUVIAL DEPOSITS. Boulders, sands and clays.	57
53	HOLOCENE. EVAPORITIC DEPOSITS. Halites, borates, sufates with interbedded clays.	53
52	PLEISTOCENE. OLD PIEDMONT DEPOSITS. Medium to coarse fanglomerates.	52
43	PLEISTOCENE, LA CSAUALIDAD IGNIMBRITE, Dacitic ignimbrite	43
32	PLIOCENE, INCA, TECAR, SUR BAYO, MELLADO AND EQUIVALENT STRATOVOLCANO, Andesites	32
31	UPPER MIOCENE, SOCOMPA CAIPE, LA CARPA, ROADO AND EQUIVALENT VOLCANIC COMPLEX. Pyroclastites Pular basalt and olivinic basalts	31
29	UPPER MIOCENE, SOCOMPA CAIPE, LA CARPA, RODADO AND EQUIVALENT VOLCANIC COMPLEX. Andesites and dacites	29
27	UPPER MIOCENE ARIZARO VOLCANIC COMPLEX. rhyodacitic domes	27
19	OLIGOCENE-LOWER MIOCENE. CORI VOLCANIC COMPLEX. Andesites	19
14	MIDDLE OLIGOCENE-LOWER MIOCENE VOLCANO-SEDIMENTARY COMPLEX QUEBRADA DEL AGUA. Pyroclastites, conglomerates, andesites, and dacitic - rhyodacitic domes	14
12	OLIGOCENE-LOWER MIOCENE. SEDIMENTARY VIZCACHERA. Sandstones, volcanic sandstones, siltstones, pelites, tuffs, gypsums, halites.	12
11	EOCENE-MIDDLE OLIGOCENE, GESTE FORMATION, polimictic conglomerates with interbedded sandstones	11
10	EOCENE. SANTA INÉS VOLCANIC COMPLEX. Dacites, ignimbrites, dacitic tuffs. 10a, Rhyodacitic and Rhyophysical dikes and porphyries.	10
6	PERMIC LLULLAILLACO PLUTONIC COMPLEX. Granites and granitic porphyries.	6

Source: Segemar (2008a) Sheet 2569-II

Figure 7-2: Stratigraphic Explanation for Geologic Map

Lithologic descriptions and symbology based on "SEGEMAR Sheet 2569-IV (Antofalla)":

NUMBER	DESCRIPTION	SYMBOLOGY
29	HOLOCENE. COLUVIAL DEPOSITS. Deposits of silt, sand and conglomerates with little transport, not connected, on slopes of hills and piedmont flats.	29
27	HOLOCENE Moderns alluvial deposits silts, sands and gravels	27
25	HOLOCENE. EVAPORITIC DEPOSITS: Saline and chloride deposits and minor proportion of sulphates and borates.	25
22	PLEISTOCENE BASALTS. Olivines basalts with xenocryst of quartz and plagioclases located in lavaflows of small extensions produced by eruptions of monogenic volcanic apparatus and by eruptions through fissures.	22
21	PLEISTOCENE CALETONES IGNIMBRITE. Dacitic ignimbrites	21
20	UPPER PLIOCENE VULCANITES. Andesites, rhyolites and dacites	20
19	PLIOCENE ARCHIBARCA IGNIMBRITE. Ignimbrites	19
18b	LOWER PLIOCENE VULCANITES. Dacites	18b
18a	LOWER PLIOCENE VULCANITES. Rhyolites	18a
18	LOWER PLIOCENE VULCANITES. Rhyolites, dacites, andesites and basalts Riolitas, dacitas, andesitas y basaltos	18
13	MIOCENE SIJES FORMATION, Sandstones, conglomeradic sandstones, conglomerates, tuffs, ignimbrites. Evaporites	13
11	LOWER MIOCENE VOLCANICS. Deeply eroded volcanoes, porphyritic lavas, dykes and volcanic necks, participation of tuffs, agglomerates, ignimbrites and dacitic porphyries. It is included olivine basalts from Cerro Leon Muerto and located to the west of Cerro Plegado.	11
11b	LOWER MIOCENE VULCANITES. Lava flows, subvolcanic bodies, deposits of acidic to basic pyroclastics flows, and pyroclastites. Quebrada del agua complex.	11b
11a	LOWER MIOCENE VOLCANICS. Deeply eroded volcanoes, porphyritic lavas, dykes and volcanic necks, participation of tuffs, agglomerates, ignimbrites and dacitic porphyries. It is included olivine basalts from Cerro Leon Muerto and located to the west of Cerro Plegado. 11a: Lower member: Complexes of Santa Ines, Cori and Cavi.	11a
10a	MID MIOCENE VIZCACHERA FORMATION. 10a Lower member. Conglomerate sandstones and fine to medium conglomerates of reddish to grayish colors arranged in medium stratification.	10a
10b	MID MIOCENE VIZCACHERA FORMATION. 10b Upper member, Pellites, sandstones and red conglomerates with interlayers of gypsum. Pellites show biodisturbances and cracks from dehydration. Sandy banks show erosion at its base and asymmetric waves of water flow.	10b
5	UPPER PALEOZOIC. LA TABLA FORMATION. Porphyries, breccias and dacitic lavas with abundant content of plagioclases phenocrysts, amphiboles and boitites, glassy matrix intruded by fine grain dacitic to andesitic dykes.	5

Source: Segemar Sheet 2569-IV

Figure 7-3: Stratigraphic Explanation for Geologic Map Soils

According to the taxonomic classification of the Food and Agriculture Organization of the United Nations (F.A.O., 1976), the following soil types are found in the study area: Lithosols, Fluvisols, and Solonchaks. The Lithosols are associated with rocky outcrops, have poor soil development, and consist mostly of unweathered or partly weathered rock material. The Fluvisols occupy the low areas of the closed salar basins in the region, including salar de RioGrande basin. Fluvisols tend to be moderately alkaline to neutral have clear evidence of stratification, with weakly developed, but with a possible topsoil horizon. The Solonchak soils (Russian for “salt marsh”) develop in the peripheries of the saline bodies and in alluvial fan material where it meets the salar. They are immature, moderately alkaline soils, with the presence of white saline crusts at land surface.

7.2 Local Geology

One of the most important characteristics that define the Geological Province of Puna is the presence of evaporitic basins, where important deposits of borates, sodium sulfate, and brines with high lithium concentrations. The Rio Grande Salar occupies one of these endorheic (internally drained) basins. The oldest rocks that outcrops in the area are of Upper Permian age and correspond to La Tabla Formation/Llullaillaco Plutonic Complex, which is located in the northeast section of the area. The Tabla Formation/Llullaillaco Plutonic Complex is composed of porphyries, breccias, ignimbrites, and lavas of dacitic to rhyolitic composition with fine-grained dikes intrusions of dacitic to andesitic composition.

The Tabla Formation/Llullaillaco Plutonic Complex is covered by the Vizcachera Formation which is divided into a lower member composed of sandstone, pellites and red onglomerates, and upper member composed of medium to coarse conglomerates with intercalations of fine silt beds and sandy layers. The Vizcachera Formation outcrops in the east side of the basin and lies unconformably above the Geste Formation (which is not exposed in the immediate area) and unconformably with overlying formations.

The Permian and Miocene units are intruded by Lower and Upper Miocene stratovolcanoes that include dacitic-andesitic lava flows and intrusions of dacitic and rhyodacitic domes integrated by the Quebrada del Agua, Cori and Cave complexes located in the north of the geologic map.

In some areas Lower Miocene volcanic rocks are covered by Sijes Formation of Upper Miocene age, which is composed of fine to medium-grained sandstone and sandstone conglomerates. Outcrops of the Sijes Formation are distributed along the edges of the Rio Grande Salar and interrupted by pyroclastic flows and ignimbrites in the south border of the salar.

Lower and Upper Pliocene age volcanic rocks, including Archibarca ignimbrite are distributed in the southeast, south, and southwestern area of Rio Grande. The volcanics are represented by a set of eroded stratovolcanoes, porphyry lavas, dykes, domes, and pyroclastic deposits of andesitic and rhyodacitic composition.

Pleistocene Los Caletones ignimbrite is present in the form of an extended subhorizontal mantle, in the surroundings of the La Casualidad mine and it lays with unconformity on Lower Pliocene lavas. Pleistocene age basalts are present on the upper margins of the basin on the west side of Rio Grande. These are often associated with ignimbrites of similar age and overlay uncomformably on almost all the units that make up the regional stratigraphic column.

Quaternary sediments are abundant in the vicinity of the salar evaporitic crust. These sediments are forms alluvial-colluvial deposits represented by alluvial fans, wind-blown sands, and stream and valley sediments.

7.2.1 Permian-Triassic

7.2.1.1 La Tabla Formation (Upper Permian-Triassic)

The Tabla Formation (Naranjo and Puig, 1984) is composed of porphyries, breccias, ignimbrites, and lavas of dacitic-rhyodacitic-rhyolitic composition intruded by fine-grained dykes of dacitic to andesitic composition. On the border with Chile, Coira (1971), and Naranjo and Cornejo (1992) mapped small outcrops of tuffs and rhyolitic porphyries assigned to La Tabla Formation (Naranjo and Puig, 1984). Locally, outcrops of La Tabla formation are in the northeast edge of the Salar de Rio Grande.

7.2.1.2 Llullaillaco Plutonic Comple (Upper Permian-Triassic)

The complex is composed of granitic and granodioritic rocks, with a porphyry to grainy texture and by microdiorites. The various rocks assigned to this complex were previously described as being part of the Taca Taca Formations (Méndez, 1975), Llullaillaco (Méndez, 1975), and La Casualidad (Méndez, 1975) as well as the Chachas Formation (Koukharsky, 1988). Given that they are linked to the same intrusive cycle, which can be correlated, all equivalent outcrops have been grouped into a single unit, which is designated as complex (Zappettini and Blasco, 2001).

7.2.2 Miocene

7.2.2.1 Vizcachera Formation

The Vizcachera Formation (Seggiaro, 2006) is a stratigraphic sequence composed of sandstones and conglomerates. Volcanics are interbedded in the upper units but are absent in the lower units. Outcrops of this unit are recognized in the west border of the Salar de Rio Grande towards to Vega Cori.

7.2.2.1.1 Lower Member (Lower Miocene)

The lower member consists of medium to thick sandstones and conglomerates of grayish to pinkish and reddish colors. The sandy strata present moderately sorted bimodal granulometry with medium to thick stratification. Lenticular conglomerates, 1 to 2 m wide, are less common than sandstones; the coarse fraction is exclusively made up of Ordovician sedimentary clasts.

7.2.2.1.2 Upper Member (Middle Miocene)

Composed of medium to coarse conglomeratic facies at the base, formed by subrounded clasts of Ordovician sedimentary rocks, granites and rounded quartz. The matrix is made up of brownish-red, silty sandstones. In the middle part of the sequence, fine silt beds are interbedded with sandy layers. Near the top of this sequence, red to brown and light green pyroclastic deposits are interbedded. This member is assigned to the Middle Miocene on the basis of an Argon-Argon ratio dating of biotites from pyroclastic rocks interbedded in sandstones, which resulted in an age of about 14.8 Ma.

7.2.2.2 Lower Miocene Volcanic Rocks

This unit is composed with a set of deeply eroded stratovolcanoes, porphyry lavas, necks, dikes, domes, and pyroclastic deposits.

The Lower Miocene volcanic rocks are integrated by the Quebrada del Agua, Cori, and Cave complexes located in the north of the geologic map. This unit is composed of tuffs, agglomerates, ignimbrites, dacitic porphyries and dacitic lavas, andesitic, belonging to the afore mentioned volcanic complexes and by an extensive olivine basaltic volcanic apparatus located to the west of the Plegado hill. Ignimbrites at the base of the Cori Volcanic Complex contain slightly stretched pumice, mafic minerals, and plagioclase; they have abundant cognate lava fragments, red sediments, and fine reddish sandstones.

Other lava layers correspond to rhyodacite and dacites, with phenocrysts of plagioclase, hornblende, clinopyroxene, and scarce quartz. The outcrops to the west of the Salar del Río Grande, in the northwest of the chart, are made up of powerful deposits of lahar-type volcanic agglomerates, with blocks of dacitic ignimbrites and lithic basalts and andesites. These large volume deposits continue in the Socompa chart and were described by Zappettini and Blasco (2001) as the Quebrada del Agua Formation. Exposures near the eastern edge of the Salar del Río Grande are dark gray, heavily silicified dacitic lavas and rhyodacitic porphyries. On the eastern edge of the Río Grande salar, the lavas overlay Lower Permian rhyodacitic porphyries.

7.2.2.3 Upper Miocene Volcanic Rocks

This unit is made up of dacitic, andesitic, and basaltic-andesitic lavas that make up stratovolcanoes, domes, and less eroded small volcanic cones. The dacites are porphyry, with phenocrysts of more than 1 cm in diameter of quartz, feldspars, and biotite. Andesitic basalts have olivine and pyroxene phenocrysts. The andesites are composed of zoned plagioclase phenocrysts (intermediates), biotite, hornblende, and minor pyroxenes as microphenocrysts.

7.2.2.4 Sijes Formation (Upper Miocene)

Defined by Turner (1961), the Sijes Formation is restricted to outcrops on the edges of the salar de Rio Grande and is composed of fine to medium-grained sandstone, fine to medium-grained sandstone conglomerates and medium conglomerates. Falling pyroclastic banks are interbedded, made up of greenish lapilli, tuffs, and ignimbrites. In the south end of the salar the outcrops of the Sijes Formation are interrupted by pyroclastic flows and ignimbrites.

7.2.3 Pliocene

7.2.3.1 Lower Pliocene Volcanic Rocks

The lavas and domes corresponding to this unit are widely distributed around the Antofalla geological chart. Outcrops are continuous and very extensive on eastern edge of the Salar de Antofalla and toward southwest of Salar del Río Grande. In some areas, rhyolites and dacites have been mapped separately (SEGEMAR, 2008). They are made up of dacites, rhyolites, andesites, and basalts. They are lavas and domes associated with stratovolcanoes and collapsed calderas.

7.2.3.2 Archibarca Ignimbrite (Upper Pliocene- Lower Pliocene)

Galliski et al. (1999) incorporated this ignimbrite as an Upper Member of the La Torre Formation. It crops out in the surroundings of Cerro Archibarca. Possibly the deposits of pyroclastic flows that integrate this unit come from an emission center located around the mentioned hill. The ignimbrites are massive with scarce biotite and abundant lithic fragments of highly porphyric dacitic lavas. There are also fragments of red sandstone and granite.

7.2.3.3 Upper Pliocene Volcanic Rocks

This unit was integrated together with other volcanic rocks, such as andesites and rhyolites, within the Archibarca Complex by Galliski et al. (1987). Andesitic lavas are distributed on the northern slope of Cerro Archibarca and to the west of the Río Grande salt mine on the border with Chile. To the south of Cerro Archibarca, a group of rhyolitic and dacitic domes and lavadomes outcrops associated with the rim of the Archibarca caldera. Andesitic and dacitic lavas have pyroxenes, biotites, and occasional hornblendes. In general, they are moderately porphyric and well preserved, which constitute less eroded volcanic rocks.

7.2.4 Pleistocene

7.2.4.1 Caletones Ignimbrite (Lower Pleistocene)

This unit was named by Naranjo and Cornejo (1992) and it is made up of dacitic ignimbrites with pink and grayish coating colors in fresh rock. They present abundant pumice rich in well-developed phenocrysts, plagioclases, biotites, and green amphiboles. The texture of the ignimbrites is porphyritic with a glassy matrix, fluidal eutaxitic. It is composed of plagioclase, sanidine, hornblende, and biotite as phenocrysts. Lithoclasts from andesitic lavas and ignimbritic fragments are common, they also contain accidental components of fine-grained sedimentary units. The matrix in parts is devitrified. It is arranged in the form of an extended subhorizontal mantle, in the surroundings of the La Casualidad mine and it lies unconformably on lower Pliocene lavas.

7.2.4.2 Pleistocene Basalts (Upper Pleistocene)

Pleistocene age basalts are present on the upper margins of the basin on the west side of Rio Grande. These are often associated with ignimbrites of similar age. The morphology of the basaltic lavas varies from very fluid flows to the type of lavas in blocks, they are of little areal extension. The volcanic centers are well preserved. In some cases, the lavas have xenocrysts of quartz and plagioclase. These basalts lie uncomformably on almost all the units that make up the regional stratigraphic column.

7.2.5 Holocene

7.2.5.1 Evaporitic Deposits

These deposits are essentially made up of chloride minerals, and to a lesser extent by sulfates and borates. Sodium sulfate was exploited in the Rio Grande salt flat in the 1970s.

7.2.5.2 Modern Alluvial Deposits

This unit includes unconsolidated deposits of silt, sand and gravel, associated with drainage systems that constitute alluvial fans, riverbeds and valley fill, which are located throughout the area of on the geological map. They tend to be poorly sorted and weakly stratified.

7.2.5.3 Colluvial Deposits

These are unconsolidated deposits of silt, sand, and gravel which are located on the slopes of the hills and in foothills plains.

7.3 Mineralization

The mineralization for the project consists of a lithium-enriched brine that is contained within the pore spaces of the sedimentary strata formed by evaporitic processes within the salar basin (Figure 7-1). The boundaries of the mineralization are suspected to be the basin boundary, although some lithium-enriched brine may be contained in the fractures and/or pores of the older rocks that form the basin boundary. Distribution and chemical composition of the brine in the salar sediments is not currently known. The actual length, width, depth, and continuity of the brine-bearing aquifer is currently not accurately known; however, with exception of freshwater areas on the edges of the salar, we anticipate lithium-rich brine to occur in most of the aquifer in the basin to effectively land surface.

8. Deposit Types and Conceptual Model

The deposit type is a brine aquifer within a salar basin. Lithium is enriched in the aquifer brine as a result of evapo-concentration of small concentrations of lithium that enter the salar in fresh or brackish water – commonly associated with geothermal activity. Because lithium does not precipitate into a solid form while hydrated (unlike halite and other evaporite minerals), the brine becomes enriched in lithium over time.

8.1 Conceptual Model of Salar Basins

The conceptual model for salar basins, and associated brine aquifer, is based on exploration and studies of similar salar basins in Chile, Argentina, and Bolivia. Salar basin locations and basin depths are typically structurally controlled but may be influenced by volcanism that may alter drainage patterns. Basin-fill deposits within salar basins typically contain bedded evaporite deposits in the deeper, low-energy portion of the basin, together with thin to thickly bedded low-permeability lacustrine clays. Coarser-grained, higher permeability deposits associated with active alluvial fans can typically be observed along the edges of the salar. Similar alluvial fan deposits, associated with ancient drainages, may occur buried within the basin-fill deposits.

Salar basins are characterized by closed topography and interior drainage. Typically, no significant amount of groundwater discharges from these basins as underflow. Effectively, all groundwater discharge that occurs within the basin is via evapotranspiration. All surface water that flows into the basin is either evaporated directly or enters the groundwater circulation system and is evaporated at a later time. Water levels tend to be relatively shallow in the flat part of the salar.

8.2 Conceptual Model of Salar de Rio Grande

Based on the available information, Salar de Rio Grande appears to be a relatively mature salar. Basin margins are interpreted to be fault controlled. The margin of the basin is dominated by Volcanic units. Volcanic units are not known to occur in the basin. Depth to bedrock was interpreted to be more than 300 meters below land surface (mbls) based on vertical electrical sounding (VES) geophysical surveys (AMINCO, 2022a) but additional studies are required to define basement depth.

Evaporitic sediments saturated with brine were interpreted with variable thickness in the central and western areas of the salar. Fine-grained sediments also saturated with brine were recognized based on data obtained from the VES survey. In northern area of the salar evaporitic sediments saturated with brine are covered by coarse and fine grain sediments. In the northeastern area, coarse and fine grain sediments were recognized as likely alluvial deposits with a freshwater/saltwater interface.

The principal sources of water entering the Project area are from surface water coming into the basin from the basin margins. To date, surface water flow has not been formally measured.

Some groundwater inflow from natural recharge along the mountain fronts via alluvial fans is also believed to exist. In both cases, there appears to be limited mixing of the fresh water and brine in the basin due to density differences and is likely to be in the upper part of the aquifer. As a result, the fresh water entering the Project tends to stay in the upper part of the aquifer system on the edges of the basin, without moving to the center part of the salar. These freshwater discharge areas tend to support altiplanic vegetation. Evaporation of fresh water in the basin over time results in concentration of the dissolved minerals and ultimately results in brine generation.

Exploration activities conducted during 2023 and 2024 confirmed initial interpretations from VES, but showing significantly depths to bedrock. Drilling have gone as deep as 676 meters within the salar area, and bedrock has not been found.

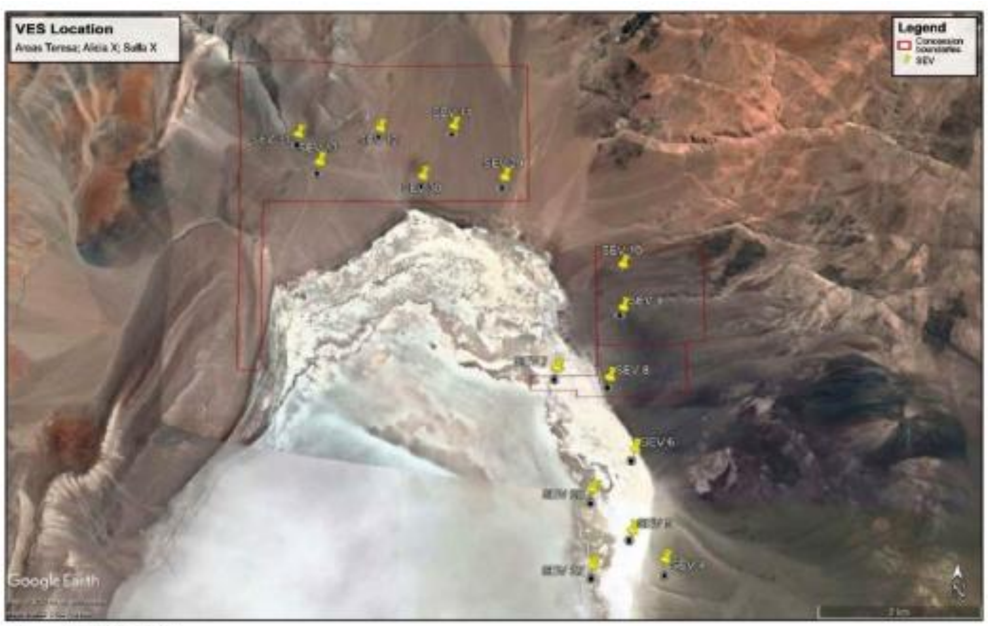
In terms of fresh groundwater inflow, a freshwater thickness of about 13 meters was identified in the alluvial at north of the salar boundary (Sulfa X property). As conceptually expected, the fresh water was found in the upper part of the aquifer, on top a deep brine column.

9. Exploration

In year 2022, NOA conducted a surface exploration program in their Rio Grande concessions consisting of surface geophysics survey with VES method (described in Section 9.1), and near-surface brine sampling (described in Section 9.2). The field works were carried out by AMINCO, a geophysical consulting company based in the city of Salta, Argentina. M&A took several samples in the field during that campaign, which are documented in Chapter 12. A Controlled Source Audio-Magnetotellurics (CSAMT) survey was conducted by Quantec (2024) from December 2023 to April 2024, with the goal of identifying fresh water/brine interfaces (if present) and potential brine in unexplored areas (Section 9.3).

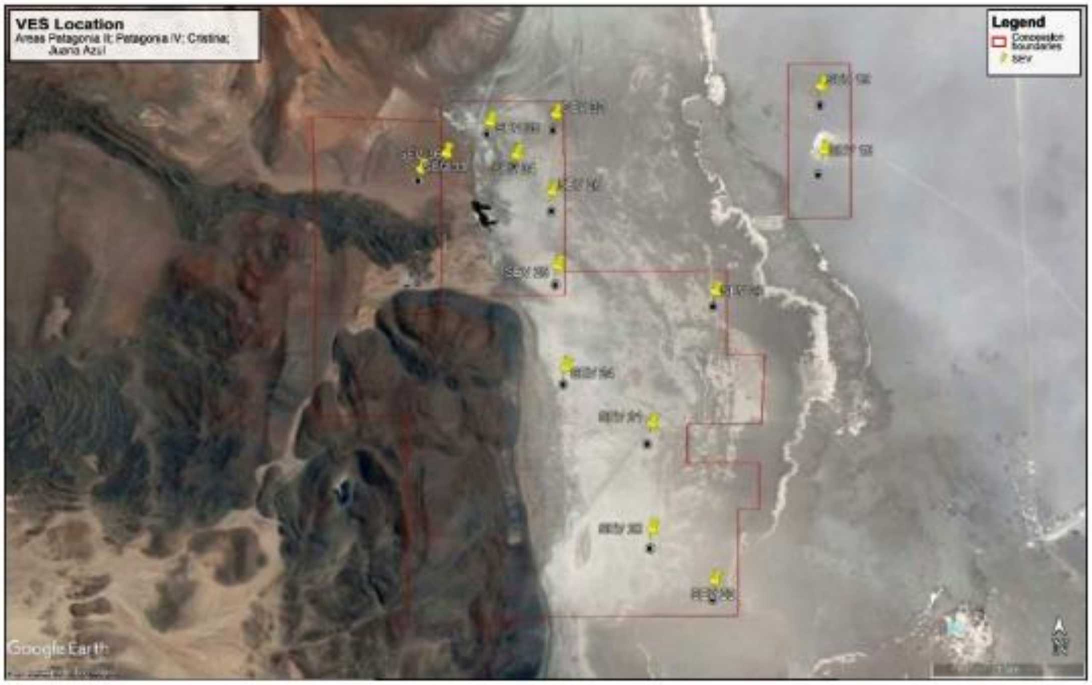
9.1 Year 2022 Geophysical Survey

A VES survey was conducted during April 2022 by AMINCO, for the concessions owned by NOA in the north, northeast, central and south areas of the Salar de Rio Grande. A total of 36 VES point were surveyed within the total mining Project concessions. Location maps of the VES survey points are shown on Figure 9-1, Figure 9-2, and Figure 9-3. Goals of the surveys were to obtain a preliminary understanding of the underlying stratigraphy of the Project property, identify potential geologic structures, identify freshwater/brine interfaces (if present), and to be able to identify future locations for exploration wells.



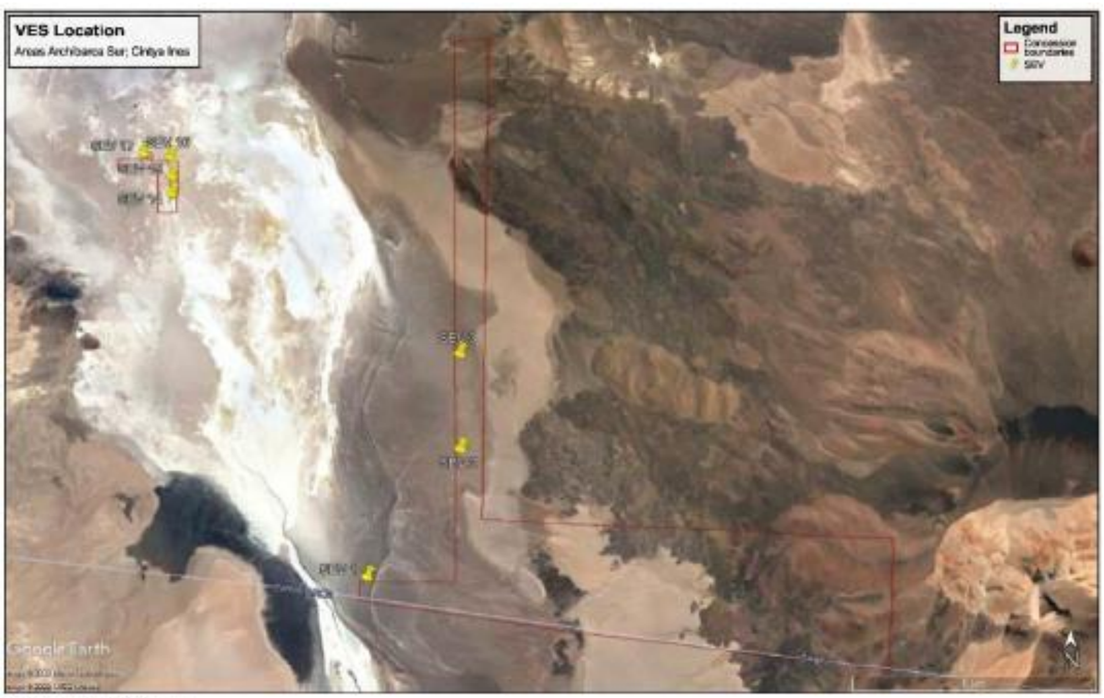
Source: AMINCO (2022a)

Figure 9-1: Location Map of VES Survey Points in the Northem Area



Source: AMINCO (2022a)

Figure 9-2: Location Map of VES Survey Points in the West-Central Area



Source: AMINCO (2022a)

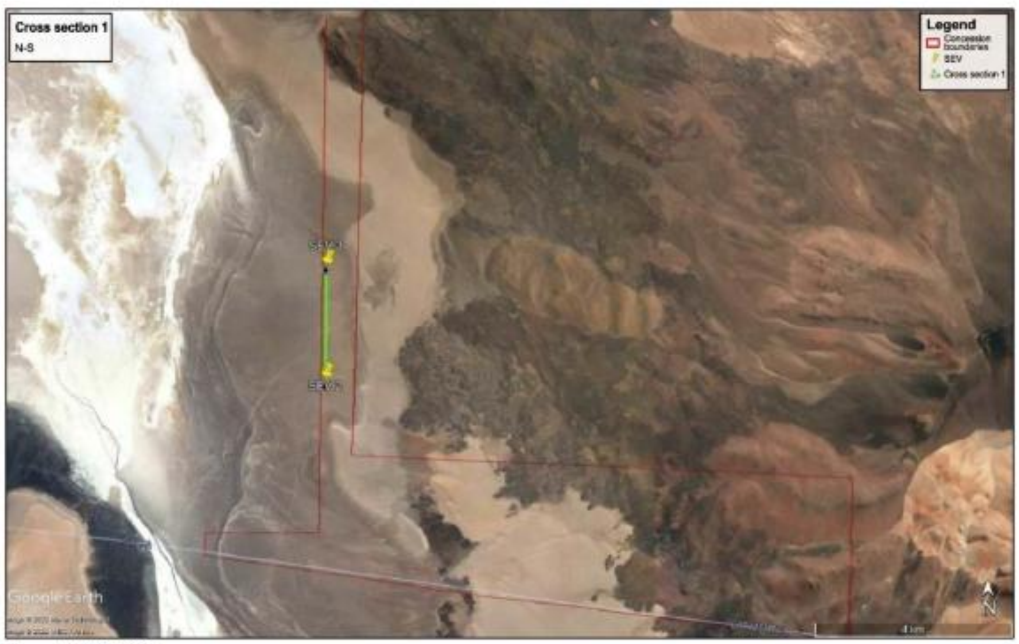
Figure 9-3: Location Map of VES Survey Points in the Southern Area

9.1.1 Interpretation of VES Survey Cross Sections

According to AMINCO (2022a), surveyed points were grouped into lines for correlation of results at each point, and cross sections were constructed to perform a better interpretation of the data obtained. Cross section interpretations are summarized along this report section, where original VES location figures and corresponding interpreted schemes, developed by AMINCO (2022a), are also presented.

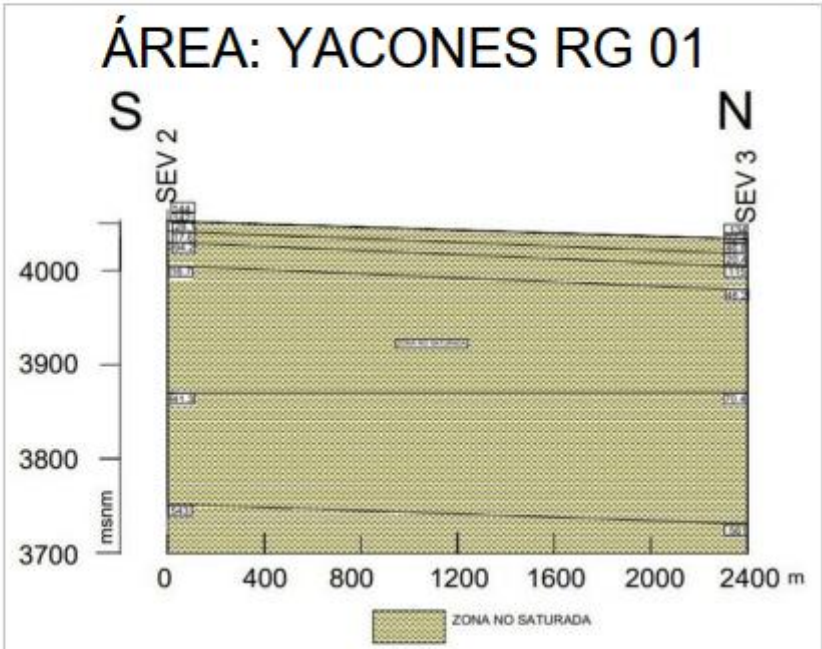
VES CROSS SECTION 1

Figure 9-4 and Figure 9-5 show location and interpretation of VES cross section 1. Cross section 1 is located on the Yacones RG 01 property, in the southern area of the salar. It has a length of 2.4 km approximately, with a N-S orientation, and it reaches a total depth of approximately 300 m. Most of the resistivity values suggest unsaturated conditions. Depth to bedrock was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-4: Location Map of VES Cross Section 1

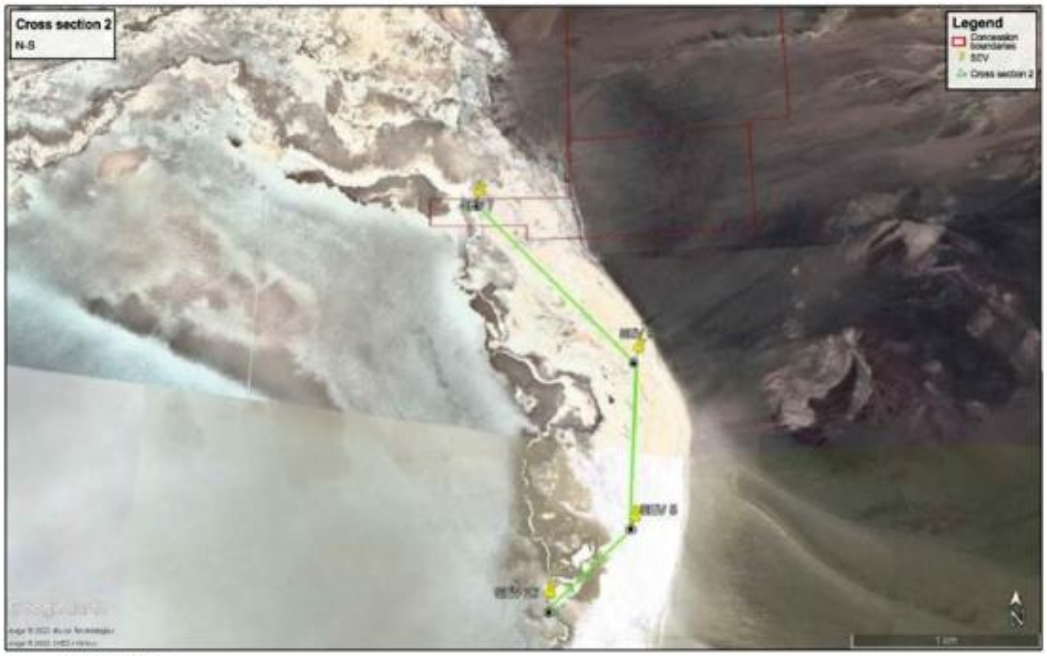


Source: AMINCO (2022a)

Figure 9-5: Interpretation of VES Cross Section 1

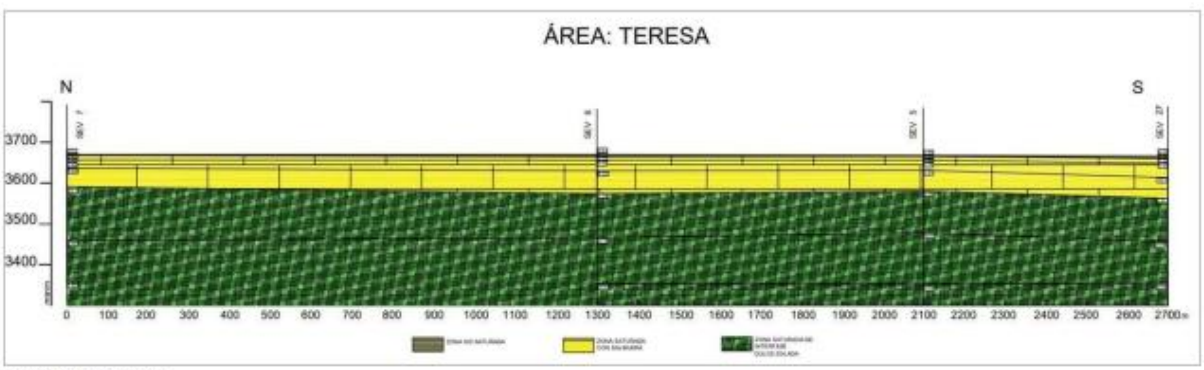
VES CROSS SECTION 2

Cross section location map and interpretation of surveyed VES points are shown on Figure 9-6 and Figure 9-7. Cross section 2 is located on the Teresa property, northern area of the salar. It has a length of 2.7 km approximately, with a N-S orientation, and it reaches a total depth of approximately 320 m. Resistivity values suggest a thickness of between 78 to 108 m of brine saturated sediments. Higher values of resistivity at depth suggest the presence of saline water. Basement depth was not recognized at this location.



Source: AMINCO (2022a)

Figure 9-6: Location Map of VES Cross Section 2

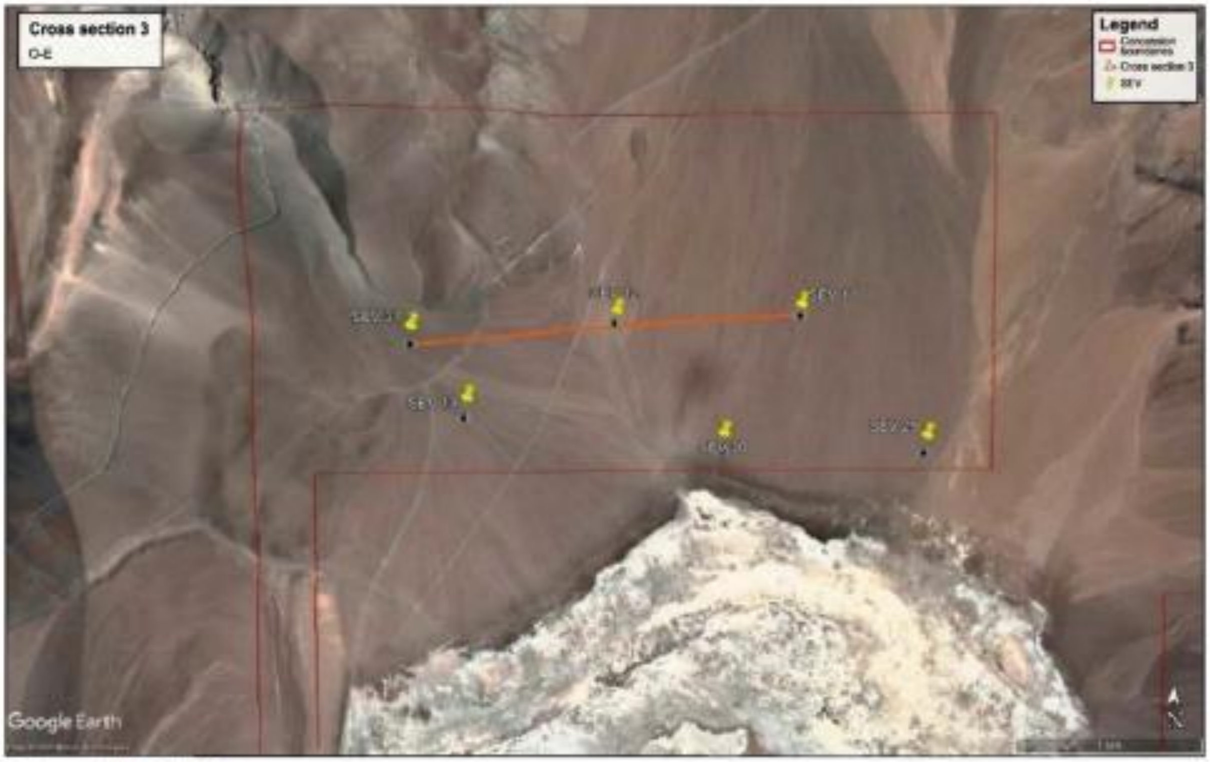


Source: AMINCO (2022a)

Figure 9-7: Interpretation of VES Cross Section 2

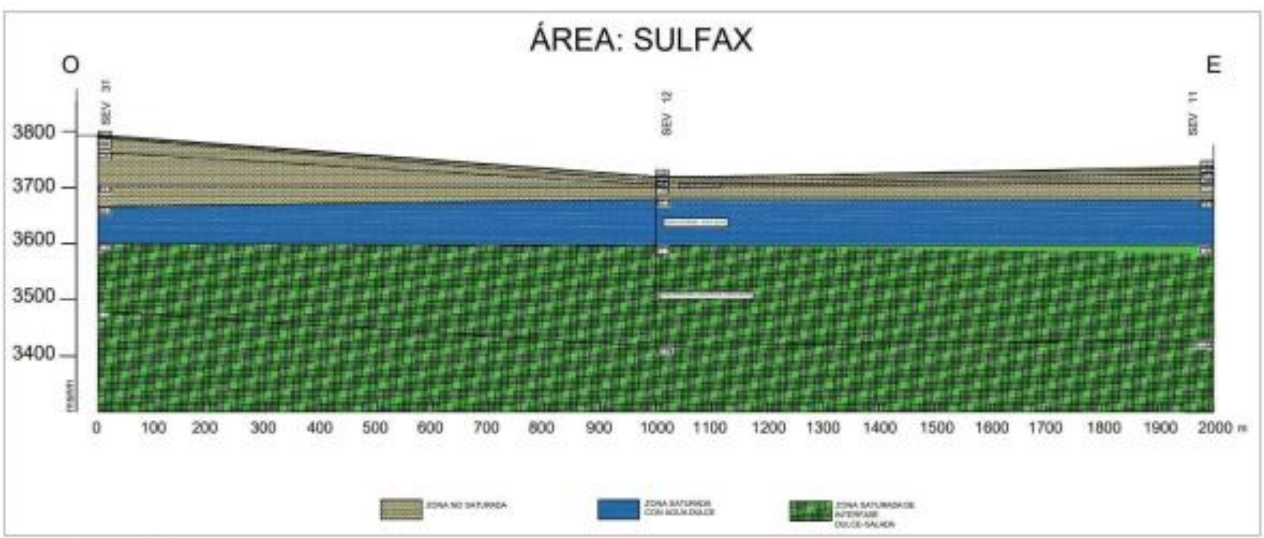
VES CROSS SECTION 3

Cross section location map and interpretation of surveyed VES points are shown on Figure 9-8 and Figure 9-9. Cross section 3 is located on the SulfaX property, in the northern area of the salar. It has a length of 2.1 km approximately, with a W-E orientation, and it reaches a total depth of approximately 350 m. Resistivity values suggest sediments saturated with salty water at ~120 m of depth. Higher values of resistivity on top might indicate the presence of fresh water. Basement depth was not recognized at this location.



Source: AMINCO (2022a)

Figure 9-8: Location Map of VES Cross Section 3

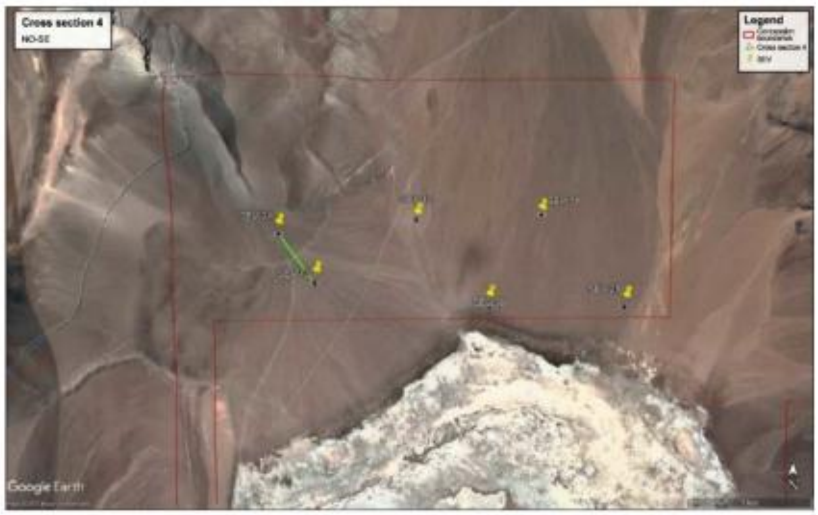


Source: AMINCO (2022a)

Figure 9-9: Interpretation of VES Cross Section 3

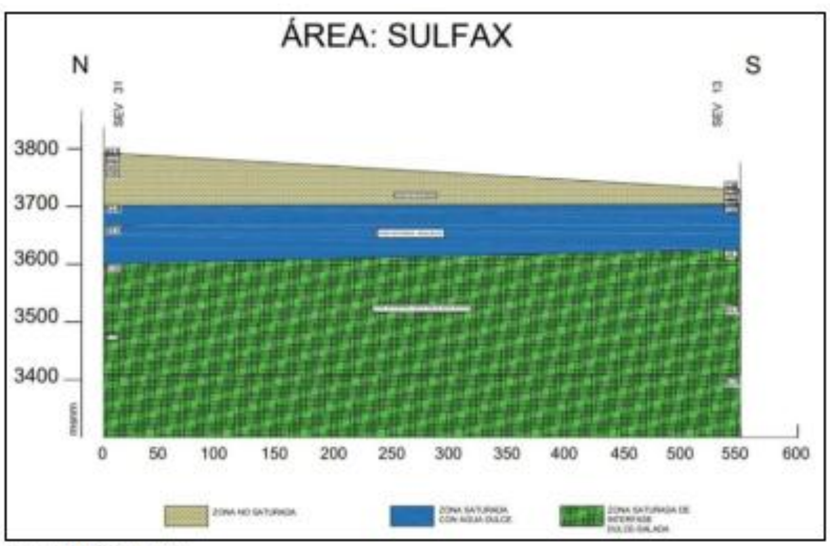
VES CROSS SECTION 4

Cross section location map and interpretation of surveyed VES points are shown on Figure 9-10 and Figure 9-11. Cross section 4 is also located on the SulfaX property, in the northern area of the salar. It has a length of approximately 0.6 km, with a N-S orientation, and it reaches a total depth of approximately 450 m. Resistivity values suggest contact with sediments saturated with salty-water at ~100 m depth. Higher values of resistivity on top might indicate presence of fresh water within colluvium fan at about 20 m from surface. Depth to bedrock was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-10: Location Map of VES Cross Section 4

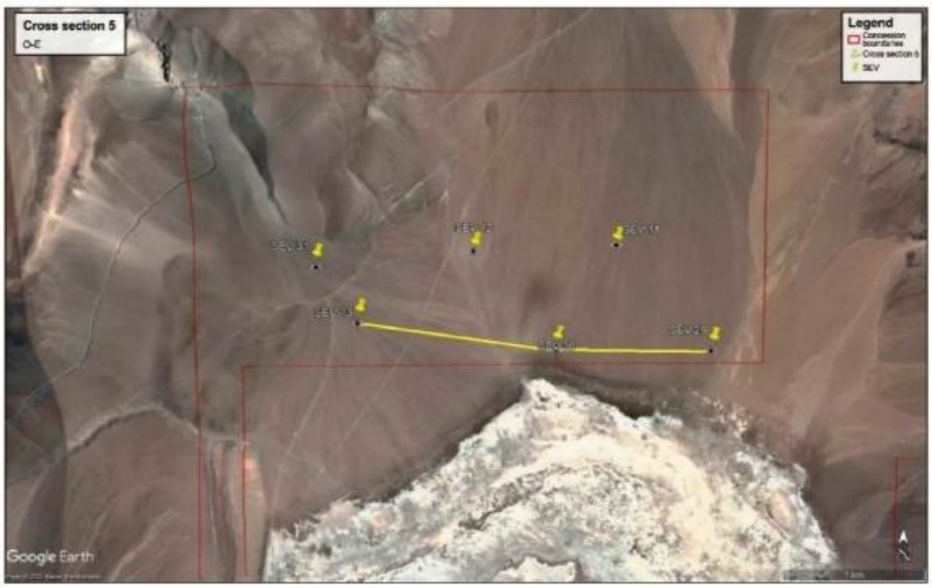


Source: AMINCO (2022a)

Figure 9-11: Interpretation of VES Cross Section 4

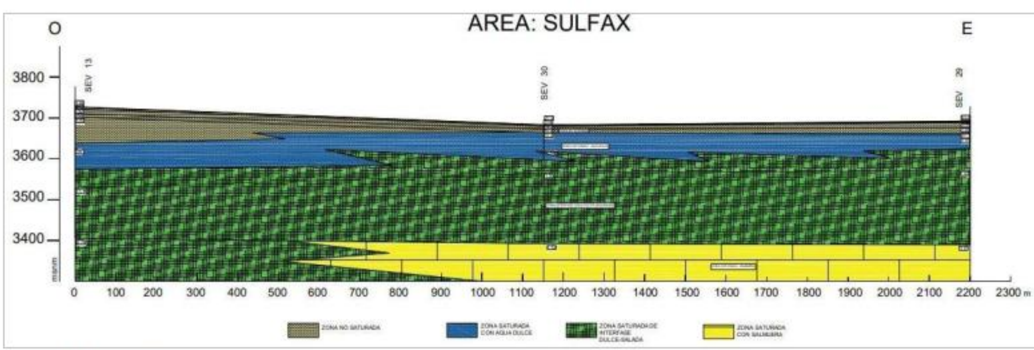
VES CROSS SECTION 5

Location map and interpretation are shown on Figure 9-12 and Figure 9-13. Cross section 5 is located on the SulfaX property, in the northern area of the salar. It has a length of approximately 2.2 km, with a W-E orientation, and it reaches a total depth of approximately 400 m. Resistivity values show contact with sediments saturated with salty-water at ~120 m depth at SEV-29 and SEV-30 towards the eastern side of the cross section. Higher values of resistivity on top might indicate presence of fresh water within the salar from ~25 m depth. Toward the eastern side of this cross section at SEV-13, brine-saturated sediments might be encountered below 300 m. Bedrock was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-12: Location Map of VES Cross Section 5

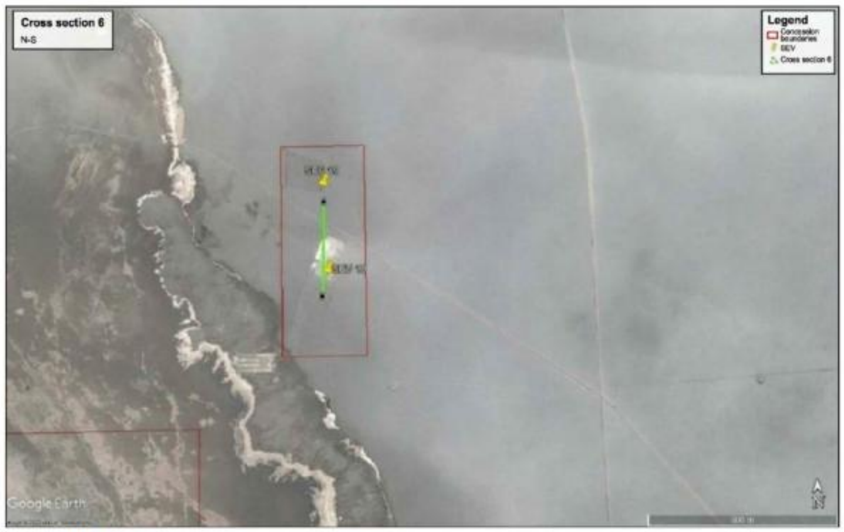


Source: AMINCO (2022a)

Figure 9-13: Interpretation of VES Cross Section 5

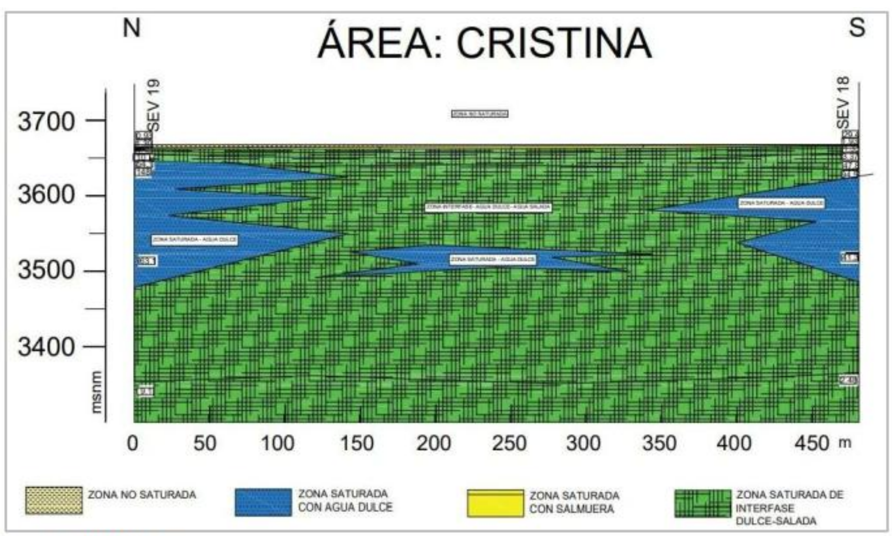
VES CROSS SECTION 6

Location map and interpretation are shown on Figure 9-14 and Figure 9-15. Cross section 6 is located on the Cristina concession, in the Central area of the salar. It has a length of approximately 0.46 km, with an N-S orientation, and it reaches a total depth of approximately 310 m. Resistivity values show sediments saturated with salty-water at 2 to 12 m depth. Higher values of resistivity below might indicate presence of sediments saturated with freshwater – most likely compact halite – or coarser material saturated with salty-water. Bedrock was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-14: Location Map of VES Cross Section 6

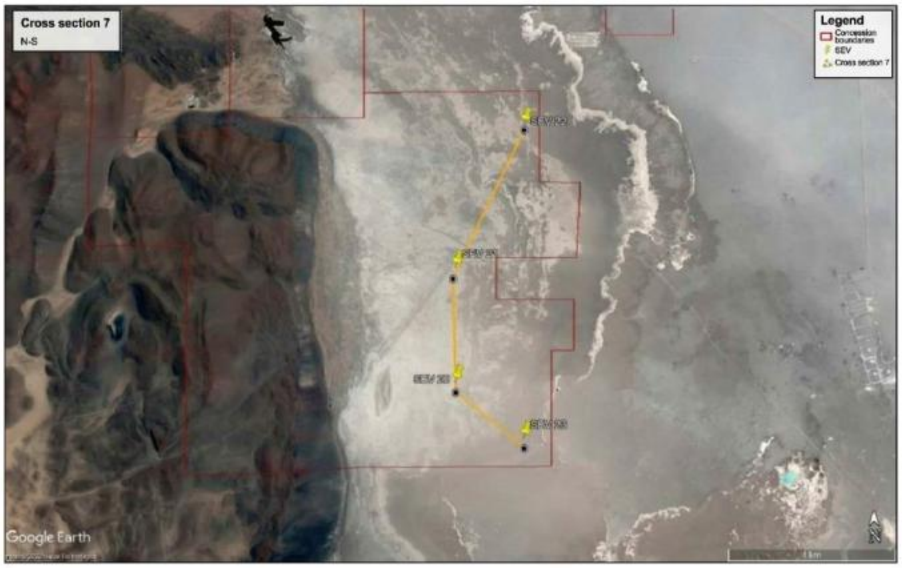


Source: AMINCO (2022a)

Figure 9-15: Interpretation of VES Cross Section 6

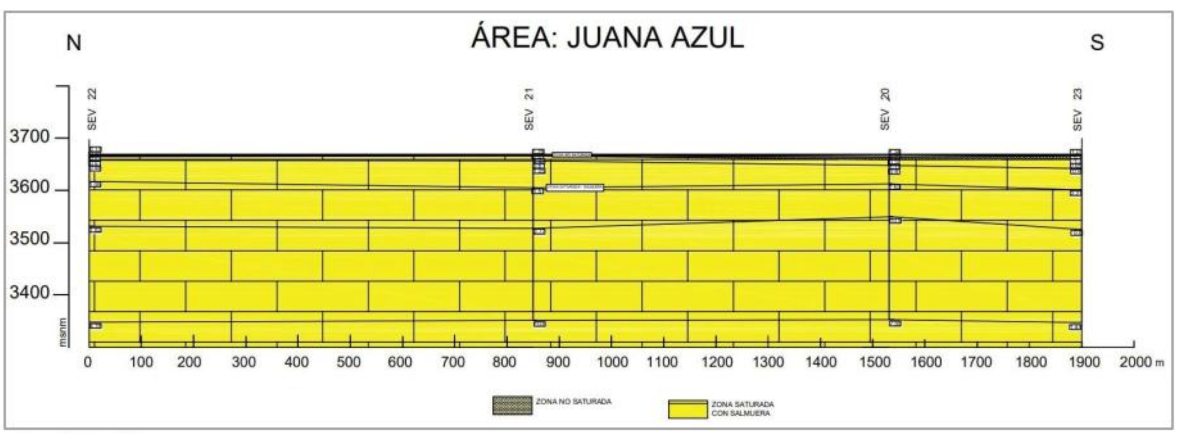
VES CROSS SECTION 7

Location map and interpretation are shown on Figure 9-16 and Figure 9-17. Cross section 7 is located on the Juana Azul property, western edge of Salar Rio Grande. It has a length of approximately 2.2 km, with a N-S orientation, and it reaches a total depth of approximately 320 m. Resistivity values show contact with saturated brine sediments almost from surface to 320 m depth. Bedrock was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-16: Location Map of VES Cross Section 7

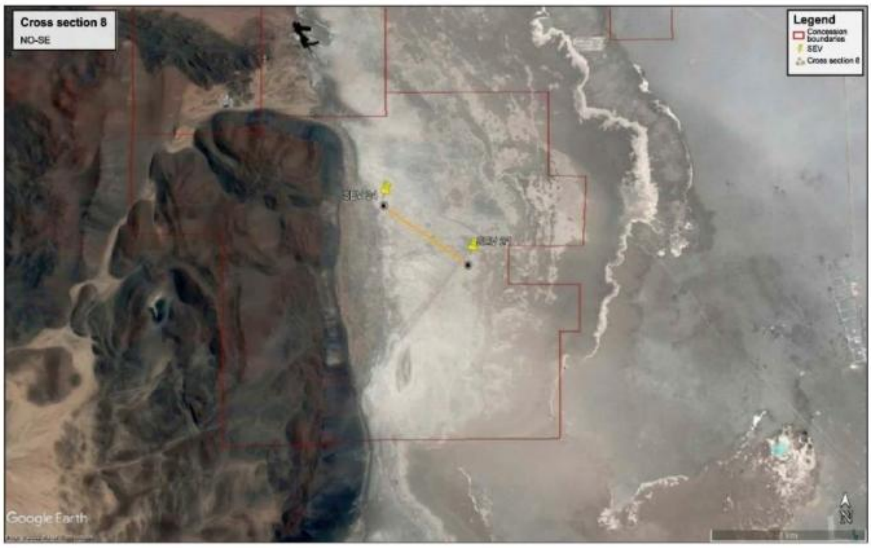


Source: AMINCO (2022a)

Figure 9-17: Interpretation of VES Cross Section 7

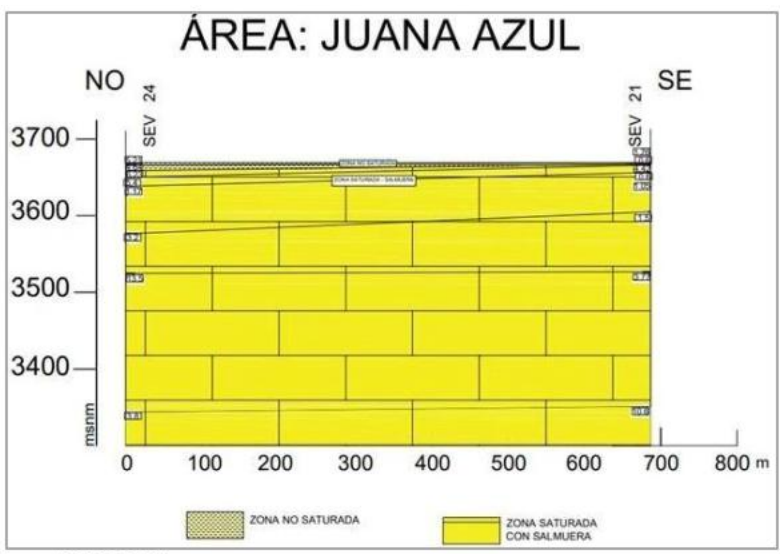
VES CROSS SECTION 8

Figure 9-18 and Figure 9-19 show location and interpretation of VES cross section 8. Cross section 8 is located on the Juana Azul property, in the western edge of Salar Rio Grande. It has a length of approximately 0.65 km, with a NW-SE orientation, and it reaches a total depth of approximately 320 m. Resistivity values suggest brine-saturated sediments almost from land surface to 322 m depth. Basement depth was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-18: Location Map of VES Cross Section 8

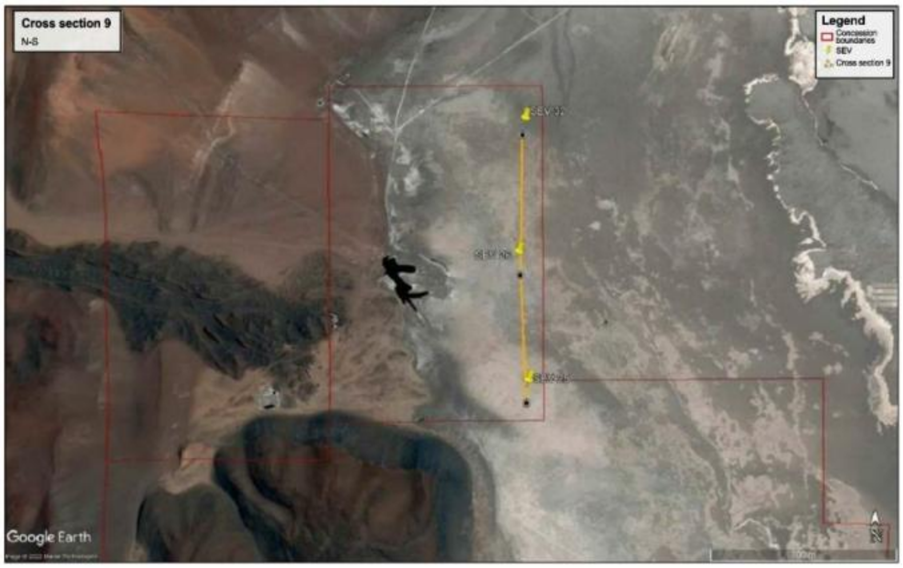


Source: AMINCO (2022a)

Figure 9-19: Interpretation of VES Cross Section 8

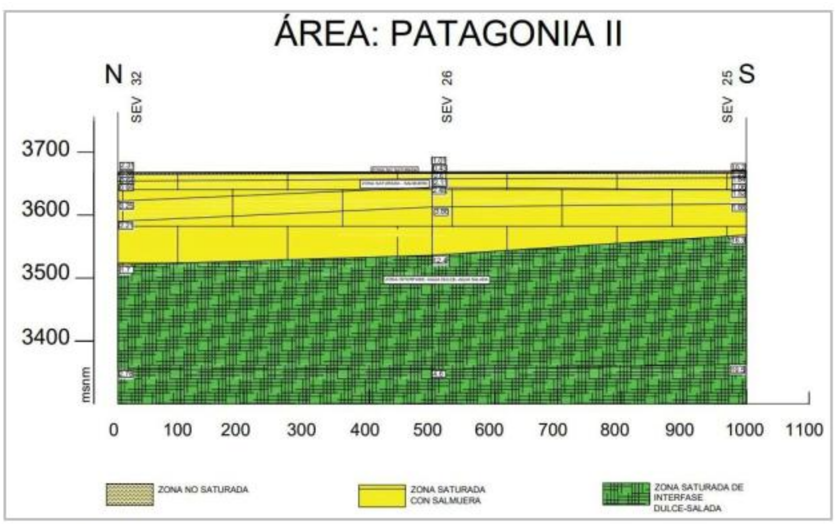
VES CROSS SECTION 9

Figure 9-20 and Figure 9-21 show location and interpretation of VES cross section 9. Cross section 9 is located on the Patagonia II property, in the northwestern edge of Salar Rio Grande. It has a length of approximately 1.0 km, with an N-S orientation, and it reaches a total depth of approximately 310 m. Resistivity values sugge7st brine-saturated sediments almost from surface to ~130 m depth, underlain by sediments saturated with salty-water. Basement depth was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-20: Location Map of VES Cross Section 9

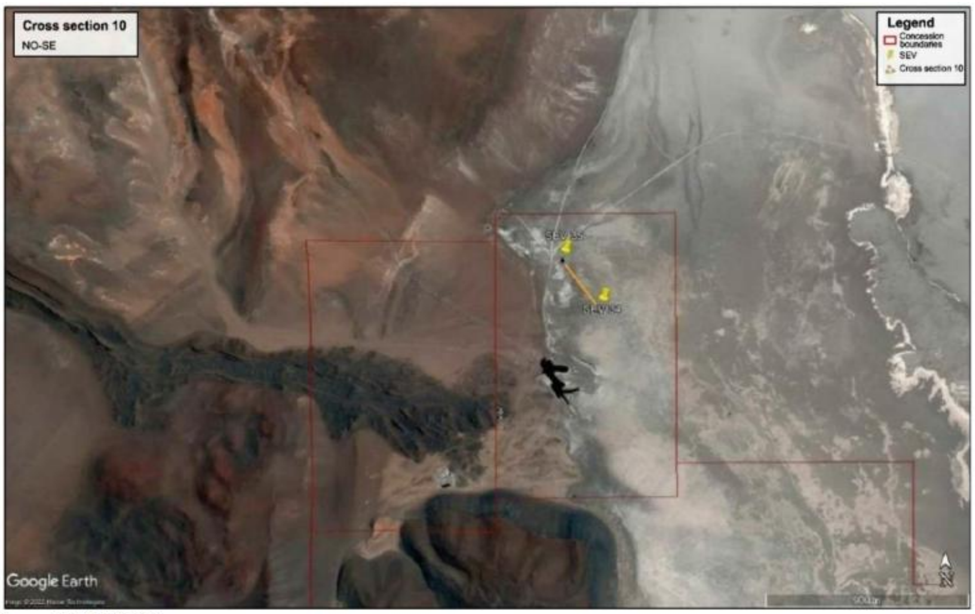


Source: AMINCO (2022a)

Figure 9-21: Interpretation of VES Cross Section 9

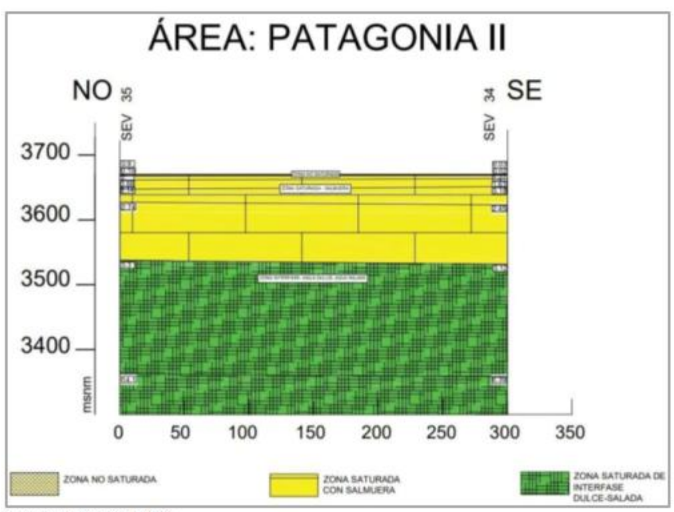
VES CROSS SECTION 10

Figure 9-22 and Figure 9-23 show location and interpretation of VES cross section 10. This cross section is located on the Patagonia II property, in the northwestern edge of Salar Rio Grande. It has a length of approximately 0.3 km, with a NW-SE orientation. It reaches a total depth of approximately 320 m. Resistivity values suggest brine-saturated sediments almost from surface to ~130 m depth, underlain by sediments saturated with salty-water. Basement depth was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-22: Location Map of VES Cross Section 10



Source: AMINCO (2022a)

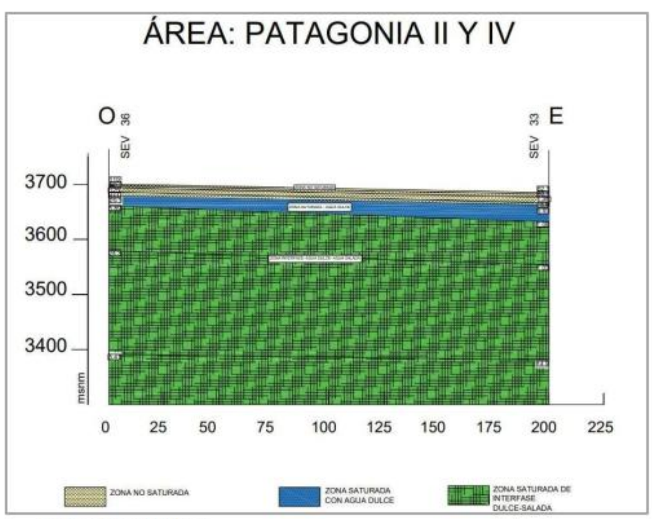
Figure 9-23: Interpretation of VES Cross Section 10

VES CROSS SECTION 11

Figure 9-24 and Figure 9-25 show location and interpretation of VES cross section 11. This cross section is located on the Patagonia II and Patagonia IV properties, Central area, northwestern edge of Salar Rio Grande. It has a length of approximately 0.20 km, with a W-E orientation. It reaches a total depth of approximately 310. Resistivity values suggest an unsaturated zone from land surface to ~30 m depth, underlain by freshwater down to ~50 m depth. Below freshwater, there are sediments saturated with salty water. Basement depth was not recognized according to the resistivity data.

Source: AMINCO (2022a)

Figure 9-24: Location Map of VES Cross Section 11

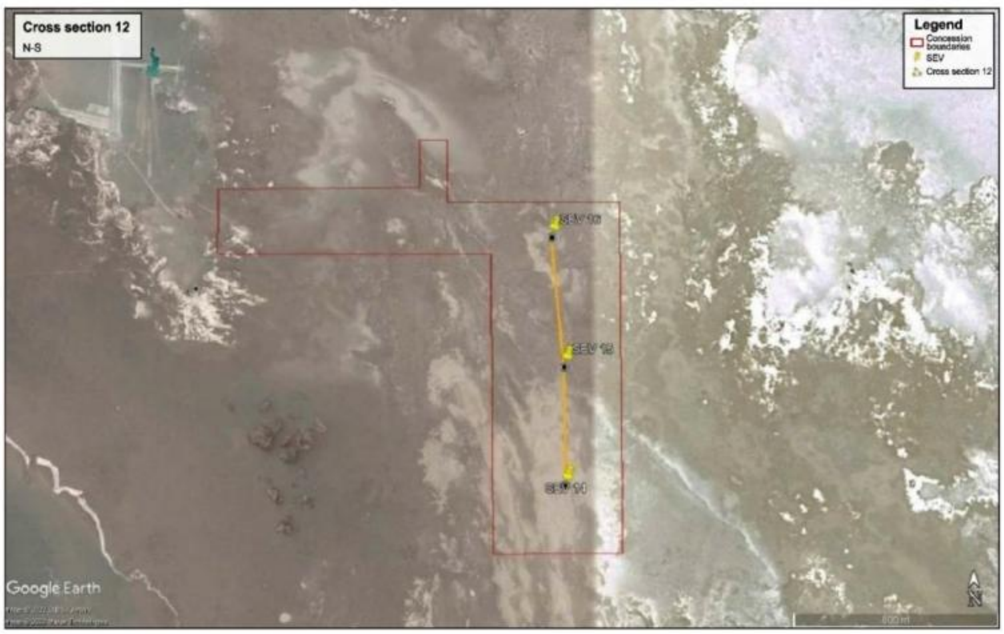


Source: AMINCO (2022a)

Figure 9-25: Interpretation of VES Cross Section 11

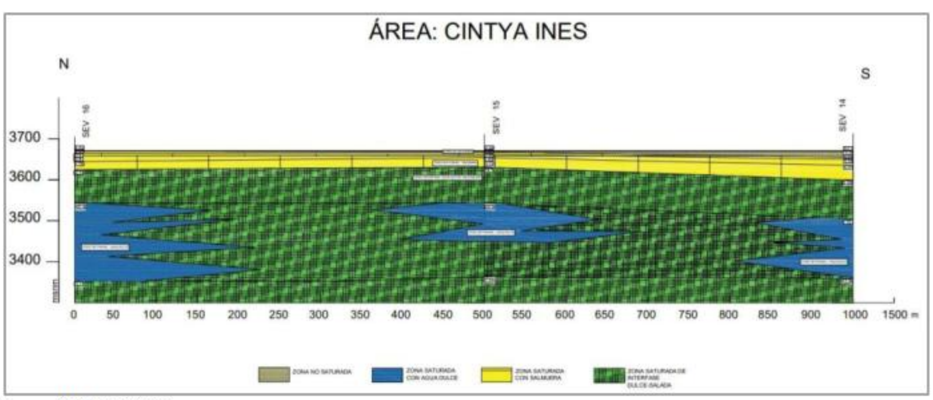
VES CROSS SECTION 12

Figure 9-26 and Figure 9-27 show location and interpretation of VES cross section 12. This cross section is located on the Cintya Ines Property, in the South area. It has a length of approximately 1.0 km, with a N-S orientation. It reaches a total depth of approximately 330 m. Resistivity values suggest brine-saturated sediments almost from land surface to ~70 m depth at SEV-14, thinning towards SEV-16 to 46 m depth. Below, there are sediments saturated with salty water, which contain lenses of freshwater, that can also be interpreted as coarser material saturated with brine. Basement depth was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-26: Location Map of VES Cross Section 12

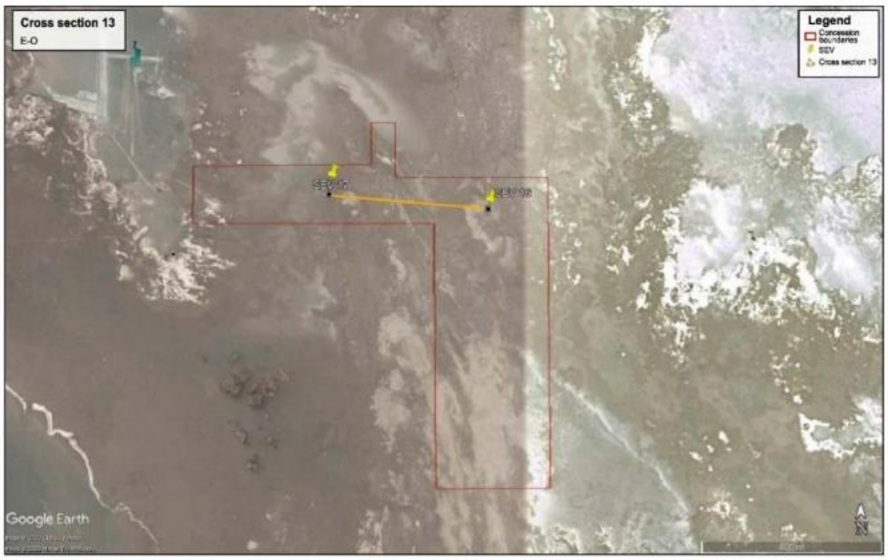


Source: AMINCO (2022a)

Figure 9-27: Interpretation of VES Cross Section 12

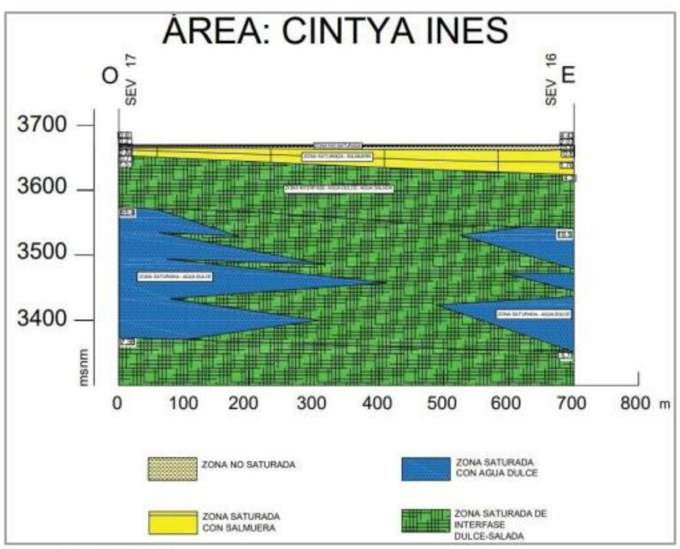
VES CROSS SECTION 13

Figure 9-28 and Figure 9-29 show location and interpretation of VES cross section 13. This cross section is located on the Cintya Ines Property, in the south area of the salar. It has a length of approximately 0.7 km with a W-E orientation. It reaches a total depth of approximately 330 m. Resistivity values suggest brine-saturated sediments almost from land surface to 50 m depth at SEV-16, decreasing in thickness towards SEV-17 to about 20 m depth. Basement depth was not recognized according to the resistivity data.



Source: AMINCO (2022a)

Figure 9-28: Location Map of VES Cross Section 13



Source: AMINCO (2022a)

Figure 9-29: Interpretation of VES Cross Section 13

9.1.2 *Summary of VES Survey Cross Sections*

Based on the results presented by AMINCO (2022a), we have assumed that the salar is likely uniformly saturated with brine, with possible fresh or brackish water areas along the margins where freshwater recharge occurs. Based on the results of the survey, AMINCO interprets the following:

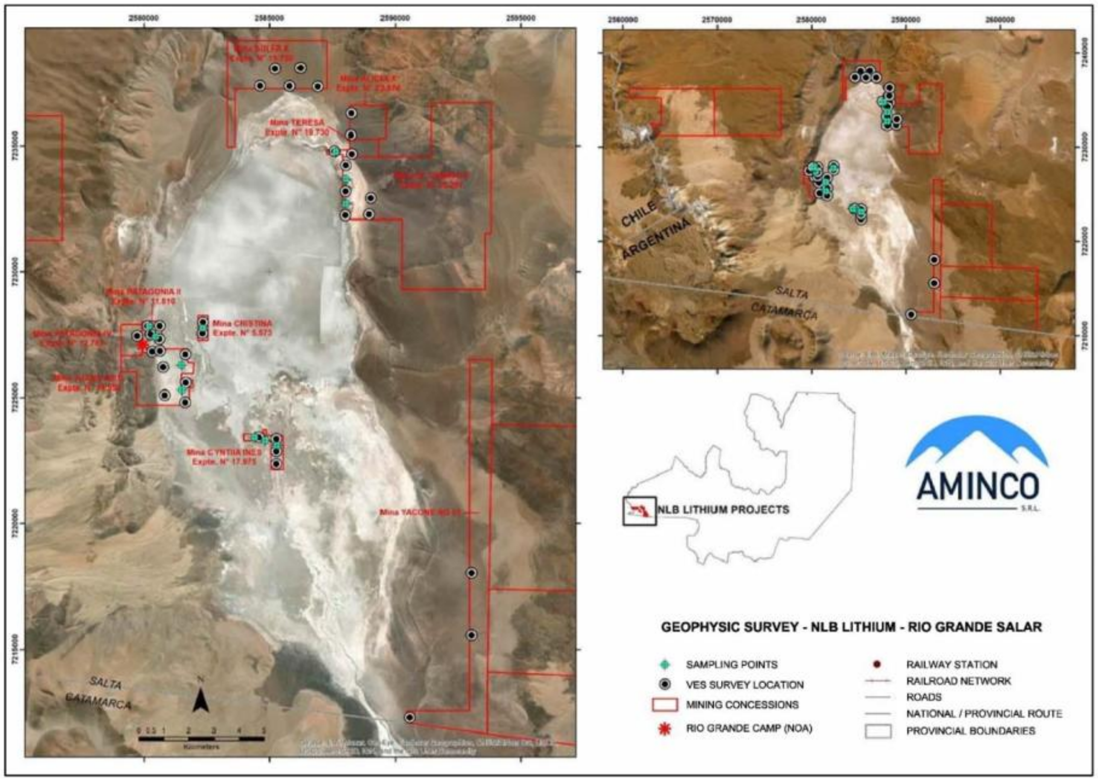
- Brine saturated sediments occur within the main salar, in concessions located in the west, central and northeast areas of the salar.
- Fresh/brackish water areas are present near the margins of the salar, and in areas where clastic sediments dominate outside the salar boundaries.
- Surveyed VES points in northern concession and near to the edge of the salar indicate the presence of brine saturated sediments to at least approximately 300 m depth.
- Basin basement was not recognized from data obtained.

It is important to mention that deployment of VES points along the salar does not allow to get an ideal distribution for data interpretation. Some areas of the salar were not covered by any VES, making interpretations related to continuity of geologic conditions less reliable. However, prior exploration works reported by Hains (2018) included surface geophysical surveys that could be useful to complement with the information obtained by studies carried out by AMINCO on behalf of NOA.

VES survey carried out by AMINCO (2022a) and conclusions outlined from it are considered as good initial information to have a general idea of the aquifer system in the Salar de Río Grande. However, following drilling process and laboratory results of lithium concentration, which show the presence of brine down to 650 m depth and an increasing lithium grade with depth, we decided not to use this VES geophysics survey as their interpretations show the opposite tendency in terms of the brine concentration.

9.2 April 2022 Surface Sampling and Laboratory Results

A surface water and brine sampling campaign were carried out during April through May, 2022 by AMINCO (2022b). A total of 11 brine samples were obtained and analyzed by SGS laboratory. All brine samples were obtained by hand or bailed at depths less than 1 meter below land surface. Locations and field parameters for the samples are given in Table 9-1 and shown on Figure 9-30.



Source - AMINCO (2022b)

Figure 9-30: Location Map of Surface Brine Samples Collected by AMINCO for Salar de Rio Grande Project

Table 9-1: Sample Location Coordinates and Field Parameters

SAMPLE ID	SAMPLES COORDINATES				WATER LEVEL (mbls)	TEMPERATURE (°C)[3]	pH	ELECTRICAL CONDUCTIVITY (mS)[4]	DENSITY mg/ml
	LATITUDE[1]	LONGITUDE[1]	UTM Easting[2] (meters, POSGAR 94)	UTM Northing[2] (meters, POSGAR 94)					
SALMUERA 5407	25°06'41.22"S	68°09'31.35"W	2,584,853.7	7,223,301.4	0.8	9.8	-	102	1,075
SALMUERA 5408	25°06'47.93"S	68°09'14.57"W	2,585,319.7	7,223,092.0	0.7	12.1	7.9	99.1	1,065
SALMUERA 5409	25°06'37.58"S	68°09'46.99"W	2,584,416.2	7,223,416.2	0.8	12.9	7.73	110.9	1,105
SALMUERA 5410	25°05'36.84"S	68°11'30.35"W	2,581,531.4	7,225,303.0	0.6	9	8	65.5	1,035
SALMUERA 5411	25°05'05.20"S	68°11'30.94"W	2,581,520.6	7,226,276.7	0.45	6.8	7.61	63.9	1,040
SALMUERA 5412	25°04'28.26"S	68°12'08.19"W	2,580,483.5	7,227,419.6	0.6	8.5	7.45	105.5	1,080
SALMUERA 5413	25°04'14.22"S	68°12'17.74"W	2,580,218.3	7,227,853.3	1.10	9.8	8	55	1,030
SALMUERA 5414	25°04'16.55"S	68°11'01.05"W	2,582,367.3	7,227,768.7	0.7	10	7.45	52	1,225
SALMUERA 5415	25°01'35.62"S	68°07'39.81"W	2,588,039.5	7,232,685.8	0.65	11.7	7.45	129.2	1,160
SALMUERA 5416	25°01'03.37"S	68°07'39.76"W	2,588,047.3	7,233,678.2	0.75	12	9.10	129.2	1,060
SALMUERA 5417	25°00'28.16"S	68°07'54.17"W	2,587,650.2	7,234,764.3	0.7	11.1	7.8	131.3	1,150

[1] Geographic coordinates WGS 84.
[2] UTM Easting and Northing from handheld portable GPS.
[3] °C = Celsius degrees
[4] mS = millisiemens

The following represents a summary of the methodology utilized by AMINCO field personnel during surface sampling:

- At each sampling point, a shallow excavation was dug until water was encountered. Then, the excavation was allowed to rest for fine sediments decantation (Photo 9-1).
- Once the manual excavation was completed, static water level was measured (Photo 9-1).
- Before sampling each point every equipment was cleaned with freshwater and distilled water.
- Plastic bottles and containers were labeled before to filling them and were also rinsed with the same source of the sample collected 3 times according to the protocol.
- Plastic bottles were filled with the brine samples collected at each point and then sealed using bottle caps and tape (Photo 9-2).
- After each sample was collected, field parameters (pH, T°, electrical conductivity, density, total dissolved solids) were measured and registered (Photo 9-2).
- Finally, all equipment utilized was cleaned and washed following the same steps mentioned above.

Photo 9-1: Left: Pit Excavation, Right: Water Level Measurement

Photo 9-2: Field Parameter Measurement, Right: Sealed Sample Bottle

Table 9-2 shows a summary of laboratory analysis results from samples taken by M&A during the April 2022 campaign.

Table 9-2: Summary of Laboratory Analysis Results for AMINCO Sampling Campaign

SAMPLE ID	Date-Time	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)	SO_4 (mg/L)	Mg/Li	Density (g/cm³)
SALMUERA 5407	05-05-2022 17:30	129	1,733.10	2,429.60	136.8	12,048	13.4	1.08
SALMUERA 5408	05-05-2022 15:30	135.6	1,880.00	2,563.00	150.9	12,665	13.9	1.08
SALMUERA 5409	05-05-2022 16:50	173.2	2,226.10	2,421.80	191.6	14,517	12.9	1.1
SALMUERA 5410	08-04-2022 9:50	45.9	1,213.30	1,371.40	23.3	8,154	26.4	1.04
SALMUERA 5411	08-04-2022 9:00	51.4	1,156.00	1,365.80	30.2	7,388	22.5	1.04
SALMUERA 5412	08-04-2022 19:00	99.9	2,201.20	2,674.90	31.8	13,270	22	1.08
SALMUERA 5413	08-04-2022 11:30	30.1	672.6	912.1	<10	2,494	22.3	1.02
SALMUERA 5414	08-04-2022 18:30	294	4,247.70	5,599.90	173.2	19,390	14.4	1.22
SALMUERA 5415	05-05-2022 15:00	274.4	2,970.60	4,382.10	134.9	18,036	10.8	1.16
SALMUERA 5416	05-05-2022 13:00	290.1	3,059.30	4,518.90	113.9	18,818	10.5	1.16
SALMUERA 5417	05-05-2022 11:00	301.9	3,389.00	4,862.20	123	20,230	11.2	1.15

SO_4 - Sulphate
g/cm3 - Grams per cubic centimeter

Sample SALMUERA 5413 was obtained closer to the edge of the basin, and it seems to be brackish water, commonly associated with freshwater / brine mixing zones at the edges of the salar. Similar situations occur with samples SALMUERA 5410 and 5411 that apparently are brackish water, but this condition is not demonstrated by VES survey performed in the vicinity of the locations sampled. Although samples SALMUERA 5410, 5411, and 5413 do not have concentrated brine at the surface, it is possible that concentrated brine may occur with depth at these locations. Samples SAL-004 and SAL-002; SAL-003 were taken at the same location as samples SALMUERA 5412 and SALMUERA 5414, respectively. However, chemistry results presented in Table 9-2 shows slight differences in chemistry - possibly because these near-surface samples were affected by evaporation.

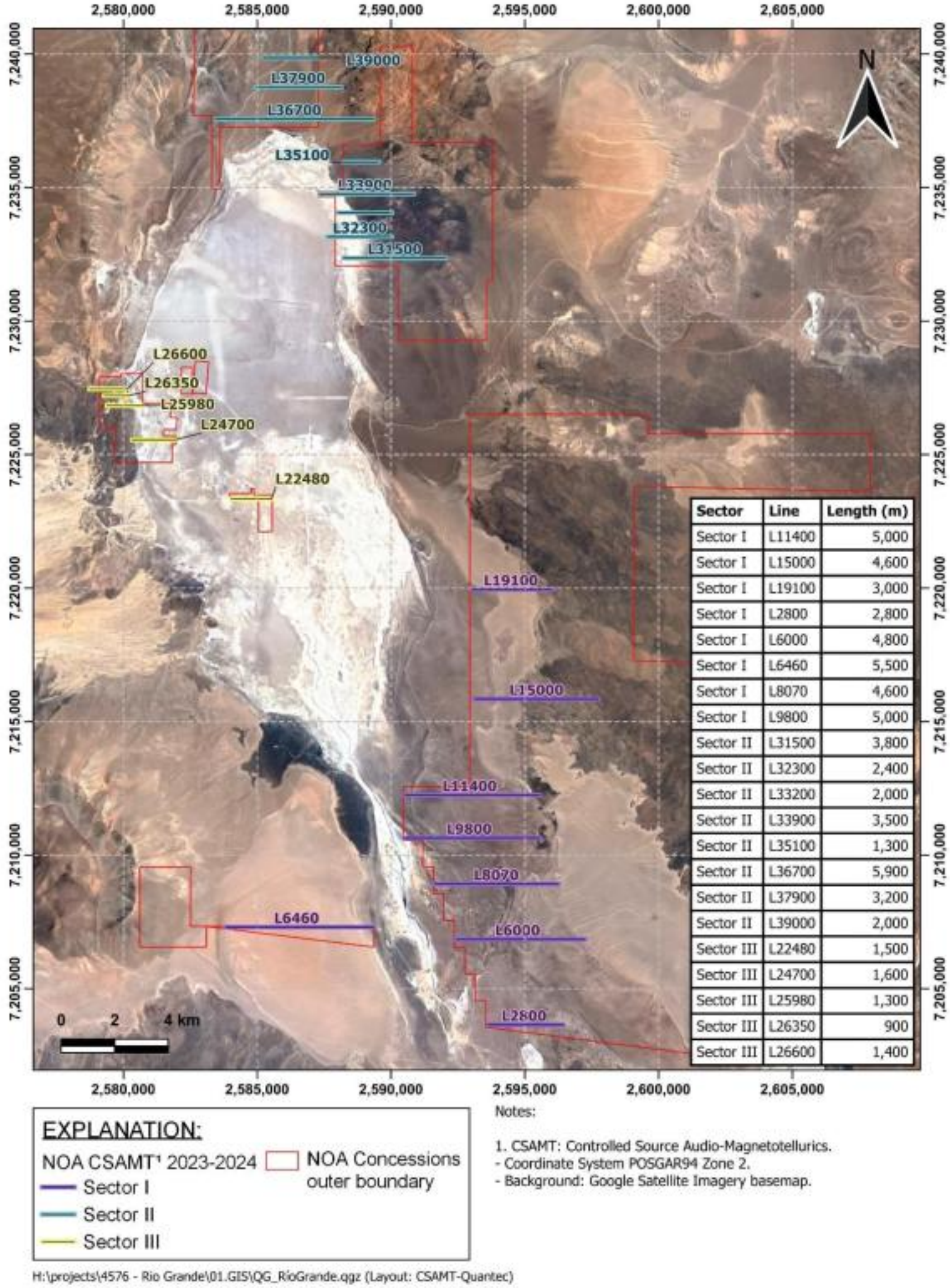
Based on review of the methods as described in the report, and observed in the field, M&A believes that the laboratory results from the AMINCO (2022b) surface sampling program are reliable and reasonably represent the brine near the surface in the Project area. No sampling biases are known to exist.

9.3 2023-2024 Controlled Source Audio Magnetotelluric Survey

A CSAMT survey was conducted by Quantec (2024) from December 12th, 2023 to April 1st, 2024. Goals of the surveys were to obtain subsurface resistivity profiles, improve understanding of underlying stratigraphy within Project properties, identify fresh water/brine interfaces (if present) and potential brine in unexplored areas, and use resulting characterizations to analyze future locations for exploration wells. Even though lithium concentration cannot be determined from resistivity values, brine can typically be associated with values less than 2 – 3 ohm-m, but could be present when resistivity values are even higher than 10 ohm-m.

CSAMT surveyed lines, that totalized 66,100 meters of horizontal extent, were grouped and analyzed, by Quantec (2024), in three sectors, associated to different groups of Project concessions. Locations of the 21 surveyed lines are shown on Figure 9-31. Sector and line distributions can be described as follows:

- Sector I is focused on south-eastern concessions and includes 8 lines: L11400, L15000, L19100, L2800, L6000, L6460, L8070 and L9800.
- Sector II is focused on northern concessions and includes 8 lines: L31500, L32300, L33200, L33900, L35100, L36700, L37900 and L39000.
- Sector III is focused on western concessions and includes 5 lines: L22480, L24700, L25980, L26350 and L26600.



Sector	Line	Length (m)
Sector I	L11400	5,000
Sector I	L15000	4,600
Sector I	L19100	3,000
Sector I	L2800	2,800
Sector I	L6000	4,800
Sector I	L6460	5,500
Sector I	L8070	4,600
Sector I	L9800	5,000
Sector II	L31500	3,800
Sector II	L32300	2,400
Sector II	L33200	2,000
Sector II	L33900	3,500
Sector II	L35100	1,300
Sector II	L36700	5,900
Sector II	L37900	3,200
Sector II	L39000	2,000
Sector III	L22480	1,500
Sector III	L24700	1,600
Sector III	L25980	1,300
Sector III	L26350	900
Sector III	L26600	1,400

Figure 9-31: Coverage Map of the CSAMT 2023-2024 Survey

9.3.1 *Sector I (south-eastern concessions)*

Location of CSAMT survey lines conducted by Quantec corresponding to Sector I are shown on Figure 9-32. This sector, focused on the south-east part of the Project properties, included 8 lines with west-east direction that totalized 35,300 meters of horizontal extent.

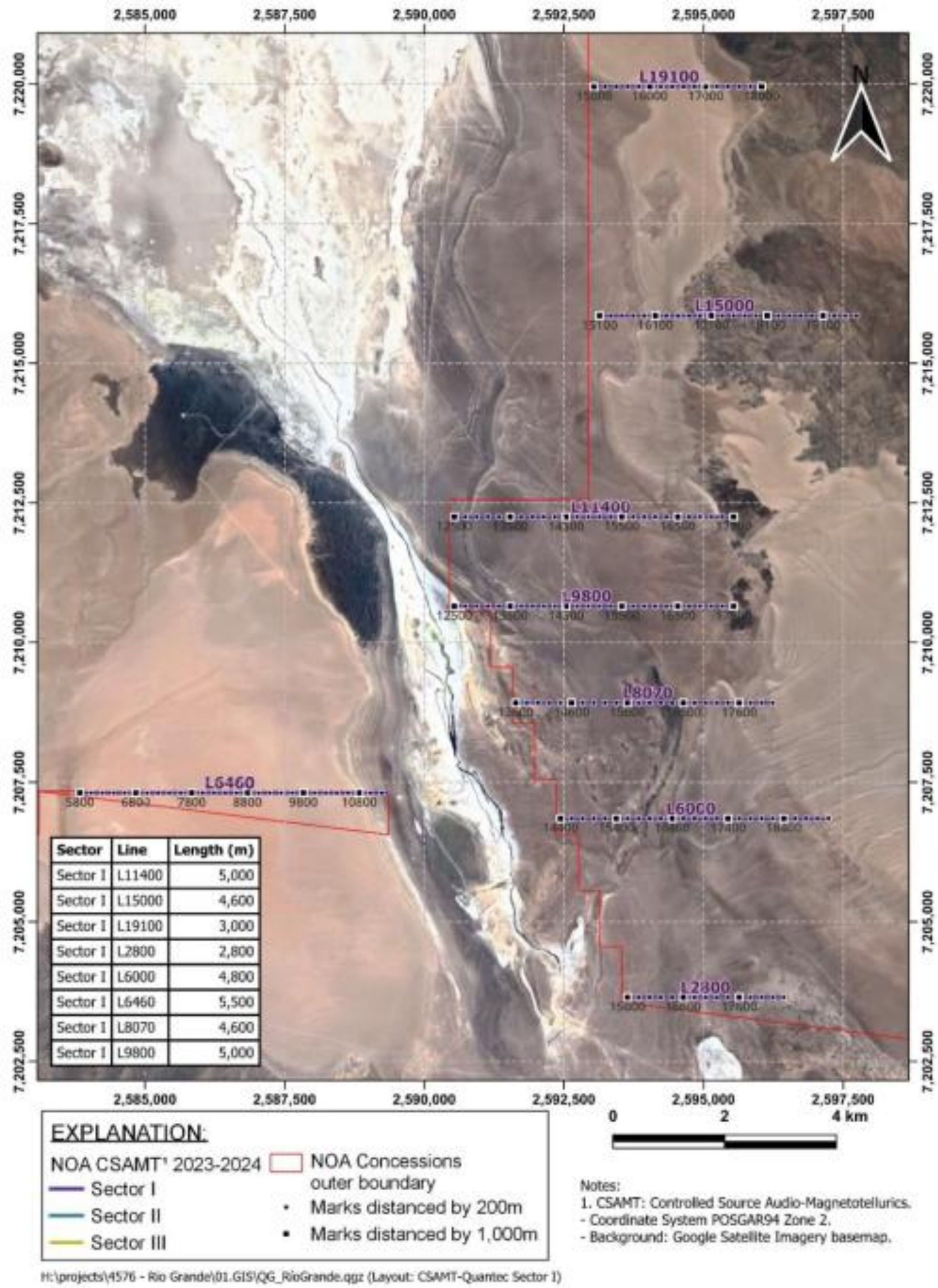
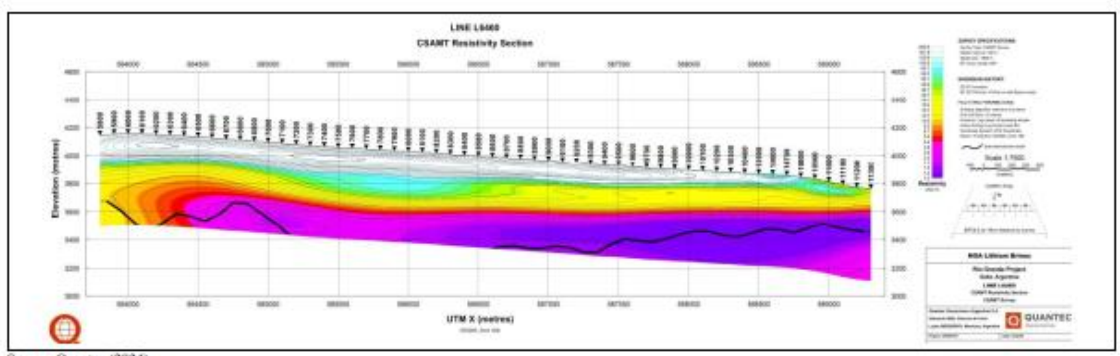


Figure 9-32: Coverage map of the CSAMT Survey in Sector I (south-east concessions)

Figure 9-33 shows the profile for line L6460, located in the western part of Sector I, over an alluvial fan (recognized by satellite image visual inspection). It is possible to appreciate low resistivity values (<4 ohm-m) with thicknesses of up to 400 m underlying higher values in the totality of this profile. The low resistivity values suggest presence of brine, which thickness would decrease towards west

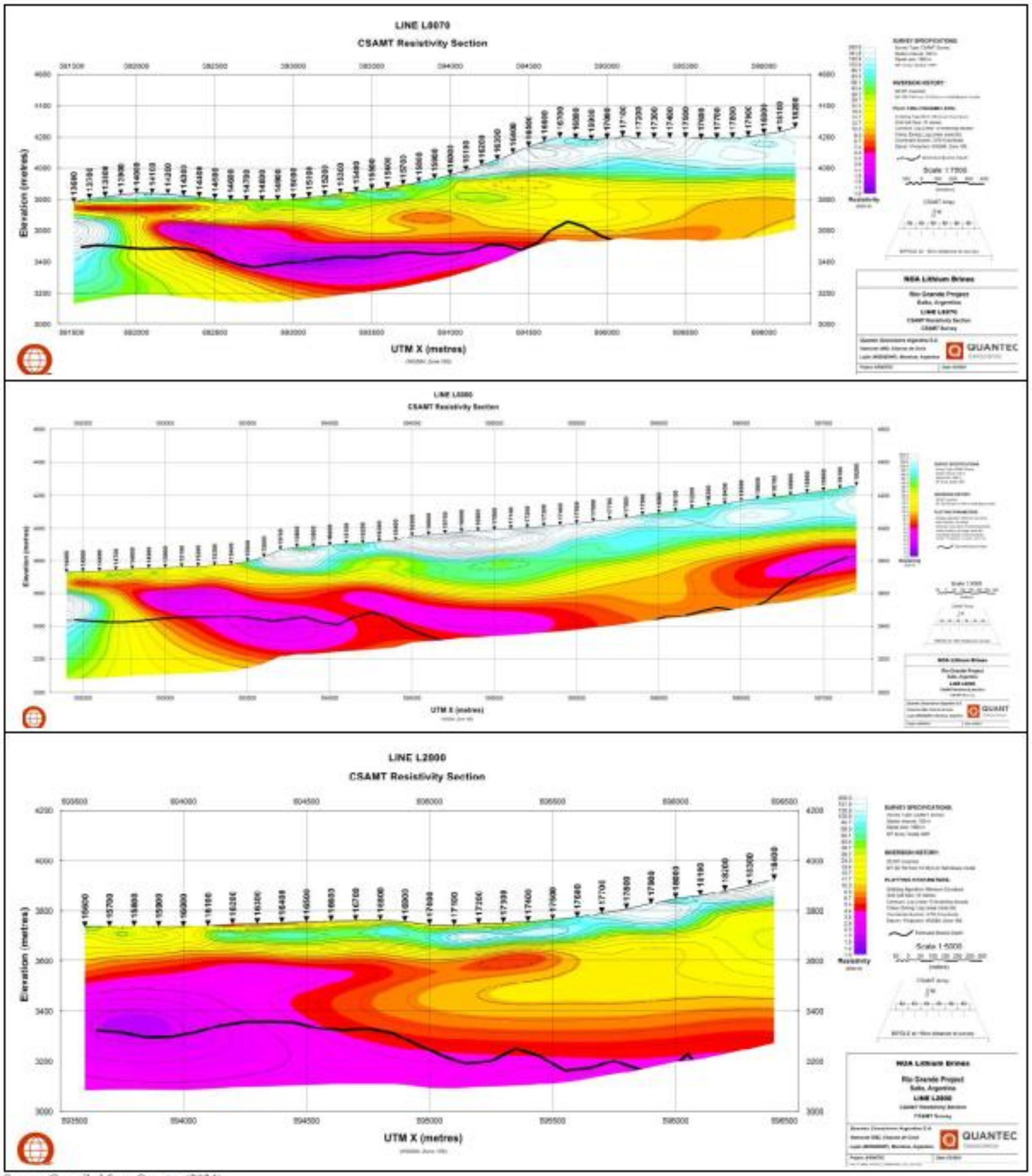


Source: Quantec (2024)

Figure 9-33: Interpreted section L6460

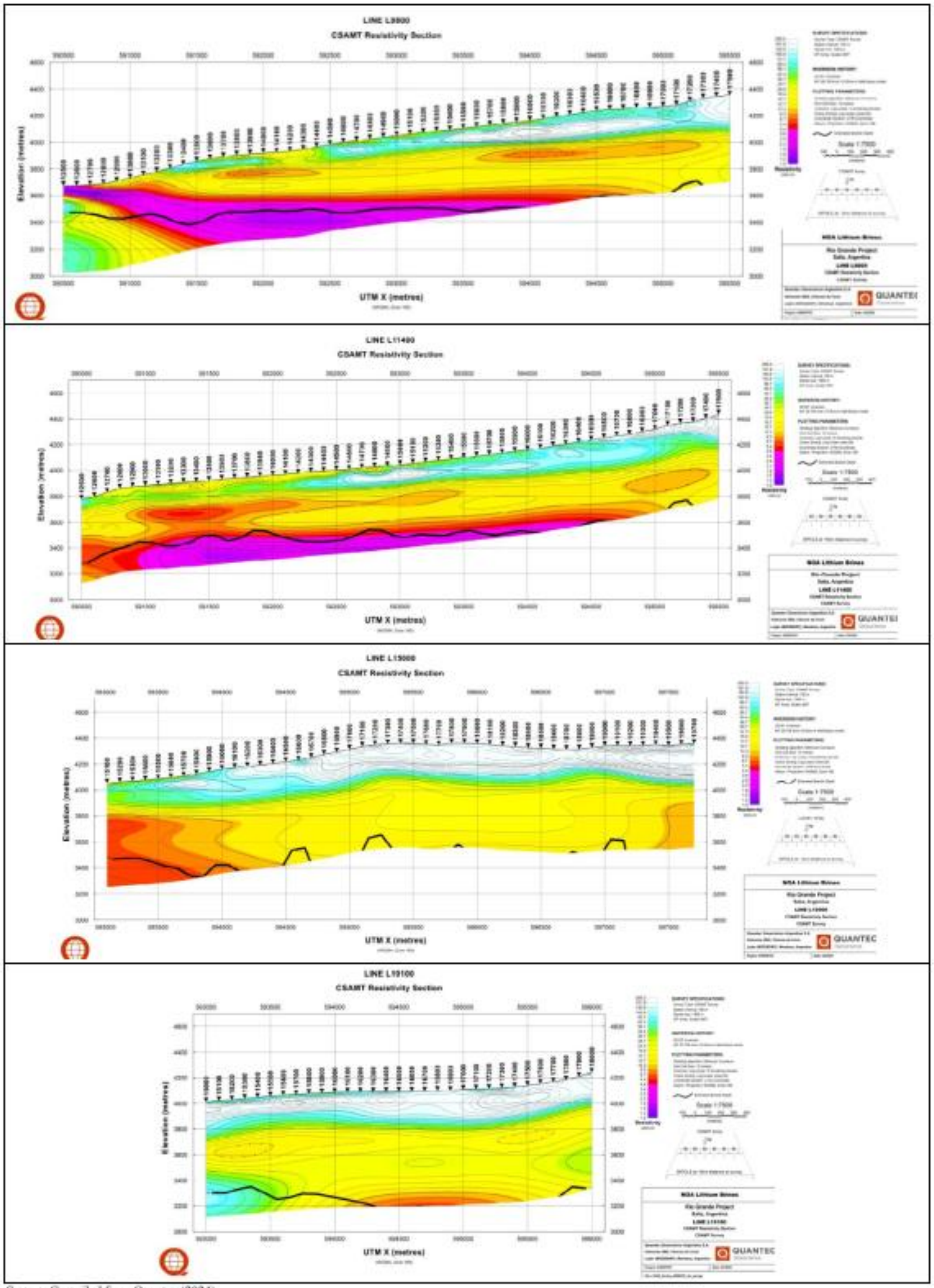
Figure 9-34 shows interpreted sections for lines L2800, L6000 and L8070, located in the southern part of the Project concessions. Profiles show layers of low resistivity (<4ohm-m) on the central-western part of each, with a potential brine layer that appears to have thicknesses from 100 to 400 m. Particularly, L6000 shows a low resistivity value in the east part of the profile, which is assumed to be just a local presence of brine, not observed on the other lines

Figure 9-35 presents profiles for lines L9800, L11400, L15000 and L19100, located in the northern and central part of Sector I. From these profiles, it is possible to appreciate that low resistivity values (<4 ohm-m) are present in profiles L9800 and L11400, which present thicknesses of up to 400 m, underlying high resistivity values. The absence of low resistivity values in profiles L15000 and L19100 would be associated with absence of brine in those areas.



Source: Compiled from Quantec (2024)

Figure 9-34: Interpreted sections L2800, L6000 and L8070



Source: Compiled from Quantec (2024)

Figure 9-35: Interpreted sections L9800, L11400, L15000 and L19100

9.3.2 Sector II (northern concessions)

Location of CSAMT profiles conducted by Quantec in Sector II are shown on Figure 9-36. This sector, focused on the northern Project properties, included 8 east-west oriented lines, and totalized 24,100 m of horizontal extent.

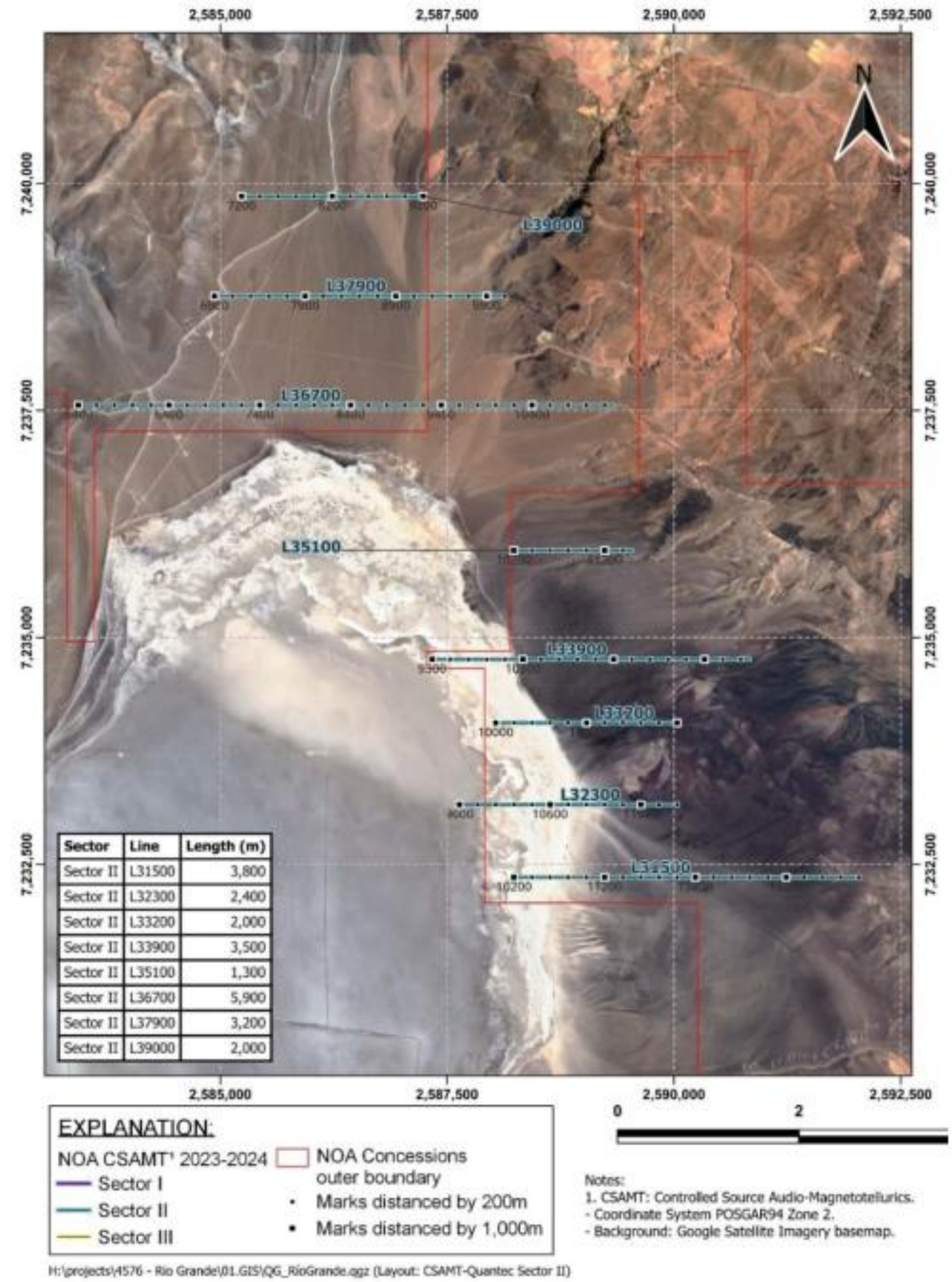
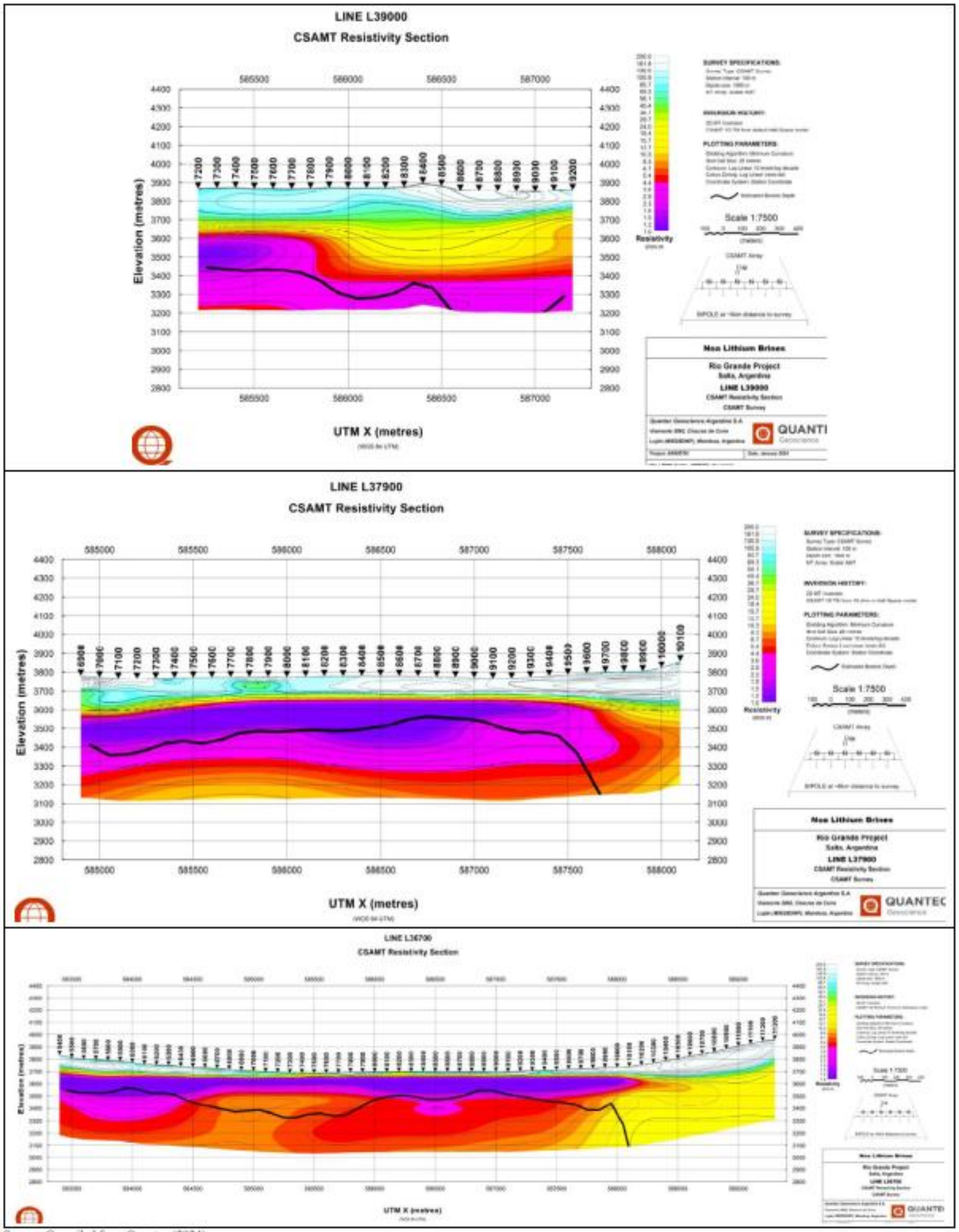


Figure 9-36: Coverage map of the CSAMT Survey in Sector II (Northern concessions)

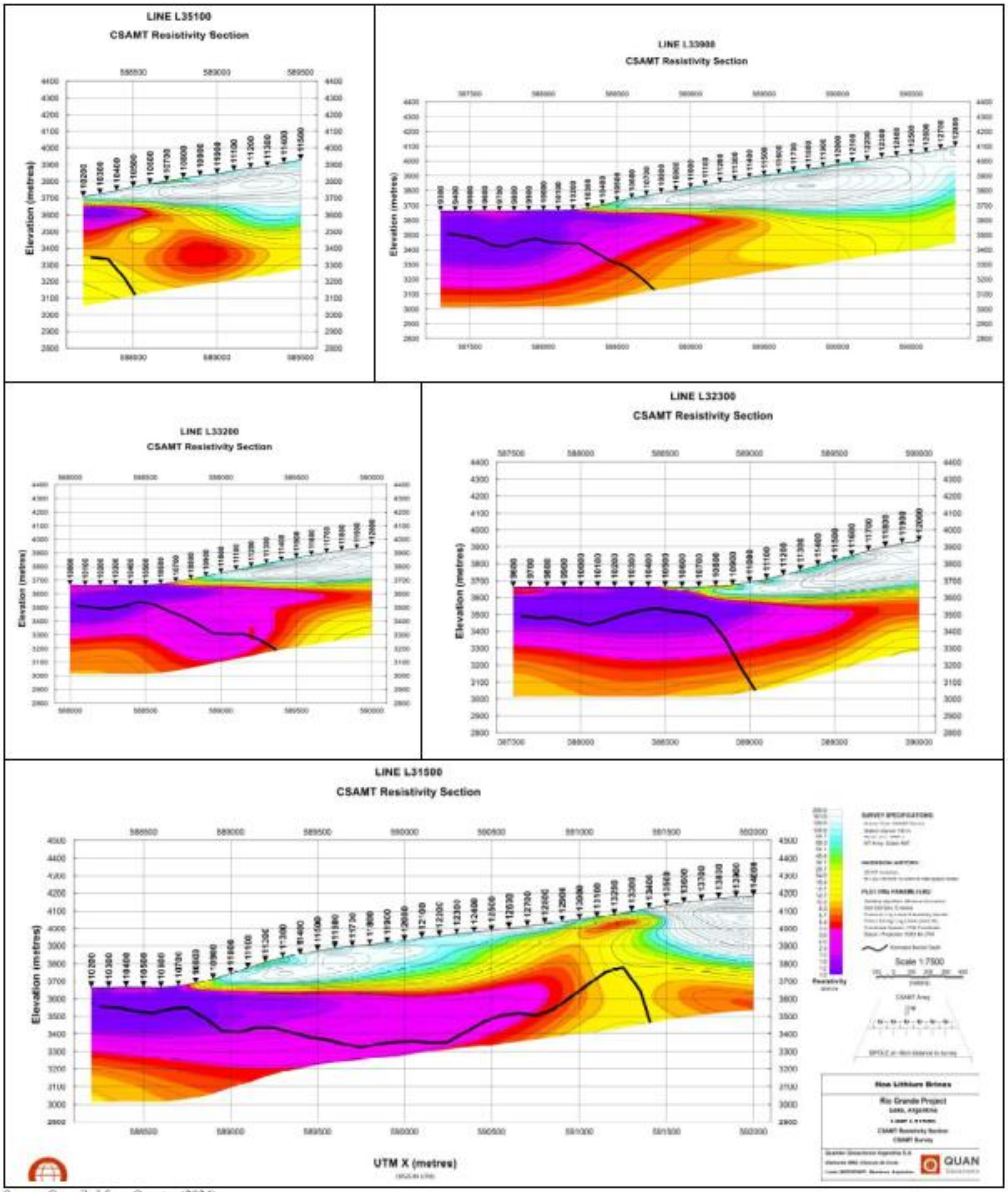
Figure 9-37 presents interpreted sections of lines L39000, L37900 and L36700, located at north part of Sector II. From these figures it is possible to appreciate that in the most northern profile (L39000) there is a low resistivity zone (<4 ohm-m) that suggests brine presence below 250 m of depth from land surface, which have a thickness of about 250 to 450 m that increases towards west. As heading south, closer to the salar boundary, low resistivity values can be found shallower and more consistently along the profiles. It has to be mentioned that location of station 8300 in L36700 is coincident with an exploration well location (DDH-RG23-001, described in Chapter 10), where lithium concentration values from about 470 to 900 mg/L have been found where CSAMT resistivity values range from 5 to 7 ohm-m (elevation ranges from 3,220 and 3,450 masl).

Figure 9-38 presents the interpreted sections for lines L35100, L33900, L32300 and L31500, located in the southeast part of Sector II. From these figures, it is possible to appreciate that low resistivity zones have a greater horizontal extension in lines L33900, L32300 and 31500, specifically at the western (inside the salar area) and central zone of each section; showing thicknesses of about 300 to 400 m. It has to be mentioned that location of station 10500 in L33200 is coincident with an exploration well location (DDH-RG23-004, described in Chapter 10), where lithium concentration values from about 650 to 750 mg/L have been found where resistivity values range from 6 to 8 ohm-m (elevation ranges from 3,150 and 3,300 masl). As expected, thicknesses of overlying high resistivities zones increases with topographic elevation at each east zone in mentioned profiles, which can be related to higher unsaturated or freshwater areas.



Source: Compiled from Quantec (2024)

Figure 9-37: Interpreted sections L39000, L37900 and L36700



Source: Compiled from Quantec (2024)

Figure 9-38: Interpreted sections L35100, L33900, L33200, L32300 and L31500

9.3.3 Sector III (western concessions)

The location of the CSAMT profiles made by Quantec and corresponding to Sector III are shown in Figure 9-39. This sector, focused on the western Project properties, included 5 east-west oriented lines that totalized 6,700 m of horizontal extent.

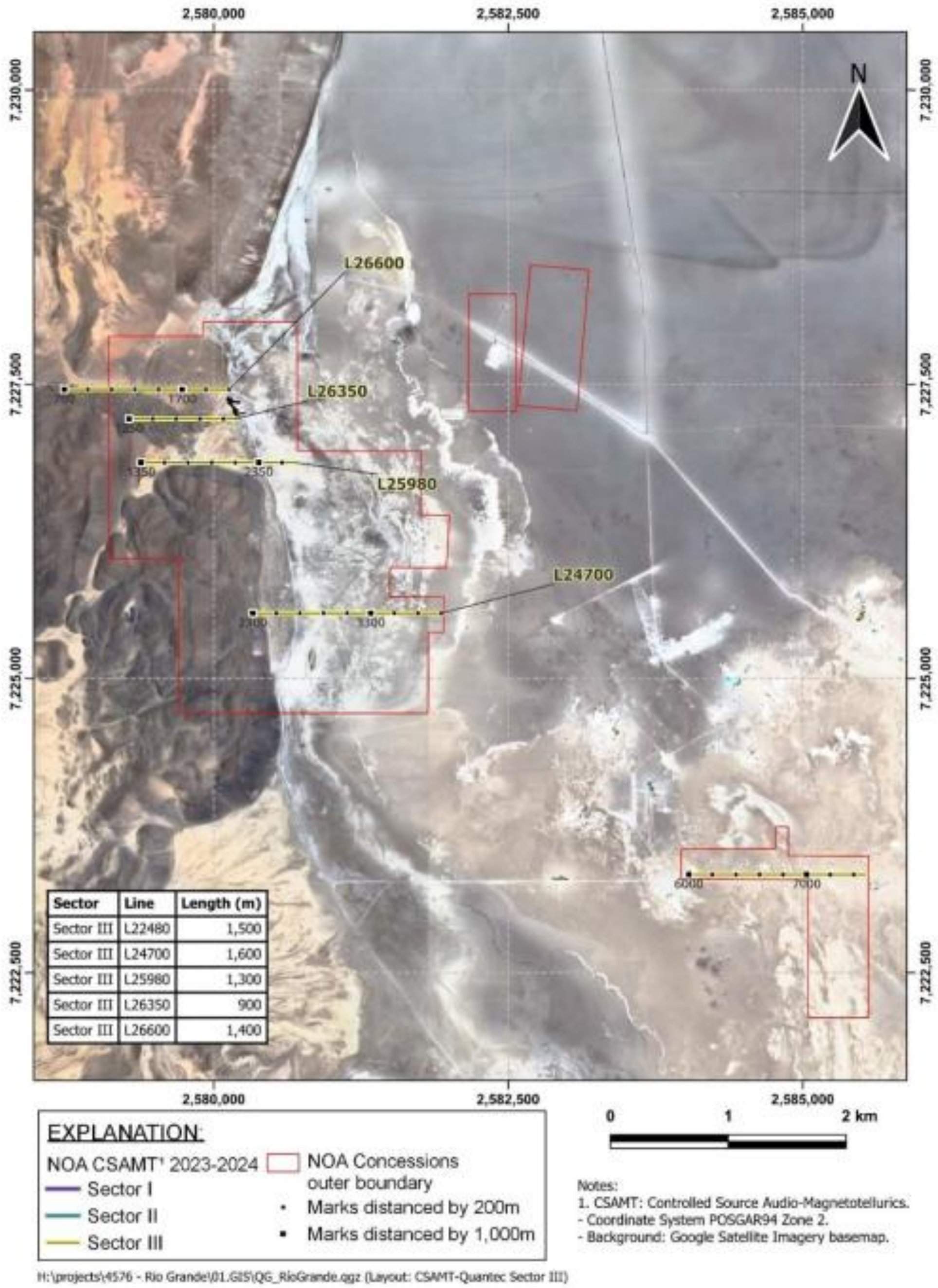
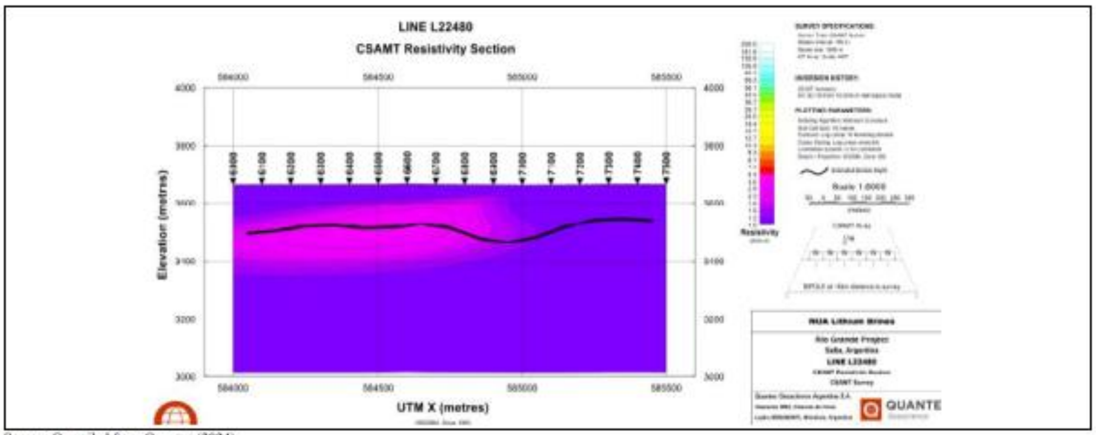


Figure 9-39: Coverage map of the CSAMT Survey in Sector III (Western concessions)

Figure 9-40 presents the interpreted section of line L22480, which correspond to the southern east line. From this figure, it is possible to appreciate that the entire section has low resistivity values (<4 ohm-m), which is consistent with its location within the salar nucleus. Location of station 7200 is coincident with exploration well DDH-RG23-002 (described in Chapter 10), where lithium concentrations from 400 to 600 mg/L have been consistently found from brine sampling.

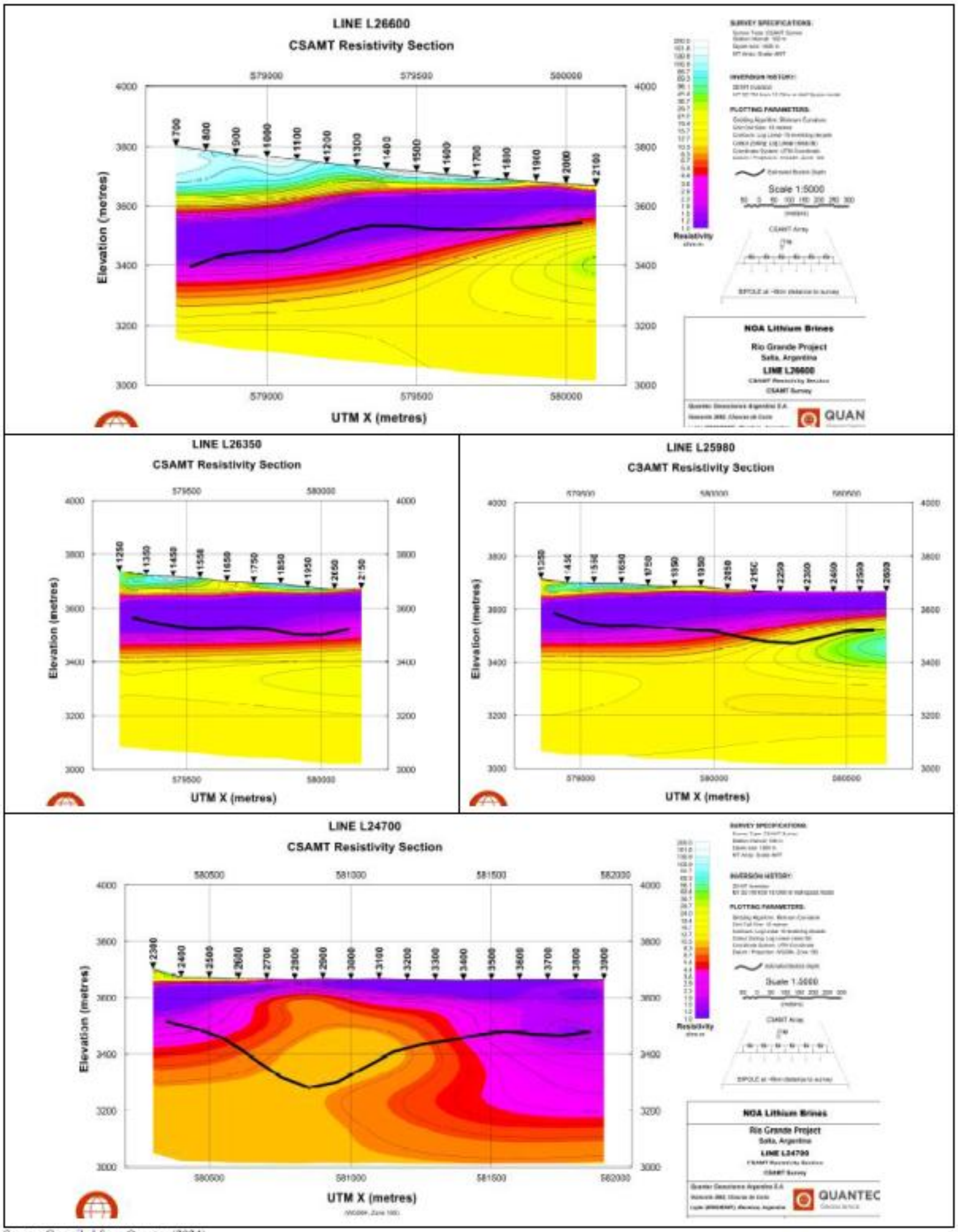


Source: Compiled from Quantec (2024)

Figure 9-40: Interpreted section L22480

Figure 9-41 presents interpreted lines L26600, L26350, L25980 y L24700. From these figures it is possible to appreciate that the L24700 section, located almost entirely within the salar, has low resistivity values (<4 ohm-m), from the surface to depths of approximately 500 m. Higher resistivity values located below that depth in the eastern area may be associated to compact sediments. Exploration well DDH-RG23-005 (described in Chapter 10) is located about 520 meters north from station 3700 of L24700, where high lithium concentrations samples have been taken even below 500 m depth. The central-west zone of this section shows higher resistivity values at depth with a particular shape, which could be associated to the existence of a geological structure in that area.

In the case of sections L26600, L26350 and L25980, results show thinner areas of low resistivity, possibly associated with brine presence, with a thickness of 100 to 300 m. In case of sections L26600 and L26350, an area of higher resistivity values can be observed above his low resistivity unit, with values up to 100 ohm-m, which correspond to topographically higher areas with fresh water or unsaturated sediments. Below the low resistivity layer, there is a zone with consistently higher resistivity ranges that shows values between to 20 to 30 ohm-m, which could correspond to either unsaturated sediments (less probable), brackish water or compact sediments (to be confirmed with further exploration).



Source: Compiled from Quantec (2024)

Figure 9-41: Interpreted sections L26600, L26350, L25980 and L24700

9.3.4 Interpretations and Comments

Resistivity results from the CSAMT survey reveal low resistivity layers (1-10 ohm-m) in the three explored Sectors, and practically in all the profiles conducted. The following aspects summarize the main observations:

- Even though lithium concentration cannot be determined from resistivity values, brine can typically be associated with resistivity values lower than 2 – 3 ohm-m, but can be present when they are even higher than 10 ohm-m (comparisons of lithium concentration values, obtained from brine sampling in the Project exploration wells, and resistivity values where mentioned as example of this).
- As expected, depth to brine (interpreted from low resistivities values) is observed at shallow depths at profiles located within the salar and its proximities, and deeper (from land surface) in profiles located farther from salar edges. As an example of this, eastern part of the profiles located in Sectors I and II show relatively high resistivity values, probably associated to unsaturated sediments or fresh/brackish water.
- An important brine aquifer can be interpreted in South-East concessions (CSAMT lines L2800 to L11400, Sector I), especially observed in the southern lines, which would be from 2.5 to 5 km wide with a potential thickness up to 400 meters. In general, resistivity profiles are not deep enough to identify that potential brine aquifer bottom in this area.
- In the northern and eastern surveyed areas (Sector II), low resistivity values appear at depth outside of the salar boundaries, as previously indicated by well DDH-RG23-001 chemistry sampling. Particularly in the north, low resistivity values were consistently observed at depth even about 3 km outside-north of the salar boundary (L3900).
- Profiles located in Sector III (western part of the salar), suggest the presence of a comparatively shallower and thinner brine aquifer outside of the salar boundary. Below the low resistivity layer, there is a zone with consistently higher resistivity ranges of 20 to 30 ohm-m, which could correspond to compact sediments or bedrock (to be confirmed with further exploration).

10. Drilling

The current exploration well program is designed to characterize the subsurface lithology and determine the potential for lithium resource within the mining concessions. Locations of drilled exploration wells are shown on Figure 10-1, and corresponding coordinates and depths are given in Table 10-1.

Wells were drilled using the diamond drill hole (DDH) method by Hidrotec Perforaciones S.R.L., based in Salta. All boreholes are vertical, and depths drilled represent true thicknesses. During drilling, core samples were obtained for laboratory analysis and brine samples for chemical analysis. Core samples were stored in wooden boxes and labeled with the borehole name and depth. Lithological descriptions were done by geologists of NOA and reviewed by M&A.

Table 10-1: Location and Depth Drilled for Year 2023 Exploration Wells

Well	Northing[1] (meters, POSGAR 94, zone 2)	Easting[1] (meters, POSGAR 94, zone 2)	Total Depth Drilled (meters)
DDH-RG23-001	7,237,553	2,586,300	613
DDH-RG23-002	7,223,294	2,585,218	641.5
DDH-RG23-002A	7,223,294	2,585,209	500
DDH-RG24-002B	7,223,302	2,585,206	551
DDH-RG23-003	7,228,159	2,582,468	676
DDH-RG23-004	7,234,034	2,588,529	551
DDH-RG23-005	7,226,088	2,581,736	603

Detailed well schematics are shown among Sections 10.1 and 10.5, where different type of information related to well construction, lithologic percentual distribution, brine chemistry samples (density, and potassium and lithium concentration), drainable porosity samples, and downhole geophysics (Spontaneous Potential (SP), Single Point Resistivity (SPR), Short Normal Resistivity (RNC), and Long Normal Resistivity (RNL)) are illustrated. Using all the drillhole data and considering the basin conceptual model, an initial definition of hydrogeological units is proposed (Section 10.6) and vertically represented in each of the schematics.

Figure 10-1: Exploration Well Location Map

10.1 DDH-RG23-001

Drilling activities for exploration borehole DDH-RG23-001 started on March 06, 2023, reaching the final depth of 613 m below land surface on April 17, 2023. This well was drilled with HQ diameter to total depth. HWT casing was installed to 198 m to avoid well collapse. Photo 10-1 shows some of the drill core obtained; Table 10-2 is the summary log for this borehole and Figure 10-2 shows the construction schematic.

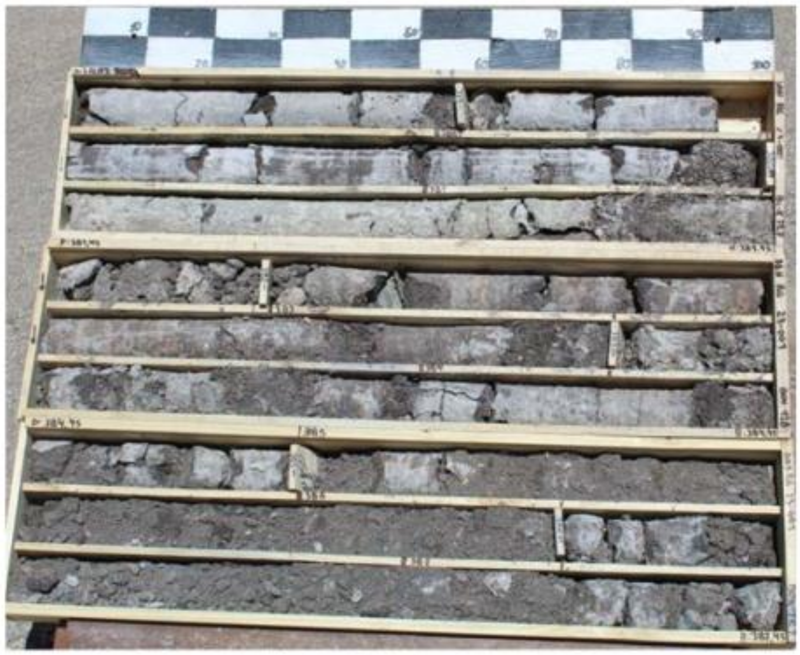


Photo 10-1: Core samples Obtained from Borehole DDH-RG23-001

Table 10-2: Summary of Lithological Description of Borehole DDH-RG23-001

From (m)	To (m)	Summary log
0	55	Gravel with fine to medium sand
55	64	Medium to coarse sand with minor fine gravel
64	159	Gray to black fine sand, in parts presence of halite
159	178.5	Massive halite with scarce sand in matrix with layers of fine sand up to 30 cm
178.5	201.9	Massive to granular halite, in part disaggregated and with layers of fine sand up to 2 m
201.9	239.5	Fine to medium sand with layers of crystalline halite
239.5	335	Fine to medium sand with layers of halite or conglomerates
335	343.5	Calcareous gray clay
343.5	406	Fine to medium sand with layers of halite or conglomerates
406	443.5	Conglomerates with matrix of silt or clay
443.5	494.1	Fine to medium sand with minor coarse sand
494.1	613	Conglomerate with layers of fine sand up to 1.5 m

A borehole geophysical survey was conducted after the borehole was drilled. The surveys were performed by EM Explora Mining. Geophysical. Logs included SP, SPR and short and long normal resistivity. Results are shown on Figure 10-2.

Once drilling was completed, 2-inch blank and screened PVC was installed (slot size 0.75 mm) from land surface to 613 m. A well construction diagram for this well is shown on Figure 10-2.

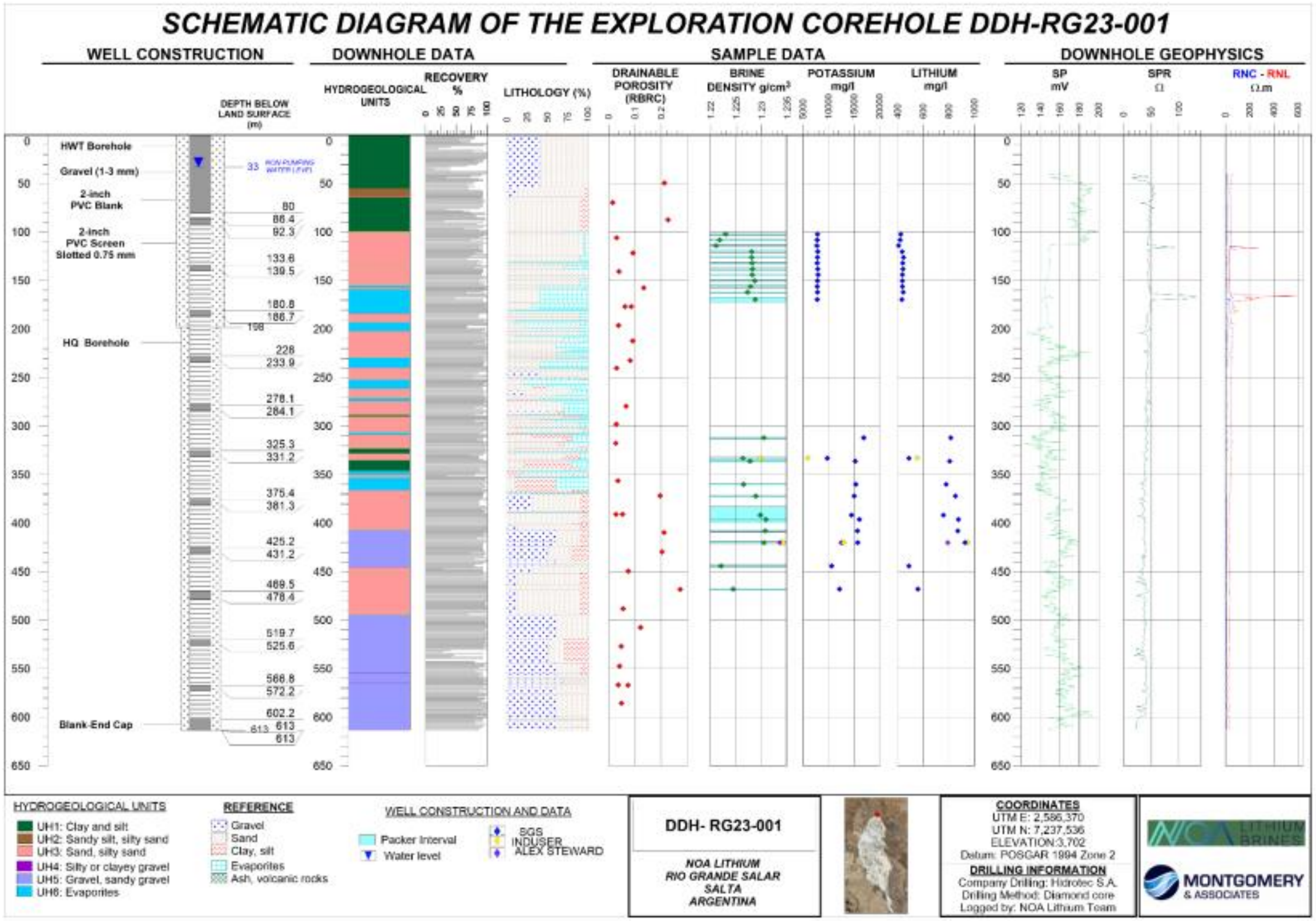


Figure 10-2: Construction Schematic for Borehole DDH-RG23-001

10.1.1 *Brine Sampling for DDH-RG23-001*

During drilling, 23 original brine samples were obtained using a packer system, which allow samples to be obtained for a 2 m interval. Each sample was filled in 500 ml plastic bottle, labeled and sealed for avoid any interference than can affect the results. Those samples were analyzed is SGS laboratories in Salta, Argentina. In some cases, and as part of the QA/QC control, duplicates samples were analyzed in Alex Stewart or Induser laboratories (samples labeled as 'check' when analyzed in laboratory). Temperature, pH, electrical conductivity and density were measured in the field. Table 10-3 summarizes field parameters and depth interval of the samples obtained.

Table 10-3: Field Parameters Measured During Brine Sampling at DDH-RG23-001

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00002	101 – 103	Brine	15-03-23	14.0	6.76	219.9	1.23
00003	101 – 103	Duplicate	15-03-23				
00004	107 – 109	Brine	15-03-23	14.9	6.73	221.2	1.22
00005	113 – 115	Brine	15-03-23	10.3	6.74	223.1	1.22
00006	119 – 121	Brine	14-03-23	11.8	7.00	221.2	1.23
00007	125 – 127	Brine	14-03-23	14.1	6.90	215.3	1.23
00008	131 – 133	Brine	14-03-23	15.0	6.90	212.8	1.23
00009	137 – 139	Brine	14-03-23	15.0	7.01	217.0	1.23
00010	143 – 145	Brine	14-03-23	14.8	6.86	218.6	1.23
00011	143 – 145	Duplicate	14-03-23				
00012	149 – 151	Brine	14-03-23	15.1	6.88	219.5	1.23
00013	155 – 157	Brine	14-03-23	10.5	6.87	217.8	1.23
00014	161 – 163	Brine	13-03-23	12.1	6.91	218.0	1.23
00016	167 – 172	Brine	13-03-23	15.5	6.91	217.2	1.23
00017	167 – 172	Duplicate					
00018	332 – 334	Brine	28-03-23	18.2	6.70	228.9	1.20
00068	332 – 334	Duplicate					
00069	332 – 334	Duplicate					
00019	383 – 400	Brine	26-03-23	16.0	6.36	220.0	1.20
00021	311 – 313	Brine	28-04-23	14.0	6.20	223.9	1.24
00023	335 – 337	Brine	27-04-23	16.0	7.00	227.0	1.23
00024	359 – 361	Brine	26-04-23	17.2	6.37	226.0	1.20
00025	371 – 373	Brine	26-04-23	11.4	6.13	222.2	1.20
00026	371 – 373	Duplicate					
00027	395 – 397	Brine	25-04-23	15.0	6.19	227.3	1.20
00028	407 – 409	Brine	24-04-23	13.9	6.11	220.5	1.20
00029	419 – 421	Brine	23-04-23	12.0	6.06	216.5	1.20
00030	419 – 421	Duplicate					
00031	419 – 421	Duplicate					
00071	419 – 421	Duplicate					
00034	443 – 445	Brine	22-04-23	11.0	6.86	227.0	1.20
00035	467 – 469	Brine	21-04-23	11.0	6.62	222.7	1.20

NOA collected and received laboratory results for depth-specific brine samples collected from well DDH-RG23-001 obtained with a packer system. Table 10-4 is a summary table for the laboratory results from brine samples obtained.

Table 10-4: Summary of Laboratory Chemical Results. Brine Samples from Borehole DDH-RG23-001

Sample ID	Date	Laboratory	Interval	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
00001	15-03-23	SGS	101 – 103	Blank	<10	<10	<10	<10
00002	15-03-23	SGS	101 – 103	Brine	423	5,341	7,867	213
00003	15-03-23	SGS	101 – 103	Duplicate	434	5,318	7,811	219
00004	15-03-23	SGS	107 – 109	Brine	420	5,316	7,765	220
00005	15-03-23	SGS	113 – 115	Brine	406	5,315	7,734	228
00006	14-03-23	SGS	119 – 121	Brine	435	5,205	7,872	202
00007	14-03-23	SGS	125 – 127	Brine	445	5,193	7,853	205
00008	14-03-23	SGS	131 – 133	Brine	439	5,210	7,814	205
00009	14-03-23	SGS	137 – 139	Brine	440	5,225	7,893	207
00010	14-03-23	SGS	143 – 145	Brine	436	5,226	7,930	205
00011	14-03-23	Alex Stewart	143 – 145	Check	407	4,898	6,957	175
00012	14-03-23	SGS	149 – 151	Brine	436	5,182	7,839	204
00013	14-03-23	SGS	155 – 157	Brine	436	5,166	7,781	208
00014	13-03-23	SGS	161 – 163	Brine	443	5,165	7,831	209
00015	13-03-23	SGS	161 – 163	Blank	<10	<10	116	<10
00016	13-03-23	SGS	167 – 172	Brine	432	5,178	7,802	206
00017	13-03-23	SGS	167 – 172	Duplicate	439	5,208	7,829	212
00018	28-03-23	SGS	332 – 334	Brine	487	6,090	9,733	273
00019	26-03-23	SGS	383 – 400	Brine	757	9,198	14,481	492
00021	28-04-23	SGS	311 – 313	Brine	815	8,805	16,887	386
00022	28-04-23	SGS	311 – 313	STD E-3003	818	1,338	6,204	510
00023	27-04-23	SGS	335 – 337	Brine	807	9,191	15,240	397
00024	26-04-23	SGS	359 – 361	Brine	778	9,176	15,363	392
00025	26-04-23	SGS	371 – 373	Brine	850	8,649	14,998	428
00026	26-04-23	SGS	371 – 373	Duplicate	853	9,305	16,431	432
00027	25-04-23	SGS	395 – 397	Brine	874	9,660	16,022	442
00028	24-04-23	SGS	407 – 409	Brine	871	9,822	15,671	439
00029	23-04-23	SGS	419 – 421	Brine	925	11,265	15,725	455
00030	23-04-23	Alex Stewart	419 – 421	Check	765	---	12,266	438
00031	23-04-23	Alex Stewart	419 – 421	Duplicate	769	---	12,309	442
00032	23-04-23	Alex Stewart	419 – 421	STD E-3003	678	1,468	5,866	486
00033	23-04-23	Alex Stewart	419 – 421	Blank	<1	<1	2	<1
00034	22-04-23	SGS	443 – 445	Brine	488	6,994	10,583	267
00035	21-04-23	SGS	467 – 469	Brine	557	7,971	12,133	306
00036	21-04-23	SGS	467 – 469	Blank	<10	48	<10	<10
00065	---	Induser	173 – 175	STD A-3002	108	1,044	2,320	509
00066	---	Induser	173 – 175	STD C-3001	474	1,367	2,880	521
00067	---	Induser	173 – 175	STD E-3003	824	1,340	5,410	531
00068	28-03-23	Induser	332 – 334	Check	541	5,258	8,130	250
00069	28-03-23	Induser	332 – 334	Duplicate	566	5,180	8,140	269
00070	28-03-23	Induser	332 – 334	Blank	<1	2	<1	<1
00071	23-04-23	Induser	419 – 421	Check	911	9,252	12,570	463

10.1.2 Hydrasleeve Brine Sample Results for DDH-RG23-001

After the well was drilled and cased, four brine samples were obtained by NOA and M&A using a Hydrasleeve bailer, which allow samples to be obtained for a 1 m depth-specific interval. The samples were filled in 500 ml plastic bottle, labeled and sealed. The samples were analyzed at SGS laboratories in Salta, Argentina and in ALS laboratories, in Antofagasta, Chile. Temperature, pH and electrical conductivity were measured in the field. Table 10-5 summarizes field parameters measured, and depth interval of the samples obtained.

Table 10-5: Field Parameters Measured During Brine Sampling at DDH-RG23-001

Sample ID	Interval (m bls)[a]	Date	T (°C)[b]	pH	CE (mS/cm)[c]
00169	150 – 151	03-08-23	15.8	6.16	203
00171	250 – 251	03-08-23	14.7	6.27	197
00172	350 – 351	03-08-23	16.4	6.06	194
00174	450 – 451	03-08-23	15.6	5.90	190

a: meters below land surface
b: Temperature, in °C
c: Electrical conductivity, in milliSiemens per centimeter

Table 10-6 is a summary table for the laboratory results from the brine samples.

Table 10-6: Summary of Laboratory Chemical Results. Brine Samples from Borehole DDH-RG23-001

Sample ID	Date	Laboratory	Interval	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
00169	03-08-23	SGS	150 – 151	Brine	429	4,639	7,135	157
00170	03-08-23	SGS	150 – 151	Blank	23	<10	<10	<10
00171	03-08-23	SGS	250 – 251	Brine	618	7,649	10,650	285
00172	03-08-23	SGS	350 – 351	Brine	626	7,758	10,700	285
00173	03-08-23	SGS	350 – 351	STD E-3003	841	1,585	6,855	496
00174	03-08-23	SGS	450 – 451	Brine	768	9,903	12,986	372

10.1.3 Porosity Sampling for DDH-RG23-001

Core were collected and described by NOA personnel. According to the different lithologic units recognized, 33 core samples were collected for porosity (total and drainable) analysis. For each sample, 15 to 20 cm of unaltered core was selected and stored in a plastic tube, with the same diameter as the core, which was subsequently labeled and sealed. Table 10-7 summarizes depth intervals of the samples obtained for analysis as well as the laboratory results from GSA laboratory.

Table 10-7: Core Samples Obtained for Porosity Analysis from DDH-RG23-001

Sample ID	Interval (m bls)		Total porosity	Specific yield	General lithology
	From	To			
00502	49.40	49.53	0.339	0.212	Sand with gravel
00503	69.45	69.60	0.333	0.016	Fine black sand
00504	87.15	87.30	0.378	0.225	Fine black sand
00505	105.75	105.90	0.093	0.030	Fine black sand with halite
00506	121.42	121.57	0.211	0.092	Fine black sand with halite
00507	140.50	140.65	0.188	0.040	Black sand
00508	157.32	157.47	0.263	0.133	Fine to medium sand with halite
00509	176.65	176.80	0.116	0.086	Massive halite
00510	196.15	196.30	0.083	0.038	Unconsolidated sand
00511	212.10	212.25	0.264	0.091	Grayish sand
00512	232.35	232.50	0.342	0.082	Fine black sand
00513	240.00	240.15	0.055	0.030	Sand
00514	259.65	259.80	0.071	0.000	Clayey sand
00515	176.80	176.95	0.101	0.062	Massive halite
00516	279.25	279.40	0.165	0.066	Fine sand with carbonates
00517	297.87	298.00	0.111	0.030	Fine sand
00518	317.50	317.63	0.079	0.027	Fine black sand
00519	336.00	336.15	0.008	0.000	Fine sand
00520	356.27	356.45	0.058	0.036	Fine sand
00521	371.60	371.75	0.417	0.195	Fine sand
00522	390.65	390.80	0.308	0.053	Fine black sand
00523	409.56	409.70	0.323	0.211	Fine conglomerate
00524	429.43	429.55	0.369	0.203	Conglomerate
00525	449.20	449.35	0.212	0.074	Medium to fine sand
00526	468.00	468.15	0.388	0.271	Fine black sand
00527	488.00	488.14	0.284	0.055	Compact fine sand
00528	390.80	390.95	0.351	0.028	Fine black sand
00529	507.50	507.65	0.369	0.121	Pink conglomerate
00530	526.82	527.00	0.153	0.048	Gray conglomerate
00531	547.25	547.39	0.096	0.041	Dark conglomerate
00532	566.60	566.74	0.204	0.036	Fine conglomerate
00533	585.25	585.40	0.136	0.049	Conglomerate
00535	566.74	566.89	0.218	0.074	Fine conglomerate

10.1.4 Conclusions and Recommendations for DDH-RG23-001

The lithology in this well is mostly clastic sediments, with minor crystalline halite. In the upper part, the lithology is mostly sand and in the lower part it is mostly conglomerates. Lithium concentration varies from 407 to 925 mg/L, with the higher grades below 350 m. Reported total porosity varies from 0.8% to 41.7%. Reported drainable porosity (specific yield) varies from 0% to 27.1%; high values are found in fine sands in the first 100 m depth, and also in conglomerates and fine sands of the 400-470 m interval, while values equal to zero correspond to clayey and fine sands, at 260 and 340 m depth, respectively. It is suggested to drill an exploration well and conduct a pumping test to determine aquifer hydraulic parameters at this apparently favorable location.

10.2 DDH-RG23-002

Drilling activities for exploration borehole DDH-RG23-002 started on May 15, 2023, reaching the final depth of 641.5 mbls on July 11, 2023. This well was drilled with HQ diameter to 505 m and then in NQ diameter from 505 to final depth. At this depth the rods uncoupled and could not be retrieved, so the well was not cased and lost (HWT casing was not installed). A new one was drilled, DDH-RG23-002A, to 500 m, but had the same problem (casing not installed). A third borehole, DDH-RG24-002B, was drilled with tricone to 551 m. HWT casing was installed in this well, from surface to a depth of 498.55 m, with 8 screened intervals in the range 17.7 – 466.1 mbls, totaling 283.2 m. Photo 10-2 shows some of the drill core obtained from DDH-RG23-002; Table 10-8 is the summary log for this borehole and Figure 10-3: Construction Schematic for Borehole DDH-RG23-002Figure 10-3 shows the construction schematic.

RIO GRANDE DDH-RG23-002 D:192.20 H:200.90 BOX 58-60

Photo 10-2: Core Samples Obtained from Borehole DDH-RG23-002

Table 10-8: Summary of Lithological Description of Borehole DDH-RG23-002

From (m)	To (m)	Summary log
0	50.8	Fine black sand with minor halite
50.8	61	Interlayered fine sand and halite
61	169.8	Fine black sand some halite and clay
169.8	275.2	Interlayered fine black sand and halite
275.2	407.8	Crystalline halite with layers of fine sand
407.8	415.2	Fine black sand with minor conglomerates
415.2	463.2	Compact to crystalline halite
463.2	479.5	Fine black sand
479.5	541.9	Crystalline halite with minor sand
541.9	554.9	Fine black sand, with clay in the upper part of the interval
554.9	641.5	Massive and crystalline halite with interlayers of fine sand

A borehole geophysical survey was conducted by EM Explora Mining after the borehole was drilled. Geophysical logs included SP, SPR and short and large normal electrical resistivity. Results are shown on Figure 10-3.

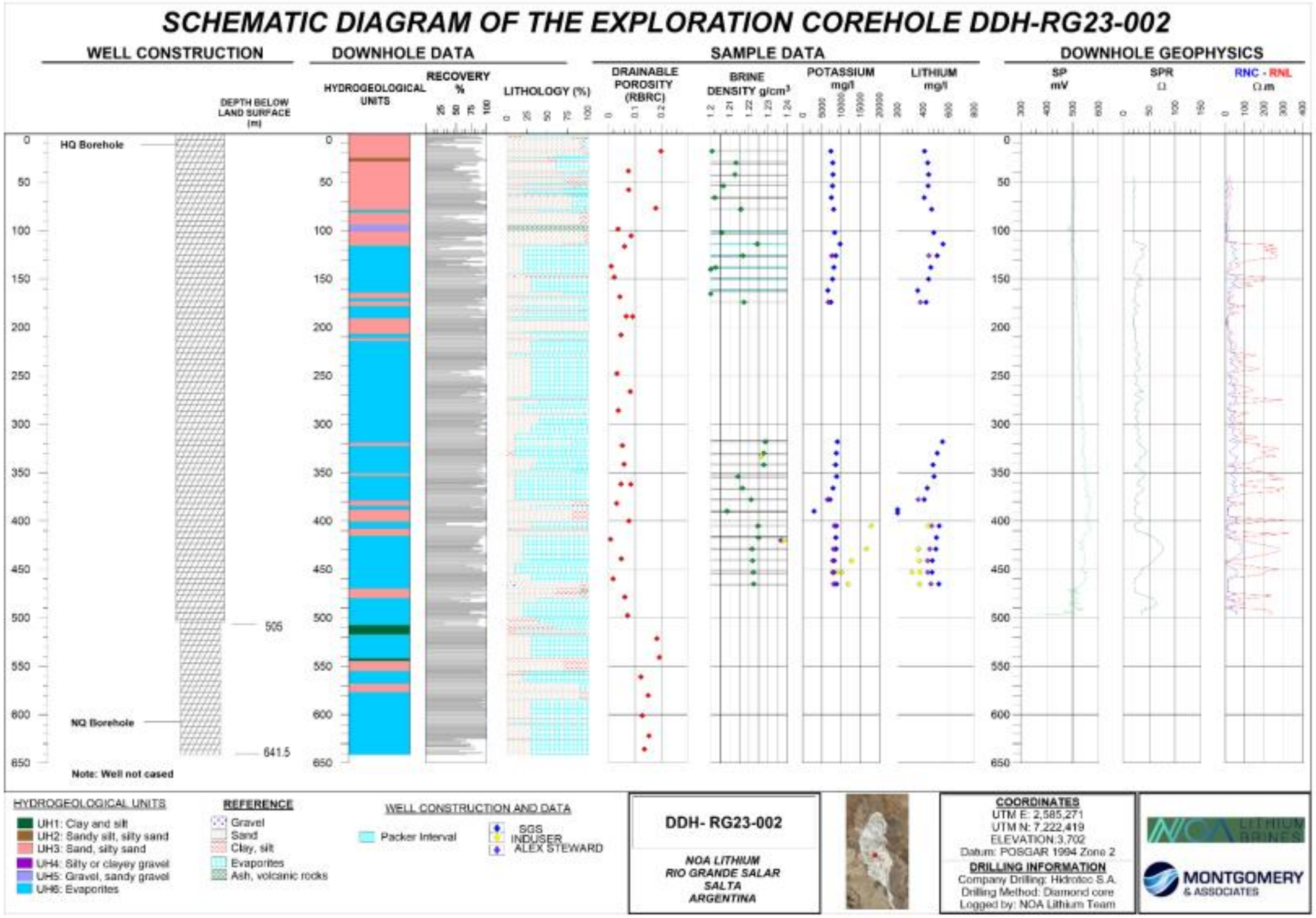


Figure 10-3: Construction Schematic for Borehole DDH-RG23-002

10.2.1 Brine Sampling for DDH-RG23-002

During drilling, 29 original brine samples were obtained using a depth-specific packer system. Each sample was filled in 500 ml plastic bottle, labeled and sealed for avoid any interference than can affect the results. The samples were analyzed by SGS laboratories in Salta, Argentina.

In some cases, and as part of the QA/QC control, duplicates samples were analyzed by Alex Stewart or Induser laboratories (samples labeled as 'check' when analyzed in laboratory). Temperature, pH, electrical conductivity and density were measured in the field. Table 10-9 summarizes field parameters and depth interval of the samples obtained. Table 10-10 is a summary table for the laboratory results from brine samples obtained.

Table 10-9: Field Parameters Measured During Brine Sampling at DDH-RG23-002

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00037	17 – 19	Brine	20-05-23	11.9	6.81	230.2	1.204
00039	29 – 31	Brine	20-05-23	11.9	6.71	234.2	1.210
00040	41 – 43	Brine	20-05-23	11.8	6.70	236.3	1.209
00041	53 – 55	Brine	19-05-23	12.7	6.78	236.5	1.204
00043	65 – 67	Brine	19-05-23	14.6	6.80	224.4	1.212
00044	65 – 67	Duplicate					
00045	77 – 79	Brine	18-05-23	14.7	6.74	227.2	1.223
00047	101 – 103	Brine	25-05-23	14.0	7.00	220.1	1.210
00049	113 - 115	Brine	25-05-23	16.0	7.00	222.6	1.230
00050	125 – 127	Brine	25-05-23	14.0	7.40	220.0	1.230
00053	125 – 127	Duplicate					
00054	137 – 139	Brine	25-05-23	14.0	7.10	218.3	1.230
00056	149 - 151	Brine	24-05-23	14.0	7.10	218.2	1.210
00057	161 – 163	Brine	24-05-23	9.3	6.85	228.1	1.200
00058	173 – 175	Brine	24-05-23	13.8	6.75	223.6	1.214
00059	173 – 175	Duplicate					
00060	173 – 175	Duplicate					
00072	317 – 319	Brine	05-06-23	14.8	6.53	226.5	1.225
00074	329 – 331	Brine	05-06-23	13.0	6.48	224.7	1.225
00075	329 – 331	Duplicate					
00076	341 – 343	Brine	04-06-23	12.8	6.60	220.8	1.225
00078	353 – 355	Brine	04-06-23	10.4	6.62	227.3	1.215
00080	365 – 367	Brine	04-06-23	17.2	6.62	225.7	1.235
00081	377 – 379	Brine	04-06-23	15.0	6.80	229.1	1.210
00082	377 – 379	Duplicate					
00084	377 – 379	Duplicate					
00085	389 – 391	Brine	03-06-23	10.5	6.80	240.4	1.230
00087	404 – 406	Brine	20-06-23	18.0	6.70	220.0	1.231
00088	404 – 406	Duplicate					
00106	404 – 406	Duplicate					
00116	404 – 406	Duplicate					
00091	416 – 418	Brine	20-06-23	18.0	6.70	217.3	1.230
00092	418 – 418	Duplicate					
00095	428 – 430	Brine	19-06-23	14.0	6.78	215.9	1.232
00096	428 – 430	Duplicate					
00109	428 – 430	Duplicate					

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00099	440 – 442	Brine	19-06-23	13.6	6.74	216.4	1.231
00100	440 – 442	Duplicate					
00111	440 – 442	Duplicate					
00102	452 – 454	Brine	18-06-23	14.0	6.90	217.0	1.230
00103	452 – 454	Duplicate					
00113	452 – 454	Duplicate					
00105	464 – 466	Brine	18-06-23	13.0	6.80	217.8	1.230
00114	464 – 466	Duplicate					
00115	464 – 466	Duplicate					

a: Temperature, in °C
b: Electrical conductivity, in milliSiemens per centimeter
c: Density, in milligrams per milliliters

Table 10-10: Summary of Laboratory Chemical Results for Brine Samples from DDH-RG23-002

Sample ID	Date	Laboratory	Interval	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
00037	20-05-23	SGS	17 – 19	Brine	411	5,028	7,327	372
00038	20-05-23	SGS	17 – 19	Blank	<10	32	24	<10
00039	20-05-23	SGS	29 – 31	Brine	436	5,409	7,821	380
00040	20-05-23	SGS	41 – 43	Brine	443	5,381	7,899	385
00041	19-05-23	SGS	53 – 55	Brine	438	5,305	7,767	387
00042	19-05-23	SGS	53 – 55	STD A-3002	115	1,314	2,947	524
00043	19-05-23	SGS	65 – 67	Brine	408	5,209	7,449	361
00044	19-05-23	SGS	65 – 67	Duplicate	424	5,137	7,473	375
00045	18-05-23	SGS	77 – 79	Brine	466	5,654	8,020	402
00046	18-05-23	SGS	77 – 79	Blank	<10	41	58	<10
00047	25-05-23	SGS	101 – 103	Brine	483	5,970	8,357	425
00048	25-05-23	SGS	101 – 103	STD C-3001	455	1,670	3,543	524
00049	25-05-23	SGS	113 – 115	Brine	556	6,891	9,725	492
00050	25-05-23	Alex Stewart	125 – 127	Brine	444	5,724	7,600	405
00051	25-05-23	Alex Stewart	125 – 127	Duplicate	436	5,600	7,415	401
00052	25-05-23	Alex Stewart	125 – 127	STD C-3001	399	1,498	3,262	489
00053	25-05-23	Alex Stewart	125 – 127	Duplicate	443	5,692	7,598	405
00054	25-05-23	SGS	137 – 139	Brine	460	5,700	8,116	409
00055	25-05-23	SGS	137 – 139	Blank	<10	37	63	<10
00056	24-05-23	SGS	149 – 151	Brine	442	5,518	7,788	388
00057	24-05-23	SGS	161 – 163	Brine	358	4,513	6,521	323
00058	24-05-23	Alex Stewart	173 – 175	Check	378	4,875	6,690	353
00059	24-05-23	Alex Stewart	173 – 175	Duplicate	380	4,865	6,771	350
00060	24-05-23	SGS	173 – 175	Brine	414	5,302	7,419	365
00061	24-05-23	SGS	173 – 175	STD E-3003	783	1,651	6,516	529
00062	---	SGS	---	Superficial	128	1,576	2,461	132
00063	24-05-23	SGS	173 – 175	Blank	<10	32	35	<10
00072	05-06-23	SGS	317 – 319	Brine	552	6,425	9,004	504
00073	05-06-23	SGS	317 – 319	STD A-3002	128	1,318	3,013	557
00074	05-06-23	SGS	329 – 331	Brine	510	6,258	8,778	477
00075	05-06-23	SGS	329 – 331	Duplicate	502	6,373	8,918	470
00076	04-06-23	SGS	341 – 343	Brine	477	6,034	8,548	449
00077	04-06-23	SGS	341 – 343	Blank	<10	14	50	<10
00078	04-06-23	SGS	353 – 355	Brine	485	6,239	8,788	466
00079	04-06-23	SGS	353 – 355	STD C-3001	436	1,669	3,565	549
00080	04-06-23	SGS	365 – 367	Brine	433	5,621	7,884	418
00081	04-06-23	Alex Stewart	377 – 379	Brine	362	4,703	6,469	336
00082	04-06-23	Alex Stewart	377 – 379	Duplicate	366	4,712	6,460	342
00083	04-06-23	Alex Stewart	377 – 379	STD A-3002	102	1,195	2,772	482
00084	04-06-23	Alex Stewart	377 – 379	Duplicate	356	4,669	6,278	337

Sample ID	Date	Laboratory	Interval	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
00085	03-06-23	SGS	389 – 391	Brine	163	2,476	2,967	161
00086	03-06-23	SGS	389 – 391	Blank	<10	11	44	<10
00087	20-06-23	SGS	404 – 406	Brine	525	6,549	8,775	464
00088	20-06-23	SGS	404 – 406	Duplicate	513	6,448	8,757	454
00089	20-06-23	SGS	404 – 406	Blank	<10	12	63	<10
00090	20-06-23	SGS	404 – 406	STD A-3002	114	1,368	2,848	536
00091	20-06-23	SGS	416 – 418	Brine	504	6,365	8,575	457
00092	20-06-23	SGS	416 – 418	Duplicate	514	6,459	8,666	456
00093	20-06-23	SGS	416 – 418	Blank	<10	13	61	<10
00094	20-06-23	SGS	416 – 418	STD C-3001	430	1,620	3,377	523
00095	19-06-23	SGS	428 – 430	Brine	499	6,319	8,674	448
00096	19-06-23	SGS	428 – 430	Duplicate	511	6,458	8,621	450
00097	19-06-23	SGS	428 – 430	Blank	<10	29	88	<10
00098	19-06-23	SGS	428 – 430	STD E-3003	761	1,648	6,366	526
00099	19-06-23	SGS	440 – 442	Brine	473	6,068	8,182	421
00100	19-06-23	SGS	440 – 442	Duplicate	479	6,145	8,340	426
00101	19-06-23	SGS	440 – 442	Blank	<10	<10	56	<10
00102	18-06-23	SGS	452 – 454	Brine	471	6,058	8,019	416
00103	18-06-23	SGS	452 – 454	Duplicate	471	6,047	8,123	421
00104	18-06-23	SGS	452 – 454	Blank	<10	<10	53	<10
00105	18-06-23	SGS	464 – 466	Brine	524	6,765	8,816	477
00106	20-06-23	Alex Stewart	404 – 406	Check	466	6,073	8,284	425
00107	20-06-23	Alex Stewart	404 – 406	Blank	<1	21	2	<1
00108	20-06-23	Alex Stewart	404 – 406	STD A-3002	105	1,177	2,748	484
00109	19-06-23	Alex Stewart	428 – 430	Check	452	5,920	8,074	406
00110	19-06-23	Alex Stewart	428 – 430	STD C-3001	394	1,482	3,187	492
00111	19-06-23	Alex Stewart	440 – 442	Check	436	5,754	7,851	392
00112	19-06-23	Alex Stewart	440 – 442	STD E-3003	681	1,441	5,808	483
00113	18-06-23	Alex Stewart	452 – 454	Check	437	5,711	7,849	385
00114	18-06-23	Alex Stewart	464 – 466	Check	461	6,160	8,095	420
00115	18-06-23	Alex Stewart	464 – 466	Check	482	6,293	8,318	431
00116	20-06-23	Induser	404 – 406	Check	438	6,270	15,980	380
00117	20-06-23	Induser	404 – 406	Blank	<1	5.4	1.1	<1
00118	20-06-23	Induser	404 – 406	STD A-3002	86.8	1,160	5,114	430
00119	19-06-23	Induser	428 – 430	Check	362	6,050	15,400	331
00120	19-06-23	Induser	428 – 430	STD C-3001	338	1,420	5,860	424
00121	19-06-23	Induser	440 – 442	Check	370	5,350	13,530	335
00122	19-06-23	Induser	440 – 442	STD E-3003	556	1,330	9,360	404
00123	18-06-23	Induser	452 – 454	Check	315	4,590	11,710	329
00124	18-06-23	Induser	464 – 466	Check	376	5,260	13,100	360
00125	18-06-23	Induser	464 – 466	Check	375	4,770	12,300	350

Sample ID	Date	Laboratory	Interval	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
00126	25-07-23	SGS	125 – 127	Brine	510	5,462	8,576	362
00127	25-07-23	SGS	173 – 175	Brine	423	4,710	7,351	322
00128	25-07-23	SGS	377 – 379	Brine	409	4,662	7,112	326

10.2.2 Porosity Sampling for DDH-RG23-002

31 core samples were collected for total and drainable porosity analysis. For each sample, 13 to 19 cm of unaltered core was selected and stored in a plastic tube, with the same diameter of the core, which was subsequently labeled and sealed. Table 10-11 summarizes depth intervals of the samples obtained for analysis as well as the laboratory results from GSA laboratory.

Table 10-11: Core Samples Obtained for Porosity Analysis from DDH-RG23-002

Sample ID	Interval (meters)		Total porosity	Specific yield	General lithology
	From	To			
00536	17.84	18.00	0.326	0.200	Clayey sand
00537	38.50	38.64	0.191	0.076	Well sorted black sand
00538	57.60	57.78	0.155	0.077	Sand with halite
00539	76.75	76.89	0.293	0.180	Well sorted black sand
00540	98.32	98.50	0.382	0.036	Unconsolidated pink ignimbrite
00541	105.35	105.50	0.287	0.086	Well sorted black sand
00542	116.37	116.50	0.076	0.061	Fractured halite
00543	136.85	137.00	0.051	0.011	Fractured halite
00544	148.00	148.18	0.238	0.022	Sandy clay
00545	168.33	168.47	0.097	0.044	Fractured halite
00546	188.50	188.69	0.103	0.067	Fractured halite
00547	207.75	207.90	0.149	0.048	Crystalline halite
00548	227.50	227.63	0.034	0.015	Crystalline halite
00549	247.52	247.66	0.057	0.032	Fractured halite
00550	266.05	266.20	0.087	0.083	Fractured halite
00551	188.69	188.82	0.171	0.092	Well sorted black sand
00552	285.85	286.00	0.083	0.038	Well sorted black sand
00553	305.15	305.30	0.021	0.006	Crystalline halite
00554	322.00	322.13	0.164	0.053	Fractured halite
00555	341.25	341.44	0.080	0.059	Fractured halite
00556	361.72	361.90	0.068	0.048	Halite with fine black sand
00557	381.86	382.00	0.017	0.031	Fine to medium gray sand
00558	399.85	400.00	0.112	0.078	Fine to medium gray sand
00559	361.95	362.11	0.106	0.085	Halite with fine black sand
00560	418.80	418.93	0.050	0.008	Halite with fine sand
00561	439.00	439.16	0.057	0.049	Crystalline halite
00562	459.82	460.00	0.052	0.018	Compact halite
00563	478.55	478.70	0.109	0.062	Fine black sand
00564	497.50	497.65	0.122	0.073	Compact halite
00565	521.5	521.65	0.206	0.184	Compact halite
00566	540.84	541.00	0.232	0.194	Compact halite
00567	561.09	561.24	0.127	0.123	Crystalline halite
00568	580.00	580.12	0.201	0.151	Black fine sand
00569	601.00	601.18	0.169	0.128	Compact halite
00570	621.86	622.00	0.157	0.154	Crystalline halite
00571	635.50	635.66	0.146	0.137	Compact halite

10.2.3 *Conclusions and Recommendations for DDH-RG23-002*

The lithology at this location is mostly clastic sediments, with layers of crystalline halite. Lithium concentration varies from 356 to 552 mg/L, with no obvious correlation to depth. One of the samples obtained has a value of 163 mg/L at a depth of 380 m. However, in our opinion this value is not reliable. It is suggested to drill a pumping well at the same location. This new well can be drilled using a 4½" tricone to help ensure adequate completion for the new well. Reported total porosity varies from 1.7% to 38.2%. Reported drainable porosity (specific yield) varies from 0.6% to 20.0%; high values are found in the first 100 m depth, and from about 500 m depth to the bottom of the well, which corresponds to crystalline or compact halite.

10.3 DDH-RG23-003

Drilling activities for exploration borehole DDH-RG23-003 started on July 26, 2023, reaching the final depth of 676 mbls on September 11, 2023. This well was drilled with HQ diameter to total depth. HWT casing was installed from 0 to 18 mbls. Photo 10-3 shows some of the drill core obtained; Table 10-12 is the summary log for this borehole.

RIO GRANDE DDH-RG23-003 D:256.80 H:265.35 BOX 79-81

Photo 10-3: Core Samples Obtained from Borehole DDH-RG23-003

Table 10-12: Summary of Lithological Description of Borehole DDH-RG23-003

From (m)	To (m)	Summary log
0	122.4	Crystalline halite with layers of black fine sand
122.4	132	Fine black sand with some halite
132	165	Crystalline halite with presence of gypsum and sand
165	201.1	Interlayers of fine black sand and halite
201.1	312.0	Fine to medium black sand with interlayers of crystalline halite
312.0	356.4	Conglomerate with interlayers of fine sand
356.4	520.6	Fine to medium sand with minor halite and clay and silt
520.6	665.0	Crystalline halite with layers of sand
665.0	676	Fine to medium sand

A borehole geophysical survey was conducted by EM Explora Mining after the borehole was drilled. Geophysical logs included SP, SPR and short and large normal electrical resistivity. Results are shown on Figure 10-4.

O``nce drilling was completed, 2-inch blank and screened PVC was installed. The well schematic is shown on Figure 10-4.

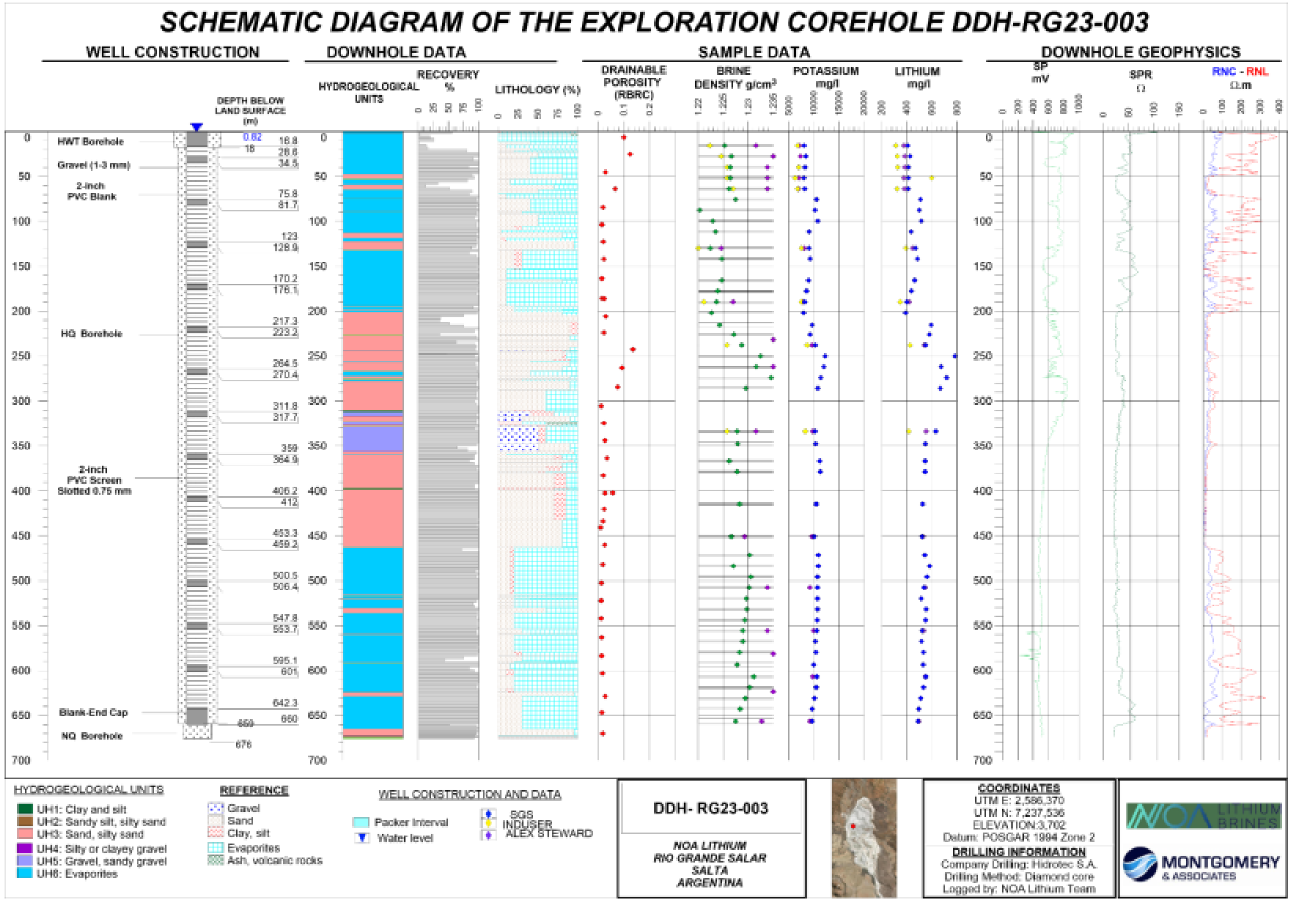


Figure 10-4: Construction Schematic for Borehole DDH-RG23-003

10.3.1 *Brine Sampling for DDH-RG23-003*

During drilling, 46 original brine samples were obtained using a depth-specific packer system. Each sample was filled in 500 ml plastic bottle, labeled and sealed. The samples were analyzed at SGS laboratories in Salta, Argentina. Duplicates samples were analyzed at Alex Stewart or Induser laboratories (samples labeled as 'check' when analyzed in laboratory). Temperature, pH, electrical conductivity and density were measured in the field. Table 10-13 summarizes field parameters and depth interval of the samples obtained.

Table 10-13: Field Parameters Measured During Brine Sampling at DDH-RG23-003

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00129	15 – 16.5	Brine	29-07-23	14.3	7.00	196.5	1.230
00130	15 – 16.5	Duplicate					
00151	15 – 16.5	Duplicate					
00160	15 – 16.5	Duplicate					
00132	27 – 28.5	Brine	29-07-23	11.9	6.75	202.1	1.231
00133	27 – 28.5	Duplicate					
00153	27 – 28.5	Duplicate					
00162	27 – 28.5	Duplicate					
00134	39 – 40.5	Brine	29-07-23	10.2	6.74	199.7	1.231
00135	39 – 40.5	Duplicate					
00155	39 – 40.5	Duplicate					
00164	39 – 40.5	Duplicate					
00137	51 – 52.5	Brine	29-07-23	9.7	6.90	205	1.230
00138	51 – 52.5	Duplicate					
00157	51 – 52.5	Duplicate					
00166	51 – 52.5	Duplicate					
00139	63 – 64.5	Brine	29-07-23	10.1	7.30	197.6	1.233
00140	63 – 64.5	Duplicate					
00159	63 – 64.5	Duplicate					
00168	63 – 64.5	Duplicate					
00141	75 – 76.5	Brine	29-07-23	9.7	6.84	197.8	1.233
00144	87 – 88.5	Brine	29-07-23	13.1	7.10	198.1	1.228
00147	99 – 100.5	Brine	28-07-23	9.9	6.68	198.1	1.235
00149	111 – 116	Brine	28-07-23	8.9	7.30	191.5	1.230
00175	129 – 130.5	Brine	03-08-23	12.1	5.90	199.7	1.237
00189	129 – 130.5	Duplicate					
00176	129 – 130.5	Duplicate					
00193	129 – 130.5	Duplicate					
00178	141 – 142.5	Brine	03-08-23	10.8	6.10	202.1	1.231
00180	165 – 166.5	Brine	02-08-23	12.6	7.05	203.7	1.230
00182	177 – 178.5	Brine	02-08-23	13.8	6.25	206.0	1.230
00184	189 – 190.5	Brine	02-08-23	11.7	6.55	205.7	1.230
00185	189 – 190.5	Duplicate					
00191	189 – 190.5	Duplicate					
00195	189 – 1960.5	Duplicate					
00186	201 – 202.5	Brine	02-08-23	11.5	6.40	206.5	1.231
00188	213 – 218	Brine	01-08-23	5.3	6.40	193.2	1.231
00197	225 – 226.5	Brine	11-08-23	16.1	6.17	196.7	1.230
00199	237 – 238.5	Brine	11-08-23	14.1	6.12	198.1	1.232
00200	237 – 238.5	Duplicate					

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00212	237 – 238.5	Duplicate					
00216	237 – 238.5	Duplicate					
00201	249 – 250.5	Brine	11-08-23	10.3	6.30	185.9	1.237
00203	261 – 262.5	Brine	11-08-23	15.0	6.44	182.8	1.235
00205	273 – 274.5	Brine	10-08-23	16.0	6.60	172.3	1.237
00207	285 – 286.5	Brine	10-08-23	16.0	6.62	183.5	1.232
00209	333 – 334.5	Brine	08-08-23	12.0	6.48	200.1	1.234
00210	333 -334.5	Duplicate					
00214	333 – 334.5	Duplicate					
00218	333 – 334.5	Duplicate					
00211	345 – 346.5	Brine	08-08-23	14.5	6.62	192.0	1.231
00221	366 – 367.5	Brine	19-08-23	16.1	6.40	184.8	1.235
00222	378 – 379.5	Brine	18-08-23	16.0	6.48	182.3	1.235
00224	414 – 415.5	Brine	17-08-23	13.2	6.90	190.3	1.234
00225	450 – 451.5	Brine	16-08-23	15.0	6.53	184.6	1.234
00226	450 – 451.5	Duplicate					
00253	450 – 451.5	Duplicate					
00227	471 – 472.5	Brine	30-08-23	13.7	6.42	187.8	1.235
00228	483 – 484.5	Brine	30-08-23	14.6	6.33	195.5	1.234
00230	495 – 496.5	Brine	30-08-23	14.5	6.98	193.6	1.236
00231	507 – 508.5	Brine	29-08-23	11.6	6.93	201.5	1.234
00232	507 – 508.5	Duplicate					
00255	507 – 508.5	Duplicate					
00233	519 – 520.5	Brine	29-08-23	15.0	6.36	192.2	1.236
00234	531 – 532.5	Brine	28-08-23	14.7	6.71	189.5	1.235
00236	543 – 544.5	Brine	27-08-23	14.9	7.10	189.3	1.234
00237	555 – 556.5	Brine	27-08-23	14.5	7.00	189.4	1.233
00238	555 – 556.5	Duplicate					
00257	555 – 556.5	Duplicate					
00240	567 – 568.5	Brine	27-08-23	14.5	6.39	192.0	1.233
00241	579 – 580.5	Brine	26-08-23	12.4	7.18	194.8	1.234
00243	591 – 596	Brine	25-08-23	12.7	6.75	199.9	1.233
00244	606 – 607.5	Brine	08-09-23	13.2	6.40	185.1	1.237
00245	606 – 607.5	Duplicate					
00259	606 – 607.5	Duplicate					
00246	618 – 619.5	Brine	08-09-23	13.5	6.35	187.1	1.234
00247	630 – 631.5	Brine	07-09-23	13.9	6.63	187.7	1.235
00249	642 – 643.5	Brine	06-09-23	13.1	6.40	184.5	1.234
00250	654 – 659	Brine	08-09-23	11.5	6.37	186.5	1.233
00251	654 – 659	Duplicate					
00260	654 – 659	Duplicate					

Table 10-14 is a summary table for the laboratory results from brine samples obtained.

Table 10-14: Summary of Laboratory Chemical Results. Brine Samples from Borehole DDH-RG23-003

Sample ID	Date	Laboratory	Interval (m)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00129	29-07-23	SGS	15 – 16.5	Brine	409	5,182	8,133	322
00130	29-07-23	SGS	15 – 16.5	Duplicate	408	5,236	8,224	318
00131	29-07-23	SGS	15 – 16.5	Blank	<10	22	<10	<10
00132	29-07-23	SGS	27 – 28.5	Brine	428	5,410	8,450	342
00133	29-07-23	SGS	27 – 28.5	Duplicate	439	5,514	8,620	349
00134	29-07-23	SGS	39 – 40.5	Brine	414	5,286	8,256	332
00135	29-07-23	SGS	39 – 40.5	Duplicate	410	5,187	8,100	324
00136	29-07-23	SGS	39 – 40.5	Blank	<10	25	12	<10
00137	29-07-23	SGS	51 – 52.5	Brine	415	5,221	8,053	331
00138	29-07-23	SGS	51 – 52.5	Duplicate	422	5,309	8,199	337
00139	29-07-23	SGS	63 – 64.5	Brine	412	5,195	8,201	320
00140	29-07-23	SGS	63 – 64.5	Duplicate	431	5,414	8,480	332
00141	29-07-23	SGS	75 – 76.5	Brine	510	6,615	10,575	454
00142	29-07-23	SGS	75 – 76.5	Blank	<10	25	16	<10
00143	29-07-23	SGS	75 – 76.5	STD A-3002	97	1,218	3,019	496
00144	29-07-23	SGS	87 – 88.5	Brine	500	6,473	10,300	428
00145	29-07-23	SGS	87 – 88.5	Blank	<10	25	16	<10
00146	29-07-23	SGS	87 – 88.5	STD C-3001	457	1,566	3,766	511
00147	28-07-23	SGS	99 – 100.5	Brine	516	6,719	10,808	463
00148	28-07-23	SGS	99 – 100.5	Blank	<10	24	17	<10
00149	28-07-23	SGS	111 – 116	Brine	437	5,691	9,084	349
00150	28-07-23	SGS	111 – 116	STD E-3003	758	1,473	6,778	480
00151	29-07-23	Alex Stewart	15 – 16.5	Check	379	5,364	7,173	311
00152	29-07-23	Alex Stewart	15 – 16.5	STD A-3002	104	1,200	2,660	486
00153	29-07-23	Alex Stewart	27 – 28.5	Check	386	5,414	7,371	336
00154	29-07-23	Alex Stewart	27 – 28.5	Blank	<1	19	4	<2
00155	29-07-23	Alex Stewart	39 – 40.5	Check	385	5,402	6,966	331
00156	29-07-23	Alex Stewart	39 – 40.5	STD C-3001	399	1,510	3,178	493
00157	29-07-23	Alex Stewart	51 – 52.5	Check	379	5,288	7,022	328
00158	29-07-23	Alex Stewart	51 – 52.5	STD E-3003	689	1,485	5,903	482
00159	29-07-23	Alex Stewart	63 – 64.5	Check	382	5,317	6,929	319
00160	29-07-23	Induser	15 – 16.5	Check	313	5,025	6,756	255
00161	29-07-23	Induser	15 – 16.5	STD A-3002	74	1,112	2,269	397
00162	29-07-23	Induser	27 – 28.5	Check	325	5,255	768	296
00163	29-07-23	Induser	27 – 28.5	STD C-3001	333	1,473	2,894	425
00164	29-07-23	Induser	39 – 40.5	Check	328	5,193	6,994	280
00165	29-07-23	Induser	39 – 40.5	Blank	<1	21.2	2.5	<1
00166	29-07-23	Induser	51 – 52.5	Check	600	4,780	6,322	261
00167	29-07-23	Induser	51 – 52.5	STD E-3003	594	1,507	5,806	434
00168	29-07-23	Induser	63 – 64.5	Check	324	5,048	6,786	261
00175	03-08-23	SGS	129 – 130.5	Brine	471	7,136	9,068	374
00176	03-08-23	SGS	129 – 130.5	Duplicate	463	7,016	8,936	368
00177	03-08-23	SGS	129 – 130.5	Blank	<10	12	32	<10
00178	03-08-23	SGS	141 – 142.5	Brine	485	7,633	9,286	377
00179	03-08-23	SGS	141 – 142.5	STD A-3002	89	1,206	2,868	496
00180	02-08-23	SGS	165 – 166.5	Brine	464	7,097	8,970	358
00181	02-08-23	SGS	165 – 166.5	STD C-3001	437	1,491	3,394	492

Sample ID	Date	Laboratory	Interval (m)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00182	02-08-23	SGS	177 – 178.5	Brine	439	6,539	8,567	335
00183	02-08-23	SGS	177 – 178.5	STD C-3001	443	1,498	3,444	500
00184	02-08-23	SGS	189 – 190.5	Brine	401	6,243	8,190	319
00185	02-08-23	SGS	189 – 190.5	Duplicate	436	6,545	8,594	334
00186	02-08-23	SGS	201 – 202.5	Brine	392	5,833	7,995	291
00187	02-08-23	SGS	201 – 202.5	Blank	<10	13	42	<10
00188	01-08-23	SGS	213 – 218	Brine	595	7,931	9,686	383
00189	03-08-23	Alex Stewart	129 – 130.5	Check	447	6,990	8,186	380
00190	03-08-23	Alex Stewart	129 – 130.5	Blank	<1	13	<2	<1
00191	02-08-23	Alex Stewart	189 – 190.5	Check	421	6,504	7,828	342
00192	02-08-23	Alex Stewart	189 – 190.5	STD A-3002	111	1,211	2,653	499
00193	03-08-23	Induser	129 – 130.5	Check	395	5,911	7,551	347
00194	03-08-23	Induser	129 – 130.5	Blank	<1	10.5	2.1	<1
00195	02-08-23	Induser	189 – 1960.5	Check	349	5,475	7,550	273
00196	02-08-23	Induser	189 – 1960.5	STD A-3002	74.1	942	2,068	374
00197	11-08-23	SGS	225 – 226.5	Brine	580	7,756	9,273	383
00198	11-08-23	SGS	225 – 226.5	Blank	<10	11	40	<10
00199	11-08-23	SGS	237 – 238.5	Brine	552	9,135	10,330	441
00200	11-08-23	SGS	237 – 238.5	Duplicate	640	9,202	10,415	444
00201	11-08-23	SGS	249 – 250.5	Brine	785	11,805	12,298	548
00202	11-08-23	SGS	249 – 250.5	STD A-3002	85	1,213	2,919	506
00203	11-08-23	SGS	261 – 262.5	Brine	675	11,447	12,053	533
00204	11-08-23	SGS	261 – 262.5	STD C-3001	364	1,272	2,895	424
00205	10-08-23	SGS	273 – 274.5	Brine	720	11,251	11,427	519
00206	10-08-23	SGS	273 – 274.5	STD E-3003	736	1,291	5,673	433
00207	10-08-23	SGS	285 – 286.5	Brine	667	9,789	10,831	466
00208	10-08-23	SGS	285 – 286.5	Blank	<10	12	48	<10
00209	08-08-23	SGS	333 – 334.5	Brine	632	9,078	10,269	435
00210	08-08-23	SGS	333 – 334.5	Duplicate	648	9,358	10,557	447
00211	08-08-23	SGS	345 – 346.5	Brine	549	9,112	10,384	431
00212	11-08-23	Alex Stewart	237 – 238.5	Check	540	9,040	9,653	455
00213	11-08-23	Alex Stewart	237 – 238.5	Blank	<1	13	<2	<1
00214	08-08-23	Alex Stewart	333 – 334.5	Check	555	9,254	9,826	459
00215	08-08-23	Alex Stewart	333 – 334.5	STD E-3003	709	1,494	5,828	497
00216	11-08-23	Induser	237 – 238.5	Check	428	6,996	8,716	354
00217	11-08-23	Induser	237 – 238.5	Blank	<1	10.1	1.9	<1
00218	08-08-23	Induser	333 – 334.5	Check	417	6,823	8,340	342
00219	08-08-23	Induser	333 – 334.5	STD C-3001	332	1,221	2,619	390
00253	16-08-23	Alex Stewart	450 – 451.5	Check	529	9,084	9,460	440
00254	16-08-23	Alex Stewart	450 – 451.5	STD A-3002	104	1,173	2,752	499
00255	29-08-23	Alex Stewart	507 – 508.5	Check	546	9,215	9,769	451
00256	29-08-23	Alex Stewart	507 – 508.5	Blank	<1	13	2	<1
00257	27-08-23	Alex Stewart	555 – 556.5	Check	537	9,084	9,630	436
00258	27-08-23	Alex Stewart	555 – 556.5	STD C-3001	413	1,460	3,190	496
00259	08-09-23	Alex Stewart	606 – 607.5	Check	548	9,278	9,732	461
00260	08-09-23	Alex Stewart	654 – 659	Check	497	8,276	8,946	400
00261	08-09-23	Alex Stewart	654 – 659	STD E-3003	706	1,461	5,812	498
00220	19-08-23	SGS	366 – 367.5	STD A-3002	105	1,282	2,778	523
00221	19-08-23	SGS	366 – 367.5	Brine	547	9,168	11,212	495
00222	18-08-23	SGS	378 – 379.5	Brine	547	9,262	11,307	500

Sample ID	Date	Laboratory	Interval (m)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00223	18-08-23	SGS	378 – 379.5	Blank	<10	10	28	<10
00224	17-08-23	SGS	414 – 415.5	Brine	527	8,471	10,526	440
00225	16-08-23	SGS	450 – 451.5	Brine	523	8,126	10,142	422
00226	16-08-23	SGS	450 – 451.5	Duplicate	552	8,495	10,467	455
00227	30-08-23	SGS	471 – 472.5	Brine	544	8,931	10,944	478
00228	30-08-23	SGS	483 – 484.5	Brine	582	8,927	10,942	475
00229	30-08-23	SGS	483 – 484.5	Blank	<10	68	80	<10
00230	30-08-23	SGS	495 – 496.5	Brine	562	8,595	10,744	446
00231	29-08-23	SGS	507 – 508.5	Brine	538	8,812	10,790	467
00232	29-08-23	SGS	507 – 508.5	Duplicate	533	8,804	10,820	467
00233	29-08-23	SGS	519 – 520.5	Brine	518	8,739	10,756	463
00234	28-08-23	SGS	531 – 532.5	Brine	555	8,702	10,741	463
00235	28-08-23	SGS	531 – 532.5	Blank	<10	21	40	<10
00236	27-08-23	SGS	543 – 544.5	Brine	550	8,733	10,728	464
00237	27-08-23	SGS	555 – 556.5	Brine	523	8,405	10,628	437
00238	27-08-23	SGS	555 – 556.5	Duplicate	556	8,393	10,377	442
00239	27-08-23	SGS	555 – 556.5	STD C-3001	453	1,592	3,327	521
00240	27-08-23	SGS	567 – 568.5	Brine	519	8,293	10,329	436
00241	26-08-23	SGS	579 – 580.5	Brine	534	8,496	10,467	446
00242	26-08-23	SGS	579 – 580.5	Blank	<10	23	26	<10
00243	25-08-23	SGS	591 – 596	Brine	532	8,117	10,034	424
00244	08-09-23	SGS	606 – 607.5	Brine	554	8,670	10,626	468
00245	08-09-23	SGS	606 – 607.5	Duplicate	547	8,505	10,595	452
00246	08-09-23	SGS	618 – 619.5	Brine	535	8,531	10,519	464
00247	07-09-23	SGS	630 – 631.5	Brine	513	8,009	10,200	429
00248	07-09-23	SGS	630 – 631.5	Blank	<10	18	18	<10
00249	06-09-23	SGS	642 – 643.5	Brine	496	7,829	9,709	422
00250	08-09-23	SGS	654 – 659	Brine	489	7,619	9,681	399
00251	08-09-23	SGS	654 – 659	Duplicate	518	7,519	9,350	395
00252	08-09-23	SGS	654 – 659	STD E-3003	722	1,606	6,651	529

10.3.2 Porosity Sampling for DDH-RG23-003

Core was collected and described by NOA personnel. 37 core samples were collected for total and drainable porosity analysis. For each sample, 11 to 23 cm of unaltered core was selected and stored in a plastic tube with the same diameter as the core and was subsequently labeled and sealed. Table 10-15 summarizes depth intervals of the samples obtained for analysis. For this well, core samples were analyzed in LCV laboratories, in Buenos Aires, Argentina.

Table 10-15: Core Samples Obtained for Porosity Analysis from DDH-RG23-003

Sample ID	Interval (meters)		Total porosity	Specific yield	General lithology
	From	To			
00572	6.50	6.62	0.176	0.100	Crystalline halite with minor presence of gypsum
00573	25.28	25.42	0.289	0.125	Cemented fine grained sand
00574	45.05	45.22	0.046	0.029	Crystalline halite
00575	63.87	64.00	0.207	0.066	Black sand
00576	84.15	84.35	0.034	0.020	Crystalline halite with presence of blackish sand
00577	103.70	103.85	0.055	0.016	Crystalline halite

Sample ID	Interval (meters)		Total porosity	Specific yield	General lithology
	From	To			
00578	122.60	122.77	0.102	0.021	Black sand
00579	142.00	142.16	0.077	0.023	Massive halite
00580	163.55	163.75	0.064	0.016	Crystalline halite
00581	185.84	186.04	0.066	0.017	Crystalline halite
00582	205.80	206.00	0.175	0.030	Black sand
00583	223.80	224.00	0.099	0.023	Crystalline halite
00584	242.60	242.76	0.255	0.136	Grayish sand
00585	262.80	263.00	0.349	0.093	Black sand
00586	186.10	186.25	0.054	0.025	Crystalline halite
00587	284.35	284.50	0.185	0.077	Black sand
00588	305.60	305.76	0.116	0.013	Black sand
00589	324.50	324.65	0.143	0.023	Black sand
00590	344.00	344.16	0.186	0.027	Conglomerate
00591	363.37	363.51	0.066	0.035	Fine sand
00592	382.73	382.91	0.133	0.021	Black fine sand with presence of silt
00593	402.33	402.50	0.107	0.027	Black sand
00594	420.06	420.23	0.143	0.024	Black sand
00595	440.56	440.74	0.112	0.011	Fine to medium grained sand
00596	460.32	460.50	0.251	0.026	Fine to medium grained sand
00597	482.00	482.17	0.064	0.019	Halite with presence of sand
00598	402.19	402.33	0.124	0.057	Black sand
00599	502.43	402.62	0.042	0.014	Halite with presence of sand
00600	522.22	522.39	0.023	0.013	Halite with presence of fine sand
00601	542.00	542.13	0.040	0.013	Halite with black sand
00602	563.00	563.19	0.044	0.015	Halite with black sand
00603	583.71	583.83	0.037	0.015	Halite with black sand
00604	603.19	603.31	0.043	0.018	Crystalline halite
00605	628.76	628.92	0.056	0.028	Black sand
00606	646.50	646.65	0.053	0.016	Crystalline halite
00607	670.04	670.27	0.116	0.019	Black sand
00608	583.60	583.71	0.033	0.020	Halite with black sand

10.3.3 Conclusions for DDH-RG23-003

The lithology at this location is composed mostly of sand with some conglomerates and halite. Lithium concentration varies from 313 to 785, having the higher concentrations below 90 m. Reported total porosity varies from 2.3% to 34.9%. Reported drainable porosity (specific yield) varies from 1.1% to 13.6%; three samples, two within the first 25 m depth and one at 242 m, showed values higher than 10%.

10.4 DDH-RG23-004

Drilling activities for exploration borehole DDH-RG23-04 started on October 12, 2023, reaching the final depth of 551 mbls on November 30, 2023. This well was drilled with HQ diameter to total depth. No HWT casing was installed in this well. Photo 10-4 shows some of the drill core obtained; Table 10-16 is the summary log for this borehole.

Photo 10-4: Core Samples Obtained from Borehole DDH-RG23-004

Table 10-16: Summary of Lithological Description of Borehole DDH-RG23-004

From (m)	To (m)	Summary log
0	20.5	Crystalline halite with layers and disseminated fine to medium sand
20.5	29	Grayish clay with presence of sand and halite
29	127.3	Fine sand to silty sand with presence of fine gravel and minor halite
127.3	203.5	Medium to coarse sand with presence of silt and gravel
203.5	213.7	Interlayers of black sand and breccia
213.7	251.9	Sedimentary breccia with a matrix of fine sand
251.9	259.5	Fine sand
259.5	332	Sedimentary breccia with a matrix of fine sand and minor presence of clay
332	386.2	Interlayers of breccia and conglomeratic sand
386.2	404.2	Clayey sand
404.2	425	Clay with minor presence of crystals of gypsum
425	501.5	Interlayers of silty sand to gravelly sand

A borehole geophysical survey was conducted by EM Explora Mining after the borehole was drilled. Geophysical logs included SP, SPR and short and large normal electrical resistivity. Results are shown on Figure 10-5.

Once drilling was completed, 2-inch blank and screened PVC was installed. The well construction schematic is shown on Figure 10-5.

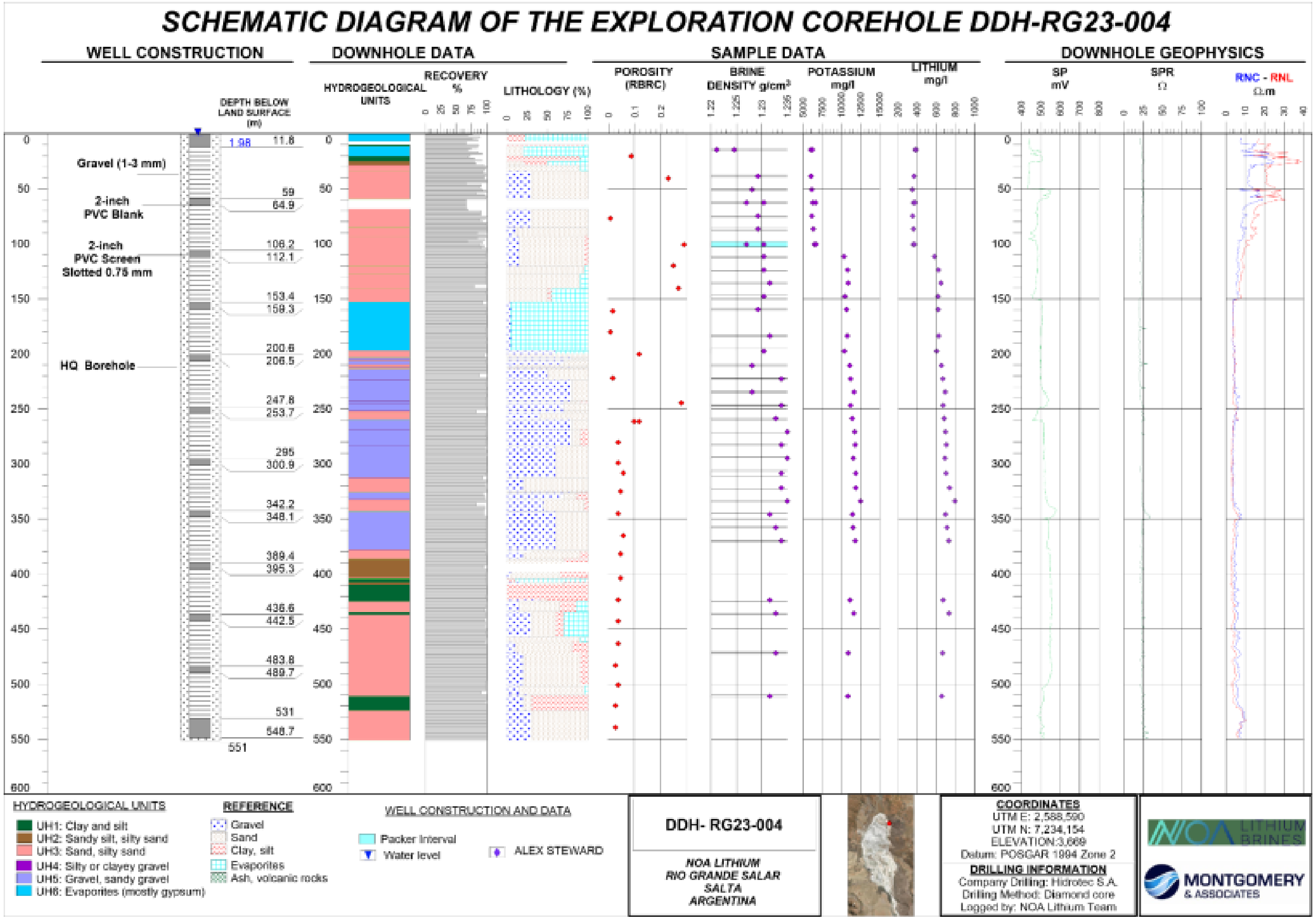


Figure 10-5: Construction Schematic for Borehole DDH-RG23-004

10.4.1 Brine Sampling for DDH-RG23-004

During drilling, 32 original brine samples were obtained using a depth-specific packer system. Each sample was filled in 500 ml plastic bottle, labeled and sealed. The samples were analyzed at Alex Stewart, laboratories in Salta, Argentina. Due to problems with SGS equipment, no samples were sent to this lab. Temperature, pH, electrical conductivity and density were measured in the field. Table 10-17 summarizes field parameters and depth interval of the samples obtained.

Table 10-17: Field Parameters Measured During Brine Sampling at DDH-RG23-004

Sample ID	Interval	Type	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00266	14 – 15.5	Brine	18-10-23	11.6	6.7	168.3	1.25
00268	38 – 39.5	Brine	18-10-23	10.2	6.68	162.9	1.228
00270	50 – 51.5	Brine	18-10-23	21.0	6.84	178.3	1.224
00272	62 – 63.5	Brine	17-10-23	16.2	6.8	169.4	1.230
00274	74 – 75.5	Brine	17-10-23	15.7	6.76	168.3	1.230
00276	86 – 87.5	Brine	19-10-23	16.6	6.81	168.1	1.229
00278	98 – 103	Brine	17-10-23	17.3	6.75	163.4	1.230
00289	111 – 112.5	Brine	23-10-23	11.6	6.39	171.5	1.229
00291	123 – 124.5	Brine	23-10-23	19.2	6.33	170.1	1.226
00293	135 – 136.5	Brine	23-10-23	14.1	6.27	168.2	1.230
00294	147 – 148.5	Brine	22-10-23	17.4	6.36	169.1	1.229
00297	159 – 160.5	Brine	22-10-23	17.4	6.39	170.0	1.230
00298	183 – 184.5	Brine	22-10-23	25.9	6.38	176.0	1.230
00300	195 – 200	Brine	21-10-23	11.9	6.40	164.6	1.230
00302	210 – 211.5	Brine	21-10-23	16.6	6.24	169.2	1.233
00305	222 – 223.5	Brine	30-10-23	24.6	6.23	177.4	1.230
00306	234 – 235.5	Brine	30-10-23	17.1	6.19	172.5	1.231
00308	246 – 247.5	Brine	29-10-23	13.1	6.44	175.1	1.230
00309	258 - 259.5	Brine	29-10-23	12.6	6.26	166.7	1.234
00311	270 – 271.5	Brine	28-10-23	14.3	6.05	166.0	1.232
00313	282 – 283.5	Brine	28-10-23	21.1	6.32	172.5	1.230
00316	294 – 295.5	Brine	28-10-23	15.2	6.85	173.2	1.233
00317	306 – 311	Brine	27-10-23	15.8	6.31	167.7	1.229
00319	321 – 322.5	Brine	28-10-23	14.5	6.15	162.1	1.235
00321	333 – 334.5	Brine	08-11-23	19.3	6.22	166.9	1.234
00323	345 – 346.5	Brine	07-11-23	18.5	6.20	163.4	1.232
00325	357 – 358.5	Brine	06-11-23	20.2	6.18	164.2	1.233
00327	369 – 370.5	Brine	05-11-23	21.9	6.23	167.5	1.234
00333	471 – 472.5	Brine	15-11-23	17.7	6.33	167.1	1.232
00331	435 – 436.5	Brine	17-11-23	13.1	6.37	160.5	1.235
00329	423 – 424.5	Brine	26-11-23	17.2	6.28	161.8	1.227
00335	510 – 511.5	Brine	25-11-23	13.8	6.37	163.3	1.230

Table 10-18 is a summary table for the laboratory results from brine samples obtained.

Table 10-18: Summary of Laboratory Chemical Results for Brine Samples, Borehole DDH-RG23-004

Sample ID	Date	Laboratory	Interval (m)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00266	18-10-23	Alex Stewart	14 – 15.5	Brine	379	4,422	6,020	186
00267		Alex Stewart	14 – 15.5	Duplicate	377	4,381	6,040	186
00268	18-10-23	Alex Stewart	38 – 39.5	Brine	366	4,291	6,060	187
00269		Alex Stewart		Blank	<1	13	6	<1
00270	18-10-23	Alex Stewart	50 – 51.5	Brine	349	4,324	6,134	207
00271		Alex Stewart		STD A-3002	105	1,169	2,652	485
00272	17-10-23	Alex Stewart	62 – 63.5	Brine	362	4,172	6,260	250
00273			62 – 63.5	Duplicate	362	4,146	6,205	249
00274	17-10-23	Alex Stewart	74 – 75.5	Brine	353	4,146	6,146	249
00275		Alex Stewart		Blank	<1	14	<2	<1
00276	19-10-23	Alex Stewart	86 – 87.5	Brine	361	4,240	6,320	259
00277		Alex Stewart		STD E-3003	692	1,427	5,698	494
00278	17-10-23	Alex Stewart	98 – 103	Brine	358	4,260	6,465	262
00279		Alex Stewart		STD C-3001	403	1,427	3,125	491
00280		Alex Stewart	98 – 103	Duplicate	349	4,277	6,310	254
00281		Alex Stewart	14 – 15.5	Duplicate	389	4,432	6,205	190
00282		Alex Stewart		Blank	<1	12	<2	<1
00283		Alex Stewart	62 – 63.5	Duplicate	380	4,273	6,614	257
00284		Alex Stewart		STD A-3002	107	1,150	2,609	499
00285		Alex Stewart	98 – 103	Duplicate	372	4,356	6,670	270
00288		Alex Stewart		Blank	<1	11	<2	<1
00289	23-10-23	Alex Stewart	111 – 112.5	Brine	581	6,495	10,320	328
00290		Alex Stewart		STD A-3002	105	1,169	2,661	485
00291	23-10-23	Alex Stewart	123 – 124.5	Brine	623	6,979	10,784	343
00292		Alex Stewart	123 – 124.5	Duplicate	620	6,922	10,689	339
00293	23-10-23	Alex Stewart	135 – 136.5	Brine	649	7,298	10,852	349
00294	22-10-23	Alex Stewart	147 – 148.5	Brine	616	6,918	10,435	338
00295		Alex Stewart		Blank	<1	13	2	<1
00296		Alex Stewart	147 – 148.5	Duplicate	627	6,962	10,750	352
00297	22-10-23	Alex Stewart	159 – 160.5	Brine	620	6,959	10,657	352
00298	22-10-23	Alex Stewart	183 – 184.5	Brine	627	7,030	10,749	356
00299		Alex Stewart	183 – 184.5	Duplicate	618	6,930	10,587	350
00300	21-10-23	Alex Stewart	195 – 200	Brine	603	6,721	10,386	346
00301		Alex Stewart		STD E-3003	693	1,443	5,859	494
00302	21-10-23	Alex Stewart	210 – 211.5	Brine	653	7,790	11,077	380
00303		Alex Stewart	210 – 211.5	Duplicate	660	7,805	11,119	383
00304		Alex Stewart		Blank	<1	11	<2	<1
00305	30-10-23	Alex Stewart	222 – 223.5	Brine	667	7,961	11,191	389
00306	30-10-23	Alex Stewart	234 – 235.5	Brine	693	8,338	11,660	405
00307		Alex Stewart	234 – 235.5	Duplicate	684	8,213	11,410	398
00308	29-10-23	Alex Stewart	246 – 247.5	Brine	672	8,009	11,175	392
00309	29-10-23	Alex Stewart	258 - 259.5	Brine	681	8,141	11,402	394
00310		Alex Stewart		Blank	<1	11	<2	<1
00311	28-10-23	Alex Stewart	270 – 271.5	Brine	698	8,578	11,713	408
00312		Alex Stewart		STD C-3001	409	1,456	3,220	503
00313	28-10-23	Alex Stewart	282 – 283.5	Brine	704	8,440	11,794	411

Sample ID	Date	Laboratory	Interval (m)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00314		Alex Stewart	282 – 283.5	Duplicate	702	8,421	11,740	402
00315		Alex Stewart		Blank	<1	11	<2	<1
00316	28-10-23	Alex Stewart	294 – 295.5	Brine	690	8,524	11,552	402
00317	27-10-23	Alex Stewart	306 – 311	Brine	702	8,531	11,855	427
00318		Alex Stewart	306 – 311	Duplicate	697	8,507	11,684	412
00319	28-10-23	Alex Stewart	321 – 322.5	Brine	738	9,113	11,865	431
00320		Alex Stewart		STD A-3002	102	1,174	2,631	490
00321	08-11-23	Alex Stewart	333 – 334.5	Brine	794	10,168	12,486	470
00322		Alex Stewart		Blank	<1	22	3	<1
00323	07-11-23	Alex Stewart	345 – 346.5	Brine	696	8,421	11,442	403
00324		Alex Stewart	345 – 346.5	Duplicate	693	8,417	11,424	399
00325	06-11-23	Alex Stewart	357 – 358.5	Brine	711	8,792	11,493	411
00326		Alex Stewart		Blank	<1	22	3	<1
00327	05-11-23	Alex Stewart	369 – 370.5	Brine	732	9,183	11,792	421
00328		Alex Stewart	369 – 370.5	Duplicate	743	9,269	11,960	429
00329	26-11-23	Alex Stewart	423 – 424.5	Brine	670	7,919	11,104	386
00330		Alex Stewart		Blank	<1	22	3	<1
00331	17-11-23	Alex Stewart	435 – 436.5	Brine	733	9,098	11,599	420
00332		Alex Stewart	435 – 436.5	Duplicate	752	8,777	11,440	423
00333	15-11-23	Alex Stewart	471 – 472.5	Brine	664	7,940	10,876	386
00334		Alex Stewart		STD C-3001	383	1,448	3,110	483
00335	25-11-23	Alex Stewart	510 – 511.5	Brine	656	7,761	10,829	376
00336		Alex Stewart		Blank	<1	22	3	<1

10.4.2 Hydrasleeve Brine Sample Results for DDH-RG23-004

After the well was drilled and cased, four brine samples were obtained by NOA and M&A using a Hydrasleeve bailer, which allows samples to be obtained for a 1 m depth-specific interval. The samples were filled in 500 ml plastic bottle, labeled and sealed. The samples were analyzed at SGS laboratories and Alex Stewart laboratories, both in Salta, Argentina. Temperature, pH and electrical conductivity were measured in the field. Table 10-19 is a summary table for the laboratory results from the brine samples.

Table 10-19: Summary of Laboratory Chemical Results. Brine Samples from Borehole DDH-RG23-004

Sample ID	Date	Laboratory	Interval (m bls)	Type	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)
DDH-04-01	30-01-2024	SGS	200 – 201	Brine	721	7,595	12,040	386
DDH-04-02	30-01-2024	SGS	350 – 351	Duplicate	590	6,163	9,954	338
00392	01-02-2024	Alex Stewart	200 – 201	Brine	616	7,095	9,966	357
00393	01-02-2024	Alex Stewart	350 – 351	Brine	603	6,860	9,777	348

10.4.3 Porosity Sampling for DDH-RG23-004

Core were collected and described by NOA personnel. 15 core samples were collected for total and drainable porosity analysis. For each sample, 11 to 21 cm of unaltered core was selected and stored in a plastic tube with the same diameter as the core, and was subsequently labeled and sealed. Table 10-15 summarizes depth intervals of the samples obtained for analysis. For this well, core samples were analyzed in LCV laboratories, in Buenos Aires, Argentina.

Table 10-20: Core Samples Obtained for Porosity Analysis from DDH-RG23-004

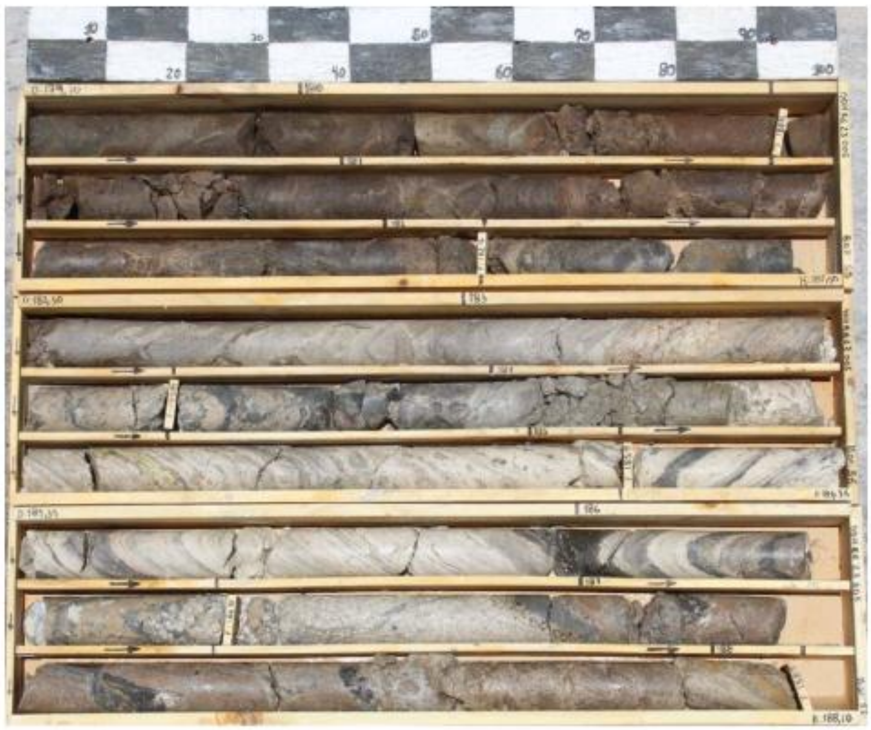
Sample ID	Interval (meters)		Total porosity	Specific yield	General lithology
	From	To			
00609	20.37	20.50	0.14	0.09	Crystalline halite
00610	40.55	40.66	0.26	0.23	Brownish coarse sand with minor presence of gravel
00611	76.90	77.04	0.12	0.01	Reddish brown coarse sand
00612	100.60	100.76	0.33	0.29	Fine sand with silt and minor presence of fine gravel
00613	119.64	119.77	0.37	0.25	Fine sand with silt and minor presence of fen gravel
00614	140.22	140.40	0.43	0.27	Sand with disseminated crystals of gypsum
00615	161.04	161.19	0.11	0.02	Gypsum sand
00616	180.27	180.40	0.11	0.01	Gypsum sand
00617	200.20	200.35	0.42	0.12	Black fine sand
00618	222.07	222.23	0.11	0.02	Sedimentary breccia
00619	244.52	244.71	0.32	0.28	Sedimentary breccia
00620	261.44	261.56	0.30	0.10	Sedimentary breccia
00621	280.44	280.64	0.16	0.04	Sedimentary breccia
00622	298.80	299.00	0.17	0.04	Sedimentary breccia
00623	308.00	308.18	0.17	0.06	Sedimentary breccia
00624	324.85	325.05	0.26	0.05	Sedimentary breccia
00625	261.30	261.44	0.25	0.12	Sedimentary breccia
00626	344.91	345.12	0.17	0.04	Sedimentary breccia
00627	362.00	362.15	0.28	0.06	Sedimentary breccia
00628	381.55	381.73	0.24	0.05	Sandy conglomerate
00629	403.70	403.90	0.26	0.05	Fine volcanic sand with minor presence of silt
00630	423.32	423.48	0.08	0.04	Reddish clay with less presence of fine gravel
00631	442.86	443.00	0.10	0.04	Gravelly sand
00632	462.90	463.30	0.10	0.04	Clayey fine grained sand
00633	482.85	483.00	0.16	0.03	Gravelly sand
00634	500.76	500.90	0.16	0.04	Gravelly sand
00635	519.55	519.70	0.15	0.03	Clay with presence of gravel and sand
00636	539.38	539.48	0.10	0.03	Sandy gravel

10.4.4 Conclusions for DDH-RG23-004

The lithology at this location is composed mostly of sand with some conglomerates and halite. Lithium concentration varies from 313 to 780, having the higher concentrations below 90 m. Reported total porosity varies from 8% to 43%. Reported drainable porosity (specific yield) varies from 1% to 29%; high values are mostly within the first 140 m depth; from 280 m depth to the bottom sample at 539 m depth, drainable porosity values are below 6%.

10.5 DDH-RG23-005

Drilling activities for exploration borehole DDH-RG23-05 started on November 10, 2023, reaching the final depth of 603 mbls on January 22, 2024. This well was drilled with HQ diameter to total depth. HWT casing was installed in this well, from surface to a depth of 42 m. Photo 10-5 shows some of the drill core obtained; Table 10-21 is the summary log for this borehole.



RIO GRANDE DDH-RG23-005 D:179.70 H:188.10 BOX:55-57

Photo 10-5: Core Samples Obtained from Borehole DDH-RG23-005

Table 10-21: Summary of Lithological Description of Borehole DDH-RG23-005

From (m)	To (m)	Summary log
0	6.5	Crystals of gypsum with minor presence of halite and traces of sand
6.5	23.4	Light gray gypsiferous sand with minor presence of halite
23.4	54.6	White crystalline or compact halite. At the end of the interval presence of fine sand
54.6	56.1	White clay, no acid reaction
56.1	58.0	Black sand with presence of crystals of gypsum and magnetite.
58.0	61.0	No recovery
61.0	63.6	White compact halite with presence of sand
63.6	65.1	No recovery
65.1	122.2	Black to gray fine sand with presence of halite and crystals of gypsum
122.2	132.6	Calcite with less presence of fine sand. Black to gray colour.
132.6	182.5	Fine black sand with magnetite. Crystals of gypsum and minor halite
182.5	254.1	Gypsum and gypsiferous fine sand level, gray to black colour.
254.1	268.5	Fine brown sand with presence of gypsum
268.5	279.5	Brown gypsum and/or undetermined sulphate mineral level
279.5	333.6	Black fine sand, with presence of gypsum and halite
333.6	335.1	Red clay with low plasticity and no acid reaction
335.1	445.1	Black fine sand with presence of clay and silt
445.1	446.3	Brown clay with less presence of crystals of halite and fine sand
446.3	562.5	Black to gray fine sand with minor presence of gypsum
562.5	570	Fine gypsiferous sand
570	603	Fine sandy silt, greenish grey

The well construction schematic is shown on Figure 10-6. A borehole geophysical survey was conducted by EM Explora Mining after the borehole was drilled. Geophysical logs included SP, SPR and short and large normal electrical resistivity. Results are shown on Figure 10-6. Once drilling was completed, 2-inch blank and screened PVC was installed.

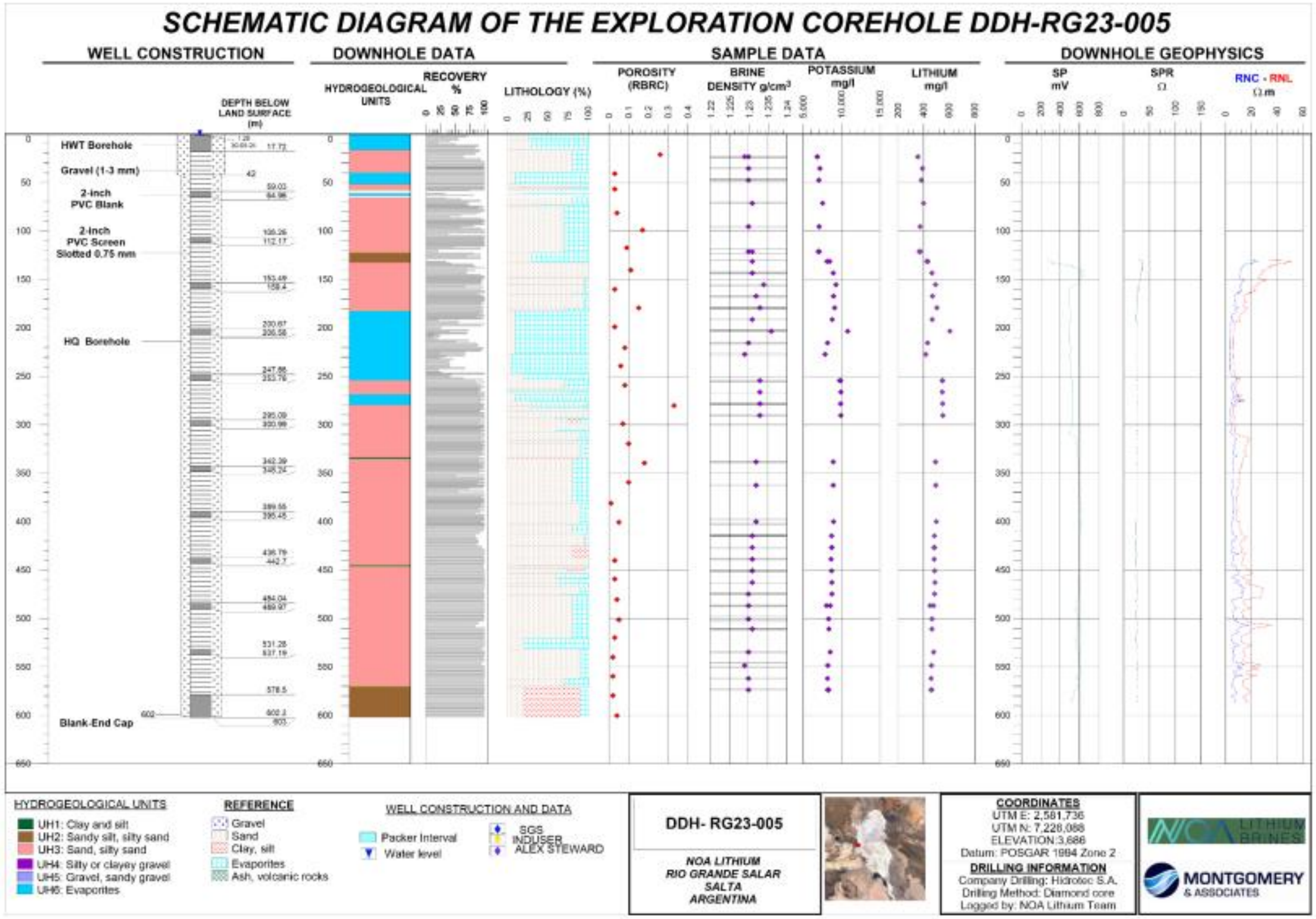


Figure 10-6: Construction Schematic for Borehole DDH-RG23-005

10.5.1 Brine Sampling for DDH-RG23-005

During drilling, 35 original brine samples were obtained using a depth-specific packer system. Each sample consisted of a filled 500 ml plastic bottle, labeled and sealed. The samples were analyzed at Alex Stewart laboratories in Salta, Argentina. Temperature, pH, electrical conductivity and density were measured in the field. Table 10-22 summarizes field parameters and depth interval of the samples obtained.

Table 10-22: Field Parameters Measured During Brine Sampling at DDH-RG23-005

Sample ID	Interval (m, bls)	Date	T (°C)[a]	pH	CE (mS/cm)[b]	Density (mg/mL)[c]
00337	22.6 – 24.1	22-11-23	19.6	6.76	167.9	1.225
00339	34.6 – 36.1	22-11-23	12.8	6.63	163.9	1.233
00341	46.6 – 48.1	22-11-23	14.0	6.62	159.5	1.233
00343	118.6 – 123.6	19-11-23	10.9	6.42	160.3	1.226
00346	70.6 – 72.1	17-12-23	21.9	6.43	162.1	1.229
00347	94.6 – 96.1	16-11-23	10.7	6.53	163.9	1.228
00348	130.6 – 132.1	04-12-23	11.8	6.18	164.3	1.225
00350	142.6 – 144.1	04-12-23	17.6	6.41	168.8	1.230
00351	154.6 – 156.1	03-12-23	15.9	6.21	162.2	1.235
00352	166.6 – 168.1	03-12-23	10.5	6.22	158.3	1.230
00354	178.6 – 180.1	02-12-23	17.2	6.21	164.3	1.230
00355	190.6 – 192.1	01-12-23	16.7	6.20	175.8	1.225
00356	202.6 – 204.1	30-11-23	14.2	6.03	151.3	1.225
00358	214.6 – 216.1	30-11-23	11.3	6.30	162.8	1.225
00359	226.6 – 228.1	28-11-23	23.2	6.51	169.3	1.225
00360	253.6 – 255.1	14-12-23	14.8	6.10	155.5	1.229
00362	265.6 – 267.1	14-12-23	18.6	6.17	161.1	1.230
00363	277.6 – 279.1	13-12-23	---[d]	---	---	---
00364	289.6 – 291.1	13-12-23	20.1	6.20	165.2	1.230
00366	337.6 – 339.1	16-12-23	14.2	6.28	162.5	1.230
00367	361.6 – 363.1	15-12-23	16.1	6.30	160.4	1.229
00368	397.6 – 402.6	15-12-23	17.3	6.27	161.3	1.228
00373	414.0 – 145.5	15-01-24	16.1	6.14	174.3	1.231
00374	426.0 – 427.5	14-01-24	17.5	6.21	171.3	1.230
00376	438.0 – 439.5	14-01-24	15.1	6.25	175.9	1.230
00378	450.0 – 451.5	13-01-24	18.3	6.26	174.5	1.228
00379	462.0 – 463.5	13-01-24	15.0	6.17	177.5	1.229
00380	474.0 – 475.5	12-01-24	15.2	6.17	170.3	1.228
00382	486.0 – 487.5	11-01-24	16.1	6.20	173.0	1.228
00384	498.0 – 503.0	11-01-24	14.5	6.14	174.5	1.226
00385	510.0 – 511.5	20-01-24	20.7	6.30	178.8	1.226
00386	534.0 – 535.5	19-01-24	14.1	6.31	180.5	1.228
00388	546.0 – 551.0	18-01-24	13.3	6.08	183.7	1.227
00389	561.0 – 562.5	23-01-24	13.7	5.78	177.8	1.232
00390	573.0 – 574.5	23-01-24	22.4	5.90	187.2	1.226

a: Temperature, in °C
b: Electrical conductivity, in milliSiemens per centimeter
c: Density, in milligrams per milliliters
d: No field parameters measured

Table 10-23 is a summary table for the laboratory results from brine samples obtained.

Table 10-23: Summary of Laboratory Chemical Results. Brine Samples from Borehole DDH-RG23-005

Sample ID	Date	Interval (m, bls)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00337	22-11-23	22.6 – 24.1	Brine	355	5,432	6,833	281
00338			Duplicate 337	356	5,378	6,843	279
00339	22-11-23	34.6 – 36.1	Brine	391	5,753	7,195	301
00340			Standard E-3003	689	1,461	5,791	493
00341	22-11-23	46.6 – 48.1	Brine	384	5,600	7,027	296
00342			Blank	<1	22	3	<1
00343	19-11-23	118.6 – 123.6	Brine	375	5,611	7,083	293
00344			Duplicate 343	367	5,454	6,962	287
00345			Blank	<1	23	<1	<1
00346	17-12-23	70.6 – 72.1	Brine	401	6,076	7,550	322
00347	16-11-23	94.6 – 96.1	Brine	373	5,631	7,075	289
00348	04-12-23	130.6 – 132.1	Brine	435	6,273	8,439	374
00349			Duplicate 348	426	6,303	8,093	351
00350	04-12-23	142.6 – 144.1	Brine	465	6,780	8,928	408
00351	03-12-23	154.6 – 156.1	Brine	493	7,146	9,284	412
00352	03-12-23	166.6 – 168.1	Brine	471	7,277	8,955	398
00353			Standard E-3003	675	1,453	5,808	502
00354	02-12-23	178.6 – 180.1	Brine	504	7,456	9,079	438
00355	01-12-23	190.6 – 192.1	Brine	468	6,891	8,791	398
00356	30-11-23	202.6 – 204.1	Brine	607	9,363	10,813	527
00357			Blank	<1	23	3	<1
00358	30-11-23	214.6 – 216.1	Brine	433	6,497	8,188	351
00359	28-11-23	226.6 – 228.1	Brine	416	6,150	7,844	317
00360	14-12-23	253.6 – 255.1	Brine	546	8,537	9,762	465
00361			Duplicate 360	550	8,540	9,891	474
00362	14-12-23	265.6 – 267.1	Brine	547	8,657	9,894	473
00363	13-12-23	277.6 – 279.1	Brine	549	8,559	9,890	468
00364	13-12-23	289.6 – 291.1	Brine	551	8,692	9,913	465
00365			Standard A-3002	107	1,202	2,675	497
00366	16-12-23	337.6 – 339.1	Brine	494	7,469	8,930	418
00367	15-12-23	361.6 – 363.1	Brine	496	7,593	8,911	420
00368	15-12-23	397.6 – 402.6	Brine	500	7,736	8,955	422
00369			Blank	3	<1	<0.3	<1
00372			Standard A-3002	105	1,175	2,703	497
00373	15-01-24	414.0 – 415.5	Brine	486	7,382	8,701	406
00374	14-01-24	426.0 – 427.5	Brine	486	7,318	8,722	402
00375			Duplicate 374	481	7,125	8,695	399
00376	14-01-24	438.0 – 439.5	Brine	482	7,385	8,637	399
00377			Blank	2	<1	<0.3	<1
00378	13-01-24	450.0 – 451.5	Brine	487	7,280	8,707	399
00379	13-01-24	462.0 – 463.5	Brine	489	7,217	8,735	399
00380	12-01-24	474.0 – 475.5	Brine	487	7,226	8,739	401

Sample ID	Date	Interval (m, bls)	Type	Li mg/L	Mg mg/L	K mg/L	B mg/L
00381			Standard E-3003	686	1,471	5,783	486
00382	11-01-24	486.0 – 487.5	Brine	452	6,725	8,043	381
00383			Duplicate 382	478	6,708	8,509	390
00384	11-01-24	498.0 – 503.0	Brine	467	6,750	8,310	384
00385	20-01-24	510.0 – 511.5	Brine	466	6,882	8,356	384
00386	19-01-24	534.0 – 535.5	Brine	479	6,931	8,511	391
00387			Blank	<1	21	2	<1
00388	18-01-24	546.0 – 551.0	Brine	462	6,659	8,215	377
00389	23-01-24	561.0 – 562.5	Brine	459	6,644	8,161	375
00390	23-01-24	573.0 – 574.5	Brine	463	6,785	8,297	376
00391			Duplicate 390	458	6,716	8,181	376

Note: All samples analyzed at Alex Stewart Laboratories

10.5.2 Porosity Sampling for DDH-RG23-005

Core were collected and described by NOA personnel. 30 core samples were collected for total and drainable porosity analyses. For each sample, 12 to 20 cm of unaltered core was selected and stored in a plastic tube with the same diameter as the core and was subsequently labeled and sealed. Table 10-24 summarizes depth intervals of the samples obtained for analysis. For this well, core samples were analyzed in LCV laboratories, in Buenos Aires, Argentina.

Table 10-24: Core Samples Obtained for Porosity Analysis from DDH-RG23-005

Sample ID	Interval (m, bls)		Total porosity	Specific yield	General lithology
	From	To			
00801	20.88	21.03	0.37	0.26	Loose to friable black sand
00802	40.75	40.87	0.04	0.03	Compact and crystalline halite
00803	56.70	56.85	0.21	0.03	Crystalline halite
00804	81.42	81.60	0.24	0.04	Fine to medium sand with halite
00805	98.92	99.07	0.40	0.17	Brownish black medium to fine sand
00806	117.10	117.24	0.34	0.09	Olive black medium to fine sand
00807	140.12	140.26	0.32	0.11	Yellowish brown medium to fine sand
00808	160.12	160.25	0.14	0.03	Crystalline halite with sand
00809	179.26	179.44	0.38	0.15	Yellowish brown semi-consolidated sand
00810	198.94	199.12	0.17	0.03	Altered volcanoclastic rock
00811	220.41	220.56	0.22	0.08	Altered volcanoclastic rock
00812	239.28	239.44	0.22	0.06	Altered volcanoclastic rock
00813	259.05	259.20	0.22	0.08	Semi-consolidated conglomerate
00814	280.24	280.41	0.45	0.33	Yellowish brown sand
00815	298.98	299.10	0.25	0.07	Yellowish brown semi-consolidated sand
00816	319.53	319.73	0.28	0.10	Yellowish brown semi-consolidated sand
00817	339.30	339.50	0.29	0.18	Yellowish brown semi-consolidated sand
00818	359.28	359.46	0.13	0.10	Grayish black semi-consolidated sand
00819	380.82	381.00	0.11	0.01	Dark gray consolidated sand
00827	400.40	400.60	0.21	0.05	Pale brown consolidated sand
00828	420.00	420.20	---	---	Sample not analyzable
00829	440.17	440.35	0.20	0.03	Dark gray consolidated sand
00830	459.22	459.39	0.30	0.03	Olive gray semi-consolidated sand
00831	480.58	480.76	0.16	0.04	Grayish black semi-consolidated sand

Sample ID	Interval (m, bls)		Total porosity	Specific yield	General lithology
	From	To			
00832	501.22	501.39	0.22	0.05	Gray consolidated medium to fine sand
00833	519.82	520.00	0.26	0.03	Gray consolidated medium to fine sand
00834	539.85	540.00	0.27	0.02	Gray consolidated medium to fine sand
00835	559.64	559.76	0.15	0.02	Gray consolidated medium to fine sand
00836	579.45	579.61	0.13	0.02	Gray consolidated medium to fine sand
00837	600.10	600.27	0.28	0.04	Brownish gray consolidated medium to fine sand

10.5.3 Conclusions for DDH-RG23-005

The lithology at this location is composed mostly of clastic sediments (sand) with layers of clay and halite. Gypsum and other sulphates are encountered in the upper part of the well. Lithium concentration varies from 355 to 607, having the higher concentrations below 140 m. Reported total porosity varies from 4% to 45%. Reported drainable porosity (specific yield) varies from 1% to 30%; high values are mostly within the first 360 m depth; from 360 m depth to the bottom sample at 603 m depth, drainable porosity values are below 5%.

10.6 Assignment of Hydrogeologic Units

Based current drilling program results, including all the different type of collected information (lithologic percentual distribution, brine chemistry samples (density, and potassium and lithium concentration), drainable porosity samples, and downhole geophysics), VES geophysical, we have tentatively identified six hydrogeologic units:

- Hydrogeological Unit 1: Clay and silt
- Hydrogeological Unit 2: Sandy silt and silty sand
- Hydrogeological Unit 3: Sand, silty sand
- Hydrogeological Unit 4: Silty gravel, clayey gravel
- Hydrogeological Unit 5: Gravel, conglomerates, breccia
- Hydrogeological Unit 6: Evaporites, mostly halite

11. Sample Preparation, Analyses and Security

The following section applies to the 2022 surface sampling program and 2023/2024 drilling exploration program for NOA, and not necessarily to the previous exploration drilling and testing programs conducted by others.

11.1 Sampling Methodology

During the 2022 surface sampling program, samples were obtained manually from shallow hand-dug pits, trenches, and shallow boreholes, located within the concessions. A total of four brine samples (no duplicate samples were obtained) were collected by means of plastic bottles and bailers. Samples were poured into clean, 1-liter bottles, sealed, and sent to SGS Laboratory, Salta, Argentina.

Collection of brine samples from the 2023/2024 drilling program included packer and Hydrasleeve methods. Brine chemistry samples were analyzed by SGS Argentina, S.A., Alex Stewart and Induser, Argentina. The Alex Stewart and SGS Laboratories are accredited to ISO 9001 and all the laboratories operate according to standards consistent with ISO 17025 methods at other laboratories. Selected duplicate samples were obtained by M&A.

Porosity analyses were conducted by GeoSystems Analysis, Inc. (GSA) of Tucson, Arizona for wells DDH-RG23-001 and DDH-RG23-002 and by LCV Laboratories (LCV) in Buenos Aires, Argentina for wells DDH-RG23-003, DDH-RG23-004 and DDH-RG23-005. Both laboratories provide analysis and interpretation of core samples from rock and have demonstrated that their quality management system is in compliance with ISO 9001:2015 Certificate of Registration. Selected representative samples were submitted for laboratory

11.2 Sample Preparation

Brine samples used to understand the 3-dimensional chemical distribution of lithium in the basin included the following sources:

- Depth-specific packer sampling during drilling
- Brine samples obtained with Hydrasleeve bailer after the well was cased

In addition to brine samples, core samples were also obtained during the program and submitted for total and drainable porosity testing. Preliminary analytical results of drainable porosity samples are also shown on schematic diagrams (Figure 10-2 to Figure 10-6).

Neither chemistry samples (brine) nor porosity samples (core) were subjected to any further preparation prior to shipment to participating laboratories. After the samples were sealed and labeled on site, they were stored in a cool location, then shipped in sealed containers to the laboratories for analysis.

11.2.1 Brine Samples from the Depth-Specific packer Sampling

Brine samples obtained during the 2023/2024 drilling program were obtained from depth-specific packer sampling during core drilling. Packer samples were obtained during drilling, and sometimes after drilling was completed. Samples were considered acceptable, and representative of the interval being sampled when minimal to no traces of drilling mud from the corehole were observed in the sample obtained from the packer. Packer samples were sent, depending on each case, to: SGS Laboratory, Alex Stewart Laboratory, or/and Induser Laboratory.

11.2.2 Brine Samples from Hydrasleeve bailer

Brine samples were obtained from well DDH-RG23-001 after PVC was installed and the well has no traces of drilling mud. Samples were obtained at specific depths and were considered acceptable. The samples were sent to SGS in sealed 500-millimeter plastic bottles with sample numbers clearly identified. Field parameters were recorded on internal field sheets.

11.2.3 Drainable Porosity Sampling Methodology

Porosity samples were collected from intact HQ and NQ core. After core retrieval using a wireline system, the core was inspected, and seemingly undisturbed samples were selected for porosity analysis. Full diameter core with no visible fractures was selected and submitted for laboratory analyses. The selected sleeved core samples were capped with plastic caps, sealed with tape, weighted, and stored from shipment. Typical length of samples is 15 to 25 centimeters (cm). Porosity samples were shipped to GSA and LCV Laboratories.

11.3 Brine Analysis

Brine analysis described along this section include the following aspects/stages:

- Analytical Quality Assurance and Quality Control (QA/QC)
- Field Blanks
- Standard Sampling
- Laboratory Check Samples
- Duplicate Brine Samples
- Conclusions and Recommendations.

11.3.1 Analytical Quality Assurance and Quality Control (QA/QC)

The QA/QC documented here addresses brine samples collected during the 2023 and 2024 drilling program for NOA, and its conclusions can be extended to the 2022 sampling as these samples were sent to SGS, considered here as the main laboratory.

Part of the duplicate samples were used for QA/QC procedures, and the remaining duplicate samples properly stored for future reference. The quality control program included random insertion of field blanks, duplicates, and standard, and different laboratories checking. About 72 percent of the samples sent to SGS laboratory analyses were quality control samples. The data was compiled by NOA staff for confirmation of the accuracy and precision of the analysis and reviewed by M&A.

11.3.2 Field Blanks

To date, a total of 58 blank samples consisting of drinking water have been submitted to the laboratories for chemical analyses. A total of 29 samples were submitted to SGS, 24 samples to Alex Stewart, and five samples to Induser laboratory. Except for sample 00170 in well DDH-RG23-001 showing a high lithium concentration of 23 mg/L, samples showed lithium values below the quantification limit (10 mg/L in SGS laboratory, 1 mg/L in Alex Stewart and Induser laboratories). Most components were not detected, and for those constituents detected, quantities very close to the quantification limits were reported.

11.3.3 Standard Sampling

Three types of standards were used in the 2023/2024 drilling program. All the standards consisted of a synthetic standard that was commissioned by Alex Stewart laboratories. The values for the synthetic samples are reported in Table 11-1.

Table 11-1: Synthetic Standard Chemical Analysis

STANDARD	SO_4 (mg/L)	Cl (mg/l)	B (mg/L)	Ca (mg/L)	K (mg/L)	Li (mg/L)	Mg (mg/L)	Sr (mg/L)	Na (mg/L)
A-3002	8,500	153,703	500	500	2,500	100	1,200	18	100,000
C-3001	9,200	169,936	500	500	3,000	400	1,500	13	110,000
E-3003	11,000	171,328	500	550	6,000	700	1,500	13	110,000

Source: Geoanalytic (2023)

In total, 56 samples were sent to the laboratories. From the total of samples submitted, 22 of them were analyzed by SGS Laboratory, 23 by Alex Stewart Laboratory, and 11 by Induser Laboratory. Table 11-2 provides results for standard solution for standard solution A-3002, Table 11-3 for standard solution C-3001, and Table 11-4 for standard solution E-3003

The comparison of the reported lithium values with the certified standard solution of Alex Stewart (Li 100 mg/L) indicates an error of 4.7% for SGS Laboratory and 14.2% for Induser Laboratory. As expected, errors for Alex Stewart Laboratory are the smallest between laboratories (below 10% for all constituents).

Regarding other elements, SGS Laboratory shows errors greater than 10% for calcium (strongly influenced by sample 00090) and potassium; Induser Laboratory shows errors greater than 10% for considerable constituents, and greater than 100% for sulphate.

The comparison of the reported lithium values with the certified standard solution of Alex Stewart (Li 400 mg/L) indicates an error of 12.4% for SGS Laboratory and 7.7% for Induser Laboratory. As expected, errors for Alex Stewart Laboratory are the smallest between laboratories (below 10% for all constituents). Regarding other elements, SGS Laboratory shows an error greater than 10% for sulphate, and greater than 15% for potassium and strontium; Induser Laboratory shows errors greater than 10% for boron, greater than 15% for calcium, potassium and strontium, and greater than 200% for sulphate.

The comparison of the reported lithium values with the certified standard solution of Alex Stewart (Li 700 mg/L) indicates an error of 14.2% for SGS Laboratory and 6.0% for Induser Laboratory. As expected, errors for Alex Stewart Laboratory are the smallest between laboratories (below 3% for all constituents).

Regarding other elements, SGS Laboratory shows an error greater than 15% for strontium; Induser Laboratory shows errors greater than 10% for potassium, greater than 15% for strontium and calcium, and greater than 100% for sulphate.

Table 11-2: Summary of Comparison Laboratory Analyses Against Standard A-3002

ID Sample	LAB	SO4 (mg/L)	Cl (mg/L)	B (mg/L)	Ca (mg/L)	K (mg/L)	Li (mg/L)	Mg (mg/L)	Sr (mg/L)	Na (mg/L)
00042	SGS	9,356	157,054	524	528	2,947	115	1,314	24	107,367
00073	SGS	9,315	157,007	557	513	3,013	128	1,318	21	109,215
00090	SGS	9,183	152,989	536	964	2,848	114	1,368	27	103,161
00143	SGS	9,607	160,069	496	476	3,019	97	1,218	17	93,129
00179	SGS	9,245	164,396	496	497	2,868	89	1,206	16	127,841
00202	SGS	9,434	168,456	506	501	2,919	85	1,213	16	116,224
00220	SGS	9,327	156,312	523	530	2,778	105	1,282	21	100,638
Average		9,352	159,469	520	573	2,913	105	1,274	20	108,225
Median		9,327	157,054	523	513	2,919	105	1,282	19	107,367
Std. deviation		127	4,917	21	161	82	14	58	4	10,431
Error of the average (%)		**10.0**	**3.8**	**3.9**	**14.5**	**16.5**	**4.7**	**6.2**	**9.3**	**8.2**
Error of the median (%)		**9.7**	**2.2**	**4.6**	**2.6**	**16.8**	**5.0**	**6.8**	**5.6**	**7.4**
00083	Alex S.	8,890	152,579	482	496	2,772	102	1,195	18	98,171
00108	Alex S.	8,698	150,196	484	500	2,748	105	1,177	18	97,253
00152	Alex S.	8,698	150,998	486	496	2,660	104	1,200	18	99,157
00192	Alex S.	8,794	151,956	499	504	2,653	111	1,211	18	100,826
00254	Alex S.	8,781	154,350	499	514	2,752	104	1,173	19	98,315
00271	Alex S.	8,973	152,696	485	490	2,652	105	1,169	19	101,600
00284	Alex S.	8,863	151,778	499	493	2,609	107	1,150	17	96,803
00290	Alex S.	9,192	152,080	485	505	2,661	105	1,169	18	102,012
00320	Alex S.	8,643	149,970	490	483	2,631	102	1,174	18	98,947
00365	Alex S.	8,808	151,442	497	482	2,675	107	1,202	18	99,868
00372	Alex S.	8,877	152,207	497	501	2,703	105	1,175	18	98,770
Average		8,838	151,841	491	497	2,683	105	1,181	18	99,247
Median		8,808	151,956	490	496	2,661	105	1,175	18	98,947
Std. deviation		145	1,162	7	9	51	2	17	0	1,606
Error of the average (%)		**4.0**	**-1.2**	**-1.8**	**-0.7**	**7.3**	**5.2**	**-1.6**	**1.1**	**-0.8**
Error of the median (%)		**3.6**	**-1.1**	**-2.0**	**-0.8**	**6.4**	**5.0**	**-2.1**	**1.1**	**-1.1**
00065	Induser	21,400	137,450	509	248	2,320	108	1,044	22	94,300
00118	Induser	28,600	163,400	430	400	5,114	87	1,160	19	108,800
00161	Induser	15,180	146,610	397	427	2,269	74	1,112	<10	102,500
00196	Induser	15,980	153,700	374	403	2,068	74	942	<10	109,500
Average		20,290	150,290	428	370	2,943	86	1,065	21	103,775
Median		18,690	150,155	414	402	2,295	81	1,078	21	105,650
Std. deviation		5,361	9,512	51	71	1,257	14	82	2	6,112
Error of the average (%)		**138.7**	**-2.2**	**-14.5**	**-26.1**	**17.7**	**-14.2**	**-11.3**	**13.9**	**3.8**
Error of the median (%)		**119.9**	**-2.3**	**-17.3**	**-19.7**	**-8.2**	**-19.5**	**-10.2**	**13.9**	**5.7**

Notes:
Errors are relative to the standard values shown on Table 11-1.
Alex S. = Alex Stewart Laboratory

Table 11-3: Summary of Comparison Laboratory Analyses Against Standard C-3001

ID Sample	LAB	SO4 (mg/L)	Cl (mg/L)	B (mg/L)	Ca (mg/L)	K (mg/L)	Li (mg/L)	Mg (mg/L)	Sr (mg/L)	Na (mg/L)
00048	SGS	9,936	171,664	524	534	3,543	455	1,670	21	120,330
00079	SGS	10,718	171,752	549	549	3,565	436	1,669	17	122,089
00094	SGS	10,092	171,736	523	507	3,377	430	1,620	21	113,544
00146	SGS	10,372	175,392	511	491	3,766	457	1,566	14	105,303
00181	SGS	9,952	182,720	519	546	3,662	484	1,672	14	105,081
00183	SGS	9,915	174,640	523	559	3,709	484	1,693	15	105,441
00204	SGS	10,129	178,381	462	465	3,191	398	1,464	13	91,154
00239	SGS	10,500	170,521	521	508	3,327	453	1,592	15	108,949
Average		10,202	174,601	517	520	3,518	450	1,618	16	108,986
Median		10,111	173,196	522	521	3,554	454	1,645	15	107,195
Std. deviation		278	3,912	23	30	189	27	72	3	9,223
Error of the average (%)		**10.9**	**2.7**	**3.3**	**4.0**	**17.3**	**12.4**	**7.9**	**25.0**	**-0.9**
Error of the median (%)		**9.9**	**1.9**	**4.4**	**4.2**	**18.5**	**13.5**	**9.6**	**15.4**	**-2.6**
00052	Alex S.	9,782	169,651	489	507	3,262	399	1,498	15	108,325
00110	Alex S.	9,521	166,041	492	503	3,187	394	1,482	14	107,514
00156	Alex S.	9,425	168,549	493	500	3,178	399	1,510	14	108,836
00258	Alex S.	9,851	171,303	496	513	3,190	413	1,460	14	107,596
00279	Alex S.	9,755	170,319	491	505	3,125	403	1,427	14	109,619
00312	Alex S.	9,851	169,884	503	509	3,220	409	1,456	14	106,534
00334	Alex S.	9,178	163,960	483	485	3,110	383	1,448	13	104,219
Average		9,623	168,530	492	503	3,182	400	1,469	14	107,520
Median		9,755	169,651	492	505	3,187	399	1,460	14	107,596
Std. deviation		237	2,422	6	8	48	9	27	1	1,633
Error of the average (%)		**4.6**	**-0.8**	**-1.5**	**0.6**	**6.1**	**0.0**	**-2.1**	**6.8**	**-2.3**
Error of the median (%)		**6.0**	**-0.2**	**-1.6**	**1.0**	**6.2**	**-0.3**	**-2.7**	**7.7**	**-2.2**
00066	Induser	32,540	151,130	521	344	2,880	474	1,367	19	105,600
00120	Induser	42,160	182,400	424	393	5,860	338	1,420	15	118,200
00163	Induser	30,400	166,840	425	454	2,894	333	1,473	<10	118,800
00219	Induser	9,472	179,200	390	406	2,619	332	1,221	<10	106,500
Average		28,643	169,893	440	399	3,563	369	1,370	17	112,275
Median		31,470	173,020	425	400	2,887	336	1,394	17	112,350
Std. deviation		11,922	12,292	49	39	1,331	61	94	2	6,237
Error of the average (%)		**211.3**	**0.0**	**-12.0**	**-20.2**	**18.8**	**-7.7**	**-8.7**	**30.8**	**2.1**
Error of the median (%)		**242.1**	**1.8**	**-15.1**	**-20.1**	**-3.8**	**-16.1**	**-7.1**	**30.8**	**2.1**

Notes:
Errors are relative to the standard values shown on Table 11-1.
Alex S. = Alex Stewart Laboratory

Table 11-4: Summary of Comparison Laboratory Analyses Against Standard E-3003

ID Sample	LAB	SO_4 (mg/L)	Cl (mg/L)	B (mg/L)	Ca (mg/L)	K (mg/L)	Li (mg/L)	Mg (mg/L)	Sr (mg/L)	Na (mg/L)
00022	SGS	11,998	171,793	510	630	6,204	818	1,338	<10	111,021
00061	SGS	12,200	171,999	529	584	6,516	783	1,651	19	114,884
00098	SGS	11,718	169,811	526	564	6,366	761	1,648	19	113,085
00150	SGS	11,994	170,101	480	510	6,778	758	1,473	11	97,322
00173*	SGS	11,821	171,504	496	538	6,855	841	1,585	14	101,436
00206	SGS	12,196	173,554	474	503	6,317	749	1,477	13	91,786
00252	SGS	12,068	172,938	529	548	6,651	885	1,606	15	109,016
Average		11,999	171,671	506	554	6,527	799	1,540	15	105,507
Median		11,998	171,793	510	548	6,516	783	1,585	15	109,016
Std. deviation		167	1,266	22	41	227	47	107	3	8,106
Error of the average (%)		**9.1**	**0.2**	**1.3**	**0.7**	**8.8**	**14.2**	**2.6**	**16.7**	**-4.1**
Error of the median (%)		**9.1**	**0.3**	**2.0**	**-0.4**	**8.6**	**11.9**	**5.7**	**11.5**	**-0.9**
00032	Alex S.	11,264	168,334	486	543	5,866	678	1,468	13	108,558
00112	Alex S.	11,236	168,312	483	541	5,808	681	1,441	12	107,227
00158	Alex S.	11,099	165,066	482	544	5,903	689	1,485	12	106,259
00215	Alex S.	11,373	166,806	497	540	5,828	709	1,494	13	108,929
00261	Alex S.	11,373	169,144	498	555	5,812	706	1,461	13	110,134
00277	Alex S.	11,428	167,543	494	536	5,698	692	1,427	13.8	109,238
00301	Alex S.	11,483	167,853	494	541	5,859	693	1,443	13.6	107,090
00340	Alex S.	11,209	167,053	493	541	5,791	689	1,461	13	110,352
00353	Alex S.	11,195	164,418	502	549	5,808	675	1,453	12.8	108,192
00381	Alex S.	11,415	169,742	486	546	5,783	686	1,471	12.8	108,091
Average		11,308	167,427	492	544	5,816	690	1,460	13	108,407
Median		11,319	167,698	494	542	5,810	689	1,461	13	108,375
Std. deviation		118	1589	6	5	53	10	19	0	1251
Error of the average (%)		**2.8**	**-2.3**	**-1.7**	**-1.2**	**-3.1**	**-1.5**	**-2.6**	**-0.2**	**-1.4**
Error of the median (%)		**2.9**	**-2.1**	**-1.3**	**-1.5**	**-3.2**	**-1.6**	**-2.6**	**-1.2**	**-1.5**
00067	Induser	37,940	147,320	531	409	5,410	824	1,340	18	101,300
00122	Induser	45,400	180,500	404	411	9,360	556	1,330	13	117,100
00167	Induser	14,780	172,780	434	504	5,806	594	1,507	<10	100,100
Average		32,707	166,867	456	441	6,859	658	1,392	16	106,167
Median		30,090	176,640	419	458	7,583	575	1,419	13	108,600
Std. deviation		13,037	14,176	54	44	1,776	118	81	2.3	7,747
Error of the average (%)		**197.3**	**-2.6**	**-8.7**	**-19.8**	**14.3**	**-6.0**	**-7.2**	**19.2**	**-3.5**
Error of the median (%)		**173.5**	**3.1**	**-16.2**	**-16.8**	**26.4**	**-17.9**	**-5.4**	**1.5**	**-1.3**

Notes: Errors are relative to the standard values shown on Table 11-1; Alex S. = Alex Stewart Laboratory *Sample 00173 corresponds to a batch of samples taken using hydrasleeve method

11.3.4 Laboratory Check Samples

Samples were randomly selected and split for analysis in three different laboratories.

Duplicate samples sent to more than one laboratory were included in this analysis, regardless of whether they were originally labeled as duplicates or check. 21 samples originally analyzed by SGS were also analyzed by Alex Stewart Laboratory in Jujuy, Argentina (and a single sample in the opposite case), and 16 samples were analyzed by Induser Laboratory. In the cases where a sample originally analyzed by SGS was then analyzed twice in a different laboratory, the second sample was considered an internal duplicate (duplicate analysis in the next section). These checking procedures exclude samples from wells DDH-RG23-004 and DDH-RG23-005 as they were sent only to Alex Stewart Laboratory by the date of this analysis. Laboratory results for lithium, potassium, magnesium and sulphate on Figure 11-1, Figure 11-2, Figure 11-3 and Figure 11-4.

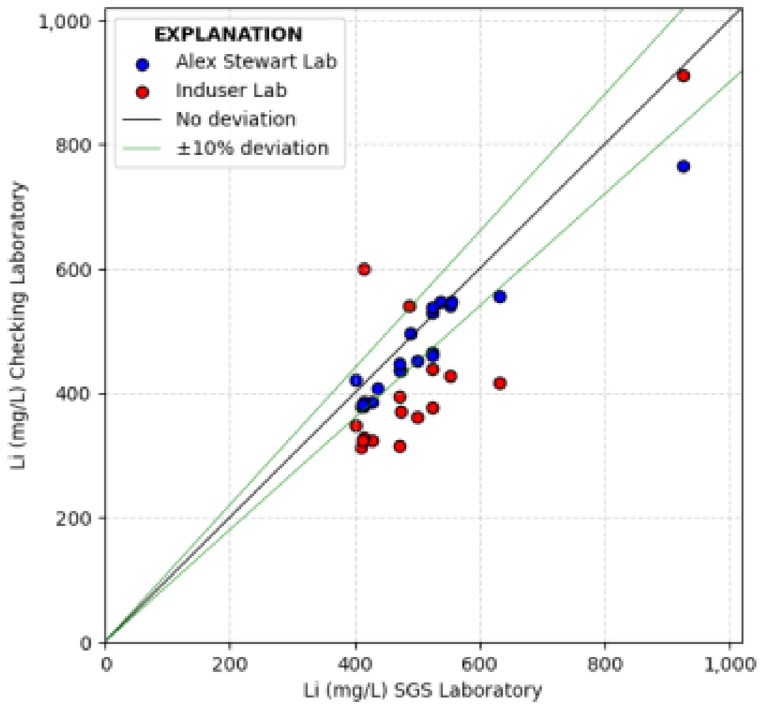


Figure 11-1: Check Sample Graph for Lithium

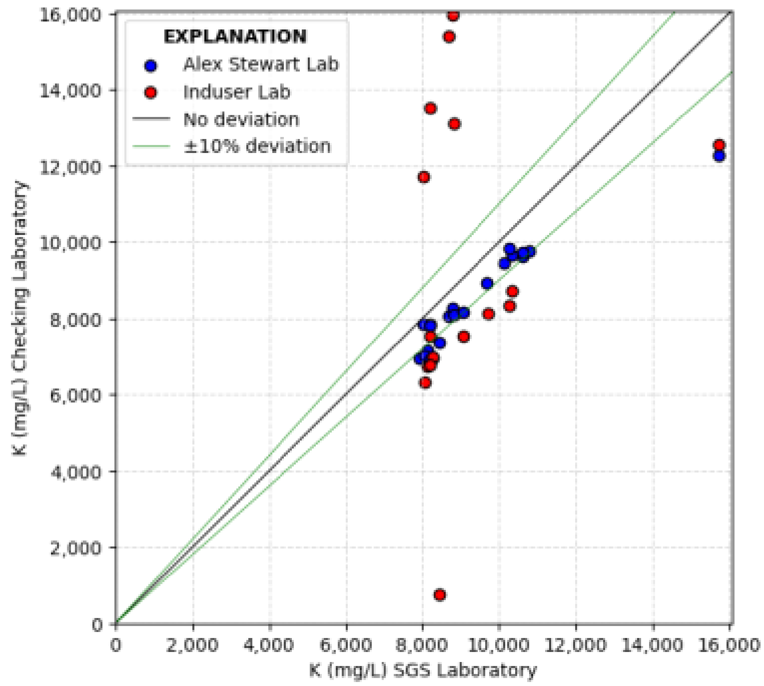


Figure 11-2: Check Sample Graph for Potassium

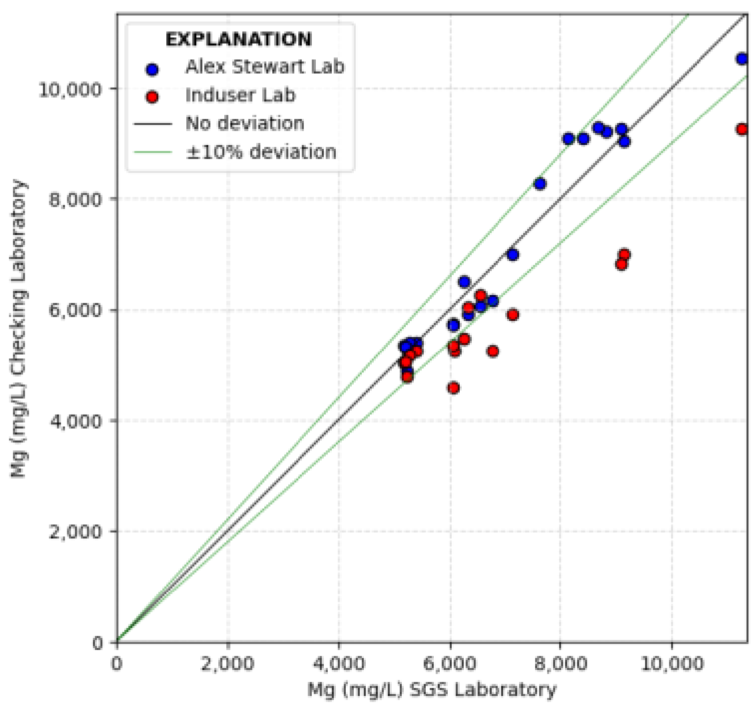


Figure 11-3: Check Sample Graph for Magnesium

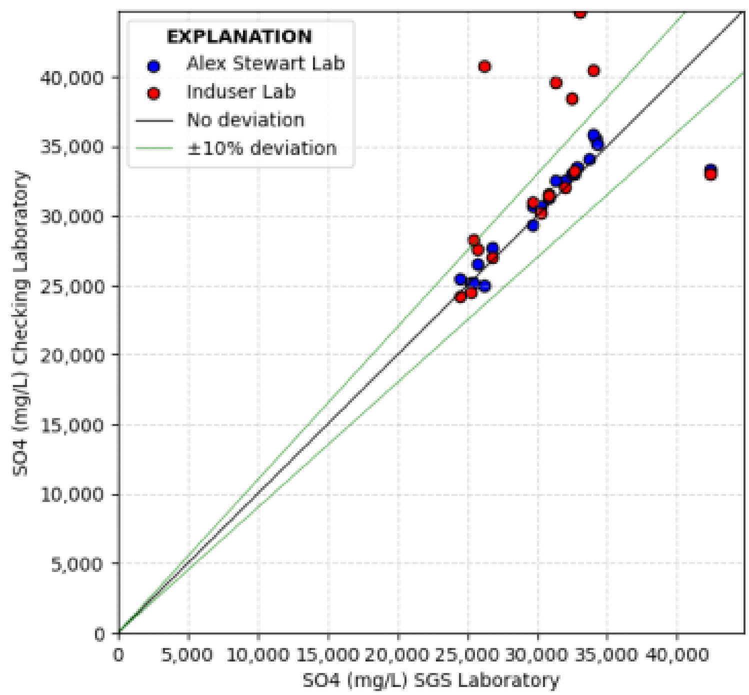


Figure 11-4: Check Sample Graph for Sulphate

When plotting the results, it is observed that practically all the samples analyzed in Alex Stewart Laboratory were reported within a 20% difference from SGS laboratories. At this stage of the Rio Grande Project, we consider this to be acceptable for these samples. In the case of the samples analyzed in Induser Laboratory, for lithium and potassium practically the totality of the samples is outside of the range of 20%, for magnesium almost half of them are outside the range, and for sulphate almost a third of the samples are outside the range. In our opinion, Induser Laboratory results are not considered to be consistently reliable.

11.3.5 Duplicate Brine Samples

Duplicate brine samples were submitted to the same laboratory to confirm laboratory repeatability. To date, a total of 57 samples were submitted during the current drilling program; 25 samples and their duplicates were submitted to SGS, 30 samples were duplicated for Alex Stewart laboratory, and two samples were duplicated for Induser Laboratory. This analysis excludes samples already considered in the laboratory check analysis. Comparison of the results for lithium, potassium, magnesium and sulphate are shown graphically on Figure 11-5, Figure 11-6, Figure 11-7 and Figure 11-8. Lines of no-deviation and ±10% deviation are plotted with the data points; as different laboratories deviation-lines show negligible differences, the plotted lines are useful for the three laboratories.

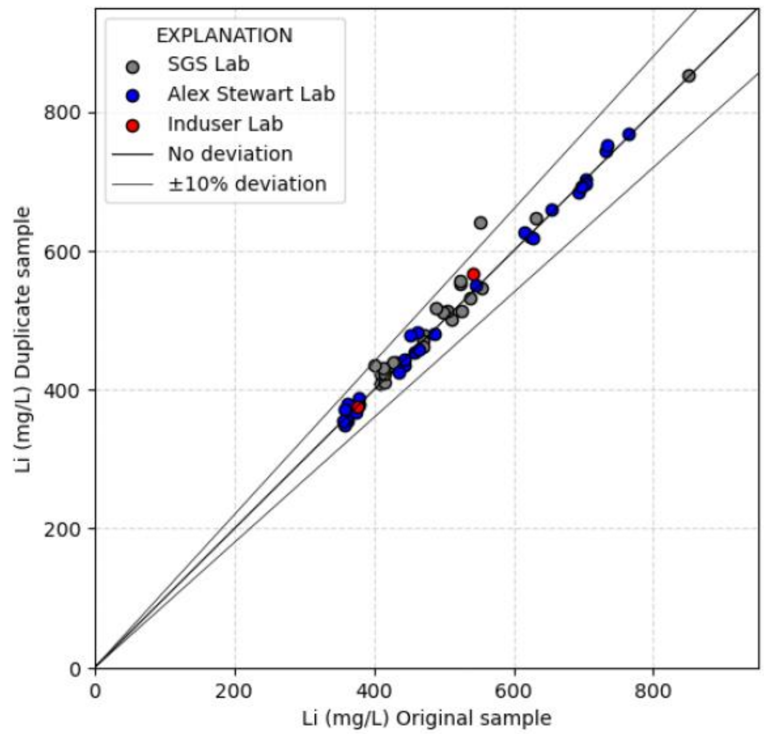


Figure 11-5: Sample Duplicate Analyses for Lithium

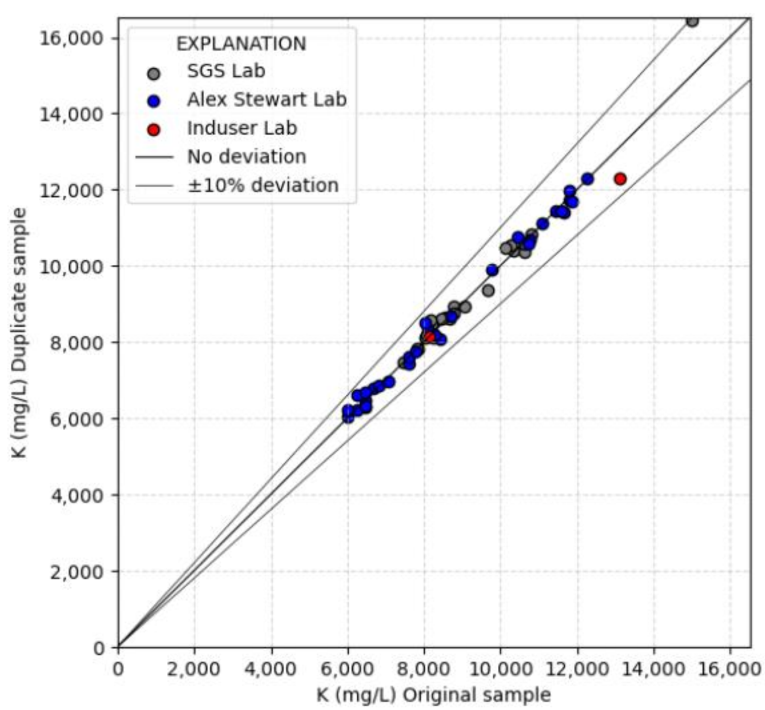


Figure 11-6: Sample Duplicate Analyses for Potassium

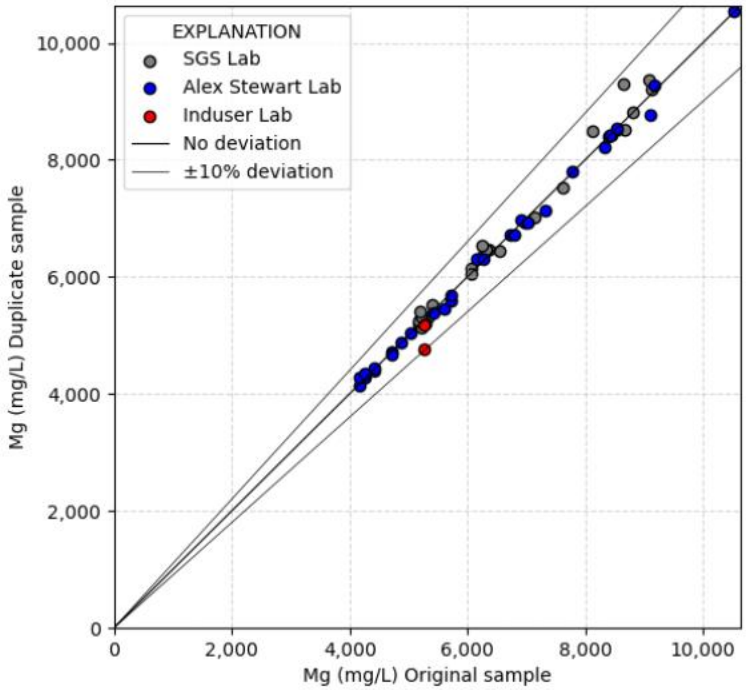


Figure 11-7: Sample Duplicate Analyses for Magnesium

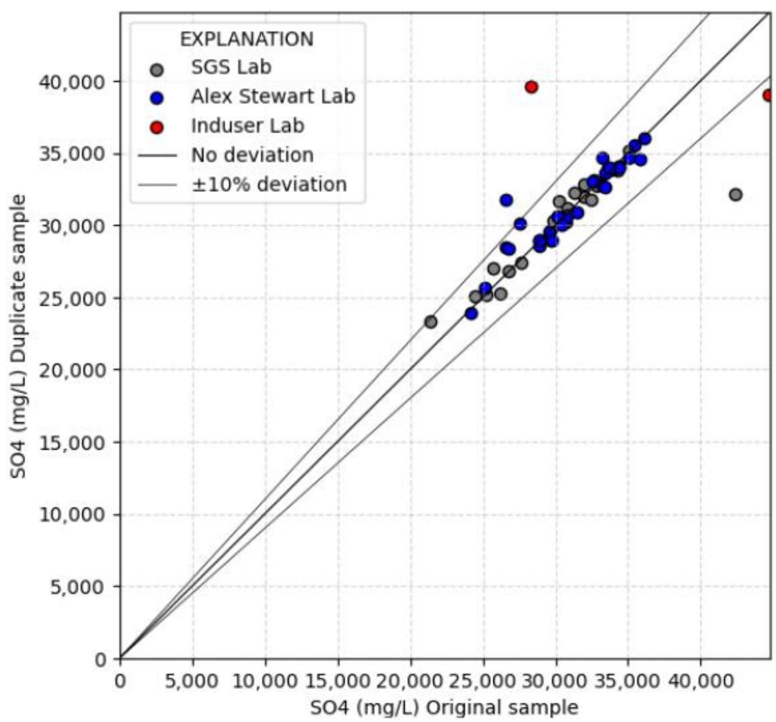


Figure 11-8: Sample Duplicate Analyses for Sulphate

Results from the duplicate samples confirm that the samples are being analyzed similarly, and that the only notable difference between the results occurs in sulphate, where two samples of Induser laboratory are outside the range of deviation.

11.3.6 Brine Analysis Conclusions and Recommendations

The field sampling of brines from the drilling program was done in accordance with generally accepted industry standards. The quality control based upon the insertion of standards, field blank and field duplicates indicate that the analytical data in cases of SGS and Alex Stewart laboratories are accurate, and the samples being analyzed are representative of the brine chemistry within the aquifer. It is the opinion of M&A that laboratory results of Induser are not considered sufficiently reliable to be used for resource estimation.

SGS has been the main laboratory in case of wells DDH-RG23-001, 002 and 003, showing consistent results compared to Alex Stewart for checked samples. In order to consider a single result for representing the brine chemistry in a particular well elevation, just SGS Laboratory results are proposed to be used for resources estimates in those wells. On the other hand, the main laboratory used for wells DDH-RG23-004 and DDH-RG23-005 samples has been Alex Stewart, whose results are proposed to be used for representing brine chemistry when estimating resources related to those wells.

It is the opinion of the QP, that the information developed in the field operations for all stages of work at Rio Grande Project is adequate, accurate and reliable.

11.4 Drainable Porosity Analysis

Laboratory analytical procedure for drainable porosity by centrifuge as described by GSA consisted of the following steps:

1. Undisturbed cores are prepared and fit into the HQ brass liners at 1-inch length soil cores are carefully trimmed to the same height as the liners.

2. Pre-wetted micro pore membrane (rated 600 mbar air entry) is placed onto the bottom PVC cap. A bottom gasket is then placed on top of the membrane.

3. The sample with the 1-inch brass liner is then assembled and scaled air-tight with the gasket and hardware between both PVC caps.

4. The core assembly is saturated with a prepared brine solution or the same of the Project and a vacuum is applied from the top of the core to assist the saturation.

Drainable porosity is given as a fraction of the total rock volume and it is unitless. For example, if a rock has a volume of 100 milliliters and 10 milliliters of fluid can drain from the rock, the drainable porosity is 10/100, or 0.10. Although determined by laboratory methods, the drainable porosity is essentially the same as specific yield as defined in classical aquifer mechanics. Porosity analyses were conducted by GeoSystems Analysis, Inc. (GSA) of Tucson, Arizona for wells DDH-RG23-001 and DDH-RG23-002 and by LCV Laboratories (LCV) in Buenos Aires, Argentina for wells DDH-RG23-003, DDH-RG23-004 and DDH-RG23-005.

11.5 Sample Security

All samples were labeled with permanent marker, sealed with tape and stored at a secure site, both in the field, and in Salta. All field samples obtained were stored in the M&A offices in Salta pending submittal to a laboratory.

11.6 QA/QC Conclusions and Recommendations

In the opinion of the QP, sample preparation, security, and analytical procedures were adequate and adhere to best industry practice.

Based on the QA/QC analyses, brine sample results from Induser Laboratory are not considered reliable for resource estimation. Brine samples from SGS Laboratory and Alex Stewart showed adequate consistency in representing the brine chemistry. SGS Laboratory results are proposed to be used for resources estimates in wells DDH-RG23-001, 002 and 003, and Alex Stewart results in wells DDH-RG23-004 and DDH-RG23-005.

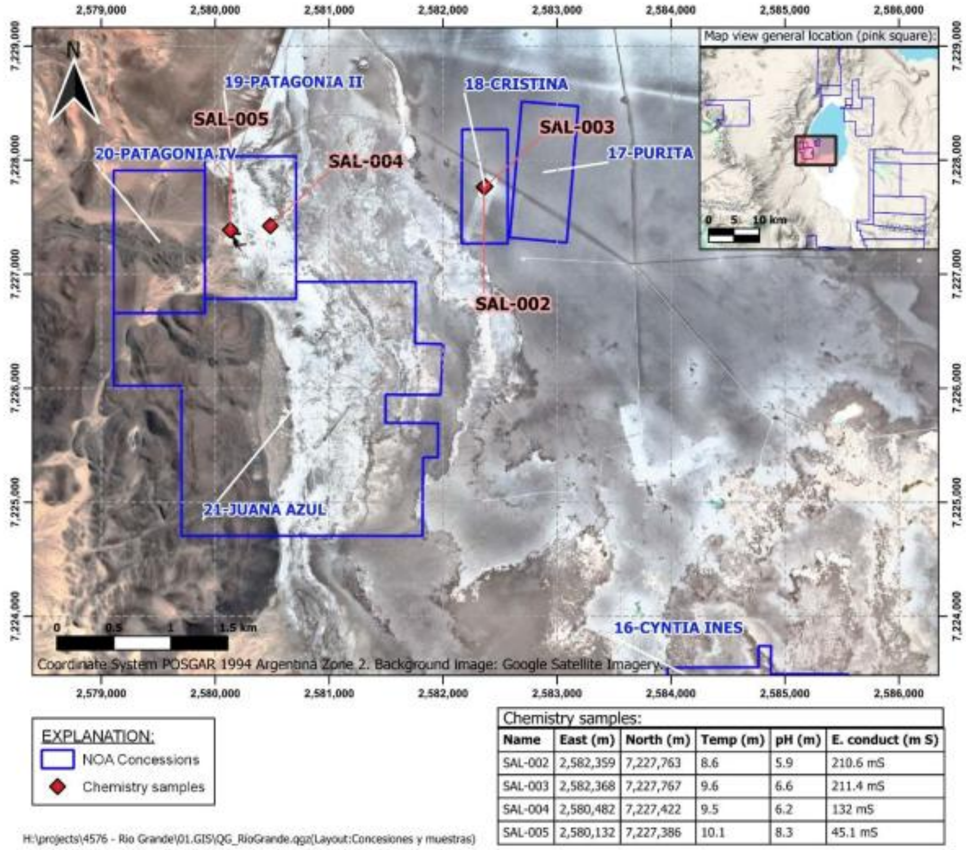
12. Data Verification

As part of the due diligence process, the QP visited the Project site on April 8, 2022. The M&A QP was accompanied by M&A senior geologist Jose Ferretti. The purpose of the site inspection was to obtain independent near-surface brine samples to obtain initial chemistry for the Project concessions. Locations for the samples are shown on Figure 12-1. A summary of the sample locations and field parameters is given in Table 12-1.

Table 12-1: Sample Location Coordinates and Field Parameters

SAMPLE ID	SAMPLES COORDINATES		TEMPERATURE (°C)2	pH	ELECTRICAL CONDUCTIVITY (mS)3	OBSERVATIONS
	UTM Easting1 (meters, POSGAR 94)	UTM Northing1 (meters, POSGAR 94)				
SAL-002	2,582,359	7,227,763	8.6	5.9	210.6	Halite 0.7m depth. Muddy water. New hole in massive halite
SAL-003	2,582,368	7,227,767	9.6	6.6	211.4	Halite 1.5 m depth; Very clear water. Older existing hole
SAL-004	2,580,482	7,227,422	9.5	6.2	132	Sandy silt. Depth 0.6m. Muddy water. New auger hole
SAL-005	2,580,132	7,227,386	10.1	8.3	45.1	Surface water. Clear water

[1] UTM Easting and Northing from handheld portable GPS.
[2] °C = Celsius degrees
[3] mS = milliSiemens



Chemistry samples:

Name	East (m)	North (m)	Temp (m)	pH (m)	E. conduct (m S)
SAL-002	2,582,359	7,227,763	8.6	5.9	210.6 mS
SAL-003	2,582,368	7,227,767	9.6	6.6	211.4 mS
SAL-004	2,580,482	7,227,422	9.5	6.2	132 mS
SAL-005	2,580,132	7,227,386	10.1	8.3	45.1 mS

Figure 12-1: Location Map of Brine Samples Collected During QP Field Inspection

The logistics of the trip summary and observations are as follows:

- 16:02 M. Rosko and J. Ferretti arrive at the Rio Grande AMINCO camp.
- 16:33 Leave camp with AMINCO geophysicists to obtain brine samples.
- 16:45 Arrive at location in the central part of the salar to obtain samples from a hole dug earlier in the day (Sample SAL-002 – 16:56) and an older, shallow hole (Sample SAL-003 – 17:08). Both samples were brine. Photo 12-1 shows taking sample SAL-003 with a bailer.

Photo 12-1: Obtaining sample SAL-003 using a bailer

- 17:23 Leave central salar concessions and travel to obtain next sample.
- 17:39 Arrive at next sample location. Photo 12-2 shows the AMINCO team augering the hole through silt. Obtain sample SAL-004 – 17:48. Water is brackish.
- 17:56 Leave to obtain next sample of surface water.
- 18:00 Arrive at freshwater trench area. Obtain sample SAL-005 – 18:10. Mostly fresh water.
- 18:22 Leave site for camp.

During sampling activities, a total of four bottles were filled. Samples were sealed, temporary stored, and submitted to SGS Laboratories in Salta, Argentina.

Photo 12-2: Using a Power Auger to Drill Down to Groundwater Level

Laboratory analytical results for the April 8, 2022, independent samples are given below. Inspection of Table 12-2 indicates that the near-surface samples in the center of the salar (samples SAL-002 and SAL-003) are concentrated brine.

Table 12-2: Summary of Laboratory Analysis Results for April 8, 2022 Samples

SAMPLE ID	Time	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)	SO4 (mg/L)	Mg/Li ratio	Density (g/cm3)
SAL-002	16:56	346.2	4,237.80	5,905.80	224.4	19,444.00	12.2	1.215
SAL-003	17:08	352.4	4,328.00	5,874.10	198.4	19,028.00	12.3	1.214
SAL-004	17:48	124	2,167.50	2,647.40	47	13,105.00	17.5	1.079
SAL-005	18:10	34.9	626.5	864.3	31.9	5,960.00	17.9	1.022

Sample SAL-004 was obtained in the clastic sediments closer to the edge of the basin is brackish water, commonly associated with fresh water/brine mixing zones at the edges of the salar. Sample SAL-005 is mostly fresh and is associated with freshwater recharge that occurs at the edges of the basin. Although samples SAL-004 and SAL-005 do not have concentrated brine at the surface, it is possible that concentrated brine may occur with depth at these locations.

During his visit, Mr. Rosko verified and obtained shallow brine samples at 2 locations that were also sampled later by AMINCO for laboratory analysis. Sampled were collected from the Cristina and Patagonia II tenements, both located in the west-central area of the salar. Samples collected in Cristina and Patagonia II tenement by QP were sampled at same location of AMINCO's sample SALMUERA 5414 (QP samples SAL-002 and SAL-003) and 5412 (QP sample SAL-004). Samples were stored and sent by the QP to SGS laboratory in Salta. AMINCO also used SGS laboratory. A comparison of the results from the AMINCO sampling program and the confirmatory samples obtained by the QP are given in Table 12-3.

Table 12-3: Summary of Laboratory Analysis Results for 2022 Sampling Campaign

ORIGINAL SAMPLE ID	CHECK SAMPLE ID	QP ASSAY VALUES					AMINCO ASSAY VALUES				
		Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)	SO4 (mg/L)	Li (mg/L)	Mg (mg/L)	K (mg/L)	B (mg/L)	SO4 (mg/L)
SAL-002	SALMUERA 5414	346.2	4,237.80	5,905.80	224.4	19,444	294	4,247.70	5,599.90	173.2	19,390
SAL-003	SALMUERA 5414	352.4	4,328.00	5,874.10	198.4	19,028	294	4,247.70	5,599.90	173.2	19,390
SAL-004	SALMUERA 5412	124	2,167.50	2,647.40	47	13,105	99.9	2,201.20	2,674.90	31.8	13,270

Analytical results provided by SGS indicate that samples collected in the same location, SAL-002 and SALMUERA-5414 generally have similar assays values, confirming that a lithium-rich brine is present. Surface water sample SAL-004 and sample SALMUERA-5412 were collected at the same location and shows similar values; results also confirm that some freshwater mixing has occurred with the salar brine, resulting in brackish water.

Results obtained from near-surface brine sampling performed by AMINCO and the QP are similar, but not within an acceptable range for lithium. It is recommended that in the future duplicate samples be obtained at the same time to avoid the introduction of variables that could affect the chemistry.

12.1 Data Management During Sampling, Drilling, and Testing Program

- Field notes: The field geologists and hydrogeologists record field notes concurrently with the recorded observation.
- Physical parameters: At the time of sampling, field physical parameters are measured and recorded for all fluid samples.
- All measurements are logged into a database maintained by M&A.

12.2 Adequacy of the Data

For the purposes of obtaining an initial evaluation of the potential to encounter lithium-rich brine in the Project area, and to continue with additional exploration, the QP believes that the data obtained to data are adequate. Sampling and laboratory methods are consistent with industry standards.

13. Mineral Processing and Metallurgical Testing

Planned confirmatory tests include actual brine evaporation trials that aim to confirm the composition and quantities of precipitated salts and to determine the maximum lithium concentrations achievable, while minimizing lithium losses. Additional testing will focus on the lithium carbonate production stage, with the objective of selecting the most suitable equipment to optimize efficiency, recoveries, and product quality throughout the process. Testwork will need to be conducted to confirm that battery-grade lithium carbonate can be produced using the above processing steps described in the PEA.

It is envisioned that testwork campaigns will be conducted in various qualified laboratories and in pilot facilities located in proximity to the Project site to confirm the brine processing methodology. These tests aim to accomplish the following objectives:

- Verify the aquifer well chemistry.
- Confirm the evaporation rates (through Class A pan evaporation test data) and, if necessary, determine the type of salts which are formed during the evaporation process.
- Determine the amount of reagent required to accomplish magnesium and sulphate removal in the evaporation process and validate lithium losses.
- Complete the testing and design of the boron solvent extraction facility with a performance guarantee supplied by the equipment vendor using Rio Grande salar brine.
- Confirm the reagent consumption under the conditions for brine purification.
- Confirm ion exchange equipment, resins and operating conditions for impurity removal.
- Confirmation of the carbonation conditions for lithium carbonate to produce battery-grade lithium carbonate and achieve high recovery.

14. Mineral Resource Estimates

This updated resource estimate for the Rio Grande Project consists of Measured, Indicated and Inferred categories. The essential elements for estimation of a lithium brine resource include drainable porosity and brine concentration values assigned to the defined hydrogeologic units. During the resource estimation process, the QP considered the Canadian Institute of Mining (CIM, 2012) Best Practice for Reporting of Lithium Brine Resources and Reserves and guidelines prepared by Houston et al. (2011).

The method employed to estimate the resource corresponds to the industry-acceptable polygon method, complemented with 3D models of different brine aquifer volumes. The overall polygon method process consisted of constructing concentric circles around the exploration wells and dividing them into horizontal layers as hydrogeologic or estimation units, with each layer assigned an aerial extent, lithium concentration, and drainable porosity value. Thus, while the same lithium concentration and drainable porosity were assumed laterally within a given polygon, distinct intervals were defined to account for depth-specific changes of either parameter based on the exploration results. Each polygon block contains one well, and boundaries between polygon blocks are generally equidistant between the wells (when close enough). 3D models of brine aquifer volumes, built based on CSAMT and borehole data, were combined with the polygon method to constrain horizontal extrapolation and estimate resources only in zones (and depths) where brine is expected/interpreted to be present.

Apart from lithologic descriptions, depth-specific data for chemistry and drainable porosity were obtained during drilling. Drainable porosity values were assigned largely based on laboratory specific yield results; these results were cross-checked with field lithologic descriptions and core photos to verify reasonableness of the assigned values.

In addition to resource estimates based on well data, an additional area located in Sector I (South-East concessions) was analyzed based only on local CSAMT results. This modeling was focused on estimating a brine volume limited by resistivity values, which was then used to estimate Inferred lithium resources based on adopting preliminary and conservative values for lithium concentration (grade) and drainable porosity. This particular estimate, conducted without drilling data, is described and added in the final Resource Statement (Section 14.5).

The chapter is structured as follow:

- Explain how lithium grade and drainable porosity samples were analyzed and characterized using verified well data,
- Discuss resource categorization and 3D brine aquifer volume methods and calculations,
- Provide a resource statement illustrating how these aspects were combined to obtain a mineral resource estimate for the different categories.
- Explain potential upside for improving results and reducing uncertainties.

14.1 Lithium Grade

Lithium brine concentration results obtained from sampling were utilized as an input for the resource estimate; original laboratory results from brine samples obtained via downhole, depth-specific packer sampling were used for all of the wells. Results from the Hydrasleeve sampling method were also used at well DDH-RG23-001. Based on the QA/QC analyses, SGS Laboratory results were considered in wells DDH-RG23-001, -002 and -003, and Alex Stewart results in case of well DDH-RG23-004 and -005. Additionally, SGS laboratory results of surface samples were included in the estimate process in cases where they are located inside a measured area. However, as the lithium content in shallow depths is influenced by the dilution effect from seasonal rains, these results were limited to the first 2 meters from surface level for estimate purposes.

Lithium grades at selected depths are shown on Figure 14-1. Median values were calculated for each interval to obtain a representative lithium content for that interval to be used to calculate the resource estimate.

In general, lithium grade values show an increasing trend with depth, which has been observed in other similar lithium-rich aquifer systems in the region. Resulting weighted average lithium concentration values per well were 681, 462, 511, 620 and 465 mg/L for wells, DDH-RG23-001, 002, 003, 004 and 005, respectively.

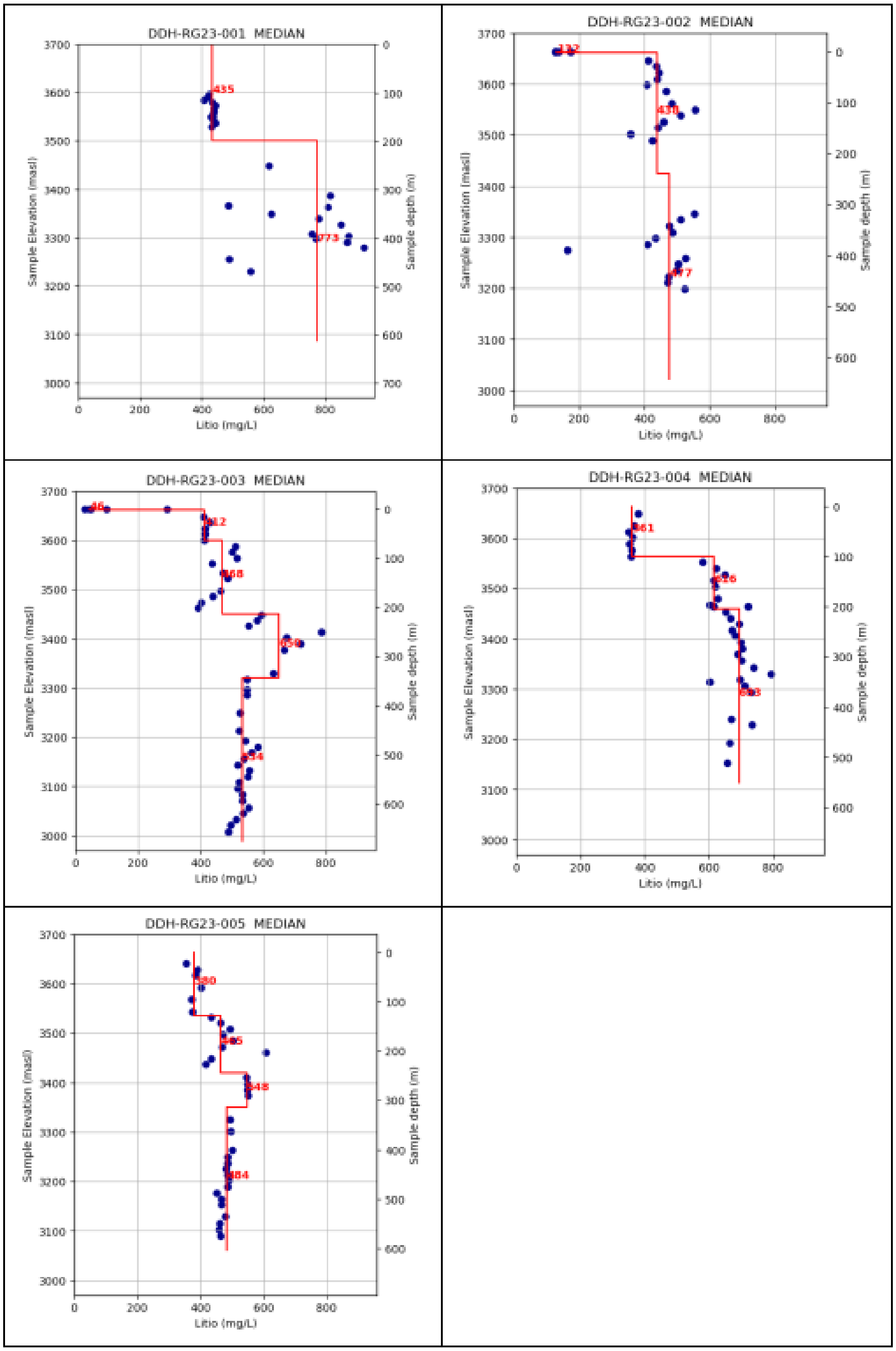


Figure 14-1: Lithium Grade Profiles and Median Values of Selected Intervals from Hydrasleeve (DDH-RG23-001) and Packer Samples

14.2 Drainable Porosity

Drainable porosity (Sy) values are reported as a fraction of the total rock volume and are unitless. For example, if a rock has a volume of 100 milliliters (mL), and 10 mL of fluid can drain from the rock, the drainable porosity is 10/100, or 0.10. Although often determined by laboratory methods, the drainable porosity is essentially the same as specific yield as defined in classical aquifer mechanics.

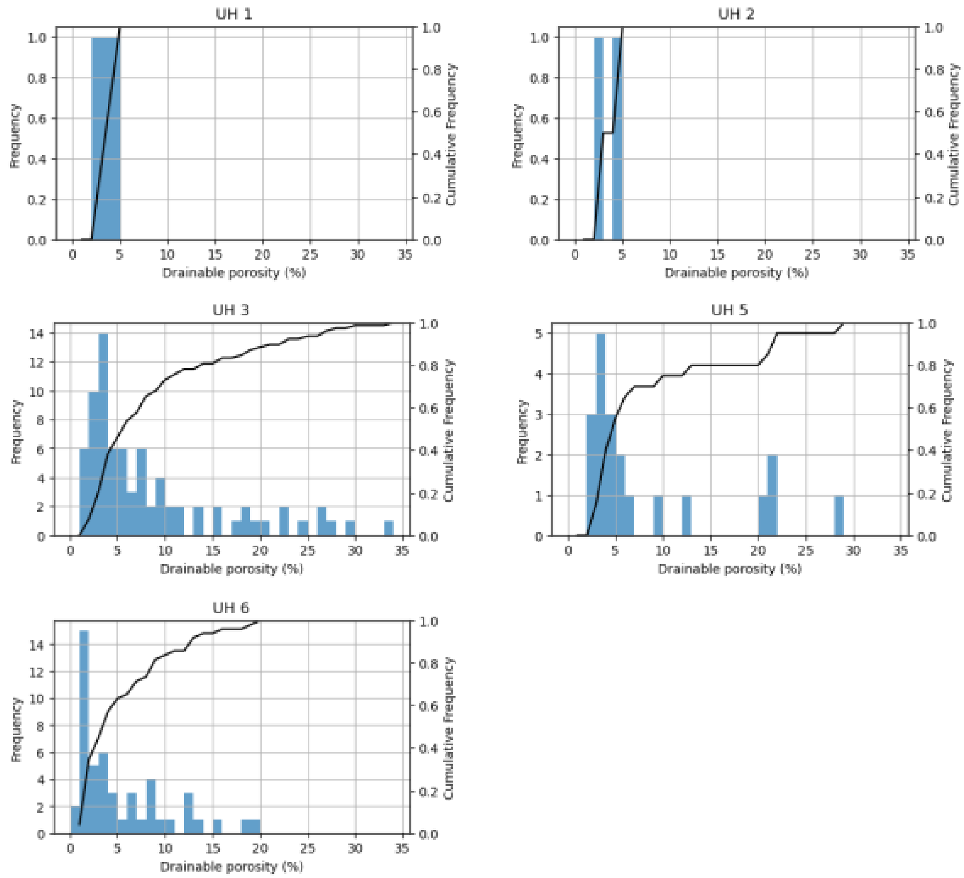
Drainable porosity values in Salar de Río Grande were analyzed based on results of GSA (wells DDH-RG23-001 and DDH-RG23-002) and LCV (wells DDH-RG23-003, DDH-RG23-004, and DDH-RG23-005) laboratory testing. Laboratory values for drainable porosity were obtained from 162 successfully analyzed core samples; 31 of them correspond to DDH-RG23-001, 36 to DDH-RG23-002, 37 to DDH-RG23-003, 28 to DDH-RG23-004, and 30 to DDH-RG23-005. Drainable porosity values equal to zero (two samples in DDH-RG23-001 and one in DDH-RG23-005) nor "Duplicated" samples (totaling 9), were not included in the analyses.

Hydrogeologic units were initially defined using lithologic descriptions, and then using laboratory drainable porosity values, as defined in Chapter 8; these are summarized in Table 14-1. These initially defined units were not specific to location or depth of the samples. Figure 14-2 shows the resulting histograms and cumulative empirical distributions of drainable porosity grouped by hydrogeological unit (HGU or UH), and a corresponding descriptive statistics table. Figure 14-3 shows box-plots for the same data.

At least half of the drainable porosity samples had values lower than 6% in all the hydrogeological units, which is considered by M&A to be relatively low compared to other basin aquifers in the region. However, drainable porosity seems to be larger in North and Northeast area of the salar (DDH-RG23-001 and DDH-RG23-004) where most of the area considered in the resource estimate is located.

Table 14-1: Hydrogeologic Units Assigned by Visual Inspection of Corehole Samples

Hydrogeological Unit	Description
HGU1 (UH1)	Clay and silt
HGU2 (UH2)	Sandy silt and silty sand
HGU3 (UH3)	Sand, silty sand
HGU4 (UH4)	Silty gravel, clayey gravel
HGU5 (UH5)	Gravel, conglomerates, breccia
HGU6 (UH6)	Evaporites, mostly halite



UH	Count (N°)	Mean (%)	Standard Deviation (%)	Minimum (%)	Percentile 25% (%)	Percentile 50% (%)	Percentile 75% (%)	Maximum (%)
UH 1	3	3.1	0.9	2.2	2.7	3.1	3.6	4.0
UH 2	2	3.0	1.4	2.0	2.5	3.0	3.5	4.0
UH 3	78	8.4	7.7	1.0	3.0	5.2	10.0	33.0
UH 5	20	8.5	7.8	2.3	3.6	4.9	10.3	28.3
UH 6	49	5.3	4.8	0.6	1.6	3.2	8.0	19.4

Note: The cumulative frequency (black line in each graph) is normalized

Figure 14-2: Histograms and Cumulative Distributions of Drainable Porosity

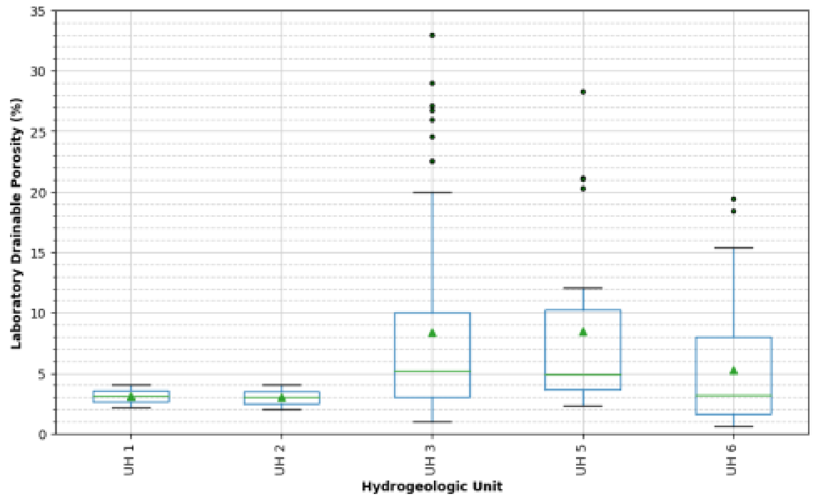


Figure 14-3: Box-plots of Drainable Porosity Values Grouped by Hydrogeological Unit

Because the Project concessions are not adjacent to each other (Figure 10-1), they are each located in slightly different geological and sedimentary environments. DDH-RG23-001 is located in the nothern alluvial fan where coarser sediments are present and conceptually expected to be found; DDH-RG23-004, even though relatively close to the last, it is located in the northeast margin of the salar. DDH-RG23-003 is located in the salar nucleus and presents comparatively more cemented lithologies with respect to what is shown by core samples from DDH-RG23-002 and DDH-RG23-005. These differences were considered when defining appropriate drainable porosity values to estimate the lithium resource.

Drainable porosity values for the various depths below land surface are shown, by well, on Figure 14-4. Values differ for individual HGUs, depending on depth and corresponding well. For example, DDH-RG23-003 consistently shows lower values for the same HGUs (3 and 6) as compared with nearby DDH-RG23-002 for similar depths. On the other hand, core samples taken above 3,550 masl tend to show comparatively higher Sy values for all the present units and wells. In general, rather than selecting uniform values based on assigned HGU, values reflect differences in drainable porosity due to location and depth differences, likely related to changes in cementation, compaction, or in clay content.

Representative Sy values were adopted by averaging sample results located within each interval, regardless of values from other HGUs at other wells and from other depths. Average values are summarized in Table 14-2, which are considered as the representative by interval when estimating resources. Resulting weighted average drainable porosity values per well were 8.9, 7.9, 3.7, 9.4 and 7.7% for wells, DDH-RG23-001, 002, 003, 004 and 005, respectively.

Table 14-2: Representative Drainable Porosity Values for Different Wells and Intervals

Well	Topography (masl)	Elevation (masl) From	Elevation (masl) To	Depth (m) From	Depth (m) To	Assigned Drainable Porosity (%)	Weighted Average Drainable Porosity (%)
DDH-RG23-001	3,699	3,000	3,180	699	519	4.4	8.9%
		3,180	3,340	519	359	14.8	
		3,340	3,540	359	159	5.4	
		3,540	3,699	159	0	10.7	
DDH-RG23-002	3,664	3,000	3,160	664	504	15.3	7.9%
		3,160	3,580	504	84	4.5	
		3,580	3,664	84	0	13.3	
DDH-RG23-003	3,664	2,985	3,200	679	464	1.7	3.7%
		3,200	3,360	464	304	2.3	
		3,360	3,440	304	224	10.2	
		3,440	3,580	224	84	2.1	
		3,580	3,664	84	0	8.0	
DDH-RG23-004	3,664	3,000	3,400	664	264	4.3	9.4%
		3,400	3,510	264	154	9.3	
		3,510	3,664	154	0	18.9	
DDH-RG23-005	3,664	3,000	3,300	664	364	3.1	7.7%
		3,300	3,400	364	264	15.6	
		3,400	3,480	264	184	6.3	
		3,480	3,664	184	0	10.1	

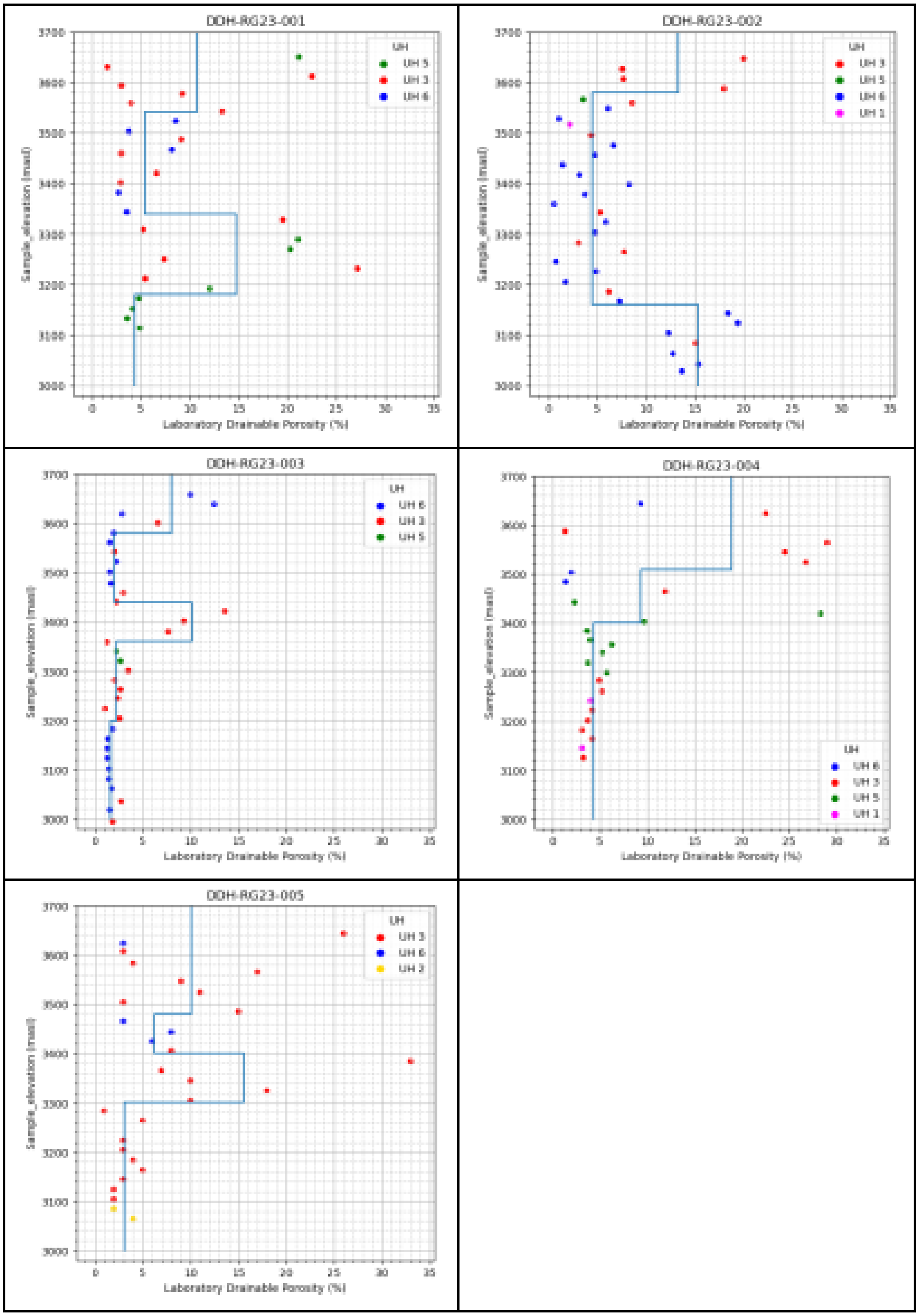


Figure 14-4: Drainable Porosity and Mean Values of Delimited Intervals from Core Samples

14.3 Resource Estimate Process and Categorization

The method employed to estimate lithium resources corresponds to the industry-accepted polygon method, complemented with 3D models of different brine aquifer volumes. The overall process consists of constructing concentric circles around the exploration wells. The same lithium concentration and drainable porosity were assumed to be laterally continuous for each unit within a given polygon. Due to different vertical discretization established for lithium grade (Figure 14-1) and drainable porosities (Figure 14-4), a 2-meter interval was defined as numerical composite for calculations (used for the block model vertical discretization described in Section 14.4), in order to account for depth-specific changes of parameter values based on the exploration results.

The polygon construction process, which included a total area of approximately 26.3 km^2, was based on locations of exploration wells, geophysical surveys, project concessions, and horizontal geological estimation domains:

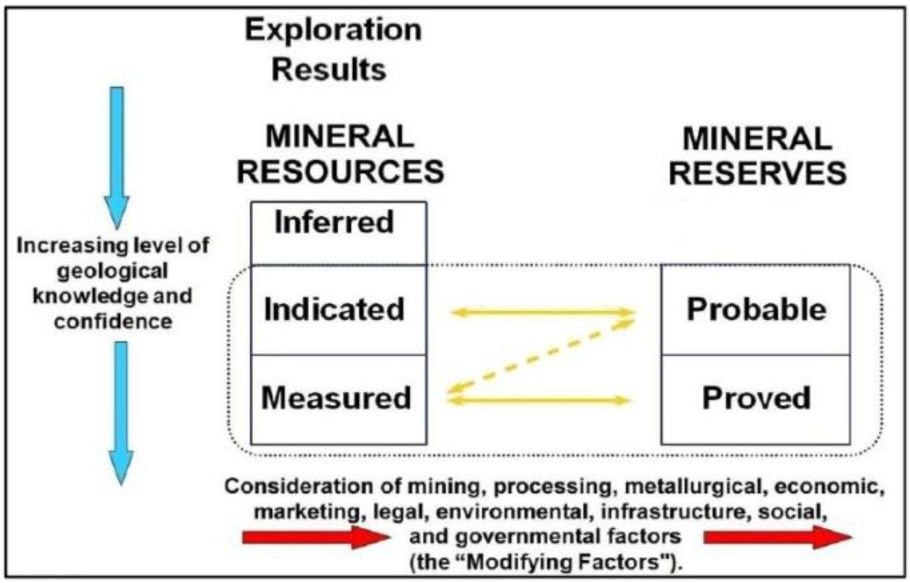
- Circles (areal buffers) of different radii, related to the distinct resource categories (described below), were traced from well locations. Corresponding exploration well features were subsequently considered as an estimation reference within each buffer.
- Only areas controlled by NOA Lithium were included in the resource estimate.
- A surface geological boundary, based on regional map, CSAMT data, and satellite image observations, was defined to limit the estimation domains to exclude hard-rock out crops with low permeabilities.

In terms of resource categorization, the International Reporting Template for the Public Reporting of Exploration Targets, Exploration Results, Mineral Resources and Mineral Reserves (CRIRSCO, 2019) provides the following definitions for Measured, Indicated and Inferred Resources, regardless of the deposit type:

- An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.
- An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.
- A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed

mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing, and is sufficient to confirm geological and grade or quality continuity between points of observation.

Figure 14-5 shows the relationship between Mineral Resources and Mineral Reserves as it pertains to lithium brine deposits. While additional aquifer parameters are needed to estimate a reserve, the overall feasibility to pump brine is related to the theoretical volume which can be drained from the reservoir and thus pumping tests can also be considered when assigning resource categories.



Source: CRIRSO, 2019

Figure 14-5: Methodology for Evaluating Brine Mineral Resources and Mineral Reserves

For the current resource estimate, Measured, Indicated and Inferred initial polygons were developed based on guidelines by Houston et al. (2011) for mature salar systems. For Measured, Indicated and Inferred resources, the distances between exploration wells are suggested to be 4, 7 and 10 km, respectively, which equates to a radius of 2, 3.5 and 5 km for the respective category. After intersecting with project concessions and limiting them by geologic conditions, polygon areas located outside of the salar boundary, and corresponding categories, were adapted using particular criteria depending on available data, acknowledging that estimates would be later constrained by using a brine aquifer categorical block model. Particular criteria (by well) that were applied when tracing and categorizing polygons include the following (resulting polygons with assigned resource categories are shown on Figure 14-6):

DDH-RG23-001:

- Based on the surface sampling campaign conducted by Aminco (2022b) and the geophysical logging results (Explora Mining 2023), a brine level (or brine piezometric level) was estimated. From this, the top of the brine aquifer was set to 49 meters below land surface.
- Measured: even though the well is in an alluvial fan area, a 2 km radius was considered for this category due the existence of new CSAMT data properly correlated with the well data in terms of brine presence.
- Indicated: Areas located further than 2 km from the well location but limited by CSAMT western limit (no western end of brine aquifer was identified among that data). A small buffer of 100 m north from L39000 was considered as part of this category.
- Inferred: No limit of brine aquifer was identified among the CSAMT, with no significant signs of potential changes (narrowing) close to western line limits, nor immediately north from L39000. On this context, a buffer of 300 m east from western limit of CSAMT lines, and north from the northern Indicated boundary, was also included in this category.

DDH-RG23-002:

- Measured: all areas within owned concession are located within a 2 km radius from the well.

DDH-RG23-003:

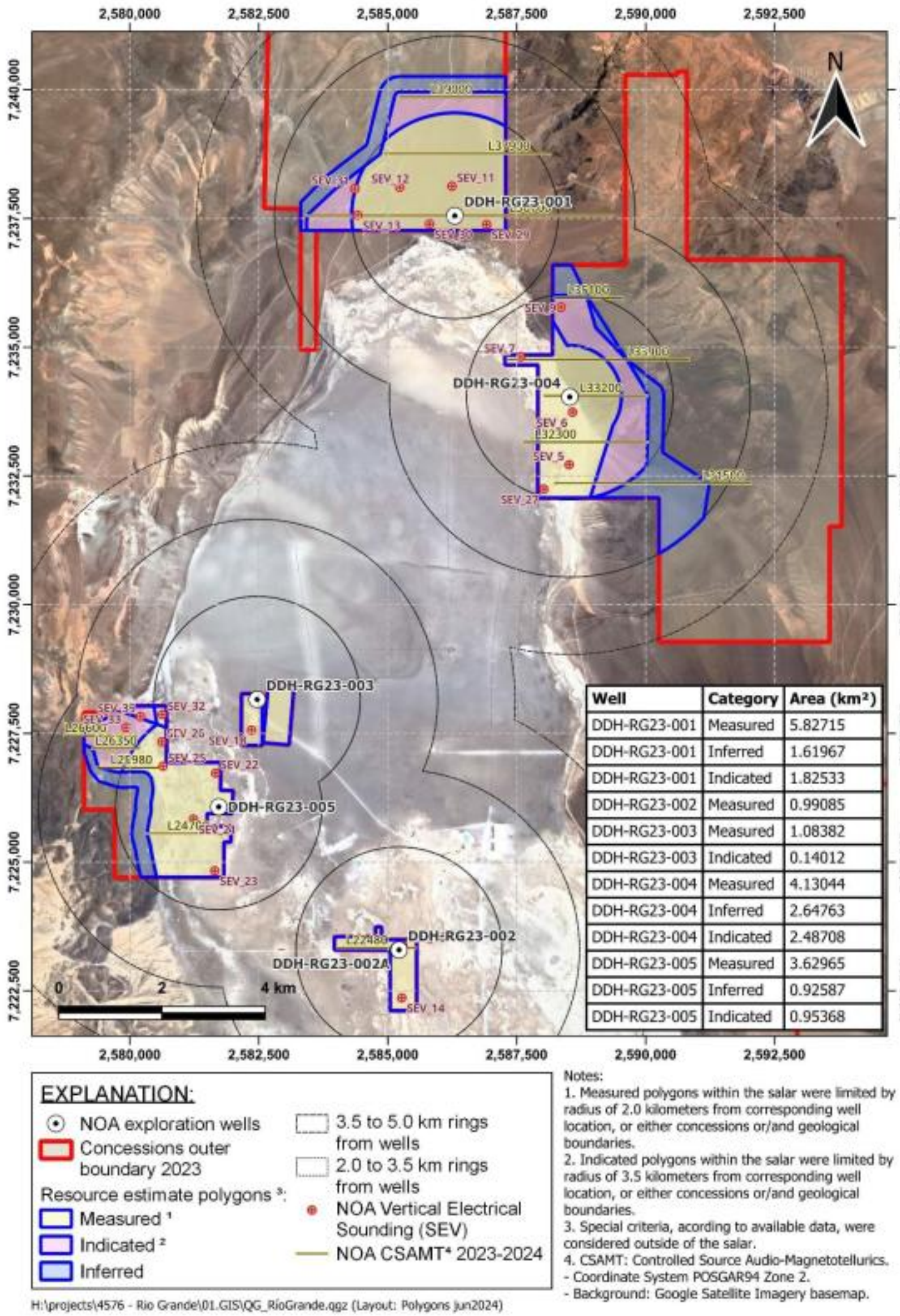
- Measured: 2 km radius from well.
- Indicated: 3.5 km radius from well limited by concessions and DDH-RG23-005 polygons.

DDH-RG23-004:

- Measured: Area inside 2 km radius within the salar was entirely included, but in areas located east from the well, covered by young volcanic flows, a 1 km radius was categorized as Measured. Areas located in a horizontal distance of 1 to 2 km from the well and also located closer than 300 m from the salar boundary, were also categorized as Measured.
- Indicated: Areas limited by CSAMT extensions and where brine aquifer was identified from them. Considering their location outside of salar margins, areas located farther than 2 km from the well location were conservatively not consider within this category.
- Inferred: Areas with an identified brine aquifer (based on the CSAMT data) but located farther than 2 km from the well location, were considered Inferred. A buffer of about 300 m east from eastern limits of CSAMT lines was included within this category, but only in cases with significant identified brine thickness at those locations.

DDH-RG23-005:

- Measured: Area inside 2 km radius within the salar was entirely included, but in areas located west from the well, the category was constrained by the L24700 western limit, where Pleistocene basalts and andesites are located west of salar boundary.
- Indicated: 3.5 km radius from well was used for this category. Potential resources located in alluvial fans areas and underneath a lava flow, identified from CSAMT data, were included.
- Inferred: A buffer of about 200 m west from Measured and Indicated areas was included within this category, which was made comparatively narrower in areas.
- It should be mentioned that an additional polygon located in Sector I (South-East concessions, not included in Figure 14-6), which is based on local CSAMT results (without drilling data) was added in the final Resource Statement (Section 14.5).



Well	Category	Area (km²)
DDH-RG23-001	Measured	5.82715
DDH-RG23-001	Inferred	1.61967
DDH-RG23-001	Indicated	1.82533
DDH-RG23-002	Measured	0.99085
DDH-RG23-003	Measured	1.08382
DDH-RG23-003	Indicated	0.14012
DDH-RG23-004	Measured	4.13044
DDH-RG23-004	Inferred	2.64763
DDH-RG23-004	Indicated	2.48708
DDH-RG23-005	Measured	3.62965
DDH-RG23-005	Inferred	0.92587
DDH-RG23-005	Indicated	0.95368

Figure 14-6: Polygons Used for the Measured, Indicated and Inferred Resource Estimate

14.4 Brine Aquifer 3D Models

Preliminary 3D models of brine aquifer volumes, developed in Leapfrog Geo Software (Seequent, 2023), were built using CSAMT and borehole data, with the purposes of combining them with the polygon method to constrain horizontal extrapolation and estimate resources only in zones (and depths) where brine is expected/interpreted to be present. Modeling was focused on estimating brine volume extension limited by concessions and exploration data. Only blocks classified with brine were subsequently used to estimate lithium resources based on the horizontal extrapolation of lithium concentration (grade) and drainable porosity, using the corresponding well data.

Analyses, criteria and considerations applied for developing the 3D brine aquifer models can be summarized as follows:

- Based on analyzing well-based chemistry results and CSAMT values in equivalent and/or similar locations and depths, a potential brine presence was estimated. Specifically, in well DDH-RG23-001, lithium concentration values from about 470 to 900 mg/L have been found where resistivity values range from 5 to 7 ohm-m (elevation ranges from 3,220 and 3,450 masl). In well DDH-RG23-004, lithium concentration values vary from about 650 to 750 mg/L and have been found where resistivity values range from 6 to 8 ohm-m (elevation ranges from 3,150 and 3,300 masl). Additionally, based on the QP experience in similar projects, brine aquifer can even be found in resistivity value larger than 12 ohm-m, or more. Based on these aspects, a value of 10 ohm-m was conservatively adopted as a reference for estimating brine aquifer boundaries using CSAMT data, signifying that zones with resistivity values lower than that value were considered as part of the brine volume.
- All interpreted CSAMT sections were georeferenced in the 3D Leapfrog model. Subsequently, based on the mentioned resistivity threshold value (10 ohm-m), bottom and top brine aquifer limits were delimited in each resistivity section, having the corresponding resistivity color-ramp values as a reference. If necessary, the CSAMT lower limit (minimum elevation with results) was used to define the brine aquifer bottom limit (no areas below CSAMT results were included/considered as part of the brine aquifer models). Examples of CSAMT lines represented in Leapfrog and corresponding brine aquifer boundary results are illustrated on Figure 14-7 for different sectors and profiles.

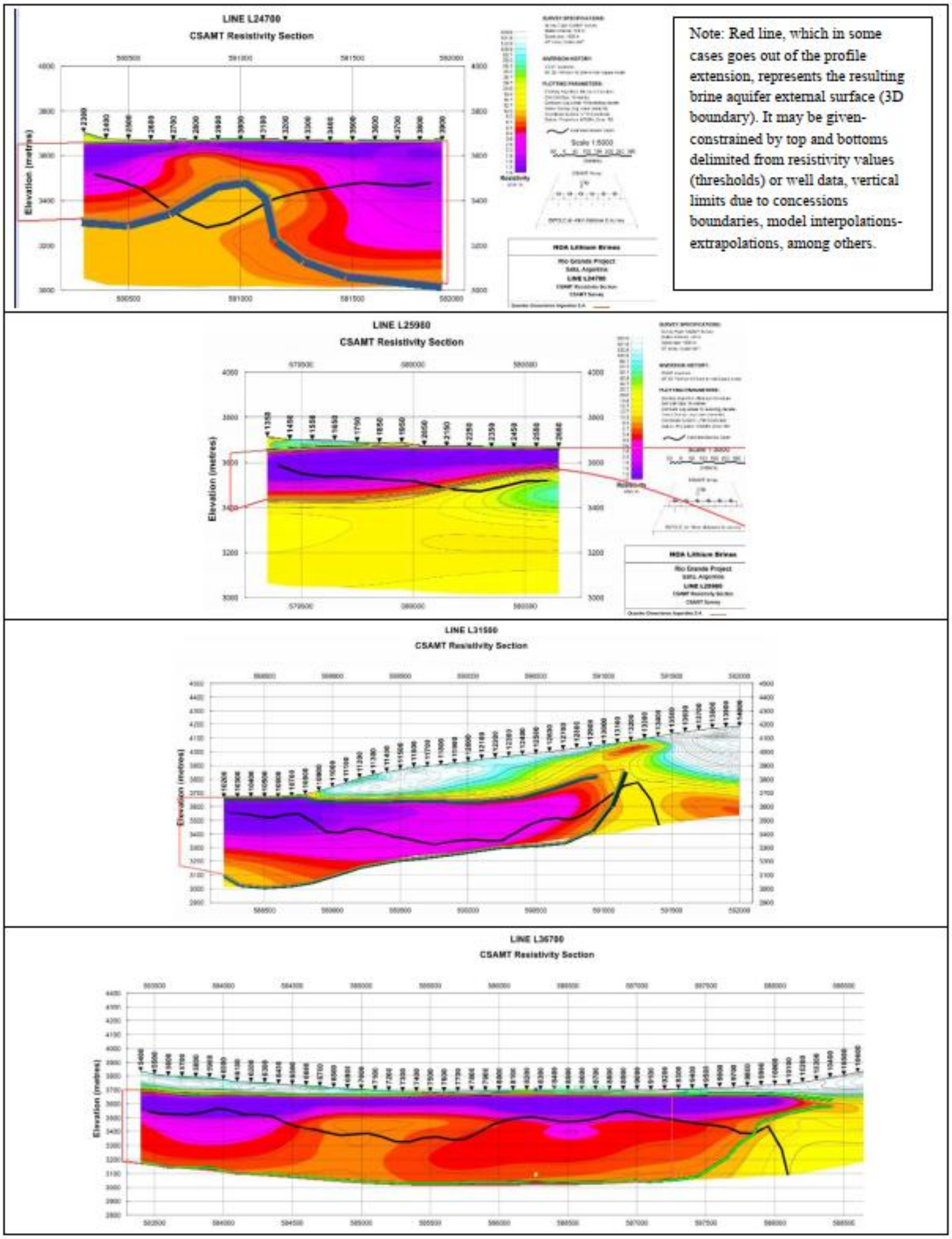


Figure 14-7: Examples of CSAMT Lines in Leapfrog and Brine Aquifer 3D Boundary Results

- Borehole data were also inserted in Leapfrog, with particular emphasis on delimiting the upper and lower brine aquifer limits in each well. Upper limit was defined using an estimated fresh – brine water interface located at 49 m depth in case of well DDH-RG23-001, and using the land surface elevation in the rest of the wells where significant freshwater thickness is not believed to occur. The brine aquifer bottom at the well locations was considered to be the maximum depth. This criterion was based on the fact that corresponding deepest chemistry samples all have high lithium content and are generally close enough to the maximum drilled depths, with no significant changes in lithology, CSAMT values, or downhole geophysics.

A brine aquifer volume model was developed using all the described data and criteria, and results were then geometrically limited (horizontally) to the resource polygons (Figure 14-6). Diagrams of the model construction and visualization processes within Leapfrog environment are shown on Figure 14-8 for the denominated Western area and Figure 14-9 for the North and East areas. The areal denomination is described as follows:

- Western Area: focused and constrained by information from wells DDH-RG23-002, 003 and 005 and CSAMT lines L22480, L24700, L25980, L26350, and L26600.
- North Area: focused and constrained by information from well DDH-RG23-001 and CSAMT lines L36700, L37900, and L3900.
- East Area: focused and constrained by information from well DDH-RG23-004 and CSAMT lines L31500, L32300, L33200, L33900, L35100, and also L36700 (results are presented jointly with the North area on Figure 14-9).

A block model with a discretization of 50x50x1 m was created and exported with the resource categories. Resulting aquifer thicknesses obtained from vertical aggregation of block model data within resource polygons are shown on Figure 14-10, where rounded values of average thicknesses by well and category are shown.

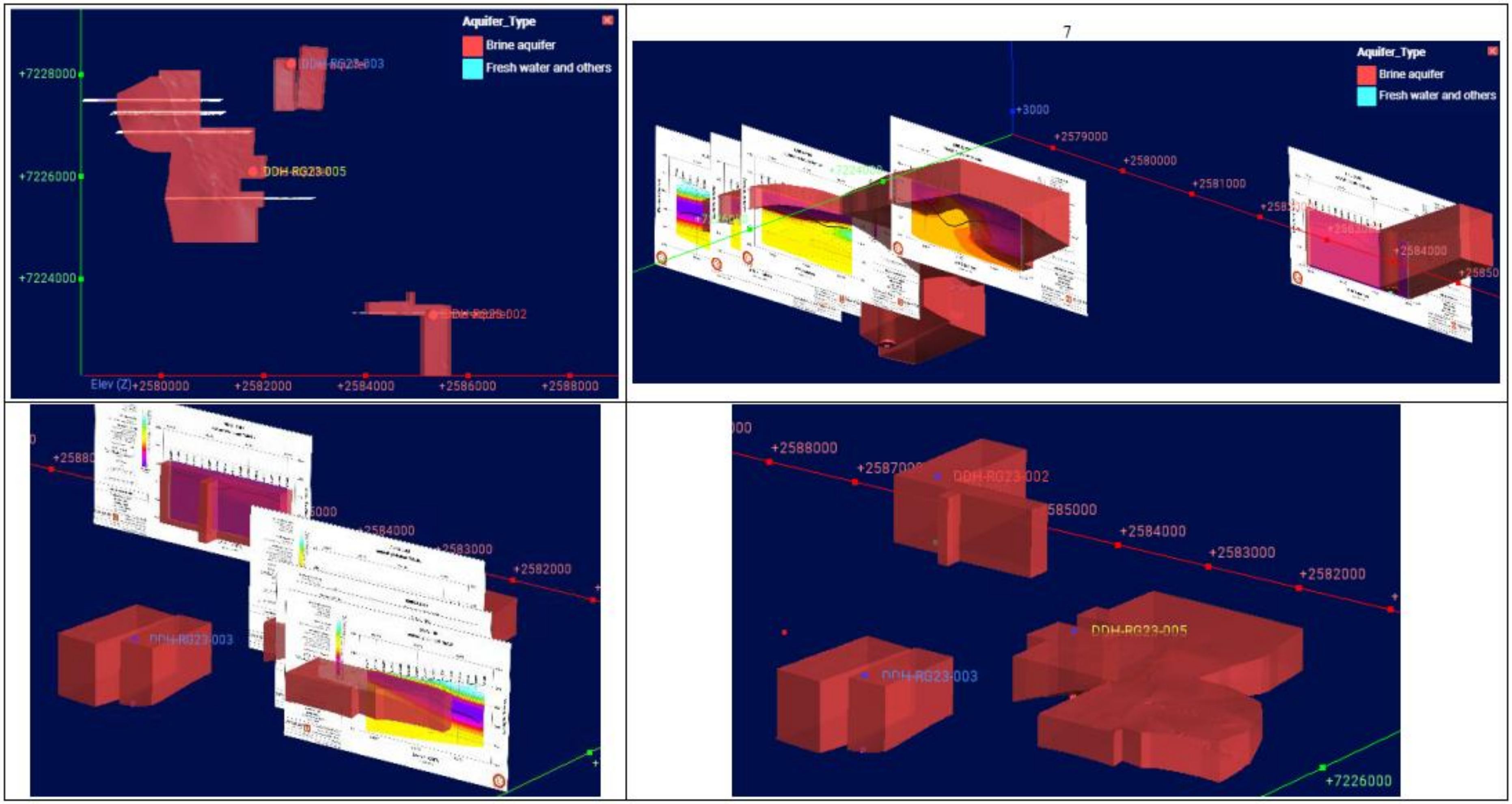


Figure 14-8: Diagram of Brine Aquifer 3D Model Construction and Visualization, Western Area

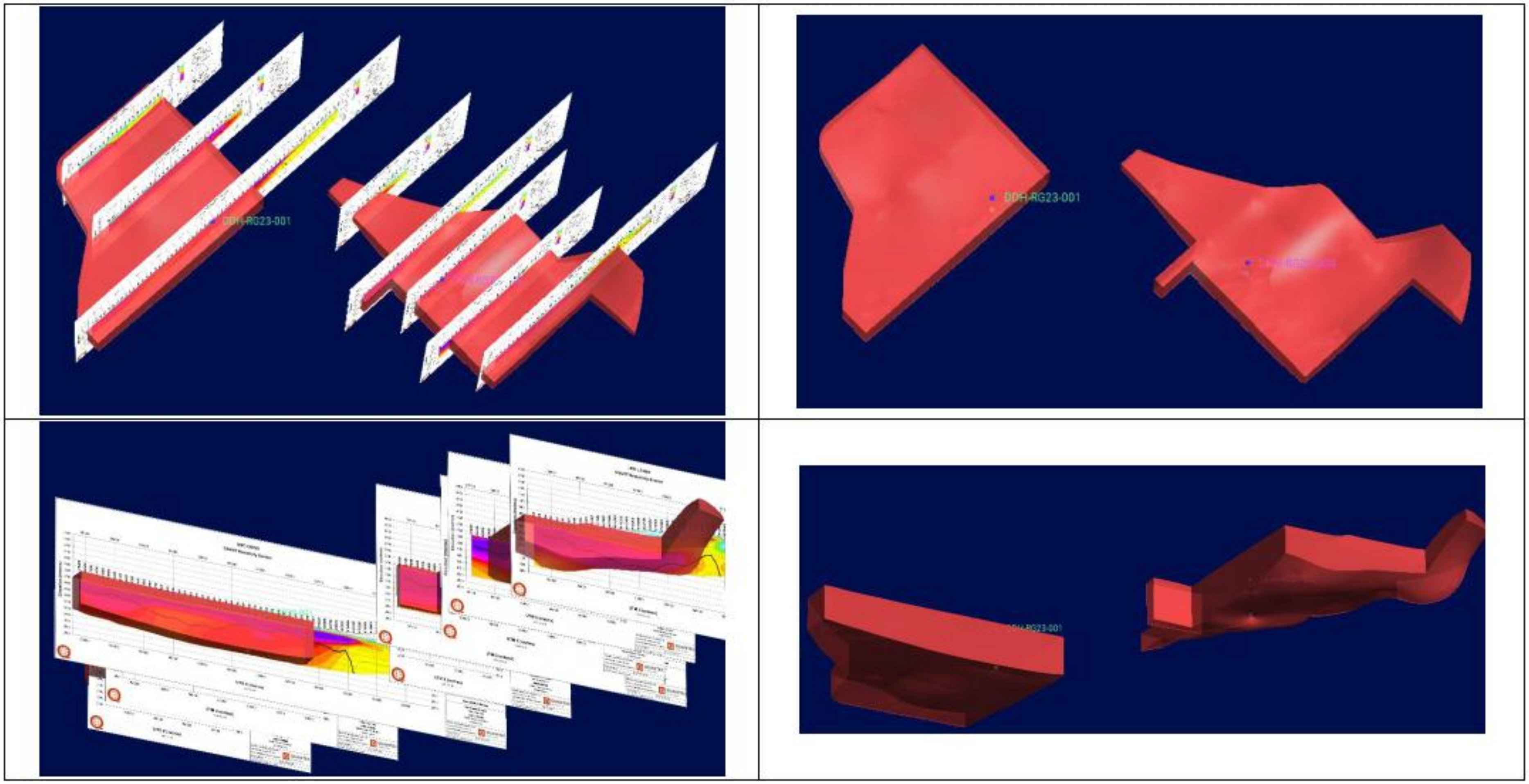


Figure 14-9: Diagram of Brine Aquifer 3D Model Construction and Visualization, North-East Area

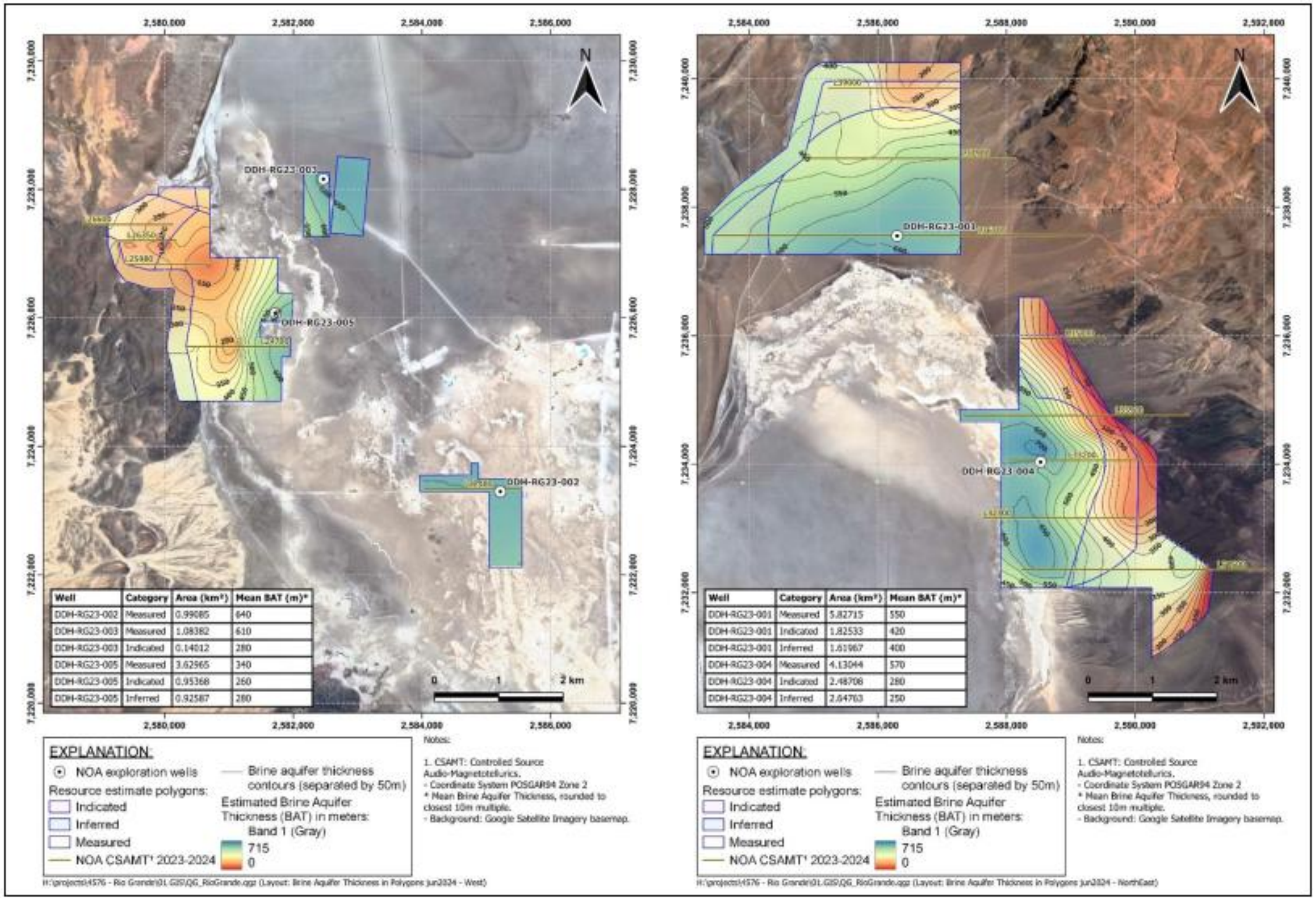


Figure 14-10: Brine Aquifer thickness Obtained from Block Model Data Vertical Aggregation. West (left) and North-East (right) Areas

14.5 Resource Statement

The method employed to estimate the resource corresponds to the industry-acceptable polygon method, complemented with 3D models of different brine aquifer volumes. While the same lithium concentration and drainable porosity were assumed laterally within a given polygon, distinct intervals were defined to account for depth-specific changes of either parameter based on the exploration results. A block model with attributes of the brine aquifer, horizontally limited to resource polygons, was exported, and only blocks classified as part of the brine aquifer were used for the resource estimates. By intersecting block centroid planar coordinates with the resource polygons, corresponding wells and categories (Measured, Indicated and Inferred) were assigned for each block. Horizontally extrapolating from the corresponding wells, block centroid elevations were linked to the defined vertical intervals of lithium concentration (Figure 14-1) and drainable porosity (Figure 14-4) for assigning corresponding values to each block.

A lithium cut-off grade has been assigned as 200 mg/L based on the QP's experience with other similar projects in the region. However, given though nearly 100% of the collected water samples show concentration values significantly higher than that threshold (just minor exceptions in the shallowest part of the brine aquifer), there was no material impact when applying the 200 mg/L cut-off grade.

The drainable lithium resource estimate for each block was calculated as the product (multiplication) of the corresponding values of block volume, drainable porosity, and lithium grade. Subsequently, resulting values were summed within each polygon, for each assigned resource category. Table 14-3 present a summary of resource estimates by well and category.

Table 14-3: Summary of Measured, Indicated, and Inferred Resources by Well

Well_Name	Category	Aquifer Volume (Mm3)	Brine Volume (Mm3)	AVG Li (mg/L)	In Situ Li (tonnes)	Li2CO3 Equivalent (tonnes)	AVG Sy (%)
DDH-RG23-001	Measured	3,242	290	669	193,700	1,031,200	8.9%
	Indicated	773	74	696	51,200	272,700	9.5%
	Inferred	651	62	698	43,000	229,000	9.5%
DDH-RG23-002	Measured	627	49	457	22,600	120,500	7.9%
DDH-RG23-003	Measured	657	26	536	13,700	72,800	3.9%
	Indicated	43	2	506	1,200	6,200	5.4%
DDH-RG23-004	Measured	2,399	212	531	112,300	597,800	8.8%
	Indicated	688	79	550	43,200	230,000	11.4%
	Inferred	663	99	456	45,000	239,500	14.9%
DDH-RG23-005	Measured	1,230	113	452	51,000	271,700	9.2%
	Indicated	247	24	435	10,400	55,100	9.6%
	Inferred	259	26	448	11,600	61,500	10.0%

In addition to estimated resources in areas with available drilling data, an additional 3D brine aquifer model was built for Sector I (South-East concessions) based on local CSAMT results (Section 9.3.1). Modeling was focused on estimating a brine volume limited by concessions and resistivity values, which was then used to estimate Inferred lithium resources based on adopting preliminary and conservative values for lithium concentration (grade) and drainable porosity (both based on Project data and the QP's experience). The brine aquifer thicknesses and resource polygon extent for this area are shown on Figure 14-11: a diagram of the model construction and visualization processes within Leapfrog environment for this area is shown on Figure 14-12. This brine aquifer volume was estimated as $9.0x10^9$ m^3. A conservative value of drainable porosity was adopted as 7%, from which a total drainable brine volume of $6.3x10^8$ m^3 was estimated. Finally, a conservative lithium concentration value of 450 mg/L was used, and from this, an additional 284,000 tonnes of Inferred lithium was estimated for this area, resulting in a total inferred estimate of 384,000 tonnes Li with an average grade of 468 mg/L.

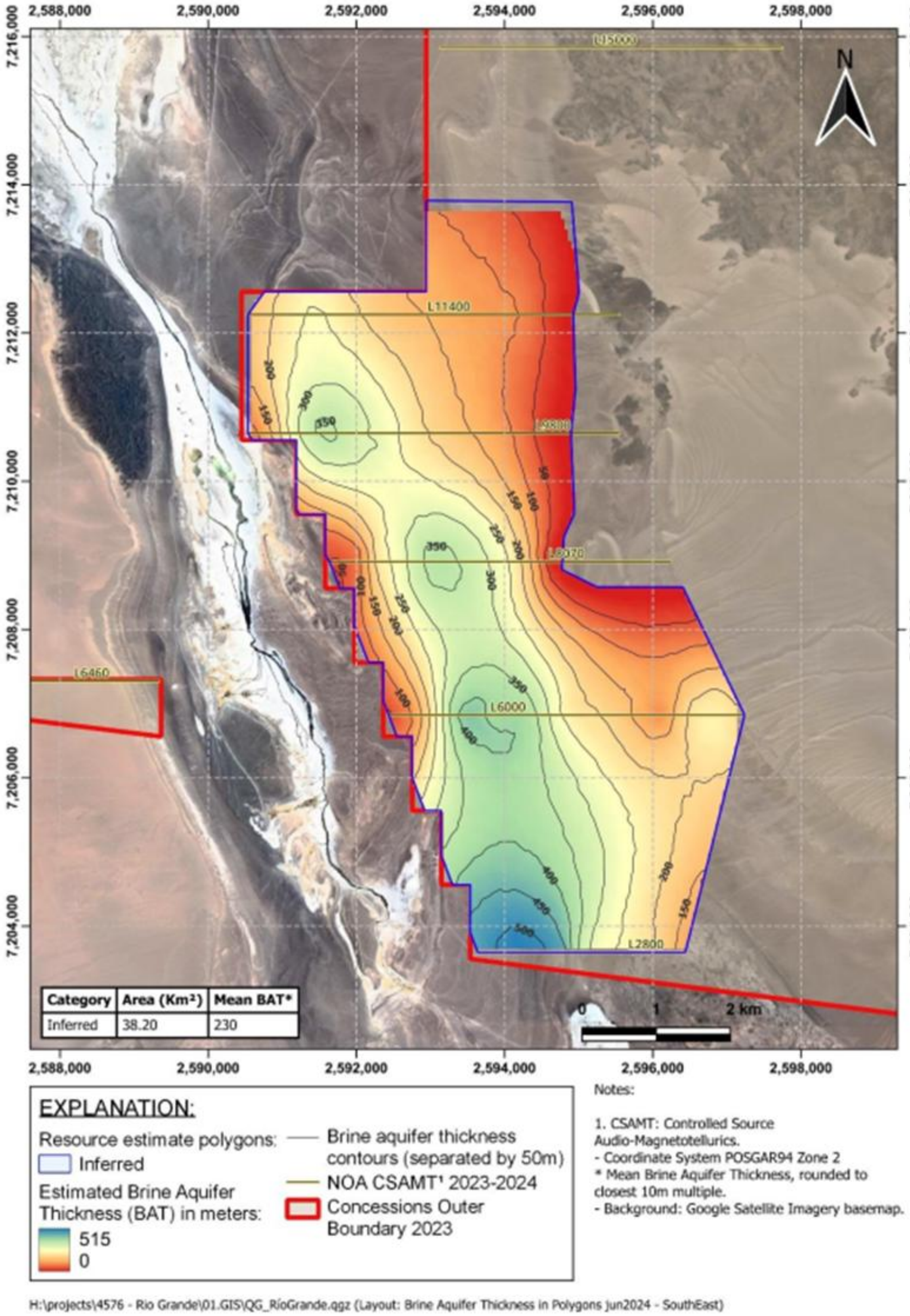


Figure 14-11: Polygon and Aquifer Thickness Used for the Inferred Resource Estimate in the South-East Area Based on Local CSAMT Results

Table 14-4 summarizes the current Salar de Río Grande resource estimate for lithium. The reader is cautioned that mineral resources are not mineral reserves and do not have demonstrated economic viability.

Table 14-4: Summary of Measured, Indicated, and Inferred Resources Oct 30, 2025

Total Summary	Brine volume (m^3)	Avg Li (mg/L)	In Situ Li (tonnes)	Li_2CO_3 Equivalent (tonnes)
Measured	6.9E+08	571	393,000	2,094,000
Indicated	1.8E+08	594	106,000	564,000
Total Measured + Indicated	**8.7E+08**	**576**	**499,000**	**2,658,000**
Inferred	8.2E+08	468	384,000	2,039,000

Notes:
Mineral Resources that are not Mineral Reserves, do not have demonstrated economic viability. There is no certainty that any or all of the Mineral Resources can be converted into Mineral Reserves after application of the modifying factors.
The conversion factor used to calculate the equivalents from their metal ions is simple and based on the molar weight for the elements added to generate the equivalent. The equations are as follows: Li x 5.3228 = lithium carbonate equivalent (Li_2CO_3).
Tonnages are rounded to the nearest thousand and grades are rounded to the nearest whole number, comparison of values may not add due to rounding.

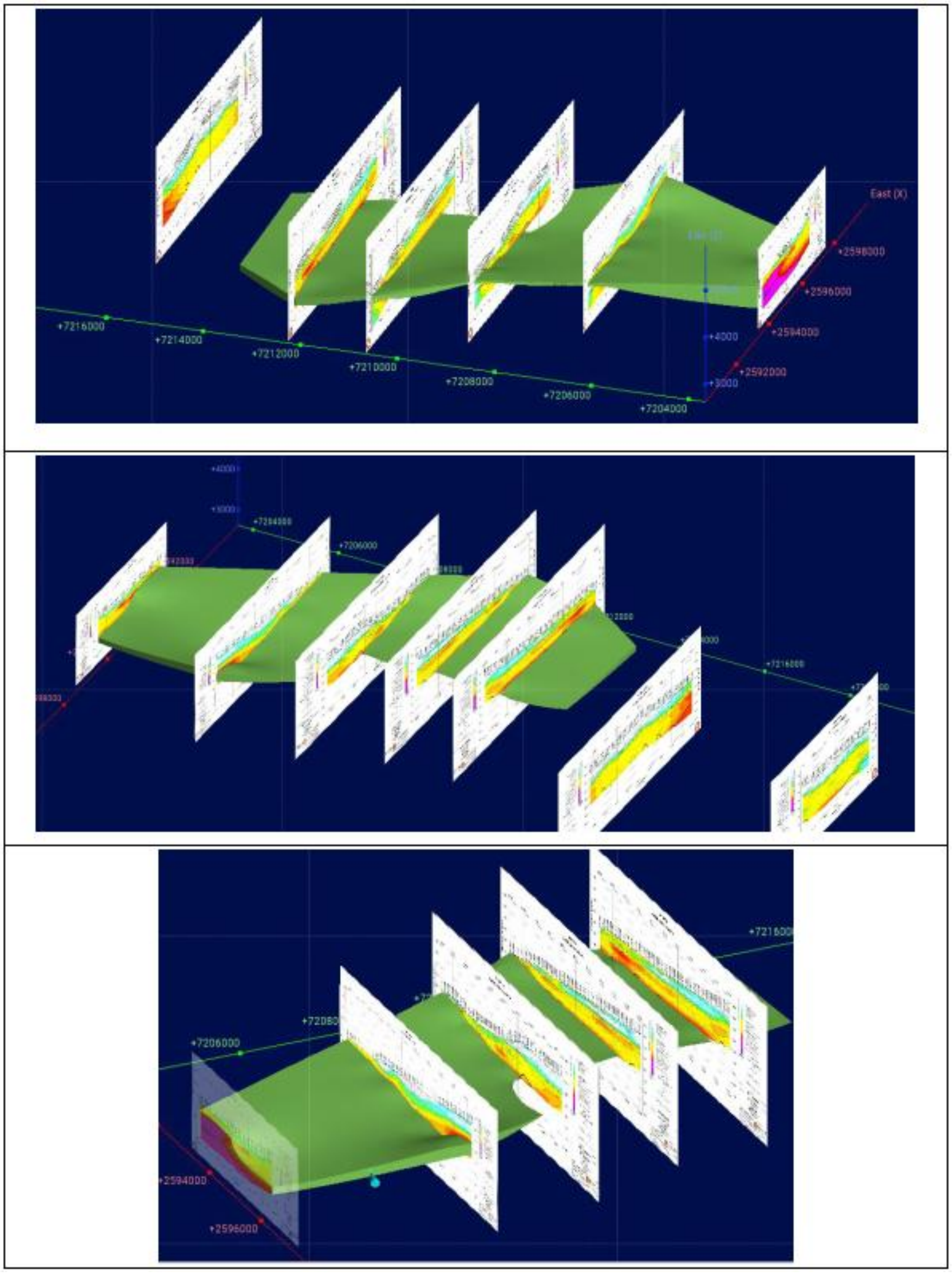


Figure 14-12: Brine Aquifer 3D Model Construction and Visualization, South-East Area

14.6 Potential Upside

The estimated Measured, Indicated and Inferred resources will likely change as more information becomes available. Recommended activities included in the July 2024 report were designed to improve the conceptual hydrogeologic model, increase the resource, and/or improve the resource categories.

Recommended Future Exploration: Additional drilling is expected to increase the depth and/or areal extent of the brine resource, especially in the following areas:

- Indicated and Inferred alluvial areas related to DDH-RG23-001, specifically west of existing CSAMT lines and Measured resource polygons.
- Measured and Indicated areas from DDH-RG23-003 west (well was not surveyed with CSAMT), reaching north-west boundary of related concessions, including part of lava flows not yet surveyed that are currently classified as Indicated. Brine aquifer bottoms were limited by CSAMT values (comparatively higher resistivity values) inside that salar area, which were interpolated with the maximum well depth. Additional drilling located east from Measured-Indicated boundary, combined with additional CSMAT in that area, could be used to improve the resource categories and current understanding of the brine volume.
- Areas related to DDH-RG23-004 have significant areas classified as Indicated, which would require drilling-based data for a resource upgrade. In terms of modeled brine aquifer thicknesses, the southern part is considered to have more potential interest.
- An important preliminary brine volume was estimated at South-East concessions (CSAMT lines L2800 to L11400), and associated resources were entirely classified as Inferred. Drilling activities are recommended in this area, specifically between L6000 and L8070.

At the present, the QP is not aware of any legal, political, environmental, or other risk that could materially impact the potential development of the mineral resources.

15. Mineral Reserve Estimates

Not Applicable - Mineral Reserve has not been established at this stage of the Project.

16. Mining Methods

16.1 General Description

The production process in the Salar de Rio Grande will operate through conventional brine extraction wells. The current design is still considered to be in the planning stages. Production brine pumping and groundwater modeling still needs to be developed during the pre-feasibility stage of the project to validate sustainable production over the life of the Project. However, the following mining methods applied to the project are typical for other salar brine projects and reasonable at the current project level.

Exploration brine pumping wells in two separate wellfields are being planned in the northernmost concessions, and future pumping tests will determine aquifer hydraulic parameters that are needed for wellfield simulations. The current proposed production well locations and designs will be finalized once the exploration pumping wells are drilled and tested.

During mining, brine from the individual production wells will be fed into collection/transfer ponds located in the concession areas, from where it will be boosted through a principal pipeline directly to the evaporation ponds.

The assumptions considered for the estimated production plan are the following:

- Projected yearly production target of 20,000 tonnes of LCE (stage 1) per year from NOA Lithium's northernmost concessions, namely Sulfa X, El Camino II, and Teresa (20,000 tonnes stage 2 will be supplied from these concessions plus the areas within the salar and the south).
- Projected mine duration of 30 years.
- Anticipated average flow rate of 15 liters per second (L/s) per production well based on the QP's experience in similar projects.
- Average global process efficiency (from the wellheads to product) of 70% for calculation purposes.

16.2 Wellfield Layout

Based on the production target of 20,000 tonnes of LCE per year for stage 1, estimated global process efficiency, and average lithium grade obtained from exploration wells DDH-RG23-001 and DDH-RG23-004 (approximately 600 mg/L), it is estimated that a total of 20 production wells will be required. Exploration pumping wells considered in the next project phase are expected to serve as backup wells, if needed. Figure 16-1 shows projected production well locations, with 10 wells in Sulfa X, and the other 10 wells in El Camino II and Teresa. On average, projected pumping wells are spaced apart by roughly 1 km, and they are all located in high confidence resource zones. Furthermore, it has been assumed that there will be sufficient spacing (approximately 20 m) between the ponds, as well as between the ponds and the concession boundaries, to allow for installation and operation of the production wells.

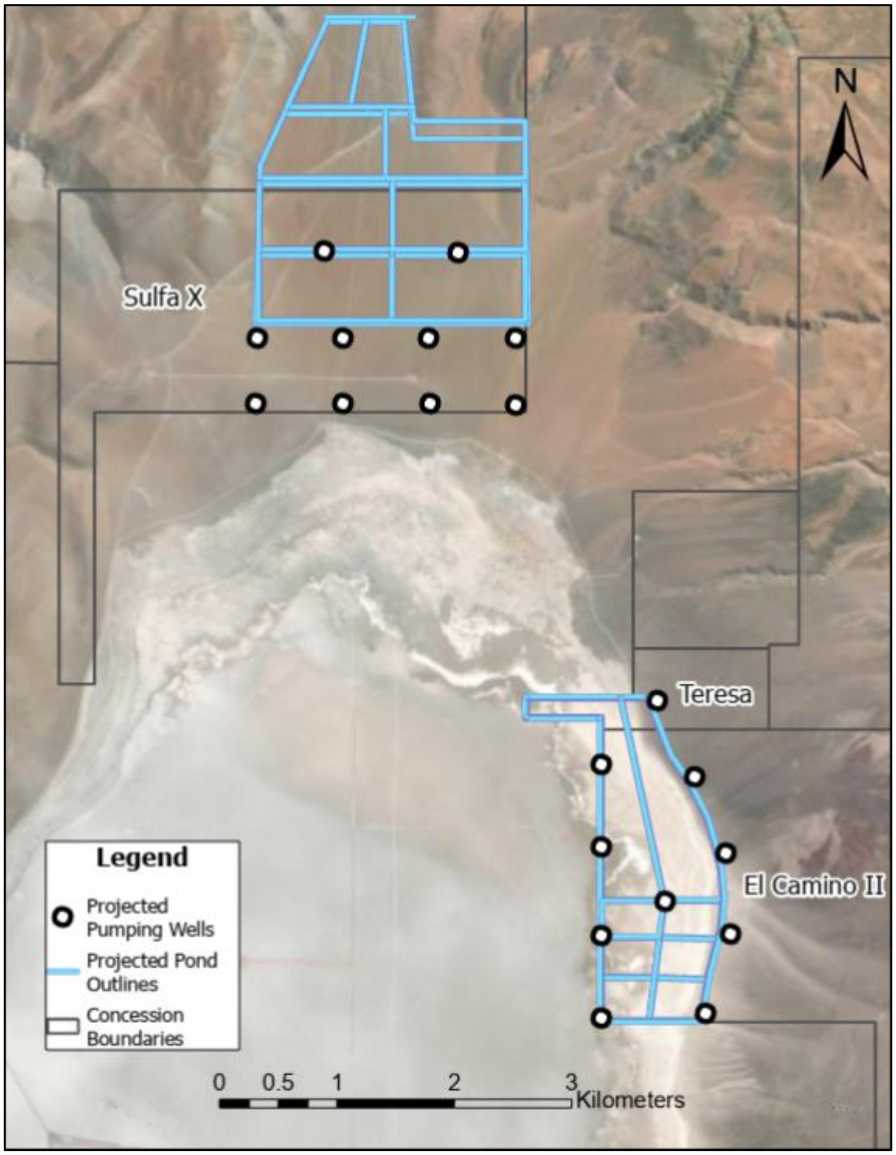


Figure 16-1 Projected production wells and evaporation ponds.

Conventional brine extraction will occur through the use of vertical pumping wells. An average depth of 400 m is estimated for each well, with shallower depths in areas where the basement level is closer to the surface. In general, brine capture zones will primarily focus on sand and gravel units, with the possibility of extraction from evaporite layers (depending on the location and hydraulic potential for pumping), while avoiding clay-dominated strata. The future wellfield layout will be optimized to minimize dilution from freshwater inflows from the upgradient portions of the basin. Production wells are assumed to be able to pump 15 L/s on average, however each well will have a unique productivity, and flow rates could change once exploration pumping wells have been installed and aquifer tests have been conducted. Consequently, some future wells may produce more and others less than predicted at this initial evaluation stage of the Project.

In terms of the well characteristics, the brine production wells will be completed with 10-inch diameter casing; the possibility of using telescopic casing, which will be evaluated at a later stage. Stainless steel or galvanized steel is currently considered to be the casing material. The wells will be equipped with submersible pumping equipment and corrosive-resistant drop pipe. Permanent power will be delivered to the wellfield area through electric generators connected to each production well. Brine wells will be distributed mainly in the northern concessions in the basin, and it is anticipated that the brine will be transported through HDPE pipes to a brine collection pond prior to processing.

Stage 2 will replicate the same model as stage 1 with a different location of the wellfield.

16.3 Hydrogeological Considerations

The following sub-sections summarize key hydrogeological considerations during production, including anticipated freshwater interactions and potential infiltration from evaporation ponds.

16.3.1 Freshwater Interaction

The Salar de Rio Grande is relatively large and is surrounded by areas of sands and gravels in alluvial fans. The margins of the basin are assumed to contain fresh water overlying a brackish water mixing zone, which then overlies brine. As brine extraction occurs, the migration of less concentrated brine towards the wells is expected, as pumping is likely to influence the interaction between brackish water and brine around the salar margins. Consequently, pumping wells should be constructed to minimize the amount of brine extracted from the upper level of the salar and to take advantage of natural confining layers to minimize the near-surface effects of pumping.

16.3.2 Potential Infiltration from Evaporation Ponds

Infiltration of brine with high total dissolved solids (TDS) is strongly influenced by the characteristics of the ponds and precipitation of salts, as the TDS concentration increases due to evaporation from the brine. Precipitated salts tend to seal the base of the infiltration area, significantly reducing the infiltration rate. However, on site and modeling studies are necessary to evaluate percentage of the brine volume could potentially infiltrate into the aquifer.

16.4 Grade Control and Production Monitoring

Once in the operational period, brine sampling and measurement of brine and water levels for each well should be done weekly, increasing to monthly after the first year. Ongoing weekly to monthly measurements at monitoring wells around the margins of the salar should also be considered to track water level changes and the freshwater-brine interface during pumping. Further control should include yearly video inspections and well maintenance. Finally, the development of a calibrated groundwater model for the brine and surrounding brackish water is needed to simulate production and potential sources of dilution during pumping.

17. Recovery Methods

The flowsheet for the recovery of lithium from the Rio Grande Salar brine is based on a standard flowsheet involving evaporation ponds followed by further purification and processing of the lithium brine in a purification / carbonation plant. The design was based on a steady state process model without metallurgical testing. The proposed process follows industry standards:

- Pumping brine from the aquifers;
- Concentrating the brine through evaporation ponds; and
- Taking the brine concentrate through a hydrometallurgical facility to produce battery-grade lithium carbonate

The proposed lithium recovery process integrates in-field solar evaporation through a series of ponds to obtain a lithium-rich brine, which is subsequently chemically processed to produce lithium carbonate. NOA plans to construct a solar evaporation process, consisting of multiple solar ponds in two trains, that feed a lithium carbonate plant producing battery-grade lithium carbonate as a marketable product. Table 17-1 presents the brine composition used as the design basis for both the evaporation and lithium carbonate plants, as provided by NOA Lithium. Figure 17-1 illustrates a block flow diagram of the overall process.

Table 17-1: Brine Composition – Basis of Design

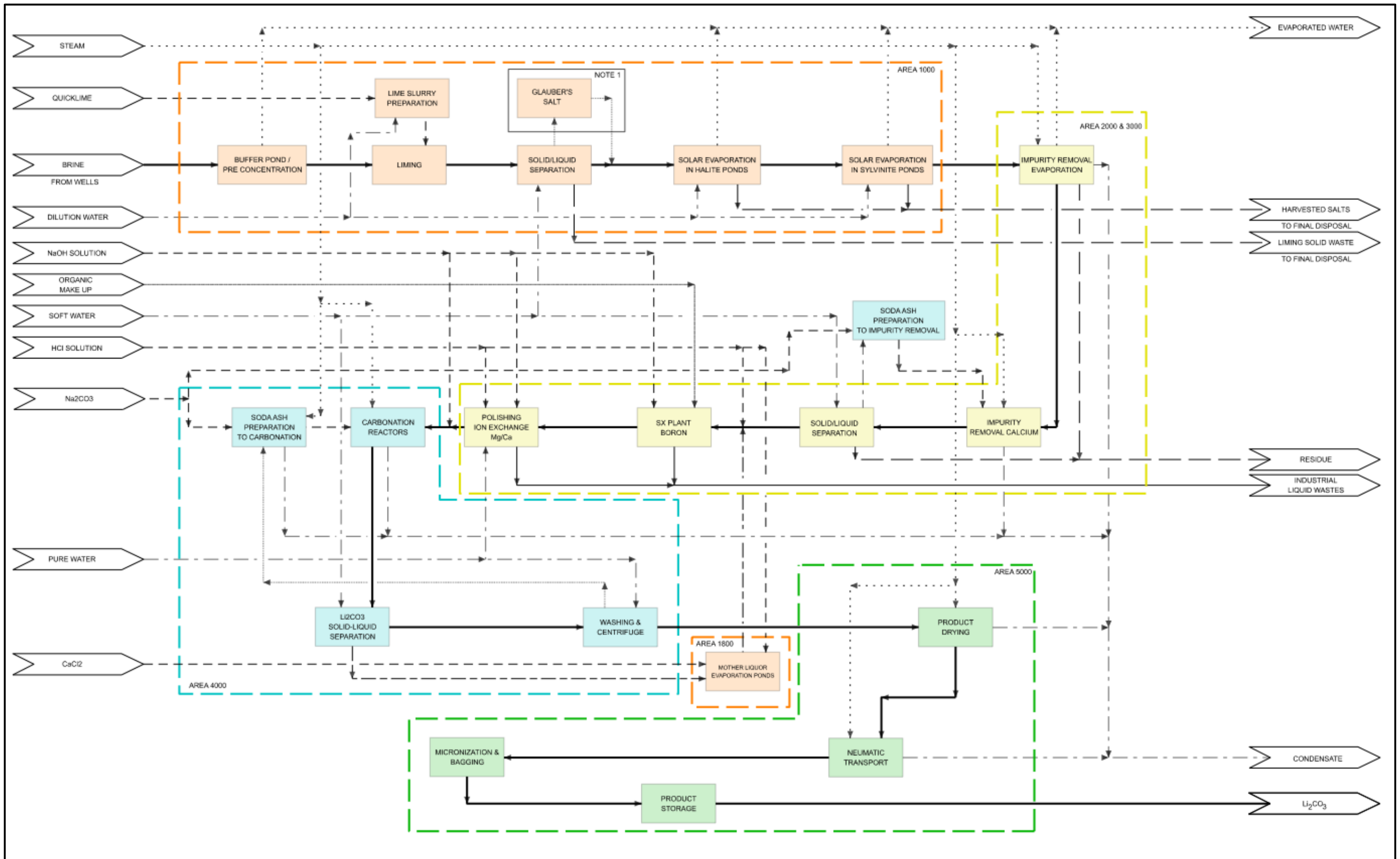
Brine Composition	mg/l
Li	594
Ca	213
Mg	7,077
SO_4	31,568
B	324
Na	115,094
K	10,522
Cl	181,630
HCO_3	168

The lithium recovery process consists of the following main processing stages:

- Brine production from wells;
- Brine pre-concentration using solar evaporation ponds;
- Pond chemical impurity removal using lime slurry;
- Impurity polishing in the lithium carbonate plant;
- Lithium carbonate crystallization;

- Mother liquor treatment and recycle;
- Lithium carbonate crystal compaction and micronization; and
- Lithium carbonate packaging.

Steady state mass and energy balance simulations were developed for estimation of operating flows and equipment sizing.



Note1: Glauber's salt addition when temperature conditions are below 8°C

Figure 17-1: Process Block Flow Diagram.

17.1 Brine Extraction Wells and Solar Evaporation Ponds

In this area, the process of concentrating salar brine is carried out, beginning with the extraction of brine from wells and its transfer to accumulation ponds (PDAs). These ponds supply the solar evaporation system, where brine evaporation and removal of salt occurs. Through this process, a lithium chloride-enriched brine is produced, reaching a lithium concentration of approximately 1.2% w/w to avoid co-precipitation of Li-K double salts.

The process consists of the following stages:

- Brine Extraction: This stage involves the operation of 20 brine extraction wells located in two zones of NOA Lithium's properties—SulfaX (north of the salar) and En Camino II (on the east side of the salar).
- Accumulation Ponds (PDAs): Each zone includes two ponds used to accumulate brine extracted from the salar.
- Pre-concentration (PC): Two parallel processing trains, each with two ponds, to facilitate water evaporation. As a result, Glauber's salt ($Na_2SO_4 \cdot 10H_2O$) and halite (NaCl) are crystallized.
- Halite (H): Two trains with three ponds each continue the crystallization of halite and also precipitate gypsum ($CaSO_4 \cdot 2H_2O$).
- Sylvinite (K): Two trains, each with one pond, to promote the crystallization of sylvite (KCl), halite (NaCl), and gypsum.
- Reservoir (C): A single pond serves as a reservoir, supplying brine to the carbonation plant for further processing.

Due to the high sulfate content in the raw brine, the pre-concentration stage aims to achieve an optimal SO_4/Mg ratio through controlled evaporation and environmental temperature variations. This balance is essential to minimize reagent consumption during downstream processing at the plant. Consequently, brine from the pre-concentration ponds (PC2A / PC2B) is directed to the liming stage, where sulfate and magnesium are removed before continuing to the halite evaporation ponds.

To enhance operational flexibility—especially during winter, when the ambient temperatures vary widely —an additional sulfate removal step is incorporated. This involves the use of Glauber's salt (harvested from the pre-concentration ponds) prior to transferring the brine to the halite ponds.

The goal of the liming and solar evaporation system is to produce a lithium-rich brine with a concentration of approximately 1.2% w/w, which is then sent to the Lithium Carbonate Plant for further refinement.

It's important to note that the solar evaporation ponds operate in a semi-continuous manner. Once salt accumulation reaches levels that reduce storage capacity, the ponds must undergo a salt harvesting process to restore functionality.

17.2 Lime and Liming Plant

In this area, a series of unit operations is implemented to remove sulfate and magnesium from the brine originating from the pre-concentration ponds.

17.2.1 Lime Plant

At the Lime Slaking and Liming Plant within the pond system, a series of unit operations is carried out to remove magnesium from the lithium-rich brine processed in the concentration ponds.

Quicklime is delivered by truck and transferred to storage silos via pneumatic conveyance. From the silos, the lime is fed into a Vertimill slaker, where it is mixed with water for slaking and simultaneously ground to produce a fine slurry. This lime slurry is then discharged into a storage tank, from which it is continuously circulated and fed into the liming line.

17.2.2 Liming

The lime slurry and brine from the PC2A and PC2B pre-concentration ponds are mixed in two sequential, agitated reaction tanks. The resulting brine, containing precipitated solids, is then directed to the solid-liquid separation stage. This stage includes a thickener and a filter press system designed to remove impurities and suspended solids. The clarified and filtered brine is subsequently sent to the halite ponds trains to further concentrate the lithium.

The thickener underflow is dewatered using the filter press system, and the resulting solid residues are discharged onto the floor. From there, they are handled by a front loader and transported by truck to the final disposal site. The primary objective of the filtration process is to minimize the residual brine content in the solid waste.

17.3 Lithium Recovery and Precipitated Salts

The expected lithium (Li) recovery and salts precipitated in each pond is presented in Table 17-2.

Table 17-2: Lithium recovery and precipitated salts

Stage	Lithium Recovery	Precipitated Salts, (tpa)
Preconcentration	96%	1,158,267
Liming	98%	768,185
Halite	95%	1,134,818
Sylvinite	89%	515,294

To produce 20ktpy of LC, the design and operation of the evaporation ponds require periodic removal of salt deposits that accumulate at the bottom over time. This task will be performed using standard earthmoving equipment, including bulldozers, front-end loaders, and dump trucks. The salt harvesting service will be outsourced to specialized contractors.

The overall lithium recovery from the evaporation pond system is estimated at approximately 80%. The majority of lithium losses occur through brine entrainment in the harvested solids from each evaporation pond, along with minor losses due to leakage within the pond infrastructure.

17.4 Water Supply

The water supply for both the Lithium Carbonate Plant and the brine evaporation ponds is sourced from multiple wells. The extraction points are as follows:

Well A: Supplies water to the Brine Evaporation Ponds and the Lime Plant.

Well B. Provides water to the Lithium Carbonate Plant and the camp facilities.

Water extracted from these wells is stored in designated ponds and tanks. Water from Well A is collected in Raw Water Tank B, from which it is pumped to the Liming Plant. A portion is also directed to the Dilution Water Tank, where it is used as dilution water in the evaporation ponds located in the northern sector of the salar.

Water from Well B is stored in Raw Water Tank A, which supplies the evaporation ponds located on the eastern side of the salar and is also pumped to the storage ponds at the Lithium Carbonate Plant. Raw water requirement for the project is estimated to be 230 m^3/hr.

17.5 Lithium Carbonate Plant

17.5.1 Impurities Removal

Brine purification begins with the first stage, where the brine is mixed with washate water from the calcium removal filter press. This step enables the recovery of lithium from other process streams and concentrates the brine to approximately 1.8% lithium through evaporation.

In the second stage, residual calcium is removed via precipitation using soda ash (Na_2CO_3).

The third and final stage involves boron removal through solvent extraction (SX). After this, the brine undergoes a polishing step using ion exchange columns to eliminate trace amounts of calcium and magnesium, ensuring the final composition meets battery-grade specifications for lithium carbonate production.

17.5.2 Boron SX

The boron concentration in the concentrated pond brine is approximately 3,500 ppm and must be reduced. To achieve this, a solvent extraction process is used to lower the boron content to below 10 ppm. The brine, which comes from the solid-liquid separation stage of calcium removal and still retains a high temperature, must be cooled and pH-adjusted before entering the extraction circuit.

The extraction circuit consists of multiple stages arranged in a conventional mixer-settler configuration, operating with an organic-to-aqueous ratio of 1:1. During countercurrent mixing, boron from the aqueous feed is transferred into the organic phase. Hydrochloric acid (HCl) is added during the extraction process to adjust the pH, ensuring efficient boron loading while minimizing lithium losses. The resulting aqueous stream, now with low boron concentration, is then fed into the ion exchange (IX) polishing circuit.

Boron is stripped from the organic phase using an alkaline caustic solution. The stripping circuit also consists of two stages in a conventional mixer-settler arrangement, maintaining an advance organic-to-aqueous ratio of 1:1. The extracted solution containing boron is sent to a disposal pond designated for process waste. The regenerated organic phase is recycled back into the extraction circuit.

17.5.3 Brine Carbonation

The purified brine is indirectly heated with steam before entering the reaction tanks, which consist of four cascade reactors discharging slurry into a thickener.

The first reactor in the train receives the heated and purified brine, recycled seed, and a sodium carbonate solution, which reacts to precipitate lithium carbonate.

The carbonate reactor product slurry is sent to a thickener, generating an underflow stream with 25% solids that feeds centrifuges and enables the first solid-liquid separation. The resulting solids, with approximately 15% moisture, are sent to a repulping and washing stage using purified water to achieve the desired product purity before entering the product drying circuit.

The thickener overflow, along with the strong liquor recovered from the centrifuges, is sent as mother liquor to a heat exchanger, where it preheats the incoming brine from the pond before entering the evaporation stage. It is then directed to the sulfate removal stage using $CaCl_2$, with pH adjustment prior to returning to the pond. The mother liquor recovered from the pond is recirculated to the solvent extraction (SX) circuit.

17.5.4 Chemical Reagents

- Quicklime (CaO) will be transported to the site and stored in silos. Hydrated lime ($Ca(OH)_2$) will be produced in batches on-site using a lime slaker and used for sulfate removal in the ponds.
- Soda ash (Na_2CO_3) will be transported by ship and then by truck to the project site in Argentina. The sodium carbonate solution will be prepared in batches using purified water and recovered wash water. It will be used for calcium removal and to produce lithium carbonate.
- Hydrochloric acid will be transported and stored on-site as a 32% w/w solution. It will be diluted and used as a pH modifier in the boron solvent extraction process, in ion exchange operations, for pH adjustment, and for equipment washing during maintenance activities.

- Sodium hydroxide will be transported and stored on-site in flake form inside bulk bags. It will primarily be prepared as a stripping agent in the solvent extraction circuit, and also used in ion exchange operations, for pH adjustment, and as a reagent in water treatment processes.

17.5.5 *Product Drying, Handling and Shipping*

In the final stage of operations at the Lithium Carbonate Plant, the product discharged from the centrifugation and washing system undergoes drying, micronization, and packaging.

Drying is carried out using a rotary air dryer fueled by natural gas. Hot air is introduced at 750°C, and the dried product exits the dryer at approximately 90°C. It is then conveyed via an air slide system to a distribution hopper that feeds the micronization unit. This unit consists of two parallel lines of air jet mills, which micronize the product to achieve a particle size of less than 5 microns.

The dried and micronized product is transferred to a storage bin prior to packaging. Packaging is performed using two automated lines equipped with powder valves that shut off—either manually or electronically—once the target weight is reached in each bag or maxi-sack. The filled and palletized containers are then moved to the product storage warehouse.

The product remains in storage until it is released by the laboratory, following quality control verification and completion of shipping documentation.

18. Project Infrastructure

A conceptual assessment of potential site locations and layout configurations was conducted to identify a preliminary location for the brine field, evaporation ponds, carbonate plant, and associated infrastructure. This evaluation considered environmental and heritage sensitivities, as well as findings from hydrological and geotechnical investigations.

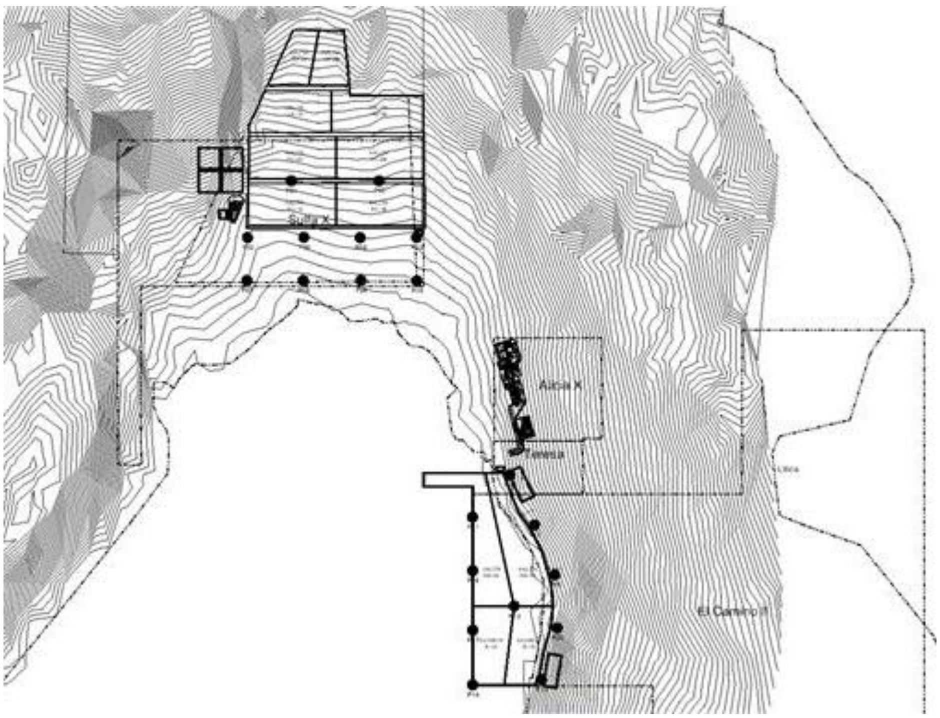


Figure 18-1: The conceptual site layout

18.1 Salar Brine Extraction Wells

The brine extraction wells are located in two sectors around the Salar: to the south of the Sulfa X property and to the west of the El Camino property. For the production of 20 Ktpa of LCE, a total of 20 brine production wells have been considered, each with a flow rate of 15 L/s. This assumption is subject to the definition of which wells will be operational during Phase 1 and will depend on the results of well exploration and the actual flow rates that can be extracted from each well.

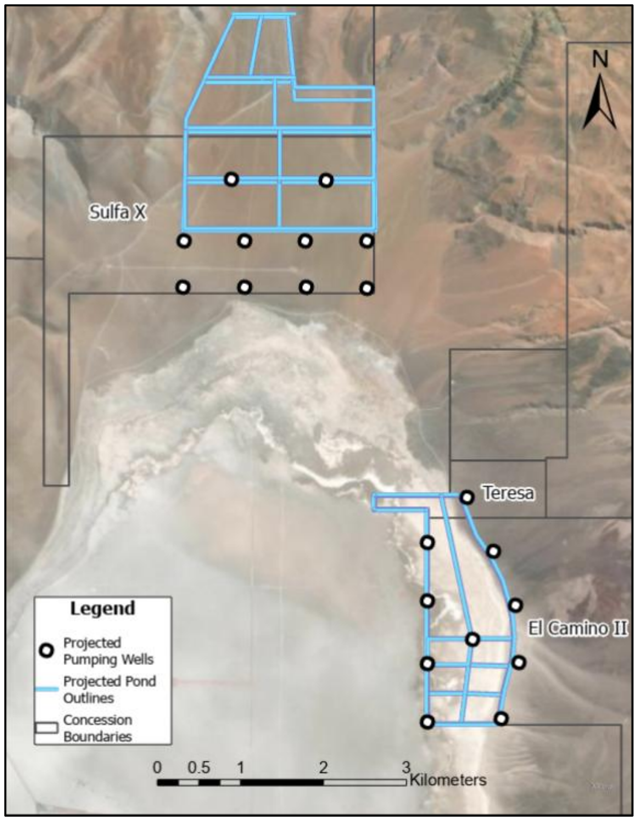


Figure 18-2: Projected wells and ponds location

To homogenize the brine collected from each well sector, accumulation ponds known as PDAs are planned. In the first phase, two PDAs will be available, strategically located to capture brine from the nearest wells in the northern and eastern sectors of the Salar. The collected brine will then be transported via pipeline to the pre-concentration ponds located in SulfaX.

18.2 Evaporations Ponds

Based on site conditions and the need to optimize earthworks for the construction of solar evaporation ponds, a total of 12 ponds is planned, arranged in two parallel trains. Each train will include two pre-concentration ponds, three halite ponds, one sylvinite pond, and one reservoir pond, which will supply brine to the lithium carbonate plant.

The ponds will primarily be constructed using a terraced system, utilizing local materials and lined with geomembrane. To prevent damage from impacts and punctures, a layer of geotextile may be installed beneath the geomembrane. The pond design and operational strategy include periodic removal of salt deposits accumulated at the bottom. Standard earthmoving equipment—such as bulldozers, front-end loaders, and dump trucks—will be employed for this task.

The brine evaporation ponds are expected to cover an area of approximately 6,100,000 m² and will be split into the North and South areas as shown in
Figure 18-3 and Figure 18-4. Supporting infrastructure includes electrical power distribution systems, electrically powered pumps, and access roads to each pond. Electrical power will be delivered to each pump through enclosed conduits mounted along the surface pipeline distribution network.

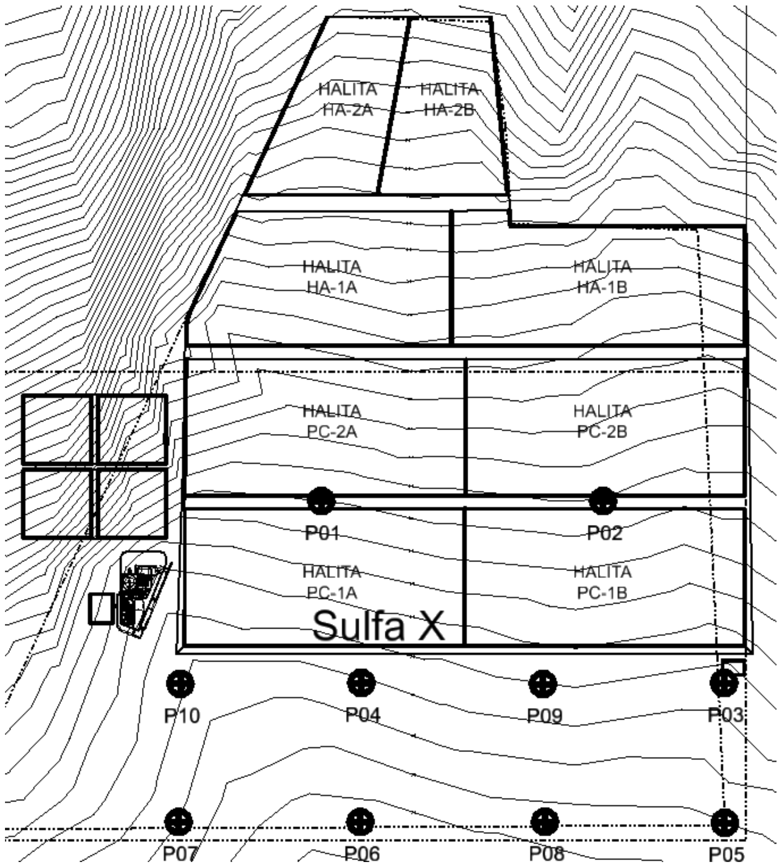


Figure 18-3: Ponds Layout North

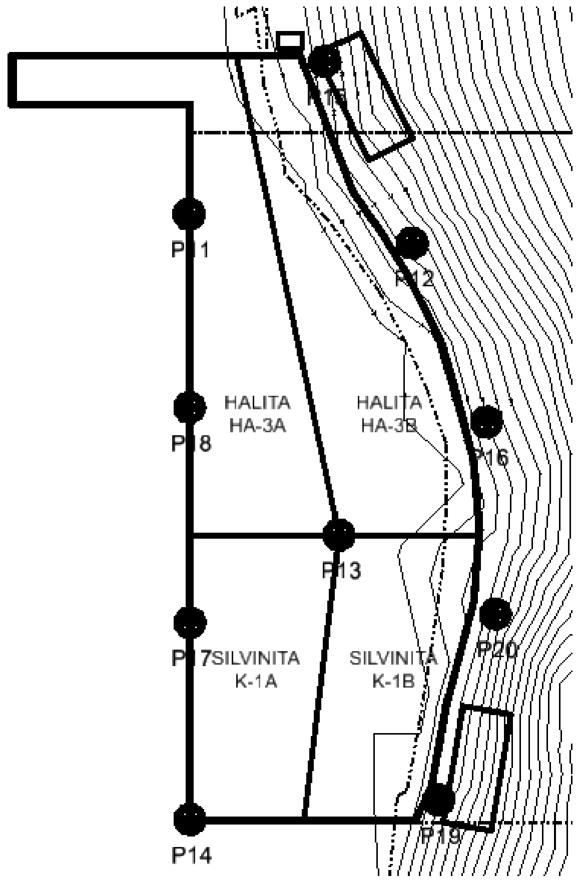


Figure 18-4: Ponds Layout South

The design and operation of the ponds require the periodic removal of salt deposits that accumulate at the bottom. To carry out this task, standard earthmoving equipment—such as bulldozers, front-end loaders, and dump trucks—will be utilized. This service will be outsourced to specialized contractors.

The salt harvesting dumps are designated areas for storing the extracted salts. These sites are equipped with access roads connecting them to the evaporation ponds, as well as entry points that enable loaded trucks to reach the designated storage elevation. This elevation is expected to range between 10 and 20 meters, subject to final approval by the Argentine authorities. For Phase 1 of the project, the total required storage volume is estimated at 16.3 million m³ for harvested salts and 9.6 million m³ for plant residues.

Within the brine evaporation ponds area, a slaking and liming plant will also be installed to enhance the precipitation of undesirable elements from the brine. The facility will be equipped with specialized components for this process, including storage tanks, reactors, a thickener, and filtration units. It will be housed in a dedicated building located within the same zone allocated for the ponds. Additionally, a heated trailer-type facility will be provided to serve as an office, lunchroom, restroom, and security post for personnel operating in the pond area

18.3 Lithium Carbonate Plant

The process plant will be located adjacent to the evaporation and concentration ponds. This building will include the following:

- Wet Area
- Dry Area
- Laboratory
- Offices
- Medical Services
- Maintenance Workshop
- Spare Parts Warehouse
- Control Room
- Electrical Equipment Room
- Reagents Storage Room.

18.4 On Site Infrastructure and Auxiliaries

18.4.1 General

The facilities and areas to build the Lithium Carbonate plant are:

- Process Building: 69,500 m^2
- Products and Supplies Warehouses: 10,000 m^2
- Combined Heat and Power Unit, Substations and Electrical Rooms: 19,000 m^2.

The layout for the plant is shown in Figure 18-5.

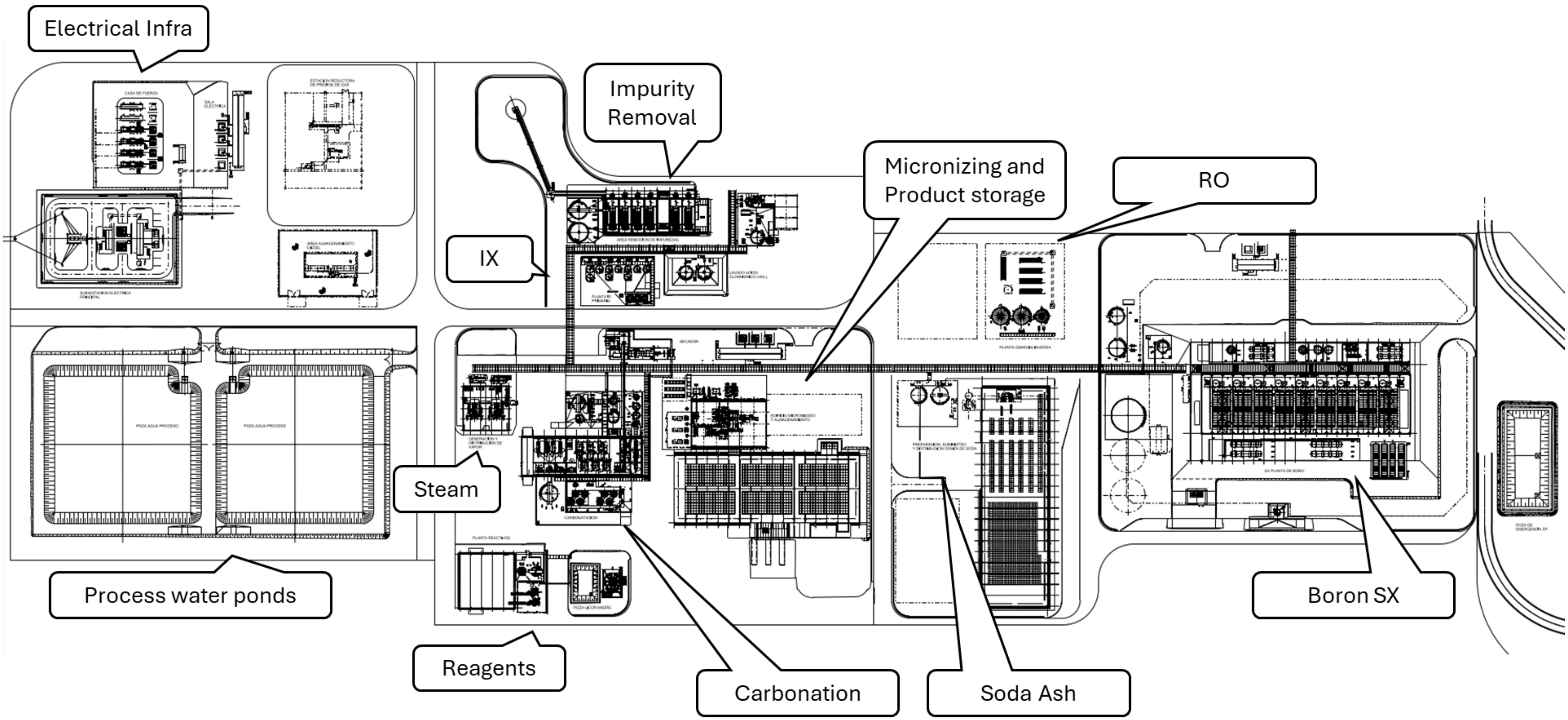


Figure 18-5: Lithium Carbonate Plant Layout

Considering the climatic conditions at the plant site, enclosed buildings have been designed for areas with prolonged operator presence, process zones, and electrical and control rooms.

The reagent storage facility will be constructed with a steel structure and clad in metallic siding. The Lithium Carbonate product will be stored in a closed building to prevent dust contamination caused by the strong prevailing winds in the area.

The chemical storage building for the solvent extraction plant will also feature a steel structure with metallic siding and will be equipped with appropriate ventilation systems and safety measures.

A permanent camp designed to accommodate approximately 400 people is planned, covering an estimated area of 13,000 m². The camp will include offices, dining facilities, maintenance workshops, a spare parts warehouse, laboratory, locker rooms, and parking areas.

18.4.2 Power Generation and Distribution

The Project site currently does not have access to the national power grid. Consequently, all electrical energy requirements will be met through on-site generation using natural gas and diesel-powered generators, supplemented by approximately 20% renewable energy sources. This solar park is envisioned as a viable option to reduce natural gas consumption as energy demand by enhancing those facilities that are not critical for production/operations.

Power generators will be installed at key operational zones, including the lithium carbonate plant, the brine field area, the raw water well site, and the camp. Backup generators will be available to ensure continuous operation of critical equipment.

All electrical equipment will be housed in prefabricated, modular switch rooms. Dedicated switch rooms are planned for the liming plant, the lithium carbonate plant, and the camp facilities.

Power Demand

The estimated electrical energy demand for the Rio Grande Project is approximately 13 MW. This power requirement encompasses all major operational components, including brine extraction wells, evaporation ponds, the brine treatment plant, and the workers' camp.

Table 18-1: The overall anticipated power consumption

Description	Power Consumption (kW)
All Plant	128
Wellfield	2,664
Evaporation Ponds	3,718
Carbonate Wet Plant	3,427
Carbonate Dry Plant	340
Services	1,208
On-Site Infrastructure- Camp. Admin & Offices	1,463
Operating Power Demand	**12,949**

Natural Gas

The study considered the use of LNG supplied by a third party (ERGY). The solution provided by this supplier includes the supply of LNG via a “virtual” pipeline trucking the LNG from a gas compressing mother plant located in General Güemes (Salta) with direct access to the main gas pipeline of TGN. They will provide a regasification and storage facilities at site for a fixed price of gas. The reference distance between General Güemes and the access area to Río Grande is approximately 405 km in total via a combined route suitable for cryogenic ISO-tank convoys.

Figure 18-6: Schematic LNG transport and storage.

This proposal includes liquefaction at dedicated hubs, cryogenic transport using ISO tanks, onsite storage, and regasification with fiscal metering to enable “ready-to-use” delivery. Final consumption volumes will be invoiced based on MMBtu, as measured within operational expenditures (Opex).

As part of the capital expenditures (Capex), the project includes the construction of a civil platform for an ISO tank park or vertical storage tanks, auxiliary energy systems for vaporization and metering, site permitting, and access infrastructure suitable for maneuvering 40-foot ISO containers.

Natural gas consumption as a thermal energy source is primarily allocated to product drying operations and boiler use, with an estimated annual demand of 194,500 MMBtu. Steam consumption is projected at approximately 8 tonnes per hour, serving multiple functions: supplying heat to exchangers, raising the temperature of the brine for the main process, and assisting in heating the soda ash mixture and the evaporator system.

Steam is generated by a package boiler fueled by natural gas. The system operates at a nominal pressure of 6.5 bar, with a maximum allowable pressure of 10.5 bar.

The projected requirement is 170,000 Nm^3/day of natural gas available on site, designated for both electrical and thermal energy generation. Applying a standard conversion factor (1 Nm^3 ≈ 0.03602 MMBtu), this corresponds to an estimated daily energy demand of approximately 6,123 MMBtu. To ensure five days of operational autonomy, the total on-site energy inventory must reach approximately 30,617 MMBtu.

Transfer and storage operations will be conducted using ISO tanks with a capacity of 750 MMBtu each. Given that each transport cycle delivers 750 MMBtu, the estimated daily requirement corresponds to approximately nine 40-foot ISO trucks per day. To ensure a five-day operational reserve on-site, a storage fleet of approximately 41 ISO tanks will be required. These tanks will be supplied by ERGY and will include associated vaporization systems to support continuous energy availability.

Diesel

The main diesel consumption will be heavy duty equipment; earthmoving, forklifts, trucks and personnel vehicles. Diesel will be stored in two (2) tanks, which will be set on a lined gravel pad at Plant and camp site. One (1) week of storage will be provided.

Table 18-1: Diesel Consumption

Description	Consumption (L/y)
All Plant	46,136
Wellfield	-
Evaporation Ponds	1,281,197
Carbonate Wet Plant	-
Carbonate Dry Plant	224,694
Services	251,324
On-Site Infrastructure- Camp. Admin & Offices	Incl. above
Operating Power Demand	1,803,352

18.4.3 Water Supply and distribution

Three types of water will be required for the operation: process water, service water, and potable water. Since a specific water extraction site is not yet defined at this stage of the project, the study assumes sourcing from a wellfield located in the northern sector of the Salar. The extracted water will be transported to the plant's supply tank and ponds, where it will undergo appropriate treatment for its intended uses—process operations, potable consumption, and fire suppression.

Raw water supplied to the site will be processed at the on-site Water Treatment Plant (WTP) to meet the specific quality parameters required for each application. The proposed treatment methods include softening, reverse osmosis, and potable water purification. The final selection of treatment technologies for process and general service water will be determined once the water sources are confirmed. Operational provisions for the WTP are included in the project's operating expenditures (OPEX).

18.4.4 Solid Waste, Sewage Treatment and Disposal

Solid waste will be collected in designated containers to enable proper segregation and controlled disposal. A pre-packaged sewage treatment plant will be installed to treat all wastewater, ensuring safe discharge into the environment in full compliance with applicable environmental regulations.

The project also includes preliminary provisions for a wastewater pond to receive liquid effluents from the plant, a dedicated area for solid waste generated during operations, and a mother liquor pond designed to recover lithium from the wash water used in the filter plant process.

18.4.5 Fire Detection and Protection

The fire detection system is composed of a network of intelligent panels designed to detect and respond to fire incidents at critical locations such as electrical rooms, data centers, the control room, offices, and the polyclinic, among others. System components include sensors, detectors, alarms, and sirens, all interconnected via a communication bus linked to the respective fire panels.

The system operates over a fiber optic network configured in a ring topology, enabling fast and reliable data exchange between panels. A dedicated fire system operation station is located in the control room, allowing real-time monitoring and status management of all panels connected to the fire detection network.

An SX system fire detector has also been considered along with a dedicated fire safety unit designed for high-risk environments. It uses a foam-based suppression method that quickly cools and isolates the fire, preventing its spread.

18.4.6 Control System

The Process Control System (PCS) is designed as a hybrid architecture, combining standard data acquisition technologies with next-generation fieldbus communication protocols. The control system incorporates controllers equipped with redundant processors, power supplies, communication modules, and I/O modules to ensure high reliability and operational continuity.

Controller and I/O module cabinets are installed in electrical rooms and in remote field racks, strategically located according to the operational needs of each area. Analog signal acquisition from field instrumentation will be carried out via Fieldbus H1, while Profibus DP will be used for digital communication with electrical equipment, including command and protection functions in Motor Control Centers and variable frequency drive.

The centralized control room is designed with built-in redundancy for both telecommunications and control systems. The primary data room houses database servers and the historian component of the PI System. To ensure control system reliability, a secondary data room—located in a separate building approximately 200 meters from the main offices—contains backup servers.

A closed-circuit television (CCTV) system will be implemented, featuring strategically placed video cameras throughout key process areas. These cameras connect to the operational control system via a video server, providing visual support for production activities. For distances exceeding 100 meters, the CCTV system will utilize six-core fiber optic cables, while STP Cat 6 cables will be used for shorter connections under 100 meters.

18.4.7 Auxiliary Facilities

An area of approximately 25,000 m² has been designated for the camp facilities. This zone includes the access control and administration sector, the camp maintenance area—comprising the electrical room, warehouses, and support services—as well as permanent accommodation pavilions for operational personnel. Additionally, the camp features a dining hall with capacity for 265 people per shift and sanitary facilities to support daily operations.

19. Market Studies and Contracts

19.1 Lithium Demand

Demand for lithium-ion batteries has increased significantly in recent years driven by the rising adoption of electric vehicles (EV) and growing popularity of energy storage systems (ESS). EV batteries are forecast to become the primary driver for lithium chemical demand according to Project Blue projections, as shown in Figure 19-1. Battery demand is projected to grow at >20% annually as passenger EV penetration rates move beyond 40% by 2033 and grid-scale ESS expands to support renewable power generation.

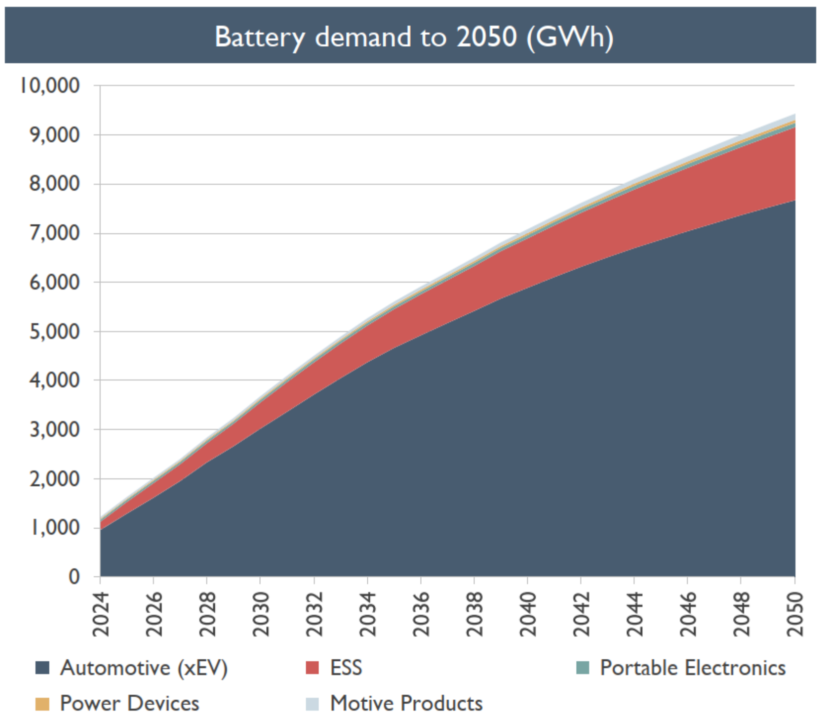


Figure 19-1: Total Battery Demand by End-Use (GWh) (Project Blue, 2025)[1]

[1] The foregoing chart was obtained from Lithium Long-term outlook: Energy transition horizon outlook to 2050 (Q3 2025) ™, a product of Project Blue

Today's EVs heavily rely on lithium-ion batteries that mainly incorporate NMC (nickel manganese cobalt) and LFP (lithium iron phosphate) cathode active materials (CAM). NMC requires battery-grade lithium hydroxide as an input while LFP requires battery-grade lithium carbonate as an input. In the coming years the EV market is forecast to adopt larger volumes of LFP and this trend is expected to support lithium carbonate demand through 2035. (Figure 19-2)

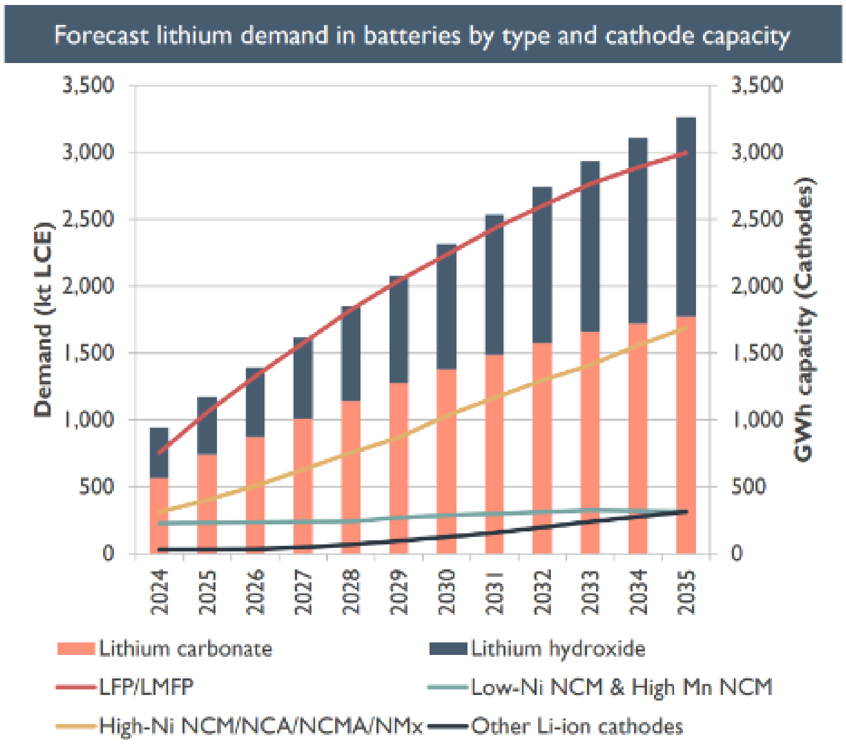


Figure 19-2: Lithium demand in batteries forecast by type and cathode capacity (Project Blue, 2025)[2]

In 2024 battery-grade lithium carbonate and lithium hydroxide combined accounted for 88.6% of total lithium chemical demand[1]. This trend is expected to continue as battery-grade lithium products gain further market share from sustained growth in demand from rechargeable battery technologies, as shown in Figure 19-2. Project Blue forecasts that demand for lithium carbonate is forecast to grow at a compound annual growth rate (CAGR) of 8.8% between 2025 and 2035 while demand for lithium hydroxide is projected to grow at a CAGR of 12.8% over the same period.

The largest end-use market for lithium-ion batteries in the automotive sector is currently Asia Pacific, dominated by China, followed by Europe and North America. While CAM and pCAM manufacturing from lithium chemicals is mainly located in Asia Pacific, gradual expansion in Europe and North America is underway to support local lithium-ion battery supply chains.

[2] The foregoing chart was obtained from Lithium Medium-term outlook (April 2025) ™, a product of Project Blue

Despite the growing manufacturing capacity in Europe and North America, Asia Pacific is expected to continue to account for highest demand.

19.2 Lithium Supply

Lithium is primarily mined from hard-rock deposits (spodumene, petalite, and lepidolite) as well as from brine sources. Australia remains the global leader in mine capacity and mineral concentrate production from hard rock. In 2024, it operated nine spodumene mines with a combined capacity of approximately 1,600 ktpy lithium carbonate equivalent (LCE). The Greenbushes mine in Western Australia continues to be the largest lithium mine globally, producing 212.5 kt LCE in 2024. China was the second-largest producer, mining 104.5 kt LCE from spodumene and lepidolite deposits primarily in Sichuan and Jiangxi provinces. Brazil has emerged as a significant producer, contributing 39.9 kt LCE in 2024 from the Grota do Cirilo, Mibra, and Mina da Cachoeira mines. Zimbabwe has also become a major player, producing 106.1 kt LCE in 2024 from newly commissioned spodumene and petalite operations such as Zulu, Sabi Star, and Kamativi. Canada resumed production at the La Corne and Bernic Lake mines, with a combined output of 3.5 kt LCE in 2024, all exported to China for processing. Portugal and Namibia continue to produce lithium from smaller lepidolite deposits, though their output remains limited.

Mine capacity is expected to increase dramatically in the next decade to respond to increasing lithium chemical demand. Australia is projected to continue being the largest supplier of mineral concentrate. China is forecast to remain the largest supplier of lithium chemicals, including battery-grade lithium carbonate and lithium hydroxide, given its significant conversion capabilities. Africa is now a key region in global lithium supply, with Zimbabwe leading and Nigeria seeing rapid growth.

Primary lithium capacity (lithium produced directly from mined sources such as hard rock or brine) is expected to expand in China, Australia, Brazil, Zimbabwe, and Canada, with commissioning of new lithium mining and refining projects anticipated within the next few years. These countries are projected to lead global growth due to resource availability, policy support, and increasing integration across the lithium supply chain.

Project Blue analysis indicates that recent supply growth has led to a short-term oversupply of lithium, particularly between 2023 and 2024. Battery-grade lithium carbonate registered a surplus of just 1.9% in 2024, while lithium hydroxide remained more significantly oversupplied at 8.7%. Despite the current oversupply of lithium, demand for lithium is projected to continue to grow from lithium-ion battery applications.

Compared to refined lithium supply in 2024, projected demand by 2050 will require an additional 3,992 kt LCE, representing a 349% increase in refined production. This translates to an average annual supply growth of 154 kt LCE between 2024 and 2050 to maintain supply-demand equilibrium (Figure 19-3). This long-term demand trajectory suggests that while the market is currently oversupplied, sustained investment and capacity expansion will be essential to meet future needs and avoid structural deficits.

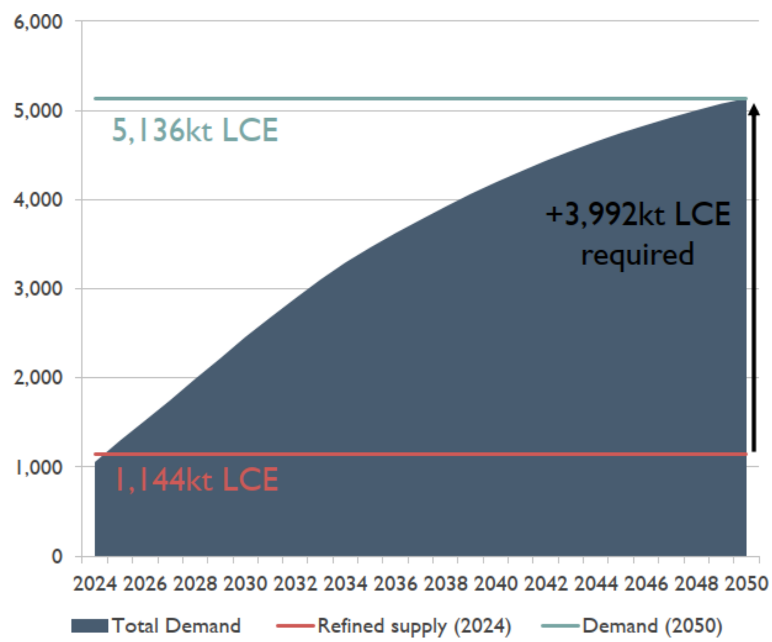


Figure 19-3: Long-term forecast for lithium demand vs supply (Project Blue, 2025)[3]

19.3 Prices

Long-term pricing assumptions for battery-grade lithium carbonate were developed using forecast data from Project Blue (April 2025), Wood Mackenzie, FastMarkets, and Consensus Economics (Q3 2025). These forecasts reflect expected market prices from 2030 and 2035 onward, covering the duration of the Project's operational life. To ensure robustness, pricing assumptions were also benchmarked against comparable public reports from other recent lithium projects. The forecasts shown in Table 19-1 represent long-term forecast for battery-grade lithium carbonate prices, expressed in real 2025 US dollars.

[3] The foregoing chart was obtained from Lithium Long-term outlook: Energy transition horizon outlook to 2050 (Q3 2025) ™, a product of Project Blue

Table 19-1: Long-term Pricing Assumptions for Battery-Grade Lithium Carbonate

Source	Source Type	US$/t (Real 2025$)
Consensus Economics	Forecast (2030-2034)	13,410
Project Blue	Forecast (2030-2035)	19,679
Wood Mackenzie	Forecast (2030-2035)	17,873
FastMarkets	Forecast (2031-2034)	30,000
Bonnie Claire Lithium Project	PEA (2025)	24,000
Nevada North Lithium Project	PEA (2025)	24,000
Smackover Lithium South West Arkansas Project	DFS (2025)	22,400
Lithium Americas Thacker Pass Project	FS (2024)	24,000
Jindalee Lithium McDermitt Project	PFS (2024)	24,000
Lithium Chile Arizaro Project	PFS (2024)	29,000

The economic analysis in this study applies a long-term battery-grade lithium carbonate price of US$24,000/t. This price is reasonably consistent with those applied in publicly issued economic assessments filed within the past year. Additionally, given Hatch's experience on engineering studies across the various potential sources of Lithium (i.e. spodumene, salar brines, brines (DLE), clay, lepidolite and geothermal brines) Hatch has developed a project and resource-based view on incentive price curve to fill the supply gap. Based on this analysis, Hatch's view aligns with using a price of $24,000/t LC, which is at the lower end of the incentive price for most projects outside of China. This incentive price assumes that most project developers need a 15% post tax IRR on their investment. The sensitivity analysis in Section 22 Economic Analysis considers the impact of variations in the price environment on project economics.

NOA will have to secure offtakes for its product as the project develops. This will typically be done when the Project is in the Feasibility stage and when offtake partners typically engage with potential suppliers. NOA will have to provide samples of product produced from the brine through various testing methods. Securing offtakes will likely be one condition for the project FID and financing since this is the experience of most other development projects.

19.4 Geopolitical and Trade Considerations

U.S.–China trade tensions continue to impact lithium supply chains. Tariffs on Chinese EVs and batteries, coupled with China's proposed restrictions on the export of lithium processing technologies, have heightened uncertainty around lithium supply from China and contributed to increased price volatility due to outsized influence China has on lithium refining and supply of chemicals. This has prompted automakers and battery producers to diversify sourcing strategies, increasing the strategic value of lithium projects located outside China. With operations in Argentina, the Project is well-aligned with the evolving procurement priorities of Western OEMs and battery manufacturers.

20. Environmental Studies, Permitting and Social Or Community Impact

20.1 Environmental studies

NOA has completed various environmental studies required to support its exploration programs between 2022 and effective date of this report. NOA has initiated baseline environmental, hydrogeological, hydrological and other studies in support of the Project Environmental Impact Assessment (EIA), which is planned for 2026.

The EIA will be required prior to approval for construction of any lithium brine extraction and the processing plant. It is expected that the EIA for the future brine operation will be completed in parallel with the DFS.

20.2 Project permitting

NOA Lithium has secured all necessary permits for the exploration phase of the project. As the project advances through its successive stages, each phase is subject to a specific EIA, which is prepared in accordance with applicable regulations and is submitted for approval by the environmental authorities. These assessments and the corresponding approvals are requested and executed progressively, in accordance with the development timeline of the project. All relevant permits for future construction and operational activities will be obtained following the approval of their respective EIA, prior to commencement of construction.

20.3 Social and community outreach

As part of its commitment to territorial development and community relations, NOA maintains active engagement with the following localities that surround the project: Tolar Grande, Estación Salar de Pocitos, and San Antonio de los Cobres.

20.3.1 Tolar Grande

20.3.1.1 Local Context

Tolar Grande is located within the Los Andes Department and is found approximately 140 km northeast of the project.

According to the 2010 INDEC census, Los Andes Department had 6,050 inhabitants over an area of 25,636 km², with a 2024 projected population of 7,060. Tolar Grande currently has approximately 277 permanent residents, although others travel from Salta to Tolar Grande as well. Mining activity has stimulated temporary migration, increasing the demand for goods, services, and accommodation, and it also has encouraged former residents to return for employment opportunities.

The community is formally organized as the Koya Community of Tolar Grande (legal registration No. 164/22/07/02). Public and private infrastructure includes primary and secondary schools, a health center, police post, church, shops, community dining services, lodging, a municipal shelter, and a Community Integration Center (CIU). Basic utilities include potable water from a well network, electricity, cesspits/latrines, bottled gas or firewood, and paved main streets with secondary roads.

20.3.1.2 Community Engagement Activities

Tolar Grande, being the closest locality to the project, represents the primary hub of community interaction. NOA participates annually in the Environmental Minga, which is organized by the Municipality of Tolar Grande. NOA contributes to logistical and material resources such as water and others. This participation has been publicly acknowledged by the Mayor of Tolar Grande.

In addition, NOA maintains ongoing commercial relationships with local service providers in Tolar Grande, contracting services such as bed linen laundry, tire repair, lodging, grocery purchases, and logistics for supplies. These interactions strengthen the local economy and promote productive integration of the community into mining development.

20.3.2 Estación Salar de Pocitos

20.3.2.1 Local Context

Estación Salar de Pocitos is located approximately 216 km northeast of the project. The local community has actively participated in mining projects such as the Sal de Oro Project and the Rincón Project.

Basic infrastructure includes a police post, first aid station, satellite internet (Starlink), restaurant, and lodging. Improvements have been made to water and sanitation services, including plans for arsenic treatment and wastewater management. A new public space, the “Héroes del Salar” Plaza, was recently inaugurated as part of social and community development initiatives.

20.3.2.2 Community Engagement Activities

NOA’s engagement in Estación Salar de Pocitos is more limited. The company works with a local food service provider, who supplies lunches and snacks during travel to and from the project site.

20.3.3 San Antonio de los Cobres

20.3.3.1 Local Context

SAC is located approximately 110 km east of Salar de Pocitos and is primarily accessible via National Route No. 51. It serves as the administrative and service hub of the region, hosting the following national and provincial agency offices: Town Council, Nicolás Pagano Zonal Hospital, Provincial Police Substation, Argentine Army Command, Gendarmería Nacional Squadron No. 22, National and Provincial Road Authorities, and service companies such as EDESA, GASNOR, and Aguas de Salta.

SAC has comprehensive infrastructure, including potable water, electricity, sewage, and natural gas, occasionally supplemented by bottled gas or firewood. Most residents have access to fixed and mobile phone service, cable TV, and Internet. The Nicolás Pagano Zonal Hospital provides services in general medicine, pediatrics, dentistry, laboratory, X-ray, ultrasound, nutrition, and emergency care, staffed by doctors, nurses, primary healthcare agents, cleaning staff, and ambulance drivers. Regarding education, SAC hosts 10 state-run urban institutions covering preschool, primary, secondary, and non-university tertiary levels.

20.3.3.2 Community Engagement Activities

In San Antonio de los Cobres (SAC), NOA makes rest stops during logistical travel, where personnel can obtain hot beverages and basic services. The company also maintains a commercial relationship with a water tanker provider, responsible for transporting industrial-use water during active project seasons.

Indirectly, NOA's direct contractors are also committed to hiring local suppliers, including services such as lodging, water tankers, chemical toilet rentals, among others.

21. Capital and Operating Costs

The cost estimate for the Project is divided into Capital Expenditures (CAPEX), Operational Expenditures (OPEX), sustaining capital expenditures, and closure costs. These will be discussed in the following sections.

The CAPEX and OPEX are compliant with a Class 5 Estimate, as defined in American Association of Cost Engineers (AACE) International Recommended Practice No. 18R-97 "Cost Estimate Classification System as Applied in Engineering, Procurement, And Construction for the Process Industries". The AACE have devised a Class 1 – 5 systems, where a Class 1 Estimate is the most accurate and a Class 5 the least accurate estimate.

An AACE Class 5 estimate is used for preliminary comparison of alternatives and generally describes a hypothetical installation. The estimate is suitable to identify potential fatal flaws and identify the work that needs to be done at further stages of the Project, leading to positive acceptance of a Project.

21.1 Capital Cost Estimate – CAPEX

The capital cost estimate was developed by a team of engineers, designers, and cost estimators from Hatch (evaporation ponds, process plant and associated infrastructure) and Montgomery and Associates (wells and wells infrastructure). The capital cost estimate, for the project, as described within this study, is US $706.2 million with a base date of early Third (3rd) Quarter 2025 US Dollars and is subject to certain qualifications, assumptions and exclusions, all of which are detailed in this report.

21.1.1 Capital Cost Summary

The capital cost is summarized by WBS in Table 21-1.

Table 21-1: Capital Cost Summary by WBS

US$ million	20,000 tpa LCE	
Direct Cost	**$**	**414.4**
Wellfield / Ponds		
Brine Extraction Wells	$	22.1
Evaporation Ponds + Lime Plant	$	197.2
Lithium Plant		
Purification & Concentration	$	26.0
Boron Solvent Extraction	$	34.8
Carbonation	$	24.4
Lithium Carbonate Production	$	15.0
Utilities & Services	$	49.5
Site Development & On-Site Infrastructure	$	45.5
Indirect Cost	**$**	**116.4**
Owner's Costs	**$**	**12.4**
Contingency	**$**	**163.0**
Total CAPEX	**$**	**706.2**

21.1.2 Basis of Estimate

The Basis of Estimate (BoE) describes if and how cost is estimated for each Work Breakdown Structure (WBS) element.

A PEA Class 5 estimate is based on limited data and is used to establish Project viability and assess whether the Project’s potential value is sufficient to justify continued investment of significant sums of money in additional drilling, metallurgical test work, evaluation, etc. As appropriate for a Class 5 estimate, the direct costs for each major process area in the plant were calculated by parametrically scaling area costs from references in Hatch’s in-house database with the same (or similar) equipment, configuration, materials of construction, footprint, material requirements (e.g. structural steel), throughput/duty, and location.

21.1.2.1 Project Definition

The estimate was prepared using project information contained in but not limited to the following documents:

- Process flow diagrams.
- Design basis reports.

- General arrangement drawings.
- Equipment list.
- Preliminary engineering drawings and sketches.
- No detailed topographic maps.
- No Geotechnical reports containing recommended geotechnical design bases for earthworks and foundations.
- In-house data from similar projects.
- Factors for installation and bulks.
- The labour component of the capital cost estimate is based on estimates by Hatch based on in-house data and validated by NOA from recent quotations. In this case, the labor rate is calculated as all-in. Given the high inflation rate experienced in Argentina, the exchange rate was used to convert to USD. However, only a small portion of costs are denominated in pesos (<5%) with everything else in USD.

21.1.2.2 Project Work Breakdown Structure

The estimated cost was classified according to the cost structure of the project in accordance with the major areas of the project breakdown structure (highlighted in grey).

The WBS is developed based on physical boundaries of production areas; these areas are clearly defined indicating the works, equipment and systems that allow the operation of the project.

Table 21-2: Work Breakdown Structure (WBS)

AREA	DESCRIPTION
0000	General
0100	Wellfield
0110	Brine Well
0210	Water Well
1000	Evaporation Ponds
1100	Preconcentration Ponds - Buffer
1110	Ponds
1120	Tailings
1200	Liming Stage
1210	Handling, Storage & Preparation $Ca(OH)_2$
1220	Mg/SO_4 Removal Treatment
1230	Solid/Liquid Separation
1240	Flocculant preparation
1250	Glauber's salt Treatment
1300	Concentration Ponds - Halite

AREA	DESCRIPTION
1310	Ponds
1320	Tailings
1400	Concentration Ponds - Sylvinite
1410	Ponds
1420	Tailings
1500	Brine Handling
1510	Brine Reservoir
1520	Truck loading Station
1800	Mother liquor treatment
1810	Ponds
1820	Preparation $CaCl_2$
1900	Services & Building
1910	Camp
1920	Buildings (Offices & Lab)
1930	Shop & Warehouse
1940	Power Generation
1950	Water supply and treatment
2000	Impurities Removal
2100	Evaporation
2200	Calcium Removal
2300	Separation Solid/Liquid
2400	Ion Exchange (IX)
2500	Waste Ponds
3000	Boron Solvent Extraction
3100	Tank Farm (included Feed brine Tank)
3200	Extraction
3300	Stripping
3400	Organic Removal
3500	Reagents (HCl, NaOH/Spent Brine)
4000	Carbonation
4100	Carbonation Precipitation
4200	Separation Solid/liquid
4300	Washing and Centrifuge
4400	Handling, Storage & Preparation Na_2CO_3
5000	Lithium Carbonate Production
5100	Drying
5200	Micronization & Bagging
5300	Product Storage

AREA	DESCRIPTION
6000	Services & Supplies
6100	Thermal Management
6200	Cooling System
6300	Treatment Water
6400	Supply & Distribution Water
6500	Power Generation
6600	Building & Constructions
6700	Shop & Warehouse

21.1.2.3 *Estimate Basis - Summary*

Table 21-3, summarizes the basis for estimating equipment prices, commodity quantities and unit rates.

Table 21-3: Estimate Basis Description

Item	Estimate Basis Description
Equipment	
Material and Equipment – Production Wells	Cost provided by Montgomery & Associates for wells and augmented by Hatch for the network
Material and Equipment – Process Plant	Costs were based on in-house database information and equipment costs were scaled based on budgeted quotes received from 2022-2025.
Bulk Materials and Site Works	
Ponds Construction	Quantities for earth movement were estimated based on topographic analysis. Quotes were solicitated for the earth movement and budgetary quotes for earth movement was considered after validating it with in-house databases and other projects.
Site Infrastructure (Camps, roads)	Estimates on quantities and budgetary quotes based on other projects in Salta and Catamarca
Site Preparation – Process Plant	Material Take-Offs (MTOs) based on estimates on excavations and experience from other projects
Concrete	Costs scaled based on MTOs and unit rates or factorized costs from references (generally resulting in 20% - 30% of equipment for a given area)
Piping	Costs scaled based on MTOs and unit rates or factorized costs from references (generally 10% - 35% of equipment for a given area)
Structural Steel	Costs scaled based on MTOs and unit rates or factorized costs from references (generally 15% - 25% of equipment for a given area)

Item	Estimate Basis Description
Electrical Bulks	Costs scaled based on MTOs and unit rates or factorized costs from references (generally 5% - 15% of equipment for a given area)
Process Control and Instrumentation	Costs scaled based on MTOs and unit rates or factorized costs from references (generally 5% - 10% of equipment for a given area)
Installation	
Installation Costs	Factored by equipment and area (10% - 30%)
Indirect Cost	
Indirect	Factored from directs – 35% of Direct costs for most WBS except Pond construction which was 20% given that construction quotation included contractor indirects
Owner’s Cost	Factored considering a 3% applied to the direct costs of the project.
Contingency	30% of Direct and Indirect costs

21.1.3 Qualifications, Assumptions and Exclusions

21.1.3.1 Pricing

Items excluded from the capital cost estimate have the potential to materially impact the actual costs of the project.

Budgetary quotations have been obtained from vendors for some earth movement for pond construction; “budgetary quotations” generally means that indicative pricing has been provided for specified equipment and materials but no firm commitment has been made to provide the equipment or materials at this price at a future date.

21.1.3.2 Project Currency, Estimate Base Date & Foreign Exchange

All project capital costs are expressed in United States Dollars (USD) with the following provisions:

- Costs are based on Third Quarter 2025 market conditions with no provision carried in the estimate for escalation beyond this date.
- Costs submitted in other currencies have been converted to United States dollars (US$). Foreign currency exchange rates applied to the capital cost estimate relative to the US$ are set out in Table 21-5. No provision has been made for any taxes or fees applicable to currency exchanges or for any fluctuation in currency exchange rates.

Table 21-4: Exchange Rates

Currency	1=USD	Date
USD	-	
ARS	1470	Sep 2025

21.1.3.3 Taxes (NOT INCLUDED)

Taxes such as VAT or other were excluded. At this point, it is important to mention that according to the law of Argentina No. 24.196, companies registered under the Mining Investment Regime have the benefit of importing goods and equipment (also some chemical reagents) without payment of import duties or rate statistics, for this they must get a certificate issued by the Ministry of Mining of the Nation specifically for each equipment to be imported. In this case the only additional cost is a fee called "Destination Checking Rate" which is 1% of the value of the imported merchandise. Neither pay taxes the equipment produced in MERCOSUR member countries, in the specific case of Chile, can be imported duty free, equipment manufactured in Chile that has a Certificate of Origin issued by SOFOFA.

21.1.3.4 Accuracy

At this stage of the Project, the accuracy of the cost estimation is -30% to +50% aligned with AACE Class 5 estimates.

21.1.3.5 Project Execution Schedule

The capital cost estimate assumes that the Project will follow the project implementation schedule shown in subsequent sections. Any failure to follow this schedule or a different implementation plan (e.g., use of an EPC or LSTK implementation strategy instead of the assumed EPCM implementation strategy) may have a material impact on both project schedule and costs.

21.1.3.6 Exclusions

The following items are excluded from the capital cost estimate:

- Escalation beyond the estimate base date, including escalation due to volatility in local market conditions.
- All impacts of foreign currency exchange rate variations.
- Costs associated with the construction of staff housing facilities (townsite) including those to be used for housing the portion of the workforce that cannot be housed in the construction camp located at site.
- Allowances for any changes to the scope of the Project.
- Allowances for either (a) general project risks that could affect any project such as this project (e.g., variations in market conditions that could affect equipment, commodities and/or labour costs, adverse weather conditions, labour unrest, disputes with local residents including local indigenous groups, geotechnical or process related design issues, delays due to the late receipt of equipment or materials, poor performance by contractors, force majeure or acts of God), or (b) risks that are specific to this project as identified in Section 19.
- Costs incurred due to significant deviations (such as significant delays) from the standard project execution schedule.

- Cost incurred due to changes in the tax structure and source of goods and services.
- Any costs incurred to accelerate the work or to get the work back on schedule if it falls behind schedule (e.g. overtime charges, expediting charges, etc.).
- Costs associated with royalties and property taxes.
- Costs associated with warehouse inventory over and above critical spare parts. Critical spare parts for the first two years of operation are included in the Capital Cost Estimate.
- Research and exploration drilling.
- Any incentive/bonus schemes.
- Costs incurred in connection with the Project prior to Oct 2025 (i.e., sunk costs).
- Any financing charges or costs, whether related to debt or equity financing, including any interest charges.
- Any additional work that is required as a result of conditions, both subsurface conditions and conditions in and around the project site, that were not known as of the base date of the estimate (e.g., latent conditions in existing facilities and unknown geotechnical conditions), including any costs incurred in establishing and confirming as-built information over and above that defined in the estimate.

21.2 Sustaining Capital Cost

Sustaining capital expenditure encompasses the replacement of major equipment that is not serviceable with normal maintenance.

The sustaining capital expenditure for the overall lithium processing plant is estimated at an annual basis of 2% of the direct cost of the initial capital cost. The annual estimated sustaining capital cost for the overall project is US$8.3 M USD/year. Sustaining capital is not included in the initial capital cost estimate above, but is accounted for in the overall financial analysis.

21.3 Closure and Reclamation Costs

Costs required to conduct the closure and reclamation of the project will be associated with the decommissioning of project structures and facilities, and the remediation and restoration of land associated with the project.

Closure costs associated with the project, based on the current status of the project design, and including closure, remediation and reclamation requirements and activities as defined above, are estimated to be 5% of the initial capital cost, or US$35.3M.

21.4 Operating Cost

Operating costs was prepared with an accuracy level of +/- 30% to produce 20,000 t/a of Li_2CO_3, Pond & Carbonate Plant for the Rio Grande Project. The estimate covers all costs normally expected in the ordinary course of operations for a project such as this, including process and power plant operations, as well as general and administrative operating costs, according WBS breakdown of project.

The operating cost was estimated based on the operation of wells together with the evaporation ponds and lithium carbonate plant. The production plan, used for estimating the operating cost, is based on a given flow transfer between ponds, which does not necessarily translate into a constant reagent consumption or flow transfer rate. For a more detailed estimate of operating cost, in a future phase of the project, the production plan should be estimated based on actual flow from the production wells as well as variation of other species present such as Ca, Mg, SO_4.

Table 21-5: Operating Cost Summary

Cost Component	Annual Cost (US$)	Cost per Tonne (US$/t Product)
Direct Cost		
Chemical Reagents	$60,221,988	$3,011
Salt removal and transport	$7,157,152	$358
Energy	$14,611,863	$731
Consumables	$1,735,000	$87
Water Treatment	$1,112,212	$56
Labour	$19,191,597	$960
Catering & Camp Services	$5,502,055	$275
Maintenance	$3,298,994	$165
Product Transportation to Port	$2,000,000	$100
Indirect Cost		
General & Administrative	$3,114,878	$156
Production Li_2CO_3 Total Cost	**$117,945,739**	**$5,897**

21.4.1 Ponds and Plant Reagents Cost

The highest consumption of reagents occurs in evaporation ponds with the lime used for the reduction of sulfate and part of the magnesium present in the brine. Due the volume of lime consumption, companies with provisioning capacity were searched. The cost of transportation from the factory to the plant has been included in the costs.

Chemical consumption at the Li_2CO_3 plant corresponds mainly to Na_2CO_3 usage for carbonating the brine and calcium removal, prior to the polishing of impurities of Mg, Ca.

The boron removal section included in the Li_2CO_3 plant also requires small quantities of other chemical agents.

Table 21-6: Ponds and Plants Reagents Costs

Description	Price (US$/Tonne)	Consumption (Tonne/y)	Annual Cost (US$)
Calcium Oxide, CaO	172	164,688	28,326,336
Soda Ash, Na_2CO_3	500	44,676	22,338,000
Hydrochloric Acid, HCl	372	20,043	7,455,951
Sodium Hydroxide, NaOH	423	1,752	741,096
Calcium Chloride, $CaCl_2 \cdot 2H_2O$	450	1,479	682,207
Organic Extract IOA	2,371	62	146,455
Organic Diluent	3,691	144	531,942

21.4.2 *Energy Cost*

Power cost is based on the power generators using natural gas/diesel to supply all motors and electrical consumers in the plant and 20% of Power Energy as resource removable.

The total electrical power consumption of the Project is estimated at 13 MW; this consumption includes wells, ponds, Li_2CO_3 plant, camp, offices and lighting. Additionally, there is natural gas consumption for heating equipment equivalent to 194,590 MMBTU/y

Table 21-7: Summary of Energy Cost Estimate

Description	Unit	Total
Production requirement	MWh/y	106,644
Solar Panels recovered energy	MWh/y	107,499
Gas Price	US$/MMBTU	16.45
Factor Conversion	MMBTU / Nm^3	0.03602
Electricity Cost	US$ /MWh	107

21.4.3 *Manpower & Maintenance Cost*

Labour levels are based on experience and reported data from similar facilities operating at salars in the region. Salary and wage estimates are based on the published data for various trades prevailing in the Salta Province, Argentina.

The annual costs for personnel have been estimated for the various parts of the plant based on an estimate of the required personnel for each plant unit and the salaries for each category have been estimated based on information of typical salaries in the region.

Manpower costs include direct pay, social insurance expenditures, and labour-related taxes.

Table 21-8: Summary of Manpower Cost

Position	Total Employes	Total Cost (US$/y)
Administrative Support	28	1,951,079
Plant Maintenance	82	3,289,812
Technical Services	64	3,337,350
Plant Operations	240	10,613,356
Total Labour	**414**	**19,191,597**

The annual maintenance cost was obtained by applying a 1.45% to the direct costs of the wells, plant and infrastructure

21.4.3.1 Exclusions

The following items are excluded from this project operating cost estimate:

- Marketing and royalties (refer to Section 22).
- Research and exploration.
- Import duties and taxes for $CaCl_2*2H_2O$ and Na_2CO_3
- Any financing charges or costs, whether related to debt or equity financing, including any interest charges.
- Depreciation and amortization (included in the economic analysis, refer to Section 22).
- Corporate taxes (included in the economic analysis, refer to Section 22).
- Any costs incurred outside of the ordinary course of business (as contemplated by this Study), including (a) costs related to expansions, major upgrades or efficiency improvement projects, (b) costs related to industrial incidents, labour unrest, protests by residents or any events normally considered force majeure events or acts of God, and (c) any costs or charges incurred in connection with litigation matters or other legal proceedings.

21.4.4 Catering & Camp services

For the capacity estimation of the camp, it is assumed that 61% of the staff is engaged in work plus 10 visits. Includes a fixed cost to catering & services camp of 52US$/person-d.

21.5 Expansion to 40ktpa

An estimate of the capex was made for an expansion to 40ktpa and this is shown in the table below. An additional $639.7 million for Phase 2 (additional 20,000 tpa) of the Project for total initial capital cost of $1.346 billion for a total of 40,000 tpa of LCE product was estimated for this option, considering the same contingency and assumptions as Phase 1.

Table 21-9: 40,000 tpa Expansion (including initial CAPEX for 20,000 tpa above – Phase 2)

US$ million	40,000 tpa LCE
Direct Cost	**$ 810.1**
Wellfield / Ponds	
Brine Extraction Wells	$ 45.2
Evaporation Ponds + Lime Plant	$ 394.5
Lithium Plant	
Purification & Concentration	$ 51.9
Boron Solvent Extraction	$ 69.6
Carbonation	$ 48.7
Lithium Carbonate Production	$ 30.0
Utilities & Services	$ 98.9
Site Development & On-Site Infrastructure	$ 71.3
Indirect Cost	**$ 206.6**
Owner's Costs	**$ 24.3**
Contingency	**$ 305.0**
Total CAPEX	**$ 1,345.9**

An estimate was made for the opex at 40ktpa. Fixed costs remained the same (G&A) but 30% of the labour was determined to be fixed. The summary of the opex for 40ktpa is shown in the table below.

Table 21-10: Opex at 40,000 tpa Operation

Cost Component	Annual Cost (US$ million)	Cost per Tonne (US$/t tonne LCE)	Opex Distribution %
Direct Cost			
Chemical Reagents	$ 120.4	$ 3,011	51%
Salt removal and transport	$ 14.3	$ 358	6%
Energy	$ 27.0	$ 676	11%
Consumables	$ 3.5	$ 87	1%
Water Treatment	$ 2.2	$ 56	1%
Labour	$ 32.6	$ 816	14%
Catering & Camp Services	$ 8.3	$ 206	3%
Maintenance	$ 6.6	$ 165	3%
Product Transportation to Port	$ 4.0	$ 100	2%
Indirect Cost			
General & Administrative	$ 3.1	$ 78	1%
Production Li2CO3 Total Cost	**$ 222.1**	**$ 5,552**	

22. Economic Analysis

22.1 Summary

The PEA is preliminary in nature. It includes inferred mineral resources that are too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

The economic analysis is based on a discounted cash flow model in real terms. The model includes the 30-year life-of-project production plan for battery-grade lithium carbonate (Li_2CO_3 BG, BG LC), operating costs, capital costs, and market assumptions discussed in this report, in addition to financial assumptions introduced in this section. Project returns are calculated in the model before and after taxes, including net present value (NPV), internal rate of return (IRR), and payback period. Returns are sensitive to input assumptions and should be viewed in the context of the sensitivity analysis provided in this section as well as the stated accuracies for items such as capital costs.

The base case assumes a long-term battery-grade lithium carbonate (Li_2CO_3 BG) price of US$24,000/t. At this price the project achieves a positive NPV at an 8% real discount rate. A summary of key indicators is shown in Table 22-1.

Table 22-1: Key Indicators Summary

Item	Unit	Value
Li_2CO_3 BG Sales	t/year	20,000
Li_2CO_3 BG Price	US$/t	24,000
Site Operating Unit Cost	US$/t sold	6,012
Site Operating Cost	US$M/year	116
EBITDA	US$M/year	317
Project Life	years	30
Initial Capital Cost	US$M	706
Sustaining Capital Cost	US$M	249
ARS/USD Exchange Rate	Arg$/US$	1,470
Pre-tax NPV @ 8%	US$M	2,065
After-tax NPV @ 8%	US$M	1,276
Pre-tax IRR	%	27.3%
After-tax IRR	%	22.6%
Pre-tax Payback	operating years	3.3
After-tax Payback	operating years	3.4

22.2 Assumptions and Inputs

22.2.1 General

The following general assumptions form part of this analysis:

- Currency basis is real 2025 USD with no inflation.
- 100% equity financing.

- 1,470 Arg$/US$ exchange rate.
- Mid-year discounting for NPV calculation.

22.2.2 Production and Sales Schedule

Annual production of 20,000 tonnes LC is applied in the model.

The model considers a 30-year production schedule. Production ramps up gradually starting at 45% in year 1 of operation, and 95% in year 2 of operation, reaching full production in year 3.

22.2.3 Product Pricing

The constant long-term price of US$24,000/t for battery-grade lithium carbonate from Section 19 is applied.

22.2.4 Transportation Costs

The product transportation cost of US$100/t from Section 21 is applied.

22.2.5 Site Operating Costs

Site operating costs of US$117.9M per year from Section 21 are applied, with an adjustment for variable and fixed costs during the first two years of production during ramp-up.

22.2.6 Working Capital

Working capital is based on 90 days of accounts receivable, 60 days of accounts payable, and 30 days of inventory. Working capital is reflected in the cash flow as changes in net working capital.

22.2.7 Capital Costs

The US$706M initial capital cost estimate and US$8.3M per year sustaining capital cost estimate from Section 21 are applied. Initial capital costs are spread over a three-year construction period. Closure costs of US$35.3M from Section 21 are applied during a one-year period following production Year 30.

22.2.8 Government Royalties and Taxes

Preliminary and simplified tax calculations are appropriate at the PEA stage. The tax calculations in the economic analysis were reviewed by NOA's third-party tax advisor.

A 3% provincial royalty on gross revenue, less transport costs, operating costs, and general and administrative (G&A) costs, has been considered for payments to the province. Total royalty payments are estimated to be US$319M over the life of the mine (LOM).

The following additional assumptions were applied:

- An Argentinian federal corporate income tax rate of 35%. The total undiscounted tax payments are estimated to be US$2,960M over the LOM.
- An export duty was applied representing 4.5% on gross revenue minus product transportation. The payments are estimated to be US$632M over the LOM.

- Argentina imposes a 1.2% bank transaction tax on all project-related cash movements, split evenly between incoming (0.6%) and outgoing (0.6%) transfers. This levy applies to all financial flows entering or leaving the project's accounts and was applied in this model. 33% of the total paid transaction tax was deducted from the total corporate tax amount. The total payments are estimated to be US$122M over the LOM.
- Provincial and Municipal taxes are assumed to be zero on guidance from NOA as well as review and comparison with other projects with public reports. This could change in the future and will need to be concretized as the project advances.

22.3 Cash flow

The annual cash flow summary for the PEA base case is shown in Table 22-2 along with key economic indicators.

Table 22-2: Annual Cash Flow Summary

Item	Units	Total	Y-3	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Sales	t LC	588,000	-	-	-	9,000	19,000	20,000	20,000	20,000	20,000	20,000	20,000
Price	US$/t LC	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Gross Revenue	**US$M**	**14,112**	**-**	**-**	**-**	**216.0**	**456.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**
Product Transportation	US$M	(59)	-	-	-	(0.9)	(1.9)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Export Duty LCE (first 3 years)	US$M	(52)	-	-	-	(9.7)	(20.4)	(21.5)	-	-	-	-	-
Export Duty LCE (after 3 years - LOM)	US$M	(581)	-	-	-	-	-	-	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)
Royalty Payments	US$M	(319)	-	-	-	(4.7)	(10.3)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)
Transaction tax	US$M	(122)	(2.1)	(4.2)	(2.2)	(1.8)	(3.7)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)
Total Site Operating Costs	**US$M**	**(3,476)**	**-**	**-**	**-**	**(60.7)**	**(112.7)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**
Chemical Reagents	US$M	(1,771)	-	-	-	(27.1)	(57.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)
Salt removal and transport	US$M	(211)	-	-	-	(3.2)	(6.8)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)
Energy	US$M	(431)	-	-	-	(7.8)	(14.0)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)
Consumables	US$M	(51)	-	-	-	(0.8)	(1.6)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)
Water Treatment	US$M	(33)	-	-	-	(0.5)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
Labour	US$M	(568)	-	-	-	(11.8)	(18.5)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)
Catering & Camp Services	US$M	(163)	-	-	-	(4.0)	(5.4)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
Maintenance	US$M	(97)	-	-	-	(1.5)	(3.1)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)
Product Transportation to Port	US$M	(59)	-	-	-	(0.9)	(1.9)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
General & Administrative	US$M	(93)	-	-	-	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)
EBITDA	**US$M**	**9,504**	**(2.1)**	**(4.2)**	**(2.2)**	**138.3**	**307.0**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**
Changes in Net Working Capital	US$M	-	-	-	-	(48.3)	(54.9)	(5.5)	-	-	-	-	-
Total Initial Capital	US$M	(706)	(176.5)	(353.1)	(176.5)	-	-	-	-	-	-	-	-
Wellfield / Ponds	US$M	(219)	(54.8)	(109.6)	(54.8)	-	-	-	-	-	-	-	-
Lithium Plant	US$M	(195)	(48.8)	(97.6)	(48.8)	-	-	-	-	-	-	-	-
Indirect Cost	US$M	(116)	(29.1)	(58.2)	(29.1)	-	-	-	-	-	-	-	-
Contingency	US$M	(163)	(40.7)	(81.5)	(40.7)	-	-	-	-	-	-	-	-
Owners Cost	US$M	(12)	(3.1)	(6.2)	(3.1)	-	-	-	-	-	-	-	-
Total Sustaining Capital	US$M	(249)	-	-	-	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
Closure Costs	US$M	(35)	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax Cash Flow	**US$M**	**8,514**	**(178.7)**	**(357.3)**	**(178.7)**	**81.7**	**243.8**	**310.1**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**
Federal corporate tax	US$M	(2,960)	-	-	-	-	-	(12.0)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)
After-Tax Cash Flow	**US$M**	**5,554**	**(178.7)**	**(357.3)**	**(178.7)**	**81.7**	**243.8**	**298.1**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**

Project Economics		Value
Pre-Tax NPV @ 8%	US$M	2,065
After-Tax NPV @ 8%	US$M	1,276
Pre-Tax IRR	%	27.3%
After-Tax IRR	%	22.6%
Pre-Tax Payback	Operating yrs	3.3
After-Tax Payback	Operating yrs	3.4

Table 22-2: Annual Cash Flow Summary (cont.)

Item	Units	Total	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19
Sales	t LC	588,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Price	US$/t LC	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Gross Revenue	**US$M**	**14,112**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**	**480.0**
Product Transportation	US$M	(59)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Export Duty LCE (first 3 years)	US$M	(52)	-	-	-	-	-	-	-	-	-	-	-
Export Duty LCE (after 3 years - LOM)	US$M	(581)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)
Royalty Payments	US$M	(319)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)	(10.9)
Transaction tax	US$M	(122)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)
Total Site Operating Costs	**US$M**	**(3,476)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**	**(118.0)**
Chemical Reagents	US$M	(1,771)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)
Salt removal and transport	US$M	(211)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)
Energy	US$M	(431)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)
Consumables	US$M	(51)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)
Water Treatment	US$M	(33)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
Labour	US$M	(568)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)	(19.2)
Catering & Camp Services	US$M	(163)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)
Maintenance	US$M	(97)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)
Product Transportation to Port	US$M	(59)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
General & Administrative	US$M	(93)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)
EBITDA	**US$M**	**9,504**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**
Changes in Net Working Capital	US$M	-	-	-	-	-	-	-	-	-	-	-	-
Total Initial Capital	US$M	(706)	-	-	-	-	-	-	-	-	-	-	-
Wellfield / Ponds	US$M	(219)	-	-	-	-	-	-	-	-	-	-	-
Lithium Plant	US$M	(195)	-	-	-	-	-	-	-	-	-	-	-
Indirect Cost	US$M	(116)	-	-	-	-	-	-	-	-	-	-	-
Contingency	US$M	(163)	-	-	-	-	-	-	-	-	-	-	-
Owners Cost	US$M	(12)	-	-	-	-	-	-	-	-	-	-	-
Total Sustaining Capital	US$M	(249)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)
Closure Costs	US$M	(35)	-	-	-	-	-	-	-	-	-	-	-
Pre-Tax Cash Flow	**US$M**	**8,514**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**
Federal corporate tax	US$M	(2,960)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)
After-Tax Cash Flow	**US$M**	**5,554**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**

Project Economics		Value
Pre-Tax NPV @ 8%	US$M	2,065
After-Tax NPV @ 8%	US$M	1,276
Pre-Tax IRR	%	27.3%
After-Tax IRR	%	22.6%
Pre-Tax Payback	Operating yrs	3.3
After-Tax Payback	Operating yrs	3.4

Table 22-2: Annual Cash Flow Summary (cont.)

Item	Units	Total	Y20	Y21	Y22	Y23	Y24	Y25	Y26	Y27	Y28	Y29	Y30	Y31
Sales	t LC	588,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	-
Price	US$/t LC	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Gross Revenue	**US$M**	**14,112**	**480.0**	**480.0**	**480**	**480**	**480**	**480**	**480**	**480**	**480**	**480**	**480**	-
Product Transportation	US$M	(59)	(2.0)	(2.0)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-
Export Duty LCE (first 3 years)	US$M	(52)	-	-	-	-	-	-	-	-	-	-	-	-
Export Duty LCE (after 3 years - LOM)	US$M	(581)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	(21.5)	-
Royalty Payments	US$M	(319)	(10.9)	(10.9)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	-
Transaction tax	US$M	(122)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(0.2)
Total Site Operating Costs	**US$M**	**(3,476)**	**(118.0)**	**(118.0)**	**(118)**	**(118)**	**(118)**	**(118)**	**(118)**	**(118)**	**(118)**	**(118)**	**(118)**	-
Chemical Reagents	US$M	(1,771)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	(60.2)	-
Salt removal and transport	US$M	(211)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	(7.2)	-
Energy	US$M	(431)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	(14.6)	-
Consumables	US$M	(51)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	-
Water Treatment	US$M	(33)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	-
Labour	US$M	(568)	(19.2)	(19.2)										
Catering & Camp Services	US$M	(163)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	(5.5)	-
Maintenance	US$M	(97)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	-
Product Transportation to Port	US$M	(59)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	-
General & Administrative	US$M	(93)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	(3.1)	-
EBITDA	**US$M**	**9,504**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.8**	**323.9**	**(0.2)**
Changes in Net Working Capital	US$M	-	-	-	-	-	-	-	-	-	-	-	-	108.7
Total Initial Capital	US$M	(706)	-	-	-	-	-	-	-	-	-	-	-	-
Wellfield / Ponds	US$M	(219)	-	-	-	-	-	-	-	-	-	-	-	-
Lithium Plant	US$M	(195)	-	-	-	-	-	-	-	-	-	-	-	-
Indirect Cost	US$M	(116)	-	-	-	-	-	-	-	-	-	-	-	-
Contingency	US$M	(163)	-	-	-	-	-	-	-	-	-	-	-	-
Owners Cost	US$M	(12)	-	-	-	-	-	-	-	-	-	-	-	-
Total Sustaining Capital	US$M	(249)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	(8.3)	-
Closure Costs	US$M	(35)	-	-	-	-	-	-	-	-	-	-	-	(35.3)
Pre-Tax Cash Flow	**US$M**	**8,514**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.5**	**315.6**	**73.1**
Federal corporate tax	US$M	(2,960)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	(109.2)	-
After-Tax Cash Flow	US$M	**5,554**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**206.4**	**73.1**

Project Economics		Value
Pre-Tax NPV @ 8%	US$M	2,065
After-Tax NPV @ 8%	US$M	1,276
Pre-Tax IRR	%	27.3%
After-Tax IRR	%	22.6%
Pre-Tax Payback	Operating yrs	3.3
After-Tax Payback	Operating yrs	3.4

22.4 Cash Flow Summary

Table 22-3 summarizes the life-of-project cash flow discounted and undiscounted, annual average cash flow, and cash flow on a unit basis in US$/t battery-grade lithium carbonate terms.

Table 22-3: Cash Flow Summary for Life of Project

Item	Undiscounted			Discounted
	Annual Average (US$M/year)	Unit Average (US$/t BG LC)	Total (US$M)	Total (US$M)
Gross Revenue	**470**	**24,000**	**14,112**	**4,239**
Operating Costs	(116)	(5,912)	(3,476)	(1,048)
Product Transportation	(2)	(100)	(59)	(18)
Export Duty LCE (first 3 years)	(2)	(88)	(52)	(36)
Export Duty LCE (after 3 years – LOM)	(19)	(988)	(581)	(154)
Royalty Payments	(11)	(543)	(319)	(96)
Transaction tax	(4)	(207)	(122)	(42)
EBITDA	**317**	**16,163**	**9,504**	**2,846**
Changes in Net Working Capital	-	-	-	(71)
Initial Capital Cost	(24)	(1,201)	(706)	(630)
Sustaining Capital Cost	(8)	(423)	(249)	(77)
Closure Cost	(1)	(60)	(35)	(3)
Pre-Tax Cash Flow	**284**	**14,479**	**8,514**	**2,065**
Federal corporate tax	(99)	(5,033)	(2,960)	(790)
After-Tax Cash Flow	**185**	**9,446**	**5,554**	**1,276**

22.5 Base Case Sensitivity Analysis

A sensitivity analysis was used to test the impact of key financial variables on base case project returns for the given production schedule. The product price, exchange rate, capital cost, operating cost, and recovery were each varied independently on an annual basis and the resulting variations in NPV @ 8% and IRR are shown in Figure 22-1 through Figure 22-4 before and after taxes. NPV is most sensitive to product price. Initial capital cost, operating cost, and exchange rate have a smaller impact on NPV. For clarity, variations in the exchange rate impact capital and operating costs originating in Argentine pesos, such as labour, which is assumed to be paid in US dollars.

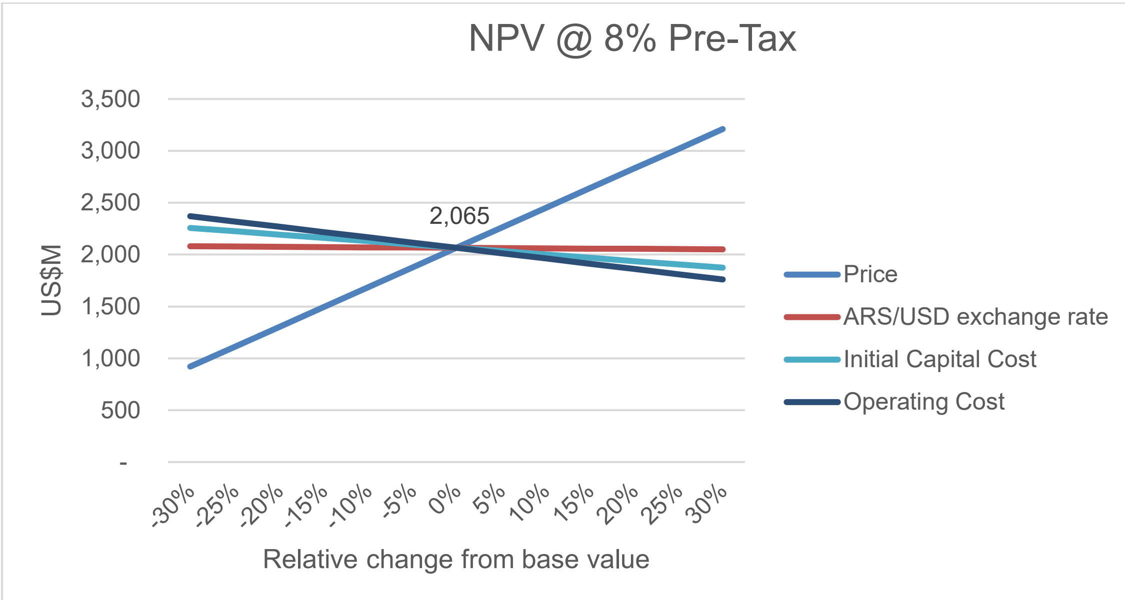


Figure 22-1: NPV @ 8% Pre-Tax Sensitivity

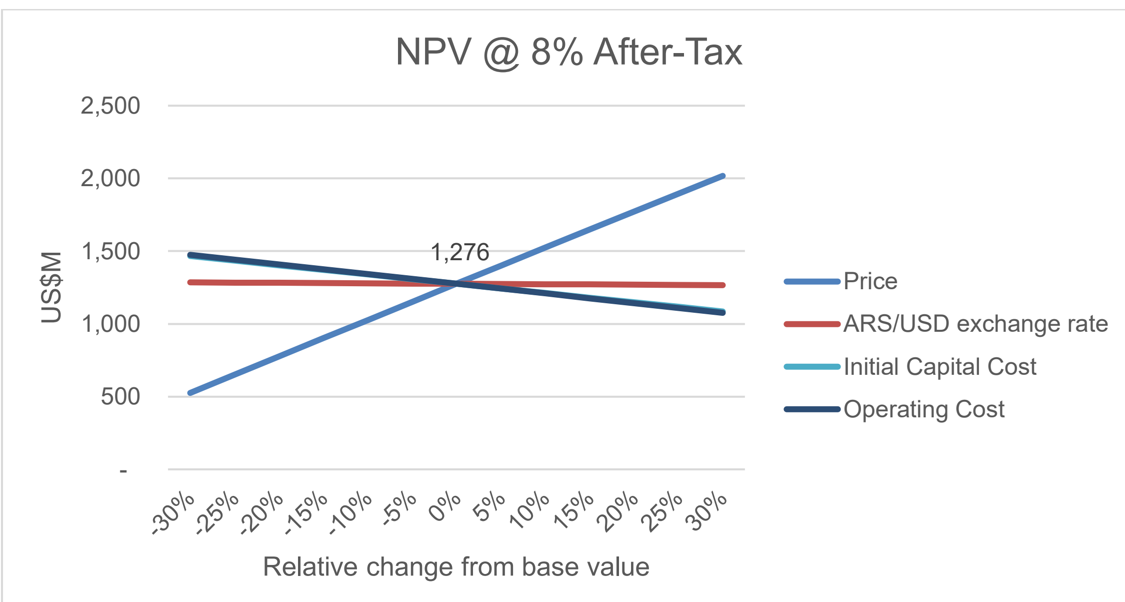


Figure 22-2: NPV @ 8% After-Tax Sensitivity

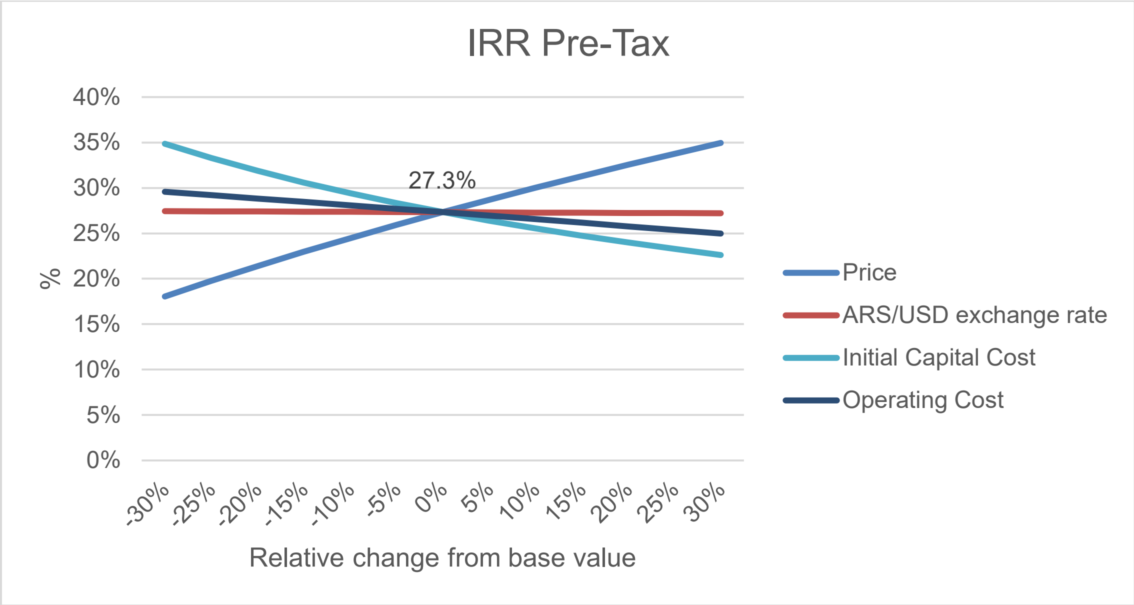


Figure 22-3: IRR Pre-Tax Sensitivity

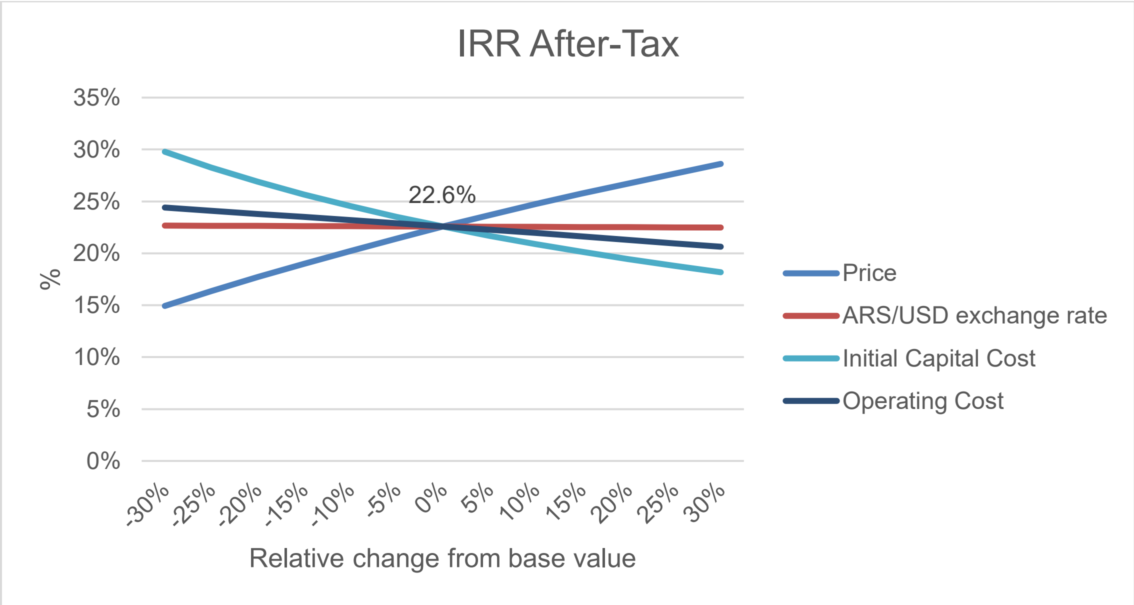
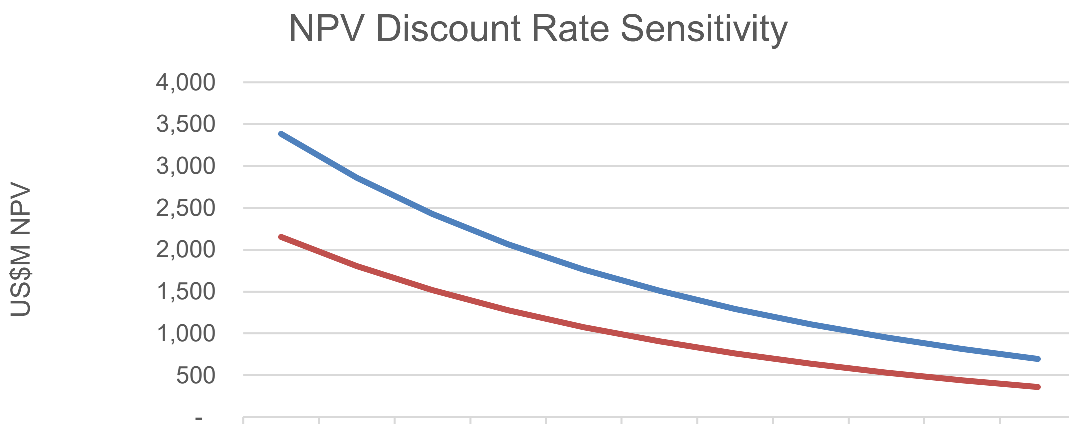


Figure 22-4: IRR After-Tax Sensitivity

The NPV sensitivity to discount rate is shown in Figure 22-5.



	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
NPV Pre-Tax	3,384	2,860	2,426	2,065	1,763	1,509	1,292	1,108	950	813	695
NPV After-Tax	2,153	1,804	1,516	1,276	1,074	904	760	637	531	439	360

Figure 22-5: NPV Discount Rate Sensitivity

22.6 Sensitivity Scenarios

The economic analysis considered sensitivity scenarios to illustrate the impact of hypothetical changes to the base case.

These scenarios vary production capacity, application of Argentinian Incentive Regime for Large Investments (RIGI), and production of lithium chloride as an alternative to lithium carbonate.

Operating cost was evaluated via parametric factoring.

Throughout all scenarios, lithium carbonate pricing is assumed at $24,000/t. Production is assumed to ramp up to 45% of its full capacity in its first year, 95% in its second year, and fully ramp up to 100% in its third year. The result of this analysis is shown in Table 22-4.

Table 22-4: Economic Analysis Summary for Different Production and Project Scenarios

Scenario		1	2	3	4	5
General	**Units**	**Base Case (20kt, No RIGI)**	**40kt, No RIGI**	**20kt, RIGI**	**40kt, RIGI**	**Lithium Chloride, no RIGI**
Li_2CO_3 Price (or equivalent)	US$/t LCE	24,000	24,000	24,000	24,000	19,200
Operational Years	year	30	30	30	30	30
Production						
Full Production Li_2CO_3 BG eq	t/year	20,000	40,000	20,000	40,000	20,000
Total Payable Li_2CO_3 BG eq	t	588,000	1,176,000	588,000	1,176,000	588,000
Operating Costs						
Processing Cost	US$/t LCE	5,912	5,563	5,912	5,563	3,917
Transportation Cost	US$/t LCE	100	100	100	100	490
Total Operating Cost	US$/t LCE	6,012	5,663	6,012	5,663	4,407
Cash Costs	US$/t LCE	6,555	6,216	6,555	6,216	4,860
AISC	US$/t LCE	7,037	6,686	7,037	6,686	5,201
Capital Costs						
Initial Capital Cost	US$M	706	1,346	706	1,346	499
Sustaining Capital Cost LOM	US$M	249	486	249	486	176
Closure Cost	US$M	35	67	35	67	25
Financials - Pre-Tax						
Pre-tax NPV @ 8%	US$M	2,065	3,776	2,220	4,078	604
Pre-tax IRR	%	27.3%	28.1%	28.1%	29.1%	17.4%
Financials - After-Tax						
After-tax NPV @ 8%	US$M	1,276	2,341	1,621	2,987	340
After-tax IRR	%	22.6%	23.3%	24.8%	25.8%	14.4%

Argentinian Incentive Regime for Large Investments (RIGI) provides tax and custom benefits to projects submitted until July 8, 2026. RIGI is not considered in the base case of the economic analysis as the Project's timeframe does not align with its application period. However, there is an opportunity for the Project to benefit from RIGI as the Executive Branch may extend this deadline only once for one more year, per Argentinian government. The following assumptions were applied:

- An Argentinian corporate income tax of 25%.
- Accelerated depreciation of movable assets over 2 years, and depreciation of mines, quarries, and infrastructure with a useful life reduced to 60% of the estimated lifespan.
- Export duty exemption for consumption, applicable after three years of RIGI compliance.

22.6.1 *Scenario 2: Annual production of 40kt Li_2CO_3, no RIGI*

Scenario 2 assumes an additional 20 ktpa plant to the Project, which increases the annual production capacity to 40,000 tons of lithium carbonate. RIGI is not applied in this scenario.

The capital cost and operating costs are factored based on the base case estimates for the higher throughput production.

22.6.2 *Scenario 3: Annual production of 20kt Li_2CO_3, RIGI applied*

Scenario 3 is the same as the base case and assumes annual production capacity of 20,000 tons of lithium carbonate. RIGI is applied in this scenario.

Corporate income tax rate is lowered to 25% and export duty after 3 years of the project is assumed to be 0%.

22.6.3 *Scenario 4: Annual production of 40kt Li_2CO_3, RIGI applied*

Scenario 4 is the same as Scenario 2, and assumes an additional 20kt plant to the Project, which increases the annual production capacity to 40,000 tons of lithium carbonate. RIGI is applied in this scenario.

Corporate income tax rate is lowered to 25% and export duty after 3 years of the project is assumed to be 0%.

22.6.4 *Scenario 5: Annual production of 20kt LiCl-H_2O, no RIGI*

Scenario 5 assumes production of lithium chloride instead of lithium carbonate. Product price of $11,743/t LiCl-$H_2O$ is assumed. The lithium carbonate equivalent price was estimated as $19,200/t Li_2CO_3, based on weight ratio of 61% between lithium chloride and lithium carbonate.

Total operating cost is expected to be $4,407/t LCE with cash cost of $4,860/t LCE and AISC of $5,201/t LCE.

Initial capital cost is estimated at $499M based on factoring of relevant process areas of the base case. The sustaining capital cost over LOM is expected to be $176M. Mine closure costs is $25M.

23. Adjacent Properties

Adjoining or nearby properties to the Rio Grande Project on salar surface include the following:

- Lithium S Corporation S.A. (LSC), a company currently owned by Lítica Resources, a Pluspetrol company who acquired lithium mining properties and rights from LSC, as explained below, holds large tenements in both Salta and Catamarca provinces. These areas are mainly in the salar surface and surround the Project properties.
- Pursuit Minerals Limited holds the Isabel Segunda and SALRIO01 concessions.
- The Rio Grande I and Demasia Rio Grande I concessions are currently believed to be registered as vacant.
- Anglogold Argentina Exploraciones S.A. holds tenements on west side of the salar next to western Project properties.
- Martin Guillermo Novara contests that he holds the Nahuel 19 concession, but it is being challenged.
- Minas Argentinas S.A. holds the Arizaro I concession.
- Minera El Toro S.A. holds the El Camino concession.
- Pursuit Minerals Limited holds a cateo concession.

Originally, many of the concessions in the Rio Grande salar belonged to LSC (through Lithium S Corporation S.A.); at the end of 2018, LSC was purchased by Litica Resources under a commercial agreement, becoming the current owner of concessions in Rio Grande. However, the acquired concessions continue to be registered in the name of LSC on the mining registry of the Salta province.

Adjacent properties to the Rio Grande Project outside the salar surface include the following:

- A B Minerales Argentina holds a cateo concession.
- Anglogold Argentina Exploraciones S.A. holds tenements in west side of the salar next to west Project properties.
- Astrali S.A. with Marcopolo I concession.
- LSC controls the Guadalupe Norte concession.

Figure 23-1 shows a general map with concessions owned by NOA and adjacent concessions owned by third parties registered in the mining cadastral of Salta province.

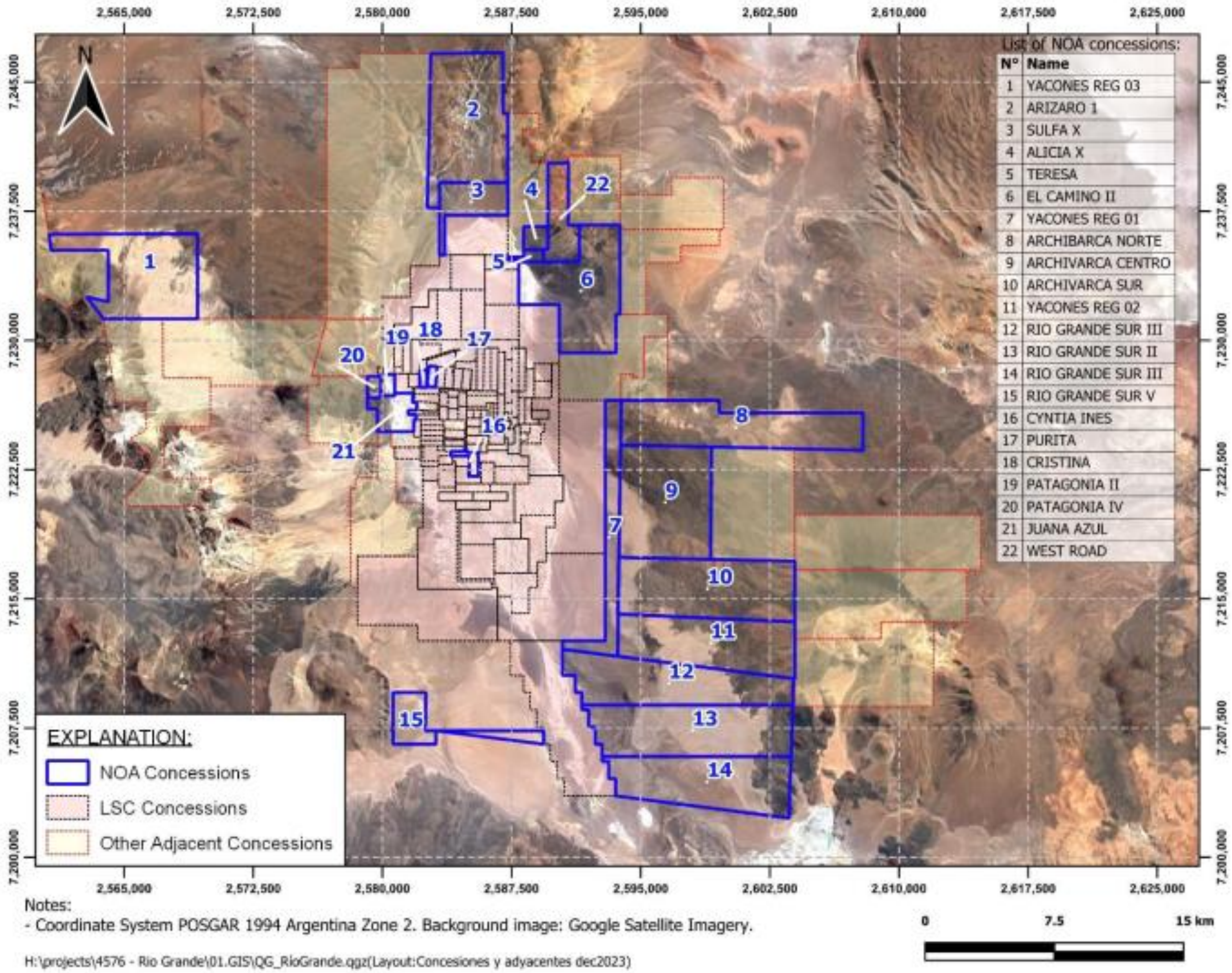


Figure 23-1: General Map of Mining Concessions in Salar de Rio Grande

24. Other Relevant Data and Information

24.1 Project Development Plan

Project developments include the following major phases:

- Pre-Feasibility Study (PFS);
- Bankable Feasibility Study (BFS);
- Environmental Impact Statement (EIS) & Permitting;
- EPCM

24.2 Project Schedule

A project schedule is a live document that changes throughout the life of a project, depending on the quality of the information on which the schedule is based. Schedule quality will improve as engineering definition and execution strategies are progressively developed.

A summary of the project schedule is found in Figure 24-1 based on an assumed start date for the Execution Phase in Q4 2027.

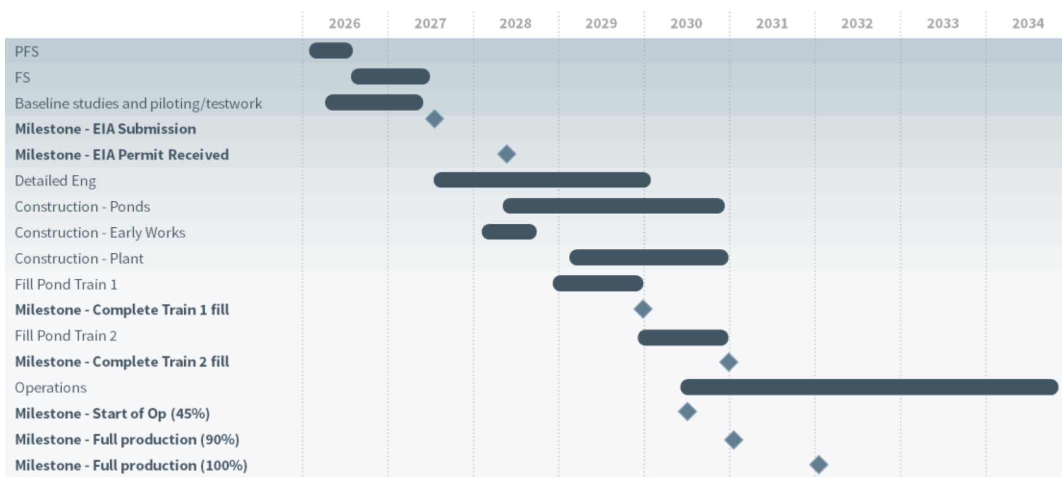


Figure 24-1: Rio Grande High Level Project Schedule

The project execution plan is preliminary in nature and will depend on a number of factors including market conditions and NOA's ability to advance permitting and engineering in a timely fashion as aligned with the schedule above.

25. Interpretation and Conclusions

25.1 Geology and Mineral Resources

The Rio Grande Lithium Project is at an exploration stage. The initial results (before 2023/2024 exploration program) for lithium concentrations from surface sampling supported the concept that brine enriched in lithium occurs in the basin and might be favorable for future production.

Geophysical surveys suggested the presence of evaporitic sediments saturated with brine in the main salar area. In addition, initial surface brine chemistry sampling results indicated elevated values of lithium. Also, composite brine samples obtained during the pumping tests conducted by LSC at exploration wells drilled on adjacent concessions, demonstrated that subsurface brine in the salar has enriched lithium concentrations. Pumping test results from these wells suggest that the aquifer has favorable hydraulic properties and may also be favorable at the Project concessions. Previous NOA exploration campaigns agreed with and support the findings made by Hains (2018) in adjacent tenements. Prior to the 2023/2024 exploration program, it was the opinion of the QP that the elevated concentrations of lithium observed in the Project area justified continued exploration activities.

The year 2023 and 2024 exploration work has substantially increased the understanding of the conceptual model of the basin and has allowed the estimation of a maiden lithium resource.

Results of 2023 and 2024 exploration program have confirmed the concept that brine enriched in lithium occurs in the salar and surrounding alluvial fan areas located north of the salar boundary (well DDH-RG23-001 location). Abundant brine samples from the concession areas have been obtained and analyzed, and demonstrate relatively large lithium concentrations on par with few other similar projects in the region.

Specific results of this investigation are summarized as follows:

- In general, lithium grade values show an increasing trend with depth, which has been observed in other similar lithium-rich aquifer systems in the region. Resulting weighted average lithium concentration values in wells ranged from 462 to 681 mg/L, showing significantly higher values than surface samples surveys in previous studies in the basin.
- Resulting weighted average drainable porosity values per well ranged from 3.7 to 9.4%. Drainable porosity seems to be much better in North and Northeast area of the salar (DDH-RG23-001 and DDH-RG23-004) where most of the area considered in the resource estimate is located.
- Among the drilled wells, the well that showed the best lithium grades combined with higher drainable porosity values was DDH-RG23-001, located on the northmost alluvial fan.
- For the polygonal areas shown on Figure 14-6, the Measured, Indicated and Inferred resources contain 2,094,000 tonnes Measured, 564,000 Indicated LCE, and 530,000

Inferred LCE. In addition, 1,509,000 tonnes of Inferred LCE were estimated, only based on CSAMT data, in south-east concessions.

The QP has extensive experience in salar hydrogeology. Techniques to evaluate the resource incorporate the best available technology and practice. The resource calculation was based on information of acceptable quality and has been validated. The consistency and quality of the data on the Project support the conclusion that a portion of the brine resource could be extracted commercially for the production of lithium products; additional investigation regarding process methods and economic grades should be investigated.

25.2 Mineral Reserve Estimates and Mining

Not Applicable

25.3 Recovery Methods

While the base case for the project considers evaporation ponds, DLE technologies have advanced and have positive economic and environmental impacts. The evaporation process is well understood and established however is susceptible to weather and reagent consumption varies significantly due to impurity ratios. The design has considered process modeling based on assumptions that will have to be verified by testing in the next phase.

With recent advancements in DLE and Eramet's Centenario project ramping up, commercial DLE operations are increasingly recognized as de-risked. Hatch estimates, new LC production from DLE technologies to add between 100,000 - 200,000 tonnes over the next 10 years.

25.4 Project Infrastructure

The infrastructure for the Project over its LOM will include ponds, power supply, process buildings, personnel facilities and water supply.

In the process area, the infrastructure will feature a liming plant, impurity removal, reverse osmosis unit, chemical plants, reagent storage and handling, dry product handling, air and steam systems, workshop and warehouses,

Personnel facilities in the process plant area will include administrative offices, a dining room, a change house, a camp.

25.5 Economic Analysis

The economic analysis of the estimated cashflows for the project indicates the potential for an economic project across a broad range of input assumptions. The NPV calculated at an 8% discount rate is positive, and the Internal Rate of Return calculated for the project is within a favourable range. The main risk is that the lithium price is significantly lower than modeled due to unexpected changes in supply/demand dynamics.

25.6 Risks

25.6.1 Introduction

Rio Grande project is large, relatively complex, and located in a remote location, and as such, involves some risks and challenges. These risks and challenges have the potential to affect:

- The performance of the facility in terms of production,
- The cost of construction and operation,
- The implementation schedule,
- The time required to reach full capacity, and/or
- The environmental performance and impact of the mine and plant.

Any of the above items could affect the financial performance of the project.

25.6.2 Project Risks

Major capital projects are subject to risk. Generally, project risks can be categorized as:

- Resource/Reserve Estimation and Planning
- Regulatory/Approvals/Permits
- Design/Process
- Financial/Commercial/Contractual
- Logistics/Access
- Construction, Testing & Commissioning
- Political
- Environmental
- Health, Safety & Security
- Labour
- Social.

A comprehensive list of all of the risks that apply to the Rio Grande project include political, regulatory, market and financial risk that are beyond Hatch's scope of expertise. Hatch and M&A have developed a list of specific technical risks that apply to the Project, together with certain other risks that we have knowledge of due to our involvement in the project and from reliance on the owner and other experts. These are described in the following subsections.

No particular risk workshop has been completed to date. And this is recommended for next engineering phase.

25.6.2.1 Resource Estimation and Well Planning

The estimates of the mineral resources has been prepared in accordance with relevant CIM guidelines but should not be construed as a guarantee that such resources actually exist in the estimated quantities or are mineable.

25.6.2.2 Regulatory/Approvals/Permits

Licences/Permits

VAT and Duties - Equipment imported into Argentina may be subject to duties and all purchases of goods and services are subject to Value Added Tax (VAT) of 21%. NOA may obtained an exoneration of duties and VAT on imported equipment and materials by obtaining a Certificate for Mining Investment. In preparing the capital and operating cost estimates and financial analysis set out in this Report, it has been assumed that the exoneration on imports will take place and no VAT are applicable on local purchases related to production that is to be exported.

25.6.2.3 Design/Process

Evaporation Rates – The production of concentrate brine and contained lithium is dependent on the net evaporation rate which is affected by meteorological conditions of the salar. Seasonality and climate change may affect the values carried as basis for the mass balance and production values.

The process has been developed based on experience from brines and projects in the region and uses a conventional evaporation process that is well established. The operating parameters are at a preliminary level and have not yet been confirmed by testing to be conducted on raw brine which is planned for the future. Brine evaporation trials will be required in subsequent phases of study to confirm the evaporation kinetics and optimal lithium concentration.

Impurity Levels – The brine characteristics for the Rio Grande project indicate higher impurity ratios (i.e. Mg/Li) which can challenge concentration of lithium and might require significant quantities of reagents. This will have to be de-risked through further testing that's planned.

Pond Area – A key input into the process design is the evaporation rate and seasonality issues can impact production in the winter months when ambient temperatures are lower result in lower evaporation. This will impact the estimate of area required for pond evaporation and the design of the ponds. NOA has sufficient land to be able to adjust the pond area as evidenced with the plan to support an expansion to 40ktpa. However, the estimates for quantities of earth moving can change and may affect capital costs.

The conversion of the output of the ponds (i.e. Lithium chloride) to carbonate is well understood, however the lithium concentration can impact size of the downstream plant.

Product Quality - Achieving BG Lithium Carbonate can be challenging at elevation in the Puna. Based on test work, additional processing steps maybe required (E.g. Bi-carbonation).

25.6.2.4 Financial/Commercial/Contractual

The cost estimates (capital and operating) and economic analysis have been developed based on market conditions. Variations in market conditions (affecting commodity and/or labour costs) or in the assumed foreign exchange rates could affect the project economics.

25.6.2.5 Road Transport During Construction and Operations

Most construction equipment and materials will be transported to site via the Chilean border or from Buenos Aires by truck. Road conditions in some areas are not ideal and may be affected by weather. Delays could result due to road blockages, flooding or other obstructions.

When plant operations are initiated, some consumables will be transported to site by Truck. This will increase traffic between Chile and Argentina.

Community relations, as well as mitigation of the environmental impacts such as noise and emissions, will have to be handled together with a major focus on traffic safety.

25.6.2.6 Permits

As outlined in Section 25.6.2.8 (Political and Regulatory) the issue of Government permits and potential interference by environmentally focused organizations is particularly sensitive with any activity involving transportation, both during the construction as well as during the operational phase of the Rio Grande project.

Special situations may involve changes in permitting requirements and procedures as well as delays in issuance of permits and related procedures. Other risks may arise from protests and road blockage, or may be the focus of environmentalists, either of which could interrupt the flow of material and equipment.

Title and property ownership: No costs associated with the acquisition and maintenance of (a) the title to the Rio Grande property, and (b) its current or future rights to extract, process and sell minerals from the property have been considered.

25.6.2.7 Construction and Commissioning

The project implementation schedule has been developed based on typical weather conditions for the region. Adverse weather conditions could prolong the schedule and impact the project.

25.6.2.8 Political, Economic and Regulatory

The Rio Grande project is located in Argentina and, as such, is susceptible to certain risks that are generally of more concern in developing countries than in developed countries, including currency fluctuations, political or financial instability, exchange controls, changes in mining taxation and regulations, export controls, changes in permit and licensing requirements, delays in the issuance of permits, embargos, and environmental issues; all of which may materially and adversely impact the project.

No costs are currently considered for risks associated with the Argentinean political, legal or regulatory environment, including (a) the risk of changes to any laws, regulations, rules or policies in Argentina, or the governmental or judicial interpretation thereof, (b) the risk of NOA Lithium failing to comply with any such laws, regulations, rules or policies and the costs of any resulting penalties, fines, suits, etc., and (c) the risk of NOA Lithium not being able to obtain or maintain any permits, licenses and other authorizations required for the Project.

25.6.2.9 Environmental

Seismic - The Puna region of Argentina is a region of high seismic activity. Seismic activity could impact the Project or plant operations through damage to equipment and structures, injury and/or delays.

GHG Emissions - The generation of power through natural gas generators will have Green House Gases (GHG) emissions. The impact of any potential financial compensation of carbon emissions has not been reviewed.

25.6.2.10 Labor

Construction - Various lithium projects are being studied and advancing in the region. Limited resources in the nearby provinces and Argentina could have an impact in construction both cost and schedule. Variations in labour rates and/or productivities from those assumed for the Project could impact the capital cost of the Project. Variations in budgetary quotations for earth moving for pond construction can impact both cost and schedule.

Commissioning and Operations - Attracting staff who are experienced in operating this type of facility is important to affecting a safe and fast production ramp-up and to ensuring effective operation of the facility. Given the remote location of the lithium plant it may be challenging to attract qualified personnel.

There are a few lithium plants operating in the region, however, there are also several projects that are being developed and competition may affect the operating cost and access to an experience labour force.

25.6.2.11 Social

Community Support – Rio Grande project will have an impact on the communities situated in proximity to the salar, process plant and transportation routes. The success of the project will depend on the support of those communities.

25.6.2.12 General

A project of this nature is sensitive to several project risk factors that would be expected to potentially impact any major project of a similar scale and scope (e.g. adverse weather conditions, acts of God and force majeure events, delays due to unforeseen factors such as late delivery, or unavailability of equipment or materials or unavailability of labour resources, poor performance by EPCM contractors or construction contractors, disputes with local residents, etc.). All these risks are, to a greater or lesser extent, outside the Owner’s control. Although operating and capital costs have been developed to reflect climatic and hazard conditions typical in this area based on field observations, abnormally adverse weather patterns could increase costs during any given period. No allowance for such risk factors has been included in the cost estimates or economic analysis set out in Section 21 (and summarized in Sections) of this report.

25.6.3 Opportunities

Some opportunities for the Rio Grande project are detailed in Section 26.

26. Recommendations

26.1 Exploration and Hydrogeology

Based on the results of exploration to date, additional exploration activities are justified to better characterize the subsurface brine in the concessions. To date, five exploration wells have been drilled and sampled. We recommend additional drilling and testing that will allow updating resource estimates for Project concessions, and groundwater flow model preparation what will, with support from other more advanced engineering and economic studies, allow development of an estimated lithium reserve.

Recommended activities include the following:

1) Drilling two exploration boreholes in the southeast concessions to confirm the presence of brine suggested by the recent CSAMT surveys.

2) Drilling one exploration borehole in the west concessions to confirm the presence of brine suggested by the recent CSAMT surveys in the sediments believed to be present below the volcanic flows.

3) Drilling and testing of two exploration pumping wells located near wells DDH-RG23-001 and DDH-RG23-003. These new wells will be drilled to the same depths as the nearby coreholes; pumping tests would be conducted determine hydraulic parameters for the aquifer and to determine composite brine chemistry that would be helpful in determining processing methods.

4) If new recommended drilling results in the southeast concessions are favorable, we recommend drilling and testing of two exploration pumping wells in the southeast concessions. These new wells will be drilled to the same depths as nearby coreholes; pumping tests would be conducted determine hydraulic parameters for the aquifer and to determine composite brine chemistry that would be helpful in determining processing methods.

5) We recommend conducting a 30-day pumping test at least one of the new exploration wells. Results would be used to support calibration of the groundwater flow model and to further demonstrate feasibility of the project.

6) After completion of additional exploration, we recommend to re-assess the conceptual model and construct an updated 3-D block model, to migrate the resource estimate away from the polygon method and 100% to the block model.

This has the advantage of being able to build the groundwater flow model that will be used to estimate the reserve directly from the existing resource model.

7) We recommend preparing a calibrated groundwater flow model using Modflow USG as the software platform. The model would be used to simulate production pumping from a future production wellfield(s).

26.2 Geotechnical and Civil Design

- Additional geotechnical studies be conducted to confirm ponds and foundation design parameters.

26.3 Process Testwork

Current process model should be updated and validated with data generated by testwork. This may have impact on the current design.

- Laboratory scale parametric studies including finalizing the evaporation testwork, extraction/strip isotherms, loadings, reagent regimes, residence times, actual response to precipitation and purification, separation unit areas and outputs for thickeners and filters, pulps-flow-response, etc.
- Pilot-level validation, aiming for the generation of the Pre-feasibility study-level data whilst validating the final integrated process flowsheet.
- Confirm the potential of obtaining sufficient fresh water in reasonable proximity to the project for processing.
- Conduct preliminary tests with DLE Technology vendors with raw brine to assess suitability for the salar. Promising options exist for this impurity profile including Adsorption, IX and SX based technologies. Several vendors have already tested the brine in surrounding areas with similar brine characterizations.

26.4 Infrastructure

During subsequent phases of the project Hatch recommends the following:

- A detailed assessment of upgrade requirements to public roads and logistics of transporting to site equipment, materials and consumables.
- That more detailed Seismic Zoning studies be completed to confirm building design requirements.
- Contract discussions with natural gas supplier.

26.5 Economic Analysis

The positive results of the economic analysis over a reasonably wide range of assumptions support the Project proceeding to the next project development stage.

26.6 Opportunities

26.6.1.1 Environmental Permitting

The company should continue to advance its baseline environmental testwork and studies as well as social impact investigations to support future permit applications.

26.6.1.2 Processing

26.6.1.2.1 Split the Plant

The project was evaluated on the assumption that the entire plant will be located at site and final product will be produced at site. During the PFS phase, NOA will evaluate alternatives to split the plant with producing the Chloride at site and having the Carbonate plant at lower elevation in Guemes, Salta. This may lead to a reduction of CAPEX due to lower construction cost at lower elevation and closer to urban locations and lower OPEX due to reduction of transportation costs.

26.6.1.2.2 Direct Lithium Extraction (DLE) options

During the PFS, DLE alternatives should be evaluated to reduce the dependence on evaporation ponds for removal of certain brine impurities or even consider DLE for the expansion of the project. This may have an impact in time-to-market and potentially in CAPEX and OPEX due to lower lime consumption.

DLE technologies have improved significantly over the last 5 years with applications within Argentina. DLE technology providers have developed an extensive brine library that can inform a design that could be beneficial to the project. This DLE alternative will replace the pond evaporation and could still be applied in a split plant configuration as detailed above.

26.6.1.2.3 Lithium Chloride Production

In this Technical Report Hatch also evaluated at a high level the economics associated for a 20,000 tpa lithium chloride project instead of carbonate. Concurrent with the opportunities above, the PFS should also evaluate an alternative for a staged development of the project where LiCl is developed for an initial period to start getting some cash flow. As the LiCl market is still nascent and price is not yet firmly established, NOA should also speak to potential offtakers on it. There are several companies evaluating this option globally and Hatch agrees with NOA that an intermediate LiCl market will appear in the future.

26.6.1.2.4 RIGI

As detailed previously, the Argentinian Incentive Regime for Large Investments (RIGI) provides tax and custom benefits to projects submitted until July 8, 2026. However, with recent gains from the current government, there is potentially an option to extend this date by one year.

RIGI is not considered in the base case of the economic analysis as the Project’s timeframe does not align with its application period. However, there is an opportunity for the Project to benefit from RIGI as the Executive Branch may extend this deadline only once for one more year, per Argentinian government.

The project needs to be advanced to a feasibility level to be able to comply with RIGI application requirements and as such further project development should focus on advancing environmental permitting, resource definition and process/project definition.

26.6.1.3 Transport Logistics

Another item to be analyzed during the PFS stage will be transport logistics, since work is underway on the privatization/tendering of Belgrano Cargas railway line, including its C14 branch line. This line runs through the mining area of the province of Salta and connects the town of Socompa with the Chilean railway branch line that leads to the port of Antofagasta on the Pacific. This could significantly reduce the operating cost of transport for both supplies/reagents and export product shipments.

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28. Date and Signature Page

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