TECHNICAL REPORT ON THE LAGUAN BRAVA PROYECT

REGION DE ATACAMA

PROVINCIA DE CHAÑARAL

COMUNA DIEGO DE ALMAGRO

CHILE

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1. SUMMARY

The present report details the exploration campaign carried out in December 2017 in order to determine the existence and potentiality of the lithium content in deep aquifers, located within the concession for the mining exploration role 03102-M151 -0, 03102-M152-9, 03102-M153-7, 03102-M154-5 granted by SERNAGEOMIN to Chilean Lithium Salars (CLS) on December 01, 2017.

The campaign is framed after the recognition of surface lithium traces contained in the waters of the high plateau lagoon system called Laguna Brava, located between coordinates 7089000-538000 / 7089000-541000 / 7087000-541000 / 7089000-538000. It will be tried with a short drilling campaign, to determine the existence of deep aquifer systems, contained in closed basins.

The project is located approximately 268 km northeast of the city of Copiapó and about 240 km from the city of Caldera, in the Third Region of Chile. Corresponds to the Province of Chañaral, Comuna de Diego de Almagro.

To access the project, you must take the CH-31 route from the city of Copiapó to the "Paso San Francisco" frontier crossing. From there, take the C-173 road north to the Salar de Pedernales, and then turn off to the east approximately 60 km. There are other access routes from Diego de Almagro, which, depending on the state of the road, are not discarded as recommended. The state of the road is of good conditions in general, however due to the geographical heights and to possible stretches of the high mountain road, the use of 4x4 vehicles is recommended. The total hours in vehicle from Copiapó is approximately 5 hours.

The climate in the mediations of the Project is of the Andean type, controlled by the high geographic limits (4300 m.a.s.l.). Predominantly arid climates dominated by winds. During the southern summer months, there are occasional rains caused by air masses from the Amazon Region during the rainy season. The convective activity of air masses produced by the Andes mountain range, causes precipitation associated with cumiliform cloudiness (usually during the afternoon).

As regards the Fauna and Flora of the environment, the ecosystem consists of halophytic plants (adapted to conditions of high salinity) (Teillier & Becerra, 2003). Regarding the existing Fauna, it is common sighting of various birds such as Jilgueros, Pink Flamingos and Wild Ducks, among which the Puna duck. You can also find Vicuñas, Llamas and Foxes, although these are more elusive.

The Project is located in the Andean range where the endorheic basins that give formation to the salt flats of Northern Chile. These basins are located in highlands surrounded by volcanic peaks that dominate the heights of the area (eg Vn. Ojos del Salado, Nevado Tres Cruces, among others). The average altitude of the study area is 4300 m.a.s.l contrasting with the high summits of the volcanoes (> 5000 m.a.s.l.) (Stoertz & Erickson, 1974; Mpodozis et al, 1995).

The geology of the sector is governed by the volcanic activity of the lower Miocene to the Quaternary, predominating the volcanic manifestations of lavas and pyroclastic which affected much of northern Chile. As regards the saline basins, these are of Tertiary to Holocene age, generally controlled by structural features that cross the zone from North to South. A large portion of the Project is covered by alluvial and glacial deposits of Quaternary age. In all the observed lithotypes, a high percentage of both primary and secondary porosity (hydrothermal activity product) can be concluded, which gives the Basin a potentiality as a reservoir of deep aquifers.

The report below includes the data obtained in a 4-hole drilling campaign with a total of 320 drilled meters of 400 planned. Preliminary laboratory results for collected brine samples indicate the presence of Lithium anomalies in the order of 200 ppm with a relatively low density even in downhole samples.

In the four hole drilled, the flow of water remained moderate to high, reporting for all samples taken, salty-type water to taste. In all cases the drill holes ended up with water and samples saturated in water, in the last meter drilled.

As a conclusion, it is suggested the continuity with the exploration work, framed in a geophysical campaign (SEV, Gravimetry or MT) to determine points of interest for a later, wider and more effective, drilling campaign. In the future drilling campaign, we will try to determine the presence of lithium anomalies at higher concentrations, since in light of the preliminary results, the density of all the samples remained low, evidencing a diluted lithium concentration. In view of the results of the geophysical campaign, it is proposed to the interested parties to carry out, according to antecedents of the zone, deep drilling campaigns (250-500 mt) to determine deep aquifers and higher concentrations of lithium.

2. INTRODUCTION

The client, CLS, has requested the subscriber to prepare this technical report after carrying out the drilling campaign in the project called Laguna Brava Proyect (LBP) located in Atacama, Third Region of Chile.

The format and content of this report is in accordance with the requirements established by Canadian National Instrument 43-101 (Form 43-101 Technical Report), so that this information can be incorporated in a future report (CSA 2005a, 2005b, 2005c; Hiner J. Z, 2010).

The report was prepared by Gonzalo Sánchez, Geologist from the University of the Republic, Uruguay. The author has vast experience in the mining sector, standing out in exploration projects both Brownfield and Greenfield. He is currently working as an Independent Geologist in addition to carrying out the Sub Directorate of the Department of Geology of the University of Atacama. He is a member of the Uruguayan Society of Geology (SUG), Association of Licensed of Geology of Uruguay (ALGU). It is for this reason that the author can be considered as "qualified person" according to the requirements of NI 43-101.

The author of the report visited the LBP project from December 11 to December 16, 2017. Within the exploration team was the company of Mr. Aldo Boitano (by the company CLS), the drilling team consisting of two drilling technicians of the company ICA Ingeniería y Construcciones Aguirre, the personal logistics managers of the company AndesDomo. The objectives of the visit to LBP were the following:

• Determine, based on drilling, the existence and potential of deep aquifers in the sector.

•Recognize the main geological features that dominate the area, emphasizing the geothermal evidence.

• Collect samples of saline mud and brines resulting from drilling.

• Collect water samples by bailers in the drill holes.

All the objectives are detailed in this report together with the results obtained.

3. RELIANCE ON OTHER EXPERTS

The pre-operation report detailing the exploration plan to be carried out in the LBP project was prepared by Mining engineer Mr. Luis Atenas Navarro. This report was delivered to SERNAGEOMIN where you can see the proposed wells, the logistics stages for the preparation of the same as well as the stage closure campaign.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The project is located in the Atacama Region, northeast of the city of Copiapó, a few kilometers from the border with Argentina. LBP is located near the city of El Salvador (160 km approximately) while it is located approximately 260 km from the city of Copiapó, capital of the Third Region of Chile. Regarding access roads, there are two alternatives from Copiapó:

• Take the CH-31 route to the "Paso San Francisco" border crossing. From there, turn left towards the Salar de Pedernales on the C-173 road (approximately 62 km).

• Take route CH-31 until exit to route C-17 and go to Diego de Almagro (120 km aporx.). From there, take the road East C-13 towards Salar de Pedernales.

From the Salar de Pedernales, you should take the east direction towards the LBP project. The road is generally in good condition, although due to the high mountain conditions and that these are roads frequently used by mining trucks, precautions must be taken. 4x4 vehicles are advised.

The coordinates of the project are 7089000-538000 / 7089000-541000 / 7087000-541000 / 7089000-538000. The average elevation is 4300 m.a.s.l.

Figure 1 Approximate location of the Laguna Brava Project. Google Maps source.

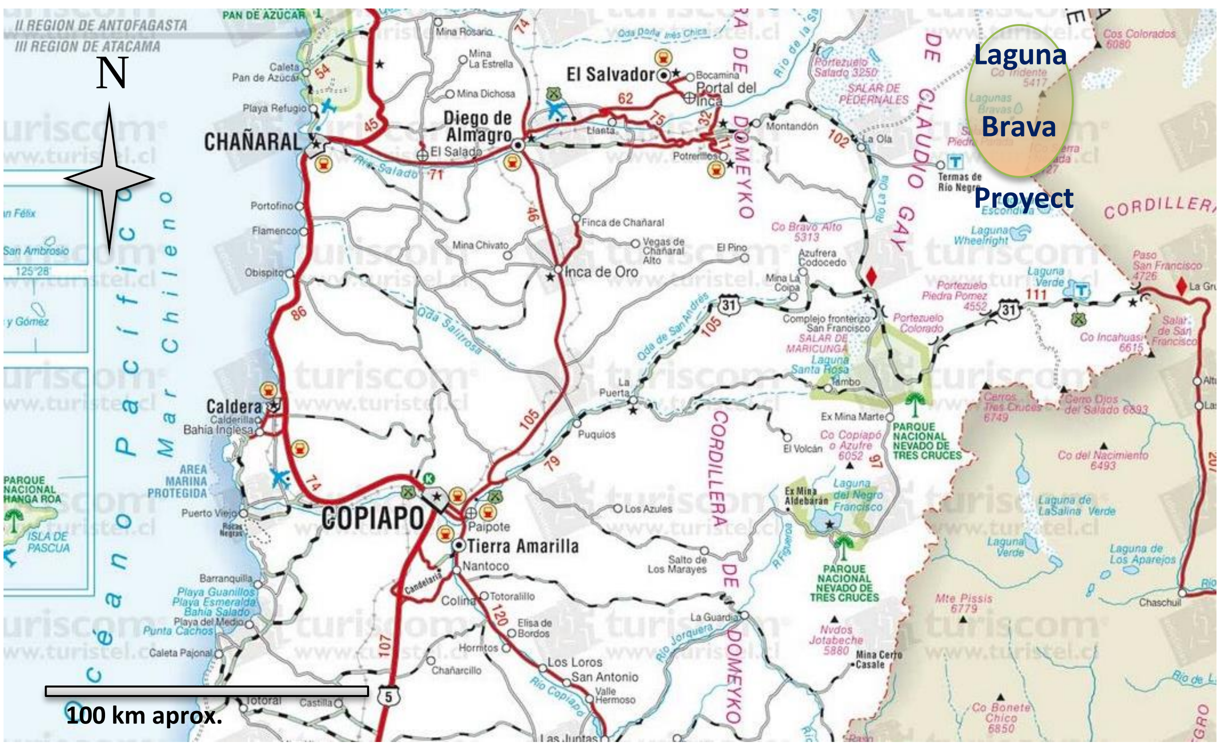

Figure 2 Map with the main roads to the project. Modified from www.turistel.cl

4.2 Mineral Property and Title in Chile

Chile´s current mining policy is based on Mining Codes of 1982. These Code stimulate the development of mining and to guarantee the property rights. The current law permitted, to private parties, exploration and exploitation mineral resources. These permits are regularized by the concessions.

Concession is regularized by the Constitutional Organic Law, enacted in 1982. Concessions can be mortgaged or transferred. An Exploration Concession is obtained by a claims filing and includes all minerals.

The stages of a concession are: Pedimento, Manifestación, Mensura. LBP is a Pedimento for an initial exploration, well defined by UTM coordinates as shown in the following chart:

BOUNDARIES	NORTH	SOUTH
	7089000-	538000
	7089000-	541000/
	7087000-	541000/
	7089000-	538000

Table 1 Coordinate UTM system from pedimento LBP

According to the law, a pedimento must have a minimum size of 100 hectares and a maximum of 5000 hectares. LBP have 3.800 hectares.

5. CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The climate in the Region is typical of the high Andes. Super-arid conditions predominate, repealing the rainfall to the months of the austral summer period (December to March). The temperatures are high during the hours of sunlight (30-35 ° C), falling drastically in the afternoon, reaching the low 0 ° C. These rainy scenarios are due to the masses of air coming from the Amazon Region during the rainy season. The convective activity of the masses of air product of the Andes mountain range causes the precipitations that are associated with cumiliform cloudiness.

The nearest city in which it can be established as a source of provisions is the city of Copiapó. Copiapó is the capital of the homonymous province and capital of the Third Region of Chile. Its tradition and culture is mining so it is positioned as a preferred location when choosing cities with services.

In the project there are no previous infrastructures of any kind, beyond some traces of trucks of mining or tourist origin. To access the project, about 22.5 km of access roads had to be built. This allowed the entry of drilling equipment as well as facilitated the transport of personnel to the drilling area.

6. HISTORY

These salars were previously explored by Panamerican Lithium Corp. The data obtained in those studies have not been published. The Chilean government conducted a hydrological survey of the area which for this preliminary study, is not important so it is only mentioned herein.

Regarding drilling campaigns there is no evidence of these in the LBP sector. The project has a series of surface data, which include water samples from the lagoon, as well as salt crust samples from the edges of the lagoon. In all cases, the samples show an abnormal concentration of lithium (Aguirre & Clavero, 2000; Hiner J. Z., 2010).

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

Most of the closed basins of northern Chile are linked in their evolution to the tectonics that affect the area during the early Cenozoic to the Holocene. At present, the northern areas of Chile that contain the highest proportion of salt flats are those in which evidence of major features of tectonism. We could subdivide and categorize three well-marked zones (Stoertz & Erickson, 1974).

7.1.1 Coastal Range

Predominance of sedimentary rocks of marine origin, and volcanic rocks of andesitic composition from Jurassic to Cretaceous age. These sedimentary volcano sequences are intruded by igneous bodies of mostly granitic composition and from late Jurassic to Cretaceous ages. The sequences are folded mostly with strong structural controls and faulting. Over the described sequences, there is a vast coverage of unconsolidated sediments related to alluvial events of the last 5 million years approx. Structurally, two large fault systems can be observed, the main North-South (Atacama fault) and the East-West trend direction. The large depressions and basins in this area are associated with these structural systems (Stoertz & Erickson, 1974).

7.1.2 Central Valley

Depression of Mesozoic to Quaternary age with sediment filling, most of them unconsolidated, predominating piedmont-type deposits, clays and eolian silts, fluvial sands and gravels (Mordojovich, 1965). The presence of salt crusts formed by the local evaporation of subsurface water is observed in sectors. Central depression is associated with a graven formed during the Pliocene? Structurally controlled by North-South directional failures.

7.1.3 Domeyko Range

It corresponds to the western edge of the Atacama Basin and is one of the most significant structural features, together with the basin, of the Region. This conformed mainly by the Formation Purilactis, of Cretácica age. This formation is constituted by conglomerates and fine grain sandstones, together with evaporitic deposits of continental origin (Dingman, 1962). Intrusive granites and marine sedimentary sequences from the Jurassic to the Cretaceous age appear in this margin of the Atacama Basin.

7.1.4 Andes Range

The Central Andes are the example of an orogen associated with convergence between oceanic plate and continental plate (eg, Dewey and Bird, 1970). Despite the numerous studies carried out in the region by various disciplines of Earth Sciences, the genesis of several of the distinctive features of the orogen is still controversial. In this sense it can be mentioned, among others, the origin of its cortical thickness, the origin of its topography, and the pre-orogenic form of the continental margin in the central Andean region.

The study area of the LBP project is framed in the Maricunga Strip, which extends some 200 km along the western edge of the Copiapó Altiplano (26-28 ° S) and represents the Oligocene-Miocene volcanic front of the South area of the Central Andes. Volcanic activity is organized into five events (Mpodozis et al., 1995). The oldest (26-21 Ma.) Gave rise to the stratovolcano complex of Cerros Bravos-Barros Negros, and to the multiple domes groups associated with Esperanza and La Coipa mineralization (26 ° 30'-27 ° S). During this period, volcanic activity in the southern zone of the strip (27-28 ° S) was smaller and associated with small complexes of multiple domes. The second episode (20-17 Ma.) Is associated with an event of compressive deformation, cortical thickening and decreased volcanic activity (Mpodozis et al., 1995). Volcanism resumed vigorously between 16 -12 Ma. When they released magmas associated with the oldest centers of this third cycle (Ojos de Maricunga, Santa Rosa, Jotabeche Norte, 16-15 Ma.). At the end of the period (13-12 Ma) volcanic complexes (Pastillos) and gold porphyry (Wolf and Mars) were emplaced. Between 11 and 7 Ma., A regional reduction in magmatic activity was detected, which was concentrated only in the Copiapó Volcanic Complex (27 ° 15'S). The final event of the evolution of the Maricunga Strip (6-5 Ma.) Occurred in the Nevado de Jotabeche area (27 ° 40'S), generating a bimodal association of riodacitas (Caldera Jotabeche) and vitreous mafic andesites (Pircas Negras) erupted through faults at the southern tip of the Puna (Mpodozis et al., 1995). The closed basins developed in this area of the Andes, contain most of the erosive products of the region, sedimenting deposits of alluvium, lakes, wind including volcanic ash. The great active volcanic front that is found in this zone impregnates existing rocks with an evident hydrothermal alteration manifested with extensive layers of hematization and argilization.

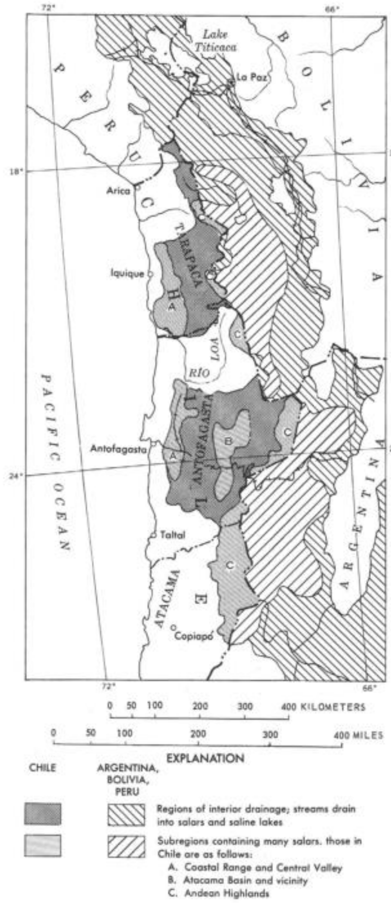

Figure 3. Taken from Stoertz & Erickson, 1974. The areas with the highest proportion of salt flats subdivided in the Coastal Range and Central Valley (A) are shown; Atacama Basin and vecinity (B); Andean Highlands (C).

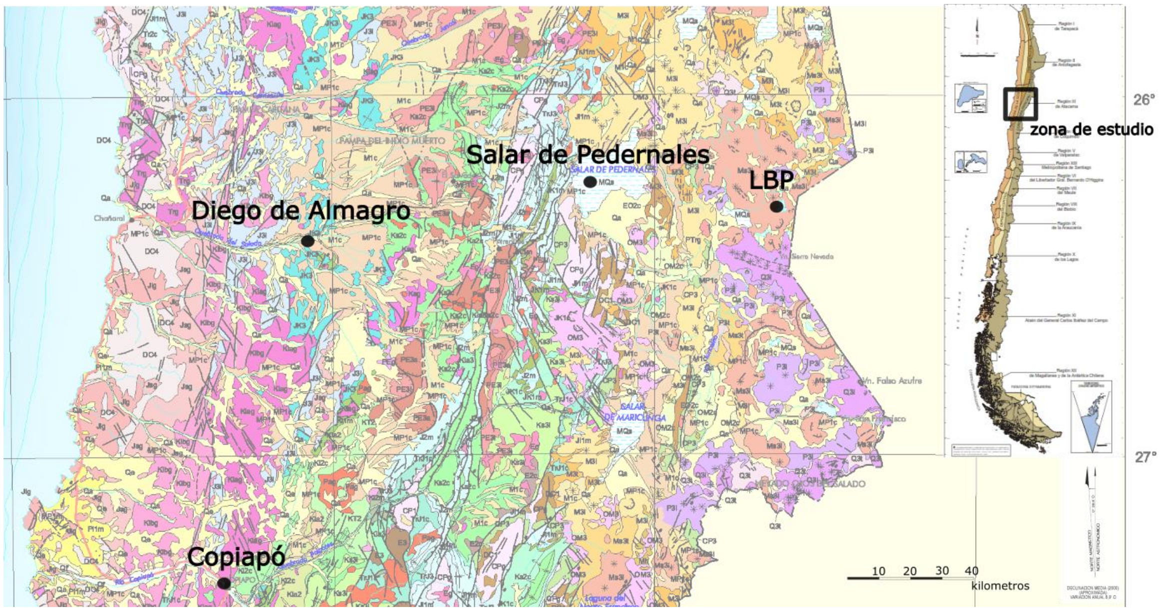

Figure 4 Regional Geological Map 1: 1000.000 modified from SERNAGEOMIN, 2000. For details of geological units visit http://www.ipgp.fr/~dechabal/Geol-millon.pdf

7.2 Property Geology

The zone of the high Andes, where the LBP project is framed, is an area dominated by the volcanic manifestations and faults that have occurred during the last 23 million years. The fault system accompanied by geothermal activity in the region contributes to the enrichment of closed lithium basins and other elements. The age of salt beds and basins is not known until now; the theories propose a Mesozoic to Cenozoic age formation related to the formation of the most remarkable geomorphological features and with it the formation of lakes and / or ephemeral bodies of water. Because evaporation exceeds precipitation, these bodies of water are transformed into beach lakes (beach lakes) or salt crusts. In the case of the LBP project in water flow, evaporation exceeds, forming a salty lagoon by definition for the case of the prospect. With regard to the volcanic manifestations of the project area, the Laguna Brava system is surrounded by volcanoes of andesitic to dacitic composition making the area of the basin is surrounded by volcanic cones with heights of more than 5000 m.a.s.l. The majority of these bodies is covered by a mantle of hydrothermal alteration impregnated by reddish to yellowish brown colorations related to the mantles of hematization and argilization correspondingly. As can be seen in the map, the character of the closed basin for LBP is given by volcanic cones and their pyroclastic manifestations that surround the whole sector.

Towards the South coast of the Laguna Brava can be seen a vast plain in which deposits of the alluvial type are developed concomitant with deposits of the glacial type constituted by oligomictic brechias of volcanic composition and sandy matrix, poorly selected.

In all observed lithotypes, it is possible to determine high percentages of primary porosity (volcanoclastic rocks) and secondary porosity (hydrothermal activity and dissolution of primary components). This porous character manifested in the rocks, both outcropping and those obtained from the analysis of the holes, gives it to the Basin in study a reservoir potential of deep aquifers.

Figure.5 taken from the southern coast of Laguna Brava. The volcanic cones of andesitic / dacitic composition are observed together with their pyroclastic products. In light coffee the mantle of argilization on the andesites. In red the mantle of hematization, evidence of hydrothermal activity in the area.

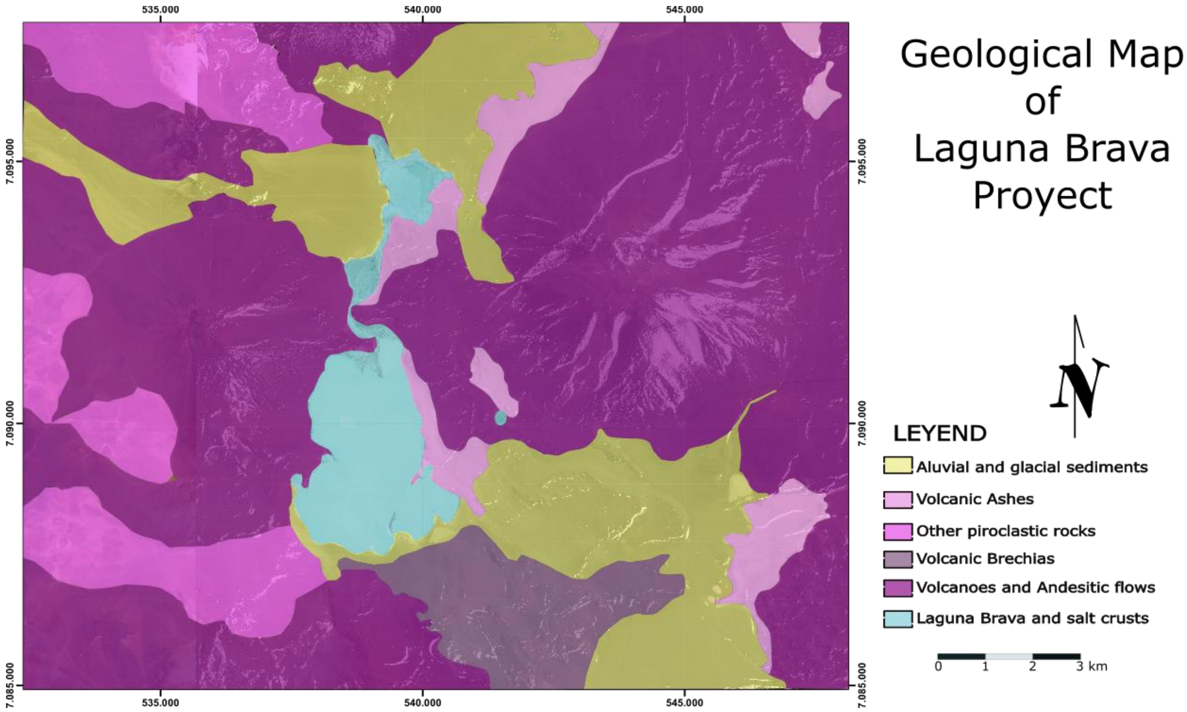

Figure .6 Geological Map of Laguna Brava Proyect

8. DEPOSIT TYPE

The metal lithium is found in some pegmatites an in some brines. Lithium in brine is found in commercial quantities in continental brine deposits in desert environments related to volcanic origins. They occur in playas, saline lakes, or salt flats (salars or salares) where lithium-bearing solutions have been concentrated by evaporation. Recovery of lithium from brines is commonly far lower cost method of extraction.

The lithium rich brines can be pumped into solar evaporation pounds, which is the best method applied in the regions with low humidity and arid climate. The brines can be further processed to remove other high solubility salts (boron, magnesium, sulphates).

To obtain the brines, certain premises are needed, inflow must be sufficient to maintain standing water, the evaporation rates must be sufficient to permit and determinate the timely production. These factors dependent on location, amount of solar radiation, humidity, wind and temperature. Lefond (1969) determinate that the Salar de Atacama and other similar salars in Andean are the only places in the western hemisphere where direct precipitation of lithium concentration in brine and low humidity allow direct precipitation of lithium on a commercial scale.

Lithium mineralization at depth tends to be greater than the surface mineralization due to surface recharge from inflows, the salar. Mineralization can be expected to be more concentrated and more uniform at greater depths. The Depth of the basin is still unknown due to the lack of drilling and geophysics studies in the area.

From 2009 to 2016 salars of the altiplano-Puna region were drilled and explored to depths in some cases exceeding 450 meters. Most of the salars demonstrate lithium concentration at depth, where the brine is protected from fresh water influence

9. EXPLORATION

Framing in the type of deposit to be explored, the company proposes an exploration campaign with drilling to determine the existence and potential of deep aquifers that could contain the brine with economic concentrations of lithium. For this purpose, an exploration plan for the concessions named Brava 2, Brava 3 and Brava 4 (south bank of the Laguna Brava) is presented to the SERNAGEOMIN office of the Third Region of Atacama, under the responsibility of Luis Atenas Navarro Mining Engineer. 6 drill holes with the denomination S-1, S-2, S-3, S-4, S-5, S-6 of 100 m each are proposed, making a total of 600 mt. In all cases, the drillings are considered vertical, of 4 inches diameter and of the reverse air type.

To start the exploration work, a previous campaign for the improvement of access roads had to be carried out, where around 22.5 km of roads were built. The drilling campaign lasted 5 days and consisted of personnel from the company ICA, AndesDomo, CLS as owner of the pedimentos and the author of this report. Due to logistical problems, three more days of campaigning had to be added for the completion of pending drill holes in which develop the geology tasks, the graduate in Geology from the University of Atacama, Mr. Vicente Gerding, under the supervision of the subscriber.

For the realization of the wells was counted with a drilling machine model PWH-5000 and a compressor model Atlas Copco XRHS 350.

Regarding the sampling, samples of sediment or rock drilled were taken every 1.5 mt (length of drill rods). Water samples were also taken (in cases that allowed the minimum volume of water) every 1.5 m. Three samples were taken with bailer from the wells that allowed them to descend.

All the samples taken were incorporated into a rigorous QA / QC program in which Blanks, Standards and Duplicates were inserted. The samples were taken in sterile plastic bottles of ½ lt and ¼ lt capacity. Backup samples were also taken in plastic bags in case of the need to repeat the analysis.

For all cases (original or check samples) the samples were labelled with the alphanumeric code EX0001, EX0002 ...

The apparent flow, the water saturation of the sample, the color of the water, the geology of the sediment or the perforated rock were determined in the field.

The samples were sent to Antofagasta, laboratory of the University of Antofagasta, for the preliminary analysis of the lithium content and other salts.

10. DRILLING

Of the 6 proposed holes due to terrain conditions, only 4 could be made with a total of 321 mt drilled.

The holes were named with the nomenclature LBRC001, LBRC002, LBRC003 and LBRC004

From the holels, information was extracted like the geology, which was sampled and filed in cutting boxes, referencing the well ID and depth of the sample; if there is water, it was sampled in sterile plastic containers of ½ and ¼ l together with plastic bags to guarantee backup samples. The intensity of the water flow is determined in the field using a scale of zero, poor, moderate, strong and very strong. Likewise, the characteristics of the sampled water will be determined, determining the colour and other important characteristics (taste example or dissolved solids).

ID	North	East	RL	Deep
LBRC001	7088159	540604	4238	33
LBRC002	7088100	540271	4233	48
LBRC003	7088062	540299	4234	120
LBRC004	7087957	540681	4247	120

Table 2 Collar ID together with coordinates and final depth of the well

10.1 LBRC001

The drilling began on December 12 and ended on December 13. The hole finished at 33 mt due to collapse of the collar of the same.

In summary, the hole showed the following characteristics.

10.1.1 Summary Geology and Water characteristics

In the LBRC001 can observed the gravels associated to alluvial and glacial deposits which dominate the geology of the southern sector of the project.

The gravels have an oligomictic composition predominating the Volcanic Ashes in front of other pyroclastics like brechias or igmimbrites.

Regarding the flow of water, the freatic level could be characterized, which was cut at 1.5 mt depth (similar to the Laguna Brava). This was increasing towards the deepest levels reaching a moderate flow (see table flow 0 no flow, 1 = weak, 2 = moderate, 3 = strong, 4 = very strong). The hole ended with a constant and moderate water flow.

Although the well was programmed at 100 mt, this collapse at 33 making its continuity impossible due to the instability of the unconsolidated substrate.

10.1.2 Sample Preparation, Analyses

A total of 16 samples of wet mud with a large percentage of water were collected. The previously established standards and control samples were incorporated into the list. All samples were sealed with a back cover and labelled on both sides with a permanent marker. Later they were sent to the laboratory of the University of Antofagasta.

In the field, the backing was sampled in plastic bags, labeled on both sides with a permanent marker and bracketed with a cardboard label, making sure it correlated with the sample sent to the laboratory.

As a result of the collapse of the hole, no sample with bailer could be collected.

In all cases all the samples were collected, labelled and recorded from their origin until the shipment to Laboratory by the undersigned.

For future campaigns it is recommended according to the instability and inconsistency of the terrain, to work with tricone and tubing of the initial meters of the drill hole, in this way, to avoid material losses and early abandonment of the probing.

Hole ID	From	To	Rock Type	Composition Mayor	Composition Minor
LBRC001	0	24	Gravel	Volcanic Ashes	Igmimbrites
	24	27	Gravel	Igmimbrites	Volcanic Brechia
	27	33	Gravel	Volcanic Ashes	basalts

Table 3 Geology of the drill hole LBRC001

HOLE_ID	FROM	TO	WATER	FLOW	DHWATER_COMMENTS
LBRC001	0	1,5	D	0	
	1,5	3	P	2	
	3	4,5	M	3	FREATIC LEVEL
	4,5	6	W	0	no flow but mud were sampled
	6	12	M	2	
	12	16,5	W	0	no flow but mud were sampled
	16,5	19,5	V	3	
	19,5	33	S	3	

Table 4 Characteristics of the flow and water present in hole LBRC001

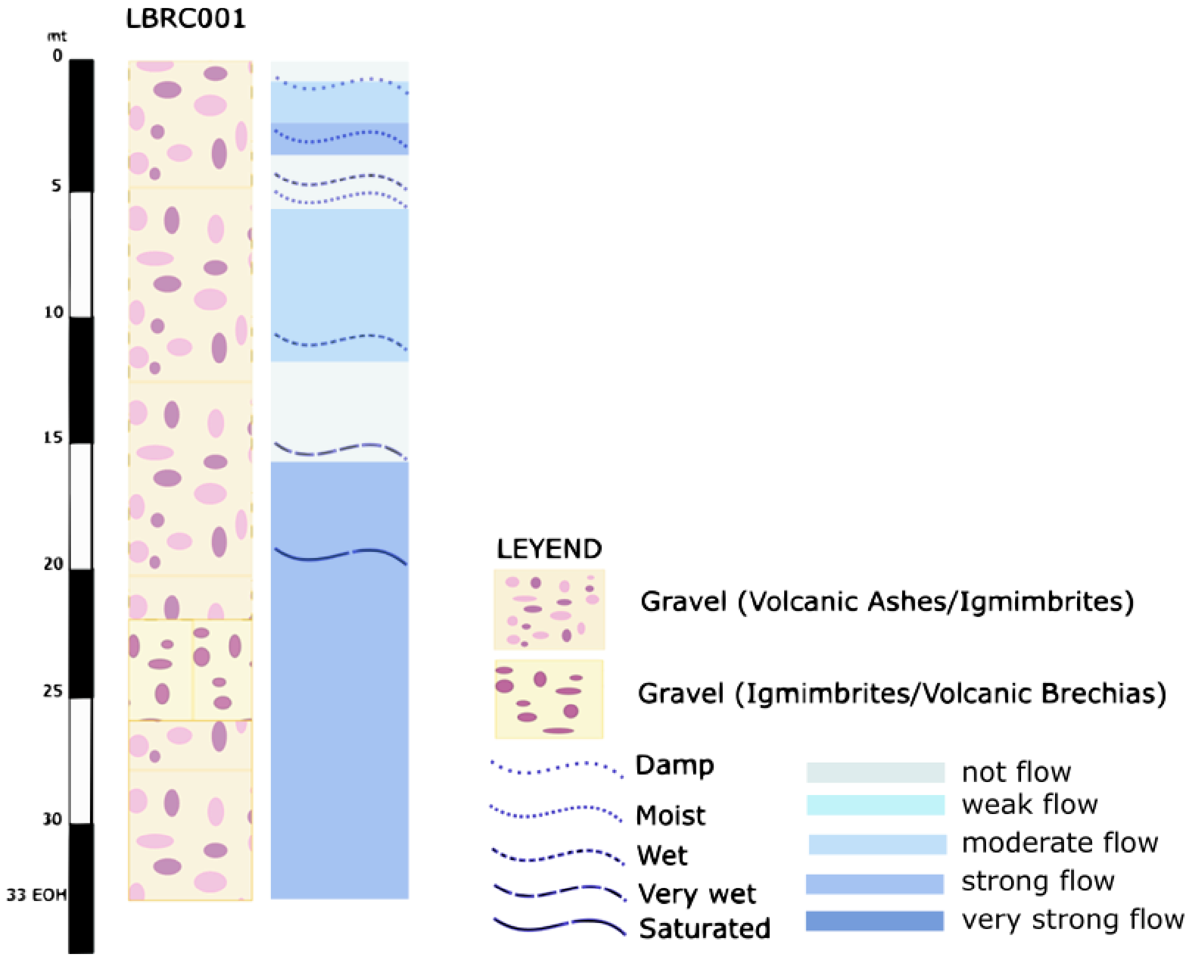

Figure 7 Schematic column of drill hole LBRC001 showing geology and changes in flow regime

HOLE_ID	FROM	TO	SAMPLE_ID	SAMPLE_TYPE	FIELD_PREP	SAMPLE_VOLUME	SAMPLE_DATE	DHSAMPLE_COMMENTS
LBRC001	0	4,5		NTS				
	4,5	6	EX0001	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	6	7,5		NTS				
	7,5	9	EX0002	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	9	12		NTS				
	12	13,5	EX0003	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	13,5	15	EX0004	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	15	16,5	EX0005	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	16,5	18	EX0006	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	18	19,5	EX0007	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
			EX0008	CHK				
	19,5	21	EX0009	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	21	22,5	EX0010	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	22,5	24	EX0011	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	24	25,5	EX0012	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	25,5	27	EX0013	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
	27	28,5	EX0014	ORG	WCMP	0,5	12-12-2017	MUDDY WATER
			EX0015	DUP				
	28,5	30	EX0016	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	30	31,5	EX0017	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	31,5	33	EX0018	ORG	WCMP	0,5	13-12-2017	MUDDY WATER

Table 5 Samples collected in LBRC001 well including QA / QC check samples

10.2 LBRC002

The drilling began on December 13 and ended on December 13. The hole finished at 48 mt due to collapse of the collar of the same.

In summary, the hole showed the following characteristics.

10.2.1 Summary Geology and Water characteristics

In the hole LBRC002 volcanic rocks of pyroclastic character were found, mainly Volcanic Ashes. Due to its location (near the hillside), volcanic breccias and igmimbritas lithology's interspersed with the Volcanic Ashes could be observed.

- Volcanic Ashes: Extrusive rocks of fine granulometry, very porous whitish coloration. Occasionally they present alteration to hematite. They present clasts of volcanic rocks and crystals (70-30% respectively) immersed in a fine matrix. According to Mazzoni (1986) can be classified as lithic tuffs.

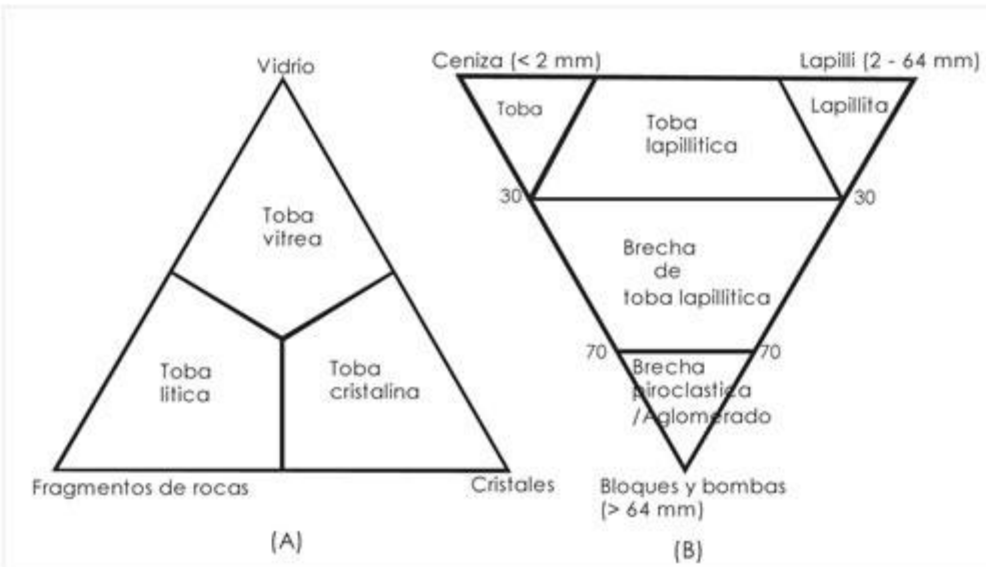

Figure 8 Diagram of Mazzoni (1986) showing the classification of pyroclastics according to their size

- Igmimbritas: pyroclastic volcanic rocks, melanocratic coloration and very fine crystal size. Occasionally they present fragments of volcanic rocks and stretched quartz crystals (fiames).
- Volcanic Brechias: Pyroclastic volcanic rocks with fragments of rocks larger than 2 mm angled and immersed in an aphanitic matrix.

In terms of water flow, the phreatic level could be characterized, which was cut at 7.5 mt depth (similar to the level of Laguna Brava). This was increasing towards the deepest levels arriving to obtain a strong flow of water (see table flow 0 no flow, 1 = weak, 2 = moderate, 3 = strong, 4 = very strong). The water obtained in the samples had a greenish colour and to the taste it was salty. The hole ended with a constant and strong water flow.

Although the drill hole was programmed at 100 mt, this collapse occurred due to the strong flow of water that exited through the collar, making it impossible to continue due to the instability of the substrate.

10.2.2 Sample Preparation, Analyses

A total of 28 wet mud samples with a large percentage of water were collected. The previously established standards and control samples were incorporated into the list. All samples were sealed with a back cover and labelled on both sides with a permanent marker. Later they were sent to the laboratory of the University of Antofagasta.

In the field, the backing was sampled in plastic bags, labelled on both sides with a permanent marker and bracketed with a cardboard label making sure it correlated with sample sent to the laboratory.

As a result of the collapse of the hole, the sample corresponding to the bailer could not be found beyond the 4 meters.

In all cases all the samples were collected, labelled and recorded from their origin until the shipment to Laboratory by the undersigned.

Hole ID	From	To	Rock Type	Composition Mayor	Composition Minor
LBRC002	0	4,5	Volcanic Rock	Volcanic Ashes	Igmimbrites
	4,5	6	Volcanic Rock	Igmimbrites	Volcanic Ashes
	6	13,5	Volcanic Rock	Volcanic Ashes	
	13,5	15	Volcanic Rock	Igmimbrites	Volcanic Ashes
	15	16,5	Volcanic Rock	Volcanic Ashes	Volcanic Brechia
	16,5	19,5	Volcanic Rock	Volcanic Ashes	
	19,5	25,5	Volcanic Rock	Volcanic Ashes	Igmimbrites
	25,5	36	Volcanic Rock	Volcanic Ashes	Volcanic Brechia
	36	40,5	Volcanic Rock	Volcanic Ashes	Igmimbrites
	40,5	48	Volcanic Rock	Igmimbrites	Volcanic Ashes

Table 6 Geology of the drill hole LBRC002

HOLE_ID	FROM	TO	WATER	FLOW	DHWATER_COMMENTS
LBRC002	0	3	D	0	
	3	4,5	P	1	FREATIC LEVEL
	4,5	7,5	D	0	
	7,5	10,5	P	2	
	10,5	13,5	W	3	
	13,5	16,5	W	2	
	16,5	19,5	W	0	no flow but mud were sampled
	19,5	27	V	3	salt wather greenish color
	27	31,5	W	3	salt wather greenish color
	31,5	33	V	3	salt wather greenish color
	33	42	V	4	salt wather greenish color
	42	46,5	V	3	salt wather greenish color
	46,5	48	S	4	salt wather greenish color

Table 7 Characteristics of the flow and water present in hole LBRC002

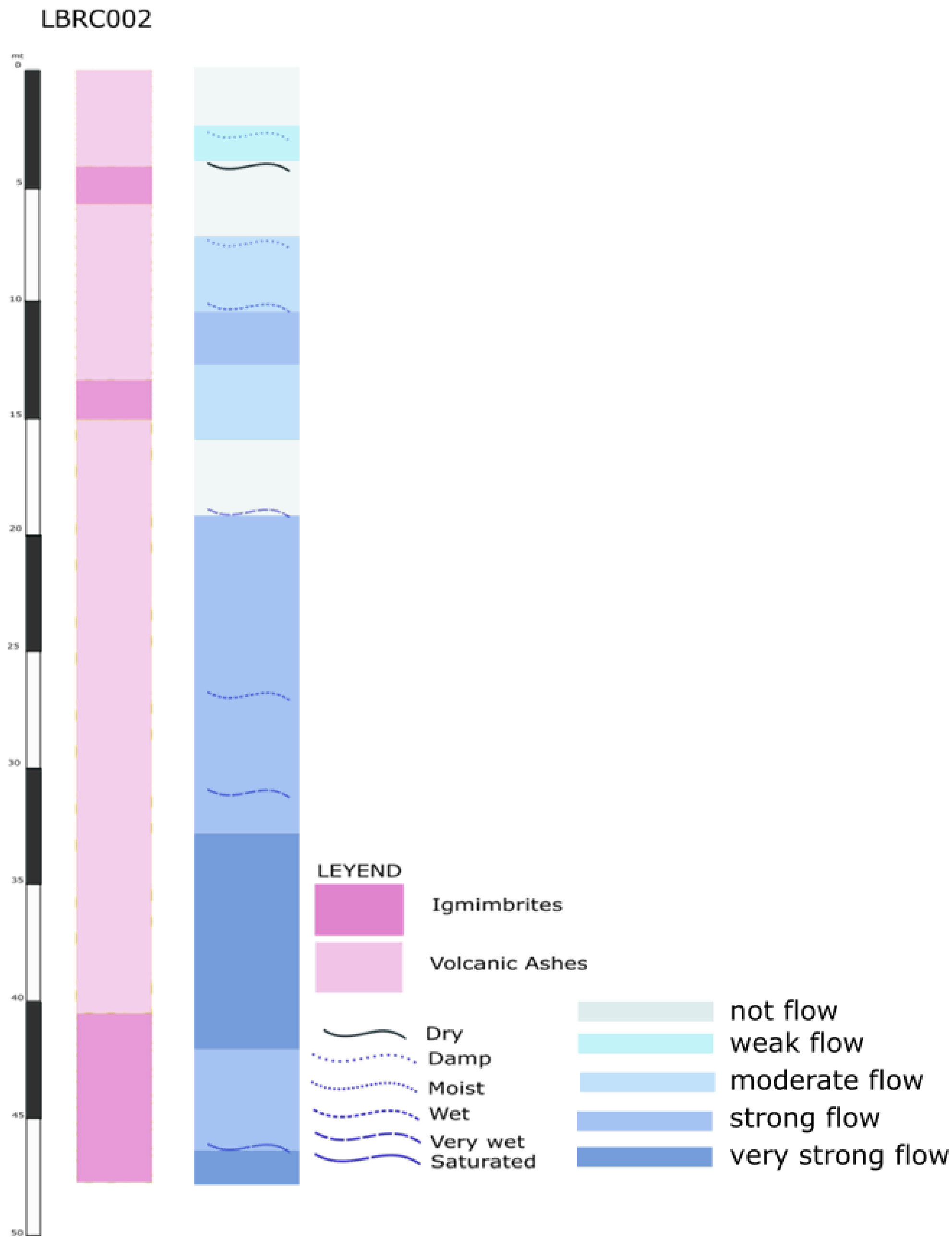

Figure 9 Schematic column of drill hole LBRC002 showing geology and changes in flow regime

HOLE_ID	FROM	TO	SAMPLE_ID	SAMPLE_TYPE	FIELD_PREP	SAMPLE_VOLUME	SAMPLE_DATE	DHSAMPLE_COMMENTS
LBRC002	0	3		NTS				
	3	4,5	EX0019	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	4,5	7,5		NTS				
			EX0020	CHK				
	7,5	9	EX0021	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	9	10,5	EX0022	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	10,5	12	EX0023	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	12	13,5	EX0024	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	13,5	15	EX0025	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	15	16,5	EX0026	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	16,5	18	EX0027	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	18	19,5	EX0028	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
			EX0029	CHK				
	19,5	21	EX0030	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	21	22,5	EX0031	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	22,5	24	EX0032	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	24	25,5	EX0033	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	25,5	27	EX0034	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
			EX0035	DUP				
	27	28,5	EX0036	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
			EX0037	CHK				
	28,5	30	EX0038	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	30	31,5	EX0039	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	31,5	33	EX0040	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	33	34,5	EX0041	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	34,5	36	EX0042	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	36	37,5	EX0043	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	37.5	39	EX0044	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	39	40,5	EX0045	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	40,5	42	EX0046	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	42	43,5	EX0047	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	43,5	45	EX0048	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
	45	46,5	EX0049	ORG	WCMP	0,5	13-12-2017	MUDDY WATER
			EX0050	CHK				
	46,5	48	EX0051	ORG	WCMP	0,5	13-12-2017	SATURED WATER

Table 8 Samples collected in LBRC002 well including QA / QC check samples

10.3 LBRC003

The drilling began on December 14, ending at 69 mt depth. The drill hole is resumed and ends on December 20. The hole finished at 120 mt drilling the total of the bars that the drill had.

10.3.1 Summary Geology and Water characteristics

In the hole LBRC003 volcanic rocks of pyroclastic character were found, mainly Volcanic Ashes alternating with igmimbritas. In regard to the geological environment, the probing shows lithological similarities with the LBRC002 well. From 69 to 120, there was no recovery of detritus due to logistical problems on the first day of resumption of activities. However, all the samples of brine and saline mud could be collected.

With regard to the flow of water, it was possible to characterize the phreatic level which was cut at 15 mt depth (similar to the Laguna Brava). At 34 m the well has a strong flow of water which alternates in intensity between moderate and strong along the probing. The water obtained in the samples had a greenish colour and to the taste it was salty. The well ended with a constant and strong water flow.

Although the well was programmed at 100 mt, in order to explore in depth and know the geology of the sector, the decision is made to drill 120 mt or the total of the bars.

10.3.2 Sample Preparation, Analyses

A total of 68 samples of wet mud with a large percentage of water and water were collected. The previously established standards and control samples were incorporated into the list. All samples were sealed with a back cover and labelled on both sides with a permanent marker. Later they were sent to the laboratory of the University of Antofagasta.

In the field, the backing was sampled in plastic bags, labelled on both sides with a permanent marker and bracketed with a cardboard label, making sure it correlated with the sample sent to the laboratory.

The sample corresponding to the bailer was taken at 50 mt depth showing visual and flavour characteristics similar to those obtained during drilling.

Hole ID	From	To	Rock Type	Composition Mayor	Composition Minor
LBRC003	0	9	Volcanic Rock	Volcanic Ashes	
	9	12	Volcanic Rock	Igmimbrites	Volcanic Ashes
	12	18	Volcanic Rock	Volcanic Ashes	
	18	39	no recover sample		
	39	40,5	Volcanic Rock	Volcanic Ashes	
	40,5	43,5	Volcanic Rock	Volcanic Ashes	Igmimbrites
	43,5	45	Volcanic Rock	Volcanic Ashes	
	45	49,5	Volcanic Rock	Volcanic Ashes	Igmimbrites
	49,5	52,5	Volcanic Rock	Igmimbrites	Volcanic Ashes
	52,5	57	Volcanic Rock	Volcanic Ashes	Igmimbrites
	57	69	Volcanic Rock	Volcanic Ashes	
	69	120	no recover sample		

Table 9 Geology of the drill hole LBRC003

HOLE_ID	FROM	TO	WATER	FLOW	DHWATER_COMMENTS
LBRC003	0	7,5	D	0	
	7,5	13,5	P	1	no flow but mud were sampled
	13,5	15	M	2	
	15	18	D	0	
	18	19,5	D	0	
	19,5	34,5	V	4	salt wather greenish color
	34,5	39	S	4	salt wather greenish color
	39	40,5	V	4	salt wather greenish color
	40,5	43,5	S	4	salt wather greenish color
	43,5	45	S	3	salt wather greenish color
	45	52,5	S	4	salt wather greenish color
	52,5	54	S	3	salt wather greenish color
	54	60	S	4	salt wather greenish color
	60	64,5	S	3	salt wather greenish color
	64,5	69	S	2	salt wather greenish color
	69	91,5	M	3	
	91,5	94,5	M	4	
	94,5	120	V	4	

Table 10 Characteristics of the flow and water present in hole LBRC003 (flow 0 no flow, 1 = weak, 2 = moderate, 3 = strong, 4 = very strong)

HOLE_ID	FROM	TO	SAMPLE_ID	SAMPLE_TYPE	FIELD_PREP	SAMPLE_VOLUME	SAMPLE_DATE	DHSAMPLE_COMMENTS
LBRC003	0	15	EX0052	ORG	WCMP	0,5	14-12-2017	MUDDY WATER
	19,5	21	EX0054	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0055	DUP				
	21	22,5	EX0056	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	22,5	24	EX0057	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	24	25,5	EX0058	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	25,5	27	EX0059	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	27	28,5	EX0060	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	28,5	30	EX0061	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	30	31,5	EX0062	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	31,5	33	EX0063	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	33	34,5	EX0064	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	34,5	36	EX0065	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	36	37,5	EX0066	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	37,5	39	EX0067	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	39	40,5	EX0068	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0069	CHK				
	40,5	42	EX0070	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0071	CHK				
	42	43,5	EX0072	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	43,5	45	EX0073	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	45	46,5	EX0074	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0075	DUP				
	46,5	48	EX0076	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	48	49,5	EX0077	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	49,5	51	EX0078	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	51	52,5	EX0079	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	52,5	54	EX0080	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	54	55,5	EX0081	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	55,5	57	EX0082	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	57	58,5	EX0083	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	58,5	60	EX0084	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	60	61,5	EX0085	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0086	CHK				
	61,5	63	EX0087	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	63	64,5	EX0088	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	64,5	66	EX0089	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	66	67,5	EX0090	ORG	WCMP	0,5	14-12-2017	SATURED WATER
	67,5	69	EX0091	ORG	WCMP	0,5	14-12-2017	SATURED WATER
			EX0092	CHK				
	69	70.5	EX0093	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	70.5	72	EX0094	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0095	DUP				
	72	73.5	EX0096	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	73.5	75	EX0097	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	75	76.5	EX0098	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	76.5	78	EX0099	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	78	79.5	EX0100	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	79.5	81	EX0101	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	81	82.5	EX0102	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	82.5	84	EX0103	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0104	CHK				
	84	85.5	EX0105	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	85.5	87	EX0106	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	87	88.5	EX0107	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	88.5	90	EX0108	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	90	91.5	EX0109	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	91.5	93	EX0110	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	93	94.5	EX0111	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	94.5	96	EX0112	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	96	97.5	EX0113	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	97.5	99	EX0114	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0115	DUP				
			EX0116	CHK				
	99	100.5	EX0117	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	100.5	102	EX0118	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	102	103.5	EX0119	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	103.5	105	EX0120	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0121	CHK				
	105	106.5	EX0122	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	106.5	108	EX0123	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	108	109.5	EX0124	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	109.5	111	EX0125	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	111	112.5	EX0126	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	112.5	114	EX0127	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	114	115.5	EX0128	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	115.5	117	EX0129	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	117	118.5	EX0130	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	118.5	120	EX0131	ORG	WCMP	0,5	20-12-2017	SATURED WATER

Table 11 Samples collected in LBRC003 well including QA / QC check samples

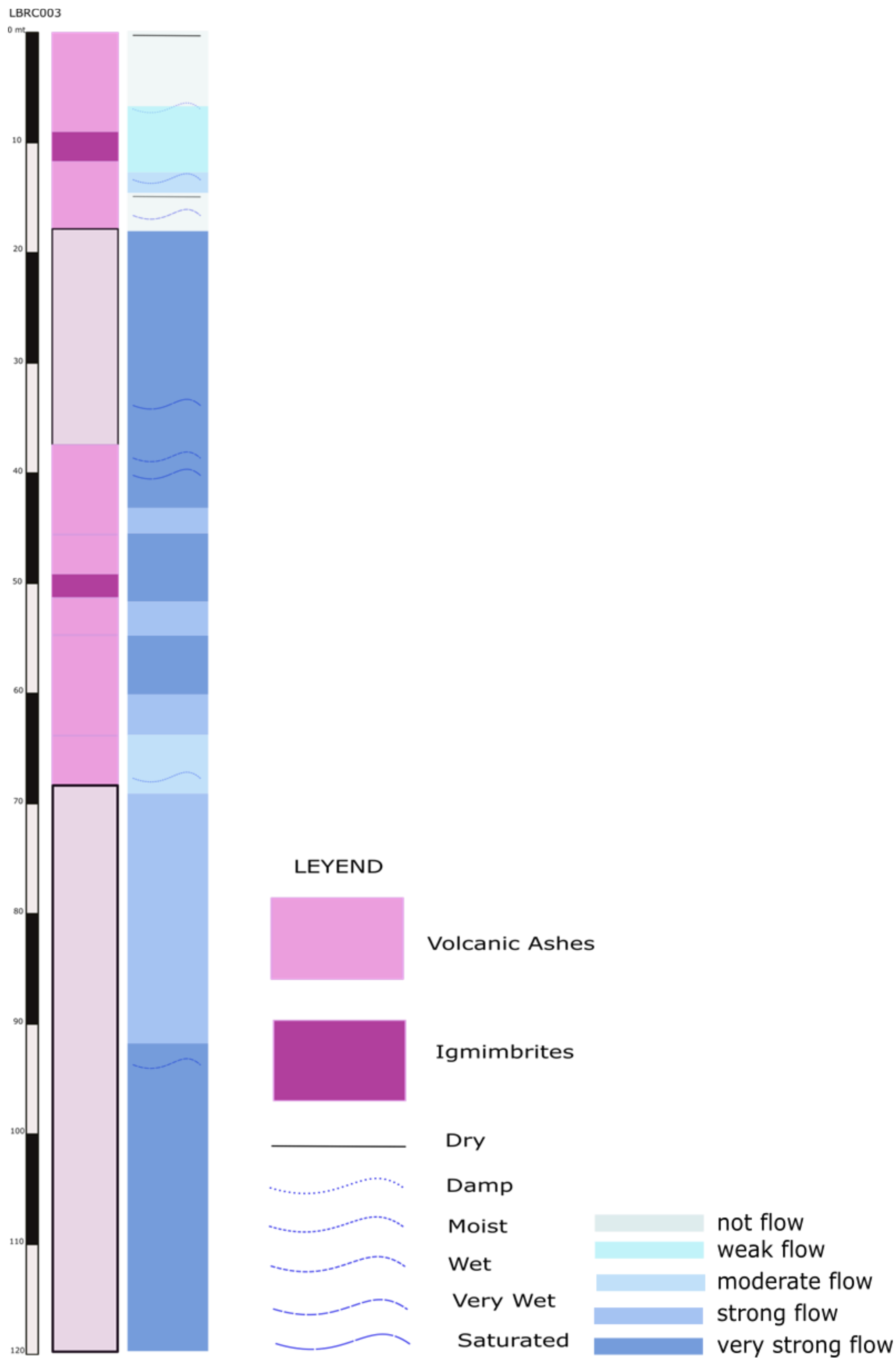

Figure 10 Schematic column of drill hole LBRC003 showing geology and changes in flow regime

10.4 LBRC004

The drilling began on December 20 and ended on December 21. The hole finished at 120 mt.

In summary, the well showed the following characteristics.

10.4.1 Summary Geology and Water characteristics

In the well LBRC004 volcanic rocks of pyroclastic character were found, mainly volcanic breccias of andesitic matrix. In the first interval 1.5 mt of predominant gravels were found in the southern sector of the Laguna Brava and whose origin is attributed to alluvial and glacial deposits.

Regarding the flow of water, it was possible to observe flow at 40.5 mt depth, increasing its speed at 55.5 mt. The water obtained in the samples had a yellowish to brown color and to the taste it was salty. The well ended with a constant and strong water flow.

10.4.2 Sample Preparation, Analyses

A total of 48 wet mud samples with a large percentage of water and water were collected. The previously established standards and control samples were incorporated into the list. All samples were sealed with a back cover and labelled on both sides with a permanent marker. Later they were sent to the laboratory of the University of Antofagasta.

In the field, the backing was sampled in plastic bags, labelled on both sides with a permanent marker and bracketed with a cardboard label making sure it correlated with sample sent to the laboratory.

The sample corresponding to the bailer was taken at 60 mt depth, showing visual and flavour characteristics similar to those obtained during drilling.

Hole ID	From	To	Rock Type	Composition Mayor	Composition Minor
LBRC004	0	1,5	Gravel	Volcanic Brechia	Volcanic Ashes
	1,5	120	Volcanic Rock	Volcanic Brechia	

Table 12 Geology of the drill hole LBRC004

HOLE_ID	FROM	TO	WATER	FLOW	DHWATER_COMMENTS
LBRC004	0	40,5	P	0	dry sediments
	40,5	48	P	2	
	48	55,5	W	3	brown colored mud whit a salty taste
	55,5	120	V	4	salt wather yellowish color

Table 13 Characteristics of the flow and water present in hole LBRC004 (flow 0 no flow, 1 = weak, 2 = moderate, 3 = strong, 4 = very strong)

HOLE_ID	FROM	TO	SAMPLE_ID	SAMPLE_TYPE	FIELD_PREP	SAMPLE_VOLUME	SAMPLE_DATE	DHSAMPLE_COMMENTS
LBRC004	0	48		NTS				
	48	49.5	EX0169	ORG	WCMP	0,5	20-12-2017	MUDDY WATER
	49.5	51	EX0170	ORG	WCMP	0,5	20-12-2017	MUDDY WATER
	51	52.5	EX0171	ORG	WCMP	0,5	20-12-2017	MUDDY WATER
	52.5	54	EX0172	ORG	WCMP	0,5	20-12-2017	MUDDY WATER
	54	55.5	EX0173	ORG	WCMP	0,5	20-12-2017	MUDDY WATER
	55.5	57	EX0174	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0175	DUP				
	57	58.5	EX0176	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	58.5	60	EX0177	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	60	61.5	EX0178	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	61.5	63	EX0179	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	63	64.5	EX0180	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	64.5	66	EX0181	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0182	CHK				
	66	67.5	EX0183	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0184	CHK				
	67.5	69	EX0185	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	69	70.5	EX0186	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	70.5	72	EX0187	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	72	73.5	EX0188	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	73.5	75	EX0189	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	75	76.5	EX0190	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	76.5	78	EX0191	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	78	79.5	EX0192	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	79.5	81	EX0193	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	81	82.5	EX0194	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0195	DUP				
	82.5	84	EX0196	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	84	85.5	EX0197	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	85.5	87	EX0198	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	87	88.5	EX0199	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0200	CHK				
	88.5	90	EX0201	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	90	91.5	EX0202	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	91.5	93	EX0203	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	93	94.5	EX0204	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	94.5	96	EX0205	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	96	97.5	EX0206	ORG	WCMP	0,5	20-12-2017	SATURED WATER
			EX0207	CHK				
	97.5	99	EX0208	ORG	WCMP	0,5	20-12-2017	SATURED WATER
	99	100.5	EX0209	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	100.5	102	EX0210	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	102	103.5	EX0211	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	103.5	105	EX0212	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	105	106.5	EX0213	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	106.5	108	EX0214	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	108	109.5	EX0215	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	109.5	111	EX0216	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	111	112.5	EX0217	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	112.5	114	EX0218	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	114	115.5	EX0219	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	115.5	117	EX0220	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	117	118.5	EX0221	ORG	WCMP	0,5	21-12-2017	SATURED WATER
	118.5	120	EX0222	ORG	WCMP	0,5	21-12-2017	SATURED WATER

Table 14 Samples collected in LBRC003 well including QA / QC check samples

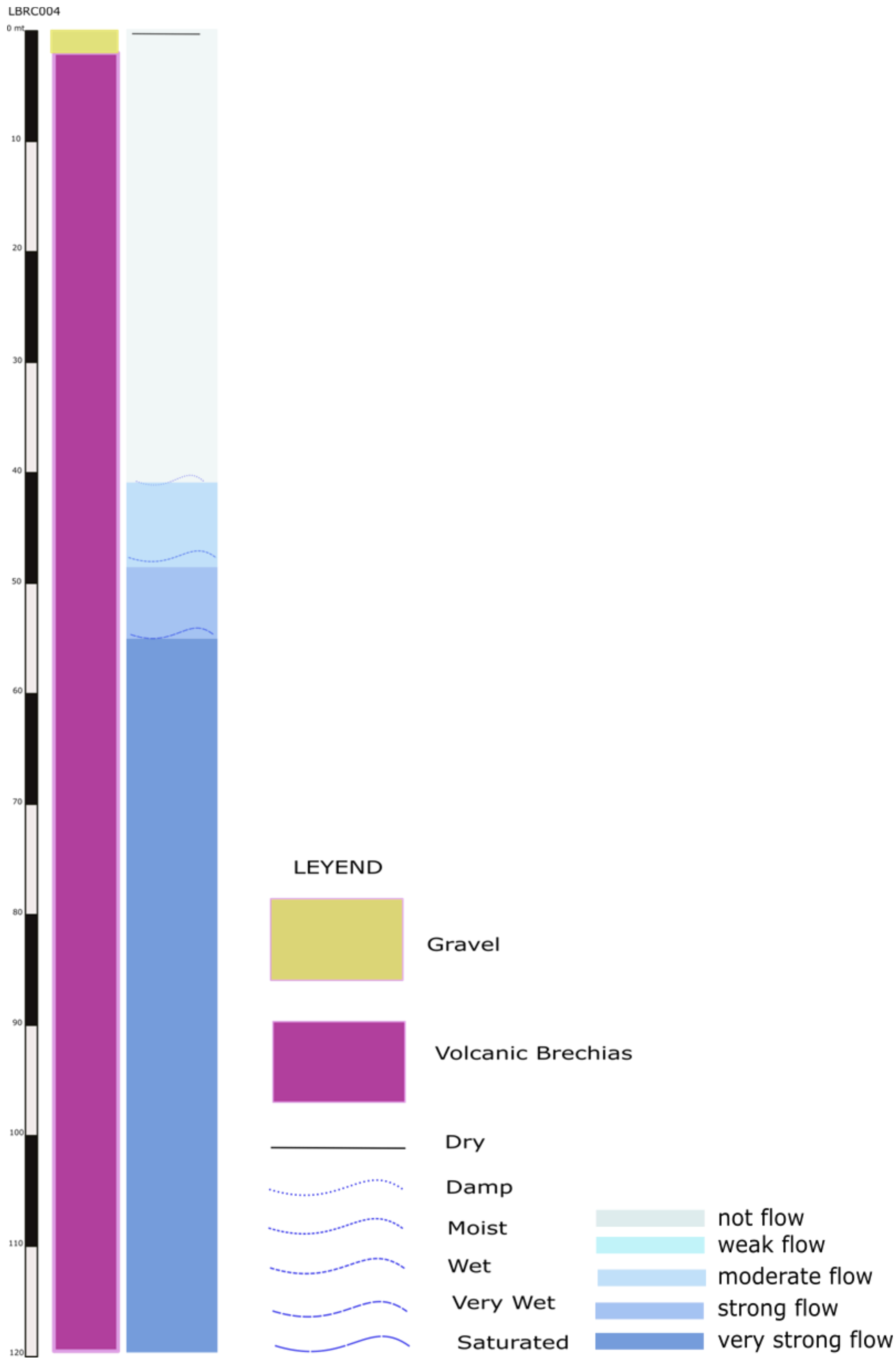

Figure 11 Schematic column of drill hole LBRC004 showing geology and changes in flow regime

11. INTERPRETATION AND CONCLUSIONS

The preliminary objective of this exploration campaign is the determination of the existence and potentiality of deep aquifers as lithium reservoirs in the project called LBP.

After the campaign and in view of the first results delivered by the laboratory, it is possible to conclude and affirm the existence of subsurface water reservoirs, checked in the 4 wells carried out. The results to date give a lithium concentration of the order of 200 ppm, low density, which is constant in all the samples analyzed.

The concentration of lithium does not decrease from that determined in previous works on the surface of the Laguna Brava, which means that the aquifer system determined by the drilling is linked to the upper levels of the lagoon, and may be in the presence of semi-confined aquifers or free determining the dilution of the system explaining in this way the low density presented in all the samples.

The existence of very porous rocks supports the previously formulated interpretation as well as the existence of deeper aquifers with higher concentrations of lithium.

In view of the geological mapping resulting from the drilling, together with the local geological map determined in the field, the author believes that the existence of deeper aquifers is viable for the LBP project. Likewise, the recharge potential of deep aquifers is great due to the great porosity of the superficial and semi-deep layers. The evidence of hydrothermalism and the great existence of a volcanic framework, considering it as a source of lithium, suggest a greater enrichment in depth of the element, as proposed by the models described above (see types of deposits).

Interpreting the results and the evidences that were obtained from superficial sampling campaigns, together with those delivered in this exploration campaign, the author considers that it is sufficient evidence to conclude that the lithium levels of LBP are permissible for extraction. The existence of lithium-rich groundwater levels in the south bank of the Laguna Brava lead to a priori conclusion of the existence of a saline wedge that penetrates both the gravel deposits described to the south and the porous volcanic rocks that lie to the southwest (LBRC002 and LBRC003). Likewise, the existence of water flows in deeper topographic levels can determine, a priori, the existence of sub-surface water bodies which merit greater exploratory data.

The LBRC004 well has been developed mainly in pyroclastic rocks of breccia type and is, geographically, the drilling farthest from the edge of the lagoon. It can be observed a behaviour of sub surface water similar to that obtained in the wells described above, with a large water column that was determined at 41 meters depth and a constant lithium concentration with 200 ppm average.

12. RECOMMENDATIONS

In light of the results obtained in the drilling campaign carried out in LBP, the author recommends more information about the basin analysis of the study sector. Geophysical studies of gravimetry to determine the depocenters and geometry of the basin are necessary for future effective planning of drilling campaigns. Likewise, SEV campaigns to determine the areal extent of the salt wedge below the consolidated and unconsolidated deposits would be of great help for the implementation of drill and sampling meshes, as well as limiting the volumetric potential of the area of interest. In the same order considering the resistivity or conductivity plus the variant depth, the MT is recommended as a geophysical method

In case of conducting a new drilling campaign, the author recommends considering the flow studies of the basin, perform the same in the sector of the southern bank of the Laguna Brava. Considering the results obtained in wells LBRC001 to LBRC004 together with the geochemistry of the waters of the lagoon. The existence of a sub-superficial flow of contribution from South-North direction, is not ruled out in this work despite the evidence of previous works that maintain that the flow is in the opposite direction. For this, the author recommends pumping tests and measurement of piezometric levels.

In the case of drilling, it should be piped and larger in diameter than the one carried out in this campaign, in order to obtain better results of sample recovery, as well as protecting the integrity of the wellhead. Tricone would be recommended and a depth of 250 to 500 meters.

13. REFERENCES

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14. ANEXO - Samples hardened by the Laboratory

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Cód: 5-CAQ-003 Rev :06

INFORME DE ANÁLISIS QUÍMICO **CAQ:156 - 1 / 17**

Antofagasta 05 de enero del 2018

Empresa /Cliente	:	AD INFINITUM SPA	e - mail	:	marcelo.bravo@ad.inf.com
Dirección	:		Fono	:	
Contacto	:	Sr. Marcelo Bravo V.	Fecha de recepción	:	19-12-2017
cargo	:		N° de páginas		3
tipo de muestras		soluciones	Matriz		salina

Parámetros	Expresado como	unidad	EX 0013 156/1	EX 0014 156/2	EX 0015 156/3	EX 0016 156/4
Litio	Li	mg/L	200	200	200	179
Sodio	Na	mg/L	33900	33550	33300	29700
Potasio	K	mg/L	1960	1938	1928	1705
Magnesio	Mg	mg/L	1554	1525	1517	1371
Sulfato	SO_4	mg/L	8981	9162	9063	8174
Boro	B	mg/L	536	546	531	455
Densidad	Densidad	g/cc	1,069	1,069	1,070	1,062

Parámetros	Expresado como	unidad	EX 0017 156/5	EX 0018 156/6	EX 0034 156/7	EX 0035 156/8
Litio	Li	mg/L	187	183	95	105
Sodio	Na	mg/L	31300	30850	16040	17820
Potasio	K	mg/L	1808	1798	893	993
Magnesio	Mg	mg/L	1429	1388	644	720
Sulfato	SO_4	mg/L	8594	8718	4635	5145
Boro	B	mg/L	495	490	317	336
Densidad	Densidad	g/cc	1,065	1,064	1,031	1,036

Parámetros	Expresado como	unidad	EX 0037 156/9	EX 0041 156/10	EX 0042 156/11	EX 0043 156/12
Litio	Li	mg/L	172	161	157	112
Sodio	Na	mg/L	28300	25850	25250	18700
Potasio	K	mg/L	1720	1548	1478	1041
Magnesio	Mg	mg/L	1196	1111	1096	783
Sulfato	SO_4	mg/L	8100	7845	7623	5417
Boro	B	mg/L	472	477	454	379
Densidad	Densidad	g/cc	1,056	1,054	1,054	1,038

	Parámetros	Expresado como	unidad	EX 0044 156/13	EX 0045 156/14	EX 0046 156/15	EX 0047 156/16
	Litio	Li	mg/L	170	178	195	181
	Sodio	Na	mg/L	27600	29000	33100	31500
	Potasio	K	mg/L	1625	1740	1898	1838
	Magnesio	Mg	mg/L	1221	1273	1363	1306
	Sulfato	SO_4	mg/L	8314	8677	9343	8948
	Boro	B	mg/L	488	520	622	509
	Densidad	Densidad	g/cc	1,059	1,061	1,067	1,063

	Parámetros	Expresado como	unidad	EX 0048 156/17	EX 0049 156/18	EX 0050 156/19	EX 0066 156/20
	Litio	Li	mg/L	189	204	170	194
	Sodio	Na	mg/L	32450	34600	28400	32000
	Potasio	K	mg/L	1938	2025	1678	1885
	Magnesio	Mg	mg/L	1361	1408	1175	1348
	Sulfato	SO_4	mg/L	9409	9862	8323	9467
	Boro	B	mg/L	529	590	473	536
	Densidad	Densidad	g/cc	1,066	1,071	1,057	1,066

	Parámetros	Expresado como	unidad	EX 0067 156/21	EX 0068 156/22	EX 0069 156/23	EX 0070 156/24
	Litio	Li	mg/L	194	193	179	195
	Sodio	Na	mg/L	31500	31700	29850	32450
	Potasio	K	mg/L	1845	1835	1803	1855
	Magnesio	Mg	mg/L	1346	1338	1239	1346
	Sulfato	SO_4	mg/L	9384	9384	8339	9409
	Boro	B	mg/L	553	560	500	549
	Densidad	Densidad	g/cc	1,065	1,065	1,057	1,066

	Parámetros	Expresado como	unidad	EX 0071 156/25	EX 0072 156/26	EX 0073 156/27	EX 0074 156/28
	Litio	Li	mg/L	182	189,40	187	189
	Sodio	Na	mg/L	30400	31450,00	31200	31650
	Potasio	K	mg/L	1815	1822,50	1818	1840
	Magnesio	Mg	mg/L	1252	1304,38	1300	1313
	Sulfato	SO_4	mg/L	8388	9121,06	9055	9212
	Boro	B	mg/L	494	536,16	539	543
	Densidad	Densidad	g/cc	1,056	1,066	1,065	1,065

	Parámetros	Expresado como	unidad	EX 0075 156/29	EX 0076 156/30	EX 0077 156/31	EX 0078 156/32
	Litio	Li	mg/L	187	191	179	179
	Sodio	Na	mg/L	30750	31900	30250	29650
	Potasio	K	mg/L	1808	1805	1713	1648
	Magnesio	Mg	mg/L	1296	1342	1277	1281
	Sulfato	SO_4	mg/L	9022	9162	8734	8701
	Boro	B	mg/L	535	543	534	528
	Densidad	Densidad	g/cc	1,064	1,065	1,062	1,062

	Parámetros	Expresado como	unidad	EX 0079 156/33	EX 0080 156/34	EX 0081 156/35	EX 0082 156/36
	Litio	Li	mg/L	180	182	179	175
	Sodio	Na	mg/L	29950	29800	29150	28100
	Potasio	K	mg/L	1665	1698	1650	1623
	Magnesio	Mg	mg/L	1263	1281	1267	1238
	Sulfato	SO_4	mg/L	8849	8899	8594	8487
	Boro	B	mg/L	531	535	514	511
	Densidad	Densidad	g/cc	1,063	1,063	1,062	1,060

	Parámetros	Expresado como	unidad	EX 0083 156/37	EX 0084 156/38	EX 0085 156/39	EX 0086 156/40
	Litio	Li	mg/L	180	183	183	167
	Sodio	Na	mg/L	29600	29900	29200	27300
	Potasio	K	mg/L	1665	1698	1678	1600
	Magnesio	Mg	mg/L	1267	1273	1254	1154
	Sulfato	SO_4	mg/L	8767	8866	8734	7977
	Boro	B	mg/L	521	531	529	500
	Densidad	Densidad	g/cc	1,062	1,063	1,062	1,056

	Parámetros	Expresado como	unidad	EX 0087 156/41	EX 0088 156/42	EX 0089 156/43	EX 0090 156/44
	Litio	Li	mg/L	176	177	166	179
	Sodio	Na	mg/L	28450	28950	27150	29250
	Potasio	K	mg/L	1620	1625	1478	1653
	Magnesio	Mg	mg/L	1204	1269	1189	1275
	Sulfato	SO_4	mg/L	8545	8726	7927	8701
	Boro	B	mg/L	501	538	489	521
	Densidad	Densidad	g/cc	1,060	1,062	1,057	1,062

	Parámetros	Expresado como	unidad	EX 0091 156/45	EX 0092 156/46	EX 0093 156/47
	Litio	Li	mg/L	183	164	177
	Sodio	Na	mg/L	30450	27650	29350
	Potasio	K	mg/L	1690	1618	1618
	Magnesio	Mg	mg/L	1271	1144	1213
	Sulfato	SO_4	mg/L	8923	7903	8652
	Boro	B	mg/L	528	506	528
	Densidad	Densidad	g/cc	1,063	1,067	1,061

	Parámetros	**Metodología: Standard Methods , edición 22 , 2012**
	Litio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
	Sodio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
	Potasio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
	Magnesio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
	Sulfato	SM 4500-SO_4^{-2} D – Determinación de Sulfato con secado de residuo
	Boro	CAQ – 005 BS- Volumetría Acido- Base
	Densidad	CAQ – 001 DS- Picnometría

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Cód: 5-CAQ-003 Rev :06

INFORME DE ANÁLISIS QUÍMICO **CAQ:156 - 1 / 17**

Antofagasta 05 de enero del 2018

Empresa /Cliente	: AD INFINITUM SPA	e - mail	:	marcelo.bravo@ad.inf.com
Dirección	:	Fono	:	
Contacto	: Sr. Marcelo Bravo V.	Fecha de recepción	:	19-12-2017
cargo	:	N° de páginas		3
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Boro	B	mg/L	472	477	454	379
Densidad	Densidad	g/cc	1,056	1,054	1,054	1,038

Parámetros	Expresado como	unidad	EX 0044 156/13	EX 0045 156/14	EX 0046 156/15	EX 0047 156/16
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	Boro	B	mg/L	529	590	473	536
	Densidad	Densidad	g/cc	1,066	1,071	1,057	1,066

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	Sulfato	SO_4	mg/L	9022	9162	8734	8701
	Boro	B	mg/L	535	543	534	528
	Densidad	Densidad	g/cc	1,064	1,065	1,062	1,062

	Parámetros	Expresado como	unidad	EX 0079 156/33	EX 0080 156/34	EX 0081 156/35	EX 0082 156/36
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	Sodio	Na	mg/L	29950	29800	29150	28100
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	Magnesio	Mg	mg/L	1263	1281	1267	1238
	Sulfato	SO_4	mg/L	8849	8899	8594	8487
	Boro	B	mg/L	531	535	514	511
	Densidad	Densidad	g/cc	1,063	1,063	1,062	1,060

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Potasio	K	mg/L	1665	1698	1678	1600
Magnesio	Mg	mg/L	1267	1273	1254	1154
Sulfato	SO_4	mg/L	8767	8866	8734	7977
Boro	B	mg/L	521	531	529	500
Densidad	Densidad	g/cc	1,062	1,063	1,062	1,056

Parámetros	Expresado como	unidad	EX 0087 156/41	EX 0088 156/42	EX 0089 156/43	EX 0090 156/44
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Sodio	Na	mg/L	28450	28950	27150	29250
Potasio	K	mg/L	1620	1625	1478	1653
Magnesio	Mg	mg/L	1204	1269	1189	1275
Sulfato	SO_4	mg/L	8545	8726	7927	8701
Boro	B	mg/L	501	538	489	521
Densidad	Densidad	g/cc	1,060	1,062	1,057	1,062

Parámetros	Expresado como	unidad	EX 0091 156/45	EX 0092 156/46	EX 0093 156/47
Litio	Li	mg/L	183	164	177
Sodio	Na	mg/L	30450	27650	29350
Potasio	K	mg/L	1690	1618	1618
Magnesio	Mg	mg/L	1271	1144	1213
Sulfato	SO_4	mg/L	8923	7903	8652
Boro	B	mg/L	528	506	528
Densidad	Densidad	g/cc	1,063	1,067	1,061

Parámetros	**Metodología: Standard Methods , edición 22 , 2012**
Litio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
Sodio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
Potasio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
Magnesio	SM 3111 B - Espectrofotometría de Absorción Atómica con aspiración directa llama aire - acetileno
Sulfato	SM 4500-SO_4^{-2} D – Determinación de Sulfato con secado de residuo
Boro	CAQ – 005 BS- Volumetría Acido- Base
Densidad	CAQ – 001 DS- Picnometría

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